Woodbridge Township School District
Local Government Energy Audit Program
Final Report

July 2013

Dome-Tech, Inc.

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WOODBRIDGE TOWNSHIP SCHOOL DISTRICT
ENERGY AUDIT REPORT

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July 2, 2013

Mr. Dennis DeMarino
Business Administrator/ Board Secretary
Woodbridge Township School District
PO Box 428
School Street
Woodbridge, NJ 07095

Re: EXECUTIVE SUMMARY FOR WOODBRIDGE TOWNSHIP SCHOOL DISTRICT
STATE OF NEW JERSEY LOCAL GOVERNMENT ENERGY AUDIT – DRAFT REPORT
OUR PROJECT NUMBER D12564

Dear Mr. DeMarino:

Dome-Tech was retained by the Woodbridge Township Board of Education, as a pre-qualified participant in the Local Government Energy Audit Program, to perform an energy audit. The objectives of the energy audit were to evaluate the District's energy consumption, establish baselines for energy efficiency, and identify opportunities to reduce the amount of energy used and/or its cost.

The scope of the audit is standardized under the Program, and consisted of the following:

- Benchmarking historic energy consumption utilizing EPA *Energy Star's Portfolio Manager;*
- Characterizing building use, occupancy, size, and construction;
- Providing a detailed equipment list including estimated service life and efficiency;
- Identifying and quantifying Energy Conservation Measures (ECMs) ;
- Evaluating the economic viability of various renewable/distributed energy technologies;
- Performing a utility tariff analysis and assessing savings potential from energy procurement strategies; and
- Providing the method of analyses.

Based upon data received for the twelve (12) month period December 2011 – November 2012, for the facilities included in this study, the District had an annual expenditure of:

- Electricity: approximately 7,960,000 kWh at a total cost of approximately $1,100,000
- Natural Gas: approximately 741,000 therms at a total cost of approximately $662,000

The following buildings were evaluated under this study:

Facility Name	Square Footage
Mawbey Street Elementary School #1	27,930
Avenel Street Elementary School #2	41,979
Port Reading Elementary School #3	47,198
Ross Street Elementary School #4/5	47,484
Ford Avenue Elementary School #14	25,759
Indiana Avenue Elementary School #18	52,054
Menlo Park Terrace Elementary School #19	31,569
Claremont Avenue Elementary School #20	31,569
Oak Ridge Heights Elementary School #21	33,475

Facility Name	Square Footage
Lynn Crest Elementary School #22	41,570
Woodbine Avenue Elementary School #23	46,621
Kennedy Park Elementary School #24	33,334
Lafayette Estates Elementary School #25	41,374
Robert Mascenick Elementary School #26	29,050
Pennsylvania Avenue Elementary School #27	28,799
Matthew Jago Elementary School #28	51,311
Avenel Middle School #40	118,667
Colonia Middle School #41	102,959
Fords Middle School #42	119,588
Iselin Middle School #43	97,972
Woodbridge Middle School #44	79,113
Woodbridge High School #50	204,206
John F. Kennedy High School #51	172,250
Colonia High School #52	196,267
Woodbridge Administration Building #60	32,273
Total Square Footage	**1,734,371**

Please refer to Section 2 of this report for a detailed list of identified Energy Conservation Measures (ECMs), along with a summary of their preliminary economics (estimated project cost, estimated annual energy savings, applicable rebate(s), etc.). In this report, all identified ECMs are ranked and presented according to their simple payback; however, please note that the Master ECM Table can also be sorted by building, by measure type, etc.

If all identified ECMs were to be implemented, they would provide the following estimated benefits to the Woodbridge Schools:

- Total annual electrical savings: approximately 2,281,000 kilowatt-hours of electric consumption; 29% of baseline
- Total annual natural gas savings: approximately 202,600 therms of natural gas consumption; 27% of baseline
- Total annual cost savings: approximately $530,000 of utility cost; 29% of baseline
- Total annual CO_2 emissions reduction: 1,939 tons
- Total net estimated implementation cost: approximately $4,100,000
- Total average simple payback: 7.8 years

Some of the projects that are recommended for implementation includes the following: computer power management, vending machine power management, hot water and steam piping insulation, window and door weather stripping, optimizing air handling unit schedules, lighting upgrades, rooftop unit replacements, and boiler replacements.

Distributed/Renewable Energy Systems were also reviewed with the following conclusions:

- Dome-Tech considered three (3) different types of wind turbine technologies that consisted of both building-mounted and traditional ground-mounted variety. Should the District decide to pursue a wind turbine project, Dome-Tech recommends commissioning a more detailed study.

- CHP (Combined Heat and Power), Fuel Cells, and Micro-turbines were also considered and not recommended for any of the buildings due to a lack of significant year-round thermal loads.

The District's data was entered into the US EPA *ENERGY STAR's Portfolio Manager* Database program. Buildings with scores of 75 or higher may qualify for the *ENERGY STAR* Building Label. Woodbridge's school buildings scored between 82 and 100. ***See the report for further information.***

Regarding the procurement of utilities, Dome-Tech understands that the District's facilities in this study are served by forty-three (43) electric accounts behind Public Service Electric & Gas (PSE&G) and thirty-one (31) natural gas accounts behind Elizabethtown Gas. All electricity and natural gas accounts are served by third-party, retail energy suppliers.

During the development of this audit, Dome-Tech was assisted by facility personnel, who were both knowledgeable and very helpful to our efforts. We would like to acknowledge and thank those individuals.

Sincerely,

John Bohadel, CEM, LEED AP
Senior Energy Engineer

WOODBRIDGE SCHOOL DISTRICT
ECM Sorted by Payback

ECM #	Energy Conservation Measures (ECM)	Buildings	Energy Savings		Gross Installation Costs*	Rebates/ Incentive	Avoided Cost	Net Implementation Costs	Annual Energy Cost Savings	Annual Oper. Cost Savings	Total Annual Cost Savings	Measure Life	Gross Implementation Costs			Net Implementation Costs			CO2 Savings
			kWh	Therms								Yrs	Pay Back (Gross) Yrs	Internal Rate of Return (IRR) (Gross)	Lifecycle Savings (NPV) (Gross)	Pay Back (Net) Yrs	Internal Rate of Return (IRR) (Net)	Lifecycle Savings (NPV) (Net)	Tons
1	AHU Scheduling	(#04) Avenel Street ES	28,600	1,900	$260	$0	$0	$260	$6,500	$0	$6,500	10	0.0	2500%	$55,186	0.0	2500%	$55,186	21
1	AHU Scheduling	(#23) Woodbine Avenue ES	20,700	1,370	$650	$0	$0	$650	$5,080	$0	$5,080	10	0.1	782%	$42,683	0.1	782%	$42,683	15
1	AHU Scheduling	(#25) Lafayette Estates ES	17,500	1,160	$390	$0	$0	$390	$4,190	$0	$4,190	10	0.1	1074%	$35,352	0.1	1074%	$35,352	13
2	Computer Power Mgmt	(#04) Avenel Street ES	6,920	0	$870	$0	$0	$870	$1,090	$0	$1,090	15	0.8	125%	$12,142	0.8	125%	$12,142	2
2	Computer Power Mgmt	(#09) Port Reading ES	11,100	0	$1,390	$0	$0	$1,390	$1,900	$0	$1,900	10	0.7	137%	$14,817	0.7	137%	$14,817	4
2	Computer Power Mgmt	(#20) Claremont ES	12,700	0	$1,600	$0	$0	$1,600	$2,000	$0	$2,000	10	0.8	125%	$15,460	0.8	125%	$15,460	4
2	Computer Power Mgmt	(#26) Robert Mascenik ES	6,000	0	$750	$0	$0	$750	$1,010	$0	$1,010	10	0.7	135%	$7,866	0.7	135%	$7,866	2
2	Computer Power Mgmt	(#42) Fords MS	19,400	0	$2,440	$0	$0	$2,440	$3,160	$0	$3,160	10	0.8	129%	$24,515	0.8	129%	$24,515	6
2	Computer Power Mgmt	(#50) Woodbridge HS	57,100	0	$6,960	$0	$0	$6,960	$8,560	$0	$8,560	10	0.8	123%	$66,059	0.8	123%	$66,059	19
2	Computer Power Mgmt	(#51) JFK HS	64,600	0	$8,120	$0	$0	$8,120	$8,720	$0	$8,720	10	0.9	107%	$66,263	0.9	107%	$66,263	21
2	Computer Power Mgmt	(#52) Colonia HS	43,100	0	$5,420	$0	$0	$5,420	$5,910	$0	$5,910	10	0.9	109%	$44,993	0.9	109%	$44,993	14
3	HHW Pump Controls	(#04) Avenel Street ES	11,400	0	$2,750	$0	$0	$2,750	$1,780	$0	$1,780	10	1.5	64%	$12,434	1.5	64%	$12,434	4
3	HHW Pump Controls	(#19) Menlo Park Terrace ES	14,200	0	$2,750	$0	$0	$2,750	$2,090	$0	$2,090	10	1.3	76%	$15,078	1.3	76%	$15,078	5
3	HHW Pump Controls	(#20) Claremont ES	11,200	0	$2,750	$0	$0	$2,750	$1,770	$0	$1,770	10	1.6	64%	$12,348	1.6	64%	$12,348	4
3	HHW Pump Controls	(#21) Oak Ridge ES	42,100	0	$2,750	$0	$0	$2,750	$5,980	$0	$5,980	10	0.5	217%	$48,261	0.5	217%	$48,261	14
3	HHW Pump Controls	(#22) Lynn Crest ES	38,600	0	$1,210	$0	$0	$1,210	$5,860	$0	$5,860	10	0.2	484%	$48,777	0.2	484%	$48,777	13
3	HHW Pump Controls	(#24) Kennedy Park ES	18,300	0	$2,750	$0	$0	$2,750	$2,890	$0	$2,890	10	1.0	105%	$21,902	1.0	105%	$21,902	6
3	HHW Pump Controls	(#26) Robert Mascenik ES	12,300	0	$2,750	$0	$0	$2,750	$2,090	$0	$2,090	10	1.3	76%	$15,078	1.3	76%	$15,078	4
3	HHW Pump Controls	(#27) Pennsylvania ES	18,300	0	$2,750	$0	$0	$2,750	$2,910	$0	$2,910	10	0.9	106%	$22,073	0.9	106%	$22,073	6
3	HHW Pump Controls	(#40) Avenel MS	128,000	0	$1,210	$0	$0	$1,210	$18,500	$0	$18,500	10	0.1	1529%	$156,599	0.1	1529%	$156,599	42
3	HHW Pump Controls	(#41) Colonial MS	41,700	0	$1,210	$0	$0	$1,210	$7,220	$0	$7,220	10	0.2	597%	$60,378	0.2	597%	$60,378	14
3	HHW Pump Controls	(#42) Fords MS	99,500	0	$2,750	$0	$0	$2,750	$16,200	$0	$16,200	10	0.2	589%	$135,439	0.2	589%	$135,439	33
3	HHW Pump Controls	(#43) Iselin MS	89,300	0	$2,750	$0	$0	$2,750	$14,500	$0	$14,500	10	0.2	527%	$120,938	0.2	527%	$120,938	30
3	HHW Pump Controls	(#44) Woodbridge MS	60,000	0	$2,750	$0	$0	$2,750	$9,050	$0	$9,050	10	0.3	329%	$74,448	0.3	329%	$74,448	20
3	HHW Pump Controls	(#52) Colonia HS	70,000	0	$2,750	$0	$0	$2,750	$9,590	$0	$9,590	10	0.3	349%	$79,055	0.3	349%	$79,055	23
4	Weather Stripping	(#18) Indiana Ave ES	4,250	1,110	$1,260	$0	$0	$1,260	$1,630	$0	$1,630	10	0.8	129%	$12,644	0.8	129%	$12,644	8
4	Weather Stripping	(#19) Menlo Park Terrace ES	50,700	13,300	$4,600	$0	$0	$4,600	$19,600	$0	$19,600	10	0.2	426%	$162,592	0.2	426%	$162,592	95
4	Weather Stripping	(#21) Oak Ridge ES	7,320	2,040	$1,650	$0	$0	$1,650	$2,890	$0	$2,890	10	0.6	175%	$23,002	0.6	175%	$23,002	14
4	Weather Stripping	(#40) Avenel MS	270	70	$310	$0	$0	$310	$100	$0	$100	10	3.1	30%	$543	3.1	30%	$543	0
4	Weather Stripping	(#41) Colonial MS	600	160	$470	$0	$0	$470	$240	$0	$240	10	2.0	50%	$1,577	2.0	50%	$1,577	1
4	Weather Stripping	(#44) Woodbridge MS	600	160	$470	$0	$0	$470	$230	$0	$230	10	2.0	48%	$1,492	2.0	48%	$1,492	1
4	Weather Stripping	(#82) Administration	9,970	2,730	$1,440	$0	$0	$1,440	$4,190	$0	$4,190	10	0.3	291%	$34,302	0.3	291%	$34,302	19
5	Walk-In Cooler/Freezer Controls	(#40) Avenel MS	2,980	0	$680	$80	$0	$610	$430	$0	$430	15	1.6	63%	$4,453	1.4	70%	$4,523	1
5	Walk-In Cooler/Freezer Controls	(#41) Colonial MS	5,960	0	$680	$80	$0	$610	$1,030	$0	$1,030	15	0.7	151%	$11,616	0.6	169%	$11,686	2
5	Walk-In Cooler/Freezer Controls	(#42) Fords MS	1,490	0	$610	$80	$0	$530	$240	$0	$240	15	2.5	39%	$2,255	2.2	45%	$2,335	0
5	Walk-In Cooler/Freezer Controls	(#43) Iselin MS	1,490	0	$680	$80	$0	$610	$240	$0	$240	15	2.8	35%	$2,185	2.5	39%	$2,255	0
5	Walk-In Cooler/Freezer Controls	(#44) Woodbridge MS	1,490	0	$680	$80	$0	$610	$230	$0	$230	15	3.0	33%	$2,066	2.7	37%	$2,136	0
5	Walk-In Cooler/Freezer Controls	(#50) Woodbridge HS	1,490	0	$610	$80	$0	$530	$220	$0	$220	15	2.8	36%	$2,016	2.4	41%	$2,096	0
5	Walk-In Cooler/Freezer Controls	(#51) JFK HS	2,980	0	$1,220	$150	$0	$1,070	$400	$0	$400	15	3.1	32%	$3,555	2.7	37%	$3,705	1
5	Walk-In Cooler/Freezer Controls	(#52) Colonia HS	4,470	0	$2,050	$230	$0	$1,830	$610	$0	$610	15	3.4	29%	$5,232	3.0	33%	$5,452	1

WOODBRIDGE SCHOOL DISTRICT
ECM Sorted by Payback

ECM #	Energy Conservation Measures (ECM)	Buildings	Energy Savings		Gross Installation Costs*	Rebates/ Incentive	Avoided Cost	Net Implementation Costs	Annual Energy Cost Savings	Annual Oper. Cost Savings	Total Annual Cost Savings	Measure Life	Gross Implementation Costs			Net Implementation Costs			CO2 Savings
			kWh	Therms								Yrs	Pay Back (Gross) Yrs	Internal Rate of Return (IRR) (Gross)	Lifecycle Savings (NPV) (Gross)	Pay Back (Net) Yrs	Internal Rate of Return (IRR) (Net)	Lifecycle Savings (NPV) (Net)	Tons
6	Vend Machine Power Mgmt	(#01) Mawbey ES	3,240	0	$680	$0	$0	$680	$520	$0	$520	10	1.3	76%	$3,756	1.3	76%	$3,756	1
6	Vend Machine Power Mgmt	(#04) Avenel Street ES	3,470	0	$1,360	$0	$0	$1,360	$550	$0	$550	10	2.5	39%	$3,332	2.5	39%	$3,332	1
6	Vend Machine Power Mgmt	(#09) Port Reading ES	3,470	0	$1,360	$0	$0	$1,360	$600	$0	$600	10	2.3	43%	$3,758	2.3	43%	$3,758	1
6	Vend Machine Power Mgmt	(#11) Ross Street ES	3,240	0	$680	$0	$0	$680	$500	$0	$500	10	1.4	73%	$3,585	1.4	73%	$3,585	1
6	Vend Machine Power Mgmt	(#14) Ford Avenue ES	3,240	0	$680	$0	$0	$680	$500	$0	$500	10	1.4	73%	$3,585	1.4	73%	$3,585	1
6	Vend Machine Power Mgmt	(#18) Indiana Ave ES	3,470	0	$1,360	$0	$0	$1,360	$510	$0	$510	10	2.7	36%	$2,990	2.7	36%	$2,990	1
6	Vend Machine Power Mgmt	(#19) Menlo Park Terrace ES	3,240	0	$680	$0	$0	$680	$480	$0	$480	10	1.4	70%	$3,414	1.4	70%	$3,414	1
6	Vend Machine Power Mgmt	(#20) Claremont ES	3,240	0	$680	$0	$0	$680	$510	$0	$510	10	1.3	75%	$3,670	1.3	75%	$3,670	1
6	Vend Machine Power Mgmt	(#21) Oak Ridge ES	3,240	0	$680	$0	$0	$680	$460	$0	$460	10	1.5	67%	$3,244	1.5	67%	$3,244	1
6	Vend Machine Power Mgmt	(#22) Lynn Crest ES	6,480	0	$1,360	$0	$0	$1,360	$980	$0	$980	10	1.4	72%	$7,000	1.4	72%	$7,000	2
6	Vend Machine Power Mgmt	(#23) Woodbine Avenue ES	3,240	0	$680	$0	$0	$680	$570	$0	$570	10	1.2	84%	$4,182	1.2	84%	$4,182	1
6	Vend Machine Power Mgmt	(#24) Kennedy Park ES	3,240	0	$680	$0	$0	$680	$510	$0	$510	10	1.3	75%	$3,670	1.3	75%	$3,670	1
6	Vend Machine Power Mgmt	(#25) Lafayette Estates ES	3,240	0	$680	$0	$0	$680	$550	$0	$550	10	1.2	81%	$4,012	1.2	81%	$4,012	1
6	Vend Machine Power Mgmt	(#27) Pennsylvania ES	3,240	0	$680	$0	$0	$680	$510	$0	$510	10	1.3	75%	$3,670	1.3	75%	$3,670	1
6	Vend Machine Power Mgmt	(#28) Matthew Jago ES	3,470	0	$1,360	$0	$0	$1,360	$620	$0	$620	10	2.2	44%	$3,929	2.2	44%	$3,929	1
6	Vend Machine Power Mgmt	(#40) Avenel MS	6,950	0	$4,070	$0	$0	$4,070	$1,000	$0	$1,000	10	4.1	21%	$4,460	4.1	21%	$4,460	2
6	Vend Machine Power Mgmt	(#41) Colonial MS	6,950	0	$4,070	$0	$0	$4,070	$1,200	$0	$1,200	10	3.4	27%	$6,166	3.4	27%	$6,166	2
6	Vend Machine Power Mgmt	(#42) Fords MS	9,270	0	$5,430	$0	$0	$5,430	$1,510	$0	$1,510	10	3.6	25%	$7,451	3.6	25%	$7,451	3
6	Vend Machine Power Mgmt	(#43) Iselin MS	4,630	0	$2,720	$0	$0	$2,720	$760	$0	$760	10	3.6	25%	$3,763	3.6	25%	$3,763	2
6	Vend Machine Power Mgmt	(#44) Woodbridge MS	4,870	0	$3,400	$0	$0	$3,400	$740	$0	$740	10	4.6	17%	$2,912	4.6	17%	$2,912	2
6	Vend Machine Power Mgmt	(#50) Woodbridge HS	13,700	0	$7,470	$0	$0	$7,470	$2,050	$0	$2,050	10	3.6	24%	$10,017	3.6	24%	$10,017	5
6	Vend Machine Power Mgmt	(#51) JFK HS	9,740	0	$6,790	$0	$0	$6,790	$1,310	$0	$1,310	10	5.2	14%	$4,385	5.2	14%	$4,385	3
6	Vend Machine Power Mgmt	(#52) Colonia HS	11,600	0	$6,790	$0	$0	$6,790	$1,590	$0	$1,590	10	4.3	19%	$6,773	4.3	19%	$6,773	4
6	Vend Machine Power Mgmt	(#82) Administration	6,180	0	$2,040	$0	$0	$2,040	$980	$0	$980	10	2.1	47%	$6,320	2.1	47%	$6,320	2
7	HHW Reset Based on OAT	(#01) Mawbey ES	0	1,150	$9,160	$0	$0	$9,160	$1,050	$0	$1,050	10	8.7	3%	-$203	8.7	3%	-$203	7
7	HHW Reset Based on OAT	(#09) Port Reading ES	0	2,060	$9,160	$0	$0	$9,160	$1,880	$0	$1,880	10	4.9	16%	$6,877	4.9	16%	$6,877	12
7	HHW Reset Based on OAT	(#11) Ross Street ES	0	2,200	$9,160	$0	$0	$9,160	$1,980	$0	$1,980	10	4.6	17%	$7,730	4.6	17%	$7,730	13
7	HHW Reset Based on OAT	(#20) Claremont ES	0	1,590	$9,160	$0	$0	$9,160	$1,440	$0	$1,440	10	6.4	9%	$3,123	6.4	9%	$3,123	9
7	HHW Reset Based on OAT	(#21) Oak Ridge ES	0	2,800	$9,160	$0	$0	$9,160	$2,540	$0	$2,540	10	3.6	25%	$12,507	3.6	25%	$12,507	16
7	HHW Reset Based on OAT	(#24) Kennedy Park ES	0	2,150	$9,160	$0	$0	$9,160	$1,960	$0	$1,960	10	4.7	17%	$7,559	4.7	17%	$7,559	13
7	HHW Reset Based on OAT	(#28) Matthew Jago ES	0	2,690	$9,160	$0	$0	$9,160	$2,420	$0	$2,420	10	3.8	23%	$11,483	3.8	23%	$11,483	16
7	HHW Reset Based on OAT	(#41) Colonial MS	0	5,260	$9,160	$0	$0	$9,160	$4,610	$0	$4,610	10	2.0	49%	$30,164	2.0	49%	$30,164	31
7	HHW Reset Based on OAT	(#43) Iselin MS	0	6,450	$9,160	$0	$0	$9,160	$5,640	$0	$5,640	10	1.6	61%	$38,950	1.6	61%	$38,950	38
7	HHW Reset Based on OAT	(#44) Woodbridge MS	0	6,810	$9,160	$0	$0	$9,160	$5,940	$0	$5,940	10	1.5	64%	$41,509	1.5	64%	$41,509	40
7	HHW Reset Based on OAT	(#50) Woodbridge HS	0	8,810	$9,160	$0	$0	$9,160	$7,730	$0	$7,730	10	1.2	84%	$56,778	1.2	84%	$56,778	52
8	Electric to Gas DHW	(#14) Ford Avenue ES	10,500	-440	$2,320	$50	$0	$2,270	$1,220	$0	$1,220	18	1.9	53%	$14,459	1.9	54%	$14,509	1
8	Electric to Gas DHW	(#18) Indiana Ave ES	26,800	-1,110	$4,040	$100	$0	$3,940	$2,960	$0	$2,960	18	1.4	73%	$36,670	1.3	75%	$36,770	2
8	Electric to Gas DHW	(#21) Oak Ridge ES	13,200	-550	$2,320	$50	$0	$2,270	$1,380	$0	$1,380	18	1.7	59%	$16,660	1.6	61%	$16,710	1
8	Electric to Gas DHW	(#82) Administration	6,550	-260	$2,270	$50	$0	$2,220	$790	$0	$790	18	2.9	35%	$8,595	2.8	35%	$8,645	1
9	Pipe Insulation	(#01) Mawbey ES	0	30	$120	$0	$0	$120	$30	$0	$30	15	4.0	24%	$238	4.0	24%	$238	0

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ECM #	Energy Conservation Measures (ECM)	Buildings	Energy Savings		Gross Installation Costs*	Rebates/ Incentive	Avoided Cost	Net Implementation Costs	Annual Energy Cost Savings	Annual Oper. Cost Savings	Total Annual Cost Savings	Measure Life	Gross Implementation Costs			Net Implementation Costs			CO2 Savings
			kWh	Therms								Yrs	Pay Back (Gross) Yrs	Internal Rate of Return (IRR) (Gross)	Lifecycle Savings (NPV) (Gross)	Pay Back (Net) Yrs	Internal Rate of Return (IRR) (Net)	Lifecycle Savings (NPV) (Net)	Tons
9	Pipe Insulation	(#04) Avenel Street ES	0	900	$1,850	$0	$0	$1,850	$810	$0	$810	15	2.3	44%	$7,820	2.3	44%	$7,820	5
9	Pipe Insulation	(#09) Port Reading ES	0	30	$120	$0	$0	$120	$30	$0	$30	15	4.0	24%	$238	4.0	24%	$238	0
9	Pipe Insulation	(#11) Ross Street ES	0	60	$350	$0	$0	$350	$50	$0	$50	15	7.0	11%	$247	7.0	11%	$247	0
9	Pipe Insulation	(#18) Indiana Ave ES	0	40	$150	$0	$0	$150	$40	$0	$40	15	3.8	26%	$328	3.8	26%	$328	0
9	Pipe Insulation	(#19) Menlo Park Terrace ES	0	420	$1,200	$0	$0	$1,200	$390	$0	$390	15	3.1	32%	$3,456	3.1	32%	$3,456	2
9	Pipe Insulation	(#20) Claremont ES	0	40	$180	$0	$0	$180	$40	$0	$40	15	4.5	21%	$298	4.5	21%	$298	0
9	Pipe Insulation	(#21) Oak Ridge ES	0	140	$370	$0	$0	$370	$130	$0	$130	15	2.8	35%	$1,182	2.8	35%	$1,182	1
9	Pipe Insulation	(#22) Lynn Crest ES	0	10	$20	$0	$0	$20	$10	$0	$10	15	2.0	50%	$99	2.0	50%	$99	0
9	Pipe Insulation	(#23) Woodbine Avenue ES	0	470	$1,720	$0	$0	$1,720	$420	$0	$420	15	4.1	23%	$3,294	4.1	23%	$3,294	3
9	Pipe Insulation	(#24) Kennedy Park ES	0	50	$590	$0	$0	$590	$50	$0	$50	15	11.8	3%	$7	11.8	3%	$7	0
9	Pipe Insulation	(#25) Lafayette Estates ES	0	100	$380	$0	$0	$380	$90	$0	$90	15	4.2	23%	$694	4.2	23%	$694	1
9	Pipe Insulation	(#26) Robert Mascenik ES	0	130	$420	$0	$0	$420	$120	$0	$120	15	3.5	28%	$1,013	3.5	28%	$1,013	1
9	Pipe Insulation	(#27) Pennsylvania ES	0	110	$270	$0	$0	$270	$100	$0	$100	15	2.7	37%	$924	2.7	37%	$924	1
9	Pipe Insulation	(#28) Matthew Jago ES	0	10	$90	$0	$0	$90	$10	$0	$10	15	9.0	7%	$29	9.0	7%	$29	0
9	Pipe Insulation	(#40) Avenel MS	0	1,070	$5,220	$0	$0	$5,220	$940	$0	$940	15	5.6	16%	$6,002	5.6	16%	$6,002	6
9	Pipe Insulation	(#41) Colonial MS	0	970	$5,420	$0	$0	$5,420	$850	$0	$850	15	6.4	13%	$4,727	6.4	13%	$4,727	6
9	Pipe Insulation	(#43) Iselin MS	0	770	$3,510	$0	$0	$3,510	$670	$0	$670	15	5.2	17%	$4,488	5.2	17%	$4,488	5
9	Pipe Insulation	(#44) Woodbridge MS	0	610	$2,630	$0	$0	$2,630	$540	$0	$540	15	4.9	19%	$3,816	4.9	19%	$3,816	4
9	Pipe Insulation	(#50) Woodbridge HS	0	60	$590	$0	$0	$590	$60	$0	$60	15	9.8	6%	$126	9.8	6%	$126	0
9	Pipe Insulation	(#51) JFK HS	0	130	$490	$0	$0	$490	$120	$0	$120	15	4.1	23%	$943	4.1	23%	$943	1
9	Pipe Insulation	(#52) Colonia HS	0	440	$830	$0	$0	$830	$390	$0	$390	15	2.1	47%	$3,826	2.1	47%	$3,826	3
9	Pipe Insulation	(#82) Administration	0	80	$270	$0	$0	$270	$80	$0	$80	15	3.4	29%	$685	3.4	29%	$685	0
10	Winterize Window AC Units	(#01) Mawbey ES	0	530	$1,500	$0	$0	$1,500	$490	$0	$490	10	3.1	30%	$2,680	3.1	30%	$2,680	3
10	Winterize Window AC Units	(#04) Avenel Street ES	0	480	$2,420	$0	$0	$2,420	$440	$0	$440	10	5.5	13%	$1,333	5.5	13%	$1,333	3
10	Winterize Window AC Units	(#09) Port Reading ES	0	400	$2,030	$0	$0	$2,030	$370	$0	$370	10	5.5	13%	$1,126	5.5	13%	$1,126	2
10	Winterize Window AC Units	(#11) Ross Street ES	0	580	$2,630	$0	$0	$2,630	$520	$0	$520	10	5.1	15%	$1,806	5.1	15%	$1,806	3
10	Winterize Window AC Units	(#14) Ford Avenue ES	0	330	$1,410	$0	$0	$1,410	$300	$0	$300	10	4.7	17%	$1,149	4.7	17%	$1,149	2
10	Winterize Window AC Units	(#18) Indiana Ave ES	0	660	$3,280	$0	$0	$3,280	$590	$0	$590	10	5.6	12%	$1,753	5.6	12%	$1,753	4
10	Winterize Window AC Units	(#19) Menlo Park Terrace ES	0	430	$2,180	$0	$0	$2,180	$390	$0	$390	10	5.6	12%	$1,147	5.6	12%	$1,147	3
10	Winterize Window AC Units	(#20) Claremont ES	0	710	$1,980	$0	$0	$1,980	$640	$0	$640	10	3.1	30%	$3,479	3.1	30%	$3,479	4
10	Winterize Window AC Units	(#21) Oak Ridge ES	0	420	$2,110	$0	$0	$2,110	$380	$0	$380	10	5.6	12%	$1,131	5.6	12%	$1,131	2
10	Winterize Window AC Units	(#22) Lynn Crest ES	0	490	$2,420	$0	$0	$2,420	$440	$0	$440	10	5.5	13%	$1,333	5.5	13%	$1,333	3
10	Winterize Window AC Units	(#23) Woodbine Avenue ES	0	460	$2,260	$0	$0	$2,260	$410	$0	$410	10	5.5	13%	$1,237	5.5	13%	$1,237	3
10	Winterize Window AC Units	(#24) Kennedy Park ES	0	400	$2,030	$0	$0	$2,030	$370	$0	$370	10	5.5	13%	$1,126	5.5	13%	$1,126	2
10	Winterize Window AC Units	(#25) Lafayette Estates ES	0	400	$2,030	$0	$0	$2,030	$370	$0	$370	10	5.5	13%	$1,126	5.5	13%	$1,126	2
10	Winterize Window AC Units	(#26) Robert Mascenik ES	0	340	$1,720	$0	$0	$1,720	$310	$0	$310	10	5.5	12%	$924	5.5	12%	$924	2
10	Winterize Window AC Units	(#27) Pennsylvania ES	0	400	$2,030	$0	$0	$2,030	$370	$0	$370	10	5.5	13%	$1,126	5.5	13%	$1,126	2
10	Winterize Window AC Units	(#28) Matthew Jago ES	0	500	$2,500	$0	$0	$2,500	$450	$0	$450	10	5.6	12%	$1,339	5.6	12%	$1,339	3
10	Winterize Window AC Units	(#40) Avenel MS	0	390	$1,770	$0	$0	$1,770	$340	$0	$340	10	5.2	14%	$1,130	5.2	14%	$1,130	2
10	Winterize Window AC Units	(#41) Colonial MS	0	490	$2,230	$0	$0	$2,230	$430	$0	$430	10	5.2	14%	$1,438	5.2	14%	$1,438	3

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			kWh	Therms								Yrs	Pay Back (Gross) Yrs	Internal Rate of Return (IRR) (Gross)	Lifecycle Savings (NPV) (Gross)	Pay Back (Net) Yrs	Internal Rate of Return (IRR) (Net)	Lifecycle Savings (NPV) (Net)	Tons
10	Winterize Window AC Units	(#42) Fords MS	0	90	$470	$470	$0	$0	$90	$0	$90	10	5.2	14%	$298	0.0	#NUM!	$768	1
10	Winterize Window AC Units	(#43) Iselin MS	0	290	$1,400	$0	$0	$1,400	$250	$0	$250	10	5.6	12%	$733	5.6	12%	$733	2
10	Winterize Window AC Units	(#44) Woodbridge MS	0	490	$1,850	$0	$0	$1,850	$430	$0	$430	10	4.3	19%	$1,818	4.3	19%	$1,818	3
10	Winterize Window AC Units	(#50) Woodbridge HS	0	790	$3,350	$0	$0	$3,350	$690	$0	$690	10	4.9	16%	$2,536	4.9	16%	$2,536	5
10	Winterize Window AC Units	(#51) JFK HS	0	630	$3,040	$0	$0	$3,040	$550	$0	$550	10	5.5	13%	$1,652	5.5	13%	$1,652	4
10	Winterize Window AC Units	(#52) Colonia HS	0	740	$3,150	$0	$0	$3,150	$650	$0	$650	10	4.8	16%	$2,395	4.8	16%	$2,395	4
10	Winterize Window AC Units	(#82) Administration	0	550	$2,470	$0	$0	$2,470	$520	$0	$520	10	4.8	16%	$1,966	4.8	16%	$1,966	3
11	CRT to Flatscreen	(#09) Port Reading ES	1,000	0	$750	$0	$0	$750	$170	$0	$170	10	4.4	19%	$700	4.4	19%	$700	0
11	CRT to Flatscreen	(#24) Kennedy Park ES	300	0	$230	$0	$0	$230	$50	$0	$50	10	4.6	17%	$197	4.6	17%	$197	0
11	CRT to Flatscreen	(#42) Fords MS	700	0	$700	$0	$0	$700	$110	$0	$110	10	6.4	9%	$238	6.4	9%	$238	0
11	CRT to Flatscreen	(#50) Woodbridge HS	3,210	0	$2,400	$0	$0	$2,400	$480	$0	$480	10	5.0	15%	$1,694	5.0	15%	$1,694	1
11	CRT to Flatscreen	(#51) JFK HS	600	0	$450	$0	$0	$450	$80	$0	$80	10	5.6	12%	$232	5.6	12%	$232	0
11	CRT to Flatscreen	(#52) Colonia HS	1,100	0	$830	$0	$0	$830	$150	$0	$150	10	5.5	13%	$450	5.5	13%	$450	0
12	AHU SEER Upgrade (Replace RTU)	(#21) Oak Ridge ES	1,050	0	$22,300	$920	$20,300	$1,060	$150	$0	$150	15	148.7	-21%	-$20,509	7.1	11%	$731	0
12	AHU SEER Upgrade (Replace RTU)	(#27) Pennsylvania ES	1,050	0	$22,300	$920	$20,300	$1,060	$170	$0	$170	15	131.2	-20%	-$20,271	6.2	14%	$969	0
13	Lighting Retrofit	(#01) Mawbey ES	15,500	0	$24,000	$2,900	$0	$21,100	$2,500	$0	$2,500	10	9.6	1%	-$2,674	8.4	3%	$226	5
13	Lighting Retrofit	(#04) Avenel Street ES	29,900	0	$43,900	$4,570	$0	$39,300	$4,700	$0	$4,700	10	9.3	1%	-$3,808	8.4	3%	$792	10
13	Lighting Retrofit	(#09) Port Reading ES	37,400	0	$44,200	$5,920	$0	$38,200	$6,440	$0	$6,440	10	6.9	8%	$10,735	5.9	11%	$16,735	12
13	Lighting Retrofit	(#11) Ross Street ES	28,300	0	$41,400	$4,550	$0	$36,800	$4,390	$0	$4,390	10	9.4	1%	-$3,952	8.4	3%	$648	9
13	Lighting Retrofit	(#14) Ford Avenue ES	14,500	0	$23,900	$3,020	$0	$20,900	$2,230	$0	$2,230	10	10.7	-1%	-$4,878	9.4	1%	-$1,878	5
13	Lighting Retrofit	(#18) Indiana Ave ES	31,900	0	$47,800	$6,420	$0	$41,400	$4,780	$0	$4,780	10	10.0	0%	-$7,026	8.7	3%	-$626	11
13	Lighting Retrofit	(#19) Menlo Park Terrace ES	19,500	0	$30,000	$3,490	$0	$26,500	$2,920	$0	$2,920	10	10.3	0%	-$5,092	9.1	2%	-$1,592	6
13	Lighting Retrofit	(#20) Claremont ES	20,900	0	$27,600	$3,060	$0	$24,500	$3,310	$0	$3,310	10	8.3	3%	$635	7.4	6%	$3,735	7
13	Lighting Retrofit	(#21) Oak Ridge ES	20,700	0	$33,500	$4,470	$0	$29,000	$3,110	$0	$3,110	10	10.8	-1%	-$6,971	9.3	1%	-$2,471	7
13	Lighting Retrofit	(#22) Lynn Crest ES	26,000	0	$41,200	$5,350	$0	$35,900	$3,960	$0	$3,960	10	10.4	-1%	-$7,420	9.1	2%	-$2,120	9
13	Lighting Retrofit	(#23) Woodbine Avenue ES	27,100	0	$44,900	$5,180	$0	$39,700	$4,070	$0	$4,070	10	11.0	-2%	-$10,182	9.8	0%	-$4,982	9
13	Lighting Retrofit	(#24) Kennedy Park ES	26,600	0	$31,100	$3,960	$0	$27,100	$3,990	$0	$3,990	10	7.8	5%	$2,936	6.8	8%	$6,936	9
13	Lighting Retrofit	(#25) Lafayette Estates ES	28,000	0	$49,800	$6,970	$0	$42,800	$4,200	$0	$4,200	10	11.9	-3%	-$13,973	10.2	0%	-$6,973	9
13	Lighting Retrofit	(#26) Robert Mascenik ES	16,600	0	$27,200	$3,440	$0	$23,800	$2,800	$0	$2,800	10	9.7	1%	-$3,315	8.5	3%	$85	5
13	Lighting Retrofit	(#27) Pennsylvania ES	19,700	0	$30,400	$2,940	$0	$27,500	$3,130	$0	$3,130	10	9.7	1%	-$3,700	8.8	2%	-$800	7
13	Lighting Retrofit	(#28) Matthew Jago ES	36,300	0	$49,600	$5,410	$0	$44,200	$5,450	$0	$5,450	10	9.1	2%	-$3,110	8.1	4%	$2,290	12
13	Lighting Retrofit	(#40) Avenel MS	57,500	0	$95,200	$14,500	$0	$80,700	$8,280	$0	$8,280	10	11.5	-2%	-$24,570	9.7	0%	-$10,070	19
13	Lighting Retrofit	(#41) Colonial MS	55,700	0	$103,000	$15,700	$0	$87,300	$8,350	$0	$8,350	10	12.3	-4%	-$31,773	10.5	-1%	-$16,073	18
13	Lighting Retrofit	(#42) Fords MS	57,700	0	$79,300	$10,300	$0	$69,000	$8,660	$0	$8,660	10	9.2	2%	-$5,428	8.0	4%	$4,872	19
13	Lighting Retrofit	(#43) Iselin MS	58,700	0	$89,200	$12,600	$0	$76,600	$8,800	$0	$8,800	10	10.1	0%	-$14,134	8.7	3%	-$1,534	19
13	Lighting Retrofit	(#44) Woodbridge MS	42,600	0	$64,300	$8,730	$0	$55,600	$6,390	$0	$6,390	10	10.1	0%	-$9,792	8.7	3%	-$1,092	14
13	Lighting Retrofit	(#50) Woodbridge HS	124,000	0	$176,000	$21,600	$0	$154,000	$18,600	$0	$18,600	10	9.5	1%	-$17,338	8.3	4%	$4,662	41
13	Lighting Retrofit	(#51) JFK HS	78,800	0	$125,000	$19,700	$0	$106,000	$11,800	$0	$11,800	10	10.6	-1%	-$24,344	9.0	2%	-$5,344	26
13	Lighting Retrofit	(#52) Colonia HS	86,400	0	$151,000	$20,100	$0	$131,000	$13,000	$0	$13,000	10	11.6	-3%	-$40,107	10.1	0%	-$20,107	29
13	Lighting Retrofit	(#82) Administration	31,400	0	$33,400	$3,170	$0	$30,200	$4,710	$0	$4,710	10	7.1	7%	$6,777	6.4	9%	$9,977	10

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			kWh	Therms								Yrs	Pay Back (Gross) Yrs	Internal Rate of Return (IRR) (Gross)	Lifecycle Savings (NPV) (Gross)	Pay Back (Net) Yrs	Internal Rate of Return (IRR) (Net)	Lifecycle Savings (NPV) (Net)	Tons
14	Thermostatic Radiator Valves	(#01) Mawbey ES	0	820	$6,390	$0	$0	$6,390	$880	$0	$880	10	7.3	6%	$1,117	7.3	6%	$1,117	5
14	Thermostatic Radiator Valves	(#04) Avenel Street ES	0	1,010	$7,560	$0	$0	$7,560	$1,070	$0	$1,070	10	7.1	7%	$1,567	7.1	7%	$1,567	6
14	Thermostatic Radiator Valves	(#25) Lafayette Estates ES	0	390	$4,550	$0	$0	$4,550	$420	$0	$420	10	10.8	-1%	-$967	10.8	-1%	-$967	2
14	Thermostatic Radiator Valves	(#28) Matthew Jago ES	0	280	$2,180	$0	$0	$2,180	$300	$0	$300	10	7.3	6%	$379	7.3	6%	$379	2
14	Thermostatic Radiator Valves	(#52) Colonia HS	0	1,020	$16,900	$0	$0	$16,900	$1,060	$0	$1,060	10	15.9	-8%	-$7,858	15.9	-8%	-$7,858	6
15	Reprogram Uvs	(#01) Mawbey ES	0	1,790	$16,400	$0	$0	$16,400	$1,640	$0	$1,640	10	10.0	0%	-$2,410	10.0	0%	-$2,410	10
15	Reprogram UVs	(#04) Avenel Street ES	0	3,170	$31,100	$0	$0	$31,100	$2,850	$0	$2,850	10	10.9	-2%	-$6,789	10.9	-2%	-$6,789	19
15	Reprogram Uvs	(#09) Port Reading ES	0	1,270	$19,000	$0	$0	$19,000	$1,360	$0	$1,360	10	14.0	-6%	-$7,399	14.0	-6%	-$7,399	7
15	Reprogram Uvs	(#11) Ross Street ES	0	2,350	$22,500	$0	$0	$22,500	$2,110	$0	$2,110	10	10.7	-1%	-$4,501	10.7	-1%	-$4,501	14
15	Reprogram Uvs	(#14) Ford Avenue ES	0	1,260	$17,800	$0	$0	$17,800	$1,150	$0	$1,150	10	15.5	-7%	-$7,990	15.5	-7%	-$7,990	7
15	Reprogram Uvs	(#18) Indiana Ave ES	0	2,250	$30,000	$0	$0	$30,000	$2,020	$0	$2,020	10	14.9	-7%	-$12,769	14.9	-7%	-$12,769	13
15	Reprogram Uvs	(#19) Menlo Park Terrace ES	0	1,700	$19,000	$0	$0	$19,000	$1,550	$0	$1,550	10	12.3	-4%	-$5,778	12.3	-4%	-$5,778	10
15	Reprogram Uvs	(#20) Claremont ES	0	1,960	$21,500	$0	$0	$21,500	$1,780	$0	$1,780	10	12.1	-3%	-$6,316	12.1	-3%	-$6,316	11
15	Reprogram UVs	(#21) Oak Ridge ES	0	1,790	$19,700	$0	$0	$19,700	$1,620	$0	$1,620	10	12.2	-3%	-$5,881	12.2	-3%	-$5,881	10
15	Reprogram UVs	(#22) Lynn Crest ES	0	2,140	$25,100	$0	$0	$25,100	$1,940	$0	$1,940	10	12.9	-4%	-$8,551	12.9	-4%	-$8,551	13
15	Reprogram UVs	(#23) Woodbine Avenue ES	0	1,870	$20,600	$0	$0	$20,600	$1,680	$0	$1,680	10	12.3	-4%	-$6,269	12.3	-4%	-$6,269	11
15	Reprogram UVs	(#24) Kennedy Park ES	0	1,240	$18,700	$0	$0	$18,700	$1,130	$0	$1,130	10	16.5	-8%	-$9,061	16.5	-8%	-$9,061	7
15	Reprogram UVs	(#25) Lafayette Estates ES	0	1,510	$18,700	$0	$0	$18,700	$1,370	$0	$1,370	10	13.6	-5%	-$7,014	13.6	-5%	-$7,014	9
15	Reprogram Uvs	(#26) Robert Mascenik ES	0	1,220	$17,800	$0	$0	$17,800	$1,120	$0	$1,120	10	15.9	-8%	-$8,246	15.9	-8%	-$8,246	7
15	Reprogram Uvs	(#27) Pennsylvania ES	0	1,780	$21,500	$0	$0	$21,500	$1,620	$0	$1,620	10	13.3	-5%	-$7,681	13.3	-5%	-$7,681	10
15	Reprogram Uvs	(#28) Matthew Jago ES	0	2,400	$27,100	$0	$0	$27,100	$2,160	$0	$2,160	10	12.5	-4%	-$8,675	12.5	-4%	-$8,675	14
15	Reprogram UVs	(#40) Avenel MS	0	2,500	$38,400	$0	$0	$38,400	$2,190	$0	$2,190	10	17.5	-9%	-$19,719	17.5	-9%	-$19,719	15
15	Reprogram UVs	(#41) Colonial MS	0	8,990	$79,600	$0	$0	$79,600	$7,880	$0	$7,880	10	10.1	0%	-$12,382	10.1	0%	-$12,382	53
15	Reprogram UVs	(#42) Fords MS	0	4,530	$33,700	$0	$0	$33,700	$4,410	$0	$4,410	10	7.6	5%	$3,918	7.6	5%	$3,918	27
15	Reprogram UVs	(#43) Iselin MS	0	4,260	$41,200	$0	$0	$41,200	$3,730	$0	$3,730	10	11.0	-2%	-$9,382	11.0	-2%	-$9,382	25
15	Reprogram Uvs	(#44) Woodbridge MS	0	5,390	$46,800	$0	$0	$46,800	$4,700	$0	$4,700	10	10.0	0%	-$6,708	10.0	0%	-$6,708	32
15	Reprogram UVs	(#50) Woodbridge HS	0	10,600	$66,300	$0	$0	$66,300	$9,270	$0	$9,270	10	7.2	7%	$12,775	7.2	7%	$12,775	62
15	Reprogram UVs	(#51) JFK HS	0	5,710	$55,200	$0	$0	$55,200	$5,000	$0	$5,000	10	11.0	-2%	-$12,549	11.0	-2%	-$12,549	33
15	Reprogram Uvs	(#52) Colonia HS	0	7,710	$48,400	$0	$0	$48,400	$6,840	$0	$6,840	10	7.1	7%	$9,947	7.1	7%	$9,947	45
16	Pump VFDs	(#41) Colonial MS	10,100	0	$30,400	$2,400	$0	$28,000	$1,740	$0	$1,740	20	17.5	1%	-$4,513	16.1	2%	-$2,113	3
17	Replace Window AC Units	(#01) Mawbey ES	1,240	0	$9,900	$0	$7,700	$2,200	$200	$0	$200	10	49.5	-22%	-$8,194	11.0	-2%	-$494	0
17	Replace Window AC Units	(#04) Avenel Street ES	1,740	0	$14,000	$0	$10,900	$3,050	$270	$0	$270	10	51.9	-22%	-$11,697	11.3	-2%	-$747	1
17	Replace Window AC Units	(#09) Port Reading ES	1,460	0	$11,700	$0	$9,100	$2,600	$250	$0	$250	10	46.8	-21%	-$9,567	10.4	-1%	-$467	0
17	Replace Window AC Units	(#11) Ross Street ES	2,080	0	$16,700	$0	$13,000	$3,650	$320	$0	$320	10	52.2	-22%	-$13,970	11.4	-2%	-$920	1
17	Replace Window AC Units	(#14) Ford Avenue ES	1,180	0	$9,450	$0	$7,350	$2,100	$180	$0	$180	10	52.5	-23%	-$7,915	11.7	-3%	-$565	0
17	Replace Window AC Units	(#18) Indiana Ave ES	2,360	0	$18,900	$0	$14,700	$4,200	$350	$0	$350	10	54.0	-23%	-$15,914	12.0	-3%	-$1,214	1
17	Replace Window AC Units	(#19) Menlo Park Terrace ES	1,570	0	$12,600	$0	$9,800	$2,800	$230	$0	$230	10	54.8	-23%	-$10,638	12.2	-3%	-$838	1
17	Replace Window AC Units	(#20) Claremont ES	1,630	0	$13,100	$0	$10,200	$2,850	$260	$0	$260	10	50.4	-22%	-$10,882	11.0	-2%	-$632	1
17	Replace Window AC Units	(#21) Oak Ridge ES	1,520	0	$12,200	$0	$9,450	$2,700	$220	$0	$220	10	55.5	-23%	-$10,323	12.3	-4%	-$823	1
17	Replace Window AC Units	(#22) Lynn Crest ES	1,740	0	$14,000	$0	$10,900	$3,050	$260	$0	$260	10	53.8	-23%	-$11,782	11.7	-3%	-$832	1

WOODBRIDGE SCHOOL DISTRICT
ECM Sorted by Payback

ECM #	Energy Conservation Measures (ECM)	Buildings	Energy Savings		Gross Installation Costs*	Rebates/ Incentive	Avoided Cost	Net Implementation Costs	Annual Energy Cost Savings	Annual Oper. Cost Savings	Total Annual Cost Savings	Measure Life	Gross Implementation Costs			Net Implementation Costs			CO2 Savings
			kWh	Therms								Yrs	Pay Back (Gross) Yrs	Internal Rate of Return (IRR) (Gross)	Lifecycle Savings (NPV) (Gross)	Pay Back (Net) Yrs	Internal Rate of Return (IRR) (Net)	Lifecycle Savings (NPV) (Net)	Tons
17	Replace Window AC Units	(#23) Woodbine Avenue ES	1,630	0	$13,100	$0	$10,200	$2,850	$290	$0	$290	10	45.2	-21%	-$10,626	9.8	0%	-$376	1
17	Replace Window AC Units	(#24) Kennedy Park ES	1,460	0	$11,700	$0	$9,100	$2,600	$230	$0	$230	10	50.9	-22%	-$9,738	11.3	-2%	-$638	0
17	Replace Window AC Units	(#25) Lafayette Estates ES	1,460	0	$11,700	$0	$9,100	$2,600	$250	$0	$250	10	46.8	-21%	-$9,567	10.4	-1%	-$467	0
17	Replace Window AC Units	(#26) Robert Mascenik ES	1,240	0	$9,900	$0	$7,700	$2,200	$210	$0	$210	10	47.1	-21%	-$8,109	10.5	-1%	-$409	0
17	Replace Window AC Units	(#27) Pennsylvania ES	1,460	0	$11,700	$0	$9,100	$2,600	$230	$0	$230	10	50.9	-22%	-$9,738	11.3	-2%	-$638	0
17	Replace Window AC Units	(#28) Matthew Jago ES	1,800	0	$14,400	$0	$11,200	$3,200	$320	$0	$320	10	45.0	-21%	-$11,670	10.0	0%	-$470	1
17	Replace Window AC Units	(#40) Avenel MS	1,350	0	$10,800	$0	$8,400	$2,400	$190	$0	$190	10	56.8	-23%	-$9,179	12.6	-4%	-$779	0
17	Replace Window AC Units	(#41) Colonial MS	1,680	0	$13,500	$0	$10,500	$3,000	$290	$0	$290	10	46.6	-21%	-$11,026	10.3	-1%	-$526	1
17	Replace Window AC Units	(#42) Fords MS	340	0	$2,700	$0	$2,100	$600	$50	$0	$50	10	54.0	-23%	-$2,273	12.0	-3%	-$173	0
17	Replace Window AC Units	(#43) Iselin MS	1,010	0	$8,100	$0	$6,300	$1,800	$160	$0	$160	10	50.6	-22%	-$6,735	11.3	-2%	-$435	0
17	Replace Window AC Units	(#44) Woodbridge MS	1,680	0	$13,500	$0	$10,500	$3,000	$250	$0	$250	10	54.0	-23%	-$11,367	12.0	-3%	-$867	1
17	Replace Window AC Units	(#50) Woodbridge HS	2,750	0	$22,100	$0	$17,200	$4,850	$410	$0	$410	10	53.9	-23%	-$18,603	11.8	-3%	-$1,353	1
17	Replace Window AC Units	(#51) JFK HS	2,190	0	$17,600	$0	$13,700	$3,850	$300	$0	$300	10	58.7	-24%	-$15,041	12.8	-4%	-$1,291	1
17	Replace Window AC Units	(#52) Colonia HS	2,580	0	$20,700	$0	$16,100	$4,600	$350	$0	$350	10	59.1	-24%	-$17,714	13.1	-5%	-$1,614	1
17	Replace Window AC Units	(#82) Administration	3,960	0	$16,700	$0	$13,000	$3,650	$630	$0	$630	10	26.5	-15%	-$11,326	5.8	11%	$1,724	1
18	Replace Windows	(#52) Colonia HS	740	1,010	$29,100	$0	$0	$29,100	$990	$0	$990	30	29.4	0%	-$9,696	29.4	0%	-$9,696	6
18	Replace Windows	(#82) Administration	4,290	1,790	$74,000	$0	$0	$74,000	$2,390	$0	$2,390	30	31.0	0%	-$27,155	31.0	0%	-$27,155	12
19	Condensing Boilers	(#01) Mawbey ES	0	840	$181,000	$4,000	$111,000	$65,900	$770	$0	$770	35	235.1	-8%	-$164,455	85.6	-4%	-$49,355	5
19	Condensing Boilers	(#04) Avenel Street ES	0	1,340	$161,000	$4,000	$102,000	$54,800	$1,200	$0	$1,200	35	134.2	-6%	-$135,215	45.7	-1%	-$29,015	8
19	Condensing Boilers	(#09) Port Reading ES	0	1,530	$181,000	$4,000	$111,000	$65,900	$1,390	$0	$1,390	35	130.2	-6%	-$151,133	47.4	-2%	-$36,033	9
19	Condensing Boilers	(#11) Ross Street ES	0	2,000	$216,000	$5,000	$166,000	$45,300	$1,800	$0	$1,800	35	120.0	-6%	-$177,323	25.2	2%	-$6,623	12
19	Condensing Boilers	(#18) Indiana Ave ES	0	2,280	$218,000	$6,000	$154,000	$57,800	$2,040	$0	$2,040	35	106.9	-5%	-$174,166	28.3	1%	-$13,966	13
19	Condensing Boilers	(#21) Oak Ridge ES	0	1,280	$152,000	$4,000	$93,300	$55,100	$1,160	$0	$1,160	35	131.0	-6%	-$127,075	47.5	-2%	-$30,175	7
19	Condensing Boilers	(#22) Lynn Crest ES	0	1,530	$178,000	$5,000	$104,000	$69,200	$1,380	$0	$1,380	35	129.0	-6%	-$148,348	50.1	-2%	-$39,548	9
19	Condensing Boilers	(#26) Robert Mascenik ES	0	690	$181,000	$4,000	$111,000	$65,900	$630	$0	$630	35	287.3	-9%	-$167,463	104.6	-5%	-$52,363	4
19	Condensing Boilers	(#27) Pennsylvania ES	0	810	$211,000	$5,000	$124,000	$82,500	$740	$0	$740	35	285.1	-9%	-$195,099	111.5	-5%	-$66,599	5
19	Condensing Boilers	(#28) Matthew Jago ES	0	1,550	$230,000	$6,000	$153,000	$71,100	$1,400	$0	$1,400	35	164.3	-7%	-$199,918	50.8	-2%	-$41,018	9
19	Condensing Boilers	(#40) Avenel MS	0	2,800	$368,000	$13,100	$206,000	$149,000	$2,450	$0	$2,450	35	150.2	-7%	-$315,356	60.8	-3%	-$96,356	16
19	Condensing Boilers	(#41) Colonial MS	0	1,920	$299,000	$10,500	$151,000	$138,000	$1,680	$0	$1,680	35	178.0	-7%	-$262,901	82.1	-4%	-$101,901	11
19	Condensing Boilers	(#44) Woodbridge MS	0	4,160	$331,000	$10,500	$183,000	$138,000	$3,630	$0	$3,630	35	91.2	-5%	-$253,001	38.0	0%	-$60,001	24
19	Condensing Boilers	(#51) JFK HS	0	8,580	$459,000	$15,800	$238,000	$206,000	$7,500	$0	$7,500	35	61.2	-3%	-$297,846	27.5	1%	-$44,846	50
19	Condensing Boilers	(#52) Colonia HS	0	3,270	$437,000	$15,800	$216,000	$206,000	$2,900	$0	$2,900	35	150.7	-7%	-$374,687	71.0	-4%	-$143,687	19
TOTALS			**2,281,330**	**202,560**	**$6,947,070**	**$316,570**	**$2,521,200**	**$4,112,610**	**$529,910**	**$0**	**$529,910**	**13**	**13.1**	**0.0**	**-$1,475,498**	**7.8**	**8%**	**$1,358,962**	**1,939**

Notes:

1. KW - Where Zero (0) values are shown in the table there is no demand reduction for this measure.
2. Rebates- Where Zero (0) values are shown in the table we could not find any rebates of other financial incentives that are currently available for this measure.
3. Gross Installation Cost is the cost of installing equipment recommended by the ECM.
4. Avoided Cost is the cost of replacing equipment at end of service life with like and kind equipment.
5. Net Implementaion Cost is the Gross Installation Cost less any Rebate/Incentive and any Avoided Cost. In the case of equipment that is being replaced regardless, Net Implementation Cost represents the incremental cost incurred by upgrading to equipment that produces more energy savings.
6. Estimated electrical demand (kW) savings are negligible for all ECM's identified above- except for ECM #13, Lighting Retrofit.

6a. kW savings for ECM #13, Lighting Retrofit are presented in the "Lighting Retrofit Summary" sheets for each building, located in the Appendix.

7. Some of the NPV values for ECM #13, Lighting Retrofit, in the table above are slightly negative. This is due to the fact that the life expectancy of lighting was estimated to be 10 years, and simple paybacks (at some buildings) slightly exceed 10 years.

7a. Installed costs (and hence simple paybacks) are high, because Dome-Tech recommends a comprehensive retrofit of all lighting fixtures. Due to the age of existing lighting (approximately 15- 20 years) all fixtures are recommended to be retrofit, rather than only the few fixtures that would have a better payback (a.k.a. "low hanging fruit").

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Energy Audit Purpose & Scope

Purpose:

- The objectives of the energy audit are to evaluate each site's energy consumption, establish baselines for energy efficiency and identify opportunities to reduce the amount of energy used and/or its cost.

Scope:

I. Historic Energy Consumption: Benchmark energy use using Energy Star Portfolio Manager

II. Facility Description: Characterize building usage, occupancy, size and construction.

III. Equipment Inventory: Detailed equipment list including useful life and efficiency.

IV. Energy Conservation Measures: Identify and evaluate opportunities for cost savings and economic returns.

V. Renewable/Distributed Energy Measures: Evaluate economic viability of various renewable/ distributed energy technologies.

VI. Energy Purchasing and Procurement Strategies: Perform utility tariff analysis and assess potential for savings from energy procurement strategies.

VII. Method of Analysis: Appendices

Historic Energy Consumption

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012

Buildings	Electric - PSE&G / DIRECT ENERGY				Natural Gas - ELIZABETHTOWN GAS / WOODRUFF ENERGY			
	Account Number(s)	Annual Consumption kWh	Annual Cost	$ / kWh	Account Number(s)	Annual Consumption Therms	Annual Cost	$ / Therms
Mawbey Street Elementary School (#01)	69 759 137 06	128,280	$20,664.30	$0.161	595885541 / 510256	11,354	$10,392.12	$0.915
Avenel Street Elementary School (#04)	69 760 224 06	220,160	$34,628.13	$0.157	5577865541 / 510254	27,523	$24,753.57	$0.899
Port Reading Elementary School (#09)	69 760 008 01	170,720	$29,353.33	$0.172	1621749050 / 510243	16,813	$15,157.34	$0.902
PRL/81 Turner Street (#09)	69 755 344 03	33,600	$6,684.61	$0.199	782174905 / 510242	3,942	$3,747.30	$0.951
PRL/81 Turner Street (#09)	69 755 344 03	29,514	$4,178.59	$0.142				
Ross Street Elementary School (#11)	69 760 216 04	216,880	$33,608.55	$0.155	3130265541 / 510257	30,437	$27,366.86	$0.899
Ford Avenue Elementary School (#14)	69 763 297 06	115,769	$17,837.69	$0.154	7681499880 / 510248	10,663	$9,754.67	$0.915
Indiana Avenue Elementary School (#18)	69 762 140 03	135,484	$11,236.85	$0.083	8435828530 / 510244	35,319	$31,668.12	$0.897
Menlo Park Terrace Elementary School (#19)	69 765 864 07	80,112	$4,709.76	$0.059	4446465581 / 510240	13,987	$12,747.88	$0.911
Claremont Avenue Elementary School (#20)	69 765 129 18	143,640	$22,697.35	$0.158	8114742520 / 511364	12,766	$11,622.25	$0.910
Oak Ridge Elementary School (#21)	69 767 571 04	125,546	$16,135.65	$0.129	2218983541 / 510251	16,464	$14,912.09	$0.906
Lynn Crest Elementary School (#22)	69 763 684 18	187,600	$28,427.92	$0.152	8271822521 / 510252	19,630	$17,750.86	$0.904
Woodbine Avenue Elementary School (#23)	69 761 281 07	133,378	$6,881.77	$0.052	5917894551 / 510255	21,609	$19,345.16	$0.895
Kennedy Park Elementary School (#24)	69 762 791 05	129,642	$26,667.03	$0.206	7049494561 / 510245	10,766	$9,803.34	$0.911
Lafayette Estates Elementary School (#25)	42 124 022 03	251,560	$38,572.85	$0.153	8337195541 / 511361	16,618	$15,049.18	$0.906
Robert Mascenik Elementary School (#26)	69 766 028 01	116,925	$19,757.99	$0.169	8190598520 / 510246	9,324	$8,562.23	$0.918
Pennsylvania Avenue Elementary School (#27)	69 766 031 07	126,240	$20,124.73	$0.159	3971707420 / 510253	10,930	$9,958.73	$0.911
Matthew Jago Elementary School (#28)	69 759 131 02 / 4219404211*	268,100	$40,390.51	$0.151	0700896260 / 510239	20,024	$18,028.38	$0.900
Avenel Middle School (#40)	42 125 502 02	576,000	$82,814.14	$0.144	1924355430 / 510236	40,009	$35,041.60	$0.876

Note: Due to incomplete data, energy rates in the shaded cells are calculated based on weighted average energy rates for all other facilities in the District.

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012

Buildings	Electric - PSE&G / DIRECT ENERGY				Natural Gas - ELIZABETHTOWN GAS / WOODRUFF ENERGY			
	Account Number(s)	Annual Consumption kWh	Annual Cost	$ / kWh	Account Number(s)	Annual Consumption Therms	Annual Cost	$ / Therms
Colonia Middle School (#41)	42 125 505 04	368,706	$40,909.66	$0.111	8498290590 / 510234	26,464	$23,207.59	$0.877
Fords Middle School (#42)	42 126 505 09	311,824	$27,149.69	$0.087	1851429850 / 510233	33,757	$32,850.59	$0.973
Iselin Middle School (#43)	69 762 804 05	251,691	$14,819.48	$0.059	9233804600 / 510231	63,656	$55,671.43	$0.875
Woodbridge Middle School (#44)	69 763 005 03	449,415	$67,860.16	$0.151	2826291661 / 510238	55,859	$48,714.14	$0.872
Woodbridge High School (#50)	42 005 046 18	1,054,000	$147,250.82	$0.140	4707934561 / 510258	2,487	$2,343.98	$0.942
Woodbridge High School/Sign (#50)	42 125 012 01	19,220	$13,625.51	$0.709	7150842780 / 510237	105,264	$92,178.61	$0.876
Woodbridge High School (#50)	69 756 891 05	19,345	$2,931.15	$0.152	3688986711 / 511362	1,226	$1,299.66	$1.060
Woodbridge High School - Ballfield / St. George Ave (#50)	69 758 694 05	3,211	$835.83	$0.260				
Woodbridge High School (#50)	69 759 576 06	126	$74.97	$0.595				
Woodbridge High School - St. George Ave Sign (#50)	69 761 867 00	1,084	$326.90	$0.302				
JFK High School (#51)	42 123 510 05	885,025	$119,424.38	$0.135	1621170671 / 510247	7,691	$7,022.29	$0.913
JFK High School / Field House (#51)	69 761 630 18	42,460	$6,200.09	$0.146	8581794610 / 510232	49,140	$42,482.53	$0.865
JFK High School (#51)	69 764 668 00	140	$120.08	$0.858				
Colonia High School (#52)	42 001 813 04	708,341	$94,728.14	$0.134	4829970590 / 510235	45,522	$40,391.53	$0.887
Colonia High School/East Street (#52)	69 764 691 09	12,360	$2,113.77	$0.171				
Colonia High School/East Street (#52)	69 763 687 01	155,920	$23,461.59	$0.150				
Colonia High School/Harrow Drive (#52)	69 763 280 09	1,527	$279.59	$0.183				
Woodbridge Admin Building (#60)	69 754 950 09	230,880	$36,421.76	$0.158	4067921871 / 511363	3,710	$3,559.05	$0.959
Woodbridge Admin Building/Transportation (#80)	69 763 291 02	166,860	$23,687.29	$0.142	7954340532 / 511365	7,388	$6,778.43	$0.917
Woodbridge Admin Building/B&G 2&16/Outlook Avenue (#82)	69 763 681 08	21,576	$3,089.79	$0.143	7425982580 / 510249	10,868	$9,910.52	$0.912
Woodbridge Admin Building/B&G 2&16/Outlook Avenue (#82)	69 766 024 02	59,620	$8,636.84	$0.145				
Woodbridge Admin Building/B&G 2&16/Outlook Avenue (#82)	69 766 024 02	7,674	$1,400.44	$0.182				
	TOTAL	**7,960,156**	**$1,100,732.79**	**$0.138**	**TOTAL**	**741,211**	**$662,071.95**	**$0.893**

Note: Due to incomplete data, energy rates in the shaded cells are calculated based on weighted average energy rates for all other facilities in the District.

Historic Energy Consumption (cont'd)

ENERGY STAR SCORES

- *Energy Star* Score is calculated to establish a facility-specific energy intensity baseline.
- *Energy Star* can be used to compare energy consumption to other similar facilities and to gauge the success of energy conservation and cost containment efforts.
- Buildings with an *Energy Star* rating/score of 75 or above, are eligible to apply for an official *Energy Star* Building label.

FACILITY NAME	TOTAL FLOOR AREA	ENERGY STAR SCORE	APPLY FOR ENERGY STAR	CURRENT SITE ENERGY INTENSITY (kBtu/Sq. Ft.)	CURRENT SOURCE ENERGY INTENSITY (kBtu/Sq. Ft.)
Woodbridge - Mawbey Street Elementary School (#01)	27,930	96	yes	52.8	91.1
Woodbridge - Avenel Street Elementary School (#4/5)	41,979	66	yes	77.8	121.8
Woodbridge - Port Reading Elementary School (#09)	47,198	83	yes	57.9	99.1
Woodbridge - Ross Street Elementary School (#11)	47,484	87	yes	74.1	113.2
Woodbridge - Ford Avenue Elementary School (#14)	25,759	99	yes	53.4	90.3
Woodbridge - Indiana Avenue Elementary School (#18)	52,054	93	yes	69.2	92.3
Woodbridge - Menlo Park Terrace Elementary School (#19)	31,569	99	yes	49.1	70.3
Woodbridge - Claremont Avenue Elementary School (#20)	31,569	93	yes	51.1	88.5
Woodbridge - Oak Ridge Elementary School (#21)	33,475	95	yes	56.1	87.7
Woodbridge - Lynn Crest Elementary School (#22)	41,570	94	yes	57.4	95
Woodbridge - Woodbine Ave Elementary School (#23)	46,621	98	yes	51.5	75.6
Woodbridge - Kennedy Park Elem School (#24)	33,334	95	yes	42.4	74.6
Woodbridge - Lafayette Estates Elem School (#25)	41,374	87	yes	57.4	106.9
Woodbridge - Robert Mascenik Elem School (#26)	29,050	96	yes	42	75.1
Woodbridge - Pennsylvania Ave Elementary School (#27)	28,799	97	yes	48.3	84.6
Woodbridge - Matthew Jago Elem School (#28)	51,311	95	yes	54	97.4
Woodbridge - Avenel Middle School (#40)	118,667	96	yes	46.3	86.1
Woodbridge - Colonia Middle School (#41)	102,959	100	yes	34.9	64.2
Woodbridge - Fords Middle School (#42)	119,588	100	yes	33.9	55.2
Woodbridge - Iselin Middle School (#43)	97,972	98	yes	59.7	82.1
Woodbridge Middle School (#44)	79,113	82	yes	82.2	130.5
Woodbridge High School (#50)	204,206	83	yes	64.1	108.4
Woodbridge - JFK High School (#51)	172,250	100	yes	18	58.6
Woodbridge - Colonia High School (#52)	196,269	97	yes	35.9	72
Woodbridge Admin Building (#60)	32,273	82	yes	34.8	92.4

Note: The Energy Star Scores and Energy Use Intensities (kBtu/SF) for schools with Solar PV systems do not accurately account for total energy use because solar meter data was not provided by the District.

* Note for Average Source EUI: This data comes from the 2003 CBECS National Average Source and Site Energy Use and Performance Comparisons by Building Type. This Average EUI is used only where Portfolio Manager does not have the building category list.

Historic Energy Consumption (cont'd)

Portfolio Manager Sign - In

- An account has been created for the Woodbridge School District in Portfolio Manager. You should have received an email to notify you of the generation of this account and shared access with Dome-Tech. Please use this to read your facility information. We would ask that you refrain from altering the sign-in information until after the report is finalized.
- Your building's information is currently shared as read only. When the report is finalized, the shared access will be changed so that you can use/edit the information as needed.
- Website link to sign-in:
  https://www.energystar.gov/istar/pmpam/index.cfm?fuseaction=login.Login

Key of Terms

Abbreviation	Term
AC	Air Conditioning
ACCU	Air Cooled Condensing Units
AHUs	Air Handling Units
BTU	British Thermal Unit
CUH	Cabinet Unit Heaters
DHW	Domestic Hot Water
EF	Exhaust Fans
FCU	Fan Coil Units
HP	Horse Power
HV	Heating Ventilators
HVAC	Heating Ventilation & Air Conditioning
IBR	Institute of Boiler and Radiator Manufacturers
kW	Kilowatts
MBH	Thousands of BTU's
PV	Solar Photovoltaic
RF	Relief Fans
RTU	Roof Top Unit
UV	Unit Ventilators
VAV	Variable Air Volume
VFD	Variable Frequency Drive
W	Watts

Facility Information (cont'd)

Building Name:	**Administration Building**
Address:	421 School Street Woodbridge, NJ 07095
Gross Floor Area:	32,273 sq ft
Year Built:	1876
# Occupants:	Approximately 55 staff members
Building Usage:	The Administration building contains offices and a board room. It is operated M-F for approximately 11 hours/day; closed weekends and holidays.

Construction Features:

Façade:	Two stories, brick façade, in good condition.
Roof Type:	Pitched light gray roof in good condition.
Windows:	Covering approximately 20% of façade, single pane, double hung windows, in poor condition.
Exterior Doors:	Approximately fourteen (14) metal framed doors, in fair to poor condition.

Facility Information (cont'd)

Major Mechanical Systems – Administration Building

Air Handling / AC Systems/ Ventilation Systems

The air conditioning (AC) and ventilation systems at the Administration Building are handled by approximately thirty-seven (37) window AC units, three (3) split AC systems, forty-one (41) electric heaters, eight (8) radiant panel heaters, and two (2) exhaust fans (EFs). The window ACs serve various rooms throughout the facility. The split AC systems serve the payroll and adjacent offices. The electric and radiant panel heaters serve spaces throughout the facility.

Boilers

There are two (2) small Weil McLain natural gas fired steam boilers at the Administration Building. Both boilers are estimated to be seven (7) years old. One boiler serves the front of the facility and the other serves the back. The boiler that serves the back of the building is rated for a maximum output of 109 MBH. The boiler that serves the front of the building is rated for a maximum output of 47 MBH.

Domestic Hot Water

The Domestic Hot Water (DHW) is provided by one (1) 40 gallon electric hot water heater. This heater is rated for 4,500 Watts and serves all the DHW needs in the facility.

Controls

The split AC systems are controlled by local thermostats in the building. The electric and radiant panel heaters are controlled locally.

Facility Information (cont'd)

Building Name:	**Mawbey Street Elementary School #01**
Address:	275 Mawbey Street Woodbridge, NJ 07095
Gross Floor Area:	27,930 sq ft
Year Built:	1920
# Occupants:	Approximately 343 students and 34 faculty and staff.
Building Usage:	Mawbey Street Elementary School is a K through 5th grade building. It operates M-F approximately 15 hours/day for 10 months of the year.

Construction Features:

Façade:	One story, brick façade, in good condition.
Roof Type:	Flat light gray built up roof in good condition. Solar Photovoltaic (PV) panels are being installed on the roof.
Windows:	Covering approximately 25% of façade, new, double pane, double hung windows.
Exterior Doors:	Approximately four (4) doors with glass, three (3) solid doors, and one (1) garage roll up door, all in good condition.

Facility Information (cont'd)

Major Mechanical Systems – Mawbey Street Elementary School #01

Air Handling / Ventilation Systems

The air conditioning and ventilation at Mawbey Street Elementary #01 is handled by approximately twenty-two (22) window AC units, twenty-one (21) unit ventilators (UV), and sixteen (16) EFs. The window ACs are located throughout the school. The UVs are located in and serve the classrooms. The EFs are located throughout the school.

Boilers

The school has two (2) Cleaver Brooks natural gas fired hot water boilers. The input capacity of each boiler is 2,070 MBH. Both of these boilers are 51 years old. The hot water from these boilers is circulated to the classroom UVs and radiators throughout the school with two (2) 3HP hot water pumps.

Domestic Hot Water

The DHW for the school is provided by one (1) 40 gallon natural gas fired hot water heater. This DHW heater is rated for a maximum input of 34 MBH.

Controls

The UVs are controlled by local thermostats in the classrooms that operate on an individual timer generally set for 6am to 7pm. Some of these timers did not have the correct time. The boilers are manually turned off and on by maintenance as needed.

Facility Information (cont'd)

Building Name:	**Avenel Street Elementary Schools #4/5**
Address:	230 Avenel Street Avenel, NJ 07001
Gross Floor Area:	41,979 sq ft
Year Built:	1912
# Occupants:	Approximately 456 students and 40 faculty and staff.
Building Usage:	Avenel Street Elementary Schools 4/5 is a K through 5th grade facility. It operates M-F approximately 15 hours/day for 10 months of the year.

Construction Features:

Façade:	School #4 is three floors, brick building, in good condition. School #5 is one story, brick façade, in good condition.
Roof Type:	School #4 has a flat light gray built up roof in good condition. School #5 has flat membrane light gray roof in good condition. Solar PV panels cover the majority of this roof.
Windows:	Covering approximately 20% of façade, double pane, single hung windows, in good condition.
Exterior Doors:	Approximately nine (9) doors with glass and one (1) solid door, all in good condition.

Facility Information (cont'd)

Major Mechanical Systems – Avenel Street Elementary School #4 & 5

Air Handling / Ventilation Systems

The air conditioning and ventilation at the Avenel Street Elementary Schools #4 & #5 are handled by approximately thirty-one (31) window AC units, thirty-six (36) UVs, two (2) multi-zone air handling units (AHUs), and twenty-one (21) EFs. The window ACs are in the local rooms throughout the #4 and #5 school. The UVs are located in the classrooms in both schools. The AHUs serve the corridor and general spaces in school #5. The EFs are located throughout the school.

Boilers

There are two (2) Cleaver Brooks natural gas fired steam boilers located in the boiler room. The output capacity of each boiler is 1,725 lbs/hr. Both of these boilers are 54 years old. The boiler system also has three (3) shell and tube steam to hot water heat exchangers. The hot water from these boilers is circulated with four (4) 2HP, two (2) 1/4 HP, and two (2) 1/6 HP inline hot water pumps.

Domestic Hot Water

DHW for the school is provided by two natural gas fired hot water heaters. The first DHW heater is a 40 gallon natural gas fired hot water heater with a maximum rated input of 38 MBH. The second DHW heater is 38 gallon gas fired heater with a maximum rated input of 40 MBH.

Controls

The UVs are controlled by local thermostats in the classrooms that operate on an individual timer, generally set for 7am to 8pm. Some of these timers did not have the correct time. The boilers are manually turned off and on by maintenance as needed. The AHUs are controlled by local thermostats and unit mounted digital Trane controllers.

Facility Information (cont'd)

Building Name:	**Port Reading Elementary School #09**
Address:	77 Turner Street Port Reading, NJ 07064
Gross Floor Area:	47,198 sq ft
Year Built:	1962
# Occupants:	Approximately 412 students and 39 faculty and staff.
Building Usage:	Port Reading Elementary School is a K through 5th grade facility. It operates M-F approximately 15 hours/day for 10 months of the year.

Construction Features:

Façade:	One story, brick façade, in good condition.
Roof Type:	Flat roof. There was no roof access during the site visit.
Windows:	Covering approximately 20% of façade, double pane, single hung windows, in good condition.
Exterior Doors:	Approximately twenty-three (23) doors the majority of which have glass, all in good condition.

Facility Information (cont'd)

Major Mechanical Systems – Port Reading Elementary School #09

Air Handling / Ventilation Systems

The air conditioning and ventilation at Port Reading Elementary School #09 is handled by approximately twenty-six (26) window AC units, twenty-two (22) UVs, one (1) roof top unit (RTU), and sixteen (16) EFs. The window AC units are located in and serve local rooms throughout the building. The UVs are located in the classrooms. The RTU serves the new wing of the school and is 7 years old. The EFs are located throughout the school.

Boilers

There are two (2) Cleaver Brooks natural gas fired hot water boilers located in the boiler room. The input capacity of each boiler is 2,070 MBH. Both of these boilers are 51 years old. The hot water from these boilers is circulated to UVs, radiators, with two (2) 7.5HP hot water pumps.

Domestic Hot Water

The DHW for the school is provided by one (1) 74 gallon natural gas heater with a maximum input of 75.1 MBH.

Controls

The UVs are controlled by local thermostats and do not currently operate on a schedule. The RTU is controlled by thermostats located in the school's new wing. The boilers are controlled with Johnson Controls panel. The exhaust fans operate on a timer.

Facility Information (cont'd)

Building Name:	**Ross Street Elementary #11**
Address:	110 Ross Street Woodbridge, NJ 07095
Gross Floor Area:	47,484 sq ft
Year Built:	1920
# Occupants:	Approximately 422 students and 40 faculty and staff.
Building Usage:	Ross Street Elementary School is a K through 5th grade facility. It operates M-F approximately 15 hours/day for 10 months of the year.

Construction Features:

Façade:	Three story, brick building, in good condition.
Roof Type:	Flat roof. There was no roof access during the site visit.
Windows:	Covering approximately 25% of façade, double pane, single hung windows, in good condition.
Exterior Doors:	Approximately four (4) double doors with windows in good condition.

Facility Information (cont'd)

Major Mechanical Systems – Ross Street Elementary #11

Air Handling / Ventilation Systems

The air conditioning and ventilation at Ross Street Elementary #11 is handled by approximately thirty-seven (37) window AC units, twenty-four (24) UVs, three (3) Heating Ventilators (HVs), and twenty (20) EFs. The window AC units are located in and serve local rooms throughout the building. The UVs serve the classrooms. The HVs serve the Cafeteria and multi- purpose room. The EFs are located throughout the school.

Boilers

There are two (2) EASCO natural gas fired steam boilers located in the boiler room. Maximum rated output of each boiler is 3,348 MBH. Both of these boilers are 14 years old. There is one (1) steam to hot water heat exchanger to convert the boiler steam to hot water. The hot water is circulated with two (2) 7.5HP hot water pumps that are not equipped with VFDs.

Domestic Hot Water

The DHW for the school is provided by one (1) 40 gallon natural gas water heater with a maximum input of 40 MBH.

Controls

The boilers at this school operate on a heat timer. The UVs and HVs are controlled by local thermostats and are not operating on a programmed schedule. The radiant panels are controlled with pneumatic thermostats. The EFs operate on a time clock.

Facility Information (cont'd)

Building Name:	**Ford Avenue Elementary #14**
Address:	186 Ford Avenue Fords, NJ 08863
Gross Floor Area:	25,759 sq ft
Year Built:	1924
# Occupants:	Approximately 210 students and 22 faculty and staff.
Building Usage:	Ford Avenue Elementary School is a K through 5th grade facility. It operates M-F approximately 15 hours/day for 10 months of the year.

Construction Features:

Façade:	Three story, brick, in good condition.
Roof Type:	New light gray membrane roof in new condition. There is solar PV on the roof.
Windows:	Covering approximately 25% of façade, double pane, single hung windows, in good condition.
Exterior Doors:	Approximately four (4) doors with windows in good condition.

Facility Information (cont'd)

Major Mechanical Systems – Ford Avenue Elementary #14

Air Handling / Ventilation Systems

The air conditioning and ventilation at Ford Avenue Elementary #14 is handled by approximately twenty-one (21) window AC units, nineteen (19) UVs, and two (2) HVs. The window AC units are located in and serve local rooms throughout the building. The UVs are located in and serve the classrooms. The HVs serve the corridors.

Boilers

The school has two (2) Weil McLain natural gas fired hot water boilers. The maximum rated output of each boiler is 634 MBH. Both of these boilers are 7 years old. The hot water from these boilers is circulated with two (2) 5HP hot water pumps.

Domestic Hot Water

The DHW for the school is provided by one (1) six gallon, and one (1) 19 gallon electric hot water heater, both with 1,500 W rated input.

Controls

The UVs are controlled by local thermostats and do not currently operate on a schedule. The boilers are controlled with Weil McLain controls.

Facility Information (cont'd)

Building Name:	**Indiana Avenue Elementary #18**
Address:	256 Indiana Avenue Iselin, NJ 08830
Gross Floor Area:	52,054 sq ft
Year Built:	1955
# Occupants:	Approximately 540 students and 51 faculty and staff.
Building Usage:	Indiana Avenue Elementary School is a K through 5th grade facility. It operates M-F approximately 15 hours/day for 10 months of the year.

Construction Features:

Façade:	One story, brick façade, in good condition.
Roof Type:	Flat light gray built up roof in good condition. The roof is equipped with solar PV panels.
Windows:	Covering approximately 20% of façade, double pane, single hung windows, in good condition.
Exterior Doors:	Approximately sixteen (16) doors, the majority with windows in good condition.

Facility Information (cont'd)

Major Mechanical Systems – Indiana Avenue Elementary #18

Air Handling / Ventilation Systems

The air conditioning and ventilation at Indiana Avenue Elementary #18 is handled by approximately forty-two (42) window AC units, thirty-two (32) UVs, and fifteen (15) EFs. The window AC units are located in and serve local rooms throughout the building. The UVs are located in and serve the classrooms.

Boilers

Indiana Avenue Elementary has one (1) Weil McLain natural gas fired steam boiler and one (1) H.B. Smith natural gas fired steam boiler. The Weil McLain boiler has an input rating of 3,270 MBH and is 9 years old. The H.B. Smith boiler has an input rating of 3,297 MBH and is 6 years old. There are two (2) shell and tube steam to hot water heat exchangers. The hot water is circulated with one (1) 2HP, and two (2) 1.5HP hot water pumps.

Domestic Hot Water

The DHW for the school is provided by one (1) 50 gallon and one (1) 40 gallon electric hot water heater. The rated output of each of the heaters is 4.5 kW.

Controls

The UVs are controlled by local thermostats and are not operating on a programmed schedule. An Infotech Management control panel controls the heat exchangers. The boiler is equipped with Honeywell burner controls.

Facility Information (cont'd)

Building Name:	**Menlo Park Terrace Elementary #19**
Address:	19 Maryknoll Road Metuchen, NJ 08840
Gross Floor Area:	31,569 sq ft
Year Built:	1957
# Occupants:	Approximately 360 students and 28 faculty and staff.
Building Usage:	Menlo Park Terrace Elementary School is a K through 5th grade facility. It operates M-F approximately 15 hours/day for 10 months of the year.

Construction Features:

Façade:	One story, brick façade, in good condition.
Roof Type:	Flat light gray roof. There was no roof access during the site visit.
Windows:	Covering approximately 20% of façade, double pane, single hung windows, in good condition.
Exterior Doors:	Approximately fourteen (14) metal framed doors, the majority with windows, in fair to poor condition. Many door frames are deteriorating.

Facility Information (cont'd)

Major Mechanical Systems – Menlo Park Terrace Elementary #19

Air Handling / Ventilation Systems

The air conditioning and ventilation at Menlo Park Terrace Elementary #19 is handled by twenty-eight (28) window AC units, twenty-two (22) UVs, and two (2) HVs. The window AC units are located in and serve local rooms throughout the building. The UVs are located in and serve the classrooms. The HVs serve the multi purpose room.

Boilers

The school two has two (2) Weil McLain natural gas fired hot water boilers. Each boiler has a maximum output of 1,632 MBH and they are 12 years old. The hot water is circulated with three (3) 1.5HP, and one (1) 1HP hot water pumps.

Domestic Hot Water

The DHW for the school is provided by one (1) 69 gallon natural gas heater with a 365 MBH rated input.

Controls

The UVs are controlled by local thermostats in the classrooms that operate on an individual timer.

Facility Information (cont'd)

Building Name:	**Claremont Avenue Elementary School #20**
Address:	90 Claremont Avenue Colonia, NJ 07067
Gross Floor Area:	31,569 sq ft
Year Built:	1957
# Occupants:	Approximately 327 students and 33 faculty and staff.
Building Usage:	Claremont Avenue Elementary School is a K through 5th grade facility. It operates M-F approximately 15 hours/day for 10 months of the year.

Construction Features:

Façade:	One story, brick façade, in good condition.
Roof Type:	Flat light gray built up roof in good condition.
Windows:	Covering approximately 20% of façade, double pane, single hung windows, in good condition.
Exterior Doors:	Approximately six (6) doors, approximately half of which have windows; all doors are in in good condition.

Facility Information (cont'd)

Major Mechanical Systems – Claremont Avenue Elementary School #20

Air Handling / Ventilation Systems

The air conditioning and ventilation at Claremont Avenue Elementary #20 is handled by approximately twenty-nine (29) window AC units, twenty-three (23) UVs, and fifteen (15) EFs. The window AC units are located in and serve local rooms throughout the building. The UVs are located in and serve the classrooms. The EFs are located throughout the school.

Boilers

The school has two (2) H.B. Smith natural gas fired hot water boilers. Each boiler has a maximum input of 1,699 MBH and they are 21 years old. The hot water is circulated with three (3) 1.5HP, and one (1) 1HP hot water pumps.

Domestic Hot Water

The DHW for the school is provided by one (1) 69 gallon A.O. Smith natural gas hot water heater. The rated input of the heater is 365 MBH.

Controls

The UVs are controlled by local thermostats in the classrooms that operates on an individual timer. The EFs are controlled with a timer.

Facility Information (cont'd)

Building Name: **Oak Ridge Heights Elementary School #21**

Address:	720 Inman Avenue Colonia, NJ 07067
Gross Floor Area:	33,475 sq ft
Year Built:	1959
# Occupants:	Approximately 265 students and 26 faculty and staff.
Building Usage:	Oak Ridge Heights Elementary School is a K through 5th grade facility. It operates M-F approximately 15 hours/day for 10 months of the year.

Construction Features:

Façade:	One story, brick façade, in good condition.
Roof Type:	Flat and pitched light gray built up roof in good condition. The roof is equipped with solar PV panels.
Windows:	Covering approximately 20% of façade, double pane, single hung windows, in good condition.
Exterior Doors:	Approximately twenty-one (21) doors, the majority of which have windows; all doors are in good condition.

Facility Information (cont'd)

Major Mechanical Systems – Oak Ridge Heights Elementary School #21

Air Handling / Ventilation Systems

The air conditioning and ventilation at Oak Ridge Heights Elementary #21 is handled by twenty-seven (27) window AC units, twenty-one (21) UVs, two (2) RTUs, and twenty-eight (28) EFs. The window AC units are located in and serve local rooms throughout the building. The UVs are located in and serve the classrooms. The RTUs serve the multi-purpose room. The EFs are located throughout the school.

Boilers

The school has two (2) Cleaver Brooks natural gas fired hot water boilers. Each boiler has a maximum input of 2,070 MBH and they are 23 years old. The hot water is circulated with one (1) 10HP, and one (1) 15HP hot water pumps that are not equipped with VFDs.

Domestic Hot Water

The DHW for the school is provided by one (1) 50 gallon electric hot water heater. The rated input of the DHW heater is 4.5 kW.

Controls

The boilers at this school are equipped with pneumatic controls. The UVs are controlled by local thermostats that operate on an individual timer. We found that not all of these timers were operating as intended.

Facility Information (cont'd)

Building Name: **Lynn Crest Elementary School #22**

Address:	98 Ira Avenue Colonia, NJ 07067
Gross Floor Area:	41,570 sq ft
Year Built:	1959
# Occupants:	Approximately 455 students and 59 faculty and staff.
Building Usage:	Lynn Crest Elementary School is a K through 5th grade facility. It operates M-F approximately 15 hours/day for 10 months of the year.

Construction Features:

Façade:	One story, brick façade, in good condition.
Roof Type:	Flat and pitched light grey roof. There was no roof access during the site visit.
Windows:	Covering approximately 20% of façade, double pane, single hung windows, in good condition.
Exterior Doors:	Approximately seven (7) metal framed doors, half of which have windows, in good condition.

Facility Information (cont'd)

Major Mechanical Systems – Lynn Crest Elementary School #22

Air Handling / Ventilation Systems

The air conditioning and ventilation at Lynn Crest Elementary #22 is handled by approximately thirty-one (31) window AC units, twenty-nine (29) UVs, and ten (10) EFs. The window AC units are located in and serve local rooms throughout the building. The UVs are located in and serve the classrooms. The EFs are located throughout the school.

Boilers

The school has two (2) Cleaver Brooks natural gas fired hot water boilers. Each boiler has a maximum input of 2,400 MBH and they are 23 years old. The hot water is circulated with two (2) 7.5HP, and three (3) inline 1/4HP hot water pumps that are not equipped with VFDs.

Domestic Hot Water

The DHW for the school is provided by an underground DHW heater. For this reason the capacity and rated input of the DHW heater are unknown.

Controls

The boilers at this school are equipped with pneumatic controls. The UVs are controlled by local thermostats that operate on an individual timer. The EFs operate on a timer.

Facility Information (cont'd)

Building Name:	**Woodbine Avenue Elementary School #23**
Address:	89 Woodbine Avenue Avenel, NJ 07001
Gross Floor Area:	46,621 sq ft
Year Built:	1958
# Occupants:	Approximately 446 students and 38 faculty and staff.
Building Usage:	Woodbine Avenue Elementary School is a K through 5th grade facility. It operates M-F approximately 15 hours/day for 10 months of the year.

Construction Features:

Façade:	One story, brick façade, in good condition.
Roof Type:	Flat brown built up roof, and flat black membrane roof both in good condition. The roof is equipped with solar PV panels.
Windows:	Covering approximately 20% of façade, double pane, single hung windows, in good condition.
Exterior Doors:	Approximately thirteen (13) metal framed doors in fair condition, the majority of which have windows.

Facility Information (cont'd)

Major Mechanical Systems – Woodbine Avenue Elementary School #23

Air Handling / Ventilation Systems

The air conditioning and ventilation at Woodbine Elementary #23 is handled by approximately twenty-nine (29) window AC units, twenty-two (22) UVs, two (2) RTUs, three (3) HVs, and twenty (20) EFs. The window AC units are located in and serve local rooms throughout the building. The UVs are located in and serve the classrooms. The RTUs serve the schools new wings. The HVs serve the multi-purpose room and corridors. The EFs are located throughout the school.

Boilers

The school has two (2) Weil McLain natural gas fired hot water boilers. Each boiler has a maximum input of 2,497 MBH and they are 7 years old. The hot water is circulated with two (2) 10HP pumps.

Domestic Hot Water

The DHW for the school is provided by one (1) 38 gallon natural gas hot water heater. The rated input of DHW heater is 40 MBH.

Controls

The boilers and RTUs are controlled by Andover Controls Jersey. The UVs are controlled by local thermostats that operate on an individual timer.

Facility Information (cont'd)

Building Name:	**Kennedy Park Elementary School #24**
Address:	150 Goodrich Street Iselin, NJ 08830
Gross Floor Area:	33,334 sq ft
Year Built:	1960
# Occupants:	Approximately 446 students and 34 faculty and staff.
Building Usage:	Kennedy Park Elementary School is a K through 5th grade facility. It operates M-F approximately 15 hours/day for 10 months of the year.

Construction Features:

Façade:	One story, brick façade, in good condition.
Roof Type:	Flat light gray built up roof in good condition and is equipped with solar PV panels.
Windows:	Covering approximately 25% of façade, double pane, single hung windows, in good condition.
Exterior Doors:	Approximately fourteen (14) metal framed doors in good condition, the majority of which have windows.

Facility Information (cont'd)

Major Mechanical Systems – Kennedy Park Elementary School #24

Air Handling / Ventilation Systems

The air conditioning and ventilation at Kennedy Park Elementary #24 is handled by approximately twenty-six (26) window AC units, twenty (20) UVs, one (1) HV, and fourteen (14) EFs. The window AC units are located in and serve local rooms throughout the building. The UVs are located in and serve the classrooms. The HVs serve the multi-purpose room and corridors. The EFs are located throughout the school.

Boilers

The school has two (2) H.B. Smith natural gas fired cast iron hot water boilers. Each boiler has an input of 1,965 MBH and they are 7 years old. The hot water is circulated with two (2) 7.5HP pumps.

Domestic Hot Water

The DHW for the school is provided by one (1) 40 gallon Rheem natural gas hot water heater. The rated input of DHW heater is 38 MBH.

Controls

The boilers have heat timers with full modulation sequencing control. The UVs are controlled by local thermostats that operate on an individual timer. The EFs operate on a timer.

Facility Information (cont'd)

Building Name:	**Lafayette Estates Elementary School #25**
Address:	500 Ford Avenue Fords, NJ 08863
Gross Floor Area:	41,374 sq ft
Year Built:	1960
# Occupants:	Approximately 526 students and 46 faculty and staff.
Building Usage:	Lafayette Estates Elementary School is a K through 5th grade facility. It operates M-F approximately 15 hours/day for 10 months of the year.

Construction Features:

Façade:	One story, brick façade, in good condition.
Roof Type:	Flat black membrane roof in good condition and is equipped with solar PV panels.
Windows:	Covering approximately 20% of façade, single pane, single hung windows, in fair condition.
Exterior Doors:	Approximately eighteen (18) metal framed doors with windows in good condition.

Facility Information (cont'd)

Major Mechanical Systems – Lafayette Estates Elementary School #25

Air Handling / Ventilation Systems

The air conditioning and ventilation at Lafayette Estates Elementary #25 is handled by approximately twenty (26) window AC units, twenty (20) UVs, three (3) RTUs with VAVs, and sixteen (16) EFs. The window AC units are located in and serve local rooms throughout the building. The UVs are located in and serve some of the classrooms. The RTUs serve several rooms throughout the building and are 7 years old. The EFs are located throughout the school.

Boilers

The school has two (2) Weil McLain natural gas fired hot water boilers. Each boiler has an input of 2,176 MBH. The age of the boilers is unknown. The hot water is circulated with two (2) 10HP pumps.

Domestic Hot Water

The DHW for the school is provided by one (1) 40 gallon natural gas hot water heater with a 40 MBH rated input.

Controls

The boilers and RTUs are controlled with Andover Controls and operate from 6am to 5pm seven days a week; the time on the controls was found to be approximately 40 minutes fast. The UVs are controlled by local thermostats that operate on an individual timer. The exhaust fans operate from 6am to 5pm seven days a week.

Facility Information (cont'd)

Building Name:	**Robert Mascenik Elementary School #26**
Address:	300 Benjamin Avenue Iselin, NJ 08830
Gross Floor Area:	29,050 sq ft
Year Built:	1964
# Occupants:	Approximately 283 students and 26 faculty and staff.
Building Usage:	Robert Mascenik Elementary School is a K through 5th grade facility. It operates M-F approximately 15 hours/day for 10 months of the year.

Construction Features:

Façade:	One story, brick façade, in good condition.
Roof Type:	Flat light gray built up roof in good condition.
Windows:	Covering approximately 25% of façade, double pane, single hung windows, in good condition.
Exterior Doors:	Approximately nine (9) metal framed doors with windows in good condition.

Facility Information (cont'd)

Major Mechanical Systems – Robert Mascenik Elementary School #26

Air Handling / Ventilation Systems

The air conditioning and ventilation at Robert Mascenik Elementary #26 is handled by approximately twenty-two (22) window AC units, nineteen (19) UVs, one (1) HV, and thirteen (13) EFs. The window AC units are located in and serve local rooms throughout the building. The UVs are located in and serve some of the classrooms. The HV serves the multi-purpose room. The EFs are located throughout the school.

Boilers

The school has two (2) Cleaver Brooks natural gas fired hot water boilers. Each boiler has an input of 2,070 MBH and is 50 years old. The hot water is circulated with two (2) 5HP pumps.

Domestic Hot Water

The DHW for the school is provided by one (1) 40 gallon natural gas hot water heater. The rated input of DHW heater is 40 MBH.

Controls

The boilers have computerized burner controls. The UVs are controlled by local thermostats in the classrooms with timers that operate the unit from 6am to 4pm. Several of the thermostats had the incorrect time. The HV is controlled by a local thermostat in the multi-purpose room.

Facility Information (cont'd)

Building Name:	**Pennsylvania Avenue Elementary School #27**
Address:	80 N. Pennsylvania Avenue Colonia, NJ 07067
Gross Floor Area:	28,799 sq ft
Year Built:	1964
# Occupants:	Approximately 283 students and 26 faculty and staff.
Building Usage:	Pennsylvania Avenue Elementary School is a K through 5th grade facility. It operates M-F approximately 15 hours/day for 10 months of the year.

Construction Features:

Façade:	One story, brick façade, in good condition.
Roof Type:	Flat light gray built up roof in good condition.
Windows:	Covering approximately 20% of façade, double pane, single hung windows, in good condition.
Exterior Doors:	Approximately nine (9) metal framed doors with windows in good condition.

Facility Information (cont'd)

Major Mechanical Systems – Pennsylvania Avenue Elementary School #27

Air Handling / Ventilation Systems

The air conditioning and ventilation at Pennsylvania Avenue Elementary #27 is handled by approximately twenty-six (26) window AC units, twenty-three (23) UVs, two (2) RTUs, and fourteen (14) EFs. The window AC units are located in and serve local rooms throughout the building. The UVs are located in and serve some of the classrooms. The RTUs serve the multi-purpose room. The EFs are located throughout the school.

Boilers

The school has two (2) Cleaver Brooks natural gas fired hot water boilers. Each boiler has an input of 2,510 MBH and is 49 years old. The hot water is circulated with two (2) 7.5HP pumps.

Domestic Hot Water

The DHW for the school is provided by one (1) 40 gallon natural gas hot water heater with a rated input of 40 MBH.

Controls

The UVs are controlled by local thermostats in the classrooms with individual timers that operate the unit from 7am to 8pm. We found that several of the timers had the incorrect time.

Facility Information (cont'd)

Building Name:	**Matthew Jago Elementary School #28**
Address:	99 Central Avenue Sewaren, NJ 07077
Gross Floor Area:	51,311 sq ft
Year Built:	1969
# Occupants:	Approximately 435 students and 97 faculty and staff.
Building Usage:	Matthew Jago Elementary School is a K through 5th grade facility. It operates M-F approximately 15 hours/day for 10 months of the year.

Construction Features:

Façade:	One story, brick façade, in good condition.
Roof Type:	Flat light gray built up roof in good condition and is equipped with solar PV panels.
Windows:	Covering approximately 20% of façade, double pane, single hung windows, in good condition.
Exterior Doors:	Approximately sixteen (16) metal framed doors with windows, in good condition.

Facility Information (cont'd)

Major Mechanical Systems – Matthew Jago Elementary School #28

Air Handling / Ventilation Systems

The air conditioning and ventilation at Matthew Jago Elementary #28 is handled by approximately thirty-two (32) window AC units, twenty-nine (29) UVs, five (5) HVs, one (1) split system AC, and twelve (12) EFs. The window AC units are located in and serve local rooms throughout the building. The UVs are located in and serve some of the classrooms. The HVs serve the storage area, gymnasium, and office. The split system serves the nurses office. The EFs are located throughout the school.

Boilers

The school has two (2) Cleaver Brooks natural gas fired hot water boilers. Each boiler has an input of 3,347 MBH and is 44 years old. The hot water is circulated with two (2) 7.5HP pumps.

Domestic Hot Water

The DHW for the school is provided by one (1) 75 gallon natural gas hot water heater with a rated input of 76 MBH.

Controls

The boilers are controlled with computerized burner controls. The UVs are controlled by local thermostats in the classrooms that operate on an individual timer.

Facility Information (cont'd)

Building Name:	**Avenel Middle School #40**
Address:	85 Woodbine Avenue Avenel, NJ 07001
Gross Floor Area:	118,667 sq ft
Year Built:	1964
# Occupants:	Approximately 636 students and 71 faculty and staff.
Building Usage:	Avenel Middle School is a 6th through 8th grade facility. It operates M-F approximately 15 hours/day for 10 months of the year and 15 hours/day on Saturdays in the Winter.

Construction Features:

Façade:	One and two story, brick façade, in good condition.
Roof Type:	New, flat light gray built up roof.
Windows:	Covering approximately 25% of façade, single pane, double hung windows, in excellent condition.
Exterior Doors:	Approximately twenty (20) metal framed doors with windows in excellent condition.

Facility Information (cont'd)

Major Mechanical Systems – Avenel Middle School #40

Air Handling / Ventilation Systems

The air conditioning and ventilation at Avenel Middle School is handled by approximately twenty-four (24) window AC units, sixty-seven (67) UVs, seven (7) HVs, thirteen (13) relief fans (RF) , and seven (7) EFs. The window AC units and UVs are located in and serve local rooms throughout the building. The HVs serve the gymnasium, exercise room, and cafeteria. The split system serves the nurses office. The RFs serve bathrooms, classrooms and storage rooms. The EFs are located throughout the school's restrooms and storage areas.

Boilers

The school has two (2) Cleaver Brooks natural gas fire tube hot water boilers; however, only one (1) of these boilers is operational. Each boiler has a rated input of 6,900 MBH and is 49 years old. The hot water is circulated with three (3) 15HP, three (3) 1/6HP, and four (4) 1/12HP pumps.

Domestic Hot Water

The DHW for the school is supplied by a natural gas water tube boiler, and one (1) 100 gallon natural gas fired water heater. The DHW boiler has a rated input 532 MBH and the water from this boiler is stored in two (2) DHW storage tanks; however, one (1) of these storage tanks was not in use at the time of the site visit. The 100 gallon DHW heater has a rated input of 250 MBH. The hot water from the DHW boilers transferred to the storage tanks with one (1) 1/6HP pump. The DHW is distributed with one (1) 1/3HP pump.

Controls

The Avenel MS has a functional Andover controls system for the boilers and AHUs, HV's etc., but no front end. Classroom UV's are controlled with local thermostats.

Facility Information (cont'd)

Building Name:	**Colonia Middle School #41**
Address:	100 Delaware Avenue Colonia, NJ 07067
Gross Floor Area:	102,959 sq ft
Year Built:	1960
# Occupants:	Approximately 621 students and 115 faculty and staff.
Building Usage:	Colonia Middle School is a 6th through 8th grade facility. It operates M-F approximately 15 hours/day for 10 months of the year and 15 hours/day on Saturdays in the Winter.

Construction Features:

Façade:	One story and two story, brick façade, in good condition.
Roof Type:	Flat light gray built up roof in good condition with solar PV panels.
Windows:	Covering approximately 20% of façade, double pane, double hung windows, in good condition.
Exterior Doors:	Approximately eighteen (18) metal framed with windows, in excellent condition.

Facility Information (cont'd)

Major Mechanical Systems – Colonia Middle School #41

Air Handling / Ventilation Systems

The air conditioning and ventilation at Colonia Middle School is handled by approximately thirty-two (32) window AC units, forty-nine (49) UVs, five (5) HVs, eighteen (18) cabinet unit heaters (CUH), nine (9) fan coil units (FCU), twenty-one (21) EFs, and thirteen (13) RFs. The window AC units and UVs are located in and serve local rooms throughout the building. The HVs serve the gymnasium, and cafeteria. The CUHs are located in and serve various classrooms. The FCUs serve the schools locker rooms. The split system serves the nurses office. The EFs serve the kitchen, showers, storage areas, and the electric and boiler rooms. The relief fans serve the corridors, classrooms, offices, stage, and storage areas.

Boilers

The school has two (2) Cleaver Brooks natural gas fire tube hot water boilers. Each boiler has a input of 6,000 MBH from the certificate of inspection and is estimated to be 18 years old. The hot water from Cleaver Brooks boilers is circulated with three (3) 25HP hot water pumps. These pumps are equipped with Variable Frequency Drives (VFDs); however, one (1) is set to a fixed speed and the others are offline.

Domestic Hot Water

The DHW for the school is provided by a 532 MBH output DHW boiler that is 19 years old. The hot water from this boiler is stored in a large DHW storage tank that is approximately 5 foot diameter by 12 foot long. The DHW is circulated with one (1) 1/4HP, and one (1) 1/3HP pumps.

Controls

The Colonia MS has a functional Andover controls system for the boilers, but no front end. Classroom UV's are stand-alone with unit mounted thermostats.

Facility Information (cont'd)

Building Name:	**Fords Middle School #42**
Address:	100 Fanning Street Fords, NJ 08863
Gross Floor Area:	119,588 sq ft
Year Built:	1960
# Occupants:	Approximately 694 students and 71 faculty and staff.
Building Usage:	Fords Middle School is a 6th through 8th grade facility. It operates M-F approximately 15 hours/day for 10 months of the year and 15 hours/day on Saturdays in the Winter.

Construction Features:

Façade:	One story, brick façade, in good condition.
Roof Type:	Flat light gray built up roof, and black membrane roof both in good condition. The roof is equipped with solar PV panels.
Windows:	Covering approximately 20% of façade, double pane, single hung windows, in fair condition.
Exterior Doors:	Approximately twenty-three (23) metal framed doors, the majority of which have windows. The doors are in good condition.

Facility Information (cont'd)

Major Mechanical Systems – Fords Middle School #42

Air Handling / Ventilation Systems

The air conditioning and ventilation at Fords Middle School is handled by six (6) window AC units, (41) UVs, nine (9) HVs, seven (7) AC units, six (6) air cooled condensing units (ACCUs), and thirty-five (35) EFs. The window AC units are located in and serve local rooms throughout the building. The UVs are located in and serve the classrooms. The HVs serve the kitchen, and the gymnasium. The ACs serve the office areas, and the 2007 wing of the school. The ACCU serves the AC units in the 2007 wing. The EFs serve the schools restrooms and kitchen.

Boilers

The school has two (2) H.B. Smith natural gas fired hot water boilers. Each boiler has an (IBR) burner capacity of 8,277 MBH. The age of the boiler is unknown. The hot water from H.B. Smith boilers is circulated with three (3) 10HP hot water pumps and four (4) inline 3HP hot water pumps.

Domestic Hot Water

The DHW for the school is provided by a natural gas DHW boiler. This boiler has an output of 522.5 MBH and is 18 years old. The DHW from the boiler is stored in one (1) high capacity DHW storage tank.

Controls

Fords MS has a Johnson controls system for the heating hot water system. Classroom UV's are stand-alone with unit mounted thermostats.

Facility Information (cont'd)

Building Name:	**Iselin Middle School #43**
Address:	900 Woodruff Street Iselin, NJ 08830
Gross Floor Area:	97,972 sq ft
Year Built:	1960
# Occupants:	Approximately 625 students and 63 faculty and staff.
Building Usage:	Iselin Middle School is a 6th through 8th grade facility. It operates M-F approximately 15 hours/day for 10 months of the year and 15 hours/day on Saturdays in the Winter.

Construction Features:

Façade:	One story, light colored brick façade, in good condition.
Roof Type:	Flat, concrete deck, built up, grey in color, and in excellent condition. New solar PV panels on roof.
Windows:	Covering approximately 20% of façade, dual pane, double hung and fixed windows, in excellent condition.
Exterior Doors:	Approximately twenty-four (24) metal framed doors, the majority of which have windows, all in excellent condition.

Facility Information (cont'd)

Major Mechanical Systems – Iselin Middle School #43

Air Handling / Ventilation Systems

The air conditioning and ventilation at Iselin Middle School is handled by approximately eighteen (18) window AC units, forty-four (44) UVs, four (4) HVs, six (6) EFs, and fourteen (14) RFs. The window AC units are located in and serve local rooms throughout the building. The UVs are located in and serve the classrooms. The HVs serve the gymnasium. The EFs and RFs are located throughout the school and serve areas that include restrooms and classrooms.

Boilers

The school has five (5) Patterson Kelly natural gas fired hot water boilers. Each boiler has an output capacity of 1,700 MBH. The boilers are 6 years old. There are five (5) primary pumps that circulate the hot water from the boilers. These pumps are three speed Grundfoss pumps. There are also two (2) secondary 15HP Marathon pumps.

Domestic Hot Water

The DHW for the school is provided by one DHW boiler. The rated input for this boiler is 645 MBH. The hot water from this boiler is stored in two (2) high capacity storage tanks. The DHW is supplied throughout the school with one (1) 1/4HP, and one (1) 1/12HP Armstrong pumps.

Controls

The Iselin MS HVAC equipment utilizes stand-alone controls. The Boilers have Heat Timer controls while the classroom UV's are stand-alone with unit mounted thermostats.

Facility Information (cont'd)

Building Name: **Woodbridge Middle School #44**

Address:	525 Barron Avenue Woodbridge, NJ 07095
Gross Floor Area:	79,113 sq ft
Year Built:	1911
# Occupants:	Approximately 430 students and 52 faculty and staff.
Building Usage:	Woodbridge Middle School is a 6th through 8th grade building. It operates M-F approximately 15 hours/day for 10 months of the year and 15 hours/day on Saturdays in the Winter.

Construction Features:

Façade:	Three story, brick façade, in good to excellent condition.
Roof Type:	Flat, concrete deck, built up, gray in color, in good condition. Portions of roof are pitched.
Windows:	Covering approximately 20% of façade, dual pane, double hung windows, in excellent condition.
Exterior Doors:	Approximately twenty-four (24) doors, the majority of which have windows.

Facility Information (cont'd)

Major Mechanical Systems – Woodbridge Middle School #44

Air Handling / Ventilation Systems

The air conditioning and ventilation at Woodbridge Middle School is handled by approximately forty-two (42) window AC units, fifty (50) UVs, nine (9) HVs, and eleven (11) EFs. The window AC units are located in and serve local rooms throughout the building. The UVs are located in and serve the classrooms. The HVs are located throughout the school and serve areas that include the cafeteria and gymnasium. The EFs are located throughout the school and serve areas that include restrooms, cafeteria, and auditorium.

Boilers

The school has one (1) 1960 Cleaver Brooks steam boiler and one (1) 1997 Federal steam boiler. Each boiler has a rated output of 5,180 MBH. There are three (3) steam to hot water converters. The hot water from the heat exchangers is circulated with one (1) 7.5HP, two (2) 5HP, one (1) 3HP, and two (2) 1/3HP pumps.

Domestic Hot Water

The DHW for the school is provided by one (1) natural gas DHW boiler with a maximum rated input of 645MBH. The hot water from this boiler is stored in one (1) 180 gallon storage tank.

Controls

The Woodbridge MS utilizes stand-alone pneumatic controls for the steam-to-HW converters temperature controls & reset. The boilers & pumps are manually operated. Classroom UV's are stand-alone with primarily wall mounted thermostats.

Facility Information (cont'd)

Building Name:	**Woodbridge High School #50**
Address:	25 Kelly Street Woodbridge, NJ 07095
Gross Floor Area:	204,206 sq ft
Year Built:	1954
# Occupants:	Approximately 1,400 students and 149 faculty and staff.
Building Usage:	Woodbridge High School is a 9th through 12th grade building. It operates M-F approximately 15 hours/day for 10 months of the year and 15 hours/day on Saturdays in the Winter.

Construction Features:

Façade:	Three story, brick façade, in good condition.
Roof Type:	Flat, light gray built up roof, grey in color, and in new condition. Solar PV panels cover approximately half of the roof.
Windows:	Covering approximately 20% of façade, dual pane, single hung windows, in excellent condition.
Exterior Doors:	Approximately twenty-five (25) fiberglass doors with single pane glass, in excellent condition.

Facility Information (cont'd)

Major Mechanical Systems – Woodbridge High School #50

Air Handling / Ventilation Systems

The air conditioning and ventilation at Woodbridge High School is handled by thirty-nine (39) window AC units, eighty-five (85) UVs, four (4) HVs, and twenty five (25) EFs. The UVs are located in and serve the classrooms and small offices. The HVs are located throughout the school and serve areas that include the kitchen, gymnasium, auditorium, and corridors. The RTU serves the new office and classrooms. EFs are located throughout the school and serve areas that include restrooms, cafeteria, and gymnasium.

Boilers

The school has two (2) Cleaver Brooks natural gas fired steam boilers. Each boiler has a rated output of 14,060 MBH and they are both 19 years old. The hot water from these boilers are distributed throughout the school with one (1) 5HP hot water pump.

Domestic Hot Water

The DHW for the school is provided by one (1) natural gas DHW boiler. The water from the DHW boiler is stored in one (1) 1,110 gallon storage tank.

Controls

The school's UVs are controlled by digital time clocks, similar to that of other schools in the District. The school's boilers are controlled by internal pressure switches. The boilers are enabled and disabled manually. The school's HV units and exhaust fans are controlled by pneumatic control logic.

Facility Information (cont'd)

Building Name: **JFK High School #51**

Address:	200 Washington Avenue Iselin, NJ 08830
Gross Floor Area:	172,250 sq ft
Year Built:	1963; 2009
# Occupants:	1,349 students and 125 faculty and staff.
Building Usage:	JFK High School is a 9th through 12th grade facility. It operates M-F approximately 15 hours/day for 10 months of the year and 15 hours/day on Saturdays in the Winter.

Construction Features:

Façade:	Two story, brick façade, in good condition.
Roof Type:	Flat, metal deck, grey in color, and in excellent condition. Solar PV panels are on the south end of roof.
Windows:	Covering approximately 20% of façade, dual pane, single hung windows, in excellent condition.
Exterior Doors:	Approximately nineteen (19) metal framed doors with dual pane glass, in excellent condition.

Facility Information (cont'd)

Major Mechanical Systems – JFK High School #51

Air Handling / Ventilation Systems

The air conditioning and ventilation at JFK High School is handled by approximately thirty-nine (39) window AC units, seventy (70) UVs, six (6) HVs, one (1) RTU, and fifteen (15) EFs. The window AC units are located in and serve local rooms throughout the building. The UVs are located in and serve the classrooms. The HVs are located throughout the school and serve areas that include the kitchen, gymnasium, auditorium, and corridors. The RTU serves the new office and classrooms. The EFs and RFs are located throughout the school and serve areas that include restrooms, cafeteria, and auditorium.

Boilers

The school has two (2) Cleaver Brooks natural gas fired hot water boilers. Each boiler has a rated input of 10,461 MBH and they are both 50 years old. The hot water from these boilers are distributed throughout the school with five (5) 7.5HP, one (1) 5HP, and one (1) 2HP pumps.

Domestic Hot Water

The DHW for the school is provided by one (1) Lochinvar natural gal boiler with a maximum rated input of 1,255 MBH. The water from the DHW boiler transferred to two (2) 200 gallon storage tanks with one (1) 1/4HP pump. The DHW is distributed throughout the school from the storage tanks with three (3) 1/12HP pumps.

Controls

The school's unit ventilators and HV units are controlled by an *Andover* building management system. At the time of the energy audit (February 2013), the *Andover* controls for the HV units were not operating; an "error" light was displayed on the control panel. The school's boilers are controlled by a Cleaver Brooks CB-70 boiler controller. The boilers are enabled and disabled manually.

Facility Information (cont'd)

Building Name:	**Colonia High School #52**
Address:	180 East Street Colonia, NJ 07067
Gross Floor Area:	196,267 sq ft
Year Built:	1967
# Occupants:	Approximately 1,378 students and 143 faculty and staff.
Building Usage:	Colonia High School is a 9th through 12th grade facility. It operates M-F approximately 15 hours/day for 10 months of the year and 15 hours/day on Saturdays in the Winter.

Construction Features:

Façade:	Two story, brick façade, in good condition.
Roof Type:	Flat light brown and gray built up roof in good condition. The roof is also equipped with solar PV panels.
Windows:	Covering approximately 25% of façade, double pane, single hung windows, in good condition. The windows in the courtyard are single pane and in fair condition.
Exterior Doors:	Approximately thirty (30) doors, the majority of which have windows, and three (3) garage doors in good condition.

Facility Information (cont'd)

Major Mechanical Systems – Colonia High School #52

Air Handling / Ventilation Systems

The air conditioning and ventilation at Colonia High School is handled by approximately forty-six (46) window AC units, sixty-two (62) UVs, sixteen (16) HVs, two (2) RTUs, and thirty-nine (39) EFs. The window AC units are located in and serve local rooms throughout the building. The UVs are located in and serve the classrooms. The HVs serve the gymnasium, locker rooms, weight room, auditorium, kitchen, music rooms, and the woodshop and drying room. The RTUs serve the schools new wing as well as the administration areas. The EFs are located throughout the schools restrooms and kitchen.

Boilers

The school has two (2) Cleaver Brooks natural gas fired hot water boilers. Each boiler has an input of 10,461 MBH and are estimated to be 47 years old. The hot water from Cleaver Brooks boilers is circulated with one (1) 20HP and one (1) 7.5HP hot water pumps.

Domestic Hot Water

The DHW for the school is provided by a domestic hot water boiler. This boiler has an output of 522.4 MBH and is 15 years old. The water from the DHW boilers is circulated with one (1) 1/4HP, and one (1) 1/3HP inline pumps.

Controls

The Colonia MS has a functional Andover controls system for the hot water system. Classroom UV's are stand-alone with unit mounted thermostats.

Greenhouse Gas Emission Reduction

Implementation of all identified ECMs will yield:

- 2,281,330 kilowatt-hours of annual avoided electric usage.
- 202,560 therms of annual avoided natural gas usage.
- This equates to the following ***annual*** reductions:

- 1,939 tons of CO_2;

  -OR-

- 336 Cars removed from road;

  -OR-

- 529 Acres of trees planted annually

The Energy Information Administration (EIA) estimates that power plants in the state of New Jersey emits 0.666 lbs CO_2 per kWh generated.

The Environmental Protection Agency (EPA) estimates that one car emits 11,560 lbs CO_2 per year.

The EPA estimates that reducing CO_2 emissions by 7,333 pounds is equivalent to planting an acre of trees.

Energy Conservation Measures (ECMs) Notes and Assumptions

- The average CO_2 emission rate from power plants serving the facilities within this report was obtained from the Environmental Protection Agency's (EPA) eGRID2007 report. It states that power plants within the state of NJ emit 0.66 lbs of CO_2 per kWh generated.
  - *The EPA estimates that burning one therm of natural gas emits 11.708 lbs CO_2.*
  - *The EPA estimates that one car emits 11,560 lbs CO_2 per year.*
  - *The EPA estimates that reducing CO_2 emissions by 7,333 pounds is equivalent to planting an acre of trees.*
- The following utility prices provided were used within this study:

School	Electric $/kWh	Natural Gas $/Therm
Mawbey Street Elementary School (#01)	$0.161	$ 0.915
Avenel Street Elementary School (#04)	$0.157	$ 0.899
Port Reading Elementary School (#09)	$0.172	$ 0.911
Ross Street Elementary School (#11)	$0.155	$ 0.899
Ford Avenue Elementary School (#14)	$0.154	$ 0.915
Indiana Avenue Elementary School (#18)	$0.148	$ 0.897
Menlo Park Terrace Elementary School (#19)	$0.148	$ 0.911
Claremont Avenue Elementary School (#20)	$0.158	$ 0.910
Oak Ridge Elementary School (#21)	$0.142	$ 0.906
Lynn Crest Elementary School (#22)	$0.152	$ 0.904
Woodbine Avenue Elementary School (#23)	$0.176	$ 0.895
Kennedy Park Elementary School (#24)	$0.158	$ 0.911
Lafayette Estates Elementary School (#25)	$0.169	$ 0.906
Robert Mascenik Elementary School (#26)	$0.169	$ 0.918
Pennsylvania Avenue Elementary School (#27)	$0.159	$ 0.911
Matthew Jago Elementary School (#28)	$0.178	$ 0.900
Avenel Middle School (#40)	$0.144	$ 0.876
Colonia Middle School (#41)	$0.173	$ 0.877
Fords Middle School (#42)	$0.163	$ 0.973
Iselin Middle School (#43)	$0.163	$ 0.875
Woodbridge Middle School (#44)	$0.151	$ 0.872
Woodbridge High School (#50)	$0.150	$ 0.877
JFK High School (#51)	$0.135	$ 0.875
Colonia High School (#52)	$0.137	$ 0.887
Woodbridge Admin Building (#60)	$0.158	$ 0.959

ECM #1: AHU Scheduling

	#4/5	#23	#25	TOTAL
Estimated Annual Savings:	$6,500	$5,080	$4,190	**$15,770**
Gross Estimated Implementation Cost[1]:	$260	$650	$390	**$1,300**
Approx. NJ Smart Start Rebate[2]:	$0	$0	$0	**$0**
Net Estimated Implementation Cost:	$260	$650	$390	**$1,300**
Simple Payback (years):	0.0	0.1	0.1	**0.1**
Annual Avoided CO_2 Emissions (tons):	21	15	13	**49**

[1] Cost estimates based on *RS Means*.
[2] No prescriptive New Jersey Smart Start rebates are available for this measure.

- During the energy audit, equipment schedules for air handlers were found to be operating for wider ranges than may be necessary based on occupancy schedules and general building hours.

- It is recommended that these schedules be reduced to yield additional energy savings. The proposed schedules in the calculations are based on student and faculty occupancy and may need be adjusted further based on maintenance staff access and after school or weekend activities.

ECM #1: AHU Scheduling (cont'd)

EXISTING CONTROL SCHEDULE	Avenel #4-5	Woodbine #23	Lafayette #25	Student/Teacher Hours
Monday through Friday Occupied Time	4:00 AM	6:30 AM	6:00 AM	8:45 AM
Monday through Friday Unoccupied Time	10:00 PM	9:30 PM	5:00 PM	3:30 PM
Saturday Occupied Time	8:00 AM	-	6:00 AM	-
Saturday Unoccupied Time	8:00 PM	-	5:00 PM	-
Sunday Occupied Time	8:00 AM	-	6:00 AM	-
Sunday Unoccupied Time	8:00 PM	-	5:00 PM	-
PROPOSED CONTROL SCHEDULE				
Monday through Friday Occupied Time	6:00 AM	8:00 AM	6:00 AM	8:45 AM
Monday through Friday Unoccupied Time	9:00 PM	5:00 PM	5:00 PM	3:30 PM
Saturday Occupied Time	9:00 AM	-	-	-
Saturday Unoccupied Time	3:00 PM	-	-	-
Sunday Occupied Time	9:00 AM	-	-	-
Sunday Unoccupied Time	3:00 PM	-	-	-

Note: These schedules represent the general TOD schedules applied to savings calculations for the respective schools.

ECM #2: Computer Power Management System

	#4/5	#9	#20	#26	#42	#50	#51	#52	TOTAL
Estimated Annual Savings:	$1,090	$1,900	$2,000	$1,010	$3,160	$8,560	$8,720	$5,910	**$32,280**
Gross Estimated Implementation Cost[1]:	$870	$1,390	$1,600	$750	$2,440	$6,960	$8,120	$5,420	**$27,550**
Approx. NJ Smart Start Rebate[2]:	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
Net Estimated Implementation Cost:	$870	$1,390	$1,600	$750	$2,440	$6,960	$8,120	$5,420	**$27,550**
Simple Payback (years):	0.8	0.7	0.8	0.7	0.8	0.8	0.9	0.9	**0.9**
Annual Avoided CO_2 Emissions (tons):	2	4	4	2	6	19	21	14	**72**

[1] Cost estimates based on Vendor quote.
[2] No prescriptive New Jersey Smart Start rebates are available for this measure.

- Computer screen savers were originally developed to prevent the permanent etching of patterns on older monochrome monitors. In this mode, both the computer and monitor consume the same amount of energy as the computer in regular operation, which is approximately 60 Watts (W) for the computer and 20W for an LCD monitor.

- Dome-Tech recommends installing a school wide computer power management system (such as Verdiem Surveyor software). This software would place the computers into a standby/sleep mode during periods of inactivity. In this mode, the computer and monitor will draw between 1 and 3 Watts each. This would significantly reduce the computers electrical energy consumption.
  - The computers will "wake up" instantaneously when the mouse or button on the keyboard is touched, causing no interruption during daytime use.
  - When the computers "wake up," all active files and programs will be available as before entering the standby/sleep mode, ensuring no data will be lost.

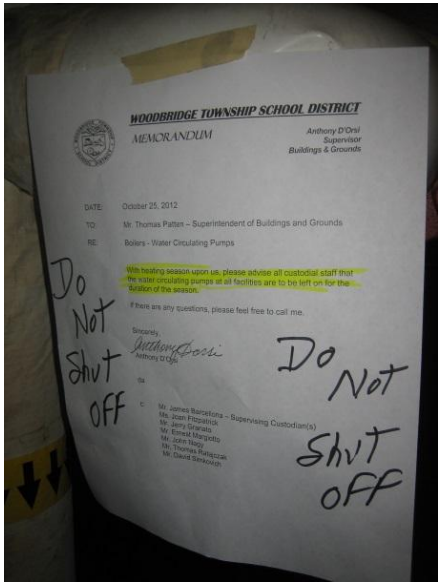
ECM #3: Heating Hot Water Pump Control

	#4/5	#19	#20	#21	#22	#24	#26	#27
Estimated Annual Savings:	$1,780	$2,090	$1,770	$5,980	$5,860	$2,890	$2,090	$2,910
Gross Estimated Implementation Cost[1]:	$2,750	$2,750	$2,750	$2,750	$1,210	$2,750	$2,750	$2,750
Approx. NJ Smart Start Rebate[2]:	$0	$0	$0	$0	$0	$0	$0	$0
Net Estimated Implementation Cost:	$2,750	$2,750	$2,750	$2,750	$1,210	$2,750	$2,750	$2,750
Simple Payback (years):	1.5	1.3	1.6	0.5	0.2	1.0	1.3	0.9
Annual Avoided CO_2 Emissions (tons):	4	5	4	14	13	6	4	6

[1] Cost estimates based on *RS Means*.
[2] No prescriptive New Jersey Smart Start rebates are available for this measure.

- To prevent the heating hot water distribution pipes from freezing, the Woodbridge Township School District has requested that the heating hot water pumps run throughout the heating season regardless of whether or not the boilers are heating the school. This results in unnecessary energy consumption by the circulation pumps.

- By installing a control system that only circulated water when the boilers are actively heating the school or the outdoor air temperature is below 35°F, electrical energy savings could be realized while ensuring that the heating hot water pipes will not freeze.



ECM #3: Heating Hot Water Pump Control (cont.)

	#40	#41	#42	#43	#44	#52	TOTAL
Estimated Annual Savings:	$18,500	$7,220	$16,200	$14,500	$9,050	$9,590	**$100,430**
Gross Estimated Implementation Cost[1]:	$1,210	$1,210	$2,750	$2,750	$2,750	$2,750	**$33,880**
Approx. NJ Smart Start Rebate[2]:	$0	$0	$0	$0	$0	$0	**$0**
Net Estimated Implementation Cost:	$1,210	$1,210	$2,750	$2,750	$2,750	$2,750	**$33,880**
Simple Payback (years):	0.1	0.2	0.2	0.2	0.3	0.3	**0.3**
Annual Avoided CO_2 Emissions (tons):	42	14	33	30	20	23	**216**

[1] Cost estimates based on *RS Means*.
[2] No prescriptive New Jersey Smart Start rebates are available for this measure.

ECM #4: Door and Window Weather-stripping

	#18	#19	#21	#40	#41	#44	Admin Building (#82)	TOTAL
Estimated Annual Savings: **	$1,630	$19,600	$2,890	$100	$240	$230	$4,190	**$28,880**
Gross Estimated Implementation Cost[1]:	$1,260	$4,600	$1,650	$310	$470	$470	$1,440	**$10,200**
Net Estimated Implementation Cost:	$1,260	$4,600	$1,650	$310	$470	$470	$1,440	**$10,200**
Simple Payback (years):	0.8	0.2	0.6	3.1	2.0	2.0	0.3	**0.4**
Annual Avoided CO_2 Emissions (tons):	8	95	14	0	1	1	19	**139**

[1] Cost estimates based on *RS Means*.

- Many of the perimeter doors in the District have worn weather stripping, which allows infiltration to enter conditioned areas causing an unnecessary increase in the heating, cooling and dehumidification load.
- Dome-Tech recommends replacing all old weather stripping on exterior doors, and windows where applicable.
- Energy savings will be realized by the reduction of hot and cold outside air that the building's HVAC equipment must condition to room temperature.

ECM #5: Walk-In Cooler/Freezer Controls

	#40	#41	#42	#43	#44	#50	#51	#52	TOTAL
Estimated Annual Savings:	$430	$1,030	$240	$240	$230	$220	$400	$610	**$3,400**
Gross Estimated Implementation Cost[1]:	$680	$680	$610	$680	$680	$610	$1,220	$2,050	**$7,210**
Approx. NJ Smart Start Rebate:	$80	$80	$80	$80	$80	$80	$150	$230	**$860**
Net Estimated Implementation Cost:	$610	$610	$530	$610	$610	$530	$1,070	$1,830	**$6,400**
Simple Payback (years):	1.4	0.6	2.2	2.5	2.7	2.4	2.7	3.0	**1.7**
Annual Avoided CO_2 Emissions (tons):	1	2	0	0	0	0	1	1	**7**

[1] Cost estimates based on Vendor quote.

- In virtually all walk-in freezers, air is cooled by forced-circulation evaporators containing propeller fans powered by fractional-horsepower motors.
- Typically these fans run continuously. However, full airflow is only required 50% of the time (only when the compressor is operating).
- In the most common applications (those that use single-phase power), motors for the fans are typically shaded-pole or permanent-split-capacitor types, both of which are very inefficient.
- Inexpensive controllers are currently available that slow these fans when full-speed operation is unnecessary.
- Reducing the operating speed reduces the energy consumption of the fan. In addition, the motor produces less heat at slower speeds, which means that the compressor has less heat to remove from the refrigerated compartment.

ECM #6: Vending Machine Power Management

Total Estimated Savings:	$19,510
Total Estimated Implementation Cost*[1]:	$56,380
Simple Payback (years):	2.9

[1] Cost estimates based on Vendor quote.

*Assumes installation by in-house staff.

- Dome-Tech recommends installing a vending machine power management device on all soda and snack vending machines at each school and the Administration building, approximately 83 in total.
- The above table shows the estimated implementation cost and associated savings for equipping all 83 soda and snack machines with ending power management devices.
- The device uses a passive infrared sensor to power down the machine when the area surrounding it is vacant. Then it monitors the room's temperature and automatically re-powers the cooling system at one- to three-hour intervals, independent of sales, to ensure that the product stays cold.
- The microcontroller will never power down the machine while the compressor is running, eliminating compressor short-cycling. In addition, when the machine is powered up, the cooling cycle is allowed to finish before again powering down (reduces compressor wear and tear).

ECM #7: Boiler Controls (HHW Reset)

	#1	#9	#11	#20	#21	#24	#28	#41	#43	#44	#50	TOTAL
Estimated Annual Savings:	$1,050	$1,880	$1,980	$1,440	$2,540	$1,960	$2,420	$4,610	$5,640	$5,940	$7,730	**$37,190**
Gross Estimated Implementation Cost[1]:	$9,160	$9,160	$9,160	$9,160	$9,160	$9,160	$9,160	$9,160	$9,160	$9,160	$9,160	**$100,760**
Approx. NJ Smart Start Rebate[2]:	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
Net Estimated Implementation Cost:	$9,160	$9,160	$9,160	$9,160	$9,160	$9,160	$9,160	$9,160	$9,160	$9,160	$9,160	**$100,760**
Simple Payback (years):	8.7	4.9	4.6	6.4	3.6	4.7	3.8	2.0	1.6	1.5	1.2	**2.7**
Annual Avoided CO_2 Emissions (tons):	7	12	13	9	16	13	16	31	38	40	52	**246**

[1] Cost estimates based on *RS Means*.
[2] No prescriptive New Jersey Smart Start rebates are available for this measure.

- A Hot Water Reset program will reduce the temperature of the hot water leaving the boilers during low load periods. This setpoint reduction will decrease the heat losses in distribution piping, thus decreasing energy consumption. Other minor staging and sequence changes in select buildings may boost this operational efficiency improvement.

- This reset is typically programmed as two specific points which the controller interpolates between for all other conditions. A HW supply temperature of 180°F at an outside air temperature (OAT) of 0°F and a reduction to 140°F HW at 60°F OAT.

ECM #8: DHW Heater Fuel Switch

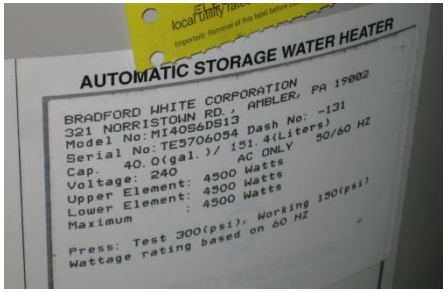
	#14	#18	#21	Admin Building (#82)	TOTAL
Estimated Annual Savings: **	$1,220	$2,960	$1,380	$790	**$6,350**
Gross Estimated Implementation Cost[1]:	$2,320	$4,050	$2,320	$2,270	**$10,950**
NJ Smart Start Rebate:	$50	$100	$50	$50	**$250**
Estimated Avoided Costs:***	$0	$0	$0	$0	**$0**
Net Estimated Incremental Implementation Cost:	$2,270	$3,940	$2,270	$2,200	**$10,700**
Estimated Simple Payback (years): *(Incremental and without Avoided Costs)*	1.9	1.3	1.6	2.8	**1.7**
Annual Avoided CO_2 Emissions (tons):	1	2	1	1	**5**

[1] Cost estimates based on *RS Means*.

**Savings do not include maintenance savings.

***Note: Avoided Cost = Cost of Like and Kind replacement.

- The existing DHW systems at these four locations are electric storage tanks.
- Replacing these electric storage tank DHW heaters with new, gas fired high efficiency units will result in energy ***cost*** savings.
  - Electricity is 4 to 5 times as expensive as natural gas on a per-Btu basis, based on current energy rates.
- New Jersey SmartStart offers rebates for high efficiency gas fired hot water heaters.



ECM #9: Install DHW, HHW, and Steam Pipe Insulation

	#1	#4/5	#9	#11	#18	#19	#20	#21	#22	#23	#24	#25
Estimated Annual Savings:	$30	$810	$30	$50	$40	$390	$40	$130	$10	$420	$50	$90
Gross Estimated Implementation Cost[1]:	$120	$1,850	$120	$350	$150	$1,200	$180	$370	$20	$1,720	$590	$380
Approx. NJ Smart Start Rebate[2]:	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Net Estimated Implementation Cost:	$120	$1,850	$120	$350	$150	$1,200	$180	$370	$20	$1,720	$590	$380
Simple Payback (years):	4.0	2.3	4.0	7.0	3.8	3.1	4.5	2.8	2.0	4.1	11.8	4.2
Annual Avoided CO_2 Emissions (tons):	0	5	0	0	0	2	0	1	0	3	0	1

[1] Cost estimates based on *RS Means*.
[2] No prescriptive New Jersey Smart Start rebates are available for this measure.

- During the energy audits approximately 3,344 ft of uninsulated domestic hot water, heating hot water and steam piping was found.
- This bare piping should be insulated to reduce radiant and convective heat loss, which would result in natural gas savings.

Uninsulated DHW piping at Colonia HS

Uninsulated HHW piping at #23 Woodbine Avenue Elementary

ECM #9: Install DHW, HHW, and Steam Pipe Insulation (cont'd)

	#26	#27	#28	#40	#41	#43	#44	#50	#51	#52	Admin Bldg (#82)	TOTAL
Estimated Annual Savings:	$120	$100	$10	$940	$850	$670	$540	$60	$120	$390	$80	**$5,970**
Gross Estimated Implementation Cost[1]:	$420	$270	$90	$5,220	$5,420	$3,510	$2,630	$590	$490	$830	$270	**$26,790**
Approx. NJ Smart Start Rebate[2]:	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Net Estimated Implementation Cost:	$420	$270	$90	$5,220	$5,420	$3,510	$2,630	$590	$490	$830	$270	**$26,790**
Simple Payback (years):	3.5	2.7	9.0	0.8	6.4	5.2	4.9	9.8	4.1	2.1	3.4	**4.5**
Annual Avoided CO_2 Emissions (tons):	1	1	0	6	6	5	4	0	1	3	0	**39**

[1] Cost estimates based on *RS Means*.
[2] No prescriptive New Jersey Smart Start rebates are available for this measure.

Bare Piping to be Insulated																							
	Admin	#1	#4/5	#9	#11	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	#28	#40	#41	#43	#44	#50	#51	#52
DHW	x	x	x	x	x	x	x	x			x	x	x	x	x	x	x	x	x	x	x	x	x
HHW			x				x		x	x	x				x		x	x		x	x		
Steam	x		x																	x			

ECM #10: Winterize Window AC Units

All Buildings	
Estimated Annual Energy Cost Savings:	$10,790
Gross Estimated Implementation Costs[1]:	$54,260
NJ Smart Start Rebate:	$470
Net Estimated Implementation Costs:	$53,790
Simple Payback (years):	5.0
Annual Avoided CO_2 Emissions (tons):	70

[1] Cost estimates based on *RS Means*.

- Dome-Tech found that window air conditioning units are installed in all of the District's buildings are not properly winterized when they are not in use. This creates drafts that detract from the comfort of the buildings as well as cause unnecessary increase in the winter heating load.
- Dome-Tech recommends winterizing all of the window AC units for the heating season, by installing insulated interior covers.
- Energy savings will be realized by the reduction of cold outside air that the building's HVAC equipment must condition to room temperature.

ECM #11: CRT to Flat Screens

	#9	#24	#42	#50	#51	#52	TOTAL
Estimated Annual Savings:	$170	$50	$110	$480	$80	$150	**$1,040**
Gross Estimated Implementation Cost[1]:	$750	$230	$700	$2,400	$450	$830	**$5,360**
Approx. NJ Smart Start Rebate[2]:	$0	$0	$0	$0	$0	$0	**$0**
Net Estimated Implementation Cost:	$750	$230	$700	$2,400	$450	$830	**$5,360**
Simple Payback (years):	4.4	4.6	6.4	5.0	5.6	5.5	**5.2**
Annual Avoided CO_2 Emissions (tons):	0	0	0	1	0	0	**1**

[1] Cost estimates based on published retail costs.
[2] No prescriptive New Jersey Smart Start rebates are available for this measure.

- Older cathode ray tube (CRT) computer monitors can consume more than twice the energy that is consumed by newer liquid crystal display (LCD) monitors.
- Approximately sixty-nine (69) CRT monitors were found schools in the District's schools.
- Dome-Tech recommends replacing the remaining CRT monitors with LCD monitors. This would significantly reduce the energy consumption of the computer setups.

ECM #12: RTU Upgrade

	#21	#27	TOTAL
Estimated Annual Savings: **	$150	$170	**$320**
Gross Estimated Implementation Cost[1]:	$22,300	$22,300	**$44,600**
NJ Smart Start Rebate:	$920	$920	**$1,840**
Estimated Avoided Costs:***	$20,300	$20,300	**$40,600**
Net Estimated Incremental Implementation Cost:	$1,060	$1,060	**$2,120**
Estimated Simple Payback (years): *(Incremental and without Avoided Costs)*	7.1	6.2	**6.6**
Annual Avoided CO_2 Emissions (tons):	0	0	**0**

[1] Cost estimates based on *RS Means*.

Oak Ridge Elementary Rooftop Unit

- The existing rooftop units (RTUs) at the above two schools are nearing the end of their estimated equipment service life (EESL)
  Per ASHRAE standards, the EESL for package rooftop units is 15 years.
- Replacing these RTU's with new, higher efficiency units will reduce annual energy and maintenance costs.
- New Jersey SmartStart offers rebates that typically pay for the incremental cost to upgrade to higher efficient units.

* Seasonal Energy Efficiency Ratios (SEER) is the rating of cooling output (Btu) divided by the electrical energy input (watts). The higher the SEER, the more efficient the unit.

** Savings do not include maintenance savings.

*** Note: Avoided Cost = Cost of Like and Kind replacement.

Seasonal Energy Efficiency Ratios*

Unit Capacity (tons)	Existing SEER	New SEER (Standard)	Proposed SEER
5	10	13	15.5

ECM #13: Lighting Improvements

All Buildings	TOTAL
Estimated Annual Savings:	**$150,570**
Gross Estimated Implementation Cost[1]:	**$1,506,900**
NJ Smart Start Rebate:	**$198,050**
Net Estimated Implementation Cost:	**$1,309,100**
Simple Payback (years):	**8.7**
Annual Avoided CO_2 Emissions (tons):	**328**

[1] Cost estimates based on actual costs of similar comprehensive lighting projects; see room-by-room surveys in Appendix for details.

- Overall, Dome-Tech found that the existing lighting systems were relatively efficient; however, several opportunities have been identified to reduce the energy consumption and cost of the lighting systems across the school district.
- The majority of the existing fixtures throughout the schools are 32 Watt T8 fixtures with standard ballasts. A small number of T12 and incandescent fixtures were found during the audit. The gymnasiums are largely illuminated with metal halide fixtures. Overall these existing fixtures are controlled manually.
- Dome-Tech recommends the existing T8 fixtures be retrofitted with 28 Watt T8 lamps and high efficiency, low power ballasts.
- For the existing metal halide fixture in some gymnasiums Dome-Tech recommends that these be retrofitted with high output T5 fixtures.
- New, energy-efficient lighting systems could improve the appearance of the facilities and the quality of the light while reducing energy consumption. Lamps and ballasts can be standardized as much as possible to reduce the inventory of replacement parts. The introduction of occupancy-based automatic lighting controls will allow the lighting in selected areas to shut off during periods of inactivity.
- Dome-Tech evaluated the economic feasibility of upgrading certain fixtures to Light Emitting Diodes (LED). Due to relatively high first cost and limited annual run hours, LEDs are not currently the best alternative for lighting upgrades.
- A detailed fixture-by-fixture list of recommendations and associated economics for each school can be found in the Appendix.

ECM #14: Install Thermostatic Radiator Valves

	#1	#04	#25	#28	#52	TOTAL
Estimated Annual Energy Cost Savings:	$880	$1,070	$420	$300	$1,060	**$3,730**
Gross Estimated Implementation Costs[1]:	$6,390	$7,560	$4,550	$2,180	$16,900	**$37,580**
NJ Smart Start Rebate[2]:	$0	$0	$0	$0	$0	**$0**
Net Estimated Implementation Costs:	$6,390	$7,560	$4,550	$2,180	$16,900	**$37,580**
Simple Payback (years):	7.3	7.1	10.8	7.3	15.9	**10.1**
Annual Avoided CO_2 Emissions (tons):	5	6	2	2	6	**21**

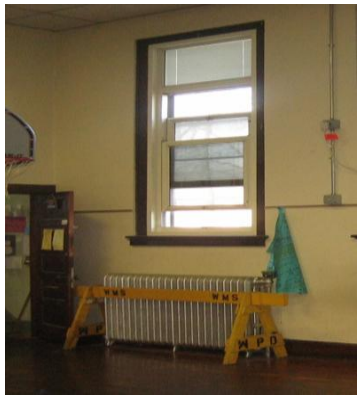
[1] Cost estimates based on *RS Means*.

[2] No prescriptive New Jersey Smart Start rebates are available for this measure.

A number of radiator control valves have failed or have been disconnect.

- There is no control of heating; therefore, windows are opened for relief.

- Dome-Tech recommends replacing failed or disconnected radiator control valves with thermostat control valves (with either internal thermostats heads or remote capillary thermostats)
- This is the simplest and lowest cost option which will allow room temperature setpoints to be maintained, improving comfort and savings energy.



ECM #15: Unit Ventilator Time of Day Optimization

All Buildings	
Estimated Annual Savings:	**$71,100**
Gross Estimated Implementation Cost[1]:	**$756,000**
NJ Smart Start Rebate[2]:	**$0**
Net Estimated Implementation Cost:	**$756,100**
Simple Payback (years):	**10.6**
Annual Avoided CO_2 Emissions (tons):	**464**

[1] Cost estimates based on Vendor quote.

[2] No prescriptive New Jersey Smart Start rebates are available for this measure.

- A review of the classroom unit ventilators, their controls, and space use revealed an opportunity to reduce HVAC operating hours and costs through occupancy control. In some cases, reprogramming schedules is also necessary.
- Generally, units currently operate from 6am to 9pm and provide ventilation during that time; however, the areas served are not occupied through that entire period. Integrating occupancy sensors with the local thermostat in each classroom will enable the unit to maintain only setback temperatures while the room is unoccupied. Availability of wireless control will also simplify cost of new wiring and installation ease.
- There are select devices from Cypress (www.cypressenvirosystems.com) and Viconics (*www.viconics.com*) that integrate well with existing pneumatic or electronic equipment control at these buildings. An example of each is graphically represented on this slide. Additional wiring may be needed in some cases where thermostat control is integral to the units.
- A reduction in conditioning needs and equipment life extension are some of the benefits. Similar to demand control ventilation strategies, this will also not impact the indoor air quality throughout the school days. The above costs include approximately 850 wall sensors, associated wiring, and programming labor.

ECM #16: Hot Water Pump VFD Controls

	#41
Estimated Annual Energy Cost Savings:	**$1,740**
Gross Estimated Implementation Costs[1]:	**$30,400**
NJ Smart Start Rebate:	**$2,400**
Net Estimated Implementation Costs:	**$28,000**
Simple Payback (years):	**16.1**
Annual Avoided CO_2 Emissions (tons):	**3**

[1] Cost estimates based on *RS Means*.

- The heating hot water pumps at Colonia Middle School are currently equipped with VFDs that operate the pumps at a fixed speed.
- Replacing the 3-way valves with 2-way valves on the unit ventilators (UV) and heating ventilation (HV) units and installing a differential pressure sensor will allow automated variable volume control, which will significantly reduce pumping energy by reducing pump speeds during lower load conditions.

ECM #17: Replace Window AC Units

All Buildings	
Estimated Annual Energy Cost Savings:	**$6,700**
Gross Estimated Implementation Costs[1]:	**$330,300**
NJ Smart Start Rebate[2]:	**$0**
Avoided Cost (Like and Kind Replacement):	**$256,900**
Net Estimated Implementation Costs:	**$73,000**
Simple Payback (years):	**10.9**
Annual Avoided CO_2 Emissions (tons):	**14**

Window AC Unit

[1] Cost estimates based on published retail costs.

[2] No prescriptive New Jersey Smart Start rebates are available for this measure.

- Approximately 734 Window air conditioning units are installed in the Woodbridge Township School District buildings that were audited. These units provide localized air conditioning throughout the buildings. There is a wide range of unit conditions across the schools.
- Dome-Tech recommends replacing the existing units at the end of their useful lives with new *Energy Star* rated units.
- The New *Energy Star* units have a 10.8 EER (Energy Efficiency Rating) standard which is 10% more efficient than the federal minimum EER.
- The above savings show the energy saved and associated costs between installing a new Energy Star units compared to a new conventional unit.
- The current Window air conditioning units are installed in plexiglass panels. When new units are installed they should be installed with insulated panels.
- As an alternative to replacing each window AC as they reach the end of life, the units could be replaced with variable refrigerant flow (VRF) split systems that could serve multiple rooms. A VRF split system is a single condensing unit with multiple evaporator units that can be located in different rooms. This configuration offers greater efficiency than *Energy Star* window AC units, but is a much higher first cost.

ECM #18: Replace Single Pane Windows

	#52	Admin Building (#82)	TOTAL
Estimated Annual Savings:	$990	$2,390	**$3,380**
Gross Estimated Implementation Cost[1]:	$29,100	$74,000	**$103,100**
NJ Smart Start Rebate[2]:	$0	$0	**$0**
Net Estimated Incremental Implementation Cost:	$29,100	$74,000	**$103,100**
Estimated Simple Payback (years):	29.4	31.0	**30.5**
Annual Avoided CO_2 Emissions (tons):	6	12	**18**

[1] Cost estimates based on *RS Means*.

[2] No prescriptive New Jersey Smart Start rebates are available for this measure.

Admin Building

Colonia High School & Administration Building

- The majority of the windows throughout the district have been recently replaced.
- There is one façade of the Colonia High School that still has original single pane windows.
- The entire Admin Building has old, single pane windows.
- These windows should be replaced and upgraded with new, double pane windows to help the buildings reduce heat and cooling loss.

Colonia High School

ECM #19: Replace Boilers with High Efficiency Modulating Condensing Boilers

- Several of the Woodbridge schools are equipped with older fire tube, heating hot water or steam boilers.
- For the most part, these boilers are old and are nearing or past the end of the equipment service life (ASHRAE states the service life of similar equipment to be 25 years).
- The ages, sizes, types and configurations of the boilers do not lend themselves to efficient operation. Generally, as boilers approach the end of their service life, the efficiency degrades and the boiler must consume more fuel in order to produce the same rated output. In addition, there is a direct correlation between risk of equipment failure (tube breaks & meltdown, shell cracks, furnace surface area failure) and equipment age.
- If the existing boilers could be replaced by high efficiency, modulating or modular condensing boilers, savings will be realized in two ways.
  - Modulating boilers, usually 1,000 MBH or smaller, employ multiple burners to meet the heating load. Each burner operates independently, eliminating the "all on/all off" operation of single burner boilers. As building loads increase only those burners necessary to meet the load are fired. This allows each burner to run at optimal efficiency. Modular boilers operate under the same principal but for larger installations. In this case multiple boilers are used rather than multiple burners. Modular boilers usually are employed in 1500, 2000 or 3000 MBH sizes.
  - Condensing boilers recover energy from the exhaust gas thus allowing efficiencies of 90% and above.
- When a boiler is both a modulating/modular type and a condensing type, extremely high efficiencies can be realized.

Old Fire-Tube Boiler #9 Port Reading Elementary

ECM #19: Replace Boilers with High Efficiency Modulating Condensing Boilers (cont'd)

- The high first cost of a new boiler system may preclude this ECM from being justified by economics alone at some of the facilities; however, reliability issues warrant consideration of these projects as part of a long-term capital improvement plan. The ECM table details the economics at each site

	#1	#4	#9	#11	#18	#21	#22	#26
Estimated Annual Savings:	$770	$1,200	$1,390	$1,800	$2,040	$1,160	$1,380	$630
Gross Estimated Implementation Cost[1]:	$181,000	$161,000	$181,000	$216,000	$218,000	$152,000	$178,000	$181,000
NJ Smart Start Rebate:	$4,000	$4,000	$4,000	$5,000	$6,000	$4,000	$5,000	$4,000
Avoided Cost (Like and Kind Replacement): *	$111,000	$102,000	$111,000	$166,000	$154,000	$93,300	$104,000	$111,000
Net Estimated Incremental Implementation Cost:	$65,900	$54,800	$65,900	$45,300	$57,800	$55,100	$69,200	$65,900
Estimated Simple Payback (years): *(Incremental and without Avoided Costs)*	85.6	45.7	47.4	25.2	28.3	47.5	50.1	104.6
Annual Avoided CO_2 Emissions (tons):	5	8	9	12	13	7	9	4

[1] Cost estimates based on *RS Means*.

NOTE 1: The presented economics should be used for planning purposes only. If the client decides to proceed with any boiler replacement project, these economics should be refined with an investment grade analysis.

* Note: Avoided Cost = Cost of Like and Kind replacement..

ECM #19: Replace Boilers with High Efficiency Modulating Condensing Boilers (cont'd)

	#27	#28	#40	#41	#44	#51	#52	TOTAL
Estimated Annual Savings:	$740	$1,400	$2,450	$1,680	$3,690	$7,500	$2,900	**$30,730**
Gross Estimated Implementation Cost[1]:	$211,000	$230,000	$368,000	$299,000	$331,000	$459,000	$437,000	**$3,803,000**
NJ Smart Start Rebate[2]:	$5,000	$6,000	$13,100	$10,500	$10,500	$15,800	$15,800	**$112,700**
Avoided Cost (Like and Kind Replacement): *	$124,000	$153,000	$206,000	$151,000	$183,000	$238,000	$216,000	**$2,121,300**
Net Estimated Incremental Implementation Cost:	$82,500	$71,100	$149,000	$138,000	$138,000	$206,000	$206,000	**$1,470,500**
Estimated Simple Payback (years): *(Incremental and without Avoided Costs)*	111.5	50.8	60.8	82.1	38.0	27.5	71.0	**47.9**
Annual Avoided CO_2 Emissions (tons):	5	9	16	11	24	50	19	**202**

NOTE 1: The presented economics should be used for planning purposes only. If the client decides to proceed with any boiler replacement project, these economics should be refined with an investment grade analysis.

* Note: Avoided Cost = Cost of Like and Kind replacement..

O&M Issue: Condensate Tank Insulation

Ross Street School #11 & Indiana Avenue School #18

- The #11 School and #18 School both have condensate return tanks with a large surface area, uninsulated.
- They should be insulated to reduce heat loss to the surrounding space.

School #11

School #18

O&M Issue: Ductwork Insulation

Ross Street School #11

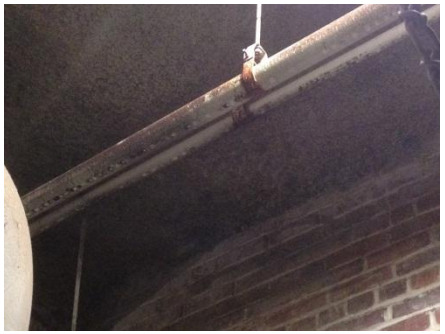
- Sheet metal, single wall ductwork was installed in the #11 School to bring in outdoor air to the unit ventilators in the upstairs courtyard classrooms.
- The teachers and students have complained about the cold temperature around the unit in the winter.
- The local staff has made an attempt to reduce the infiltration by covering the duct with plastic and sealing off the opening.
- The ducts should be properly insulated and OA openings should be sealed to eliminate infiltration and heat loss.

School #11

O&M Issue: Boiler Room Issues

Indiana Avenue School #18

- The boiler room at the #18 School was found to be very hot.
- The floor around the boiler was covered in water.
- There were steam leaks discovered in the boiler room and condensate being dumped to the drain.
- Condensation has formed on the uninsulated cold water piping and the windows in the corridor outside the boiler room.
- The existing issues in the boiler room should be addressed.



Condensation on CW Line in Boiler Room

Water Covers the Floor Around Boilers

Water Covers the Floor Around Boilers

Condensation on Inside of Window Just Outside Boiler Room Door

O&M Issue: Window AC Covers Missing

Multiple Schools

- Window AC units were found without front covers.
- Covers should be located and reinstalled.

Colonia HS

Fords MS

O&M Issue: Window AC Unit Fins - stopped

Multiple Schools

- Window AC units were found damaged or bent fins.
- The overall efficiency of the unit may be reduced since air cannot be sufficiently cycled across the coils and heat may be retained.
- The fins should either be combed back to normal position or units should be replaced.

School #11

School #21

School #26

O&M Issue: Window AC Internal Covers

Multiple Schools

- The local staff has made an attempt to reduce the infiltration by covering the window AC units with plastic and sealing off the opening.
- The window AC units should be properly insulated and OA openings should be sealed to eliminate infiltration and heat loss.

School #01

Admin Building

O&M Issue: Window AC Weather-stripping

Multiple Schools

- While most of the Window AC units throughout the district are well sealed, some Window AC units were found lacking adequate weather-stripping.
- Each unit should be inspected and resealed as necessary.

School #01

School #01

Admin Building

O&M Issue: Steam Leaks

Avenel Street School #04/05

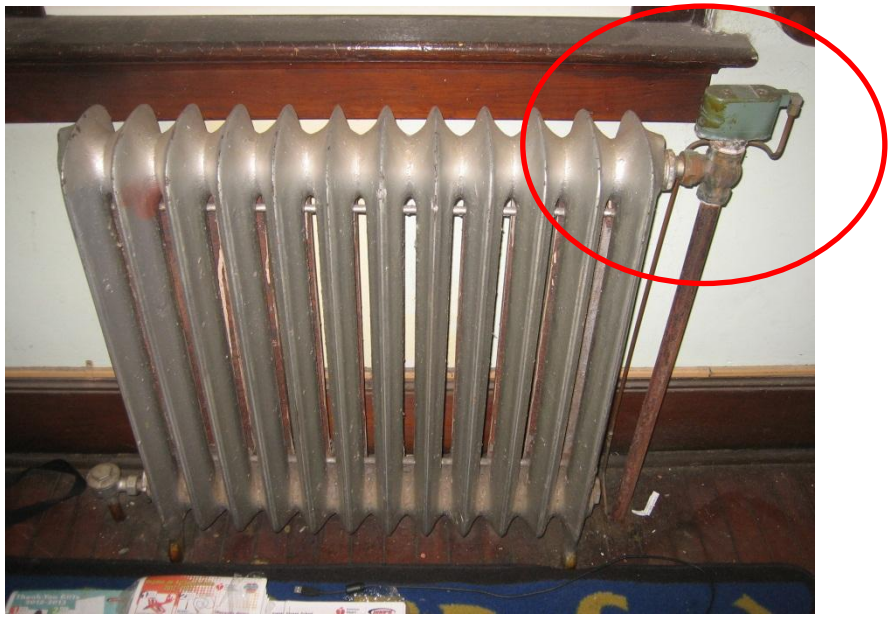
- Steam was found to be leaking from the flange in the steam line in the downstairs cafeteria at the #04/#05 school.

School #04/#05

O&M Issue: Broken Steam Radiator Valve

Avenel Street School #04/05

- The valves on the steam radiators in the #04/#05 school were found to be broken/leaking.
  - The gymnasium valve was struck by a ball and stuck in the open position, allowing the unit to reach very high temperatures.
  - The valve in the office adjacent to the stage was found to be leaking uncontrollably.
    - The occupant was forced to open the window above it to keep the temperate in the space at an appropriate temperature.
- All broken valves should be replaced.



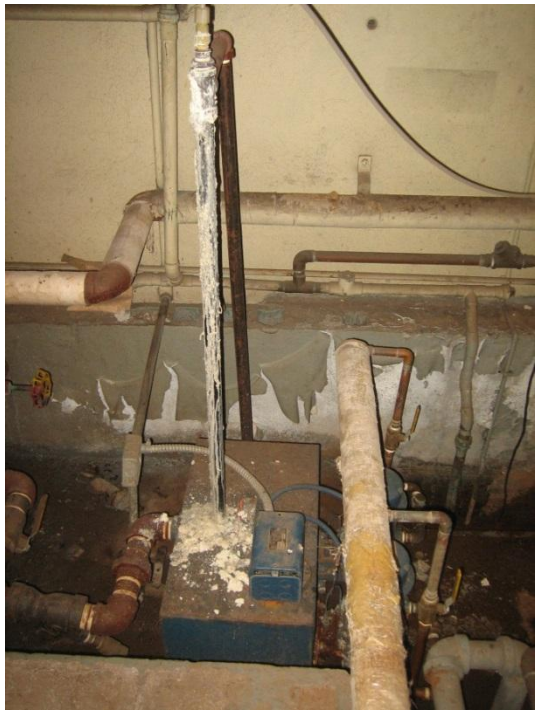
School #04/#05

O&M Issue: Condensate Tank Failure

Indiana Avenue School #18 & Avenel Street School #04/#05

- Condensate was being dumped to drain in the #18 School and #04/#05 School.
- It was noted that School #04/#05 had condensate dumping to drain due to recent equipment failure and is due for repair shortly.
- The condensate tanks should be tested periodically for proper operation.

School #18 – Condensate Dumping to Drain



School #04/#05 – Condensate Tank Failed

O&M Issue: Blocked Radiators / UVs

Multiple Schools

- Furniture was found in many locations to be blocking both the perimeter radiators as well as the intake and discharge of the unit ventilators.
- These areas should remain free of obstruction to allow the equipment to function as designed.

School #14

School #04/#05

O&M Issue: Timer's Pins Missing

Port Reading School #09

- The pins for the lighting timer were not installed, causing the timer to lose functionality.
- Pins should be reinstalled in appropriate locations to allow for proper use.

School #09

O&M Issue: AHU Access Panels Removed

Oak Ridge Heights School #21

- The access panel to the electrical section of the AHU on the roof of the #21 School was missing.
- The panel should be located and reinstalled.

School #21

O&M Issue: Pneumatics Disconnected

Matthew Jago School #28

- The school originally utilized pneumatic controls to open and close the perimeter radiators.
- The pneumatics have since been abandoned, and pneumatic lines to valves are cut.
- There is no current control of the radiator temperature, causing the space to become overheated.
- With no other option to reduce heat output, occupants tend to open the windows, causing simultaneous heating and cooling.
- The District should investigate options to rectify this issue so that the valves can be automatically controlled.

School #28

School #28

O&M Issue: Gravity Vent Caps Missing

Colonia High School #52

- The top cap was missing from one gravity ventilator at the Colonia High School.
- Cap should be replaced.

Colonia High School

Renewable/Distributed Energy Measures

Distributed Generation & Renewable Energy

- Distributed Generation (on-site generation) generates electricity from many small energy sources. These sources can be renewable (solar/wind/geothermal) or can be small scale power generation technologies (CHP, fuel cells, microturbines).

- Renewable energy is energy generated from natural resources (sunlight, wind, and underground geothermal heat) which are naturally replenished.

Renewable Energy Technologies: Wind

Wind turbines generate electricity by harnessing a wind stream's kinetic energy as it spins the turbine airfoils. As with most renewable energy sources, wind energy is subject to intermittent performance due to the unpredictability of wind resources.

Woodbridge, NJ Wind Speed

As previously stated, wind speed is critical to the successful wind turbine installation. According to average wind data from NASA's Surface Meteorology and Solar Energy records, the average annual wind speed for the Woodbridge area is **5.8 meters per second** at 50 meters above the surface of the earth. Ideal wind speeds for a successful project should average over **6 meters per second**.

For the Woodbridge School District, Dome-Tech considered three (3) types of wind turbine technologies; building integrated wind turbines (1 kW each) and traditional ground mounted wind turbines (5 kW & 50 kW).

Building Integrated Wind Turbines
Model: AeroVironment AVX1000
Height: 8.5'
Rotor Diameter: 6'
Weight: 130 lbs.
Cut-In Wind Speed: 2.2 m/s
Maximum Generating Capacity: 1 kW

5 kW Ground Mount
Model: WES5 Tulipo
Height: 40'
Rotor Diameter: 16'
Weight: 1,900 lbs.
Cut-In Wind Speed: 3.0 m/s
Maximum Generating Capacity: 5.2 kW

50 kW Ground Mount
Model: Entegrity EW50
Height: 102'
Rotor Diameter: 50'
Weight: 21,000 lbs.
Cut-In Wind Speed: 4.0 m/s
Maximum Generating Capacity: 50 kW

Renewable Energy Technologies: Wind (cont'd)

The project economics and wind turbine pros and cons are presented in the following tables:

Woodbridge Twp BOE: Wind Turbine Economics			
	Building Integrated	Ground Mount 5 kW	Ground Mount 50 kW
Gross Installation Cost Estimate	$325,000	$312,000	$250,000
Annual Energy Savings	$5,121	$8,082	$15,245
Simple Payback	63.5 yrs.	38.6 yrs.	16.4 yrs.
System Capacity	20 kW	52 kW	50 kW
Annual Avoided Energy Use	37,108 kWh	58,567 kWh	110,472 kWh
Annual Avoided CO2 Emmisions, Tons	13	20	39
% of Annual Electric Use*	0.5%	0.7%	1.4%
*Woodbridge Twp BOE: 7960000 kWh/Year.			

Wind Turbine Pros & Cons

Pros	Cons
➢ Annual reduction in energy spend and use can be potentially reduced by almost $16,000 (1.4% reduction). ➢ Typical equipment life span is 15-30 years. ➢ Reduction of annual greenhouse gas emissions by 39 tons per year. ➢ A wind turbine project could be incorporated into science and other curriculums to raise student awareness of energy alternatives. ➢ High visible "green" project.	➢ Payback period is at least 16.0 years. ➢ Average area wind speed is just below minimum requirements. ➢ Prone to lighting strikes. ➢ Bird collisions are likely, but may be reduced with avian guard (building integrate only). ➢ Zoning may be an issue. Check with local zoning regulations. ➢ Wind turbines do create noise, although below 50 dB (a typical car ride is over 80 dB).

Due paybacks of over 16.0 years and the average area wind speed at 50 meters above ground level is just below the minimum requirement, it does not appear that a wind turbine project would be successful for the Woodbridge Township School District. Should the Woodbridge Township School District decide to pursue a wind turbine project, Dome-Tech recommends commissioning a more detailed study.

The New Jersey State Clean Energy Program does not currently provide rebates for small wind system projects.

Renewable Energy Technologies: Solar Photovoltaic

- Woodbridge Township School District has installed solar PV systems on twelve (12) schools and has been seeing the benefits including reduced electric costs, SREC revenue and educational opportunities.

Renewable Energy Technologies: CHP/Cogeneration

- CHP (combined heat and power) or cogeneration is the use of a heat engine to simultaneously generate both electricity and useful heat.
- Fuel Cells are electrochemical conversion devices that operate by catalysis, separation the protons and the electrons of the reactant fuel, and forcing the electrons to travel through a circuit to produce electricity. The catalyst is typically a platinum group metal or alloy. Another catalytic process takes the electrons back in, combining them with the protons and oxidant, producing waste products (usually water and carbon dioxide).
- Microturbines are rotary engines that extract energy from a flow of combustion gas. They can be used with absorption chillers to provide cooling through waste heat rather than electricity. Microturbines are best suited for facilities with year-round thermal and/or cooling loads.
- Not recommended for Woodbridge Township Schools due to the lack of thermal requirements in the summertime.

Water Conservation

- The Woodbridge BOE has an opportunity to reduce water consumption by installing higher efficiency fixtures including faucets, toilets and urinals.
- On average, by installing low-flow faucets, toilets and urinals, the District could save approximately **500 gallons** per occupant per year and **22,000 BTU** of hot water per occupant per year, which equates to approximately **$5 annual savings per occupant**.

Demand Response

- Demand response is electric customers reducing their use of electricity in response to grid emergency events or whole sale market prices.
- In order to take advantage of demand response opportunities for emergency events, the District would need the capability to reduce electric demand at a moments notice at all schools, which requires enterprise level (or district-wide) building automation and controls capability.
- Additionally, emergency events typically occur during peak summer months when electric demand on the grid is highest. Due to the nature of the Schools' operation, load curtailment opportunities are limited during these times.
- Due to a lack of a district-wide building automation system capable of reducing electric load/demand during an emergency or market price event, demand response is not currently a viable option for Woodbridge BOE.

Utility Tariff and Rate Review: Electricity

- **Accounts and Rate Class:** Woodbridge BOE has twenty-five (25) facilities included in this study served by forty-three (43) electric accounts behind Public Service Electric & Gas under rate classes General Large Power (GLP) or Large Power & Lighting Secondary (LPL-S). For the period studied, Direct Energy was the third party supplier for a majority of the accounts at a fixed rate of $0.0880 per kWh. (Supplier contracts were not provided therefore the contract term was undetermined. Some accounts remained with the utility for supply service.)

- **Electric Consumption and Cost:** Based on the one-year period studied, the total annual electric expenditure for the District was about $1,100,000 and the total annual consumption was about 7,960,000 kilowatt-hours (kWh).

- **Average/Effective Rate per kWh:** For the one year period studied, the District's average monthly cost per kilowatt-hour ranged from 11.11¢/kWh to 30.16¢/kWh, inclusive of utility delivery charges. The District's overall, average cost per kilowatt-hour during this period was 13.8¢/kWh.
  - *Note that these average electric rates are "all–inclusive"; that is, they include all supply service (generation and commodity-related) charges, as well as all delivery service charges. The supply service charges typically represent the majority (60-80%) of the total monthly bill. It is the supply portion of your bill that is deregulated, which is discussed on subsequent slides in this section.*

Utility Tariff and Rate Review: Natural Gas

- **Accounts and Rate Class**: Woodbridge BOE has twenty-five (25) facilities included in this study served by thirty-one (31) natural gas accounts behind Elizabethtown Gas company under various rate classes with Firm Transportation. For the period studied, the third party supplier for each account was Woodruff Energy. All accounts were billed at a monthly fixed rate which fluctuated during seasons. The summer fixed rate was $0.54 per therm and the winter rate was $0.60 per therm.

- **Natural Gas Consumption and Cost**: Based on the one-year period studied, the total annual natural gas expenditure for the District was about $660,000 and the total annual consumption was about 741,000 therms. Natural Gas is used mostly in the winter period for heating purposes.

- **Average/Effective Rate per Therm**: For the one year period studied, the District's overall, average cost for $0.893 per therm.
  - *Note that these average electric rates are "all–inclusive"; that is, they include all supply service (generation and commodity-related) charges, as well as all delivery service charges. The supply service charges typically represent the majority (60-80%) of the total monthly bill. It is the supply portion of your bill that is deregulated, which is discussed on subsequent slides in this section.*

Utility Deregulation in New Jersey: Background and Retail Energy Purchasing

- **Electric Accounts**:
  - In August 2003, per the Electric Discount and Energy Competition Act [N.J.S.A. 48:3-49], the State of New Jersey deregulated its electric marketplace thus making it possible for customers to shop for a third-party (someone other than the utility) supplier of retail electricity.
  - Per this process, every single electric account for every customer in New Jersey was placed into one of two categories: "BGS-FP" or "BGS-CIEP". BGS-FP stands for Basic Generation Service-Fixed Price; BGS-CIEP stands for Basic Generation Service-Commercial and Industrial Energy Pricing.
  - At its first pass, this categorization of accounts was based on rate class. The largest electric accounts in the State (those served under a Primary or a Transmission-level rate class) were moved into BGS-CIEP pricing. All other accounts (the vast majority of accounts in the State of New Jersey, including residential) were placed in the BGS-FP category, receiving default electric supply service from the utility.
  - The New Jersey Board of Public Utilities (NJBPU) has continued to move new large energy users from the BGS-FP category into the BGS-CIEP category by lowering the demand (kW) threshold for electric accounts receiving Secondary service. Originally, this threshold started at 1,500kW; now, it has come down to 750 kW. So, if an account's "peak load contribution" (as assigned by the utility) is less than 750 kW, then that facility/account is in the BGS-FP category. If you are unsure, you may contact Dome-Tech for assistance.

Utility Deregulation in New Jersey: Background and Retail Energy Purchasing

- **Electric Accounts:**
  - There are at least 3 important differentiating factors to note about each rate category:
    1. The rate structure for BGS-FP accounts is different than the rate structure for BGS-CIEP accounts.
    2. The "do-nothing" option (i.e., what happens when you don't shop for retail energy) varies.
    3. The decision about whether, and why, to shop for a retail provider varies.

- **BGS-FP: Secondary (small to medium) Electric Accounts:**
  - BGS-FP rate schedules for all utilities are set, and re-set, each year. Per the results of our State's BGS Auction process, held each February, new utility default rates go into effect every year on June 1st. The BGS-FP rates become each customer's default rates, and they dictate a customer's "Price to Compare" (benchmark) for shopping purposes. To learn more about the BGS Auction process, please go to www.bgs-auction.com.
  - A customer's decision about whether to buy energy from a retail energy supplier is, therefore, predominantly dependent upon whether a supplier can offer rates that are lower than the utility's (default) Price to Compare.

- **BGS-CIEP: Primary (large) Electric Accounts:**
  - The BGS-CIEP category is quite different. These accounts pay an hourly market rate for energy when they do not switch to a retail provider.
  - For BGS-CIEP accounts, the process of setting forth a buying strategy can be complex, which is why many public entities seek professional assistance when shopping for energy.
  - For more information concerning hourly electric market prices for our region, please refer to www.pjm.com.

Utility Deregulation in New Jersey: Background and Retail Energy Purchasing

- **Natural Gas Accounts**:
  - The natural gas market in New Jersey is also deregulated. Most customers that remain with the utility for natural gas service pay rates that are market-based and that fluctuate on a monthly basis. While natural gas is a commodity that is exceptionally volatile and that is traded minute-by-minute during open trading sessions, market rates are "settled" monthly, 3 business days prior to the subsequent month (this is called the "prompt month"). Customers that do not shop for a natural gas supplier will typically pay this monthly settlement rate to the utility, plus other costs that are necessary to bring gas from Louisiana (The "Henry Hub") up to New Jersey (at the "City Gate") and ultimately to your facility.
  - For additional information about natural gas trading and current market futures rates for various commodities, you can refer to www.nymex.com.
  - A customer's decision about whether to buy natural gas from a retail supplier is typically dependent upon whether a customer seeks budget certainty and/or longer-term rate stability. Customers can secure longer-term fixed prices by enlisting a retail natural gas supplier. Many larger natural gas customers also seek the assistance of a professional consultant to assist in their procurement process.

Retail Energy Purchasing: Recommendations

Energy Purchasing Co-Operatives

- Many public entities participate in various energy aggregation buying groups. Sometimes, an entity will have multiple options to choose from. These might include purchasing through a County co-operative, or purchasing through a trade-type association like Alliance for Competitive Energy Services (ACES), which Woodbridge BOE participates. Co-operative purchasing may not necessarily provide you with the lowest rates; however, there is often substantial volume, and it can represent a good alternative for entities with limited energy consumption who can have a difficult time getting energy suppliers to respond to them on a direct, singular basis.

Electric

- Supplier contracts were not provided; therefore, Dome-Tech was unable to include further contract details in this report such as term of length or type of product. Based on information received, it is assumed the District locked into a fixed price contract with Direct Energy through the purchasing co-operative ACES. The District should continue with this type of electric procurement strategy.

Natural Gas

- Supplier contracts were not provided; therefore, Dome-Tech was unable to include further contract details in this report such as term of length or type of product. Based on information received, the District locked into a hybrid fixed-variable price contract with Woodruff Energy through ACES or a similar program.
- If the District is seeking budget certainty or would like to reduce their market exposure for Natural Gas, the District should consider a fixed price contract with a supplier. Further details are outlined in subsequent pages of this report.

Retail Energy Purchasing: Resources

- To learn more about energy deregulation, visit the New Jersey Board of Public Utilities website: www.bpu.state.nj.us
- For more information about the retail energy supply companies that are licensed and registered to serve customers in New Jersey, visit the following website for more information: http://www.bpu.state.nj.us/bpu/commercial/shopping.html
- Provided below is a list of NJ BPU-licensed retail energy suppliers:

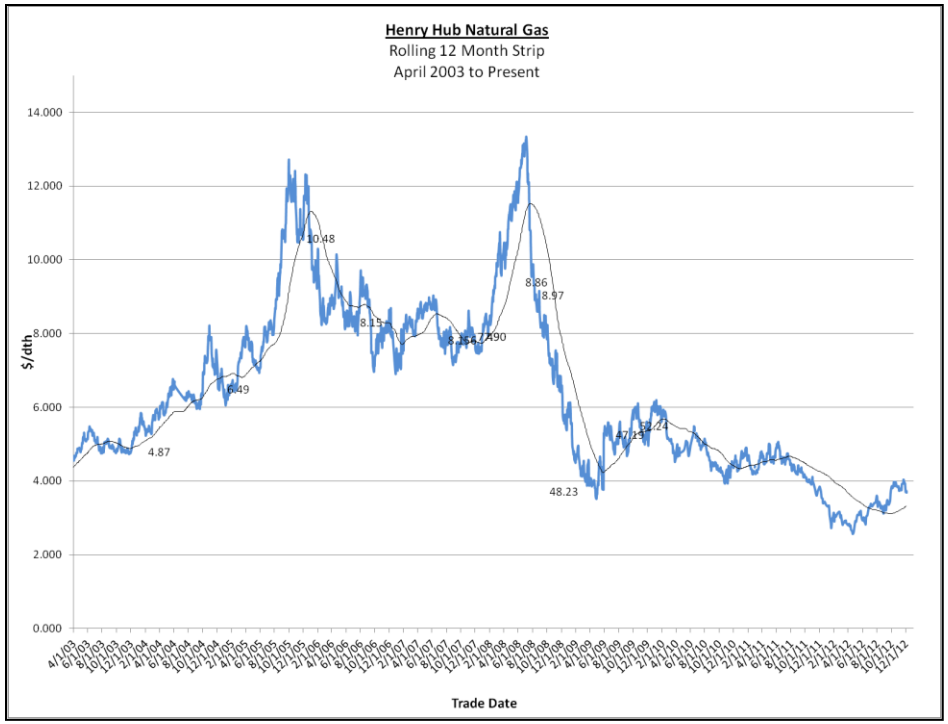
Company	Electricity	Natural Gas	Website
Hess Corporation	X	X	hess.com
South Jersey Energy	X	X	southjerseyenergy.com
Constellation / Exelon	X	X	newenergy.com
UGI	X	X	ugienergyservices.com
Direct Energy	X	X	directenergy.com
Hudson	X	X	hudsonenergyservices.com
Sprague	X	X	spragueenergy.com
Liberty Power	X		libertypowercorp.com
Reliant / NRG	X		reliant.com
First Energy Solutions	X		fes.com
ConEd Solutions	X		conedsolutions.com
PPL	X		pplweb.com
Integrys	X		integrysenergy.com
Suez	X		suezenergyresources.com
NextEra	X		gexaenergy.com
Woodruff		X	woodruffenergy.com
Global		X	globalpower.com
Great Eastern		X	greateasterngas.com

**Note: Not every Supplier is listed nor serves customers in all utility territories within New Jersey. Refer to the BPU website for a complete and current supplier list.*

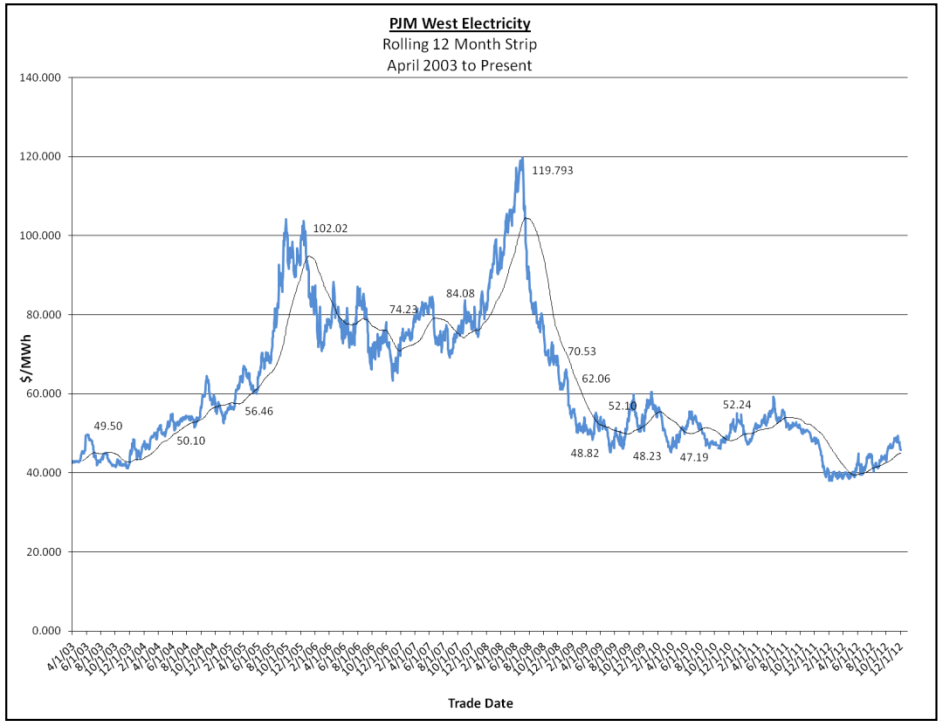
Historical Energy Futures Settlement Prices

Below please find graphs that show the last ten years' worth of market settlement prices for both natural gas and electricity. Each of these graphs shows the average closing prices of a rolling 12-month period of energy futures prices. The graphs are representative of the commodity, alone; they do not include any of the additional components (capacity, transmission, ancillary services, etc.) that comprise a retail energy price. They are meant to provide an indication of the level of pricing that a particular customer might expect to see, but the graphs do not account for the specific load profile of any individual energy user.

Natural Gas



Electricity



Potential Project Funding Sources

Through the NJ Clean Energy Program, the New Jersey Board of Public Utilities currently offers a variety of subsidies or rebates for many of the project types outlined in this report. More detailed information can be found at: www.njcleanenergy.com

NJ Smart Start Buildings – Equipment Rebates noted in ECMs where available.
Equipment Rebates: Water Heaters, Lighting, Lighting Controls/Sensors, Chillers, Boilers, Heat Pumps, Air Conditioners, Energy Management, Systems/Building Controls, Motor-ASDs/VSDs, Custom/Others.
http://www.njcleanenergy.com/commercial-industrial/programs/nj-smartstart-buildings/nj-smartstart-buildings

Pay for Performance Program – Performance-Based Incentives for installations. Provides incentives of up to $0.11/ kWh and $1.25/ therm saved; up to 25% of total project cost. A minimum reduction target of 15% compared to baseline must be achieved. Energy modeling of building and systems and energy reduction plan is required (incentives provided to pay for part of study costs).
http://www.njcleanenergy.com/commercial-industrial/programs/pay-performance/existing-buildings

Energy Savings Improvement Program (ESIP) – Public entities can contract with energy saving companies (ESCO) in up to 20-year lease purchases enabling public entities to implement energy conservation measures at their facilities, and pay for the costs using the value of energy savings that result from the improvements. A "Do It Yourself" approach allows the public entity to contract with an engineering firm(s) to develop an Energy Savings Plan, develop plans and specs, oversee construction, commissioning, etc. (No ESCO is needed for the Do It Yourself approach).
http://www.njcleanenergy.com/commercial-industrial/programs/energy-savings-improvement-program

Potential Project Funding Sources (cont'd)

Direct Install Program – NJ Clean Energy makes the investment in energy efficiency upgrades by initially covering 70% of the cost to install the recommended energy efficiency measures (up to $75,000 per project). If eligible, the entity will pay ONLY 30% of the total cost to install the energy efficiency measures.
http://www.njcleanenergy.com/commercial-industrial/programs/direct-install

We encourage you to contact the program directly for further information

Steps to Participate for Buildings:

1. **CONTACT THE PARTICIPATING CONTRACTOR IN YOUR AREA**
   Identify the contractor assigned and trained to provide Direct Install services in the county where your project is located. Using the contact information provided, call or email the Participating Contractor to discuss your project. The contractor will schedule an Energy Assessment and work with you to complete the Program Application and Participation Agreement. If you're unable to contact the Participating Contractor or have questions, you may contact us at 866-NJSMART or send an e-mail to DirectInstall@trcsolutions.com..

2. **REVIEW RESULTS**
   After the Energy Assessment, the contractor will review results with you, including what measures qualify and your share of the project cost.

3. **DECIDE TO MOVE FORWARD**
   You will sign a Scope of Work document to proceed with implementation of qualifying measures.

4. **ARRANGE INSTALLATION**
   You and the Participating Contractor will set a convenient start date for the installation.

5. **CONFIRM INSTALLATION**
   Once the Participating Contractor completes the installation, you accept the work by signing a Project Completion Form. A program representative will approve the project as complete.

6. **COMPLETE TRANSACTION**
   You pay the Participating Contractor your share of the project cost and the program pays its share.

Next Steps

- **The following projects should be considered for implementation:**
  - Computer Power Management
  - Vending Machine Power Management
  - Boiler Controls
  - Heating Pump Controls
  - Optimize Air Handling Unit Schedules
  - Weatherization Measures
  - Hot Water and Steam Piping Insulation
  - Upgrade Unit Ventilator Controls to allow time of day scheduling
  - Boiler Replacements
  - Rooftop Unit Replacements

  Note that additional "Phase 2" engineering may be required to further develop these projects, to bring them to bidding and implementation.

  - **Consider applying for Pay-For-Performance Program and/or Energy Savings Improvement Program**

Dome-Tech, Inc.

www.dome-tech.com

510 Thornall Street, Suite 170
Edison, NJ 08837

Tel: 732.590.0122
Fax: 732.590.0129

PORTFOLIO MANAGER / ENERGY STAR

OMB No. 2060-0347

STATEMENT OF ENERGY PERFORMANCE
Woodbridge - Mawbey Street Elementary School (#01)

Building ID: 3485936
For 12-month Period Ending: November 30, 2012[1]
Date SEP becomes ineligible: N/A
Date SEP Generated: April 22, 2013

Facility
Woodbridge - Mawbey Street Elementary School (#01)
275 Mawbey Street (#01)
Woodbridge, NJ 07095

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

Year Built: 1920
Gross Floor Area (ft²): 27,930

Energy Performance Rating[2] (1-100) 96

Site Energy Use Summary[3]

Electricity - Grid Purchase(kBtu)	437,139
Natural Gas (kBtu)[4]	1,036,798
Total Energy (kBtu)	1,473,937

Energy Intensity[4]

Site (kBtu/ft²/yr)	53
Source (kBtu/ft²/yr)	91

Emissions (based on site energy use)

Greenhouse Gas Emissions ($MtCO_2e$/year)	117

Electric Distribution Utility
Public Service Electric & Gas Co

National Median Comparison

National Median Site EUI	104
National Median Source EUI	179
% Difference from National Median Source EUI	-49%
Building Type	K-12 School

Stamp of Certifying Professional

Based on the conditions observed at the time of my visit to this building, I certify that the information contained within this statement is accurate.

Certifying Professional
N/A

Meets Industry Standards[5] **for Indoor Environmental Conditions:**

Ventilation for Acceptable Indoor Air Quality	**N/A**
Acceptable Thermal Environmental Conditions	**N/A**
Adequate Illumination	**N/A**

Notes:
1. Application for the ENERGY STAR must be submitted to EPA within 4 months of the Period Ending date. Award of the ENERGY STAR is not final until approval is received from EPA.
2. The EPA Energy Performance Rating is based on total source energy. A rating of 75 is the minimum to be eligible for the ENERGY STAR.
3. Values represent energy consumption, annualized to a 12-month period.
4. Values represent energy intensity, annualized to a 12-month period.
5. Based on Meeting ASHRAE Standard 62 for ventilation for acceptable indoor air quality, ASHRAE Standard 55 for thermal comfort, and IESNA Lighting Handbook for lighting quality.

The government estimates the average time needed to fill out this form is 6 hours (includes the time for entering energy data, Licensed Professional facility inspection, and notarizing the SEP) and welcomes suggestions for reducing this level of effort. Send comments (referencing OMB control number) to the Director, Collection Strategies Division, U.S., EPA (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460.

FOR YOUR RECORDS ONLY. DO NOT SUBMIT TO EPA.

Please keep this Facility Summary for your own records; do not submit it to EPA. Only the Statement of Energy Performance (SEP), Data Checklist and Letter of Agreement need to be submitted to EPA when applying for the ENERGY STAR.

Facility
Woodbridge - Mawbey Street Elementary School (#01)
275 Mawbey Street (#01)
Woodbridge, NJ 07095

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

General Information

Woodbridge - Mawbey Street Elementary School (#01)	
Gross Floor Area Excluding Parking: (ft^2)	27,930
Year Built	1920
For 12-month Evaluation Period Ending Date:	November 30, 2012

Facility Space Use Summary

Woodbridge - Mawbey Street Elementary School (#01)	
Space Type	K-12 School
Gross Floor Area (ft^2)	27,930
Open Weekends?	No
Number of PCs	109
Number of walk-in refrigeration/freezer units	0
Presence of cooking facilities	Yes
Percent Cooled	90
Percent Heated	100
Months °	10
High School?	No
School District °	N/A

Energy Performance Comparison

	Evaluation Periods		Comparisons		
Performance Metrics	**Current** (Ending Date 11/30/2012)	**Baseline** (Ending Date 11/30/2012)	**Rating of 75**	**Target**	**National Median**
Energy Performance Rating	96	96	75	N/A	50
Energy Intensity					
Site (kBtu/ft^2)	53	53	81	N/A	104
Source (kBtu/ft^2)	91	91	140	N/A	179
Energy Cost					
$/year	N/A	N/A	N/A	N/A	N/A
$/$ft^2$/year	N/A	N/A	N/A	N/A	N/A
Greenhouse Gas Emissions					
$MtCO_2e$/year	117	117	180	N/A	230
$kgCO_2e/ft^2$/year	4	4	6	N/A	8

More than 50% of your building is defined as K-12 School. Please note that your rating accounts for all of the spaces listed. The National Median column presents energy performance data your building would have if your building had a median rating of 50.

Notes:
o - This attribute is optional.
d - A default value has been supplied by Portfolio Manager.

OMB No. 2060-0347

STATEMENT OF ENERGY PERFORMANCE
Woodbridge - Avenel Street Elementary School (#4/5)

Building ID: 3485973
For 12-month Period Ending: November 30, 2012[1]
Date SEP becomes ineligible: N/A
Date SEP Generated: April 22, 2013

Facility
Woodbridge - Avenel Street Elementary School (#4/5)
230 Avenel Street
Avenel, NJ 07001

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

Year Built: 1912
Gross Floor Area (ft²): 41,979

Energy Performance Rating[2] (1-100) 66

Site Energy Use Summary[3]

Electricity - Grid Purchase(kBtu)	739,052
Natural Gas (kBtu)[4]	2,527,172
Total Energy (kBtu)	3,266,224

Energy Intensity[4]

Site (kBtu/ft²/yr)	78
Source (kBtu/ft²/yr)	122

Emissions (based on site energy use)

Greenhouse Gas Emissions ($MtCO_2e$/year)	239

Electric Distribution Utility
Public Service Electric & Gas Co

National Median Comparison

National Median Site EUI	91
National Median Source EUI	142
% Difference from National Median Source EUI	-14%
Building Type	K-12 School

Stamp of Certifying Professional

Based on the conditions observed at the time of my visit to this building, I certify that the information contained within this statement is accurate.

Certifying Professional
N/A

Meets Industry Standards[5] **for Indoor Environmental Conditions:**

Ventilation for Acceptable Indoor Air Quality	**N/A**
Acceptable Thermal Environmental Conditions	**N/A**
Adequate Illumination	**N/A**

Notes:
1. Application for the ENERGY STAR must be submitted to EPA within 4 months of the Period Ending date. Award of the ENERGY STAR is not final until approval is received from EPA.
2. The EPA Energy Performance Rating is based on total source energy. A rating of 75 is the minimum to be eligible for the ENERGY STAR.
3. Values represent energy consumption, annualized to a 12-month period.
4. Values represent energy intensity, annualized to a 12-month period.
5. Based on Meeting ASHRAE Standard 62 for ventilation for acceptable indoor air quality, ASHRAE Standard 55 for thermal comfort, and IESNA Lighting Handbook for lighting quality.

The government estimates the average time needed to fill out this form is 6 hours (includes the time for entering energy data, Licensed Professional facility inspection, and notarizing the SEP) and welcomes suggestions for reducing this level of effort. Send comments (referencing OMB control number) to the Director, Collection Strategies Division, U.S., EPA (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460.

FOR YOUR RECORDS ONLY. DO NOT SUBMIT TO EPA.

Please keep this Facility Summary for your own records; do not submit it to EPA. Only the Statement of Energy Performance (SEP), Data Checklist and Letter of Agreement need to be submitted to EPA when applying for the ENERGY STAR.

Facility
Woodbridge - Avenel Street Elementary School (#4/5)
230 Avenel Street
Avenel, NJ 07001

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

General Information

Woodbridge - Avenel Street Elementary School (#4/5)	
Gross Floor Area Excluding Parking: (ft^2)	41,979
Year Built	1912
For 12-month Evaluation Period Ending Date:	November 30, 2012

Facility Space Use Summary

Avenel Street Elementary School #4/5	
Space Type	K-12 School
Gross Floor Area (ft^2)	41,979
Open Weekends?	No
Number of PCs	30
Number of walk-in refrigeration/freezer units	0
Presence of cooking facilities	Yes
Percent Cooled	90
Percent Heated	100
Months °	10
High School?	No
School District °	N/A

Energy Performance Comparison

	Evaluation Periods		Comparisons		
Performance Metrics	**Current** (Ending Date 11/30/2012)	**Baseline** (Ending Date 11/30/2012)	**Rating of 75**	**Target**	**National Median**
Energy Performance Rating	66	66	75	N/A	50
Energy Intensity					
Site ($kBtu/ft^2$)	78	78	71	N/A	91
Source ($kBtu/ft^2$)	122	122	111	N/A	142
Energy Cost					
$/year	N/A	N/A	N/A	N/A	N/A
$/$ft^2$/year	N/A	N/A	N/A	N/A	N/A
Greenhouse Gas Emissions					
$MtCO_2e$/year	239	239	218	N/A	278
$kgCO_2e/ft^2$/year	6	6	5	N/A	7

More than 50% of your building is defined as K-12 School. Please note that your rating accounts for all of the spaces listed. The National Median column presents energy performance data your building would have if your building had a median rating of 50.

Notes:
o - This attribute is optional.
d - A default value has been supplied by Portfolio Manager.

OMB No. 2060-0347

STATEMENT OF ENERGY PERFORMANCE
Woodbridge - Port Reading Elementary School (#09)

Building ID: 3486030
For 12-month Period Ending: November 30, 2012[1]
Date SEP becomes ineligible: N/A
Date SEP Generated: April 22, 2013

Facility
Woodbridge - Port Reading Elementary School (#09)
77 Turner Street
Port Reading, NJ 07064

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

Year Built: 1962
Gross Floor Area (ft²): 47,198

Energy Performance Rating[2] (1-100) 83

Site Energy Use Summary[3]

Electricity - Grid Purchase(kBtu)	793,025
Natural Gas (kBtu)[4]	1,937,177
Total Energy (kBtu)	2,730,202

Energy Intensity[4]

Site (kBtu/ft²/yr)	58
Source (kBtu/ft²/yr)	99

Emissions (based on site energy use)

Greenhouse Gas Emissions ($MtCO_2e$/year)	215

Electric Distribution Utility
Public Service Electric & Gas Co

National Median Comparison

National Median Site EUI	83
National Median Source EUI	142
% Difference from National Median Source EUI	-30%
Building Type	K-12 School

Stamp of Certifying Professional

Based on the conditions observed at the time of my visit to this building, I certify that the information contained within this statement is accurate.

Certifying Professional
N/A

Meets Industry Standards[5] **for Indoor Environmental Conditions:**

Ventilation for Acceptable Indoor Air Quality	**N/A**
Acceptable Thermal Environmental Conditions	**N/A**
Adequate Illumination	**N/A**

Notes:
1. Application for the ENERGY STAR must be submitted to EPA within 4 months of the Period Ending date. Award of the ENERGY STAR is not final until approval is received from EPA.
2. The EPA Energy Performance Rating is based on total source energy. A rating of 75 is the minimum to be eligible for the ENERGY STAR.
3. Values represent energy consumption, annualized to a 12-month period.
4. Values represent energy intensity, annualized to a 12-month period.
5. Based on Meeting ASHRAE Standard 62 for ventilation for acceptable indoor air quality, ASHRAE Standard 55 for thermal comfort, and IESNA Lighting Handbook for lighting quality.

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Facility
Woodbridge - Port Reading Elementary School (#09)
77 Turner Street
Port Reading, NJ 07064

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

General Information

Woodbridge - Port Reading Elementary School (#09)	
Gross Floor Area Excluding Parking: (ft^2)	47,198
Year Built	1962
For 12-month Evaluation Period Ending Date:	November 30, 2012

Facility Space Use Summary

Port Reading Elementary School (#09)	
Space Type	K-12 School
Gross Floor Area (ft^2)	47,198
Open Weekends?	No
Number of PCs	48
Number of walk-in refrigeration/freezer units	0
Presence of cooking facilities	Yes
Percent Cooled	90
Percent Heated	100
Months °	10
High School?	No
School District °	N/A

Energy Performance Comparison

	Evaluation Periods		Comparisons		
Performance Metrics	**Current** (Ending Date 11/30/2012)	**Baseline** (Ending Date 11/30/2012)	**Rating of 75**	**Target**	**National Median**
Energy Performance Rating	83	83	75	N/A	50
Energy Intensity					
Site (kBtu/ft^2)	58	58	65	N/A	83
Source (kBtu/ft^2)	99	99	111	N/A	142
Energy Cost					
$/year	N/A	N/A	N/A	N/A	N/A
$/$ft^2$/year	N/A	N/A	N/A	N/A	N/A
Greenhouse Gas Emissions					
$MtCO_2e$/year	215	215	242	N/A	309
$kgCO_2e/ft^2$/year	5	5	6	N/A	7

More than 50% of your building is defined as K-12 School. Please note that your rating accounts for all of the spaces listed. The National Median column presents energy performance data your building would have if your building had a median rating of 50.

Notes:
o - This attribute is optional.
d - A default value has been supplied by Portfolio Manager.

OMB No. 2060-0347

STATEMENT OF ENERGY PERFORMANCE
Woodbridge - Ross Street Elementary School (#11)

Building ID: 3486103
For 12-month Period Ending: November 30, 2012[1]
Date SEP becomes ineligible: N/A
Date SEP Generated: April 22, 2013

Facility
Woodbridge - Ross Street Elementary School (#11)
110 Ross Street
Woodbridge, NJ 07095

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

Year Built: 1920
Gross Floor Area (ft²): 47,484

Energy Performance Rating[2] (1-100) 87

Site Energy Use Summary[3]

Electricity - Grid Purchase(kBtu)	737,501
Natural Gas (kBtu)[4]	2,779,298
Total Energy (kBtu)	3,516,799

Energy Intensity[4]

Site (kBtu/ft²/yr)	74
Source (kBtu/ft²/yr)	113

Emissions (based on site energy use)

Greenhouse Gas Emissions ($MtCO_2e$/year)	252

Electric Distribution Utility
Public Service Electric & Gas Co

National Median Comparison

National Median Site EUI	115
National Median Source EUI	175
% Difference from National Median Source EUI	-35%
Building Type	K-12 School

Stamp of Certifying Professional

Based on the conditions observed at the time of my visit to this building, I certify that the information contained within this statement is accurate.

Certifying Professional
N/A

Meets Industry Standards[5] **for Indoor Environmental Conditions:**

Ventilation for Acceptable Indoor Air Quality	**N/A**
Acceptable Thermal Environmental Conditions	**N/A**
Adequate Illumination	**N/A**

Notes:
1. Application for the ENERGY STAR must be submitted to EPA within 4 months of the Period Ending date. Award of the ENERGY STAR is not final until approval is received from EPA.
2. The EPA Energy Performance Rating is based on total source energy. A rating of 75 is the minimum to be eligible for the ENERGY STAR.
3. Values represent energy consumption, annualized to a 12-month period.
4. Values represent energy intensity, annualized to a 12-month period.
5. Based on Meeting ASHRAE Standard 62 for ventilation for acceptable indoor air quality, ASHRAE Standard 55 for thermal comfort, and IESNA Lighting Handbook for lighting quality.

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Facility
Woodbridge - Ross Street Elementary School (#11)
110 Ross Street
Woodbridge, NJ 07095

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

General Information

Woodbridge - Ross Street Elementary School (#11)	
Gross Floor Area Excluding Parking: (ft^2)	47,484
Year Built	1920
For 12-month Evaluation Period Ending Date:	November 30, 2012

Facility Space Use Summary

Woodbridge - Ross Elementary School (#11)	
Space Type	K-12 School
Gross Floor Area (ft^2)	47,484
Open Weekends?	No
Number of PCs	215
Number of walk-in refrigeration/freezer units	0
Presence of cooking facilities	Yes
Percent Cooled	90
Percent Heated	100
Months °	10
High School?	No
School District °	N/A

Energy Performance Comparison

	Evaluation Periods		Comparisons		
Performance Metrics	**Current** (Ending Date 11/30/2012)	**Baseline** (Ending Date 11/30/2012)	**Rating of 75**	**Target**	**National Median**
Energy Performance Rating	87	87	75	N/A	50
Energy Intensity					
Site (kBtu/ft^2)	74	74	90	N/A	115
Source (kBtu/ft^2)	113	113	137	N/A	175
Energy Cost					
$/year	N/A	N/A	N/A	N/A	N/A
$/$ft^2$/year	N/A	N/A	N/A	N/A	N/A
Greenhouse Gas Emissions					
$MtCO_2e$/year	252	252	305	N/A	390
$kgCO_2e/ft^2$/year	5	5	6	N/A	8

More than 50% of your building is defined as K-12 School. Please note that your rating accounts for all of the spaces listed. The National Median column presents energy performance data your building would have if your building had a median rating of 50.

Notes:
o - This attribute is optional.
d - A default value has been supplied by Portfolio Manager.

OMB No. 2060-0347

STATEMENT OF ENERGY PERFORMANCE
Woodbridge - Ford Avenue Elementary School (#14)

Building ID: 3486149
For 12-month Period Ending: November 30, 2012[1]
Date SEP becomes ineligible: N/A
Date SEP Generated: April 22, 2013

Facility
Woodbridge - Ford Avenue Elementary School (#14)
186 Ford Avenue
Fords, NJ 08863

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

Year Built: 1924
Gross Floor Area (ft²): 25,759

Energy Performance Rating[2] (1-100) 99

Site Energy Use Summary[3]

Electricity - Grid Purchase(kBtu)	386,292
Natural Gas (kBtu)[4]	988,736
Total Energy (kBtu)	1,375,028

Energy Intensity[4]

Site (kBtu/ft²/yr)	53
Source (kBtu/ft²/yr)	90

Emissions (based on site energy use)

Greenhouse Gas Emissions ($MtCO_2e$/year)	107

Electric Distribution Utility
Public Service Electric & Gas Co

National Median Comparison

National Median Site EUI	131
National Median Source EUI	222
% Difference from National Median Source EUI	-59%
Building Type	K-12 School

Stamp of Certifying Professional

Based on the conditions observed at the time of my visit to this building, I certify that the information contained within this statement is accurate.

Certifying Professional
N/A

Meets Industry Standards[5] **for Indoor Environmental Conditions:**

Ventilation for Acceptable Indoor Air Quality	**N/A**
Acceptable Thermal Environmental Conditions	**N/A**
Adequate Illumination	**N/A**

Notes:
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3. Values represent energy consumption, annualized to a 12-month period.
4. Values represent energy intensity, annualized to a 12-month period.
5. Based on Meeting ASHRAE Standard 62 for ventilation for acceptable indoor air quality, ASHRAE Standard 55 for thermal comfort, and IESNA Lighting Handbook for lighting quality.

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Facility
Woodbridge - Ford Avenue Elementary School (#14)
186 Ford Avenue
Fords, NJ 08863

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

General Information

Woodbridge - Ford Avenue Elementary School (#14)	
Gross Floor Area Excluding Parking: (ft^2)	25,759
Year Built	1924
For 12-month Evaluation Period Ending Date:	November 30, 2012

Facility Space Use Summary

Woodbridge - Ford Avenue Elementary School (#14)	
Space Type	K-12 School
Gross Floor Area (ft^2)	25,759
Open Weekends?	No
Number of PCs	215
Number of walk-in refrigeration/freezer units	0
Presence of cooking facilities	Yes
Percent Cooled	90
Percent Heated	100
Months °	10
High School?	No
School District °	N/A

Energy Performance Comparison

	Evaluation Periods		Comparisons		
Performance Metrics	**Current** (Ending Date 11/30/2012)	**Baseline** (Ending Date 11/30/2012)	**Rating of 75**	**Target**	**National Median**
Energy Performance Rating	99	99	75	N/A	50
Energy Intensity					
Site ($kBtu/ft^2$)	53	53	103	N/A	131
Source ($kBtu/ft^2$)	90	90	174	N/A	222
Energy Cost					
$/year	N/A	N/A	N/A	N/A	N/A
$/$ft^2$/year	N/A	N/A	N/A	N/A	N/A
Greenhouse Gas Emissions					
$MtCO_2e$/year	107	107	206	N/A	263
$kgCO_2e/ft^2$/year	4	4	8	N/A	10

More than 50% of your building is defined as K-12 School. Please note that your rating accounts for all of the spaces listed. The National Median column presents energy performance data your building would have if your building had a median rating of 50.

Notes:
o - This attribute is optional.
d - A default value has been supplied by Portfolio Manager.

OMB No. 2060-0347

STATEMENT OF ENERGY PERFORMANCE
Woodbridge - Indiana Avenue Elementary School (#18)

Building ID: 3486322
For 12-month Period Ending: November 30, 2012[1]
Date SEP becomes ineligible: N/A
Date SEP Generated: April 22, 2013

Facility
Woodbridge - Indiana Avenue Elementary School (#18)
256 Indiana Avenue
Iselin, NJ 08830

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

Year Built: 1956
Gross Floor Area (ft²): 52,054

Energy Performance Rating[2] (1-100) 93

Site Energy Use Summary[3]

Electricity - Grid Purchase(kBtu)	450,611
Natural Gas (kBtu)[4]	3,149,164
Total Energy (kBtu)	3,599,775

Energy Intensity[4]

Site (kBtu/ft²/yr)	69
Source (kBtu/ft²/yr)	92

Emissions (based on site energy use)

Greenhouse Gas Emissions ($MtCO_2e$/year)	231

Electric Distribution Utility
Public Service Electric & Gas Co

National Median Comparison

National Median Site EUI	122
National Median Source EUI	163
% Difference from National Median Source EUI	-43%
Building Type	K-12 School

Stamp of Certifying Professional

Based on the conditions observed at the time of my visit to this building, I certify that the information contained within this statement is accurate.

Certifying Professional
N/A

Meets Industry Standards[5] **for Indoor Environmental Conditions:**

Ventilation for Acceptable Indoor Air Quality	**N/A**
Acceptable Thermal Environmental Conditions	**N/A**
Adequate Illumination	**N/A**

Notes:
1. Application for the ENERGY STAR must be submitted to EPA within 4 months of the Period Ending date. Award of the ENERGY STAR is not final until approval is received from EPA.
2. The EPA Energy Performance Rating is based on total source energy. A rating of 75 is the minimum to be eligible for the ENERGY STAR.
3. Values represent energy consumption, annualized to a 12-month period.
4. Values represent energy intensity, annualized to a 12-month period.
5. Based on Meeting ASHRAE Standard 62 for ventilation for acceptable indoor air quality, ASHRAE Standard 55 for thermal comfort, and IESNA Lighting Handbook for lighting quality.

The government estimates the average time needed to fill out this form is 6 hours (includes the time for entering energy data, Licensed Professional facility inspection, and notarizing the SEP) and welcomes suggestions for reducing this level of effort. Send comments (referencing OMB control number) to the Director, Collection Strategies Division, U.S., EPA (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460.

FOR YOUR RECORDS ONLY. DO NOT SUBMIT TO EPA.

Please keep this Facility Summary for your own records; do not submit it to EPA. Only the Statement of Energy Performance (SEP), Data Checklist and Letter of Agreement need to be submitted to EPA when applying for the ENERGY STAR.

Facility
Woodbridge - Indiana Avenue Elementary School (#18)
256 Indiana Avenue
Iselin, NJ 08830

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

General Information

Woodbridge - Indiana Avenue Elementary School (#18)	
Gross Floor Area Excluding Parking: (ft^2)	52,054
Year Built	1956
For 12-month Evaluation Period Ending Date:	November 30, 2012

Facility Space Use Summary

Woodbridge - Indiana Avenue Elementary School (#18	
Space Type	K-12 School
Gross Floor Area (ft^2)	52,054
Open Weekends?	No
Number of PCs	177
Number of walk-in refrigeration/freezer units	0
Presence of cooking facilities	Yes
Percent Cooled	90
Percent Heated	100
Months °	10
High School?	No
School District °	N/A

Energy Performance Comparison

	Evaluation Periods		Comparisons		
Performance Metrics	**Current** (Ending Date 11/30/2012)	**Baseline** (Ending Date 11/30/2012)	**Rating of 75**	**Target**	**National Median**
Energy Performance Rating	93	93	75	N/A	50
Energy Intensity					
Site ($kBtu/ft^2$)	69	69	95	N/A	122
Source ($kBtu/ft^2$)	92	92	127	N/A	163
Energy Cost					
$/year	N/A	N/A	N/A	N/A	N/A
$/$ft^2$/year	N/A	N/A	N/A	N/A	N/A
Greenhouse Gas Emissions					
$MtCO_2e$/year	231	231	319	N/A	408
$kgCO_2e/ft^2$/year	4	4	6	N/A	7

More than 50% of your building is defined as K-12 School. Please note that your rating accounts for all of the spaces listed. The National Median column presents energy performance data your building would have if your building had a median rating of 50.

Notes:
o - This attribute is optional.
d - A default value has been supplied by Portfolio Manager.

OMB No. 2060-0347

STATEMENT OF ENERGY PERFORMANCE
Woodbridge - Menlo Park Terrace Elementary School (#19)

Building ID: 3486372
For 12-month Period Ending: November 30, 2012[1]
Date SEP becomes ineligible: N/A
Date SEP Generated: April 22, 2013

Facility
Woodbridge - Menlo Park Terrace Elementary School (#19)
19 Maryknoll Road
Metuchen, NJ 08840

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

Year Built: 1957
Gross Floor Area (ft²): 31,569

Energy Performance Rating[2] (1-100) 99

Site Energy Use Summary[3]

Electricity - Grid Purchase(kBtu)	260,421
Natural Gas (kBtu)[4]	1,289,958
Total Energy (kBtu)	1,550,379

Energy Intensity[4]

Site (kBtu/ft²/yr)	49
Source (kBtu/ft²/yr)	70

Emissions (based on site energy use)

Greenhouse Gas Emissions ($MtCO_2e$/year)	106

Electric Distribution Utility
Public Service Electric & Gas Co

National Median Comparison

National Median Site EUI	119
National Median Source EUI	171
% Difference from National Median Source EUI	-59%
Building Type	K-12 School

Stamp of Certifying Professional

Based on the conditions observed at the time of my visit to this building, I certify that the information contained within this statement is accurate.

Certifying Professional
N/A

Meets Industry Standards[5] **for Indoor Environmental Conditions:**

Ventilation for Acceptable Indoor Air Quality	**N/A**
Acceptable Thermal Environmental Conditions	**N/A**
Adequate Illumination	**N/A**

Notes:
1. Application for the ENERGY STAR must be submitted to EPA within 4 months of the Period Ending date. Award of the ENERGY STAR is not final until approval is received from EPA.
2. The EPA Energy Performance Rating is based on total source energy. A rating of 75 is the minimum to be eligible for the ENERGY STAR.
3. Values represent energy consumption, annualized to a 12-month period.
4. Values represent energy intensity, annualized to a 12-month period.
5. Based on Meeting ASHRAE Standard 62 for ventilation for acceptable indoor air quality, ASHRAE Standard 55 for thermal comfort, and IESNA Lighting Handbook for lighting quality.

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Facility
Woodbridge - Menlo Park Terrace Elementary School (#19)
19 Maryknoll Road
Metuchen, NJ 08840

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

General Information

Woodbridge - Menlo Park Terrace Elementary School (#19)	
Gross Floor Area Excluding Parking: (ft^2)	31,569
Year Built	1957
For 12-month Evaluation Period Ending Date:	November 30, 2012

Facility Space Use Summary

Menlo Park Terrace Elementary School (#19)	
Space Type	K-12 School
Gross Floor Area (ft^2)	31,569
Open Weekends?	No
Number of PCs	103
Number of walk-in refrigeration/freezer units	0
Presence of cooking facilities	Yes
Percent Cooled	90
Percent Heated	100
Months °	10
High School?	No
School District °	N/A

Energy Performance Comparison

	Evaluation Periods		Comparisons		
Performance Metrics	**Current** (Ending Date 11/30/2012)	**Baseline** (Ending Date 11/30/2012)	**Rating of 75**	**Target**	**National Median**
Energy Performance Rating	99	99	75	N/A	50
Energy Intensity					
Site (kBtu/ft^2)	49	49	93	N/A	119
Source (kBtu/ft^2)	70	70	134	N/A	171
Energy Cost					
$/year	N/A	N/A	N/A	N/A	N/A
$/$ft^2$/year	N/A	N/A	N/A	N/A	N/A
Greenhouse Gas Emissions					
$MtCO_2e$/year	106	106	201	N/A	257
$kgCO_2e/ft^2$/year	3	3	6	N/A	7

More than 50% of your building is defined as K-12 School. Please note that your rating accounts for all of the spaces listed. The National Median column presents energy performance data your building would have if your building had a median rating of 50.

Notes:
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d - A default value has been supplied by Portfolio Manager.

OMB No. 2060-0347

STATEMENT OF ENERGY PERFORMANCE
Woodbridge - Claremont Avenue Elementary School (#20)

Building ID: 3486404
For 12-month Period Ending: November 30, 2012[1]
Date SEP becomes ineligible: N/A
Date SEP Generated: April 22, 2013

Facility
Woodbridge - Claremont Avenue
Elementary School (#20)
90 Claremont Avenue
Colonia, NJ 07067

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

Year Built: 1957
Gross Floor Area (ft²): 31,569

Energy Performance Rating[2] (1-100) 93

Site Energy Use Summary[3]

Electricity - Grid Purchase(kBtu)	482,155
Natural Gas (kBtu)[4]	1,131,335
Total Energy (kBtu)	1,613,490

Energy Intensity[4]

Site (kBtu/ft²/yr)	51
Source (kBtu/ft²/yr)	89

Emissions (based on site energy use)

Greenhouse Gas Emissions ($MtCO_2e$/year)	128

Electric Distribution Utility
Public Service Electric & Gas Co

National Median Comparison

National Median Site EUI	90
National Median Source EUI	157
% Difference from National Median Source EUI	-43%
Building Type	K-12 School

Stamp of Certifying Professional

Based on the conditions observed at the time of my visit to this building, I certify that the information contained within this statement is accurate.

Certifying Professional
N/A

Meets Industry Standards[5] **for Indoor Environmental Conditions:**

Ventilation for Acceptable Indoor Air Quality	**N/A**
Acceptable Thermal Environmental Conditions	**N/A**
Adequate Illumination	**N/A**

Notes:
1. Application for the ENERGY STAR must be submitted to EPA within 4 months of the Period Ending date. Award of the ENERGY STAR is not final until approval is received from EPA.
2. The EPA Energy Performance Rating is based on total source energy. A rating of 75 is the minimum to be eligible for the ENERGY STAR.
3. Values represent energy consumption, annualized to a 12-month period.
4. Values represent energy intensity, annualized to a 12-month period.
5. Based on Meeting ASHRAE Standard 62 for ventilation for acceptable indoor air quality, ASHRAE Standard 55 for thermal comfort, and IESNA Lighting Handbook for lighting quality.

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Facility
Woodbridge - Claremont Avenue Elementary School (#20)
90 Claremont Avenue
Colonia, NJ 07067

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

General Information

Woodbridge - Claremont Avenue Elementary School (#20)	
Gross Floor Area Excluding Parking: (ft^2)	31,569
Year Built	1957
For 12-month Evaluation Period Ending Date:	November 30, 2012

Facility Space Use Summary

Woodbridge - Claremont Ave Elementary School (#20)	
Space Type	K-12 School
Gross Floor Area (ft^2)	31,569
Open Weekends?	No
Number of PCs	55
Number of walk-in refrigeration/freezer units	0
Presence of cooking facilities	Yes
Percent Cooled	90
Percent Heated	100
Months °	10
High School?	No
School District °	N/A

Energy Performance Comparison

	Evaluation Periods		Comparisons		
Performance Metrics	**Current** (Ending Date 11/30/2012)	**Baseline** (Ending Date 11/30/2012)	**Rating of 75**	**Target**	**National Median**
Energy Performance Rating	93	93	75	N/A	50
Energy Intensity					
Site (kBtu/ft^2)	51	51	71	N/A	90
Source (kBtu/ft^2)	89	89	123	N/A	157
Energy Cost					
$/year	N/A	N/A	N/A	N/A	N/A
$/$ft^2$/year	N/A	N/A	N/A	N/A	N/A
Greenhouse Gas Emissions					
$MtCO_2e$/year	128	128	177	N/A	227
$kgCO_2e/ft^2$/year	4	4	6	N/A	7

More than 50% of your building is defined as K-12 School. Please note that your rating accounts for all of the spaces listed. The National Median column presents energy performance data your building would have if your building had a median rating of 50.

Notes:
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d - A default value has been supplied by Portfolio Manager.

OMB No. 2060-0347

STATEMENT OF ENERGY PERFORMANCE
Woodbridge - Oak Ridge Elementary School (#21)

Building ID: 3487911
For 12-month Period Ending: November 30, 2012[1]
Date SEP becomes ineligible: N/A
Date SEP Generated: April 22, 2013

Facility
Woodbridge - Oak Ridge Elementary School (#21)
720 Inman Avenue
Colonia, NJ 07067

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

Year Built: 1959
Gross Floor Area (ft²): 33,475

Energy Performance Rating[2] (1-100) 95

Site Energy Use Summary[3]

Electricity - Grid Purchase(kBtu)	423,099
Natural Gas (kBtu)[4]	1,454,485
Total Energy (kBtu)	1,877,584

Energy Intensity[4]

Site (kBtu/ft²/yr)	56
Source (kBtu/ft²/yr)	88

Emissions (based on site energy use)

Greenhouse Gas Emissions ($MtCO_2e$/year)	137

Electric Distribution Utility
Public Service Electric & Gas Co

National Median Comparison

National Median Site EUI	105
National Median Source EUI	165
% Difference from National Median Source EUI	-47%
Building Type	K-12 School

Stamp of Certifying Professional

Based on the conditions observed at the time of my visit to this building, I certify that the information contained within this statement is accurate.

Certifying Professional
N/A

Meets Industry Standards[5] **for Indoor Environmental Conditions:**

Ventilation for Acceptable Indoor Air Quality	**N/A**
Acceptable Thermal Environmental Conditions	**N/A**
Adequate Illumination	**N/A**

Notes:
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3. Values represent energy consumption, annualized to a 12-month period.
4. Values represent energy intensity, annualized to a 12-month period.
5. Based on Meeting ASHRAE Standard 62 for ventilation for acceptable indoor air quality, ASHRAE Standard 55 for thermal comfort, and IESNA Lighting Handbook for lighting quality.

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Facility
Woodbridge - Oak Ridge Elementary School (#21)
720 Inman Avenue
Colonia, NJ 07067

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

General Information

Woodbridge - Oak Ridge Elementary School (#21)	
Gross Floor Area Excluding Parking: (ft^2)	33,475
Year Built	1959
For 12-month Evaluation Period Ending Date:	November 30, 2012

Facility Space Use Summary

Woodbridge - Oak Ridge Elementary School (#21)	
Space Type	K-12 School
Gross Floor Area (ft^2)	33,475
Open Weekends?	No
Number of PCs	91
Number of walk-in refrigeration/freezer units	0
Presence of cooking facilities	Yes
Percent Cooled	90
Percent Heated	100
Months °	10
High School?	No
School District °	N/A

Energy Performance Comparison

	Evaluation Periods		Comparisons		
Performance Metrics	**Current** (Ending Date 11/30/2012)	**Baseline** (Ending Date 11/30/2012)	**Rating of 75**	**Target**	**National Median**
Energy Performance Rating	95	95	75	N/A	50
Energy Intensity					
Site ($kBtu/ft^2$)	56	56	82	N/A	105
Source ($kBtu/ft^2$)	88	88	129	N/A	165
Energy Cost					
$/year	N/A	N/A	N/A	N/A	N/A
$/$ft^2$/year	N/A	N/A	N/A	N/A	N/A
Greenhouse Gas Emissions					
$MtCO_2e$/year	137	137	201	N/A	257
$kgCO_2e/ft^2$/year	4	4	6	N/A	8

More than 50% of your building is defined as K-12 School. Please note that your rating accounts for all of the spaces listed. The National Median column presents energy performance data your building would have if your building had a median rating of 50.

Notes:
o - This attribute is optional.
d - A default value has been supplied by Portfolio Manager.

OMB No. 2060-0347

STATEMENT OF ENERGY PERFORMANCE
Woodbridge - Lynn Crest Elementary School (#22)

Building ID: 3488684
For 12-month Period Ending: November 30, 2012[1]
Date SEP becomes ineligible: N/A
Date SEP Generated: April 22, 2013

Facility
Woodbridge - Lynn Crest Elementary School (#22)
98 Ira Avenue
Colonia, NJ 07067

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

Year Built: 1959
Gross Floor Area (ft²): 41,570

Energy Performance Rating[2] (1-100) 94

Site Energy Use Summary[3]

Electricity - Grid Purchase(kBtu)	632,703
Natural Gas (kBtu)[4]	1,753,249
Total Energy (kBtu)	2,385,952

Energy Intensity[4]

Site (kBtu/ft²/yr)	57
Source (kBtu/ft²/yr)	95

Emissions (based on site energy use)

Greenhouse Gas Emissions ($MtCO_2e$/year)	183

Electric Distribution Utility
Public Service Electric & Gas Co

National Median Comparison

National Median Site EUI	104
National Median Source EUI	173
% Difference from National Median Source EUI	-45%
Building Type	K-12 School

Stamp of Certifying Professional

Based on the conditions observed at the time of my visit to this building, I certify that the information contained within this statement is accurate.

Certifying Professional
N/A

Meets Industry Standards[5] **for Indoor Environmental Conditions:**

Ventilation for Acceptable Indoor Air Quality	**N/A**
Acceptable Thermal Environmental Conditions	**N/A**
Adequate Illumination	**N/A**

Notes:
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3. Values represent energy consumption, annualized to a 12-month period.
4. Values represent energy intensity, annualized to a 12-month period.
5. Based on Meeting ASHRAE Standard 62 for ventilation for acceptable indoor air quality, ASHRAE Standard 55 for thermal comfort, and IESNA Lighting Handbook for lighting quality.

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Facility
Woodbridge - Lynn Crest Elementary School (#22)
98 Ira Avenue
Colonia, NJ 07067

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

General Information

Woodbridge - Lynn Crest Elementary School (#22)	
Gross Floor Area Excluding Parking: (ft^2)	41,570
Year Built	1959
For 12-month Evaluation Period Ending Date:	November 30, 2012

Facility Space Use Summary

Woodbridge - Lynn Crest Elementary School (#22)	
Space Type	K-12 School
Gross Floor Area (ft^2)	41,570
Open Weekends?	No
Number of PCs	167
Number of walk-in refrigeration/freezer units	0
Presence of cooking facilities	Yes
Percent Cooled	90
Percent Heated	100
Months °	10
High School?	No
School District °	N/A

Energy Performance Comparison

	Evaluation Periods		Comparisons		
Performance Metrics	**Current** (Ending Date 11/30/2012)	**Baseline** (Ending Date 11/30/2012)	**Rating of 75**	**Target**	**National Median**
Energy Performance Rating	94	94	75	N/A	50
Energy Intensity					
Site ($kBtu/ft^2$)	57	57	82	N/A	104
Source ($kBtu/ft^2$)	95	95	135	N/A	173
Energy Cost					
$/year	N/A	N/A	N/A	N/A	N/A
$/$ft^2$/year	N/A	N/A	N/A	N/A	N/A
Greenhouse Gas Emissions					
$MtCO_2e$/year	183	183	260	N/A	333
$kgCO_2e/ft^2$/year	4	4	6	N/A	7

More than 50% of your building is defined as K-12 School. Please note that your rating accounts for all of the spaces listed. The National Median column presents energy performance data your building would have if your building had a median rating of 50.

Notes:
o - This attribute is optional.
d - A default value has been supplied by Portfolio Manager.

OMB No. 2060-0347

STATEMENT OF ENERGY PERFORMANCE
Woodbridge - Woodbine Ave Elementary School (#23)

Building ID: 3488992
For 12-month Period Ending: November 30, 2012[1]
Date SEP becomes ineligible: N/A
Date SEP Generated: April 22, 2013

Facility
Woodbridge - Woodbine Ave Elementary School (#23)
89 Woodbine Avenue
Avenel, NJ 07001

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

Year Built: 1960
Gross Floor Area (ft²): 46,621

Energy Performance Rating[2] (1-100) 98

Site Energy Use Summary[3]

Electricity - Grid Purchase(kBtu)	441,502
Natural Gas (kBtu)[4]	1,959,477
Total Energy (kBtu)	2,400,979

Energy Intensity[4]

Site (kBtu/ft²/yr)	52
Source (kBtu/ft²/yr)	76

Emissions (based on site energy use)

Greenhouse Gas Emissions ($MtCO_2e$/year)	167

Electric Distribution Utility
Public Service Electric & Gas Co

National Median Comparison

National Median Site EUI	113
National Median Source EUI	166
% Difference from National Median Source EUI	-54%
Building Type	K-12 School

Stamp of Certifying Professional

Based on the conditions observed at the time of my visit to this building, I certify that the information contained within this statement is accurate.

Certifying Professional
N/A

Meets Industry Standards[5] **for Indoor Environmental Conditions:**

Ventilation for Acceptable Indoor Air Quality	**N/A**
Acceptable Thermal Environmental Conditions	**N/A**
Adequate Illumination	**N/A**

Notes:
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4. Values represent energy intensity, annualized to a 12-month period.
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Facility
Woodbridge - Woodbine Ave Elementary School (#23)
89 Woodbine Avenue
Avenel, NJ 07001

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

General Information

Woodbridge - Woodbine Ave Elementary School (#23)	
Gross Floor Area Excluding Parking: (ft^2)	46,621
Year Built	1960
For 12-month Evaluation Period Ending Date:	November 30, 2012

Facility Space Use Summary

Woodbridge - Woodbine Ave Elementary School (#23)	
Space Type	K-12 School
Gross Floor Area (ft^2)	46,621
Open Weekends?	No
Number of PCs	162
Number of walk-in refrigeration/freezer units	0
Presence of cooking facilities	Yes
Percent Cooled	90
Percent Heated	100
Months °	N/A
High School?	No
School District °	N/A

Energy Performance Comparison

	Evaluation Periods		Comparisons		
Performance Metrics	**Current** (Ending Date 11/30/2012)	**Baseline** (Ending Date 11/30/2012)	**Rating of 75**	**Target**	**National Median**
Energy Performance Rating	98	98	75	N/A	50
Energy Intensity					
Site ($kBtu/ft^2$)	52	52	88	N/A	113
Source ($kBtu/ft^2$)	76	76	129	N/A	166
Energy Cost					
$/year	N/A	N/A	N/A	N/A	N/A
$/$ft^2$/year	N/A	N/A	N/A	N/A	N/A
Greenhouse Gas Emissions					
$MtCO_2e$/year	167	167	286	N/A	365
$kgCO_2e/ft^2$/year	4	4	7	N/A	9

More than 50% of your building is defined as K-12 School. Please note that your rating accounts for all of the spaces listed. The National Median column presents energy performance data your building would have if your building had a median rating of 50.

Notes:
o - This attribute is optional.
d - A default value has been supplied by Portfolio Manager.

OMB No. 2060-0347

STATEMENT OF ENERGY PERFORMANCE
Woodbridge - Kennedy Park Elem School (#24)

Building ID: 3489010
For 12-month Period Ending: November 30, 2012[1]
Date SEP becomes ineligible: N/A
Date SEP Generated: April 22, 2013

Facility
Woodbridge - Kennedy Park Elem School (#24)
150 Goodrich Street
Iselin, NJ 08830

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

Year Built: 1960
Gross Floor Area (ft²): 33,334

Energy Performance Rating[2] (1-100) 95

Site Energy Use Summary[3]	
Electricity - Grid Purchase(kBtu)	440,236
Natural Gas (kBtu)[4]	971,481
Total Energy (kBtu)	1,411,717

Energy Intensity[4]	
Site (kBtu/ft²/yr)	42
Source (kBtu/ft²/yr)	75

Emissions (based on site energy use)	
Greenhouse Gas Emissions ($MtCO_2e$/year)	114

Electric Distribution Utility
Public Service Electric & Gas Co

National Median Comparison	
National Median Site EUI	80
National Median Source EUI	140
% Difference from National Median Source EUI	-47%
Building Type	K-12 School

Stamp of Certifying Professional

Based on the conditions observed at the time of my visit to this building, I certify that the information contained within this statement is accurate.

Certifying Professional
N/A

Meets Industry Standards[5] **for Indoor Environmental Conditions:**	
Ventilation for Acceptable Indoor Air Quality	**N/A**
Acceptable Thermal Environmental Conditions	**N/A**
Adequate Illumination	**N/A**

Notes:
1. Application for the ENERGY STAR must be submitted to EPA within 4 months of the Period Ending date. Award of the ENERGY STAR is not final until approval is received from EPA.
2. The EPA Energy Performance Rating is based on total source energy. A rating of 75 is the minimum to be eligible for the ENERGY STAR.
3. Values represent energy consumption, annualized to a 12-month period.
4. Values represent energy intensity, annualized to a 12-month period.
5. Based on Meeting ASHRAE Standard 62 for ventilation for acceptable indoor air quality, ASHRAE Standard 55 for thermal comfort, and IESNA Lighting Handbook for lighting quality.

The government estimates the average time needed to fill out this form is 6 hours (includes the time for entering energy data, Licensed Professional facility inspection, and notarizing the SEP) and welcomes suggestions for reducing this level of effort. Send comments (referencing OMB control number) to the Director, Collection Strategies Division, U.S., EPA (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460.

FOR YOUR RECORDS ONLY. DO NOT SUBMIT TO EPA.

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Facility
Woodbridge - Kennedy Park Elem School (#24)
150 Goodrich Street
Iselin, NJ 08830

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

General Information

Woodbridge - Kennedy Park Elem School (#24)	
Gross Floor Area Excluding Parking: (ft^2)	33,334
Year Built	1960
For 12-month Evaluation Period Ending Date:	November 30, 2012

Facility Space Use Summary

Woodbridge - Kennedy Park Elem School (#24)	
Space Type	K-12 School
Gross Floor Area (ft^2)	33,334
Open Weekends?	No
Number of PCs	3
Number of walk-in refrigeration/freezer units	0
Presence of cooking facilities	Yes
Percent Cooled	90
Percent Heated	100
Months °	10
High School?	No
School District °	N/A

Energy Performance Comparison

	Evaluation Periods		Comparisons		
Performance Metrics	**Current** (Ending Date 11/30/2012)	**Baseline** (Ending Date 11/30/2012)	**Rating of 75**	**Target**	**National Median**
Energy Performance Rating	95	95	75	N/A	50
Energy Intensity					
Site (kBtu/ft^2)	42	42	62	N/A	80
Source (kBtu/ft^2)	75	75	110	N/A	140
Energy Cost					
$/year	N/A	N/A	N/A	N/A	N/A
$/$ft^2$/year	N/A	N/A	N/A	N/A	N/A
Greenhouse Gas Emissions					
$MtCO_2e$/year	114	114	168	N/A	214
$kgCO_2e/ft^2$/year	3	3	4	N/A	6

More than 50% of your building is defined as K-12 School. Please note that your rating accounts for all of the spaces listed. The National Median column presents energy performance data your building would have if your building had a median rating of 50.

Notes:
o - This attribute is optional.
d - A default value has been supplied by Portfolio Manager.

OMB No. 2060-0347

STATEMENT OF ENERGY PERFORMANCE
Woodbridge - Lafayette Estates Elem School (#25)

Building ID: 3489030
For 12-month Period Ending: November 30, 2012[1]
Date SEP becomes ineligible: N/A
Date SEP Generated: April 22, 2013

Facility
Woodbridge - Lafayette Estates Elem School (#25)
500 Ford Avenue
Fords, NJ 08863

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

Year Built: 1960
Gross Floor Area (ft²): 41,374

Energy Performance Rating[2] (1-100) 87

Site Energy Use Summary[3]

Electricity - Grid Purchase(kBtu)	845,256
Natural Gas (kBtu)[4]	1,529,465
Total Energy (kBtu)	2,374,721

Energy Intensity[4]

Site (kBtu/ft²/yr)	57
Source (kBtu/ft²/yr)	107

Emissions (based on site energy use)

Greenhouse Gas Emissions ($MtCO_2e$/year)	201

Electric Distribution Utility
Public Service Electric & Gas Co

National Median Comparison

National Median Site EUI	88
National Median Source EUI	164
% Difference from National Median Source EUI	-35%
Building Type	K-12 School

Stamp of Certifying Professional

Based on the conditions observed at the time of my visit to this building, I certify that the information contained within this statement is accurate.

Certifying Professional
N/A

Meets Industry Standards[5] **for Indoor Environmental Conditions:**

Ventilation for Acceptable Indoor Air Quality	**N/A**
Acceptable Thermal Environmental Conditions	**N/A**
Adequate Illumination	**N/A**

Notes:
1. Application for the ENERGY STAR must be submitted to EPA within 4 months of the Period Ending date. Award of the ENERGY STAR is not final until approval is received from EPA.
2. The EPA Energy Performance Rating is based on total source energy. A rating of 75 is the minimum to be eligible for the ENERGY STAR.
3. Values represent energy consumption, annualized to a 12-month period.
4. Values represent energy intensity, annualized to a 12-month period.
5. Based on Meeting ASHRAE Standard 62 for ventilation for acceptable indoor air quality, ASHRAE Standard 55 for thermal comfort, and IESNA Lighting Handbook for lighting quality.

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FOR YOUR RECORDS ONLY. DO NOT SUBMIT TO EPA.

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Facility
Woodbridge - Lafayette Estates Elem School (#25)
500 Ford Avenue
Fords, NJ 08863

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

General Information

Woodbridge - Lafayette Estates Elem School (#25)	
Gross Floor Area Excluding Parking: (ft^2)	41,374
Year Built	1960
For 12-month Evaluation Period Ending Date:	November 30, 2012

Facility Space Use Summary

Woodbridge - Lafayette Estates Elem School (#25)	
Space Type	K-12 School
Gross Floor Area (ft^2)	41,374
Open Weekends?	No
Number of PCs	127
Number of walk-in refrigeration/freezer units	0
Presence of cooking facilities	Yes
Percent Cooled	90
Percent Heated	100
Months °	10
High School?	No
School District °	N/A

Energy Performance Comparison

	Evaluation Periods		Comparisons		
Performance Metrics	**Current** (Ending Date 11/30/2012)	**Baseline** (Ending Date 11/30/2012)	**Rating of 75**	**Target**	**National Median**
Energy Performance Rating	87	87	75	N/A	50
Energy Intensity					
Site ($kBtu/ft^2$)	57	57	69	N/A	88
Source ($kBtu/ft^2$)	107	107	128	N/A	164
Energy Cost					
$/year	N/A	N/A	N/A	N/A	N/A
$/$ft^2$/year	N/A	N/A	N/A	N/A	N/A
Greenhouse Gas Emissions					
$MtCO_2e$/year	201	201	241	N/A	308
$kgCO_2e/ft^2$/year	5	5	6	N/A	8

More than 50% of your building is defined as K-12 School. Please note that your rating accounts for all of the spaces listed. The National Median column presents energy performance data your building would have if your building had a median rating of 50.

Notes:
o - This attribute is optional.
d - A default value has been supplied by Portfolio Manager.

OMB No. 2060-0347

STATEMENT OF ENERGY PERFORMANCE
Woodbridge - Robert Mascenik Elem School (#26)

Building ID: 3489130
For 12-month Period Ending: November 30, 2012[1]
Date SEP becomes ineligible: N/A
Date SEP Generated: April 22, 2013

Facility
Woodbridge - Robert Mascenik Elem School (#26)
300 Benjamin Avenue
Iselin, NJ 08830

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

Year Built: 1964
Gross Floor Area (ft²): 29,050

Energy Performance Rating[2] (1-100) 96

Site Energy Use Summary[3]

Electricity - Grid Purchase(kBtu)	394,436
Natural Gas (kBtu)[4]	825,212
Total Energy (kBtu)	1,219,648

Energy Intensity[4]

Site (kBtu/ft²/yr)	42
Source (kBtu/ft²/yr)	75

Emissions (based on site energy use)

Greenhouse Gas Emissions ($MtCO_2e$/year)	100

Electric Distribution Utility
Public Service Electric & Gas Co

National Median Comparison

National Median Site EUI	84
National Median Source EUI	150
% Difference from National Median Source EUI	-50%
Building Type	K-12 School

Stamp of Certifying Professional

Based on the conditions observed at the time of my visit to this building, I certify that the information contained within this statement is accurate.

Certifying Professional
N/A

Meets Industry Standards[5] **for Indoor Environmental Conditions:**

Ventilation for Acceptable Indoor Air Quality	**N/A**
Acceptable Thermal Environmental Conditions	**N/A**
Adequate Illumination	**N/A**

Notes:
1. Application for the ENERGY STAR must be submitted to EPA within 4 months of the Period Ending date. Award of the ENERGY STAR is not final until approval is received from EPA.
2. The EPA Energy Performance Rating is based on total source energy. A rating of 75 is the minimum to be eligible for the ENERGY STAR.
3. Values represent energy consumption, annualized to a 12-month period.
4. Values represent energy intensity, annualized to a 12-month period.
5. Based on Meeting ASHRAE Standard 62 for ventilation for acceptable indoor air quality, ASHRAE Standard 55 for thermal comfort, and IESNA Lighting Handbook for lighting quality.

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Facility
Woodbridge - Robert Mascenik Elem School (#26)
300 Benjamin Avenue
Iselin, NJ 08830

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

General Information

Woodbridge - Robert Mascenik Elem School (#26)	
Gross Floor Area Excluding Parking: (ft^2)	29,050
Year Built	1964
For 12-month Evaluation Period Ending Date:	November 30, 2012

Facility Space Use Summary

Woodbridge - Robert Mascenik Elem School (#26)	
Space Type	K-12 School
Gross Floor Area (ft^2)	29,050
Open Weekends?	No
Number of PCs	26
Number of walk-in refrigeration/freezer units	0
Presence of cooking facilities	Yes
Percent Cooled	90
Percent Heated	100
Months °	N/A
High School?	No
School District °	N/A

Energy Performance Comparison

	Evaluation Periods		Comparisons		
Performance Metrics	**Current** (Ending Date 11/30/2012)	**Baseline** (Ending Date 11/30/2012)	**Rating of 75**	**Target**	**National Median**
Energy Performance Rating	96	96	75	N/A	50
Energy Intensity					
Site ($kBtu/ft^2$)	42	42	66	N/A	84
Source ($kBtu/ft^2$)	75	75	118	N/A	150
Energy Cost					
$/year	N/A	N/A	N/A	N/A	N/A
$/$ft^2$/year	N/A	N/A	N/A	N/A	N/A
Greenhouse Gas Emissions					
$MtCO_2e$/year	100	100	157	N/A	200
$kgCO_2e/ft^2$/year	3	3	5	N/A	6

More than 50% of your building is defined as K-12 School. Please note that your rating accounts for all of the spaces listed. The National Median column presents energy performance data your building would have if your building had a median rating of 50.

Notes:
o - This attribute is optional.
d - A default value has been supplied by Portfolio Manager.

OMB No. 2060-0347

STATEMENT OF ENERGY PERFORMANCE
Woodbridge - Pennsylvania Ave Elementary School (#27)

Building ID: 3489230
For 12-month Period Ending: November 30, 2012[1]
Date SEP becomes ineligible: N/A
Date SEP Generated: April 22, 2013

Facility
Woodbridge - Pennsylvania Ave Elementary School (#27)
80 n. Pennsylvania Avenue
Colonia, NJ 07067

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

Year Built: 1964
Gross Floor Area (ft²): 28,799

Energy Performance Rating[2] (1-100) 97

Site Energy Use Summary[3]

Electricity - Grid Purchase(kBtu)	427,125
Natural Gas (kBtu)[4]	963,131
Total Energy (kBtu)	1,390,256

Energy Intensity[4]

Site (kBtu/ft²/yr)	48
Source (kBtu/ft²/yr)	85

Emissions (based on site energy use)

Greenhouse Gas Emissions ($MtCO_2e$/year)	112

Electric Distribution Utility
Public Service Electric & Gas Co

National Median Comparison

National Median Site EUI	99
National Median Source EUI	174
% Difference from National Median Source EUI	-51%
Building Type	K-12 School

Stamp of Certifying Professional

Based on the conditions observed at the time of my visit to this building, I certify that the information contained within this statement is accurate.

Certifying Professional
N/A

Meets Industry Standards[5] **for Indoor Environmental Conditions:**

Ventilation for Acceptable Indoor Air Quality	**N/A**
Acceptable Thermal Environmental Conditions	**N/A**
Adequate Illumination	**N/A**

Notes:
1. Application for the ENERGY STAR must be submitted to EPA within 4 months of the Period Ending date. Award of the ENERGY STAR is not final until approval is received from EPA.
2. The EPA Energy Performance Rating is based on total source energy. A rating of 75 is the minimum to be eligible for the ENERGY STAR.
3. Values represent energy consumption, annualized to a 12-month period.
4. Values represent energy intensity, annualized to a 12-month period.
5. Based on Meeting ASHRAE Standard 62 for ventilation for acceptable indoor air quality, ASHRAE Standard 55 for thermal comfort, and IESNA Lighting Handbook for lighting quality.

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Facility
Woodbridge - Pennsylvania Ave Elementary School (#27)
80 n. Pennsylvania Avenue
Colonia, NJ 07067

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

General Information

Woodbridge - Pennsylvania Ave Elementary School (#27)	
Gross Floor Area Excluding Parking: (ft^2)	28,799
Year Built	1964
For 12-month Evaluation Period Ending Date:	November 30, 2012

Facility Space Use Summary

Woodbridge - Pennsylvania Ave Elementary School (#	
Space Type	K-12 School
Gross Floor Area (ft^2)	28,799
Open Weekends?	No
Number of PCs	99
Number of walk-in refrigeration/freezer units	0
Presence of cooking facilities	Yes
Percent Cooled	90
Percent Heated	100
Months °	10
High School?	No
School District °	N/A

Energy Performance Comparison

	Evaluation Periods		Comparisons		
Performance Metrics	**Current** (Ending Date 11/30/2012)	**Baseline** (Ending Date 11/30/2012)	**Rating of 75**	**Target**	**National Median**
Energy Performance Rating	97	97	75	N/A	50
Energy Intensity					
Site (kBtu/ft^2)	48	48	78	N/A	99
Source (kBtu/ft^2)	85	85	136	N/A	174
Energy Cost					
$/year	N/A	N/A	N/A	N/A	N/A
$/$ft^2$/year	N/A	N/A	N/A	N/A	N/A
Greenhouse Gas Emissions					
$MtCO_2e$/year	112	112	180	N/A	231
$kgCO_2e/ft^2$/year	4	4	6	N/A	8

More than 50% of your building is defined as K-12 School. Please note that your rating accounts for all of the spaces listed. The National Median column presents energy performance data your building would have if your building had a median rating of 50.

Notes:
o - This attribute is optional.
d - A default value has been supplied by Portfolio Manager.

OMB No. 2060-0347

STATEMENT OF ENERGY PERFORMANCE
Woodbridge - Matthew Jago Elem School (#28)

Building ID: 3489265
For 12-month Period Ending: November 30, 2012[1]
Date SEP becomes ineligible: N/A
Date SEP Generated: April 22, 2013

Facility
Woodbridge - Matthew Jago Elem School (#28)
99 Central Avenue
Sewaren, NJ 07077

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

Year Built: 1969
Gross Floor Area (ft²): 51,311

Energy Performance Rating[2] (1-100) 95

Site Energy Use Summary[3]

Electricity - Grid Purchase(kBtu)	914,334
Natural Gas (kBtu)[4]	1,858,316
Total Energy (kBtu)	2,772,650

Energy Intensity[4]

Site (kBtu/ft²/yr)	54
Source (kBtu/ft²/yr)	97

Emissions (based on site energy use)

Greenhouse Gas Emissions ($MtCO_2e$/year)	228

Electric Distribution Utility
Public Service Electric & Gas Co

National Median Comparison

National Median Site EUI	100
National Median Source EUI	181
% Difference from National Median Source EUI	-46%
Building Type	K-12 School

Stamp of Certifying Professional

Based on the conditions observed at the time of my visit to this building, I certify that the information contained within this statement is accurate.

Certifying Professional
N/A

Meets Industry Standards[5] **for Indoor Environmental Conditions:**

Ventilation for Acceptable Indoor Air Quality	**N/A**
Acceptable Thermal Environmental Conditions	**N/A**
Adequate Illumination	**N/A**

Notes:
1. Application for the ENERGY STAR must be submitted to EPA within 4 months of the Period Ending date. Award of the ENERGY STAR is not final until approval is received from EPA.
2. The EPA Energy Performance Rating is based on total source energy. A rating of 75 is the minimum to be eligible for the ENERGY STAR.
3. Values represent energy consumption, annualized to a 12-month period.
4. Values represent energy intensity, annualized to a 12-month period.
5. Based on Meeting ASHRAE Standard 62 for ventilation for acceptable indoor air quality, ASHRAE Standard 55 for thermal comfort, and IESNA Lighting Handbook for lighting quality.

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Facility
Woodbridge - Matthew Jago Elem School (#28)
99 Central Avenue
Sewaren, NJ 07077

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

General Information

Woodbridge - Matthew Jago Elem School (#28)	
Gross Floor Area Excluding Parking: (ft^2)	51,311
Year Built	1969
For 12-month Evaluation Period Ending Date:	November 30, 2012

Facility Space Use Summary

Woodbridge - Matthew Jago Elem School (#28)	
Space Type	K-12 School
Gross Floor Area (ft^2)	51,311
Open Weekends?	No
Number of PCs	271
Number of walk-in refrigeration/freezer units	0
Presence of cooking facilities	Yes
Percent Cooled	90
Percent Heated	100
Months °	10
High School?	No
School District °	N/A

Energy Performance Comparison

	Evaluation Periods		Comparisons		
Performance Metrics	**Current** (Ending Date 11/30/2012)	**Baseline** (Ending Date 11/30/2012)	**Rating of 75**	**Target**	**National Median**
Energy Performance Rating	95	95	75	N/A	50
Energy Intensity					
Site ($kBtu/ft^2$)	54	54	78	N/A	100
Source ($kBtu/ft^2$)	97	97	141	N/A	181
Energy Cost					
$/year	N/A	N/A	N/A	N/A	N/A
$/$ft^2$/year	N/A	N/A	N/A	N/A	N/A
Greenhouse Gas Emissions					
$MtCO_2e$/year	228	228	330	N/A	422
$kgCO_2e/ft^2$/year	4	4	6	N/A	7

More than 50% of your building is defined as K-12 School. Please note that your rating accounts for all of the spaces listed. The National Median column presents energy performance data your building would have if your building had a median rating of 50.

Notes:
o - This attribute is optional.
d - A default value has been supplied by Portfolio Manager.

OMB No. 2060-0347

STATEMENT OF ENERGY PERFORMANCE
Woodbridge - Avenel Middle School (#40)

Building ID: 3489328
For 12-month Period Ending: November 30, 2012[1]
Date SEP becomes ineligible: N/A
Date SEP Generated: April 22, 2013

Facility
Woodbridge - Avenel Middle School (#40)
85 Woodbine Avenue
Avenel, NJ 07001

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

Year Built: 1964
Gross Floor Area (ft²): 118,667

Energy Performance Rating[2] (1-100) 96

Site Energy Use Summary[3]	
Electricity - Grid Purchase(kBtu)	1,947,405
Natural Gas (kBtu)[4]	3,548,999
Total Energy (kBtu)	5,496,404

Energy Intensity[4]	
Site (kBtu/ft²/yr)	46
Source (kBtu/ft²/yr)	86

Emissions (based on site energy use)	
Greenhouse Gas Emissions ($MtCO_2e$/year)	465

Electric Distribution Utility
Public Service Electric & Gas Co

National Median Comparison	
National Median Site EUI	91
National Median Source EUI	168
% Difference from National Median Source EUI	-49%
Building Type	K-12 School

Stamp of Certifying Professional

Based on the conditions observed at the time of my visit to this building, I certify that the information contained within this statement is accurate.

Certifying Professional
N/A

Meets Industry Standards[5] **for Indoor Environmental Conditions:**	
Ventilation for Acceptable Indoor Air Quality	**N/A**
Acceptable Thermal Environmental Conditions	**N/A**
Adequate Illumination	**N/A**

Notes:
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2. The EPA Energy Performance Rating is based on total source energy. A rating of 75 is the minimum to be eligible for the ENERGY STAR.
3. Values represent energy consumption, annualized to a 12-month period.
4. Values represent energy intensity, annualized to a 12-month period.
5. Based on Meeting ASHRAE Standard 62 for ventilation for acceptable indoor air quality, ASHRAE Standard 55 for thermal comfort, and IESNA Lighting Handbook for lighting quality.

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FOR YOUR RECORDS ONLY. DO NOT SUBMIT TO EPA.

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Facility
Woodbridge - Avenel Middle School (#40)
85 Woodbine Avenue
Avenel, NJ 07001

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

General Information

Woodbridge - Avenel Middle School (#40)	
Gross Floor Area Excluding Parking: (ft^2)	118,667
Year Built	1964
For 12-month Evaluation Period Ending Date:	November 30, 2012

Facility Space Use Summary

Woodbridge - Avenel Middle School (#40)	
Space Type	K-12 School
Gross Floor Area (ft^2)	118,667
Open Weekends?	Yes
Number of PCs	324
Number of walk-in refrigeration/freezer units	2
Presence of cooking facilities	Yes
Percent Cooled	90
Percent Heated	100
Months °	10
High School?	No
School District °	N/A

Energy Performance Comparison

	Evaluation Periods		Comparisons		
Performance Metrics	**Current** (Ending Date 11/30/2012)	**Baseline** (Ending Date 11/30/2012)	**Rating of 75**	**Target**	**National Median**
Energy Performance Rating	96	96	75	N/A	50
Energy Intensity					
Site ($kBtu/ft^2$)	46	46	71	N/A	91
Source ($kBtu/ft^2$)	86	86	132	N/A	168
Energy Cost					
$/year	N/A	N/A	N/A	N/A	N/A
$/$ft^2$/year	N/A	N/A	N/A	N/A	N/A
Greenhouse Gas Emissions					
$MtCO_2e$/year	465	465	711	N/A	909
$kgCO_2e/ft^2$/year	4	4	6	N/A	8

More than 50% of your building is defined as K-12 School. Please note that your rating accounts for all of the spaces listed. The National Median column presents energy performance data your building would have if your building had a median rating of 50.

Notes:
o - This attribute is optional.
d - A default value has been supplied by Portfolio Manager.

OMB No. 2060-0347

STATEMENT OF ENERGY PERFORMANCE
Woodbridge - Colonia Middle School (#41)

Building ID: 3489354
For 12-month Period Ending: November 30, 2012[1]
Date SEP becomes ineligible: N/A
Date SEP Generated: April 22, 2013

Facility
Woodbridge - Colonia Middle School (#41)
100 Delaware Avenue
Colonia, NJ 07067

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

Year Built: 1960
Gross Floor Area (ft²): 102,959

Energy Performance Rating[2] (1-100) 100

Site Energy Use Summary[3]

Electricity - Grid Purchase(kBtu)	1,240,033
Natural Gas (kBtu)[4]	2,354,196
Total Energy (kBtu)	3,594,229

Energy Intensity[4]

Site (kBtu/ft²/yr)	35
Source (kBtu/ft²/yr)	64

Emissions (based on site energy use)

Greenhouse Gas Emissions ($MtCO_2e$/year)	301

Electric Distribution Utility
Public Service Electric & Gas Co

National Median Comparison

National Median Site EUI	96
National Median Source EUI	176
% Difference from National Median Source EUI	-64%
Building Type	K-12 School

Stamp of Certifying Professional

Based on the conditions observed at the time of my visit to this building, I certify that the information contained within this statement is accurate.

Certifying Professional
N/A

Meets Industry Standards[5] **for Indoor Environmental Conditions:**

Ventilation for Acceptable Indoor Air Quality	**N/A**
Acceptable Thermal Environmental Conditions	**N/A**
Adequate Illumination	**N/A**

Notes:
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4. Values represent energy intensity, annualized to a 12-month period.
5. Based on Meeting ASHRAE Standard 62 for ventilation for acceptable indoor air quality, ASHRAE Standard 55 for thermal comfort, and IESNA Lighting Handbook for lighting quality.

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Facility
Woodbridge - Colonia Middle School (#41)
100 Delaware Avenue
Colonia, NJ 07067

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

General Information

Woodbridge - Colonia Middle School (#41)	
Gross Floor Area Excluding Parking: (ft^2)	102,959
Year Built	1960
For 12-month Evaluation Period Ending Date:	November 30, 2012

Facility Space Use Summary

Woodbridge - Colonia Middle School (#41)	
Space Type	K-12 School
Gross Floor Area (ft^2)	102,959
Open Weekends?	Yes
Number of PCs	322
Number of walk-in refrigeration/freezer units	2
Presence of cooking facilities	Yes
Percent Cooled	90
Percent Heated	100
Months °	10
High School?	No
School District °	N/A

Energy Performance Comparison

	Evaluation Periods		Comparisons		
Performance Metrics	**Current** (Ending Date 11/30/2012)	**Baseline** (Ending Date 11/30/2012)	**Rating of 75**	**Target**	**National Median**
Energy Performance Rating	100	100	75	N/A	50
Energy Intensity					
Site ($kBtu/ft^2$)	35	35	75	N/A	96
Source ($kBtu/ft^2$)	64	64	138	N/A	176
Energy Cost					
$/year	N/A	N/A	N/A	N/A	N/A
$/$ft^2$/year	N/A	N/A	N/A	N/A	N/A
Greenhouse Gas Emissions					
$MtCO_2e$/year	301	301	646	N/A	827
$kgCO_2e/ft^2$/year	3	3	6	N/A	8

More than 50% of your building is defined as K-12 School. Please note that your rating accounts for all of the spaces listed. The National Median column presents energy performance data your building would have if your building had a median rating of 50.

Notes:
o - This attribute is optional.
d - A default value has been supplied by Portfolio Manager.

OMB No. 2060-0347

STATEMENT OF ENERGY PERFORMANCE
Woodbridge - Fords Middle School (#42)

Building ID: 3489308
For 12-month Period Ending: November 30, 2012[1]
Date SEP becomes ineligible: N/A
Date SEP Generated: April 22, 2013

Facility
Woodbridge - Fords Middle School (#42)
100 Fanning Street
Fords, NJ 08863

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

Year Built: 1960
Gross Floor Area (ft²): 119,588

Energy Performance Rating[2] (1-100) 100

Site Energy Use Summary[3]

Electricity - Grid Purchase(kBtu)	1,030,520
Natural Gas (kBtu)[4]	3,016,970
Total Energy (kBtu)	4,047,490

Energy Intensity[4]

Site (kBtu/ft²/yr)	34
Source (kBtu/ft²/yr)	55

Emissions (based on site energy use)

Greenhouse Gas Emissions ($MtCO_2e$/year)	306

Electric Distribution Utility
Public Service Electric & Gas Co

National Median Comparison

National Median Site EUI	92
National Median Source EUI	149
% Difference from National Median Source EUI	-63%
Building Type	K-12 School

Stamp of Certifying Professional

Based on the conditions observed at the time of my visit to this building, I certify that the information contained within this statement is accurate.

Certifying Professional
N/A

Meets Industry Standards[5] **for Indoor Environmental Conditions:**

Ventilation for Acceptable Indoor Air Quality	**N/A**
Acceptable Thermal Environmental Conditions	**N/A**
Adequate Illumination	**N/A**

Notes:
1. Application for the ENERGY STAR must be submitted to EPA within 4 months of the Period Ending date. Award of the ENERGY STAR is not final until approval is received from EPA.
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3. Values represent energy consumption, annualized to a 12-month period.
4. Values represent energy intensity, annualized to a 12-month period.
5. Based on Meeting ASHRAE Standard 62 for ventilation for acceptable indoor air quality, ASHRAE Standard 55 for thermal comfort, and IESNA Lighting Handbook for lighting quality.

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Facility
Woodbridge - Fords Middle School (#42)
100 Fanning Street
Fords, NJ 08863

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

General Information

Woodbridge - Fords Middle School (#42)	
Gross Floor Area Excluding Parking: (ft^2)	119,588
Year Built	1960
For 12-month Evaluation Period Ending Date:	November 30, 2012

Facility Space Use Summary

Woodbridge - Fords Middle School (#42)	
Space Type	K-12 School
Gross Floor Area (ft^2)	119,588
Open Weekends?	Yes
Number of PCs	84
Number of walk-in refrigeration/freezer units	2
Presence of cooking facilities	Yes
Percent Cooled	90
Percent Heated	100
Months °	10
High School?	No
School District °	N/A

Energy Performance Comparison

	Evaluation Periods		Comparisons		
Performance Metrics	**Current** (Ending Date 11/30/2012)	**Baseline** (Ending Date 11/30/2012)	**Rating of 75**	**Target**	**National Median**
Energy Performance Rating	100	100	75	N/A	50
Energy Intensity					
Site (kBtu/ft^2)	34	34	72	N/A	92
Source (kBtu/ft^2)	55	55	117	N/A	149
Energy Cost					
$/year	N/A	N/A	N/A	N/A	N/A
$/$ft^2$/year	N/A	N/A	N/A	N/A	N/A
Greenhouse Gas Emissions					
$MtCO_2e$/year	306	306	647	N/A	828
$kgCO_2e/ft^2$/year	3	3	6	N/A	8

More than 50% of your building is defined as K-12 School. Please note that your rating accounts for all of the spaces listed. The National Median column presents energy performance data your building would have if your building had a median rating of 50.

Notes:
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d - A default value has been supplied by Portfolio Manager.

OMB No. 2060-0347

STATEMENT OF ENERGY PERFORMANCE
Woodbridge - Iselin Middle School (#43)

Building ID: 3489373
For 12-month Period Ending: November 30, 2012[1]
Date SEP becomes ineligible: N/A
Date SEP Generated: April 22, 2013

Facility
Woodbridge - Iselin Middle School (#43)
900n Woodruff Street
Iselin, NJ 08830

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

Year Built: 1960
Gross Floor Area (ft²): 97,972

Energy Performance Rating[2] (1-100) 98

Site Energy Use Summary[3]

Electricity - Grid Purchase(kBtu)	835,350
Natural Gas (kBtu)[4]	5,016,190
Total Energy (kBtu)	5,851,540

Energy Intensity[4]

Site (kBtu/ft²/yr)	60
Source (kBtu/ft²/yr)	82

Emissions (based on site energy use)

Greenhouse Gas Emissions ($MtCO_2e$/year)	385

Electric Distribution Utility
Public Service Electric & Gas Co

National Median Comparison

National Median Site EUI	130
National Median Source EUI	179
% Difference from National Median Source EUI	-54%
Building Type	K-12 School

Stamp of Certifying Professional

Based on the conditions observed at the time of my visit to this building, I certify that the information contained within this statement is accurate.

Certifying Professional
N/A

Meets Industry Standards[5] **for Indoor Environmental Conditions:**

Ventilation for Acceptable Indoor Air Quality	**N/A**
Acceptable Thermal Environmental Conditions	**N/A**
Adequate Illumination	**N/A**

Notes:
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4. Values represent energy intensity, annualized to a 12-month period.
5. Based on Meeting ASHRAE Standard 62 for ventilation for acceptable indoor air quality, ASHRAE Standard 55 for thermal comfort, and IESNA Lighting Handbook for lighting quality.

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Facility
Woodbridge - Iselin Middle School (#43)
900n Woodruff Street
Iselin, NJ 08830

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

General Information

Woodbridge - Iselin Middle School (#43)	
Gross Floor Area Excluding Parking: (ft^2)	97,972
Year Built	1960
For 12-month Evaluation Period Ending Date:	November 30, 2012

Facility Space Use Summary

Woodbridge - Iselin Middle School (#43)	
Space Type	K-12 School
Gross Floor Area (ft^2)	97,972
Open Weekends?	Yes
Number of PCs	320
Number of walk-in refrigeration/freezer units	2
Presence of cooking facilities	Yes
Percent Cooled	90
Percent Heated	100
Months °	10
High School?	No
School District °	N/A

Energy Performance Comparison

	Evaluation Periods		Comparisons		
Performance Metrics	**Current** (Ending Date 11/30/2012)	**Baseline** (Ending Date 11/30/2012)	**Rating of 75**	**Target**	**National Median**
Energy Performance Rating	98	98	75	N/A	50
Energy Intensity					
Site ($kBtu/ft^2$)	60	60	102	N/A	130
Source ($kBtu/ft^2$)	82	82	140	N/A	179
Energy Cost					
$/year	N/A	N/A	N/A	N/A	N/A
$/$ft^2$/year	N/A	N/A	N/A	N/A	N/A
Greenhouse Gas Emissions					
$MtCO_2e$/year	385	385	656	N/A	839
$kgCO_2e/ft^2$/year	4	4	7	N/A	9

More than 50% of your building is defined as K-12 School. Please note that your rating accounts for all of the spaces listed. The National Median column presents energy performance data your building would have if your building had a median rating of 50.

Notes:
o - This attribute is optional.
d - A default value has been supplied by Portfolio Manager.

OMB No. 2060-0347

STATEMENT OF ENERGY PERFORMANCE
Woodbridge Middle School (#44)

Building ID: 3489408
For 12-month Period Ending: November 30, 2012[1]
Date SEP becomes ineligible: N/A
Date SEP Generated: April 22, 2013

Facility
Woodbridge Middle School (#44)
525 Barron Avenue
Woodbridge, NJ 07095

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

Year Built: 1910
Gross Floor Area (ft²): 79,113

Energy Performance Rating[2] (1-100) 82

Site Energy Use Summary[3]

Electricity - Grid Purchase(kBtu)	1,533,025
Natural Gas (kBtu)[4]	4,968,467
Total Energy (kBtu)	6,501,492

Energy Intensity[4]

Site (kBtu/ft²/yr)	82
Source (kBtu/ft²/yr)	130

Emissions (based on site energy use)

Greenhouse Gas Emissions ($MtCO_2e$/year)	481

Electric Distribution Utility
Public Service Electric & Gas Co

National Median Comparison

National Median Site EUI	116
National Median Source EUI	184
% Difference from National Median Source EUI	-29%
Building Type	K-12 School

Stamp of Certifying Professional

Based on the conditions observed at the time of my visit to this building, I certify that the information contained within this statement is accurate.

Certifying Professional
N/A

Meets Industry Standards[5] **for Indoor Environmental Conditions:**

Ventilation for Acceptable Indoor Air Quality	**N/A**
Acceptable Thermal Environmental Conditions	**N/A**
Adequate Illumination	**N/A**

Notes:
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3. Values represent energy consumption, annualized to a 12-month period.
4. Values represent energy intensity, annualized to a 12-month period.
5. Based on Meeting ASHRAE Standard 62 for ventilation for acceptable indoor air quality, ASHRAE Standard 55 for thermal comfort, and IESNA Lighting Handbook for lighting quality.

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Facility
Woodbridge Middle School (#44)
525 Barron Avenue
Woodbridge, NJ 07095

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

General Information

Woodbridge Middle School (#44)	
Gross Floor Area Excluding Parking: (ft^2)	79,113
Year Built	1910
For 12-month Evaluation Period Ending Date:	November 30, 2012

Facility Space Use Summary

Woodbridge Middle School (#44)	
Space Type	K-12 School
Gross Floor Area (ft^2)	79,113
Open Weekends?	Yes
Number of PCs	246
Number of walk-in refrigeration/freezer units	2
Presence of cooking facilities	Yes
Percent Cooled	90
Percent Heated	100
Months °	10
High School?	No
School District °	N/A

Energy Performance Comparison

	Evaluation Periods		Comparisons		
Performance Metrics	**Current** (Ending Date 11/30/2012)	**Baseline** (Ending Date 11/30/2012)	**Rating of 75**	**Target**	**National Median**
Energy Performance Rating	82	82	75	N/A	50
Energy Intensity					
Site ($kBtu/ft^2$)	82	82	91	N/A	116
Source ($kBtu/ft^2$)	130	130	144	N/A	184
Energy Cost					
$/year	N/A	N/A	N/A	N/A	N/A
$/$ft^2$/year	N/A	N/A	N/A	N/A	N/A
Greenhouse Gas Emissions					
$MtCO_2e$/year	481	481	531	N/A	679
$kgCO_2e/ft^2$/year	6	6	7	N/A	8

More than 50% of your building is defined as K-12 School. Please note that your rating accounts for all of the spaces listed. The National Median column presents energy performance data your building would have if your building had a median rating of 50.

Notes:
o - This attribute is optional.
d - A default value has been supplied by Portfolio Manager.

OMB No. 2060-0347

STATEMENT OF ENERGY PERFORMANCE
Woodbridge High School (#50)

Building ID: 3489463
For 12-month Period Ending: November 30, 2012[1]
Date SEP becomes ineligible: N/A
Date SEP Generated: April 22, 2013

Facility
Woodbridge High School (#50)
25 Kelly Street
Woodbridgen, NJ 07095

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

Year Built: 1949
Gross Floor Area (ft²): 204,206

Energy Performance Rating[2] (1-100) 83

Site Energy Use Summary[3]

Electricity - Grid Purchase(kBtu)	3,672,926
Natural Gas (kBtu)[4]	9,417,827
Total Energy (kBtu)	13,090,753

Energy Intensity[4]

Site (kBtu/ft²/yr)	64
Source (kBtu/ft²/yr)	108

Emissions (based on site energy use)

Greenhouse Gas Emissions ($MtCO_2e$/year)	1,021

Electric Distribution Utility
Public Service Electric & Gas Co

National Median Comparison

National Median Site EUI	92
National Median Source EUI	156
% Difference from National Median Source EUI	-30%
Building Type	K-12 School

Stamp of Certifying Professional

Based on the conditions observed at the time of my visit to this building, I certify that the information contained within this statement is accurate.

Certifying Professional
N/A

Meets Industry Standards[5] **for Indoor Environmental Conditions:**

Ventilation for Acceptable Indoor Air Quality	**N/A**
Acceptable Thermal Environmental Conditions	**N/A**
Adequate Illumination	**N/A**

Notes:
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2. The EPA Energy Performance Rating is based on total source energy. A rating of 75 is the minimum to be eligible for the ENERGY STAR.
3. Values represent energy consumption, annualized to a 12-month period.
4. Values represent energy intensity, annualized to a 12-month period.
5. Based on Meeting ASHRAE Standard 62 for ventilation for acceptable indoor air quality, ASHRAE Standard 55 for thermal comfort, and IESNA Lighting Handbook for lighting quality.

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Facility
Woodbridge High School (#50)
25 Kelly Street
Woodbridgen, NJ 07095

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

General Information

Woodbridge High School (#50)	
Gross Floor Area Excluding Parking: (ft^2)	204,206
Year Built	1949
For 12-month Evaluation Period Ending Date:	November 30, 2012

Facility Space Use Summary

Woodbridge High School (#50)	
Space Type	K-12 School
Gross Floor Area (ft^2)	204,206
Open Weekends?	Yes
Number of PCs	240
Number of walk-in refrigeration/freezer units	2
Presence of cooking facilities	Yes
Percent Cooled	90
Percent Heated	100
Months °	10
High School?	Yes
School District °	N/A

Energy Performance Comparison

	Evaluation Periods		Comparisons		
Performance Metrics	**Current** (Ending Date 11/30/2012)	**Baseline** (Ending Date 11/30/2012)	**Rating of 75**	**Target**	**National Median**
Energy Performance Rating	83	83	75	N/A	50
Energy Intensity					
Site ($kBtu/ft^2$)	64	64	72	N/A	92
Source ($kBtu/ft^2$)	108	108	122	N/A	156
Energy Cost					
$/year	N/A	N/A	N/A	N/A	N/A
$/$ft^2$/year	N/A	N/A	N/A	N/A	N/A
Greenhouse Gas Emissions					
$MtCO_2e$/year	1,021	1,021	1,150	N/A	1,470
$kgCO_2e/ft^2$/year	5	5	6	N/A	7

More than 50% of your building is defined as K-12 School. Please note that your rating accounts for all of the spaces listed. The National Median column presents energy performance data your building would have if your building had a median rating of 50.

Notes:
o - This attribute is optional.
d - A default value has been supplied by Portfolio Manager.

OMB No. 2060-0347

STATEMENT OF ENERGY PERFORMANCE
Woodbridge - JFK High School (#51)

Building ID: 3490814
For 12-month Period Ending: November 30, 2012[1]
Date SEP becomes ineligible: N/A
Date SEP Generated: April 22, 2013

Facility
Woodbridge - JFK High School (#51)
200 Washington Avenue
Iselin, NJ 08830

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

Year Built: 1964
Gross Floor Area (ft²): 172,250

Energy Performance Rating[2] (1-100) 100

Site Energy Use Summary[3]

Electricity - Grid Purchase(kBtu)	2,983,439
Natural Gas (kBtu)[4]	120,956
Total Energy (kBtu)	3,104,395

Energy Intensity[4]

Site (kBtu/ft²/yr)	18
Source (kBtu/ft²/yr)	59

Emissions (based on site energy use)

Greenhouse Gas Emissions ($MtCO_2e$/year)	429

Electric Distribution Utility
Public Service Electric & Gas Co

National Median Comparison

National Median Site EUI	49
National Median Source EUI	158
% Difference from National Median Source EUI	-63%
Building Type	K-12 School

Stamp of Certifying Professional

Based on the conditions observed at the time of my visit to this building, I certify that the information contained within this statement is accurate.

Certifying Professional
N/A

Meets Industry Standards[5] **for Indoor Environmental Conditions:**

Ventilation for Acceptable Indoor Air Quality	**N/A**
Acceptable Thermal Environmental Conditions	**N/A**
Adequate Illumination	**N/A**

Notes:
1. Application for the ENERGY STAR must be submitted to EPA within 4 months of the Period Ending date. Award of the ENERGY STAR is not final until approval is received from EPA.
2. The EPA Energy Performance Rating is based on total source energy. A rating of 75 is the minimum to be eligible for the ENERGY STAR.
3. Values represent energy consumption, annualized to a 12-month period.
4. Values represent energy intensity, annualized to a 12-month period.
5. Based on Meeting ASHRAE Standard 62 for ventilation for acceptable indoor air quality, ASHRAE Standard 55 for thermal comfort, and IESNA Lighting Handbook for lighting quality.

The government estimates the average time needed to fill out this form is 6 hours (includes the time for entering energy data, Licensed Professional facility inspection, and notarizing the SEP) and welcomes suggestions for reducing this level of effort. Send comments (referencing OMB control number) to the Director, Collection Strategies Division, U.S., EPA (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460.

FOR YOUR RECORDS ONLY. DO NOT SUBMIT TO EPA.

Please keep this Facility Summary for your own records; do not submit it to EPA. Only the Statement of Energy Performance (SEP), Data Checklist and Letter of Agreement need to be submitted to EPA when applying for the ENERGY STAR.

Facility
Woodbridge - JFK High School (#51)
200 Washington Avenue
Iselin, NJ 08830

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

General Information

Woodbridge - JFK High School (#51)	
Gross Floor Area Excluding Parking: (ft^2)	172,250
Year Built	1964
For 12-month Evaluation Period Ending Date:	November 30, 2012

Facility Space Use Summary

Woodbridge - JFK High School (#51)	
Space Type	K-12 School
Gross Floor Area (ft^2)	172,250
Open Weekends?	Yes
Number of PCs	280
Number of walk-in refrigeration/freezer units	2
Presence of cooking facilities	Yes
Percent Cooled	90
Percent Heated	100
Months °	10
High School?	Yes
School District °	N/A

Energy Performance Comparison

	Evaluation Periods		Comparisons		
Performance Metrics	**Current** (Ending Date 11/30/2012)	**Baseline** (Ending Date 11/30/2012)	**Rating of 75**	**Target**	**National Median**
Energy Performance Rating	100	100	75	N/A	50
Energy Intensity					
Site ($kBtu/ft^2$)	18	18	38	N/A	49
Source ($kBtu/ft^2$)	59	59	124	N/A	158
Energy Cost					
$/year	N/A	N/A	N/A	N/A	N/A
$/$ft^2$/year	N/A	N/A	N/A	N/A	N/A
Greenhouse Gas Emissions					
$MtCO_2e$/year	429	429	906	N/A	1,159
$kgCO_2e/ft^2$/year	2	2	4	N/A	5

More than 50% of your building is defined as K-12 School. Please note that your rating accounts for all of the spaces listed. The National Median column presents energy performance data your building would have if your building had a median rating of 50.

Notes:
o - This attribute is optional.
d - A default value has been supplied by Portfolio Manager.

OMB No. 2060-0347

STATEMENT OF ENERGY PERFORMANCE
Woodbridge - Colonia High School (#52)

Building ID: 3490901
For 12-month Period Ending: November 30, 2012[1]
Date SEP becomes ineligible: N/A
Date SEP Generated: April 22, 2013

Facility
Woodbridge - Colonia High School (#52)
180 East Street
Colonia, NJ 07067

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

Year Built: 1967
Gross Floor Area (ft²): 196,269

Energy Performance Rating[2] (1-100) 97

Site Energy Use Summary[3]

Electricity - Grid Purchase(kBtu)	2,947,627
Natural Gas (kBtu)[4]	4,093,775
Total Energy (kBtu)	7,041,402

Energy Intensity[4]

Site (kBtu/ft²/yr)	36
Source (kBtu/ft²/yr)	72

Emissions (based on site energy use)

Greenhouse Gas Emissions ($MtCO_2e$/year)	635

Electric Distribution Utility
Public Service Electric & Gas Co

National Median Comparison

National Median Site EUI	76
National Median Source EUI	153
% Difference from National Median Source EUI	-53%
Building Type	K-12 School

Stamp of Certifying Professional

Based on the conditions observed at the time of my visit to this building, I certify that the information contained within this statement is accurate.

Certifying Professional
N/A

Meets Industry Standards[5] **for Indoor Environmental Conditions:**

Ventilation for Acceptable Indoor Air Quality	**N/A**
Acceptable Thermal Environmental Conditions	**N/A**
Adequate Illumination	**N/A**

Notes:
1. Application for the ENERGY STAR must be submitted to EPA within 4 months of the Period Ending date. Award of the ENERGY STAR is not final until approval is received from EPA.
2. The EPA Energy Performance Rating is based on total source energy. A rating of 75 is the minimum to be eligible for the ENERGY STAR.
3. Values represent energy consumption, annualized to a 12-month period.
4. Values represent energy intensity, annualized to a 12-month period.
5. Based on Meeting ASHRAE Standard 62 for ventilation for acceptable indoor air quality, ASHRAE Standard 55 for thermal comfort, and IESNA Lighting Handbook for lighting quality.

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Facility
Woodbridge - Colonia High School (#52)
180 East Street
Colonia, NJ 07067

Facility Owner
Woodbridge Township School District
PO Box 428 School Street
Woodbridge, NJ 07095

Primary Contact for this Facility
Dennis DeMarino
PO Box 428 School Street
Woodbridge, NJ 07095

General Information

Woodbridge - Colonia High School (#52)	
Gross Floor Area Excluding Parking: (ft^2)	196,269
Year Built	1967
For 12-month Evaluation Period Ending Date:	November 30, 2012

Facility Space Use Summary

Woodbridge - Colonia High School (#52)	
Space Type	K-12 School
Gross Floor Area (ft^2)	196,269
Open Weekends?	Yes
Number of PCs	187
Number of walk-in refrigeration/freezer units	2
Presence of cooking facilities	Yes
Percent Cooled	90
Percent Heated	100
Months °	10
High School?	Yes
School District °	N/A

Energy Performance Comparison

	Evaluation Periods		Comparisons		
Performance Metrics	**Current** (Ending Date 11/30/2012)	**Baseline** (Ending Date 11/30/2012)	**Rating of 75**	**Target**	**National Median**
Energy Performance Rating	97	97	75	N/A	50
Energy Intensity					
Site (kBtu/ft^2)	36	36	60	N/A	76
Source (kBtu/ft^2)	72	72	120	N/A	153
Energy Cost					
$/year	N/A	N/A	N/A	N/A	N/A
$/$ft^2$/year	N/A	N/A	N/A	N/A	N/A
Greenhouse Gas Emissions					
$MtCO_2e$/year	635	635	1,058	N/A	1,353
$kgCO_2e/ft^2$/year	3	3	5	N/A	6

More than 50% of your building is defined as K-12 School. Please note that your rating accounts for all of the spaces listed. The National Median column presents energy performance data your building would have if your building had a median rating of 50.

Notes:
o - This attribute is optional.
d - A default value has been supplied by Portfolio Manager.

Dome-Tech, Inc.

www.dome-tech.com

510 Thornall Street, Suite 170
Edison, NJ 08837

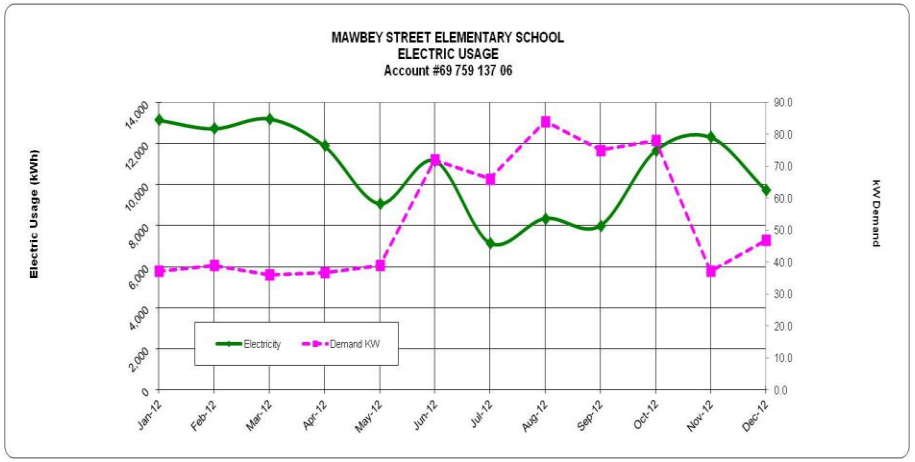
Tel: 732.590.0122
Fax: 732.590.0129

FACILITIES TOTAL ANNUAL ENERGY USE

Historic Energy Consumption

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012



MAWBEY STREET ELEMENTARY

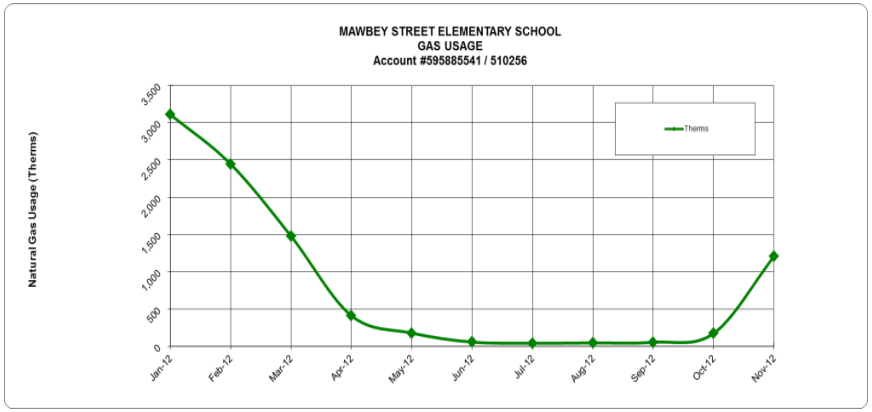
Facility Name Mawbey Street Elementary School (#01)
Address 275 Mawbey Street
Woodbridge, NJ 07095
69 759 137
Account# 06
Meter# 1080785 PoD ID: PE000009405017638706

Energy Type	Energy Unit	Start Date	End Date	Demand KW	KWH	PSE&G Delivery Cost	DIRECT ENERGY Supplier Cost	$/kWh
Electricity	kWh	12/8/2011	1/10/2012	37.2	13140	$579.64	$987.36	$0.12
Electricity	kWh	1/10/2012	2/8/2012	39.0	12720	$577.43	$1,119.36	$0.13
Electricity	kWh	2/8/2012	3/10/2012	36.0	13200	$580.12	$1,161.60	$0.13
Electricity	kWh	3/10/2012	4/10/2012	36.6	11880	$540.33	$1,045.44	$0.13
Electricity	kWh	4/10/2012	5/9/2012	39.0	9060	$460.09	$797.28	$0.14
Electricity	kWh	5/9/2012	6/8/2012	72.0	11160	$1,306.55	$982.08	$0.21
Electricity	kWh	6/8/2012	7/10/2012	66.0	7140	$1,088.91	$628.32	$0.24
Electricity	kWh	7/10/2012	8/8/2012	84.0	8340	$1,354.91	$733.92	$0.25
Electricity	kWh	8/8/2012	9/7/2012	75.0	7980	$1,231.94	$702.24	$0.24
Electricity	kWh	9/7/2012	10/8/2012	78.0	11640	$726.11	$1,024.32	$0.15
Electricity	kWh	10/8/2012	11/8/2012	37.2	12300	$572.55	$1,082.40	$0.13
Electricity	kWh	11/8/2012	12/7/2012	46.8	9720	$526.04	$855.36	$0.14
		TOTALS/AVERAGE		**53.9**	**128,280**	**$9,544.62**	**$11,119.68**	**$0.161**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012



MAWBEY STREET ELEMENTARY

Facility Name Mawbey Street Elementary School (#01)
Address 1 Mawbey Street
Woodbridge, NJ 07095
Account# 595885541 / 510256
Meter# 00025309

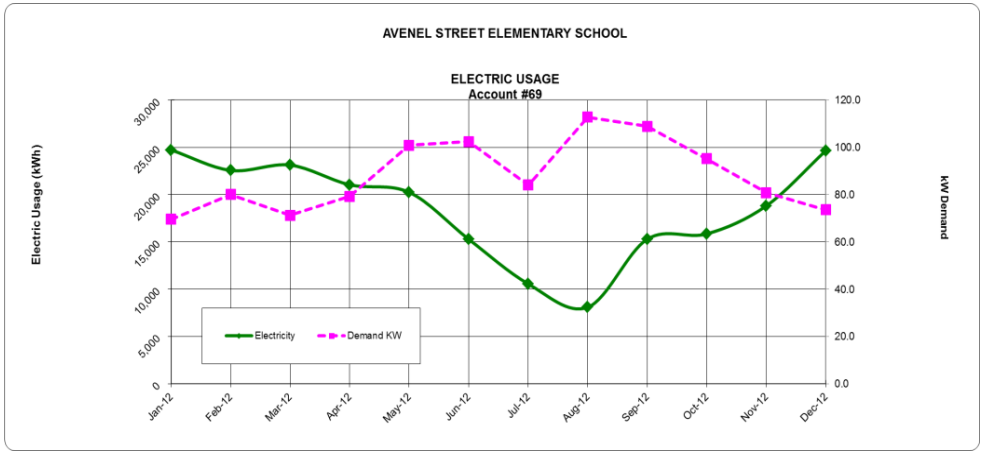
Energy Type	Energy Unit	Start Date	End Date	Therms	Elizabethtown Gas Delivery Cost	Woodruff Energy Supply Cost	$/Therm
Natural Gas	Therms	12/23/2011	1/25/2012	3,110	$1,015.09	$1,935.44	$0.949
Natural Gas	Therms	1/25/2012	2/24/2012	2,445	$776.77	$1,363.33	$0.875
Natural Gas	Therms	2/24/2012	3/26/2012	1,477	$473.05	$795.47	$0.859
Natural Gas	Therms	3/26/2012	4/25/2012	410	$140.17	$220.86	$0.881
Natural Gas	Therms	4/25/2012	5/24/2012	177	$71.29	$95.40	$0.941
Natural Gas	Therms	5/24/2012	6/25/2012	56	$36.34	$30.38	$1.183
Natural Gas	Therms	6/25/2012	7/25/2012	42	$32.32	$22.75	$1.305
Natural Gas	Therms	7/25/2012	8/24/2012	46	$33.33	$24.62	$1.268
Natural Gas	Therms	8/24/2012	9/25/2012	54	$35.93	$29.31	$1.199
Natural Gas	Therms	9/25/2012	10/24/2012	173	$75.84	$93.03	$0.978
Natural Gas	Therms	10/24/2012	11/21/2012	1,206	$427.77	$649.65	$0.893
		TOTALS/AVERAGE		**9,196**	**$3,117.90**	**$5,260.24**	**$0.911**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012

AVENEL STREET ELEMENTARY



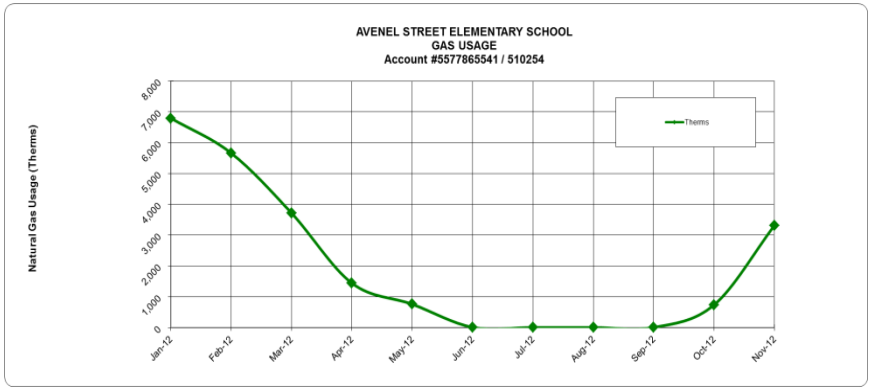
Facility Name Avenel Street Elementary School (#04)
Address 230 Avenel Street
Avenel, NJ 07001
Account# 69 760 224 06
Meter# 728007231 PoD ID: PE000011133676438706

Energy Type	Energy Unit	Start Date	End Date	Demand KW	KWH	PSE&G Delivery Cost	DIRECT ENERGY Supplier Cost	$/kWh
Electricity	kWh	12/14/2011	1/16/2012	69.6	24,720	$1,086.74	$2,175.36	$0.13
Electricity	kWh	1/16/2012	2/14/2012	80.0	22,560	$1,066.62	$1,985.28	$0.14
Electricity	kWh	2/14/2012	3/15/2012	71.2	23,120	$1,047.29	$2,034.56	$0.13
Electricity	kWh	3/15/2012	4/17/2012	79.2	21,040	$1,014.49	$1,851.52	$0.14
Electricity	kWh	4/17/2012	5/15/2012	100.8	20,240	$1,080.36	$1,781.12	$0.14
Electricity	kWh	5/15/2012	6/15/2012	102.4	15,280	$1,838.74	$1,344.64	$0.21
Electricity	kWh	6/15/2012	7/13/2012	84.0	10,560	$1,443.68	$929.28	$0.22
Electricity	kWh	7/13/2012	8/13/2012	112.8	8,080	$1,693.01	$711.04	$0.30
Electricity	kWh	8/13/2012	9/14/2012	108.8	15,280	$1,933.73	$1,344.64	$0.21
Electricity	kWh	9/14/2012	10/12/2012	95.2	15,840	$939.69	$1,393.92	$0.15
Electricity	kWh	10/12/2012	11/12/2012	80.8	18,800	$973.71	$1,654.40	$0.14
Electricity	kWh	11/12/2012	12/14/2012	73.6	24,640	$1,135.99	$2,168.32	$0.13
		TOTALS/AVERAGE		**88.2**	**220,160**	**$15,254.05**	**$19,374.08**	**$0.157**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012



AVENEL STREET ELEMENTARY

Facility Name Avenel Street Elementary School (#04)
Address 230 Avenel Street
Avenel, NJ 07001
Account# 5577865541 / 510254
Meter# 00033319

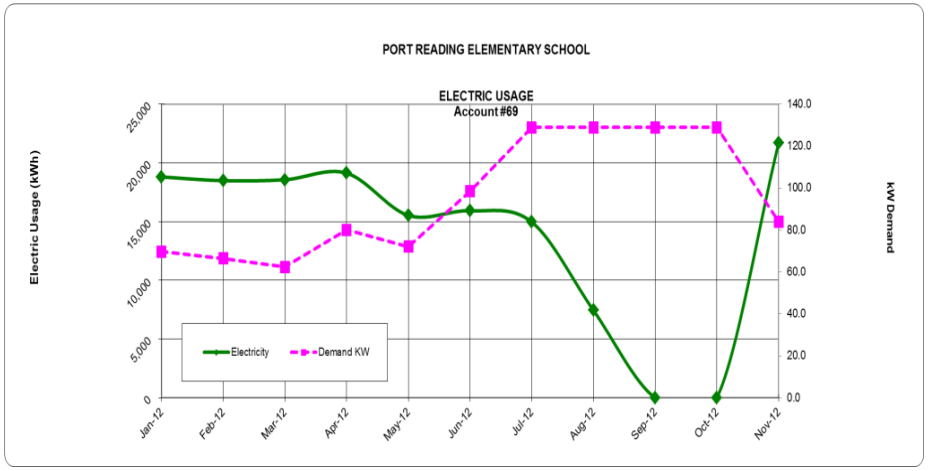
Energy Type	Energy Unit	Start Date	End Date	Therms	Elizabethtown Gas Delivery Cost	Woodruff Energy Supply Cost	$/Therm
Natural Gas	Therms	12/23/2011	1/25/2012	6,794	$2,193.65	$4,227.70	$0.945
Natural Gas	Therms	1/25/2012	2/24/2012	5,662	$1,772.48	$3,157.12	$0.871
Natural Gas	Therms	2/24/2012	3/26/2012	3,718	$1,160.61	$2,002.71	$0.851
Natural Gas	Therms	3/26/2012	4/25/2012	1,445	$443.41	$778.13	$0.846
Natural Gas	Therms	4/25/2012	5/24/2012	761	$240.34	$409.72	$0.855
Natural Gas	Therms	5/24/2012	6/25/2012	11	$23.23	$5.98	$2.632
Natural Gas	Therms	6/25/2012	7/25/2012	8	$22.27	$4.21	$3.395
Natural Gas	Therms	7/25/2012	8/24/2012	8	$22.27	$4.21	$3.395
Natural Gas	Therms	8/24/2012	9/25/2012	9	$22.61	$4.79	$3.079
Natural Gas	Therms	9/25/2012	10/24/2012	739	$259.04	$398.30	$0.889
Natural Gas	Therms	10/24/2012	11/21/2012	3,315	$1,140.91	$1,785.83	$0.883
		TOTALS/AVERAGE		**22,469**	**$7,300.82**	**$12,778.70**	**$0.894**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012

PORT READING ELEMENTARY



Facility Name Port Reading Elementary School (#09)
Address 77 Turner Street
Port Reading, NJ 07064
Account# 69 760 008 01
Meter# 9193542 PoD ID: PE000009867680238706

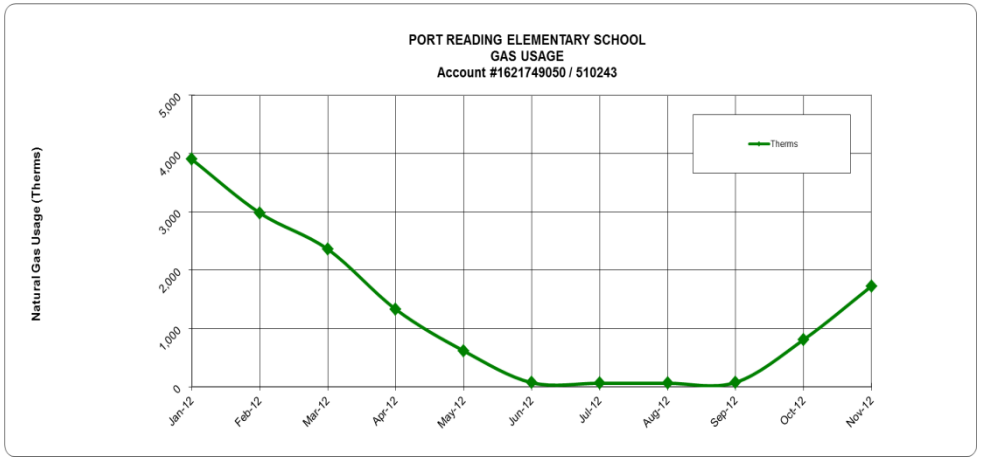
						PSE&G	DIRECT ENERGY	
Energy Type	**Energy Unit**	**Start Date**	**End Date**	**Demand KW**	**KWH**	**Delivery Cost**	**Supplier Cost**	**$/kWh**
Electricity	kWh	12/6/2011	1/6/2012	69.6	18,800	$895.97	$1,767.04	$0.14
Electricity	kWh	1/6/2012	2/6/2012	66.4	18,480	$878.18	$1,626.24	$0.14
Electricity	kWh	2/6/2012	3/7/2012	62.4	18,560	$863.79	$1,633.28	$0.13
Electricity	kWh	3/7/2012	4/5/2012	80.0	19,120	$956.32	$1,682.56	$0.14
Electricity	kWh	4/5/2012	5/7/2012	72.0	15,520	$807.01	$1,365.76	$0.14
Electricity	kWh	5/7/2012	6/6/2012	98.4	15,920	$1,808.10	$1,400.96	$0.20
Electricity	kWh	6/6/2012	7/6/2012	128.8	14,960	$2,161.96	$1,316.48	$0.23
Electricity	kWh	7/6/2012	8/6/2012	128.8	7,440	$1,562.76	$654.72	$0.30
Electricity	kWh	8/6/2012	9/5/2012	128.8	0	$1,562.76	$39.50	#DIV/0!
Electricity	kWh	9/5/2012	10/4/2012	128.8	0	$550.04	$0.00	#DIV/0!
Electricity	kWh	10/4/2012	11/5/2012	84.0	21,680	$1,084.42	$1,907.84	$0.14
		TOTALS/AVERAGE		**95.3**	**150,480**	**$13,131.31**	**$13,394.38**	**$0.176**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012

PORT READING ELEMENTARY



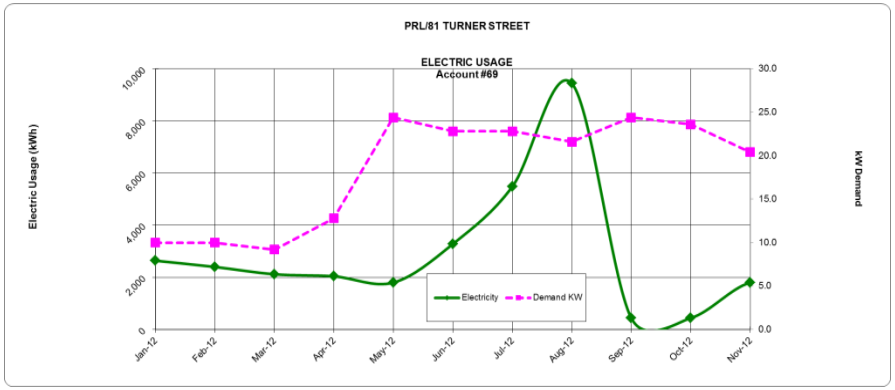
Facility Name	Port Reading Elementary School (#09)
Address	77 Turner Street
	Port Reading, NJ 07064
Account#	1621749050 / 510243
Meter#	00033316

Energy Type	Energy Unit	Start Date	End Date	Therms	Elizabethtown Gas Delivery Cost	Woodruff Energy Supply Cost	$/Therm
Natural Gas	Therms	12/22/2011	1/24/2012	3,900	$1,268.52	$2,427.06	$0.948
Natural Gas	Therms	1/24/2012	2/23/2012	2,981	$943.92	$1,670.46	$0.877
Natural Gas	Therms	2/23/2012	3/23/2012	2,359	$743.87	$1,270.97	$0.854
Natural Gas	Therms	3/23/2012	4/24/2012	1,329	$411.51	$716.12	$0.848
Natural Gas	Therms	4/24/2012	5/23/2012	617	$198.61	$332.15	$0.861
Natural Gas	Therms	5/23/2012	6/22/2012	72	$40.82	$38.73	$1.106
Natural Gas	Therms	6/22/2012	7/24/2012	63	$38.48	$34.10	$1.147
Natural Gas	Therms	7/24/2012	8/23/2012	62	$38.21	$33.61	$1.151
Natural Gas	Therms	8/23/2012	9/24/2012	77	$42.35	$41.26	$1.092
Natural Gas	Therms	9/24/2012	10/23/2012	809	$281.28	$435.90	$0.886
Natural Gas	Therms	10/23/2012	11/20/2012	1,728	$603.35	$931.06	$0.888
		TOTALS/AVERAGE		**3,265**	**$1,244.43**	**$7,931.42**	**$2.810**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012



PRL/81 TURNER STREET

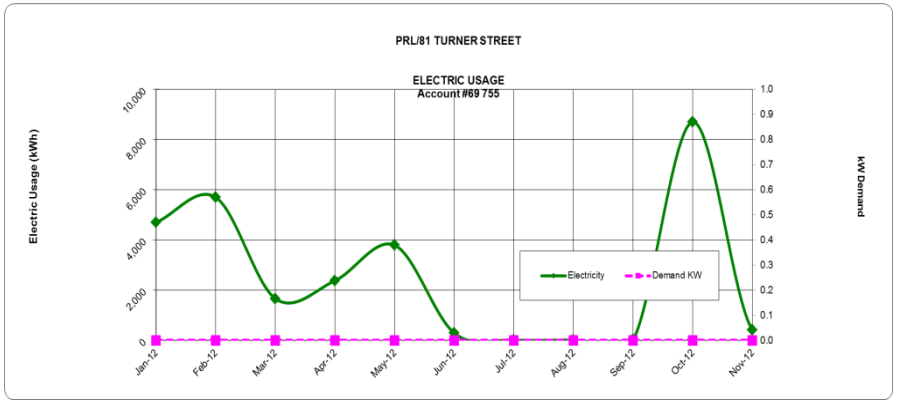
Facility Name PRL/81 Turner Street (#09)
Address 91 Turner Street, PO Box 428
Woodbridge, NJ 07095
Account# 69 755 344 03
Meter# 728006689 PoD ID: PE000008166281938706

						PSE&G	DIRECT ENERGY	
Energy Type	**Energy Unit**	**Start Date**	**End Date**	**Demand KW**	**KWH**	**Delivery Cost**	**Supplier Cost**	**$/kWh**
Electricity	kWh	12/6/2011	1/6/2012	10.0	2,640	$130.55	$181.28	$0.12
Electricity	kWh	1/6/2012	2/6/2012	10.0	2,400	$123.69	$211.20	$0.14
Electricity	kWh	2/6/2012	3/7/2012	9.2	2,120	$111.33	$186.56	$0.14
Electricity	kWh	3/7/2012	4/5/2012	12.8	2,040	$124.01	$179.52	$0.15
Electricity	kWh	4/5/2012	5/7/2012	24.4	1800	$165.46	$158.40	$0.18
Electricity	kWh	5/7/2012	6/6/2012	22.8	3,280	$406.57	$288.64	$0.21
Electricity	kWh	6/6/2012	7/6/2012	22.8	5,480	$499.73	$482.24	$0.18
Electricity	kWh	7/6/2012	8/6/2012	21.6	9,440	$643.94	$830.72	$0.16
Electricity	kWh	8/6/2012	9/4/2012	24.4	440	$540.18	$38.72	$1.32
Electricity	kWh	9/4/2012	10/4/2012	23.6	440	$436.41	$38.72	$1.08
Electricity	kWh	10/4/2012	11/5/2012	20.4	1,800	$344.47	$158.40	$0.28
Electricity	kWh	11/4/2012	12/5/2012	14.8	1,720	$252.52	$151.36	$0.23
		TOTALS/AVERAGE		**18.2**	**30,080**	**$3,181.87**	**$2,905.76**	**$0.202**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012



PRL/81 TURNER STREET

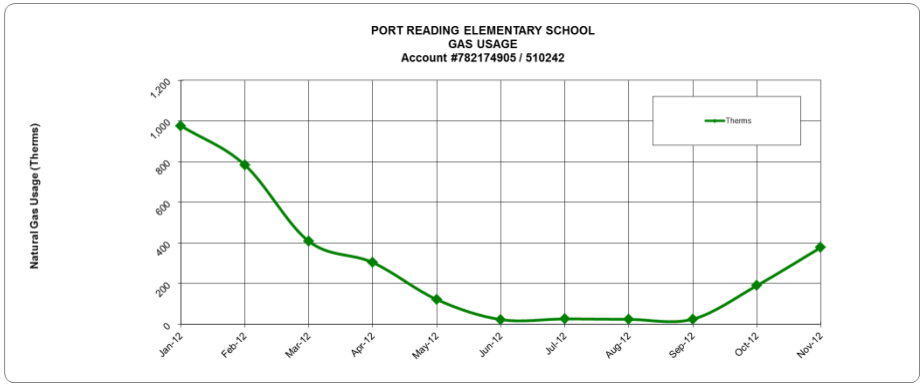
Facility Name PRL/81 Turner Street (#09)
Address 91 Turner Street, PO Box 428
Woodbridge, NJ 07095
Account# 69 755 344 03
Meter# 166000366 PoD ID: PE000008166282738706

						PSE&G	DIRECT ENERGY	
Energy Type	**Energy Unit**	**Start Date**	**End Date**	**Demand KW**	**KWH**	**Delivery Cost**	**Supplier Cost**	**$/kWh**
Electricity	kWh	12/6/2011	1/6/2012	0.0	4,705	$285.38	$329.43	$0.13
Electricity	kWh	1/6/2012	2/6/2012	0.0	5,695	$346.54	$501.16	$0.15
Electricity	kWh	2/6/2012	3/7/2012	0.0	1,663	$103.63	$146.34	$0.15
Electricity	kWh	3/7/2012	4/5/2012	0.0	2,385	$147.12	$209.88	$0.15
Electricity	kWh	4/5/2012	5/7/2012	0.0	3,792	$231.89	$333.70	$0.15
Electricity	kWh	5/7/2012	6/6/2012	0.0	291	$36.78	$25.61	$0.21
Electricity	kWh	6/6/2012	7/6/2012	0.0	20	$5.76	$1.76	$0.38
Electricity	kWh	7/6/2012	8/6/2012	0.0	22	$5.99	$1.94	$0.36
Electricity	kWh	8/6/2012	9/4/2012	0.0	33	$74.41	$2.90	$2.34
Electricity	kWh	9/4/2012	10/5/2012	0.0	8,697	$142.82	$765.34	$0.10
Electricity	kWh	10/5/2012	11/3/2012	0.0	419	$142.82	$36.87	$0.43
Electricity	kWh	11/3/2012	12/5/2012	0.0	1,792	$142.82	$157.70	$0.17
		TOTALS/AVERAGE		**0.0**	**24,809**	**$1,380.58**	**$2,183.20**	**$0.144**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012



PRL/81 TURNER STREET

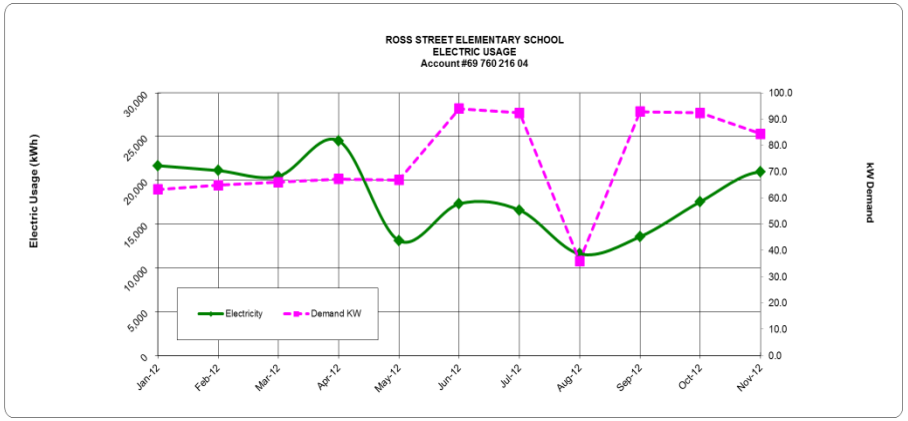
Facility Name	PRL/81 Turner Street (#09)
Address	91 Turner Street, PO Box 428 Woodbridge, NJ 07095
Account#	782174905 / 510242
Meter#	06026435

					Elizabethtown Gas	Woodruff Energy	
Energy Type	**Energy Unit**	**Start Date**	**End Date**	**Therms**	**Delivery Cost**	**Supply Cost**	**$/Therm**
Natural Gas	Therms	12/22/2011	1/24/2012	976	$332.39	$607.25	$0.963
Natural Gas	Therms	1/24/2012	2/23/2012	784	$262.85	$439.11	$0.896
Natural Gas	Therms	2/23/2012	3/23/2012	409	$145.33	$220.06	$0.894
Natural Gas	Therms	3/23/2012	4/24/2012	304	$109.58	$163.87	$0.899
Natural Gas	Therms	4/24/2012	5/23/2012	122	$55.43	$65.88	$0.992
Natural Gas	Therms	5/23/2012	6/22/2012	24	$26.89	$12.82	$1.668
Natural Gas	Therms	6/22/2012	7/24/2012	27	$27.88	$14.54	$1.571
Natural Gas	Therms	7/24/2012	8/23/2012	25	$27.31	$13.47	$1.631
Natural Gas	Therms	8/23/2012	9/24/2012	26	$27.59	$14.01	$1.600
Natural Gas	Therms	9/24/2012	10/23/2012	191	$81.58	$102.73	$0.966
Natural Gas	Therms	10/23/2012	11/20/2012	378	$147.60	$203.67	$0.929
		TOTALS/AVERAGE		**3,265**	**$1,244.43**	**$1,857.41**	**$0.950**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012



ROSS STREET ELEMENTARY

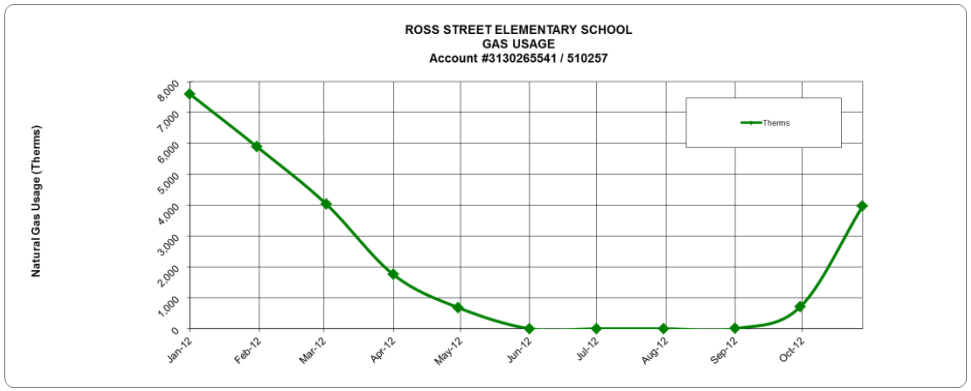
Facility Name	Ross Street Elementary School (#11)
Address	110 Ross Street
	Woodbridge, NJ 07095
Account#	69 760 216 04
Meter#	728011010 PoD ID: PE000010865010238706

						PSE&G	DIRECT ENERGY	
Energy Type	**Energy Unit**	**Start Date**	**End Date**	**Demand KW**	**KWH**	**Delivery Cost**	**Supplier Cost**	**$/kWh**
Electricity	kWh	12/8/2011	1/10/2012	63.2	21,680	$961.22	$1,736.12	$0.12
Electricity	kWh	1/10/2012	2/8/2012	64.8	21,120	$956.05	$1,856.56	$0.13
Electricity	kWh	2/8/2012	3/9/2012	66.0	20,480	$940.62	$1,802.24	$0.13
Electricity	kWh	3/9/2012	4/10/2012	67.2	24,520	$1,075.23	$2,157.76	$0.13
Electricity	kWh	4/10/2012	5/8/2012	66.8	13,120	$708.03	$1,154.56	$0.14
Electricity	kWh	5/8/2012	6/7/2012	94.0	17,320	$1,809.72	$1,524.16	$0.19
Electricity	kWh	6/7/2012	7/10/2012	92.4	16,600	$1,787.22	$1,460.80	$0.20
Electricity	kWh	7/10/2012	8/8/2012	36.0	11,600	$904.76	$1,020.80	$0.17
Electricity	kWh	8/8/2012	9/7/2012	92.8	13,560	$1,671.15	$1,193.28	$0.21
Electricity	kWh	9/7/2012	10/8/2012	92.4	17,560	$986.11	$1,545.28	$0.14
Electricity	kWh	10/8/2012	11/8/2012	84.4	20,960	$1,061.58	$1,844.48	$0.14
Electricity	kWh	11/8/2012	12/7/2012	66.4	18,360	$1,835.14	$1,615.68	$0.19
		TOTALS/AVERAGE		**73.9**	**216,880**	**$14,696.83**	**$18,911.72**	**$0.155**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012



ROSS STREET ELEMENTARY

Facility Name Ross Street Elementary School (#11)
Address 1 Ross Street
Woodbridge, NJ 07095
Account# 3130265541 / 510257
Meter# 09854406

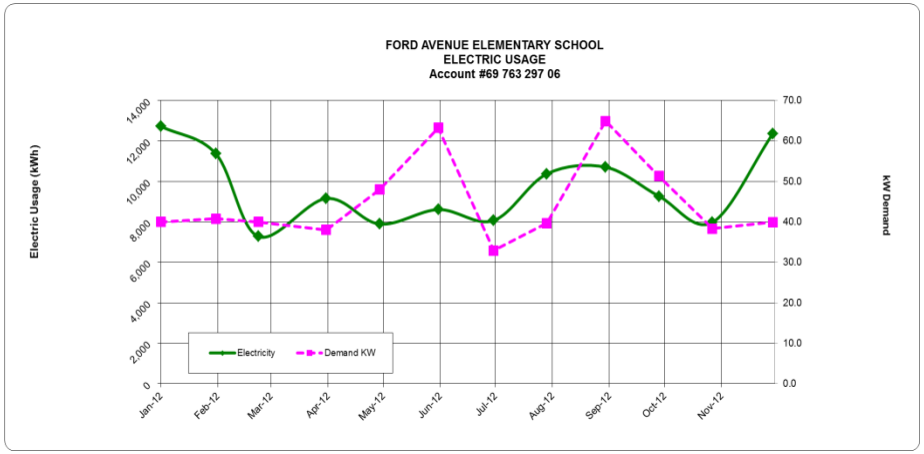
Energy Type	Energy Unit	Start Date	End Date	Therms	Elizabethtown Gas Delivery Cost	Woodruff Energy Supply Cost	$/Therm
Natural Gas	Therms	12/23/2011	1/25/2012	7,598	$2,451.04	$4,728.35	$0.945
Natural Gas	Therms	1/25/2012	2/24/2012	5,892	$1,843.58	$3,285.19	$0.870
Natural Gas	Therms	2/24/2012	3/26/2012	4,036	$1,258.21	$2,174.06	$0.850
Natural Gas	Therms	3/26/2012	4/25/2012	1,756	$534.77	$945.98	$0.843
Natural Gas	Therms	4/25/2012	5/24/2012	684	$218.21	$368.56	$0.858
Natural Gas	Therms	5/24/2012	6/25/2012	0	$20.00	$0.00	$0.000
Natural Gas	Therms	6/25/2012	7/25/2012	0	$20.00	$0.00	$0.000
Natural Gas	Therms	7/25/2012	8/24/2012	1	$20.32	$0.59	$19.009
Natural Gas	Therms	8/24/2012	9/25/2012	6	$21.64	$3.02	$4.404
Natural Gas	Therms	9/25/2012	10/24/2012	704	$247.59	$379.23	$0.890
Natural Gas	Therms	10/24/2012	11/21/2012	3,974	$1,363.73	$2,140.82	$0.882
		TOTALS/AVERAGE		**24,651**	**$7,999.09**	**$14,025.80**	**$0.893**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012

FORD AVENUE ELEMENTARY



Facility Name Ford Avenue Elementary School (#14)
Address 186 Ford Avenue
Fords, NJ 08863
Account# 69 763 297 06

Meter# 728003607 / 920017

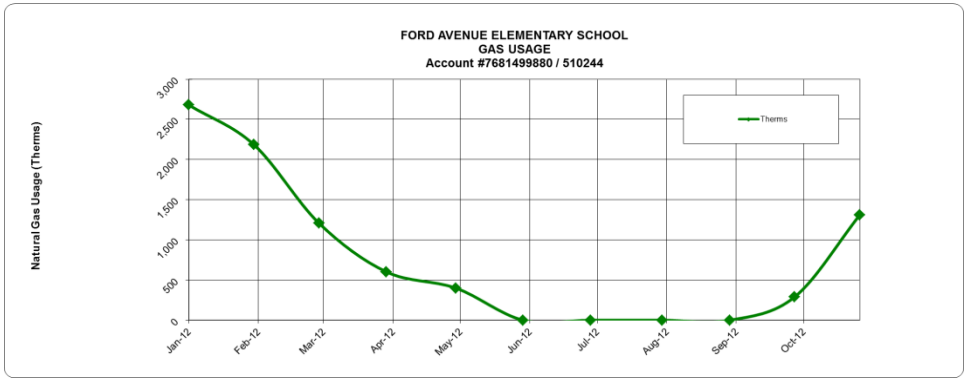
PoD ID:
000009048239938706

Energy Type	Energy Unit	Start Date	End Date	Demand KW	KWH	PSE&G Delivery Cost	DIRECT ENERGY Supplier Cost	$/kWh
Electricity	kWh	12/23/2011	1/26/2012	40.0	12,720	$580.47	$1,119.36	$0.13
Electricity	kWh	1/26/2012	2/25/2012	40.8	11,360	$541.46	$999.68	$0.14
Electricity	kWh	2/25/2012	3/19/2012	40.0	7,280	$366.69	$640.64	$0.14
Electricity	kWh	3/20/2012	4/25/2012	38.0	9,156	$485.77	$773.54	$0.14
Electricity	kWh	4/26/2012	5/24/2012	48.0	7,893	$446.50	$655.38	$0.14
Electricity	kWh	5/25/2012	6/25/2012	63.2	8,609	$1,082.92	$698.86	$0.21
Electricity	kWh	6/25/2012	7/25/2012	32.9	8,066	$704.20	$662.96	$0.17
Electricity	kWh	7/26/2012	8/23/2012	39.7	10,372	$896.27	$903.05	$0.17
Electricity	kWh	8/24/2012	9/24/2012	64.9	10,702	$1,210.19	$922.65	$0.20
Electricity	kWh	9/25/2012	10/23/2012	51.3	9,270	$530.54	$810.77	$0.14
Electricity	kWh	10/24/2012	11/21/2012	38.3	7,977	$431.79	$701.14	$0.14
Electricity	kWh	11/22/2012	12/24/2012	39.9	12,364	$584.79	$1,088.07	$0.14
		TOTALS/AVERAGE		**44.8**	**115,769**	**$7,861.59**	**$9,976.10**	**$0.154**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012



FORD AVENUE ELEMENTARY

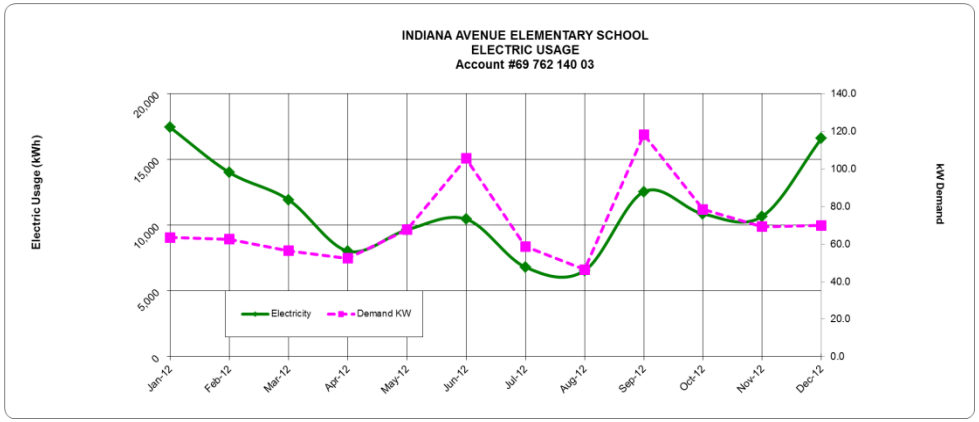
Facility Name Ford Avenue Elementary School (#14)
Address 186 Ford Avenue
Fords, NJ 08863
Account# 7681499880 / 510248
Meter# 09024257

Energy Type	Energy Unit	Start Date	End Date	Therms	Elizabethtown Gas Delivery Cost	Woodruff Energy Supply Cost	$/Therm
Natural Gas	Therms	12/20/2011	1/23/2012	2,678	$878.17	$1,666.73	$0.950
Natural Gas	Therms	1/23/2012	2/21/2012	2,185	$698.19	$1,231.77	$0.883
Natural Gas	Therms	2/21/2012	3/21/2012	1,207	$390.43	$650.40	$0.862
Natural Gas	Therms	3/21/2012	4/20/2012	602	$198.24	$324.39	$0.868
Natural Gas	Therms	4/20/2012	5/21/2012	400	$135.72	$215.20	$0.878
Natural Gas	Therms	5/21/2012	6/20/2012	0	$20.00	$0.00	$0.000
Natural Gas	Therms	6/20/2012	7/20/2012	0	$20.00	$0.00	$0.000
Natural Gas	Therms	7/20/2012	8/21/2012	0	$20.00	$0.00	$0.000
Natural Gas	Therms	8/21/2012	9/20/2012	0	$20.00	$0.00	$0.000
Natural Gas	Therms	9/20/2012	10/19/2012	289	$111.95	$155.67	$0.926
Natural Gas	Therms	10/19/2012	11/17/2012	1,308	$458.76	$704.81	$0.889
		TOTALS/AVERAGE		**8,670**	**$2,951.46**	**$4,948.97**	**$0.911**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012



INDIANA AVENUE ELEMENTARY

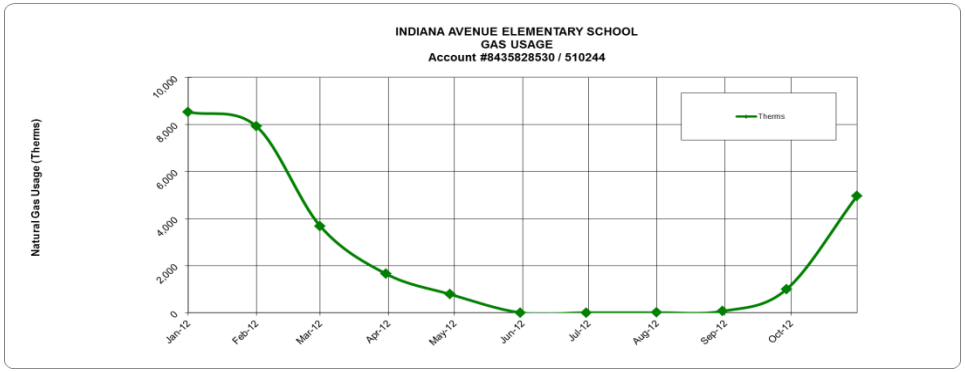
Facility Name Indiana Avenue Elementary School (#18)
Address 256 Indiana Avenue
Iselin, NJ 08830
Account# 69 762 140 03
Meter# 758000828 PoD ID: 000011424725738706

							PSE&G	DIRECT ENERGY	
Energy Type	**Energy Unit**	**Start Date**	**End Date**	**KWH IN**	**KWH OUT**	**Demand KW**	**Delivery Cost**	**Supplier Cost**	**$/kWh**
Electricity	kWh	12/17/2011	1/19/2012	17,422	1,406	63.4	$783.74	$1,222.07	$0.12
Electricity	kWh	1/20/2012	2/16/2012	13,996	1,309	62.5	$675.94	$1,116.47	$0.13
Electricity	kWh	2/17/2012	3/19/2012	11,922	8,561	56.4	$351.08	$295.80	$0.05
Electricity	kWh	3/20/2012	4/18/2012	8,029	14,258	52.4	$226.37	($548.12)	($0.04)
Electricity	kWh	4/19/2012	5/17/2012	9,646	10,410	67.5	$290.34	($67.22)	$0.02
Electricity	kWh	5/18/2012	6/18/2012	10,457	13,030	105.5	$1,280.84	($226.46)	$0.10
Electricity	kWh	6/19/2012	7/18/2012	6,810	17,092	58.6	$713.39	($904.91)	($0.03)
Electricity	kWh	7/19/2012	8/16/2012	6,551	11,538	46.4	$565.78	($438.79)	$0.02
Electricity	kWh	8/17/2012	9/17/2012	12,537	3,382	118.2	$1,434.50	$805.61	$0.18
Electricity	kWh	9/18/2012	10/16/2012	10,859	5,521	78.4	$336.52	$469.75	$0.07
Electricity	kWh	10/17/2012	11/14/2012	10,671	4,314	69.2	$297.55	$559.48	$0.08
Electricity	kWh	11/15/2012	12/17/2012	16,584	1,497	69.8	$669.46	$1,327.66	$0.12
		TOTALS/AVERAGE		**135,484**	**7,693**	**70.7**	**$7,625.51**	**$3,611.34**	**$0.083**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012



INDIANA AVENUE ELEMENTARY

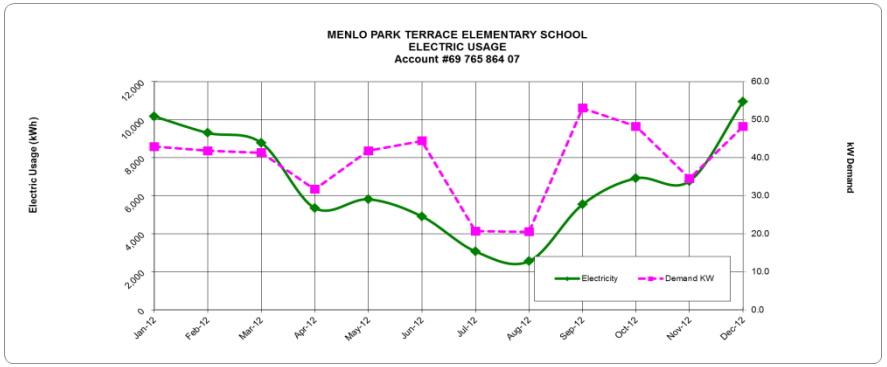
Facility Name	Indiana Avenue Elementary School (#18)
Address	256 Indiana Avenue
	Iselin, NJ 08830
Account#	8435828530 / 510244
Meter#	00035993

Energy Type	Energy Unit	Start Date	End Date	Therms	Elizabethtown Gas Delivery Cost	Woodruff Energy Supply Cost	$/Therm
Natural Gas	Therms	12/28/2011	1/27/2012	8531.4	$2,742.88	$5,309.15	$0.944
Natural Gas	Therms	1/27/2012	2/27/2012	7917.3	$2,463.84	$4,368.08	$0.863
Natural Gas	Therms	2/27/2012	3/27/2012	3676.6	$1,147.98	$1,980.52	$0.851
Natural Gas	Therms	3/27/2012	4/26/2012	1646.7	$501.74	$887.04	$0.843
Natural Gas	Therms	4/26/2012	5/25/2012	782.8	$246.78	$421.68	$0.854
Natural Gas	Therms	5/25/2012	6/26/2012	0.0	$20.00	$0.00	$0.000
Natural Gas	Therms	6/26/2012	7/26/2012	0.0	$20.00	$0.00	$0.000
Natural Gas	Therms	7/26/2012	8/27/2012	2.2	$20.64	$1.19	$9.923
Natural Gas	Therms	8/27/2012	9/26/2012	64.4	$38.89	$34.69	$1.143
Natural Gas	Therms	9/26/2012	10/25/2012	997.2	$342.81	$537.17	$0.882
Natural Gas	Therms	10/25/2012	11/26/2012	4956.3	$1,701.49	$2,669.86	$0.882
		TOTALS/AVERAGE		**28,575**	**$9,247.05**	**$16,209.38**	**$0.891**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012



MENLO PARK TERRACE ELEMENTARY

Facility Name Menlo Park Terrace Elementary School (#19)
Address 19 Maryknoll Road
Metuchen, NJ 08840
Account# 69 765 864 07
Meter# 9197959 PoD ID: 000008804446638706

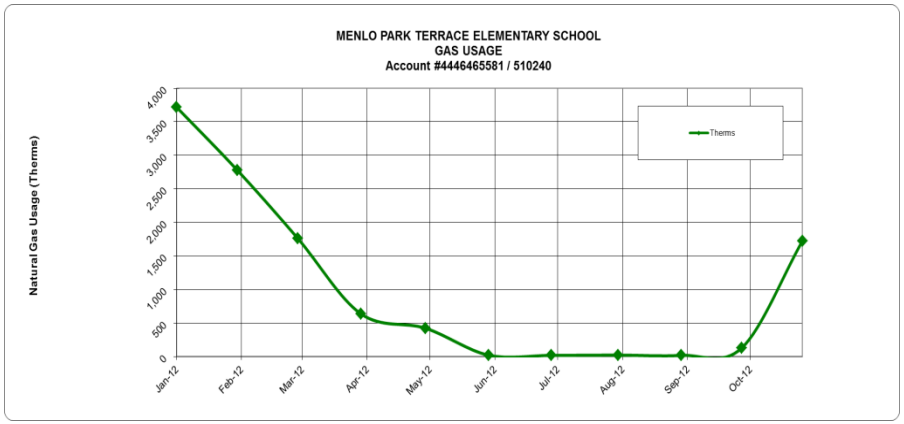
							PSE&G Electric	DIRECT ENERGY	
Energy Type	**Energy Unit**	**Start Date**	**End Date**	**KWH IN**	**KWH OUT**	**Demand KW**	**Delivery Cost**	**Supplier Cost**	**$/kWh**
Electricity	kWh	12/24/2011	1/25/2012	10,169	2,490	42.9	$431.99	$675.80	$0.11
Electricity	kWh	1/26/2012	2/24/2012	9,300	3,350	41.8	$372.23	$523.56	$0.10
Electricity	kWh	2/25/2012	3/26/2012	8,776	5,163	41.3	$295.19	$317.98	$0.07
Electricity	kWh	3/27/2012	4/25/2012	5,348	8,611	31.7	$138.68	($287.18)	($0.03)
Electricity	kWh	4/26/2012	5/24/2012	5,812	6,609	41.8	$181.47	($70.18)	$0.02
Electricity	kWh	5/25/2012	6/25/2012	4,911	8,174	44.4	$541.59	($287.11)	$0.05
Electricity	kWh	6/26/2012	7/25/2012	3,072	11,478	20.7	$254.84	($739.72)	($0.16)
Electricity	kWh	7/26/2012	8/23/2012	2,556	8,873	20.5	$252.42	($555.80)	($0.12)
Electricity	kWh	8/24/2012	9/24/2012	5,540	6,565	53.0	$645.63	($90.11)	$0.10
Electricity	kWh	9/25/2012	10/23/2012	6,916	3,666	48.2	$208.58	$286.05	$0.07
Electricity	kWh	10/24/2012	11/21/2012	6,772	2,355	34.5	$150.54	$388.74	$0.08
Electricity	kWh	11/22/2012	12/24/2012	10,940	1,099	48.2	$208.58	$865.99	$0.10
		TOTALS/AVERAGE		**80,112**	**68,433**	**39.1**	**$3,681.74**	**$1,028.02**	**$0.059**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012

MENLO PARK TERRACE ELEMENTARY



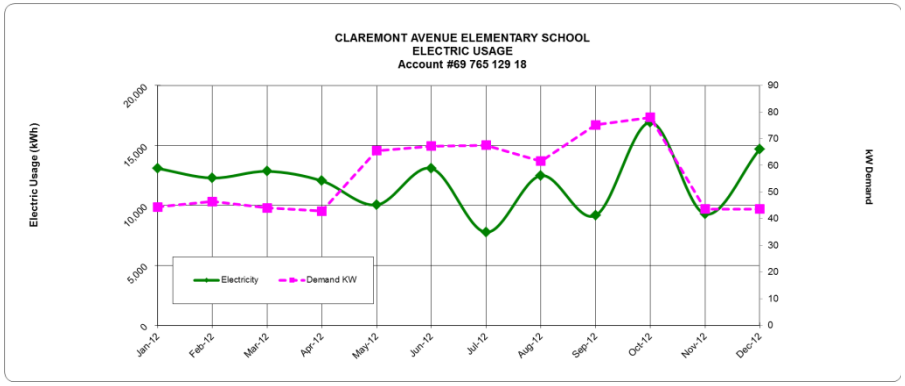
Facility Name Menlo Park Terrace Elementary School (#19)
Address 19 Maryknoll Road
Metuchen, NJ 08840
Account# 4446465581 / 510240
Meter# 0954357

Energy Type	Energy Unit	Start Date	End Date	Therms	Elizabethtown Gas Delivery Cost	Woodruff Energy Supply Cost	$/Therm
Natural Gas	Therms	12/20/2011	1/23/2012	3719.2	$1,211.67	$2,314.48	$0.948
Natural Gas	Therms	1/23/2012	2/21/2012	2781.1	$883.26	$1,567.89	$0.881
Natural Gas	Therms	2/21/2012	3/21/2012	1760.8	$560.22	$948.01	$0.857
Natural Gas	Therms	3/21/2012	4/20/2012	639.8	$209.35	$344.65	$0.866
Natural Gas	Therms	4/20/2012	5/21/2012	422.8	$142.50	$227.75	$0.876
Natural Gas	Therms	5/21/2012	6/20/2012	22.1	$26.39	$11.91	$1.733
Natural Gas	Therms	6/20/2012	7/20/2012	18.9	$25.52	$10.19	$1.889
Natural Gas	Therms	7/20/2012	8/21/2012	22.3	$26.51	$12.02	$1.728
Natural Gas	Therms	8/21/2012	9/20/2012	18.9	$25.52	$10.19	$1.889
Natural Gas	Therms	9/20/2012	10/19/2012	130.7	$61.59	$70.41	$1.010
Natural Gas	Therms	10/19/2012	11/17/2012	1727.5	$599.28	$930.57	$0.886
		TOTALS/AVERAGE		**11,264**	**$3,771.81**	**$6,448.07**	**$0.907**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012



CLAREMONT AVENUE ELEMENTARY

Facility Name Claremont Avenue Elementary School (#20)
Address 90 Claremont Avenue
Colonia, NJ 07067
Account# 69 765 129 18
Meter# 728012825 PoD ID: PE000009986037138706

						PSE&G Elecric	DIRECT ENERGY	
Energy Type	**Energy Unit**	**Start Date**	**End Date**	**Demand KW**	**KWH**	**Delivery Cost**	**Supplier Cost**	**$/kWh**
Electricity	kWh	12/20/2011	1/21/2012	44	13,080	$610.06	$1,151.04	$0.13
Electricity	kWh	1/21/2012	2/21/2012	46	12,280	$594.67	$1,080.64	$0.14
Electricity	kWh	2/21/2012	3/23/2012	44	12,840	$602.47	$1,129.92	$0.13
Electricity	kWh	3/23/2012	4/21/2012	43	12,040	$571.72	$1,059.52	$0.14
Electricity	kWh	4/21/2012	5/21/2012	66	10,040	$604.19	$883.52	$0.15
Electricity	kWh	5/21/2012	6/20/2012	67	13,080	$1,330.65	$1,151.04	$0.19
Electricity	kWh	6/20/2012	7/20/2012	68	7,760	$1,133.11	$682.88	$0.23
Electricity	kWh	7/20/2012	8/20/2012	62	12,480	$1,250.05	$1,098.24	$0.19
Electricity	kWh	8/20/2012	9/18/2012	75	9,160	$1,281.69	$806.08	$0.23
Electricity	kWh	9/18/2012	10/17/2012	78	16,920	$902.61	$1,488.96	$0.14
Electricity	kWh	10/17/2012	11/16/2012	44	9,280	$498.30	$816.64	$0.14
Electricity	kWh	11/16/2012	12/19/2012	44	14,680	$677.51	$1,291.84	$0.13
		TOTALS/AVERAGE		**57**	**143,640**	**$10,057.03**	**$12,640.32**	**$0.158**

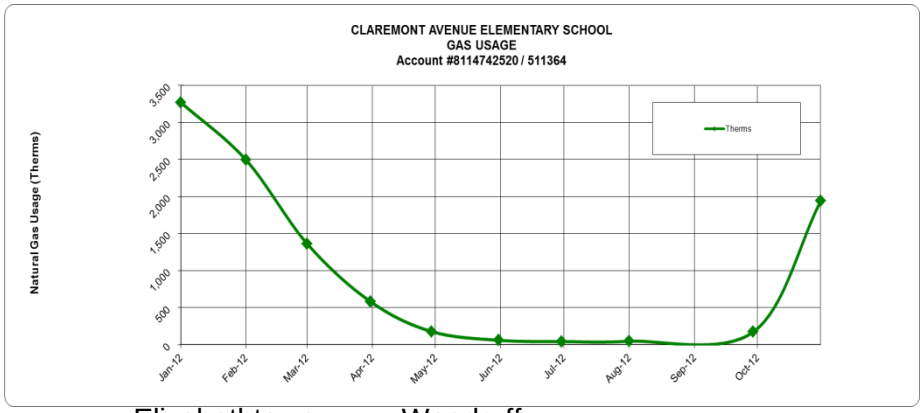
Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012

CLAREMONT AVENUE ELEMENTARY

Facility Name	Claremont Avenue Elementary School (#20)
Address	90 Claremont Avenue
	Colonia, NJ 07067
Account#	8114742520 / 511364
Meter#	00236754



Elizabethtown Gas

Woodruff Energy

Energy Type	Energy Unit	Start Date	End Date	Therms	Delivery Cost	Supply Cost	$/Therm
Natural Gas	Therms	12/28/2011	1/27/2012	3271.6	$1,064.17	$2,035.94	$0.948
Natural Gas	Therms	1/27/2012	2/27/2012	2494.4	$789.94	$1,376.19	$0.868
Natural Gas	Therms	2/27/2012	3/27/2012	1364.0	$438.48	$734.76	$0.860
Natural Gas	Therms	3/27/2012	4/26/2012	584.6	$191.02	$314.91	$0.865
Natural Gas	Therms	4/26/2012	5/25/2012	179.4	$71.95	$96.64	$0.940
Natural Gas	Therms	5/25/2012	6/26/2012	60.9	$37.64	$32.81	$1.157
Natural Gas	Therms	6/26/2012	7/26/2012	43.4	$32.66	$23.38	$1.291
Natural Gas	Therms	7/26/2012	8/27/2012	47.9	$33.97	$25.80	$1.248
Natural Gas	Therms	8/27/2012	10/25/2012	173.8	$93.56	$93.63	$1.077
Natural Gas	Therms	10/25/2012	11/26/2012	1939.8	$678.77	$1,044.39	$0.888
		TOTALS/AVERAGE		**10,160**	**$3,432.16**	**$5,778.45**	**$0.907**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

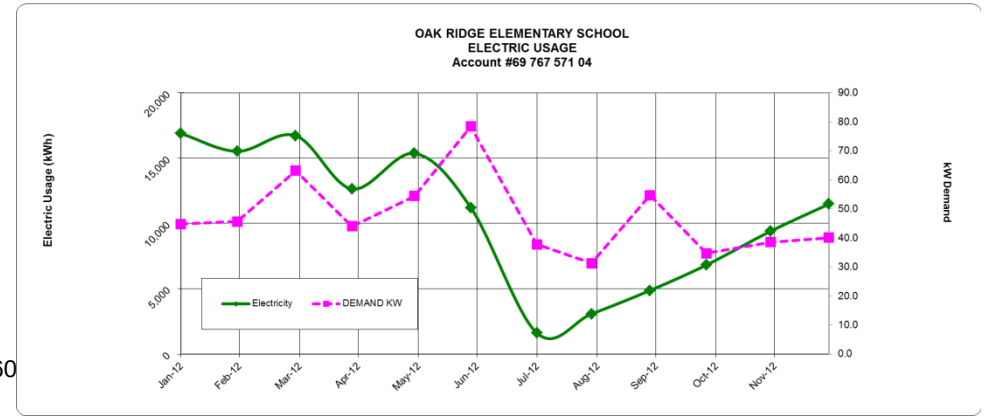
Time-period: Dec 2011 – Nov 2012

OAK RIDGE ELEMENTARY

Facility Name Oak Ridge Elementary School (#21)
Address 720 Inman Avenue
Colonia, NJ 07067
Account# 69 767 571 04

Meter# 9194747 / 9197624 (meter # change)

PoD ID:
PE0000107860
04138706



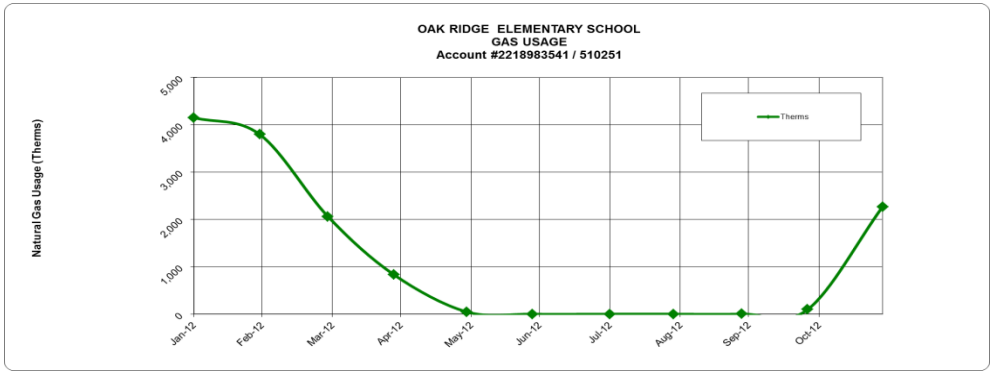
							PSE&G	DIRECT ENERGY	
Energy Type	**Energy Unit**	**Start Date**	**End Date**	**KWH IN**	**KWH OUT**	**DEMAND KW**	**Delivery Cost**	**Supplier Cost**	**$/kWh**
Electricity	kWh	12/29/2011	1/30/2012	16880.0		44.8	$734.97	$1,485.44	$0.13
Electricity	kWh	1/30/2012	2/28/2012	15520.0		45.6	$695.16	$1,365.76	$0.13
Electricity	kWh	2/28/2012	3/29/2012	16720.0		63.2	$808.20	$1,471.36	$0.14
Electricity	kWh	3/29/2012	4/27/2012	12640.0		44.0	$596.05	$1,112.32	$0.14
Electricity	kWh	3/29/2012	5/29/2012	15360.0		54.4	$727.31	$1,351.68	$0.14
Electricity	kWh	5/29/2012	6/27/2012	11200.0		78.4	$1,396.88	$985.60	$0.21
Electricity	kWh	6/27/2012	7/31/2012	1600.0	0.0	37.8	$486.49	$140.80	$0.39
Electricity	kWh	7/31/2012	8/28/2012	3071.0	9514.0	31.3	$383.08	($566.94)	($0.06)
Electricity	kWh	8/29/2012	9/27/2012	4861.0	7315.0	54.7	$666.21	($215.94)	$0.09
Electricity	kWh	9/28/2012	10/26/2012	6812.0	3795.0	34.7	$151.39	$265.54	$0.06
Electricity	kWh	10/27/2012	11/28/2012	9401.0	3101.0	38.5	$167.49	$554.45	$0.08
Electricity	kWh	11/29/2012	12/28/2012	11481.0	1008.0	40.1	$450.74	$921.61	$0.12
		TOTALS/AVERAGE		**125,546**	**24,733**	**47.3**	**$7,263.97**	**$8,871.68**	**$0.129**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012

OAK RIDGE ELEMENTARY



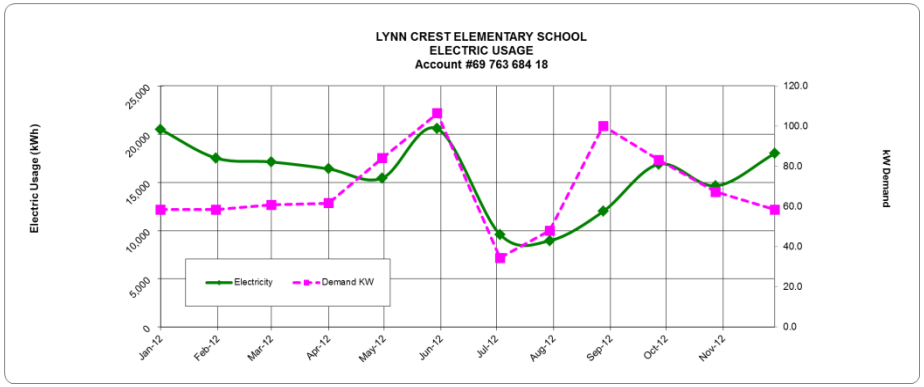
Facility Name	Oak Ridge Elementary School (#21)
Address	1 Inman Avenue Colonia, NJ 07067
Account#	2218983541 / 510251
Meter#	00236762

Energy Type	Energy Unit	Start Date	End Date	Therms	Elizabethtown Gas Delivery Cost	Woodruff Energy Supply Cost	$/Therm
Natural Gas	Therms	12/29/2011	1/30/2012	4149.2	$1,343.55	$2,582.07	$0.946
Natural Gas	Therms	1/30/2012	2/28/2012	3795.8	$1,191.44	$2,092.95	$0.865
Natural Gas	Therms	2/28/2012	3/29/2012	2060.8	$652.26	$1,110.11	$0.855
Natural Gas	Therms	3/29/2012	4/27/2012	833.4	$263.34	$448.94	$0.855
Natural Gas	Therms	4/29/2012	5/29/2012	48.7	$34.11	$26.24	$1.239
Natural Gas	Therms	5/29/2012	6/27/2012	0.0	$20.00	$0.00	$0.000
Natural Gas	Therms	6/27/2012	7/31/2012	0.0	$20.00	$0.00	$0.000
Natural Gas	Therms	7/31/2012	8/28/2012	0.0	$20.00	$0.59	$0.000
Natural Gas	Therms	8/29/2012	9/27/2012	2.2	$20.64	$0.59	$9.650
Natural Gas	Therms	9/28/2012	10/26/2012	96.3	$51.23	$51.87	$1.071
Natural Gas	Therms	10/27/2012	11/28/2012	2268.7	$790.80	$1,222.10	$0.887
		TOTALS/AVERAGE		**13,255**	**$4,407.37**	**$7,535.46**	**$0.901**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012



LYNN CREST ELEMENTARY

Facility Name Lynn Crest Elementary School (#22)
Address 98 Ira Avenue
Colonia, NJ 07067
Account# 69 763 684 18
Meter# 728011287 PoD ID: 000010484600138706

Energy Type	Energy Unit	Start Date	End Date	Demand KW	KWH	PSE&G Delivery Cost	DIRECT ENERGY Supplier Cost	$/kWh
Electricity	kWh	12/20/2011	1/23/2012	58.4	20,480	$905.80	$1,802.24	$0.13
Electricity	kWh	1/23/2012	2/22/2012	58.4	17,520	$813.52	$1,541.76	$0.13
Electricity	kWh	2/22/2012	3/23/2012	60.8	17,120	$810.87	$1,506.56	$0.14
Electricity	kWh	3/23/2012	4/23/2012	61.6	16,400	$791.17	$1,443.20	$0.14
Electricity	kWh	4/23/2012	5/22/2012	84.0	15,440	$855.28	$1,358.00	$0.14
Electricity	kWh	5/22/2012	6/21/2012	106.4	20,560	$2,099.47	$1,809.28	$0.19
Electricity	kWh	6/21/2012	7/25/2012	34.4	9,600	$805.11	$844.80	$0.17
Electricity	kWh	7/25/2012	8/21/2012	48.0	8,960	$944.45	$788.48	$0.19
Electricity	kWh	8/21/2012	9/19/2012	100.0	12,000	$1,695.68	$1,056.00	$0.23
Electricity	kWh	9/19/2012	10/19/2012	83.2	16,880	$923.16	$1,172.16	$0.12
Electricity	kWh	10/19/2012	11/19/2012	67.2	14,640	$776.66	$1,288.32	$0.14
Electricity	kWh	11/19/2012	12/21/2012	58.4	18,000	$850.67	$1,545.28	$0.13
		TOTALS/AVERAGE		**68.4**	**187,600**	**$12,271.84**	**$16,156.08**	**$0.152**

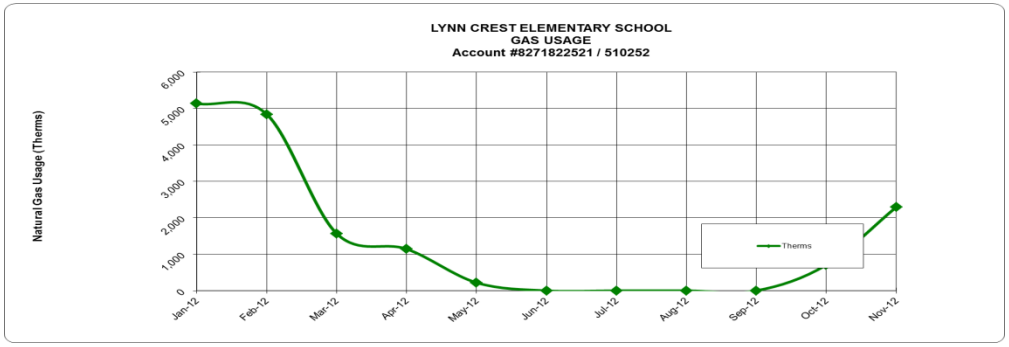
Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012

LYNN CREST ELEMENTARY

Address 98 Ira Avenue
Colonia, NJ 07067
Account# 8271822521 / 510252
Meter# 917108



					Elizabethtown Gas	Woodruff Energy	
Energy Type	**Energy Unit**	**Start Date**	**End Date**	**Therms**	**Delivery Cost**	**Supply Cost**	**$/Therm**
Natural Gas	Therms	12/28/2011	1/27/2012	5136.4	$1,659.34	$3,196.41	$0.945
Natural Gas	Therms	1/27/2012	2/27/2012	4842.4	$1,514.44	$2,670.04	$0.864
Natural Gas	Therms	2/27/2012	3/27/2012	1568.1	$501.90	$844.71	$0.859
Natural Gas	Therms	3/27/2012	4/26/2012	1143.9	$354.63	$616.20	$0.849
Natural Gas	Therms	4/26/2012	5/25/2012	219.2	$83.49	$118.07	$0.920
Natural Gas	Therms	5/25/2012	6/26/2012	0.0	$20.00	$0.00	$0.000
Natural Gas	Therms	6/26/2012	7/26/2012	0.0	$20.00	$0.00	$0.000
Natural Gas	Therms	7/26/2012	8/27/2012	0.0	$20.00	$0.00	$0.000
Natural Gas	Therms	8/27/2012	9/26/2012	1.1	$20.31	$0.59	$19.000
Natural Gas	Therms	9/26/2012	10/25/2012	706.1	$248.58	$380.36	$0.891
Natural Gas	Therms	10/25/2012	11/26/2012	2296.2	$799.02	$1,236.92	$0.887
		TOTALS/AVERAGE		**15,913**	**$5,241.71**	**$9,063.30**	**$0.899**

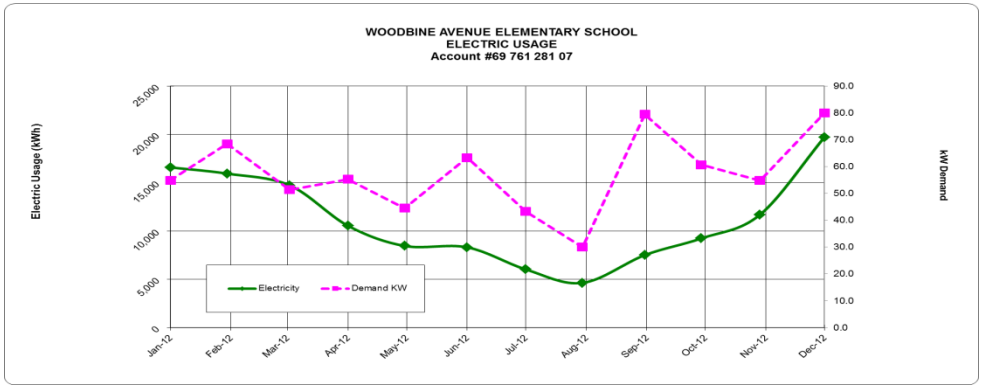
Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012

WOODBINE AVENUE ELEMENTARY

Facility Name Woodbine Avenue Elementary School (#23)
Address 89 Woodbine Avenue
Avenel, NJ 07001
Account# 69 761 281 07
Meter# 9197958 PoD ID: 000010401717338706



					PSE&G	DIRECT ENERGY			
Energy Type	**Energy Unit**	**Start Date**	**End Date**	**Demand KW**	**KWH IN**	**KWH OUT**	**Delivery Cost**	**Supplier Cost**	**$/kWh**
Electricity	kWh	12/13/2011	1/12/2012	54.9	16,583	3560.0	$654.41	$1,290.60	$0.12
Electricity	kWh	1/13/2012	2/10/2012	68.5	15,943	4060.0	$675.57	$1,045.64	$0.11
Electricity	kWh	2/11/2012	3/13/2012	51.4	14,732	8665.0	$416.64	$533.89	$0.06
Electricity	kWh	3/14/2012	4/12/2012	55.3	10,535	13087.0	$238.66	($224.58)	$0.00
Electricity	kWh	4/13/2012	5/11/2012	44.5	8,459	12185.0	$192.90	($327.88)	($0.02)
Electricity	kWh	5/12/2012	6/12/2012	63.3	8,318	14984.0	$770.26	($586.59)	$0.02
Electricity	kWh	6/13/2012	7/12/2012	43.3	6,033	20325.0	$528.27	($1,257.72)	($0.12)
Electricity	kWh	7/13/2012	8/10/2012	30.0	4,633	16320.0	$367.36	($1,028.47)	($0.14)
Electricity	kWh	8/11/2012	9/11/2012	79.5	7,510	13708.0	$966.26	($545.44)	$0.06
Electricity	kWh	9/12/2012	10/10/2012	60.7	9,241	8605.0	$261.53	$55.99	$0.03
Electricity	kWh	10/11/2012	11/9/2012	54.8	11,689	5646.0	$236.54	$531.79	$0.07
Electricity	kWh	11/10/2012	12/12/2012	79.9	19,702	2253.0	$550.59	$1,535.55	$0.11
		TOTALS/AVERAGE		**57.2**	**133,378**	**123,398**	**$5,858.99**	**$1,022.78**	**$0.052**

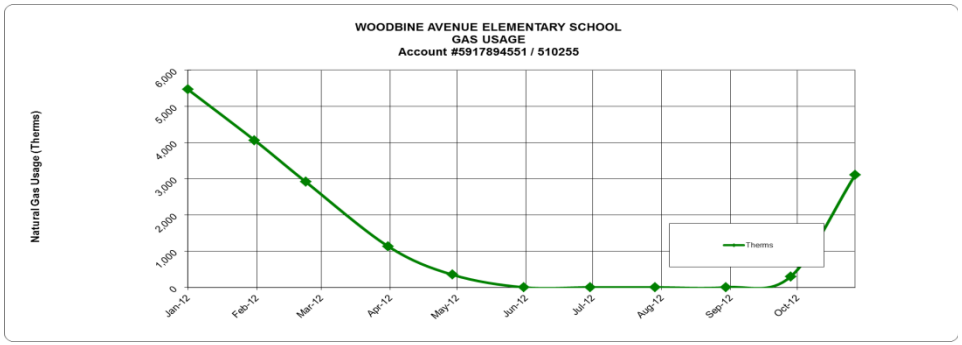
Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012

WOODBINE AVENUE ELEMENTARY

Facility Name	Woodbine Avenue Elementary School (#23)
Address	89 Woodbine Avenue
	Avenel, NJ 07001
Account#	5917894551 / 510255
Meter#	00434851



					Elizabethtown Gas	Woodruff Energy	
Energy Type	**Energy Unit**	**Start Date**	**End Date**	**Therms**	**Delivery Cost**	**Supply Cost**	**$/Therm**
Natural Gas	Therms	12/23/2011	1/26/2012	5466.3	$1,768.96	$3,401.71	$0.946
Natural Gas	Therms	1/26/2012	2/25/2012	4060.8	$1,276.85	$2,264.22	$0.872
Natural Gas	Therms	2/25/2012	3/19/2012	2913.7	$913.92	$1,569.55	$0.852
Natural Gas	Therms	3/20/2012	4/25/2012	1133.9	$352.36	$610.81	$0.849
Natural Gas	Therms	4/26/2012	5/24/2012	347.6	$120.70	$12.25	$0.382
Natural Gas	Therms	5/25/2012	6/25/2012	0.0	$20.00	$0.00	$0.000
Natural Gas	Therms	6/25/2012	7/25/2012	0.0	$20.00	$0.00	$0.000
Natural Gas	Therms	7/26/2012	8/23/2012	0.0	$20.00	$0.00	$0.000
Natural Gas	Therms	8/24/2012	9/24/2012	2.2	$20.64	$1.19	$9.923
Natural Gas	Therms	9/25/2012	10/23/2012	297.8	$116.27	$160.41	$0.929
Natural Gas	Therms	10/24/2012	11/21/2012	3102.2	$1,068.90	$1,671.09	$0.883
		TOTALS/AVERAGE		**17,325**	**$5,698.60**	**$9,691.23**	**$0.888**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

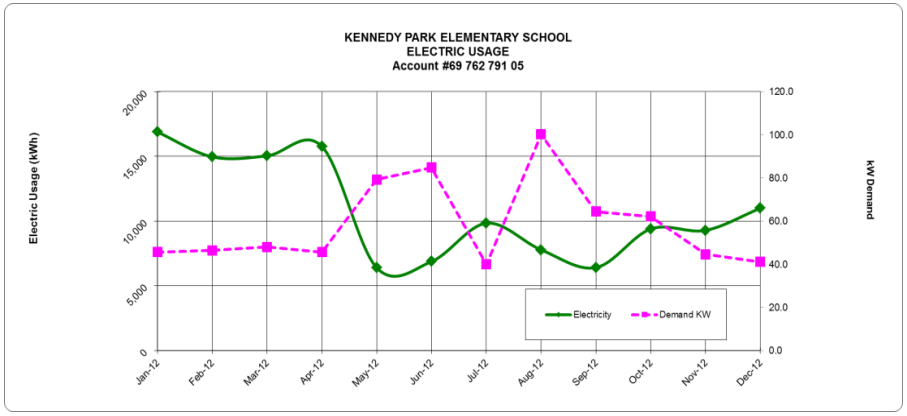
Time-period: Dec 2011 – Nov 2012

KENNEDY PARK ELEMENTARY

Facility Name Kennedy Park Elementary School (#24)
Address 150 Goodrich Street
Iselin, NJ 08830
Account# 69 762 791 05

PoD ID:
PE0000102295
11038706

Meter# 728012713 / 9197551 (meter # change)



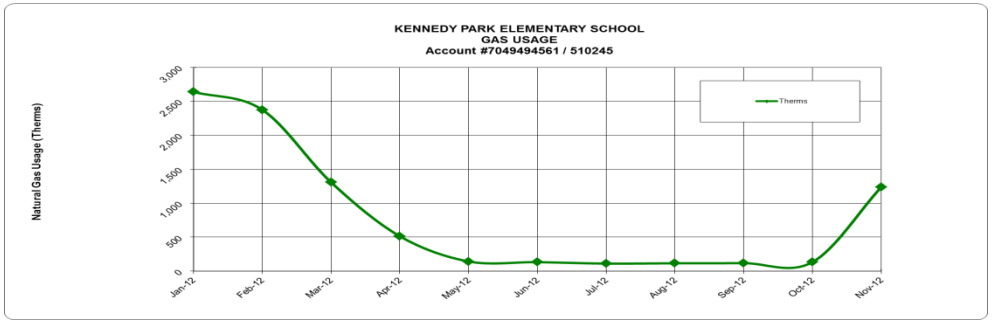
							PSE&G	DIRECT ENERGY	
Energy Type	**Energy Unit**	**Start Date**	**End Date**	**Demand KW**	**KWH IN**	**KWH OUT**	**Delivery Cost**	**Supplier Cost**	**$/kWh**
Electricity	kWh	12/21/2011	1/24/2012	45.6	16,880		$736.79	$1,485.44	$0.13
Electricity	kWh	1/24/2012	2/23/2012	46.4	14,960		$680.60	$1,316.48	$0.13
Electricity	kWh	2/23/2012	3/24/2012	48.0	15,040		$689.94	$1,323.52	$0.13
Electricity	kWh	3/24/2012	4/25/2012	45.6	15,760		$702.86	$1,386.88	$0.13
Electricity	kWh	4/25/2012	5/23/2012	79.2	6,400		$7,970.67	$563.20	$1.33
Electricity	kWh	5/25/2012	6/22/2012	84.8	6,880		$1,846.14	$605.44	$0.36
Electricity	kWh	6/22/2012	7/25/2012	40.0	9,840		$882.47	$865.92	$0.18
Electricity	kWh	7/25/2012	8/22/2012	100.2	7,784		$935.75	$591.36	$0.20
Electricity	kWh	8/23/2012	9/21/2012	64.4	6,414	6,478	$783.57	($5.62)	$0.12
Electricity	kWh	9/22/2012	10/25/2012	62.2	9,396	4,663	$421.03	$465.89	$0.09
Electricity	kWh	10/26/2012	11/27/2012	44.6	9,289	2,530	$418.21	$594.70	$0.11
Electricity	kWh	11/28/2012	12/27/2012	41.1	10,999	879	$515.20	$890.59	$0.13
		TOTALS/AVERAGE		**58.5**	**129,642**	**14,550**	**$16,583.23**	**$10,083.80**	**$0.206**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012

KENNEDY PARK ELEMENTARY



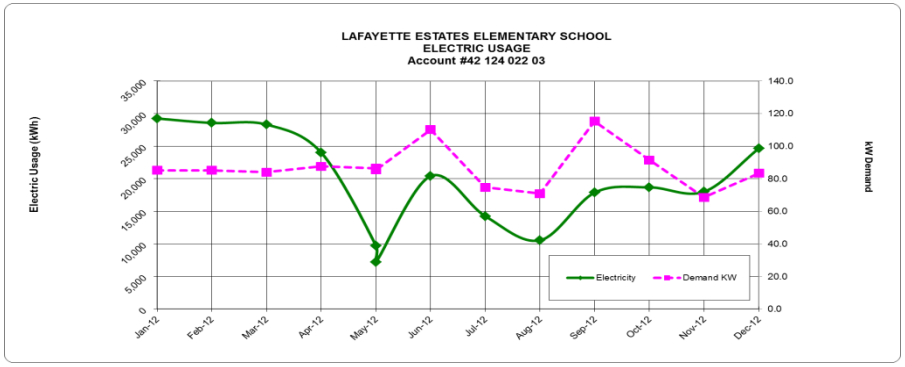
Facility Name	Kennedy Park Elementary School (#24)
Address	1 Goodrich Street
	Iselin, NJ 08830
Account#	7049494561 / 510245
Meter#	00995546

Energy Type	Energy Unit	Start Date	End Date	Therms	Elizabethtown Gas Delivery Cost	Woodruff Energy Supply Cost	$/Therm
Natural Gas	Therms	12/28/2011	1/27/2012	2639.8	$862.50	$1,642.76	$0.949
Natural Gas	Therms	1/27/2012	2/27/2012	2376.2	$753.48	$1,310.99	$0.869
Natural Gas	Therms	2/27/2012	3/27/2012	1308.7	$421.51	$704.97	$0.861
Natural Gas	Therms	3/27/2012	4/26/2012	513.9	$170.34	$276.83	$0.870
Natural Gas	Therms	4/26/2012	5/25/2012	142.8	$61.36	$76.92	$0.968
Natural Gas	Therms	5/25/2012	6/26/2012	132.8	$58.46	$71.54	$0.979
Natural Gas	Therms	6/26/2012	7/26/2012	111.2	$52.45	$59.90	$1.010
Natural Gas	Therms	7/26/2012	8/27/2012	115.9	$53.82	$62.43	$1.003
Natural Gas	Therms	8/27/2012	9/26/2012	117.6	$54.49	$63.34	$1.002
Natural Gas	Therms	9/26/2012	10/25/2012	132.8	$62.99	$71.54	$1.013
Natural Gas	Therms	10/25/2012	11/26/2012	1236.3	$439.42	$665.97	$0.894
		TOTALS/AVERAGE		**8,828**	**$2,990.82**	**$5,007.19**	**$0.906**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012



LAFAYETTE ESTATES ELEMENTARY

Facility Name Lafayette Estates Elementary School (#25)
Address 500 Ford Avenue
Fords, NJ 08863
Account# 42 124 022 03

PoD ID: PE 000009534806 638706

Meter#2 778017796 / 9200015* (meter change)

Energy Type	Energy Unit	Start Date	End Date	Demand KW	KWH IN	KWH OUT	PSE&G Delivery Cost	DIRECT ENERGY Supplier Cost	$/kWh
Electricity	kWh	12/23/2011	1/25/2012	85.2	29,250		$1,506.55	$2,597.76	$0.14
Electricity	kWh	1/25/2012	2/24/2012	85.2	28,560		$1,483.53	$2,513.28	$0.14
Electricity	kWh	2/24/2012	3/26/2012	84.0	28,320		$1,472.61	$2,492.16	$0.14
Electricity	kWh	3/26/2012	4/25/2012	87.6	24,000		$1,363.88	$2,112.00	$0.14
Electricity	kWh	4/25/2012	5/8/2012	86.4	9,720		$570.11	$855.36	$0.15
Electricity	kWh	5/9/2012	5/24/2012	85.4	7,235	3,253	$475.73	$350.38	$0.11
Electricity	kWh	5/25/2012	6/25/2012	110.2	20,418	2,666	$2,198.27	$1,562.19	$0.18
Electricity	kWh	6/26/2012	7/25/2012	74.7	14,254	2,540	$1,526.97	$1,030.86	$0.18
Electricity	kWh	7/26/2012	8/23/2012	70.9	10,558	2,732	$1,452.05	$688.67	$0.20
Electricity	kWh	8/24/2012	9/24/2012	115.3	17,886	2,733	$2,192.69	$1,333.50	$0.20
Electricity	kWh	9/25/2012	10/23/2012	91.5	18,682	1,706	$1,204.88	$1,493.84	$0.14
Electricity	kWh	10/24/2012	11/21/2012	68.5	18,019	1,278	$1,113.90	$1,473.19	$0.14
Electricity	kWh	11/22/2012	12/24/2012	83.3	24,658	499	$1,382.54	$2,125.95	$0.14
		TOTALS/AVERAGE		**86.9**	**251,560**	**17,407**	**$17,943.71**	**$20,629.14**	**$0.153**

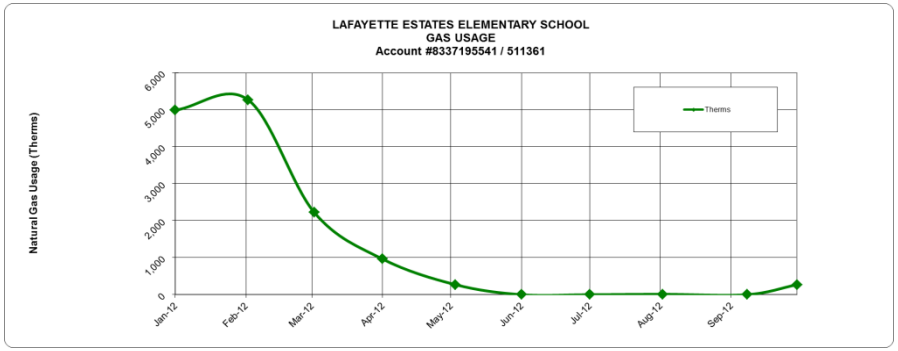
Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012

LAFAYETTE ESTATES ELEMENTARY

Facility Name Lafayette Estates Elementary School (#25)
Address 1 Ford Avenue
Fords, NJ 08863
Account# 8337195541 / 511361
Meter# 09439386

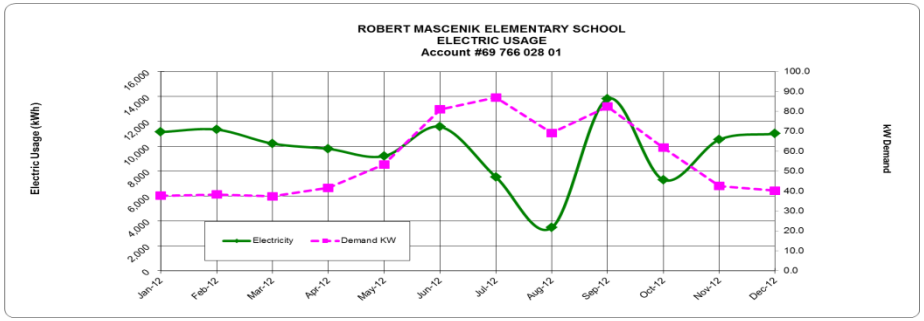


					Elizabethtown Gas	Woodruff Energy	
Energy Type	**Energy Unit**	**Start Date**	**End Date**	**Therms**	**Delivery Cost**	**Supply Cost**	**$/Therm**
Natural Gas	Therms	12/29/2011	1/27/2012	4989.0	$1,611.42	$3,104.69	$0.945
Natural Gas	Therms	1/27/2012	2/28/2012	5264.9	$1,644.81	$2,903.00	$0.864
Natural Gas	Therms	2/28/2012	3/28/2012	2223.3	$702.11	$1,197.65	$0.854
Natural Gas	Therms	3/28/2012	4/27/2012	962.4	$301.00	$518.43	$0.851
Natural Gas	Therms	4/27/2012	5/29/2012	269.6	$98.10	$145.23	$0.903
Natural Gas	Therms	5/29/2012	6/27/2012	0.0	$20.00	$0.00	$0.000
Natural Gas	Therms	6/27/2012	7/27/2012	0.0	$20.00	$0.00	$0.000
Natural Gas	Therms	7/27/2012	8/28/2012	10.4	$23.03	$5.61	$2.754
Natural Gas	Therms	8/28/2012	10/4/2012	0.0	$24.67	$0.00	$0.000
Natural Gas	Therms	10/4/2012	10/26/2012	269.4	$102.46	$145.12	$0.919
		TOTALS/AVERAGE		**13,989**	**$4,547.60**	**$8,019.73**	**$0.898**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012



ROBERT MASCENIK ELEMENTARY

Facility Name Robert Mascenik Elementary School (#26)
Address 300 Benjamin Avenue
Iselin, NJ 08830
Account# 69 766 028 01
Meter# 1415815 PoD ID: PE 000008295298738706

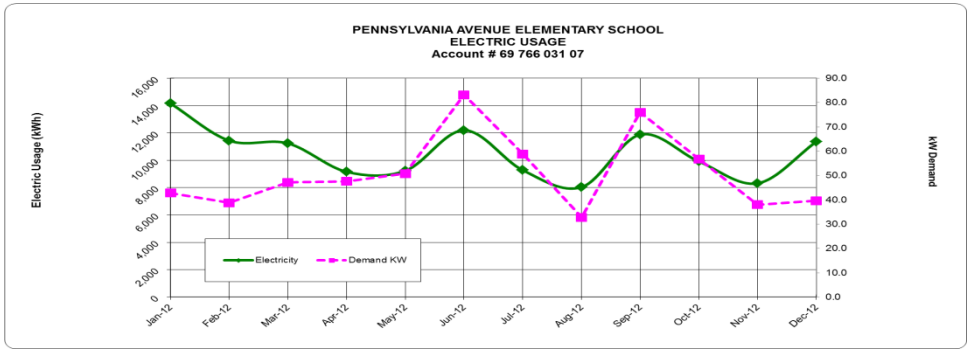
Energy Type	Energy Unit	Start Date	End Date	Demand KW	KWH	PSE&G Delivery Cost	DIRECT ENERGY Supplier Cost	$/kWh
Electricity	kWh	12/21/2011	1/23/2012	37.7	11,145	$520.09	$980.76	$0.13
Electricity	kWh	1/23/2012	2/23/2012	38.3	11,340	$530.23	$997.92	$0.13
Electricity	kWh	2/23/2012	3/22/2012	37.4	10,215	$490.34	$898.92	$0.14
Electricity	kWh	3/22/2012	4/24/2012	41.6	9,795	$494.67	$861.96	$0.14
Electricity	kWh	4/24/2012	5/22/2012	53.4	9,210	$525.90	$810.48	$0.15
Electricity	kWh	5/22/2012	6/20/2012	81.0	11,565	$1,438.44	$1,017.72	$0.21
Electricity	kWh	6/20/2012	7/23/2012	87.0	7,530	$1,358.61	$662.64	$0.27
Electricity	kWh	7/23/2012	8/20/2012	69.2	3,465	$980.59	$304.92	$0.37
Electricity	kWh	8/20/2012	9/19/2012	82.4	13,815	$1,555.55	$1,215.72	$0.20
Electricity	kWh	9/19/2012	10/18/2012	61.8	7,305	$511.28	$642.84	$0.16
Electricity	kWh	10/18/2012	11/16/2012	42.5	10,530	$535.23	$926.64	$0.14
Electricity	kWh	11/18/2012	12/19/2012	40.2	11,010	$527.66	$968.88	$0.14
		TOTALS/AVERAGE		**56.0**	**116,925**	**$9,468.59**	**$10,289.40**	**$0.169**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012

ROBERT MASCENIK ELEMENTARY



Facility Name	Robert Mascenik Elementary School (#26)
Address	300 Benjamin Avenue Iselin, NJ 08830
Account#	8190598520 / 510246
Meter#	00236738

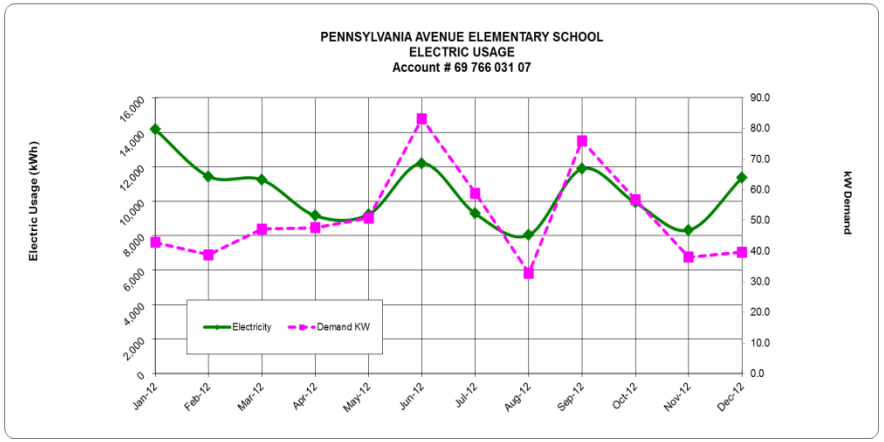
					Elizabethtown Gas	Woodruff Energy	
Energy Type	**Energy Unit**	**Start Date**	**End Date**	**Therms**	**Delivery Cost**	**Supply Cost**	**$/Therm**
Natural Gas	Therms	12/28/2011	1/27/2012	2469.1	$808.03	$1,536.54	$0.950
Natural Gas	Therms	1/27/2012	2/27/2012	2083.4	$663.11	$1,149.44	$0.870
Natural Gas	Therms	2/27/2012	3/27/2012	1072.4	$349.01	$577.68	$0.864
Natural Gas	Therms	3/27/2012	4/26/2012	256.4	$95.00	$138.12	$0.909
Natural Gas	Therms	4/26/2012	5/25/2012	127.3	$56.88	$68.58	$0.986
Natural Gas	Therms	5/25/2012	6/26/2012	18.8	$25.45	$10.13	$1.893
Natural Gas	Therms	6/26/2012	7/26/2012	53.4	$35.57	$28.76	$1.205
Natural Gas	Therms	7/26/2012	8/27/2012	54.6	$35.94	$29.41	$1.197
Natural Gas	Therms	8/27/2012	9/26/2012	41.1	$32.05	$22.14	$1.318
Natural Gas	Therms	9/26/2012	10/25/2012	88.5	$48.67	$47.67	$1.089
Natural Gas	Therms	10/25/2012	11/26/2012	1216.3	$432.65	$655.19	$0.894
		TOTALS/AVERAGE		**7,481**	**$2,582.36**	**$2,727.12**	**$0.710**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012

PENNSYLVANIA AVENUE ELEMENTARY



Facility Name Pennsylvania Ave Elementary School (#27)
Address 80 N. Pennsylvania Avenue
Colonia, NJ 07067
Account# 69 766 031 07
Meter# 728010041 PoD ID: PE 000011704864538706

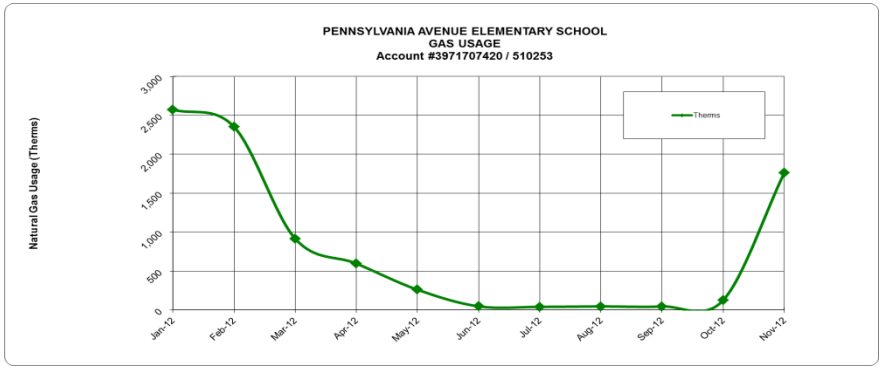
Energy Type	Energy Unit	Start Date	End Date	Demand KW	KWH	PSE&G Delivery Cost	DIRECT ENERGY Supplier Cost	$/kWh
Electricity	kWh	12/21/2011	1/23/2012	42.8	14,160	$638.00	$1,246.08	$0.13
Electricity	kWh	1/23/2012	2/22/2012	38.8	11,440	$535.56	$1,006.72	$0.13
Electricity	kWh	2/22/2012	3/23/2012	47.2	11,240	$564.73	$989.12	$0.14
Electricity	kWh	3/23/2012	4/23/2012	47.6	9,160	$499.73	$806.08	$0.14
Electricity	kWh	4/23/2012	5/22/2012	50.8	9,240	$515.84	$813.12	$0.14
Electricity	kWh	5/22/2012	6/21/2012	83.2	12,200	$1,490.32	$1,073.60	$0.21
Electricity	kWh	6/21/2012	7/24/2012	58.8	9,280	$1,087.51	$816.64	$0.21
Electricity	kWh	7/24/2012	8/21/2012	32.8	8,040	$723.64	$707.52	$0.18
Electricity	kWh	8/21/2012	9/20/2012	76.0	11,880	$1,400.48	$1,045.44	$0.21
Electricity	kWh	9/20/2012	10/19/2012	56.8	9,920	$577.78	$872.96	$0.15
Electricity	kWh	10/19/2012	11/19/2012	38.0	8,320	$442.47	$732.16	$0.14
Electricity	kWh	11/19/2012	12/20/2012	39.6	11,360	$550.11	$989.12	$0.14
		TOTALS/AVERAGE		**51.0**	**126,240**	**$9,026.17**	**$11,098.56**	**$0.159**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012

PENNSYLVANIA AVENUE ELEMENTARY



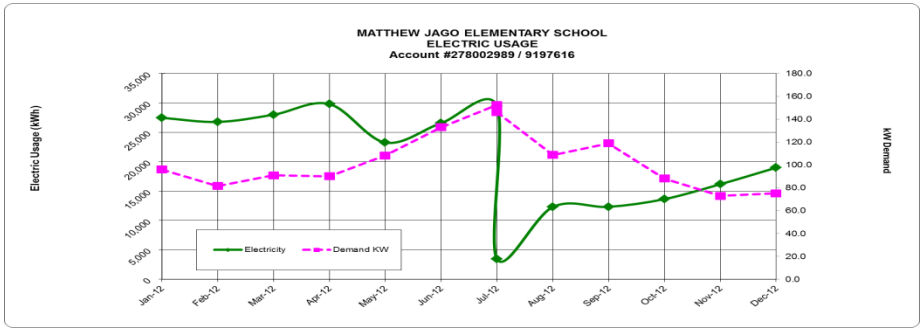
Facility Name Pennsylvania Ave. Elementary School (#27)
Address 80 N. Pennsylvania Avenue
Colonia, NJ 07067
Account# 3971707420 / 510253
Meter# 00236750

Energy Type	Energy Unit	Start Date	End Date	Therms	Elizabethtown Gas Delivery Cost	Woodruff Energy Supply Cost	$/Therm
Natural Gas	Therms	12/29/2011	1/27/2012	2573.9	$841.05	$1,601.76	$0.949
Natural Gas	Therms	1/27/2012	2/28/2012	2351.9	$745.82	$1,296.81	$0.869
Natural Gas	Therms	2/28/2012	3/28/2012	915.5	$300.89	$493.17	$0.867
Natural Gas	Therms	3/28/2012	4/27/2012	596.8	$194.25	$321.48	$0.864
Natural Gas	Therms	4/27/2012	5/29/2012	260.2	$95.39	$140.17	$0.905
Natural Gas	Therms	5/29/2012	6/27/2012	46.5	$33.48	$25.05	$1.259
Natural Gas	Therms	6/27/2012	7/27/2012	40.0	$31.67	$21.55	$1.331
Natural Gas	Therms	7/27/2012	8/28/2012	45.7	$33.33	$24.62	$1.268
Natural Gas	Therms	8/28/2012	9/27/2012	45.5	$33.36	$24.51	$1.272
Natural Gas	Therms	9/27/2012	10/26/2012	125.1	$60.56	$67.39	$1.023
Natural Gas	Therms	10/26/2012	11/27/2012	1761.4	$618.51	$948.83	$0.890
		TOTALS/AVERAGE		**8,763**	**$2,988.31**	**$4,965.34**	**$0.908**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012



MATTHEW JAGO ELEMENTARY

Facility Name Matthew Jago Elementary School (#28)
Address 99 Central Avenue
Sewaren, NJ 07077
Account# 69 759 131 02 / 4219404211*
Meter# 278002989 / 9197616* PoD ID: PE 000008663023338706

							PSE&G	DIRECT ENERGY	
Energy Type	**Energy Unit**	**Start Date**	**End Date**	**Demand KW**	**KWH IN**	**KWH OUT**	**Delivery Cost**	**Supplier Cost**	**$/kWh**
Electricity	kWh	12/7/2011	1/9/2012	96.0	27,450		$1,283.23	$2,415.60	$0.13
Electricity	kWh	1/9/2012	2/7/2012	81.6	26,760		$1,208.06	$2,354.88	$0.13
Electricity	kWh	2/7/2012	3/8/2012	90.9	27,990		$1,286.90	$2,463.12	$0.13
Electricity	kWh	3/8/2012	4/10/2012	90.0	29,790		$1,340.80	$2,621.52	$0.13
Electricity	kWh	4/10/2012	5/8/2012	108.3	23,250		$1,208.63	$2,046.00	$0.14
Electricity	kWh	5/8/2012	6/7/2012	132.9	26,550		$2,636.32	$2,336.40	$0.19
Electricity	kWh	6/7/2012	7/9/2012	152.4	29,430		$3,027.06	$2,589.84	$0.19
Electricity	kWh	7/9/2012	7/18/2012	146.1	3,480		$671.01	$306.24	$0.28
Electricity	kWh	7/19/2012	8/7/2012	108.7	12,300	3,337	$1,375.74	$788.78	$0.18
Electricity	kWh	8/8/2012	9/6/2012	118.9	12,319	9,200	$1,906.74	$274.40	$0.18
Electricity	kWh	9/7/2012	10/5/2012	88.1	13,636	6,350	$878.71	$641.26	$0.11
Electricity	kWh	10/6/2012	11/5/2012	72.9	16,170	3,348	$1,016.02	$1,128.26	$0.13
Electricity	kWh	1/5/2012	12/6/2012	75.2	18,975	2,450	$1,130.75	$1,454.24	$0.14
		TOTALS/AVERAGE		**104.8**	**268,100**	**24,685**	**$18,969.97**	**$21,420.54**	**$0.151**

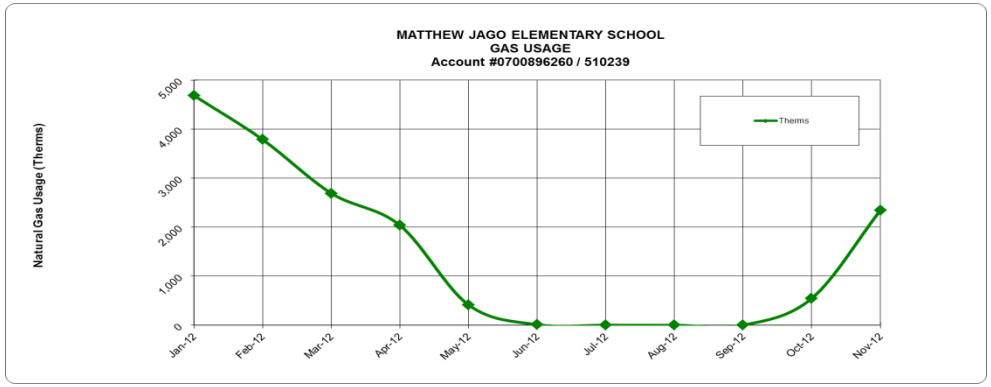
(* new account and meter number)

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012

MATTHEW JAGO ELEMENTARY



Facility Name	Matthew Jago Elementary School (#28)
Address	99 Glen Cove Avenue
	Sewaren, NJ 07077
Account#	0700896260 / 510239
Meter#	09336264

Energy Type	Energy Unit	Start Date	End Date	Therms	Elizabethtown Gas Delivery Cost	Woodruff Energy Supply Cost	$/Therm
Natural Gas	Therms	12/22/2011	1/24/2012	4681.4	$1,518.64	$2,913.27	$0.947
Natural Gas	Therms	1/24/2012	2/23/2012	3784.2	$1,192.70	$2,120.26	$0.875
Natural Gas	Therms	2/23/2012	3/23/2012	2689.6	$845.16	$1,448.83	$0.853
Natural Gas	Therms	3/23/2012	4/24/2012	2035.6	$619.50	$1,096.54	$0.843
Natural Gas	Therms	4/24/2012	5/23/2012	412.9	$139.62	$222.42	$0.877
Natural Gas	Therms	5/23/2012	6/22/2012	12.2	$23.53	$6.57	$2.467
Natural Gas	Therms	6/22/2012	7/24/2012	1.1	$20.32	$0.59	$19.009
Natural Gas	Therms	7/24/2012	8/23/2012	0.0	$20.00	$0.00	$0.000
Natural Gas	Therms	8/23/2012	9/24/2012	3.3	$20.96	$1.78	$6.891
Natural Gas	Therms	9/24/2012	10/23/2012	546.8	$196.54	$294.55	$0.898
Natural Gas	Therms	10/23/2012	11/20/2012	2344.0	$811.10	$1,262.66	$0.885
		TOTALS/AVERAGE		**16,511**	**$5,408.07**	**$9,367.47**	**$0.895**

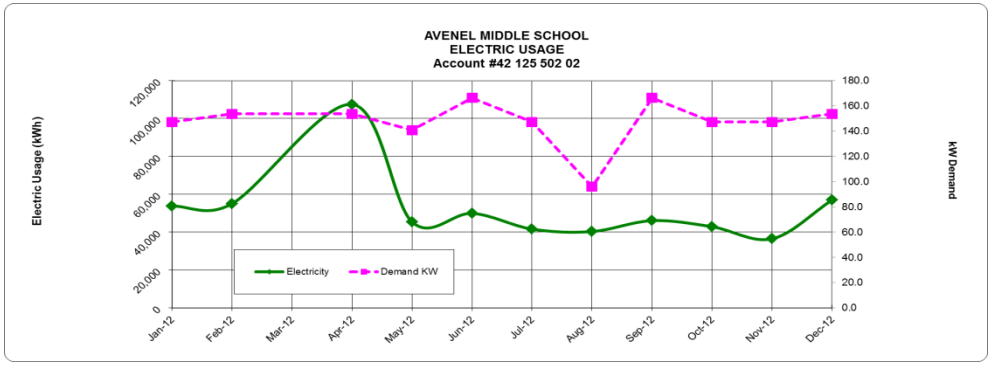
Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012

AVENEL MIDDLE SCHOOL

Facility Name Avenel Middle School (#40)
Address 85 Woodbine Avenue
Avenel, NJ 07001
Account# 42 125 502 02
Meter# 777001687 PoD ID: PE 000007970992938706

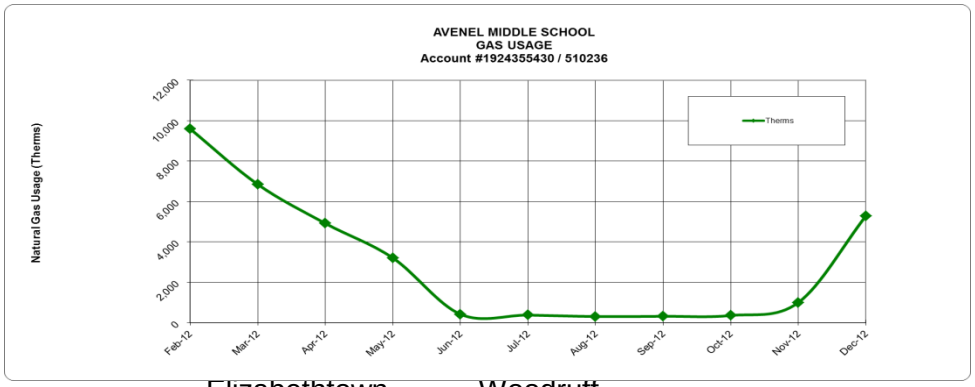


Energy Type	Energy Unit	Start Date	End Date	Demand KW	KWH	PSE&G Delivery Cost	DIRECT ENERGY Supplier Cost	$/kWh
Electricity	kWh	12/12/2011	1/12/2012	147.2	53,760	$2,388.84	$4,730.88	$0.13
Electricity	kWh	1/12/2012	2/10/2012	153.6	55,040	$2,465.46	$4,843.52	$0.13
Electricity	kWh	2/10/2012	4/12/2012	153.6	107,520	$4,859.05	$9,461.76	$0.13
Electricity	kWh	4/12/2012	5/11/2012	140.8	45,440	$2,151.29	$3,998.72	$0.14
Electricity	kWh	5/11/2012	6/12/2012	166.4	49,920	$3,762.36	$4,392.96	$0.16
Electricity	kWh	6/12/2012	7/12/2012	147.2	41,600	$3,350.78	$3,660.80	$0.17
Electricity	kWh	7/12/2012	8/10/2012	96.0	40,320	$2,710.57	$3,548.16	$0.16
Electricity	kWh	8/10/2012	9/11/2012	166.4	46,080	$3,712.50	$4,055.04	$0.17
Electricity	kWh	9/11/2012	10/10/2012	147.2	42,880	$2,167.49	$3,773.44	$0.14
Electricity	kWh	10/10/2012	11/8/2012	147.2	36,480	$1,969.56	$3,210.24	$0.14
Electricity	kWh	11/8/2012	12/11/2012	153.6	56,960	$2,588.24	$5,012.48	$0.13
		TOTALS/AVERAGE		**147.2**	**576,000**	**$32,126.14**	**$50,688.00**	**$0.144**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012



AVENEL MIDDLE SCHOOL

Facility Name	Avenel Middle School (#40)
Address	85 Woodbine Avenue Avenel, NJ 07001
Account#	1924355430 / 510236
Meter#	09329670

Elizabethtown Gas

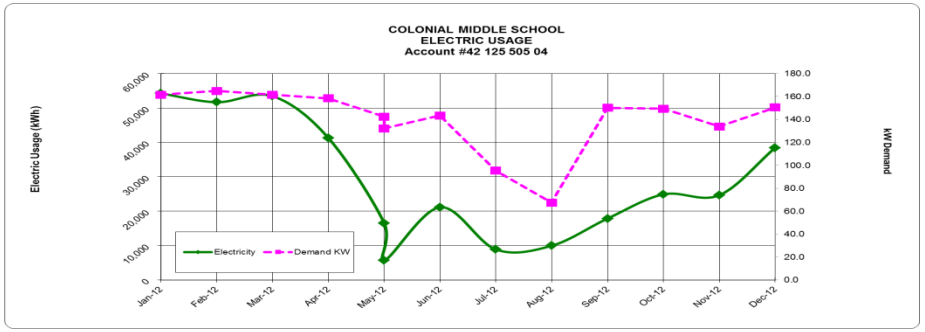
Woodruff Energy

Energy Type	Energy Unit	Start Date	End Date	Therms	Delivery Cost	Supply Cost	$/Therm
Natural Gas	Therms	1/1/2012	2/1/2012	9588.3	$2,908.94	$5,941.87	$0.923
Natural Gas	Therms	2/1/2012	3/1/2012	6841.4	$2,001.94	$3,685.33	$0.831
Natural Gas	Therms	3/1/2012	4/1/2012	4911.5	$1,442.85	$2,645.74	$0.832
Natural Gas	Therms	4/1/2012	5/1/2012	3198.2	$946.53	$1,722.81	$0.835
Natural Gas	Therms	5/1/2012	6/1/2012	414.8	$140.18	$223.45	$0.877
Natural Gas	Therms	6/1/2012	7/1/2012	373.0	$128.18	$200.92	$0.882
Natural Gas	Therms	7/1/2012	8/1/2012	302.2	$108.18	$162.79	$0.897
Natural Gas	Therms	8/1/2012	9/1/2012	313.2	$111.40	$168.72	$0.894
Natural Gas	Therms	9/1/2012	10/1/2012	352.9	$124.74	$190.10	$0.892
Natural Gas	Therms	10/1/2012	11/1/2012	994.6	$344.13	$535.77	$0.885
Natural Gas	Therms	11/1/2012	12/1/2012	5283.2	$1,741.80	$2,845.95	$0.868
		TOTALS/AVERAGE		**32,573**	**$9,998.87**	**$18,323.45**	**$0.869**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012



COLONIA MIDDLE SCHOOL

Facility Name Colonia Middle School (#41)
Address 100 Delaware Avenue
Colonia, NJ 07067
Account# 42 125 505 04
Meter# 778019842 / 9200014* PoD ID: PE 000008018177938706

							PSE&G	DIRECT ENERGY	
Energy Type	**Energy Unit**	**Start Date**	**End Date**	**Demand KW**	**KWH IN**	**KWH OUT**	**Delivery Cost**	**Supplier Cost**	**$/kWh**
Electricity	kWh	12/16/2011	1/19/2012	161.6	54,240		$2,457.57	$4,773.12	$0.13
Electricity	kWh	1/19/2012	2/16/2012	164.8	51,680		$2,410.17	$4,547.84	$0.13
Electricity	kWh	2/16/2012	3/19/2012	161.6	53,440		$2,448.43	$4,702.72	$0.13
Electricity	kWh	3/19/2012	4/18/2012	158.4	41,280		$2,095.88	$3,632.64	$0.14
Electricity	kWh	4/18/2012	5/8/2012	142.4	16,480		$1,050.10	$1,450.24	$0.15
Electricity	kWh	5/9/2012	5/17/2012	132.1	5,697	7,024	$253.56	($116.72)	$0.02
Electricity	kWh	5/18/2012	6/18/2012	143.4	21,163	27,781	$2,074.08	($582.32)	$0.07
Electricity	kWh	6/19/2012	7/18/2012	95.3	8,878	41,541	$1,507.38	($2,874.28)	($0.15)
Electricity	kWh	7/19/2012	8/16/2012	67.4	9,974	23,261	$1,178.69	($1,169.21)	$0.00
Electricity	kWh	8/17/2012	9/17/2012	150.2	17,882	16,047	$2,154.19	$161.49	$0.13
Electricity	kWh	9/18/2012	10/16/2012	149.3	24,912	9,010	$905.17	$1,399.33	$0.09
Electricity	kWh	10/17/2012	11/14/2012	133.8	24,654	10,421	$940.80	$1,226.06	$0.09
Electricity	kWh	11/15/2012	12/17/2012	150.5	38,426	5,517	$1,386.82	$2,895.91	$0.11
		TOTALS/AVERAGE		**139.3**	**368,706**	**140,602**	**$20,862.84**	**$20,046.82**	**$0.111**

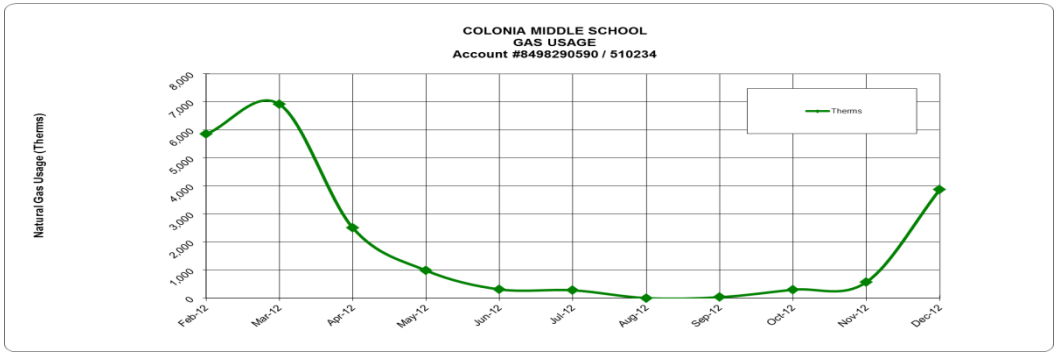
* meter # change

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012

COLONIA MIDDLE SCHOOL



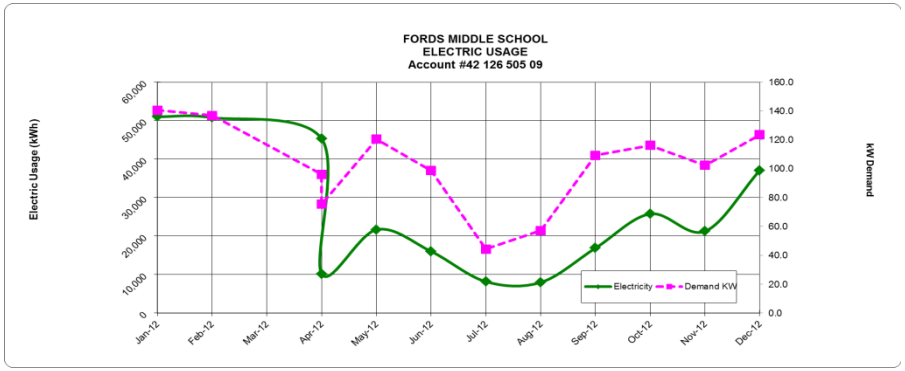
Facility Name	Colonia Middle School (#41)
Address	100 Delaware Avenue Colonia, NJ 07067
Account#	8498290590 / 510234
Meter#	09329662

Energy Type	Energy Unit	Start Date	End Date	Therms	Elizabethtown Gas Delivery Cost	Woodruff Energy Supply Cost	$/Therm
Natural Gas	Therms	1/1/2012	2/1/2012	5845.8	$1,781.33	$3,622.65	$0.924
Natural Gas	Therms	2/1/2012	3/1/2012	6913.8	$2,022.91	$3,724.33	$0.831
Natural Gas	Therms	3/1/2012	4/1/2012	2502.3	$744.92	$1,347.94	$0.836
Natural Gas	Therms	4/1/2012	5/1/2012	983.3	$304.86	$529.68	$0.849
Natural Gas	Therms	5/1/2012	6/1/2012	311.1	$110.14	$167.58	$0.893
Natural Gas	Therms	6/1/2012	7/1/2012	279.7	$101.13	$150.67	$0.900
Natural Gas	Therms	7/1/2012	8/1/2012	0.0	$20.00	$0.00	$0.000
Natural Gas	Therms	8/1/2012	9/1/2012	31.3	$29.13	$16.86	$1.469
Natural Gas	Therms	9/1/2012	10/1/2012	301.0	$109.34	$162.15	$0.902
Natural Gas	Therms	10/1/2012	11/1/2012	569.8	$205.70	$306.94	$0.900
Natural Gas	Therms	11/1/2012	12/1/2012	3868.8	$1,280.84	$2,084.05	$0.870
		TOTALS/AVERAGE		**21,607**	**$6,710.30**	**$12,112.85**	**$0.871**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012



FORDS MIDDLE SCHOOL

Facility Name Fords Middle School (#42)
Address 100 Fanning Street
Fords, NJ 08863
Account# 42 126 505 09
Meter# 778017783 / 9200016* PoD ID: PE 000009534817338706

							PSE&G	DIRECT ENERGY	
Energy Type	**Energy Unit**	**Start Date**	**End Date**	**Demand KW**	**KWH IN**	**KWH OUT**	**Delivery Cost**	**Supplier Cost**	**$/kWh**
Electricity	kWh	12/23/2011	1/25/2012	140.4	51,000		$2,299.19	$4,488.00	$0.13
Electricity	kWh	1/25/2012	2/24/2012	136.8	50,760		$2,286.71	$4,466.88	$0.13
Electricity	kWh	2/24/2012	4/2/2012	96.0	45,240		$2,181.32	$3,981.12	$0.14
Electricity	kWh	4/3/2012	4/25/2012	75.3	10,136	24,669	$494.16	($1,278.91)	($0.08)
Electricity	kWh	4/26/2012	5/24/2012	120.4	21,656	20,910	$825.61	$65.67	$0.04
Electricity	kWh	5/25/2012	6/25/2012	98.6	15,998	29,132	$1,546.27	($1,155.78)	$0.02
Electricity	kWh	6/26/2012	7/25/2012	44.2	8,156	36,693	$892.92	($2,511.22)	($0.20)
Electricity	kWh	7/26/2012	8/23/2012	57.2	7,963	27,395	$1,058.51	($1,709.94)	($0.08)
Electricity	kWh	8/24/2012	9/24/2012	109.2	16,870	25,827	$1,671.15	($788.21)	$0.05
Electricity	kWh	9/25/2012	10/23/2012	116.1	25,755	11,849	$789.41	$1,223.74	$0.08
Electricity	kWh	10/24/2012	11/21/2012	102.4	21,236	6,393	$862.14	$1,306.11	$0.10
Electricity	kWh	11/22/2012	12/24/2012	123.4	37,054	5,050	$1,338.54	$2,816.30	$0.11
		TOTALS/AVERAGE		**101.7**	**311,824**	**187,918**	**$16,245.93**	**$10,903.76**	**$0.087**

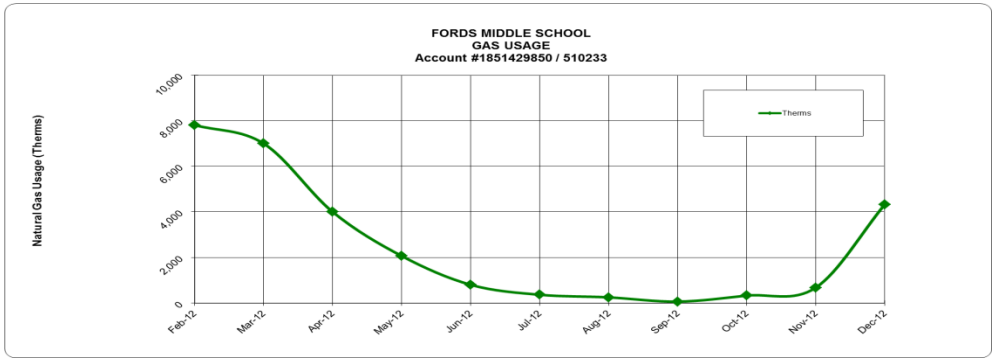
Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012

FORDS MIDDLE SCHOOL

Facility Name Fords Middle School (#42)
Address 100 Fanning Street
Fords, NJ 08863
Account# 1851429850 / 510233
Meter# 09334374



					Elizabethtown Gas	Woodruff Energy	
Energy Type	**Energy Unit**	**Start Date**	**End Date**	**Therms**	**Delivery Cost**	**Supply Cost**	**$/Therm**
Natural Gas	Therms	1/1/2012	2/1/2012	7806.9	$2,372.23	$4,837.94	$0.924
Natural Gas	Therms	2/1/2012	3/1/2012	6997.1	$2,047.06	$3,769.20	$0.831
Natural Gas	Therms	3/1/2012	4/1/2012	3997.6	$1,178.11	$2,153.43	$0.833
Natural Gas	Therms	4/1/2012	5/1/2012	2064.8	$618.18	$1,112.27	$0.838
Natural Gas	Therms	5/1/2012	6/1/2012	801.8	$252.27	$431.92	$0.853
Natural Gas	Therms	6/1/2012	7/1/2012	366.2	$126.22	$197.27	$0.883
Natural Gas	Therms	7/1/2012	8/1/2012	251.5	$93.38	$135.48	$0.910
Natural Gas	Therms	8/1/2012	9/1/2012	66.9	$39.52	$36.04	$1.129
Natural Gas	Therms	9/1/2012	10/1/2012	329.2	$117.71	$177.33	$0.896
Natural Gas	Therms	10/1/2012	11/1/2012	678.3	$241.05	$3,665.38	$5.759
Natural Gas	Therms	11/1/2012	12/1/2012	4328.5	$1,430.66	$2,331.68	$0.869
		TOTALS/AVERAGE		**27,689**	**$8,516.39**	**$18,847.94**	**$0.988**

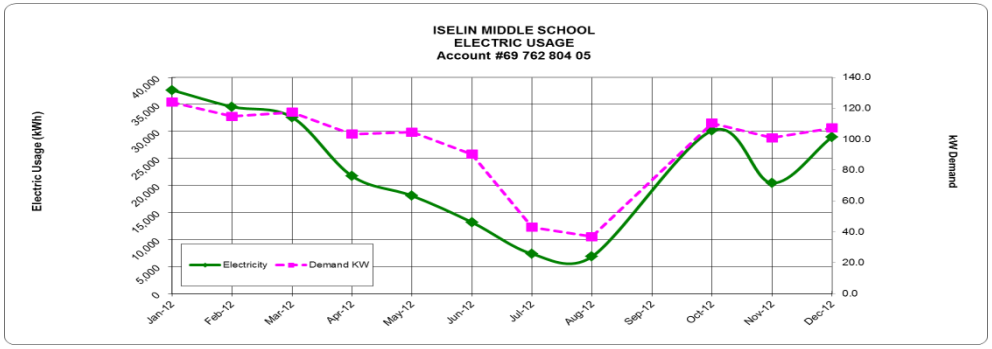
Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012

ISELIN MIDDLE SCHOOL

Facility Name Iselin Middle School (#43)
Address 900 Woodruff Street
Iselin, NJ 08830
Account# 69 762 804 05
Meter# 5318130 PoD ID: PE 000008538585438706



							PSE&G	DIRECT ENERGY	
Energy Type	**Energy Unit**	**Start Date**	**End Date**	**Demand KW**	**KWH IN**	**KWH OUT**	**Delivery Cost**	**Supplier Cost**	**$/kWh**
Electricity	kWh	12/22/2011	1/23/2012	124.0	37,653	630	$1,713.54	$3,257.98	$0.13
Electricity	kWh	1/24/2012	2/22/2012	114.8	34,577	730	$1,575.94	$2,978.49	$0.13
Electricity	kWh	2/23/2012	3/22/2012	117.5	32,636	938	$1,518.47	$2,789.34	$0.13
Electricity	kWh	3/23/2012	4/23/2012	103.3	21,749	4,015	$1,010.60	$1,560.46	$0.12
Electricity	kWh	4/24/2012	5/22/2012	104.6	18,102	18,503	$447.52	($35.24)	$0.02
Electricity	kWh	5/23/2012	6/21/2012	90.2	13,186	30,958	$1,095.72	($1,563.98)	($0.04)
Electricity	kWh	6/22/2012	7/23/2012	43.0	7,365	48,116	$524.65	($3,586.06)	($0.42)
Electricity	kWh	7/24/2012	8/21/2012	36.9	6,851	36,827	$450.84	($2,637.95)	($0.32)
Electricity	kWh	8/22/2012	10/19/2012	110.4	30,135	41,383	$1,567.82	($1,532.03)	$0.00
Electricity	kWh	10/20/2012	11/19/2012	100.8	20,467	11,649	$431.42	$776.00	$0.06
Electricity	kWh	11/20/2012	12/20/2012	107.3	28,970	6,420	$458.96	$2,016.99	$0.09
		TOTALS/AVERAGE		**95.7**	**251,691**	**200,169**	**$10,795.48**	**$4,024.00**	**$0.059**

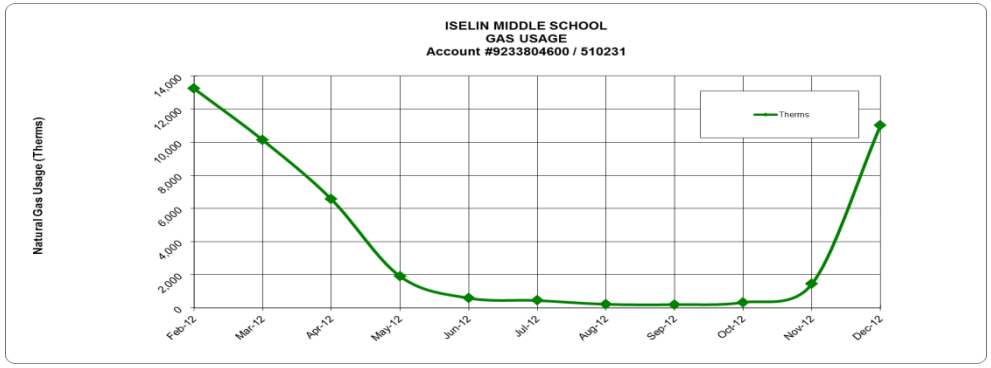
Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012

ISELIN MIDDLE SCHOOL

Facility Name	Iselin Middle School (#43)
Address	900 Woodruff Street
	Iselin, NJ 08830
Account#	9233804600 / 510231
Meter#	09334369



Energy Type	Energy Unit	Start Date	End Date	Therms	Elizabethtown Gas Delivery Cost	Woodruff Energy Supply Cost	$/Therm
Natural Gas	Therms	1/1/2012	2/1/2012	13227.7	$4,005.50	$8,197.21	$0.923
Natural Gas	Therms	2/1/2012	3/1/2012	10122.3	$2,952.43	$5,452.69	$0.830
Natural Gas	Therms	3/1/2012	4/1/2012	6555.6	$1,919.16	$3,531.37	$0.831
Natural Gas	Therms	4/1/2012	5/1/2012	1904.4	$571.70	$1,025.86	$0.839
Natural Gas	Therms	5/1/2012	6/1/2012	591.1	$191.24	$318.41	$0.862
Natural Gas	Therms	6/1/2012	7/1/2012	445.5	$149.21	$239.98	$0.874
Natural Gas	Therms	7/1/2012	8/1/2012	218.8	$83.85	$117.86	$0.922
Natural Gas	Therms	8/1/2012	9/1/2012	198.4	$77.89	$106.87	$0.931
Natural Gas	Therms	9/1/2012	10/1/2012	332.2	$118.60	$178.95	$0.896
Natural Gas	Therms	10/1/2012	11/1/2012	1440.0	$489.29	$775.70	$0.878
Natural Gas	Therms	11/1/2012	12/1/2012	11003.2	$3,605.94	$5,927.21	$0.866
		TOTALS/AVERAGE		**46,039**	**$14,164.81**	**$25,872.11**	**$0.870**

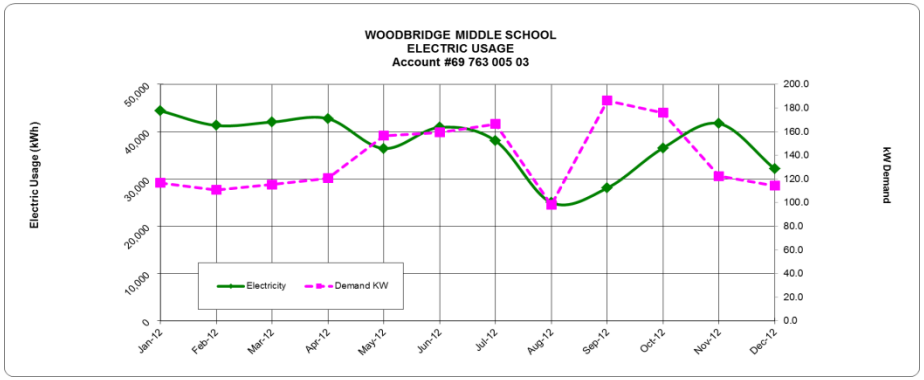
Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012

WOODBRIDGE MIDDLE SCHOOL

Facility Name Woodbridge Middle School (44)
Address 525 Barron Avenue
Woodbridge, NJ 07095
Account# 69 763 005 03
Meter# 278002051 PoD ID: PE 000011110460038706

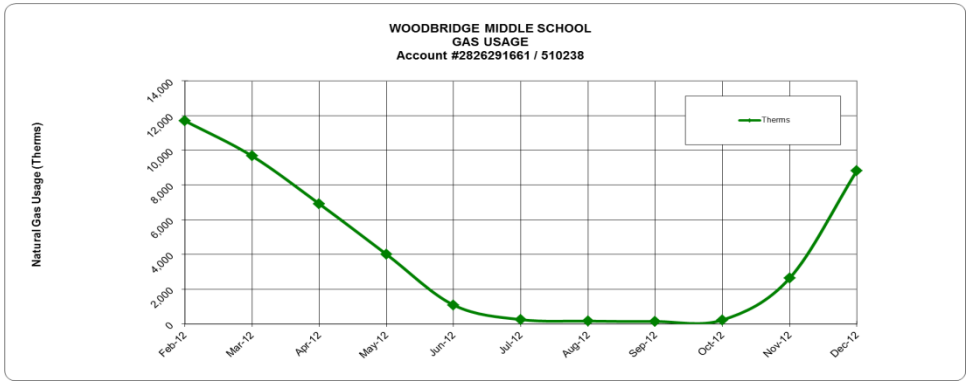


Energy Type	Energy Unit	Start Date	End Date	Demand KW	KWH	PSE&G Delivery Cost	DIRECT ENERGY Supplier Cost	$/kWh
Electricity	kWh	12/8/2011	1/10/2012	116.6	44,415	$1,910.07	$3,231.36	$0.12
Electricity	kWh	1/10/2012	2/8/2012	110.7	41,310	$1,797.84	$3,635.28	$0.13
Electricity	kWh	2/8/2012	3/9/2012	115.2	42,030	$1,840.00	$3,698.64	$0.13
Electricity	kWh	3/9/2012	4/11/2012	120.6	42,750	$1,885.95	$3,762.00	$0.13
Electricity	kWh	4/11/2012	5/9/2012	156.6	36,450	$1,836.48	$3,207.60	$0.14
Electricity	kWh	5/9/2012	6/8/2012	159.3	40,905	$3,511.47	$3,599.64	$0.17
Electricity	kWh	6/8/2012	7/10/2012	166.5	38,070	$3,543.71	$3,350.16	$0.18
Electricity	kWh	7/10/2012	8/8/2012	98.1	25,020	$2,193.86	$2,201.76	$0.18
Electricity	kWh	8/8/2012	9/7/2012	186.3	28,080	$3,384.89	$2,471.04	$0.21
Electricity	kWh	9/7/2012	10/8/2012	176.0	36,540	$1,978.31	$3,215.52	$0.14
Electricity	kWh	10/8/2012	11/8/2012	122.4	41,715	$1,915.39	$3,670.92	$0.13
Electricity	kWh	11/8/2012	12/7/2012	114.3	32,130	$3,190.83	$2,827.44	$0.19
		TOTALS/AVERAGE		**136.9**	**449,415**	**$28,988.80**	**$38,871.36**	**$0.151**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012



WOODBRIDGE MIDDLE SCHOOL

Facility Name Woodbridge Middle School (44)
Address 525 Barron Avenue
Woodbridge, NJ 07095
Account# 2826291661 / 510238
Meter# 00006711

Energy Type	Energy Unit	Start Date	End Date	Therms	Elizabethtown Gas Delivery Cost	Woodruff Energy Supply Cost	$/Therm
Natural Gas	Therms	1/1/2012	2/1/2012	11696.0	$3,544.01	$7,248.01	$0.923
Natural Gas	Therms	2/1/2012	3/1/2012	9669.9	$2,821.37	$5,208.98	$0.830
Natural Gas	Therms	3/1/2012	4/1/2012	6915.2	$2,023.33	$3,725.09	$0.831
Natural Gas	Therms	4/1/2012	5/1/2012	4009.2	$1,181.47	$2,159.68	$0.833
Natural Gas	Therms	5/1/2012	6/1/2012	1086.5	$334.75	$585.28	$0.847
Natural Gas	Therms	6/1/2012	7/1/2012	247.8	$91.87	$133.48	$0.909
Natural Gas	Therms	7/1/2012	8/1/2012	161.4	$67.09	$86.95	$0.954
Natural Gas	Therms	8/1/2012	9/1/2012	139.4	$60.69	$75.09	$0.974
Natural Gas	Therms	9/1/2012	10/1/2012	226.2	$87.13	$121.85	$0.924
Natural Gas	Therms	10/1/2012	11/1/2012	2631.1	$877.47	$1,417.32	$0.872
Natural Gas	Therms	11/1/2012	12/1/2012	8819.1	$2,894.13	$4,750.68	$0.867
		TOTALS/AVERAGE		**45,602**	**$13,983.31**	**$25,512.41**	**$0.866**

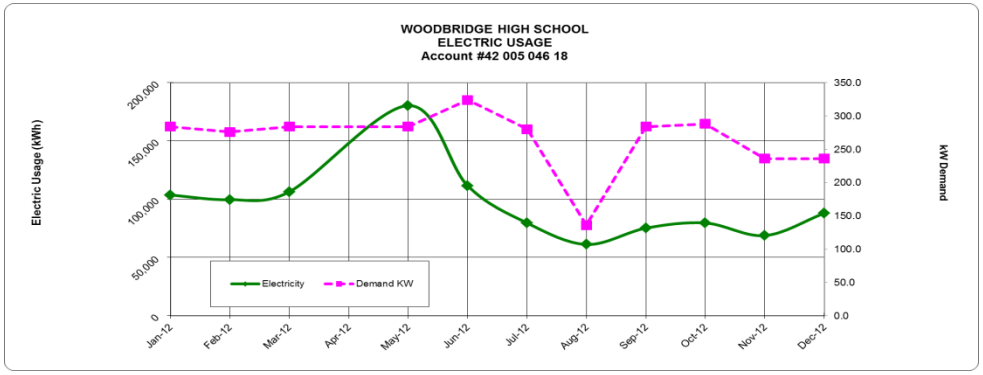
Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012

WOODBRIDGE HIGH SCHOOL

Facility Name Woodbridge High School (#50)
Address St. George Avenue
Woodbridge, NJ 07095
Account# 42 005 046 18
Meter# 778009109 PoD ID: PE 000008455075538706



Energy Type	Energy Unit	Start Date	End Date	Demand KW	KWH	PSE&G Delivery Cost	DIRECT ENERGY Supplier Cost	$/kWh
Electricity	kWh	12/12/2011	1/12/2012	284.0	103,600	$4,248.13	$9,116.80	$0.13
Electricity	kWh	1/12/2012	2/10/2012	276.0	99,600	$4,143.29	$8,764.80	$0.13
Electricity	kWh	2/10/2012	3/13/2012	284.0	106,400	$4,362.09	$9,363.20	$0.13
Electricity	kWh	3/13/2012	5/11/2012	284.0	180,400	$7,814.54	$15,875.20	$0.13
Electricity	kWh	5/11/2012	6/12/2012	324.0	111,600	$7,368.30	$9,820.80	$0.15
Electricity	kWh	6/12/2012	7/12/2012	280.0	79,600	$6,040.69	$7,004.80	$0.16
Electricity	kWh	7/12/2012	8/9/2012	136.0	61,200	$3,800.53	$5,385.60	$0.15
Electricity	kWh	8/9/2012	9/12/2012	284.0	75,200	$5,962.16	$6,617.60	$0.17
Electricity	kWh	9/12/2012	10/10/2012	288.0	79,600	$3,745.83	$7,004.80	$0.14
Electricity	kWh	10/10/2012	11/10/2012	236.0	68,800	$3,228.72	$6,054.40	$0.13
Electricity	kWh	11/10/2012	12/11/2012	236.0	88,000	$3,784.54	$7,744.00	$0.13
		TOTALS/AVERAGE		**264.7**	**1,054,000**	**$54,498.82**	**$92,752.00**	**$0.140**

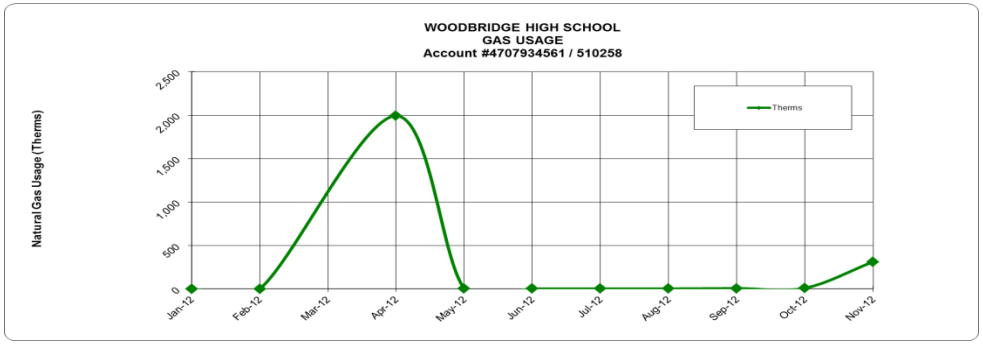
Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012

WOODBRIDGE HIGH SCHOOL

Facility Name	Woodbridge High School (#50)
Address	1 Billings Street
	Woodbridge, NJ 07095
Account#	4707934561 / 510258
Meter#	00026572



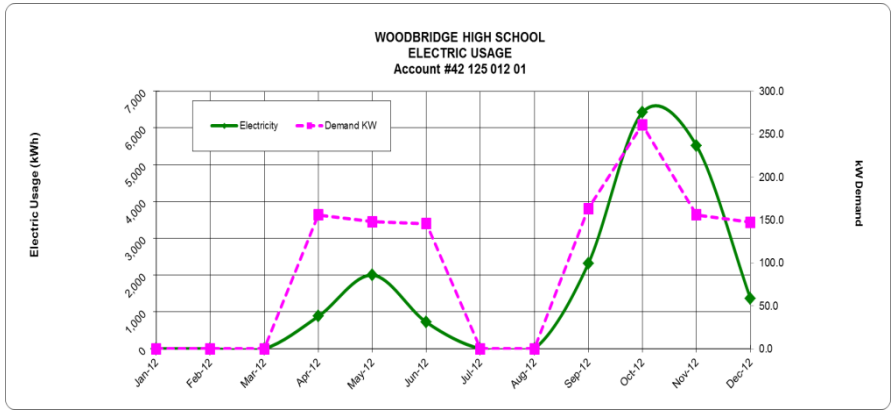
Energy Type	Energy Unit	Start Date	End Date	Therms	Elizabethtown Gas Delivery Cost	Woodruff Energy Supply Cost	$/Therm
Natural Gas	Therms	12/23/2011	1/25/2012	0.0	$20.00	$0.00	$0.000
Natural Gas	Therms	1/25/2012	2/24/2012	0.0	$20.00	$0.00	$0.000
Natural Gas	Therms	2/24/2012	4/25/2012	1991.6	$637.63	$1,072.84	$0.859
Natural Gas	Therms	4/25/2012	5/24/2012	5.2	$21.52	$2.80	$4.677
Natural Gas	Therms	5/25/2012	6/25/2012	3.1	$20.89	$1.67	$7.277
Natural Gas	Therms	6/26/2012	7/25/2012	2.1	$20.62	$1.13	$10.357
Natural Gas	Therms	7/26/2012	8/23/2012	2.1	$20.62	$1.13	$10.357
Natural Gas	Therms	8/24/2012	9/24/2012	6.2	$21.81	$3.34	$4.056
Natural Gas	Therms	9/25/2012	10/23/2012	9.3	$23.02	$5.01	$3.014
Natural Gas	Therms	10/24/2012	11/21/2012	311.7	$125.40	$167.90	$0.941
		TOTALS/AVERAGE		**2,331**	**$931.51**	**$1,255.82**	**$0.938**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012

WOODBRIDGE HIGH SCHOOL SIGN



Facility Name Woodbridge High School/Sign (#50)
Address St. George Avenue Stad
Woodbridge, NJ 07095
Account# 42 125 012 01

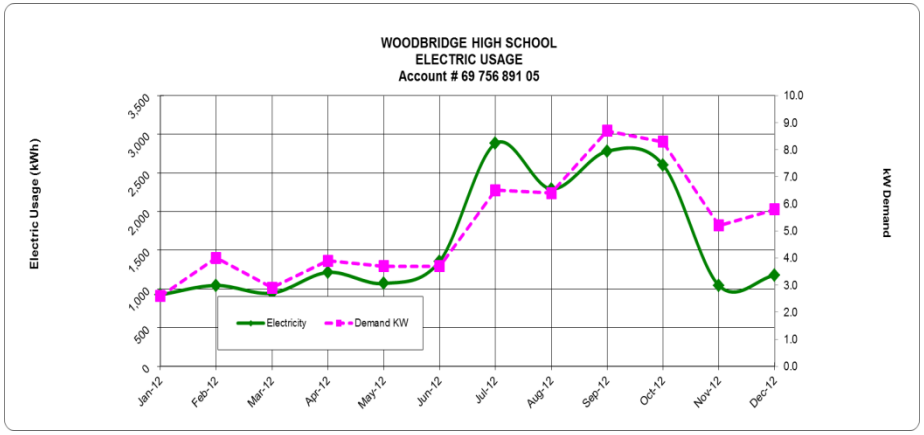
PoD ID: PE 000008917997
238706

Meter# 778015905 / 778016295 (meter change)

Energy Type	Energy Unit	Start Date	End Date	Demand KW	KWH	PSE&G Delivery Cost	DIRECT ENERGY Supplier Cost	$/kWh
Electricity	kWh	12/8/2011	1/10/2012	0.0	0	$384.62	$0.00	#DIV/0!
Electricity	kWh	1/10/2012	2/8/2012	0.0	0	$384.62	$0.00	#DIV/0!
Electricity	kWh	2/8/2012	3/9/2012	0.0	0	$384.62	$0.00	#DIV/0!
Electricity	kWh	3/9/2012	4/10/2012	156.0	880	$953.24	$77.44	$1.17
Electricity	kWh	4/10/2012	5/9/2012	148.0	2,000	$956.79	$176.00	$0.57
Electricity	kWh	5/9/2012	6/8/2012	145.6	720	$2,120.45	$63.36	$3.03
Electricity	kWh	6/8/2012	7/10/2012	0.0	0	$384.62	$0.00	#DIV/0!
Electricity	kWh	7/10/2012	8/8/2012	0.0	0	$384.62	$0.00	#DIV/0!
Electricity	kWh	8/8/2012	9/7/2012	163.2	2,320	$2,376.19	$204.16	$1.11
Electricity	kWh	9/7/2012	10/8/2012	260.8	6,420	$1,507.26	$633.60	$0.33
Electricity	kWh	10/8/2012	11/6/2012	156.0	5,520	$1,090.80	$485.76	$0.29
Electricity	kWh	11/6/2012	12/7/2012	147.2	1,360	$937.68	$119.68	$0.78
		TOTALS/AVERAGE		**98.1**	**19,220**	**$11,865.51**	**$1,760.00**	**$0.709**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary



WOODBRIDGE HIGH SCHOOL

Facility Name Woodbridge High School (#50)
Address 740 St. George Avenue
Woodbridge, NJ 07095
Account# 69 756 891 05
Meter# 725004977 PoD ID: PE 000008431759338706

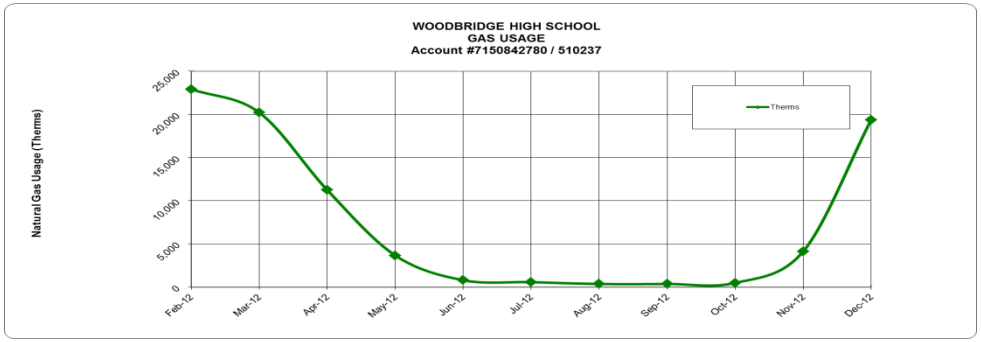
Energy Type	Energy Unit	Start Date	End Date	Demand KW	KWH	PSE&G Delivery Cost	DIRECT ENERGY Supplier Cost	$/kWh
Electricity	kWh	11/8/2011	1/10/2012	2.6	925	$44.79	$97.86	$0.15
Electricity	kWh	1/10/2012	2/8/2012	4.0	1,046	$54.86	$92.05	$0.14
Electricity	kWh	2/8/2012	3/9/2012	2.9	947	$47.03	$83.34	$0.14
Electricity	kWh	3/9/2012	4/10/2012	3.9	1,215	$59.86	$106.92	$0.14
Electricity	kWh	4/10/2012	5/8/2012	3.7	1,071	$54.39	$94.25	$0.14
Electricity	kWh	5/8/2012	6/7/2012	3.7	1,358	$101.53	$119.50	$0.16
Electricity	kWh	6/7/2012	7/10/2012	6.5	2,881	$198.42	$253.53	$0.16
Electricity	kWh	7/10/2012	8/8/2012	6.4	2,293	$173.69	$201.78	$0.16
Electricity	kWh	8/8/2012	9/7/2012	8.7	2,781	$221.21	$244.73	$0.17
Electricity	kWh	9/7/2012	10/8/2012	8.3	2,604	$127.08	$229.15	$0.14
Electricity	kWh	10/8/2012	11/8/2012	5.2	1,046	$61.33	$92.05	$0.15
Electricity	kWh	11/8/2012	12/7/2012	5.8	1,178	$68.14	$103.66	$0.15
		TOTALS/AVERAGE		**5.1**	**19,345**	**$1,212.33**	**$1,718.82**	**$0.152**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012

WOODBRIDGE HIGH SCHOOL



Facility Name	Woodbridge High School (#50)
Address	740 St. George Avenue
	Woodbridge, NJ 07095
Account#	7150842780 / 510237
Meter#	09005394

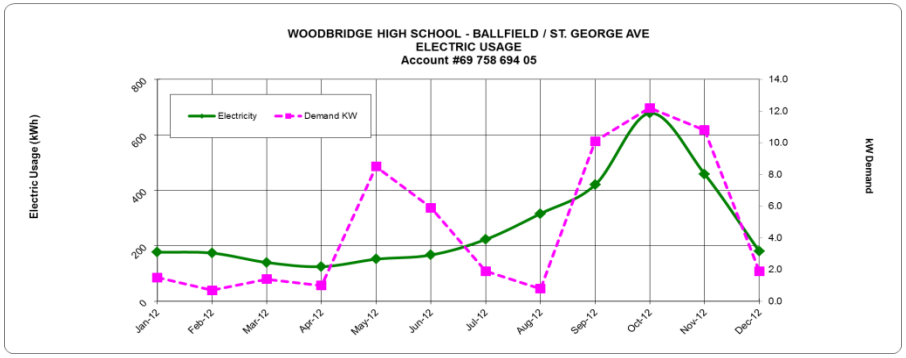
Energy Type	Energy Unit	Start Date	End Date	Therms	Elizabethtown Gas Delivery Cost	Woodruff Energy Supply Cost	$/Therm
Natural Gas	Therms	1/1/2012	2/1/2012	22919.1	$6,925.52	$14,202.97	$0.922
Natural Gas	Therms	2/1/2012	3/1/2012	20213.6	$5,875.88	$10,888.67	$0.829
Natural Gas	Therms	3/1/2012	4/1/2012	11239.6	$3,276.11	$6,054.55	$0.830
Natural Gas	Therms	4/1/2012	5/1/2012	3663.9	$1,081.44	$1,973.67	$0.834
Natural Gas	Therms	5/1/2012	6/1/2012	798.5	$251.32	$430.14	$0.853
Natural Gas	Therms	6/1/2012	7/1/2012	580.2	$188.29	$312.55	$0.863
Natural Gas	Therms	7/1/2012	8/1/2012	364.7	$126.43	$196.45	$0.885
Natural Gas	Therms	8/1/2012	9/1/2012	365.4	$126.63	$196.84	$0.885
Natural Gas	Therms	9/1/2012	10/1/2012	487.9	$164.83	$262.82	$0.877
Natural Gas	Therms	10/1/2012	11/1/2012	4123.3	$1,363.78	$2,221.14	$0.869
Natural Gas	Therms	11/1/2012	12/1/2012	19365.2	$6,419.11	$10,577.11	$0.878
		TOTALS/AVERAGE		**84,121**	**$25,799.34**	**$47,316.91**	**$0.869**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012

WOODBRIDGE HS--BALLFIELD



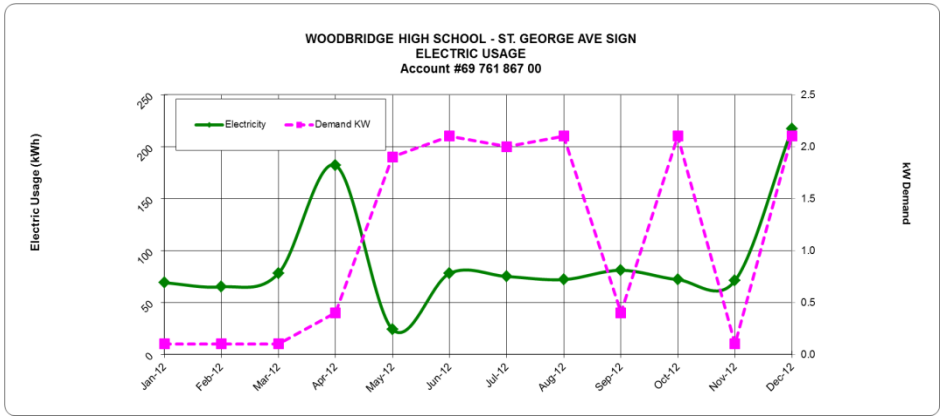
Facility Name Woodbridge High School - Ballfield / St. George Ave (#50)
Address 740 St. George Avenue
Woodbridge, NJ 07095
Account# 69 758 694 05
Meter# 626047348 PoD ID: PE 0000010134731838706

Energy Type	Energy Unit	Start Date	End Date	Demand KW	KWH	PSE&G Delivery Cost	DIRECT ENERGY Supplier Cost	$/kWh
Electricity	kWh	11/8/2011	1/10/2012	1.5	177	$16.36	$15.58	$0.18
Electricity	kWh	1/10/2012	2/8/2012	0.7	174	$12.93	$15.31	$0.16
Electricity	kWh	2/8/2012	3/9/2012	1.4	140	$14.80	$12.32	$0.19
Electricity	kWh	3/9/2012	4/10/2012	1.0	125	$12.64	$11.00	$0.19
Electricity	kWh	4/10/2012	5/8/2012	8.5	152	$45.17	$13.38	$0.39
Electricity	kWh	5/8/2012	6/7/2012	5.9	167	$82.19	$14.70	$0.58
Electricity	kWh	6/7/2012	7/10/2012	1.9	223	$36.30	$19.62	$0.25
Electricity	kWh	7/10/2012	8/8/2012	0.8	316	$26.71	$27.81	$0.17
Electricity	kWh	8/8/2012	9/7/2012	10.1	420	$143.43	$36.96	$0.43
Electricity	kWh	9/7/2012	10/8/2012	12.2	678	$78.86	$59.66	$0.20
Electricity	kWh	10/8/2012	11/8/2012	10.8	459	$65.45	$40.39	$0.23
Electricity	kWh	11/8/2012	12/7/2012	1.9	180	$18.42	$15.84	$0.19
		TOTALS/AVERAGE		**4.7**	**3,211**	**$553.26**	**$282.57**	**$0.260**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012



WOODBRIDGE HIGH SCHOOL
ST GEORGE AVENUE SIGN

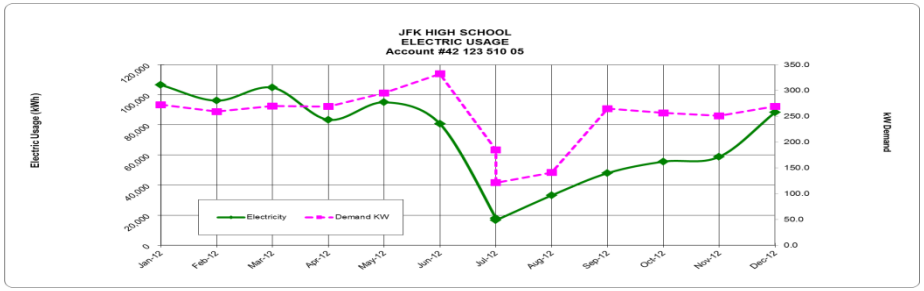
Facility Name Woodbridge High School - St. George Ave Sign (#50)
Address 740 St. George Avenue
Woodbridge, NJ 07095
Account# 69 761 867 00
Meter# 626056196 PoD ID: PE 000009184335938706

						PSE&G	DIRECT ENERGY	
Energy Type	**Energy Unit**	**Start Date**	**End Date**	**Demand KW**	**KWH**	**Delivery Cost**	**Supplier Cost**	**$/kWh**
Electricity	kWh	12/12/2011	1/12/2012	0.1	69	$7.00	$8.41	$0.22
Electricity	kWh	1/12/2012	2/10/2012	0.1	65	$6.89	$8.31	$0.23
Electricity	kWh	2/10/2012	3/13/2012	0.1	78	$7.30	$9.35	$0.21
Electricity	kWh	3/13/2012	4/13/2012	0.4	182	$11.90	$17.22	$0.16
Electricity	kWh	4/13/2012	5/11/2012	1.9	24	$13.19	$4.73	$0.75
Electricity	kWh	5/11/2012	6/12/2012	2.1	78	$32.82	$8.61	$0.53
Electricity	kWh	6/12/2012	7/12/2012	2.0	75	$31.58	$7.89	$0.53
Electricity	kWh	7/12/2012	8/9/2012	2.1	72	$32.68	$7.75	$0.56
Electricity	kWh	8/9/2012	9/12/2012	0.4	81	$12.47	$8.24	$0.26
Electricity	kWh	9/12/2012	10/10/2012	2.1	72	$15.70	$7.56	$0.32
Electricity	kWh	10/10/2012	11/10/2012	0.1	71	$7.17	$7.49	$0.21
Electricity	kWh	11/10/2012	12/11/2012	2.1	217	$30.14	$22.50	$0.24
		TOTALS/AVERAGE		**1.1**	**1,084**	**$208.84**	**$118.06**	**$0.302**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012



JFK HIGH SCHOOL

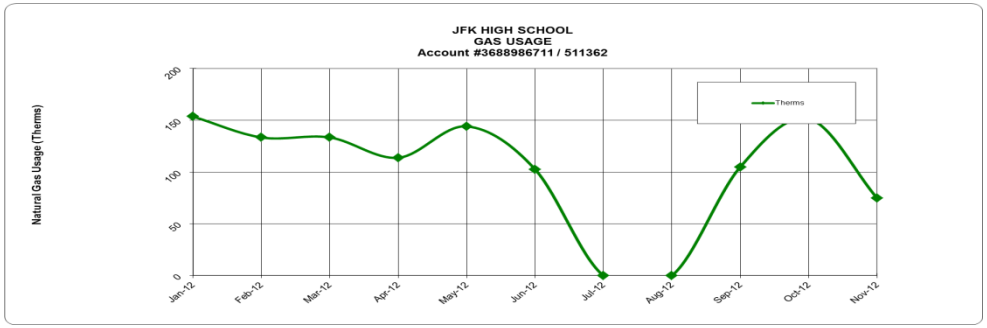
Facility Name JFK High School (#51)
Address 200 Washington Avenue
Iselin, NJ 08830
Account# 42 123 510 05
Meter# 778017567 / 9198754 PoD ID: PE 000009962078338706

Energy Type	Energy Unit	Start Date	End Date	Demand KW	KWH IN	KWH OUT	PSE&G Delivery Cost	DIRECT ENERGY Supplier Cost	$/kWh
Electricity	kWh	12/16/2011	1/19/2012	272.4	106,560		$4,299.73	$9,377.28	$0.13
Electricity	kWh	1/19/2012	2/16/2012	259.2	96,120		$3,987.02	$8,458.56	$0.13
Electricity	kWh	2/16/2012	3/19/2012	270.0	104,760		$4,267.25	$9,218.88	$0.13
Electricity	kWh	3/19/2012	4/18/2012	268.8	83,400		$3,663.36	$7,339.20	$0.13
Electricity	kWh	4/18/2012	5/17/2012	295.2	95,040		$4,082.20	$8,363.52	$0.13
Electricity	kWh	5/17/2012	6/18/2012	332.4	80,640		$6,611.51	$7,096.32	$0.17
Electricity	kWh	6/18/2012	7/1/2012	184.8	18,000		$1,643.19	$1,584.00	$0.18
Electricity	kWh	7/2/2012	7/18/2012	121.3	16,672	8,388	$1,302.86	$728.92	$0.12
Electricity	kWh	7/19/2012	8/16/2012	140.8	33,147	16,605	$2,533.90	$1,455.75	$0.12
Electricity	kWh	8/17/2012	9/17/2012	264.7	47,946	15,369	$4,469.91	$2,866.77	$0.15
Electricity	kWh	9/18/2012	10/16/2012	256.7	55,606	6,807	$2,722.13	$4,294.26	$0.13
Electricity	kWh	10/17/2012	11/14/2012	251.0	58,799	4,713	$2,847.02	$4,759.57	$0.13
Electricity	kWh	11/15/2012	12/17/2012	269.1	88,335	1,978	$3,851.82	$7,599.45	$0.13
		TOTALS/AVERAGE		**245.1**	**885,025**	**53,860**	**$46,281.90**	**$73,142.48**	**$0.135**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012



JFK HIGH SCHOOL

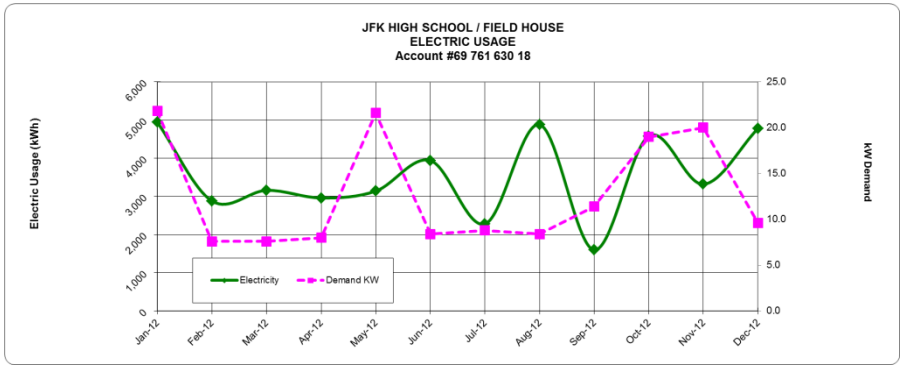
Facility Name JFK High School (#51)
Address 200 Washington Avenue
Iselin, NJ 08830
Account# 3688986711 / 511362
Meter# 09542717

Energy Type	Energy Unit	Start Date	End Date	Therms	Elizabethtown Gas Delivery Cost	Woodruff Energy Supply Cost	$/Therm
Natural Gas	Therms	12/28/2011	1/27/2012	153.6	$69.03	$95.58	$1.072
Natural Gas	Therms	1/27/2012	2/27/2012	133.4	$61.18	$73.59	$1.010
Natural Gas	Therms	2/27/2012	3/27/2012	133.4	$60.93	$71.86	$0.995
Natural Gas	Therms	3/27/2012	4/26/2012	113.8	$53.28	$61.30	$1.007
Natural Gas	Therms	4/26/2012	5/25/2012	144.1	$61.74	$77.63	$0.967
Natural Gas	Therms	5/25/2012	6/26/2012	102.6	$49.71	$55.27	$1.023
Natural Gas	Therms	6/26/2012	7/26/2012	0.0	$20.00	$0.00	$0.000
Natural Gas	Therms	7/26/2012	8/27/2012	0.0	$20.00	$0.00	$0.000
Natural Gas	Therms	8/27/2012	9/26/2012	104.9	$50.76	$56.51	$1.023
Natural Gas	Therms	9/26/2012	10/25/2012	151.3	$68.98	$81.50	$0.995
Natural Gas	Therms	10/25/2012	11/26/2012	74.8	$45.37	$40.30	$1.145
		TOTALS/AVERAGE		**1,112**	**$560.98**	**$613.54**	**$1.056**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012



JFK HIGH SCHOOL

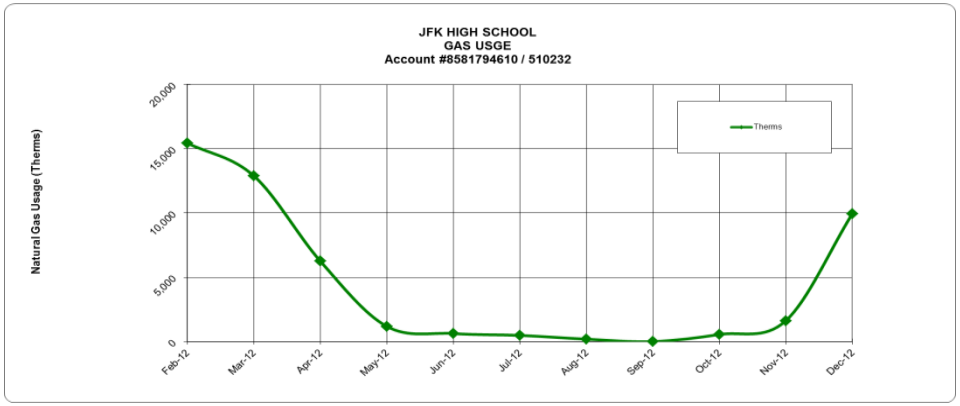
Facility Name JFK High School / Field House (#51)
Address 200 Washington Avenue
Iselin, NJ 08830
Account# 69 761 630 18
Meter# 1426220 PoD ID: PE 000010205280038706

Energy Type	Energy Unit	Start Date	End Date	Demand KW	KWH	PSE&G Delivery Cost	DIRECT ENERGY Supplier Cost	$/kWh
Electricity	kWh	12/16/2011	1/18/2012	21.8	4,940	$254.24	$434.72	$0.14
Electricity	kWh	1/18/2012	2/16/2012	7.6	2,880	$128.91	$253.44	$0.13
Electricity	kWh	2/16/2012	3/20/2012	7.6	3,160	$137.89	$278.08	$0.13
Electricity	kWh	3/20/2012	4/19/2012	8.0	2,960	$133.17	$260.48	$0.13
Electricity	kWh	4/19/2012	5/17/2012	21.6	3,140	$196.57	$276.32	$0.15
Electricity	kWh	5/17/2012	6/18/2012	8.4	3,940	$260.04	$346.72	$0.15
Electricity	kWh	6/18/2012	7/17/2012	8.8	2,280	$202.17	$200.64	$0.18
Electricity	kWh	7/17/2012	8/16/2012	8.4	4,880	$301.65	$429.44	$0.15
Electricity	kWh	8/16/2012	9/14/2012	11.4	1,600	$206.49	$140.80	$0.22
Electricity	kWh	9/18/2012	10/16/2012	19.0	4,580	$238.64	$403.04	$0.14
Electricity	kWh	10/16/2012	11/14/2012	20.0	3,320	$199.76	$292.16	$0.15
Electricity	kWh	11/14/2012	12/17/2012	9.6	4,780	$204.08	$420.64	$0.13
		TOTALS/AVERAGE		**12.7**	**42,460**	**$2,463.61**	**$3,736.48**	**$0.146**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012



JFK HIGH SCHOOL

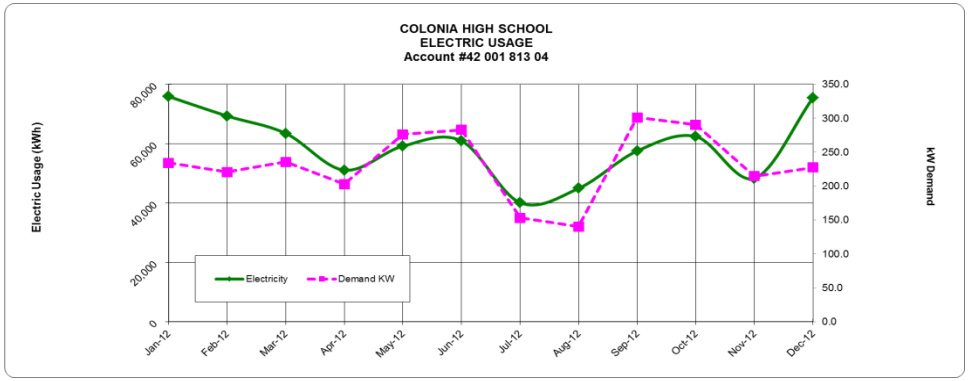
Facility Name	JFK High School (#51)
Address	200 Washington Avenue Iselin, NJ 08830
Account#	8581794610 / 510232
Meter#	09541468

Energy Type	Energy Unit	Start Date	End Date	Therms	Elizabethtown Gas Delivery Cost	Woodruff Energy Supply Cost	$/Therm
Natural Gas	Therms	1/1/2012	2/1/2012	15434.1	$4,670.30	$9,564.52	$0.922
Natural Gas	Therms	2/1/2012	3/1/2012	12885.8	$3,753.02	$6,941.34	$0.830
Natural Gas	Therms	3/1/2012	4/1/2012	6255.7	$1,832.27	$3,369.83	$0.832
Natural Gas	Therms	4/1/2012	5/1/2012	1179.9	$361.82	$635.59	$0.845
Natural Gas	Therms	5/1/2012	6/1/2012	622.2	$200.25	$335.17	$0.861
Natural Gas	Therms	6/1/2012	7/1/2012	476.6	$158.24	$256.74	$0.871
Natural Gas	Therms	7/1/2012	8/1/2012	187.6	$74.74	$101.06	$0.937
Natural Gas	Therms	8/1/2012	9/1/2012	0.0	$20.00	$0.00	$0.000
Natural Gas	Therms	9/1/2012	10/1/2012	550.1	$183.28		$0.333
Natural Gas	Therms	10/1/2012	11/1/2012	1616.2	$546.72	$870.62	$0.877
Natural Gas	Therms	11/1/2012	12/1/2012	9932.0	$3,256.84	$5,350.18	$0.867
		TOTALS/AVERAGE		**49,140**	**$15,057.48**	**$27,425.05**	**$0.865**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012



COLONIA HIGH SCHOOL

Facility Name Colonia High School (#52)
Address 180 East Street
Colonia, NJ 07067
Account# 42 001 813 04
Meter# 758000827 PoD ID: PE 000011460646038706

Energy Type	Energy Unit	Start Date	End Date	Demand KW	KWH IN	KWH OUT	PSE&G Delivery Cost	DIRECT ENERGY Supplier Cost	$/kWh
Electricity	kWh	12/22/2011	1/23/2012	234.0	75,870	2,323	$3,255.89	$6,472.11	$0.13
Electricity	kWh	1/24/2012	2/22/2012	220.7	69,292	2,854	$3,019.42	$5,846.45	$0.13
Electricity	kWh	2/23/2012	3/22/2012	235.3	63,445	5,268	$2,838.40	$5,119.57	$0.13
Electricity	kWh	3/23/2012	4/23/2012	202.9	51,063	13,547	$2,145.35	$3,301.45	$0.11
Electricity	kWh	4/24/2012	5/22/2012	275.9	59,150	9,772	$2,732.90	$4,345.21	$0.12
Electricity	kWh	5/23/2012	6/21/2012	282.6	60,893	7,844	$5,246.27	$4,668.30	$0.16
Electricity	kWh	6/22/2012	7/23/2012	152.8	40,105	16,306	$2,889.60	$2,094.29	$0.12
Electricity	kWh	7/24/2012	8/21/2012	140.0	44,926	8,867	$3,103.43	$3,173.20	$0.14
Electricity	kWh	8/22/2012	9/20/2012	301.0	57,521	7,828	$5,405.50	$4,373.03	$0.17
Electricity	kWh	9/21/2012	10/19/2012	290.3	62,369	3,803	$3,127.38	$5,153.88	$0.13
Electricity	kWh	10/20/2012	11/19/2012	214.4	48,331	2,693	$2,470.53	$4,016.12	$0.13
Electricity	kWh	11/20/2012	12/20/2012	227.2	75,376	745	$3,362.34	$6,567.52	$0.13
		TOTALS/AVERAGE		**231.4**	**708,341**	**81,850**	**$39,597.01**	**$55,131.13**	**$0.134**

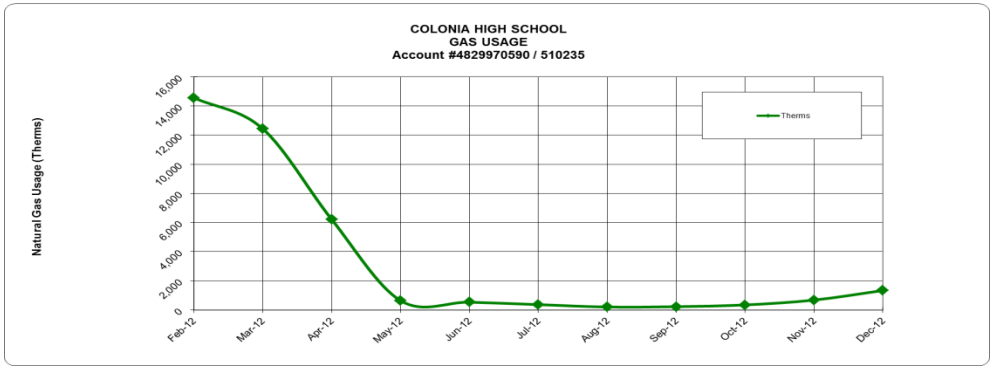
Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012

COLONIA HIGH SCHOOL

Facility Name	Colonia High School (#52)
Address	180 East Street
	Colonia, NJ 07067
Account#	4829970590 / 510235
Meter#	09001065

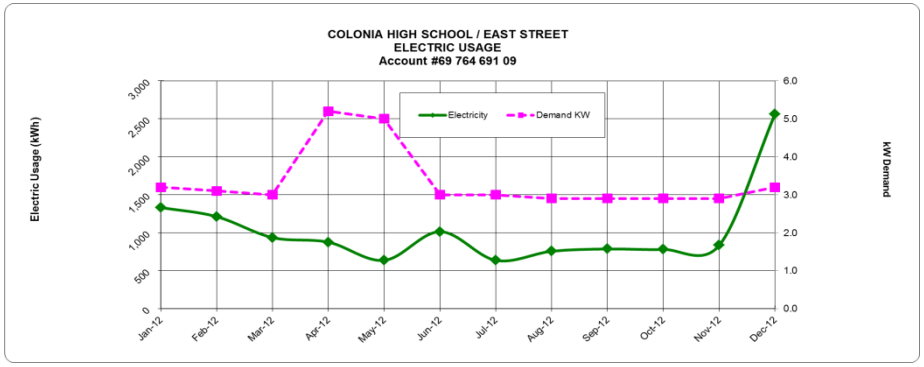


Energy Type	Energy Unit	Start Date	End Date	Therms	Elizabethtown Gas Delivery Cost	Woodruff Energy Supply Cost	$/Therm
Natural Gas	Therms	1/1/2012	2/1/2012	14557.7	$4,406.23	$9,021.40	$0.763
Natural Gas	Therms	2/1/2012	3/1/2012	12430.4	$3,621.09	$6,696.02	$0.561
Natural Gas	Therms	3/1/2012	4/1/2012	6214.3	$1,820.27	$3,347.53	$0.349
Natural Gas	Therms	4/1/2012	5/1/2012	641.7	$205.90	$345.67	$0.773
Natural Gas	Therms	5/1/2012	6/1/2012	539.2	$176.20	$290.45	$0.699
Natural Gas	Therms	6/1/2012	7/1/2012	373.0	$128.18	$200.92	$0.645
Natural Gas	Therms	7/1/2012	8/1/2012	208.4	$80.81	$112.26	$0.981
Natural Gas	Therms	8/1/2012	9/1/2012	229.7	$87.03	$123.73	$1.206
Natural Gas	Therms	9/1/2012	10/1/2012	352.9	$124.74	$190.10	$2.299
Natural Gas	Therms	10/1/2012	11/1/2012	683.8	$242.85	$686.44	$1.412
Natural Gas	Therms	11/1/2012	12/1/2012	1341.6	$457.23	$722.70	$9.819
		TOTALS/AVERAGE		**37,573**	**$11,350.53**	**$12,715.82**	**$0.641**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012



COLONIA HIGH SCHOOL / EAST ST.

Facility Name Colonia High School/East Street (#52)
Address 180 East Street
Colonia, NJ 07067
Account# 69 764 691 09
Meter# 626026705 PoD ID: PE 000008054484438706

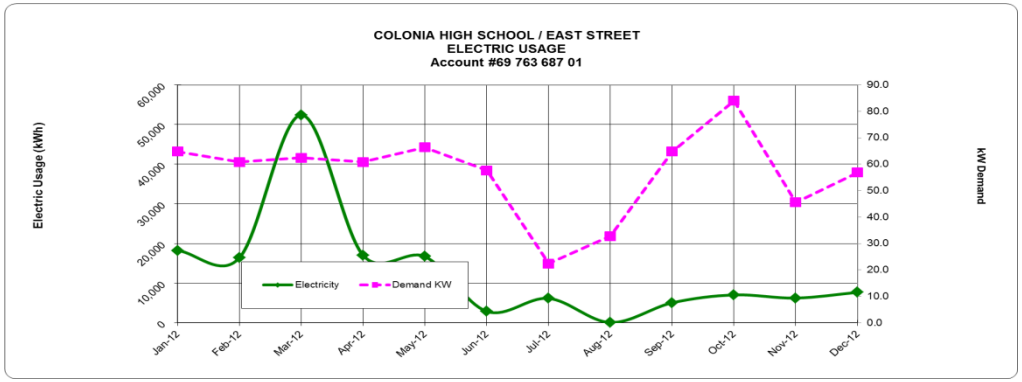
Energy Type	Energy Unit	Start Date	End Date	Demand KW	KWH	PSE&G Delivery Cost	DIRECT ENERGY Supplier Cost	$/kWh
Electricity	kWh	12/21/2011	1/23/2012	3.2	1,332	$126.40	$117.22	$0.18
Electricity	kWh	1/24/2012	2/22/2012	3.1	1,212	$176.98	$106.66	$0.23
Electricity	kWh	2/22/2012	3/23/2012	3.0	936	$47.10	$82.37	$0.14
Electricity	kWh	3/23/2012	4/23/2012	5.2	876	$54.49	$77.09	$0.15
Electricity	kWh	4/23/2012	5/22/2012	5.0	636	$45.95	$55.97	$0.16
Electricity	kWh	5/22/2012	6/21/2012	3.0	1,014	$80.52	$89.23	$0.17
Electricity	kWh	6/21/2012	7/24/2012	3.0	636	$66.16	$55.97	$0.19
Electricity	kWh	7/24/2012	8/22/2012	2.9	756	$69.79	$66.53	$0.18
Electricity	kWh	8/22/2012	9/20/2012	2.9	786	$71.00	$69.17	$0.18
Electricity	kWh	9/20/2012	10/19/2012	2.9	780	$97.21	$68.64	$0.21
Electricity	kWh	10/20/2012	11/19/2012	2.9	834	$87.29	$73.39	$0.19
Electricity	kWh	11/19/2012	12/21/2012	3.2	2,562	$103.18	$225.46	$0.13
		TOTALS/AVERAGE		**3.4**	**12,360**	**$1,026.07**	**$1,087.70**	**$0.171**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012

COLONIA HS / EAST STREET



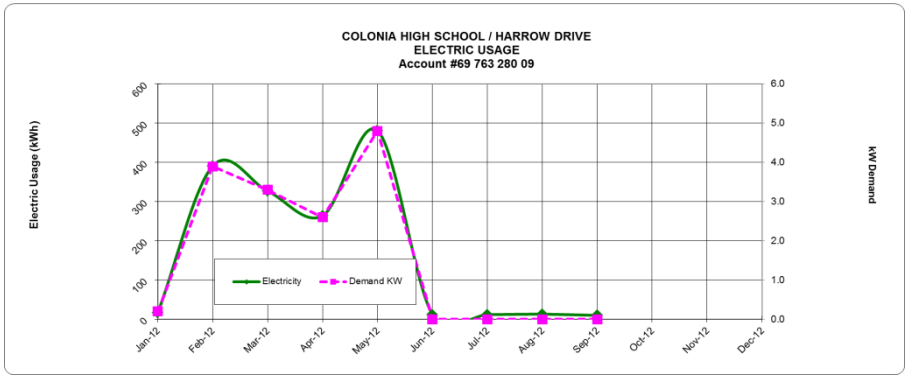
Facility Name Colonia High School/East Street (#52)
Address 180 East Street
Colonia, NJ 07067
Account# 69 763 687 01
Meter# 728012042 PoD ID: PE 000010241605438706

						PSE&G	DIRECT ENERGY	
Energy Type	**Energy Unit**	**Start Date**	**End Date**	**Demand KW**	**KWH**	**Delivery Cost**	**Supplier Cost**	**$/kWh**
Electricity	kWh	12/21/2011	1/23/2012	64.8	18,240	$861.52	$1,605.12	$0.14
Electricity	kWh	1/23/2012	2/22/2012	60.8	16,400	$787.78	$1,443.20	$0.14
Electricity	kWh	2/22/2012	3/23/2012	62.4	52,400	$1,948.78	$4,611.20	$0.13
Electricity	kWh	3/23/2012	4/23/2012	60.8	17,040	$808.30	$1,499.52	$0.14
Electricity	kWh	4/23/2012	5/22/2012	66.4	16,720	$821.75	$1,471.36	$0.14
Electricity	kWh	5/22/2012	6/21/2012	57.6	2,880	$814.43	$253.44	$0.37
Electricity	kWh	6/21/2012	7/24/2012	22.4	6,160	$522.12	$542.08	$0.17
Electricity	kWh	7/25/2012	8/22/2012	32.8	80	$683.06	$7.04	$8.63
Electricity	kWh	8/22/2012	9/20/2012	64.8	5,040	$990.59	$443.52	$0.28
Electricity	kWh	9/20/2012	10/19/2012	84.0	7,040	$596.39	$619.52	$0.17
Electricity	kWh	10/19/2012	11/19/2012	45.6	6,240	$405.38	$549.12	$0.15
Electricity	kWh	11/19/2012	12/21/2012	56.8	7,680	$500.53	$675.84	$0.15
		TOTALS/AVERAGE		**56.6**	**155,920**	**$9,740.63**	**$13,720.96**	**$0.150**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012



COLONIA HS / HARROW DRIVE

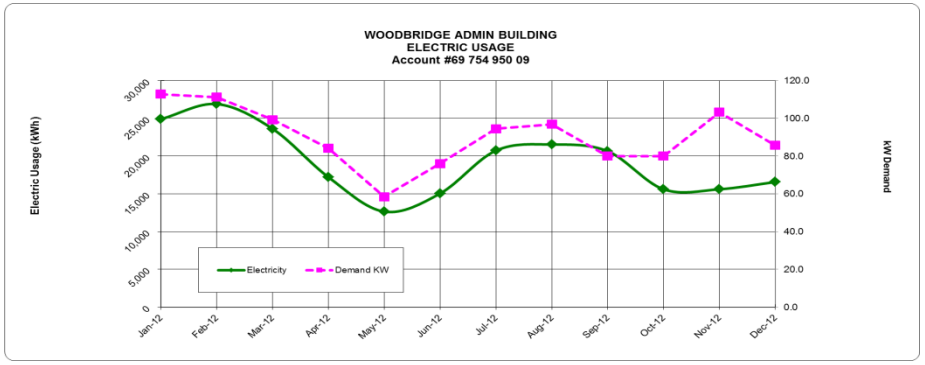
Facility Name Colonia High School/Harrow Drive (#52)
Address 116 Harrow Drive Sch
Woodbridge, NJ 07067
Account# 69 763 280 09
Meter# 126417846 PoD ID: PE 000008770311238706

Energy Type	Energy Unit	Start Date	End Date	Demand KW	KWH	PSE&G Delivery Cost	DIRECT ENERGY Supplier Cost	$/kWh
Electricity	kWh	12/20/2011	1/21/2012	0.2	17	$5.78	$1.50	$0.43
Electricity	kWh	1/21/2012	2/21/2012	3.9	391	$33.45	$34.41	$0.17
Electricity	kWh	2/21/2012	3/23/2012	3.3	327	$28.84	$28.78	$0.18
Electricity	kWh	3/23/2012	4/21/2012	2.6	264	$23.85	$23.23	$0.18
Electricity	kWh	4/21/2012	5/21/2012	4.8	481	$40.14	$42.33	$0.17
Electricity	kWh	5/21/2012	6/20/2012	0.0	12	$4.38	$1.06	$0.45
Electricity	kWh	6/20/2012	7/20/2012	0.0	12	$4.38	$1.06	$0.45
Electricity	kWh	7/20/2012	8/20/2012	0.0	13	$4.38	$1.14	$0.42
Electricity	kWh	8/21/2012	9/7/2012	0.0	10		$0.88	$0.09
Electricity	kWh	9/8/2012	10/22/2012					#DIV/0!
Electricity	kWh	10/22/2012	11/19/2012					#DIV/0!
Electricity	kWh	11/19/2012	12/21/2012					#DIV/0!
		TOTALS/AVERAGE		**1.6**	**1,527**	**$145.20**	**$134.39**	**$0.183**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012



WOODBRIDGE ADMIN BUILDING

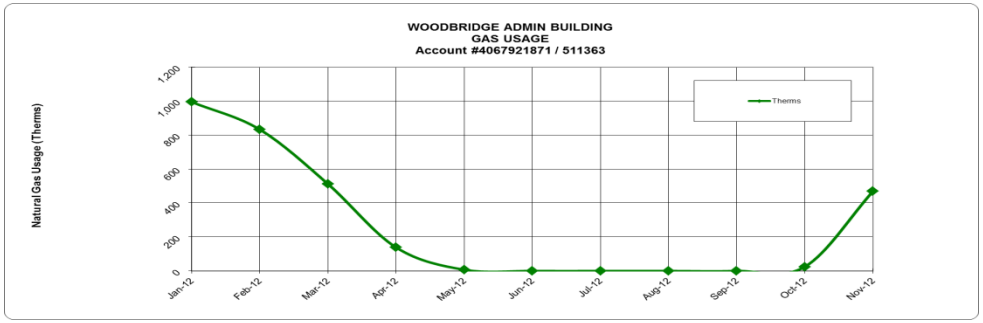
Facility Name Woodbridge Admin Building (#60)
Address 421 School Street
Woodbridge, NJ 07095
Account# 69 754 950 09
Meter# 728004859 PoD ID: PE 000011354481138706

Energy Type	Energy Unit	Start Date	End Date	Demand KW	KWH	PSE&G Delivery Cost	DIRECT ENERGY Supplier Cost	$/kWh
Electricity	kWh	12/8/2011	1/10/2012	112.8	24,880	$1,273.08	$1,911.36	$0.13
Electricity	kWh	1/10/2012	2/8/2012	111.2	26,880	$1,337.31	$2,365.44	$0.14
Electricity	kWh	2/8/2012	3/9/2012	99.2	23,600	$1,181.31	$2,076.80	$0.14
Electricity	kWh	3/9/2012	4/11/2012	84.0	17,200	$911.71	$1,513.60	$0.14
Electricity	kWh	4/11/2012	5/9/2012	58.4	12,640	$657.05	$1,112.32	$0.14
Electricity	kWh	5/9/2012	6/8/2012	76.0	15,040	$1,504.77	$1,323.52	$0.19
Electricity	kWh	6/8/2012	7/10/2012	94.4	20,720	$1,976.45	$1,823.36	$0.18
Electricity	kWh	7/10/2012	8/8/2012	96.8	21,520	$2,037.90	$1,893.76	$0.18
Electricity	kWh	8/8/2012	9/7/2012	80.0	20,640	$1,800.30	$1,816.32	$0.18
Electricity	kWh	9/7/2012	10/8/2012	80.0	15,600	$867.70	$1,372.80	$0.14
Electricity	kWh	10/8/2012	11/8/2012	103.2	15,600	$962.31	$1,372.80	$0.15
Electricity	kWh	11/8/2012	12/7/2012	85.6	16,560	$1,872.51	$1,457.28	$0.20
		TOTALS/AVERAGE		**90.1**	**230,880**	**$16,382.40**	**$20,039.36**	**$0.158**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012



WOODBRIDGE ADMIN BUILDING

Facility Name Woodbridge Admin Building (#60)
Address 428 School Street
Woodbridge, NJ 07095
Account# 4067921871 / 511363
Meter# 0D601722

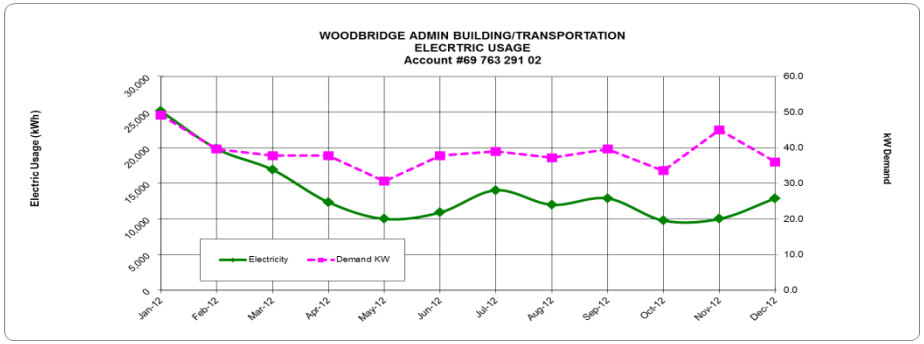
Energy Type	Energy Unit	Start Date	End Date	Therms	Elizabethtown Gas Delivery Cost	Woodruff Energy Supply Cost	$/Therm
Natural Gas	Therms	12/23/2011	1/25/2012	994.4	$338.15	$618.82	$0.962
Natural Gas	Therms	1/25/2012	2/24/2012	832.4	$277.63	$464.12	$0.891
Natural Gas	Therms	2/24/2012	3/26/2012	511.9	$177.04	$275.75	$0.885
Natural Gas	Therms	3/26/2012	4/25/2012	138.7	$60.66	$74.72	$0.976
Natural Gas	Therms	4/25/2012	5/24/2012	7.3	$22.11	$3.94	$3.568
Natural Gas	Therms	5/24/2012	6/25/2012	0.0	$20.00	$0.00	$0.000
Natural Gas	Therms	6/25/2012	7/25/2012	0.0	$20.00	$0.00	$0.000
Natural Gas	Therms	7/25/2012	8/24/2012	0.0	$20.00	$0.00	$0.000
Natural Gas	Therms	8/24/2012	9/25/2012	0.0	$20.00	$0.00	$0.000
Natural Gas	Therms	9/25/2012	10/24/2012	24.9	$28.05	$13.42	$1.665
Natural Gas	Therms	10/24/2012	11/21/2012	468.5	$178.40	$252.37	$0.919
		TOTALS/AVERAGE		**2,978**	**$1,162.04**	**$1,703.14**	**$0.962**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012

WOODBRIDGE ADMIN BUILDING/ TRANSPORTATION



Facility Name Woodbridge Admin Building/Transportation (#80)
Address 60 Crows Mill Rod Ofc
Woodbridge, NJ 08832
Account# 69 763 291 02
Meter# 58986770 PoD ID: PE 000008548899738706

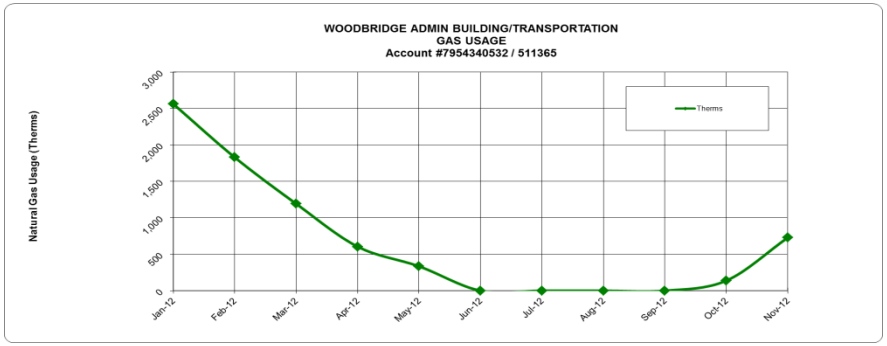
Energy Type	Energy Unit	Start Date	End Date	Demand KW	KWH	PSE&G Delivery Cost	DIRECT ENERGY Supplier Cost	$/kWh
Electricity	kWh	12/22/2011	1/24/2012	49.2	25,140	$1,016.13	$2,212.32	$0.13
Electricity	kWh	1/24/2012	2/23/2012	39.6	19,860	$808.90	$1,747.68	$0.13
Electricity	kWh	2/23/2012	3/23/2012	37.8	16,920	$707.01	$1,488.96	$0.13
Electricity	kWh	3/23/2012	4/24/2012	37.8	12,360	$560.81	$1,087.68	$0.13
Electricity	kWh	4/24/2012	5/23/2012	30.6	10,020	$455.27	$881.76	$0.13
Electricity	kWh	5/23/2012	6/22/2012	37.8	10,920	$891.36	$960.96	$0.17
Electricity	kWh	6/22/2012	7/25/2012	39.0	14,040	$1,038.60	$1,235.52	$0.16
Electricity	kWh	7/25/2012	8/23/2012	37.2	12,000	$935.69	$1,056.00	$0.17
Electricity	kWh	8/23/2012	9/26/2012	39.6	12,900	$1,001.00	$1,135.20	$0.17
Electricity	kWh	9/26/2012	10/25/2012	33.6	9,780	$474.35	$860.64	$0.14
Electricity	kWh	10/25/2012	11/27/2012	45.0	10,020	$528.40	$881.76	$0.14
Electricity	kWh	11/27/2012	12/27/2012	36.0	12,900	$586.09	$1,135.20	$0.13
		TOTALS/AVERAGE		**38.6**	**166,860**	**$9,003.61**	**$14,683.68**	**$0.142**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012

WOODBRIDGE ADMIN BUILDING/ TRANSPORTATION



Facility Name Woodbridge Admin Building/Transportation (#80)
Address 137 Crows Mill Rod Ofc
Woodbridge, NJ 08832
Account# 7954340532 / 511365
Meter# 06336570

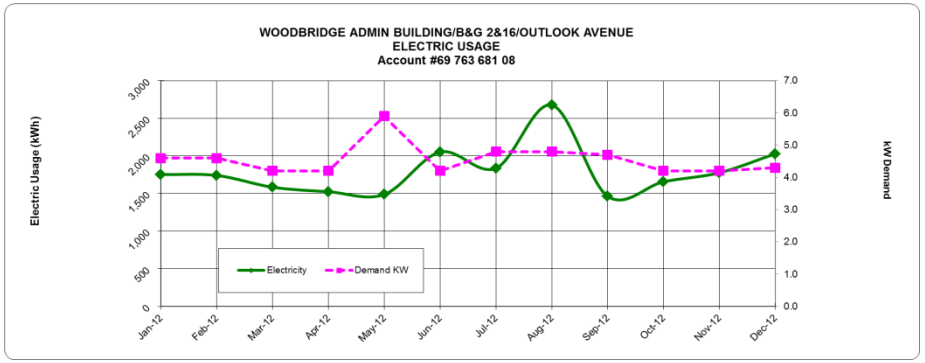
					Elizabethtown Gas	Woodruff Energy	
Energy Type	**Energy Unit**	**Start Date**	**End Date**	**Therms**	**Delivery Cost**	**Supply Cost**	**$/Therm**
Natural Gas	Therms	12/20/2011	1/23/2012	2562.7	$841.12	$1,594.78	$0.951
Natural Gas	Therms	1/23/2012	2/21/2012	1829.4	$587.84	$1,031.36	$0.885
Natural Gas	Therms	2/21/2012	3/21/2012	1193.0	$386.01	$642.64	$0.862
Natural Gas	Therms	3/21/2012	4/20/2012	604.4	$198.88	$325.58	$0.868
Natural Gas	Therms	4/20/2012	5/21/2012	334.2	$116.81	$180.03	$0.888
Natural Gas	Therms	5/21/2012	6/20/2012	0.0	$20.00	$0.00	$0.000
Natural Gas	Therms	6/20/2012	7/20/2012	0.0	$20.00	$0.00	$0.000
Natural Gas	Therms	7/20/2012	8/21/2012	0.0	$20.00	$0.00	$0.000
Natural Gas	Therms	8/21/2012	9/20/2012	0.0	$20.00	$0.00	$0.000
Natural Gas	Therms	9/20/2012	10/19/2012	137.3	$63.67	$73.96	$1.002
Natural Gas	Therms	10/19/2012	11/17/2012	727.4	$263.92	$391.83	$0.901
		TOTALS/AVERAGE		**7,388**	**$2,538.25**	**$4,240.18**	**$0.917**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012

WOODBRIDGE ADMIN BUILDING/ B&G 2&16 / OUTLOOK AVENUE



Facility Name Woodbridge Admin Building/B&G 2&16/Outlook Ave (#82)
Address Outlook Avenue
Woodbridge, NJ 07067
Account# 69 763 681 08
Meter# 984527 PoD ID: PE 000009499446438706

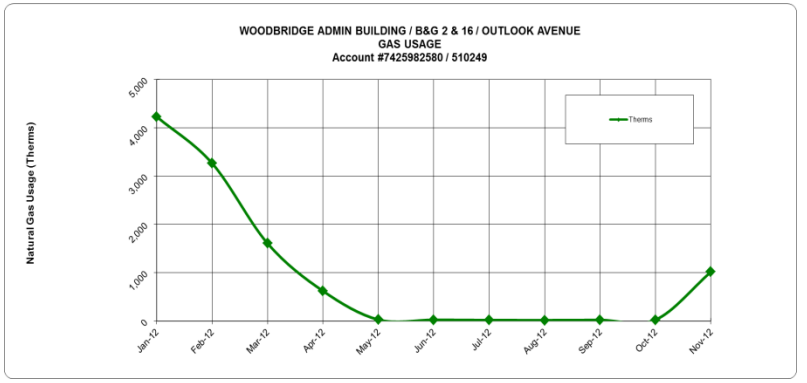
Energy Type	Energy Unit	Start Date	End Date	Demand KW	KWH	PSE&G Delivery Cost	DIRECT ENERGY Supplier Cost	$/kWh
Electricity	kWh	12/20/2011	1/20/2012	4.6	1,752	$79.80	$154.18	$0.13
Electricity	kWh	1/20/2012	2/21/2012	4.6	1,740	$79.66	$153.12	$0.13
Electricity	kWh	2/21/2012	3/22/2012	4.2	1,584	$72.95	$139.39	$0.13
Electricity	kWh	3/22/2012	4/20/2012	4.2	1,524	$71.03	$134.11	$0.13
Electricity	kWh	4/20/2012	5/21/2012	5.9	1,488	$77.09	$130.94	$0.14
Electricity	kWh	5/21/2012	6/20/2012	4.2	2,052	$135.71	$180.58	$0.15
Electricity	kWh	6/20/2012	7/20/2012	4.8	1,836	$136.00	$161.57	$0.16
Electricity	kWh	7/20/2012	8/20/2012	4.8	2,676	$169.75	$235.49	$0.15
Electricity	kWh	8/20/2012	9/19/2012	4.7	1,464	$119.97	$128.83	$0.17
Electricity	kWh	9/19/2012	10/18/2012	4.2	1,656	$77.73	$145.73	$0.13
Electricity	kWh	10/18/2012	11/16/2012	4.2	1,776	$81.33	$156.29	$0.13
Electricity	kWh	11/16/2012	12/19/2012	4.3	2,028	$90.08	$178.46	$0.13
		TOTALS/AVERAGE		**4.6**	**21,576**	**$1,191.10**	**$1,898.69**	**$0.143**

Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012

WOODBRIDGE ADMIN BUILDING/
B&G 2&16 / OUTLOOK AVENUE



Facility Name Woodbridge Admin Building/B&G 2&16/Outlook Ave (#82)
Address Outlook Avenue
Woodbridge, NJ 07067
Account# 7425982580 / 510249
Meter# 09854378

Energy Type	Energy Unit	Start Date	End Date	Therms	Elizabethtown Gas Delivery Cost	Woodruff Energy Supply Cost	$/Therm
Natural Gas	Therms	12/23/2011	1/25/2012	4227.1	$1,372.46	$2,630.55	$0.947
Natural Gas	Therms	1/25/2012	2/24/2012	3263.5	$1,030.07	$1,819.65	$0.873
Natural Gas	Therms	2/24/2012	3/26/2012	1607.1	$513.07	$865.72	$0.858
Natural Gas	Therms	3/26/2012	4/25/2012	621.1	$202.06	$334.58	$0.864
Natural Gas	Therms	4/25/2012	5/24/2012	27.7	$28.02	$14.93	$1.551
Natural Gas	Therms	5/24/2012	6/25/2012	24.3	$27.04	$13.09	$1.651
Natural Gas	Therms	6/25/2012	7/25/2012	17.8	$25.19	$9.59	$1.954
Natural Gas	Therms	7/25/2012	8/24/2012	16.7	$24.87	$9.00	$2.028
Natural Gas	Therms	8/24/2012	9/25/2012	21.1	$26.18	$11.36	$1.779
Natural Gas	Therms	9/25/2012	10/24/2012	25.5	$28.25	$13.74	$1.647
Natural Gas	Therms	10/24/2012	11/21/2012	1016.3	$363.63	$547.47	$0.896
		TOTALS/AVERAGE		**10,868**	**$3,640.84**	**$6,269.68**	**$0.912**

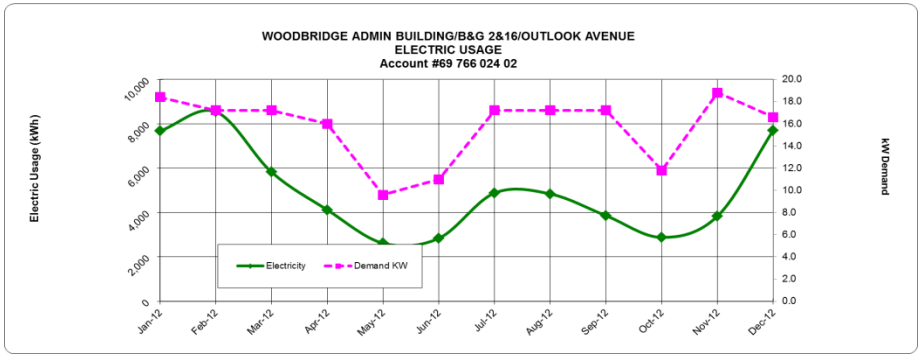
Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012

WOODBRIDGE ADMIN BUILDING

B&G 2&16 / OUTLOOK AVENUE



Facility Name Woodbridge Admin Building/B&G 2&16/Outlook Ave (#82)
Address Outlook Avenue
Woodbridge, NJ 07067
Account# 69 766 024 02
Meter# 5316398 PoD ID: PE 000010716013738706

Energy Type	Energy Unit	Start Date	End Date	Demand KW	KWH	PSE&G Delivery Cost	DIRECT ENERGY Supplier Cost	$/kWh
Electricity	kWh	12/20/2011	1/20/2012	18.4	7,680	$327.48	$675.84	$0.13
Electricity	kWh	1/20/2012	2/21/2012	17.2	8,540	$351.05	$751.52	$0.13
Electricity	kWh	2/21/2012	3/22/2012	17.2	5,820	$263.85	$512.16	$0.13
Electricity	kWh	3/22/2012	4/20/2012	16.0	4,120	$204.26	$362.56	$0.14
Electricity	kWh	4/20/2012	5/21/2012	9.6	2,620	$129.06	$230.56	$0.14
Electricity	kWh	5/21/2012	6/20/2012	11.0	2,840	$248.91	$249.92	$0.18
Electricity	kWh	6/20/2012	7/20/2012	17.2	4,880	$407.95	$429.44	$0.17
Electricity	kWh	7/20/2012	8/20/2012	17.2	4,840	$406.54	$425.92	$0.17
Electricity	kWh	8/20/2012	9/19/2012	17.2	3,860	$367.33	$339.68	$0.18
Electricity	kWh	9/19/2012	10/18/2012	11.8	2,880	$150.99	$253.44	$0.14
Electricity	kWh	10/18/2012	11/16/2012	18.8	3,840	$211.96	$337.92	$0.14
Electricity	kWh	11/16/2012	12/19/2012	16.6	7,700	$330.90	$667.60	$0.13
		TOTALS/AVERAGE		**15.7**	**59,620**	**$3,400.28**	**$5,236.56**	**$0.145**

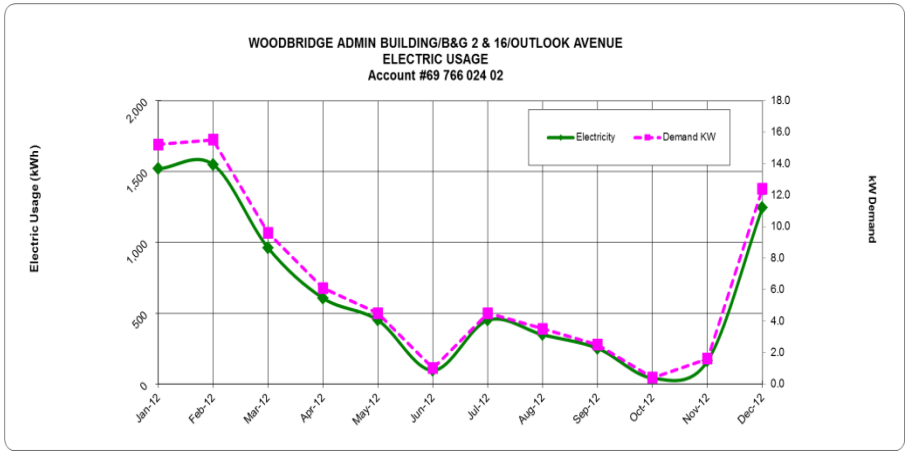
Historic Energy Consumption (cont'd)

Utility Usage and Costs Summary

Time-period: Dec 2011 – Nov 2012

WOODBRIDGE ADMIN BUILDING

B&G 2&16 / OUTLOOK AVENUE



Facility Name Woodbridge Admin Building/B&G 2&16/Outlook Ave (#82)
Address Outlook Avenue
Woodbridge, NJ 07067
Account# 69 766 024 02
Meter# 626022929 PoD ID: PE 000010716012938706

						PSE&G	DIRECT ENERGY	
Energy Type	**Energy Unit**	**Start Date**	**End Date**	**Demand KW**	**KWH**	**Delivery Cost**	**Supplier Cost**	**$/kWh**
Electricity	kWh	12/20/2011	1/20/2012	15.2	1,518	$117.23	$133.58	$0.17
Electricity	kWh	1/20/2012	2/21/2012	15.5	1,548	$119.66	$136.22	$0.17
Electricity	kWh	2/21/2012	3/22/2012	9.6	960	$75.83	$84.48	$0.17
Electricity	kWh	3/22/2012	4/20/2012	6.1	606	$49.65	$53.33	$0.17
Electricity	kWh	4/20/2012	5/21/2012	4.5	450	$37.96	$39.60	$0.17
Electricity	kWh	5/21/2012	6/20/2012	1.0	96	$20.25	$8.45	$0.30
Electricity	kWh	6/20/2012	7/20/2012	4.5	450	$76.84	$39.60	$0.26
Electricity	kWh	7/20/2012	8/20/2012	3.5	348	$60.68	$30.62	$0.26
Electricity	kWh	8/20/2012	9/19/2012	2.5	252	$44.74	$22.18	$0.27
Electricity	kWh	9/19/2012	10/18/2012	0.4	42	$7.48	$3.70	$0.27
Electricity	kWh	10/18/2012	11/16/2012	1.6	162	$16.56	$14.26	$0.19
Electricity	kWh	11/16/2012	12/19/2012	12.4	1,242	$98.24	$109.30	$0.17
		TOTALS/AVERAGE		**6.4**	**7,674**	**$725.12**	**$675.32**	**$0.182**

Dome-Tech, Inc.

www.dome-tech.com

510 Thornall Street, Suite 170
Edison, NJ 08837

Tel: 732.590.0122
Fax: 732.590.0129

EQUIPMENT & LIGHTING INVENTORY LISTS

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

EQUIPMENT LIST

Mawbey Street Elementary School (#01)

Air Handling Units - AHUs

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Cooling Technology	Supply Air CFM	Fan HP	Cooling Capacity (Tons)	Heating Technology	Age	Estimated Service Life
Mawbey Street ES (#01)	WAC	Windows	Local Rooms	Window AC Units	Various	Various	22	DX	NA	NA	NA	NA	Various	
Mawbey Street ES (#01)	UV	Classrooms	Classrooms	Unit Ventilator	Trane	VUVE1250	21	None	NA	0.1	NA	HHW	2006	
Mawbey Street ES (#01)	EF-Small	Roof	Various	Exhaust Fan	Various	Various	2	None	NA	NA	NA	None	Various	
Mawbey Street ES (#01)	EF-Medium	Roof	Various	Exhaust Fan	Various	Various	11	None	NA	NA	NA	None	Various	
Mawbey Street ES (#01)	EF-Large	Roof	Various	Exhaust Fan	Various	Various	3	None	NA	NA	NA	None	Various	

Boilers

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Fuel	Burner Capacity MBH	Input BTU/hr	Cert of Inspection - Input Btuh	Output Btuh	Age	Estimated Service Life
Mawbey Street ES (#01)	B-1&B-2	MER	Building	Hot Water Boilers	Cleaver Brooks	CB 810-60	2	Nat Gas		2,510,000	2,070,000		1962	

Heating Hot Water Pumps

Bldg	Tag#	Location	Area Serving	Equipment	Motor Mfg	Motor Model	Quantity	GPM	Head ft	HP	RPM	VFD?	Efficiency	Estimated Service Life
Mawbey Street ES (#01)	P-1	MER	HW System	HW Pumps	Baldor	M3304	1	NA	NA	3	NA	No	86.5%	
Mawbey Street ES (#01)	P-2	MER	HW System	HW Pumps	Dayton	2N98	1	NA	NA	3	NA	No	85.5%	

Domestic Hot Water Heaters - Natural Gas

Bldg	Tag#	Location	Area Serving	Equipment	Quantity	Mfg	Model	Fuel	Input (BTUh)	Output (MBH)	Age	Capacity (gal)	Estimated Service Life
Mawbey Street ES (#01)	DHW-1	MER	Building	DHW	1	Hotpoint	HG40T01	Natural Gas	34,000		2010	40	

Kitchen Equipment Inventory List

Bldg	Room	EQUIPMENT	MANUFACTURER	MODEL #	Quantity
Mawbey Street ES (#01)	Kitchen	Double Door Cooler	Continental	NA	1
Mawbey Street ES (#01)	Kitchen	Double Door Freezer	Continental	NA	1
Mawbey Street ES (#01)	Kitchen	Commercial Electric	Blodgett	NA	1
Mawbey Street ES (#01)	Faculty Rm	Soda Machine	NA	NA	1
Mawbey Street ES (#01)	Kitchen	Reach In Cooler	Beverage Air	SMF58	1

35degF
18degF

EQUIPMENT LIST

Avenel Street Elementary School (#4/5)

Air Handling Units - AHUs

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Cooling Technology	Supply Air CFM	Fan HP	Cooling Capacity (Tons)	Heating Technology	Age	Estimated Service Life
#04/05	WAC	Windows	Local Rooms	Window AC Units	Various	Various	31	DX	NA	NA	NA	None	Various	
#04	UV	Classrooms	Classrooms	Unit Ventilator	Trane	VUVE	17	None	NA	NA	NA	HHW	2006	
#05	UV	Classrooms	Classrooms	Unit Ventilator	Trane	VUVE	19	None	NA	NA	NA	HHW	2006	
#04	AHU	#4 Basement	NA	Air Handing Unit	Trane	M-Series Climate Changer	2	DX	NA	NA	NA	HHW	2006	
#04/05	EF-Small	Roof	Various	Exhaust Fan	Various	Various		None	NA	NA	NA	None	Various	
#04/05	EF-Medium	Roof	Various	Exhaust Fan	Various	Various	21	None	NA	NA	NA	None	Various	
#04/05	EF-Large	Roof	Various	Exhaust Fan	Various	Various		None	NA	NA	NA	None	Various	

Boilers

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Fuel	Burner Capacity MBH	Input BTU/hr	Cert of Inspection - Input Btuh	Lbs/Hr	Age	Estimated Service Life
#05	B-1&B-2	MER	Building	Steam Boilers	Cleaver Brooks	CB-523-50	2	Nat Gas				1,725	1959	

Heating Hot Water Pumps

Bldg	Tag#	Location	Area Serving	Equipment	Motor Mfg	Motor Model	Quantity	GPM	Head ft	HP	RPM	VFD?	Efficiency	Estimated Service Life
#05	HX1WP1-2	MER	HX-1	Inline HW Pumps	Armstrong	116638	2	NA	NA	1/4	NA	No	NA	
#05	HX1WP3-4	MER	HX-1	Inline HW Pumps	Armstrong		2	NA	NA	1/6	NA	No	NA	
#05	HX2WP1-2	MER	HX-2	Inline HW Pumps	Marathon Electric	E903	2	90	35	2	1725	No	NA	
#05	HX3WP1-2	MER	HX-3	HW Pumps	Marathon Electric	E903	2	NA	NA	2	1735	No	NA	

Domestic Hot Water Heaters - Natural Gas

Bldg	Tag#	Location	Area Serving	Equipment	Quantity	Mfg	Model	Fuel	Input (BTUh)	Output (MBH)	Age	Capacity (gal)	Estimated Service Life
#05	DHW-1	MER	Building	DHW	1	Rheem	22V40F1	Natural Gas	38000		2010	40	
#04	DHW-2	MER	Building	DHW	1	A.O. Smith	GCV-40-100	Natural Gas	40000			38	

Kitchen Equipment Inventory List

Bldg	Room	EQUIPMENT	MANUFACTURER	MODEL #	Quantity	
#04	Kitchen	Double Door Cooler	Continental	NA	1	38degF
#04	Kitchen	Double Door Freezer	Continental	NA	1	5degF
#04	Kitchen	Commercial Electric Oven	Blodgett	NA	1	
#04	Faculty Rm	Soda Machine	NA	NA	1	
#04	Faculty Rm	Snack Machine	NA	NA	1	
#04	Kitchen	Reach In Cooler	Beverage Air	SMF49	1	40.3degF
#05	Kitchen	Double Door Cooler	Continental	NA	1	35degF
#05	Kitchen	Double Door Freezer	Continental	NA	1	8degF
#05	Kitchen	Commercial Electric Oven	Blodgett	NA	1	
#05	Kitchen	Reach In Cooler	Beverage Air	SMF58	1	40.3degF
#05	Kitchen	Reach In Cooler	TRUE	TMC-34	1	40.3degF

Port Reading Elementary School (#09)

Air Handling Units - AHUs

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Cooling Technology	Supply Air CFM	Fan HP	Cooling Capacity (Tons)	Heating Technology	Age	Estimated Service Life
Port Reading ES (#09)	WAC	Windows	Local Rooms	Window AC Units	Various	Various	26	DX	NA	NA	NA	None	Various	
Port Reading ES (#09)	UV	Classrooms	Classrooms	Unit Ventilator	Trane	VUVE	22	None	NA	NA	NA	HHW	2006	
Port Reading ES (#09)	RTU	Roof	New Wing	Rooftop Unit	Trane	NA	1	DX	NA	NA	NA			
Port Reading ES (#09)	EF-Small	Roof	Various	Exhaust Fan	Various	Various	0	None	NA	NA	NA	None	Various	
Port Reading ES (#09)	EF-Medium	Roof	Various	Exhaust Fan	Various	Various	16	None	NA	NA	NA	None	Various	
Port Reading ES (#09)	EF-Large	Roof	Various	Exhaust Fan	Various	Various	0	None	NA	NA	NA	None	Various	

Boilers

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Fuel	Burner Capacity MBH	Input BTU/hr	Cert of Inspection - Input Btuh	Output Btuh	Age	Estimated Service Life
Port Reading ES (#09)	B-1&B-2	MER	Building	HW Boilers	Cleaver Brooks	CB 810-60	2	Nat Gas			2,070,000		1962	

Heating Hot Water Pumps

Bldg	Tag#	Location	Area Serving	Equipment	Motor Mfg	Motor Model	Quantity	GPM	Head ft	HP	RPM	VFD?	Efficiency	Estimated Service Life
Port Reading ES (#09)	P-1&2	MER	HW System	HW Pumps	Baldor	EM3311T-8	2	200	70	7 1/2	1770	No	91.7%	

Domestic Hot Water Heaters - Natural Gas

Bldg	Tag#	Location	Area Serving	Equipment	Quantity	Mfg	Model	Fuel	Input (BTUh)	Output (MBH)	Age	Capacity (gal)	Estimated Service Life
Port Reading ES (#09)	DHW-1	MER	Building	DHW	1	A.O. Smith	FCG 75 300	Natural Gas	75100		2007	74	

Kitchen Equipment Inventory List

Bldg	Room	EQUIPMENT	MANUFACTURER	MODEL #	Quantity	
Port Reading ES (#09)	Kitchen	Double Door Cooler	Continental	NA	1	38degF
Port Reading ES (#09)	Kitchen	Double Door Freezer	Continental	NA	1	8degF
Port Reading ES (#09)	Kitchen	Commercial Electric Oven	Blodgett	NA	1	
Port Reading ES (#09)	Kitchen	Reach In Cooler	TRUE	TMC-34	1	
Port Reading ES (#09)	Kitchen	Reach In Cooler	Beverage Air	SMF-56	1	
Port Reading ES (#09)	Kitchen	Reach In Freezer	GE	NA	1	
Port Reading ES (#09)	Faculty Rm	Soda Machine	NA	NA	1	

Ross Street Elementary School (#11)

Air Handling Units - AHUs

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Cooling Technology	Supply Air CFM	Fan HP	Cooling Capacity (Tons)	Heating Technology	Age	Estimated Service Life
Ross Street ES (#11)	WAC	Windows	Local Rooms	Window AC Units	Various	Various	37	DX	NA	NA	NA	None	Various	
Ross Street ES (#11)	UV	Basement	Classrooms	Ceiling Mounted Unit Ventilator	Trane	VUVE	12	None	NA	NA	NA	HHW	2006	
Ross Street ES (#11)	UV	Classrooms	Classrooms	Unit Ventilator	Trane	VUVE	12	None	NA	NA	NA	HHW	2006	
Ross Street ES (#11)	HV	MER	Café	Heating & Ventilating	Trane	NA	1		NA	NA	NA	HHW		
Ross Street ES (#11)	HV	MPR	MPR	Heating & Ventilating		NA	2		NA	NA	NA	HHW		
Ross Street ES (#11)	EF-Small	Roof	Various	Exhaust Fan	Various	Various	7	None	NA	NA	NA	None	Various	
Ross Street ES (#11)	EF-Medium	Roof	Various	Exhaust Fan	Various	Various	9	None	NA	NA	NA	None	Various	
Ross Street ES (#11)	EF-Large	Roof	Various	Exhaust Fan	Various	Various	4	None	NA	NA	NA	None	Various	

Boilers

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Fuel	Burner Capacity MBH	Input MBH	Gross MBH	Net MBH	Age	Estimated Service Life
Ross Street ES (#11)	B-1&B-2	MER	Building	Steam Boilers	EASCO	FST-100	2	Nat Gas		4,200	3,348	2,599	1999	

Heating Hot Water Pumps

Bldg	Tag#	Location	Area Serving	Equipment	Motor Mfg	Motor Model	Quantity	GPM	Head ft	HP	RPM	VFD?	Efficiency	Estimated Service Life
Ross Street ES (#11)	P-1&2	MER	HW System	HW Pumps	Baldor	M3311T	2	NA	NA	7 1/2	1750	No	88.5%	

Domestic Hot Water Heaters - Natural Gas

Bldg	Tag#	Location	Area Serving	Equipment	Quantity	Mfg	Model	Fuel	Input (BTUh)	Output (MBH)	Age	Capacity (gal)	Estimated Service Life
Ross Street ES (#11)	DHW-1	MER	Building	DHW	1	A.O. Smith	GCV-40-200	Natural Gas	40000		2010	40	
Ross Street ES (#11)		Basement	Bathrooms	DHW	2	Bradford White							

Kitchen Equipment Inventory List

Bldg	Room	EQUIPMENT	MANUFACTURER	MODEL #	Quantity	
Ross Street ES (#11)	Kitchen	Double Door Cooler	Continental	NA	1	30degF
Ross Street ES (#11)	Kitchen	Double Door Freezer	Continental	NA	1	9degF
Ross Street ES (#11)	Kitchen	Commercial Electric Oven	Blodgett	NA	2	
Ross Street ES (#11)	Kitchen	Reach In Cooler	TRUE	TMC-34	3	
Ross Street ES (#11)	Faculty Rm	Soda Machine	NA	NA	1	

Fords Ave Elementary School (#21)

Air Handling Units - AHUs

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Cooling Technology	Supply Air CFM	Fan HP	Cooling Capacity (Tons)	Heating Technology	Age	Estimated Service Life
Fords Avenue ES (#14)	WAC	Windows	Local Rooms	Window AC Units	Various	Various	21	DX	NA	NA	NA	None	Various	
Fords Avenue ES (#14)	UV	Classrooms	Classrooms	Unit Ventilator	Trane	VUVE	19	None	NA	NA	NA	HHW	2006	
Fords Avenue ES (#14)	HV	Basement Ceiling	Corridors	Heating & Ventilating	Trane		2	None	NA	NA	NA	HHW		
Fords Avenue ES (#14)	EF-Small	Roof	Various	Exhaust Fan	Various	Various	NA	None	NA	NA	NA	None	Various	
Fords Avenue ES (#14)	EF-Medium	Roof	Various	Exhaust Fan	Various	Various	NA	None	NA	NA	NA	None	Various	
Fords Avenue ES (#14)	EF-Large	Roof	Various	Exhaust Fan	Various	Various	NA	None	NA	NA	NA	None	Various	

Boilers

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Fuel	Cert of Inspection - Input Btuh	I=B=R Input MBH	Net I=B=R Rating MBH	Gross Output MBH	Age	Estimated Service Life
Fords Avenue ES (#14)	B-1&B-2	MER	Building	HW Boilers	Weil McLain	Model 688	2	Nat Gas	1,229,000	787	551	634	2006	

Heating Hot Water Pumps

Bldg	Tag#	Location	Area Serving	Equipment	Motor Mfg	Motor Model	Quantity	GPM	Head ft	HP	RPM	VFD?	Efficiency	Estimated Service Life
Fords Avenue ES (#14)	P-1&2	MER	HW System	HW Pumps	Baldor	M3218T	2	NA	NA	5	1750	No	87.5%	

Domestic Hot Water Heaters - Electric

Bldg	Tag#	Location	Area Serving	Equipment	Quantity	Mfg	Model	Fuel	Upper	Lower	Age	Capacity (gal)	Estimated Service Life
Fords Avenue ES (#14)	DHW-1	MER	Building	DHW	1	A.O Smith	ELJC 6 917	Electric	-	1500		6	
Fords Avenue ES (#14)	DHW-2	3rd Floor	Building	DHW	1	Bradford White	M120U65513	Electric	-	1500		19	

Kitchen Equipment Inventory List

Bldg	Room	EQUIPMENT	MANUFACTURER	MODEL #	Quantity
Fords Avenue ES (#14)	Kitchen	Double Door Cooler	Continental	NA	1
Fords Avenue ES (#14)	Kitchen	Double Door Freezer	Continental	NA	1
Fords Avenue ES (#14)	Kitchen	Commercial Electric Oven	Blodgett	NA	1
Fords Avenue ES (#14)	Faculty Rm	Soda Machine	NA	NA	1
Fords Avenue ES (#14)	Kitchen	Reach In Cooler			

Indiana Ave Elementary School (#18)

Air Handling Units - AHUs

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Cooling Technology	Supply Air CFM	Fan HP	Cooling Capacity (Tons)	Heating Technology	Age	Estimated Service Life
Indiana Avenue ES (#18)	WAC	Windows	Local Rooms	Window AC Units	Various	Various	42	DX	NA	NA	NA	None	Various	
Indiana Avenue ES (#18)	UV	Classrooms	Classrooms	Unit Ventilator	Trane	VUVE	32	None	NA	NA	NA	HHW	2006	
Indiana Avenue ES (#18)	EF-Small	Roof	Various	Exhaust Fan	Various	Various	0	None	NA	NA	NA	None	Various	
Indiana Avenue ES (#18)	EF-Medium	Roof	Various	Exhaust Fan	Various	Various	10	None	NA	NA	NA	None	Various	
Indiana Avenue ES (#18)	EF-Large	Roof	Various	Exhaust Fan	Various	Various	5	None	NA	NA	NA	None	Various	

Boilers

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Fuel	I=B=R Burner Capacity MBH	Net I=B=R Rating MBH	Cert of Inspection - Input Lbs/hr	Gross I=B=R Output MBH	Age	Estimated Service Life
Indiana Avenue ES (#18)	B-1	MER	Building	Steam Boiler	Weil McLain	1388	1	Nat Gas	NA	2,539	3,270	3,270	2004	
Indiana Avenue ES (#18)	B-2	MER	Building	Steam Boiler	H.B. Smith	28A S/W 13	1	Nat Gas	4,180	2,560	3,297	NA	2007	

Heating Hot Water Pumps

Bldg	Tag#	Location	Area Serving	Equipment	Motor Mfg	Motor Model	Quantity	GPM	Head ft	HP	RPM	VFD?	Efficiency	Estimated Service Life
Indiana Avenue ES (#18)	P-1	MER	HW System	HW Pumps	Marathon Electric	H122	1	NA	NA	2	1740	No	NA	
Indiana Avenue ES (#18)	P-3&4	MER	Heat Exchangers	HW Pumps	WEG	NA	2	56	45	1 1/2	1730	No	84.0%	

Domestic Hot Water Heaters - Electric

Bldg	Tag#	Location	Area Serving	Equipment	Quantity	Mfg	Model	Fuel	Upper	Lower	Age	Capacity (gal)	Estimated Service Life
Indiana Avenue ES (#18)	DHW-1	MER	Building	DHW	1	Rheem	81V40D	Electric	4500W	4500W		40	
Indiana Avenue ES (#18)	DHW-2	MER	Building	DHW	1	A.O. Smith	ECS50 200	Electric	4500W	4500W		50	

Kitchen Equipment Inventory List

Bldg	Room	EQUIPMENT	MANUFACTURER	MODEL #	Quantity
Indiana Avenue ES (#18)	Kitchen	Double Door Cooler	Continental	NA	1
Indiana Avenue ES (#18)	Kitchen	Double Door Freezer	Continental	NA	1
Indiana Avenue ES (#18)	Kitchen	Commercial Electric Oven	Blodgett	NA	2
Indiana Avenue ES (#18)	Kitchen	Reach In Cooler	TRUE	TMC-34	1
Indiana Avenue ES (#18)	Faculty Rm	Soda Machine	NA	NA	1
Indiana Avenue ES (#18)	Faculty Rm	Snack Machine	NA	NA	1

Menlo Park Terrace Elementary School (#19)

Air Handling Units - AHUs

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Cooling Technology	Supply Air CFM	Fan HP	Cooling Capacity (Tons)	Heating Technology	Age	Estimated Service Life
Menlo Park Terrace ES (#19)	WAC	Windows	Local Rooms	Window AC Units	Various	Various	28	DX	NA	NA	NA	None	Various	
Menlo Park Terrace ES (#19)	UV	Classrooms	Classrooms	Unit Ventilator	Trane	VUVE	22	None	NA	NA	NA	HHW	2006	
Menlo Park Terrace ES (#19)	HV	Roof?	MPR	Heating & Ventilating	NA	NA	2	None	NA	NA	NA	HHW		
Menlo Park Terrace ES (#19)	EF-Small	Roof	Various	Exhaust Fan	Various	Various		None	NA	NA	NA	None	Various	
Menlo Park Terrace ES (#19)	EF-Medium	Roof	Various	Exhaust Fan	Various	Various		None	NA	NA	NA	None	Various	
Menlo Park Terrace ES (#19)	EF-Large	Roof	Various	Exhaust Fan	Various	Various		None	NA	NA	NA	None	Various	

Boilers

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Fuel	Burner Capacity MBH	Input MBH	Cert of Inspection - Input Btuh	Output Btuh	Age	Estimated Service Life
Menlo Park Terrace ES (#19)	B-1&B-2	MER	Building	HW Boilers	Weil McLain	Model 788	2	Nat Gas		2,049		1,632,000	2001	

Heating Hot Water Pumps

Bldg	Tag#	Location	Area Serving	Equipment	Motor Mfg	Motor Model	Quantity	GPM	Head ft	HP	RPM	VFD?	Efficiency	Estimated Service Life
Menlo Park Terrace ES (#19)	P-1	MER	HW System	HW Pumps	Century E	E100	1	NA	NA	1	NA	No	NA	
Menlo Park Terrace ES (#19)	P-2	MER	HW System	HW Pumps	NA	NA	1	NA	NA	1 1/2	NA	No	NA	
Menlo Park Terrace ES (#19)	P-3	MER	HW System	HW Pumps	Armstrong	NA	1	NA	NA	1 1/2	1745	No	NA	
Menlo Park Terrace ES (#19)	P-4	MER	HW System	HW Pumps	Armstrong	NA	1	155	25	1 1/2	1730	No	84%	

Domestic Hot Water Heaters - Natural Gas

Bldg	Tag#	Location	Area Serving	Equipment	Quantity	Mfg	Model	Fuel	Input (BTUh)	Output (MBH)	Age	Capacity (gal)	Estimated Service Life
Menlo Park Terrace ES (#19)	DHW-1	MER	Building	DHW	1	A.O. Smith	BT365A	Natural Gas	365000	NA		69	

Kitchen Equipment Inventory List

Bldg	Room	EQUIPMENT	MANUFACTURER	MODEL #	Quantity
Menlo Park Terrace ES (#19)	Kitchen	Double Door Cooler	Continental	NA	1
Menlo Park Terrace ES (#19)	Kitchen	Double Door Freezer	Continental	NA	1
Menlo Park Terrace ES (#19)	Kitchen	Commercial Electric Oven	Blodgett	NA	2
Menlo Park Terrace ES (#19)	Faculty Rm	Reach In Cooler	Beverage Air	SMF58	1
Menlo Park Terrace ES (#19)	Faculty Rm	Reach In Cooler	Beverage Air	SMF34	1
Menlo Park Terrace ES (#19)	Faculty Rm	Soda Machine	NA	NA	1
Menlo Park Terrace ES (#19)	Faculty Rm	Reach In Cooler	TRUE	GDM-49	1

Claremont Avenue Elementary School (#20)

Air Handling Units - AHUs

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Cooling Technology	Supply Air CFM	Fan HP	Cooling Capacity (Tons)	Heating Technology	Age	Estimated Service Life
Claremont Ave ES (#20)	WAC	Windows	Local Rooms	Window AC Units	Various	Various	29	DX	NA	NA	NA	None	Various	
Claremont Ave ES (#20)	UV	Classrooms	Classrooms	Unit Ventilator	Trane	VUVE	23	None	NA	NA	NA	HHW	2006	
Claremont Ave ES (#20)	EF-Small	Roof	Various	Exhaust Fan	Various	Various	0	None	NA	NA	NA	None	Various	
Claremont Ave ES (#20)	EF-Medium	Roof	Various	Exhaust Fan	Various	Various	12	None	NA	NA	NA	None	Various	
Claremont Ave ES (#20)	EF-Large	Roof	Various	Exhaust Fan	Various	Various	3	None	NA	NA	NA	None	Various	

Boilers

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Fuel	Burner Capacity MBH	Burner Net Rating BTU/hr	Cert of Inspection - Input Btuh	Output Btuh	Age	Estimated Service Life
Claremont Ave ES (#20)	B-1&B-2	MER	Building	Hot Water Boilers	HB Smith	Series 28A-7	2	Nat Gas	2,163	1,477,000	1,699,000		1992	

Heating Hot Water Pumps

Bldg	Tag#	Location	Area Serving	Equipment	Motor Mfg	Motor Model	Quantity	GPM	Head ft	HP	RPM	VFD?	Efficiency	Estimated Service Life
Claremont Ave ES (#20)	P-1	MER	HW System	HW Pumps	Century	E175	1	NA	NA	2	NA	No	NA	
Claremont Ave ES (#20)	P-2	MER	HW System	HW Pumps	Baldor	JPM 3116	1	NA	NA	1	1725	No	77%	
Claremont Ave ES (#20)	P-3	MER	HW System	HW Pumps	NA	NA	1	NA	NA	1	NA	No	NA	

Domestic Hot Water Heaters

Bldg	Tag#	Location	Area Serving	Equipment	Quantity	Mfg	Model	Fuel	Input (MBH)	Output (MBH)	Age	Capacity (gal)	Estimated Service Life
Claremont Ave ES (#20)	DHW-1	MER	Building	DHW	1	A.O. Smith	BT 365A 880	Nat Gas	365000		1992	69	

Kitchen Equipment Inventory List

Bldg	Room	EQUIPMENT	MANUFACTURER	MODEL #	Quantity
Claremont Ave ES (#20)	Kitchen	Double Door Cooler	Continental	NA	1
Claremont Ave ES (#20)	Kitchen	Double Door Freezer	Continental	NA	1
Claremont Ave ES (#20)	Kitchen	Commercial Electric Oven	Blodgett	NA	1
Claremont Ave ES (#20)	Kitchen	Reach In Cooler	Beverage Air	SMF58	1
Claremont Ave ES (#20)	Faculty Rm	Soda Machine	NA	NA	1

38degF
5degF

Oak Ridge Heights Elementary School (#21)

Air Handling Units - AHUs

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Cooling Technology	Supply Air CFM	Fan HP	Cooling Capacity (Tons)	Heating Technology	Age	Estimated Service Life
Oak Ridge Heights ES (#21)	WAC	Windows	Local Rooms	Window AC Units	Various	Various	27	DX	NA	NA	NA	None	Various	
Oak Ridge Heights ES (#21)	UV	Classrooms	Classrooms	Unit Ventilator	Trane	VUVE	21	None	NA	NA	NA	HHW	2006	
Oak Ridge Heights ES (#21)	RTU	Roof	MPR	Rooftop Unit	York	D4CE060A25A	2	DX	NA	NA	NA			
Oak Ridge Heights ES (#21)	EF-Small	Roof	Various	Exhaust Fan	Various	Various	6	None	NA	NA	NA	None	Various	
Oak Ridge Heights ES (#21)	EF-Medium	Roof	Various	Exhaust Fan	Various	Various	21	None	NA	NA	NA	None	Various	
Oak Ridge Heights ES (#21)	EF-Large	Roof	Various	Exhaust Fan	Various	Various	1	None	NA	NA	NA	None	Various	

Boilers

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Fuel	Burner Capacity MBH	Input BTU/hr	Cert of Inspection - Input Btuh	Output Btuh	Age	Estimated Service Life
Oak Ridge Heights ES (#21)	B-1&B-2	MER	Building	Hot Water Boilers	Cleaver Brooks	CB 200-60	2	Nat Gas		2,511,000	2,070,000		1990	

Heating Hot Water Pumps

Bldg	Tag#	Location	Area Serving	Equipment	Motor Mfg	Motor Model	Quantity	GPM	Head ft	HP	RPM	VFD?	Efficiency	Estimated Service Life
Oak Ridge Heights ES (#21)	P-1	MER	HW System	HW Pumps	Baldor	M3313T	1	380	65	10	1765	No	89.5%	
Oak Ridge Heights ES (#21)	P-2	MER	HW System	HW Pumps	Marathon Electric	8VL	1	480	64	15	1760	No	77.0%	

Domestic Hot Water Heaters - Electric

Bldg	Tag#	Location	Area Serving	Equipment	Quantity	Mfg	Model	Fuel	Upper	Lower	Age	Capacity (gal)	Estimated Service Life
Oak Ridge Heights ES (#21)	DHW-1	MER	Building	DHW	1	A.O. Smith	ESC 50	Electric	4500W	4500W		50	

Kitchen Equipment Inventory List

Bldg	Room	EQUIPMENT	MANUFACTURER	MODEL #	Quantity
Oak Ridge Heights ES (#21)	Kitchen	Double Door Cooler	Continental	NA	1
Oak Ridge Heights ES (#21)	Kitchen	Double Door Freezer	Continental	NA	1
Oak Ridge Heights ES (#21)	Kitchen	Commercial Electric Oven	Blodgett	NA	1
Oak Ridge Heights ES (#21)	Faculty Rm	Soda Machine	NA	NA	1

38degF
-4degF

Lynn Crest Elementary School (#22)

Air Handling Units - AHUs

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Cooling Technology	Supply Air CFM	Fan HP	Cooling Capacity (Tons)	Heating Technology	Age	Estimated Service Life
Lynn Crest ES (#22)	WAC	Windows	Local Rooms	Window AC Units	Various	Various	31	DX	NA	NA	NA	None	Various	
Lynn Crest ES (#22)	UV	Classrooms	Classrooms	Unit Ventilator	Trane	VUVE	29	None	NA	NA	NA	HHW	2006	
Lynn Crest ES (#22)	EF-Small	Roof	Various	Exhaust Fan	Various	Various	0	None	NA	NA	NA	None	Various	
Lynn Crest ES (#22)	EF-Medium	Roof	Various	Exhaust Fan	Various	Various	10	None	NA	NA	NA	None	Various	
Lynn Crest ES (#22)	EF-Large	Roof	Various	Exhaust Fan	Various	Various	0	None	NA	NA	NA	None	Various	

Boilers

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Fuel	Burner Capacity MBH	Input BTU/hr	Cert of Inspection - Input Btuh	Output Btuh	Age	Estimated Service Life
Lynn Crest ES (#22)	B-1&B-2	MER	Building	Hot Water Boilers	Cleaver Brooks	CB 200-60	2	Nat Gas		2,511,000	2,400,000		1990	

Heating Hot Water Pumps

Bldg	Tag#	Location	Area Serving	Equipment	Motor Mfg	Motor Model	Quantity	GPM	Head ft	HP	RPM	VFD?	Efficiency	Estimated Service Life
Lynn Crest ES (#22)	P-1&P-2	MER	HW System	HW Pumps	Marathon Electric	V213TT	2	NA	NA	7 1/2	NA	No	88.5%	
Lynn Crest ES (#22)	P-3,P-4,P-5	MER	Pods	In-Line	NA	NA	3	NA	NA	1/4	NA	No	NA	

Domestic Hot Water Heaters

Bldg	Tag#	Location	Area Serving	Equipment	Quantity	Mfg	Model	Fuel	Upper	Lower	Age	Capacity (gal)	Estimated Service Life	
Lynn Crest ES (#22)	DHW-1	MER	Building	DHW	1	NA	NA	NA	NA	NA	NA	NA		DHW underground,

Air Compressor

Bldg	Tag#	Location	Area Serving	Equipment	Quantity	Mfg	Model	Capacity (gal)	Estimated Service Life
Lynn Crest ES (#22)		MER	Pneumatics	Air Compressor	1	Ingersll Rand	PKG	80	

Kitchen Equipment Inventory List

Bldg	Room	EQUIPMENT	MANUFACTURER	MODEL #	Quantity	
Lynn Crest ES (#22)	Kitchen	Double Door Cooler	Continental	NA	1	40degF
Lynn Crest ES (#22)	Kitchen	Double Door Freezer	Continental	NA	1	0degF
Lynn Crest ES (#22)	Kitchen	Commercial Electric Oven	Blodgett	NA	1	
Lynn Crest ES (#22)	Kitchen	Reach In Cooler	Beverage Air	SMF58	1	33degF
Lynn Crest ES (#22)	Faculty Rm	Soda Machine	NA	NA	2	

Woodbine Ave Elementary School (#23)

Air Handling Units - AHUs

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Cooling Technology	Supply Air CFM	Fan HP	Cooling Capacity (Tons)	Heating Technology	Age	Estimated Service Life
Woodbine Ave ES (#23)	WAC	Windows	Local Rooms	Window AC Units	Various	Various	29	DX	NA	NA	NA	None	Various	
Woodbine Ave ES (#23)	UV	Classrooms	Classrooms	Unit Ventilator	Trane	VUVE	22	None	NA	NA	NA	HHW	2006	
Woodbine Ave ES (#23)	RTU	Roof	New Wings	Rooftop Units	Trane	SLHFC20E	2	DX	NA	NA	NA			
Woodbine Ave ES (#23)	HV	Ceiling	Corridors	Heating & Ventilating	Trane		2	None	NA	NA	NA	HHW		
Woodbine Ave ES (#23)	HV	Ceiling	MPR	Heating & Ventilating	Trane	Torrivent	1	None	NA	NA	NA	HHW		
Woodbine Ave ES (#23)	EF-Small	Roof	Various	Exhaust Fan	Various	Various		None	NA	NA	NA	None	Various	
Woodbine Ave ES (#23)	EF-Medium	Roof	Various	Exhaust Fan	Various	Various	18	None	NA	NA	NA	None	Various	
Woodbine Ave ES (#23)	EF-Large	Roof	Various	Exhaust Fan	Various	Various	2	None	NA	NA	NA	None	Various	

Boilers

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Fuel	Burner Capacity MBH	Input BTU/hr	Cert of Inspection - Input Btuh	Output Btuh	Age	Estimated Service Life
Woodbine Ave ES (#23)	B-1&B-2	MER	Building	HW Boilers	Weil McLain	Model 88 Series 1	2	Nat Gas	NA	NA	NA	NA	2006	

Heating Hot Water Pumps

Bldg	Tag#	Location	Area Serving	Equipment	Motor Mfg	Motor Model	Quantity	GPM	Head ft	HP	RPM	VFD?	Efficiency	Estimated Service Life
Woodbine Ave ES (#23)	P-1&2	MER	HW System	HW Pumps	Baldor	M3313T	2	NA	NA	10	NA	No	89.5%	

Domestic Hot Water Heaters - Natural Gas

Bldg	Tag#	Location	Area Serving	Equipment	Quantity	Mfg	Model	Fuel	Input (BTUh)	Output (MBH)	Age	Capacity (gal)	Estimated Service Life
Woodbine Ave ES (#23)	DHW-1	MER	Building	DHW	1	A.O. Smith	GCV40-	Natural Gas	40000			38	

Kitchen Equipment Inventory List

Bldg	Room	EQUIPMENT	MANUFACTURER	MODEL #	Quantity
Woodbine Ave ES (#23)	Kitchen	Double Door Cooler	Continental	NA	1
Woodbine Ave ES (#23)	Kitchen	Double Door Freezer	Continental	NA	1
Woodbine Ave ES (#23)	Kitchen	Commercial Electric Oven	Blodgett	NA	1
Woodbine Ave ES (#23)	Kitchen	Reach In Cooler	TRUE	NA	1
Woodbine Ave ES (#23)	Kitchen	Reach In Cooler	Beverage Air	NA	1
Woodbine Ave ES (#23)	Faculty Rm	Soda Machine	NA	NA	1

40degF
-20degF

Kennedy Park Elementary School (#24)

Air Handling Units - AHUs

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Cooling Technology	Supply Air CFM	Fan HP	Cooling Capacity (Tons)	Heating Technology	Age	Estimated Service Life
Kennedy Park ES (#24)	WAC	Windows	Local Rooms	Window AC Units	Various	Various	26	DX	NA	NA	NA	None	Various	
Kennedy Park ES (#24)	UV	Classrooms	Classrooms	Unit Ventilator	Trane	VUVE	20	None	NA	NA	NA	HHW	2006	
Kennedy Park ES (#24)	HV	MPR	MPR	Heatin & Ventilating Unit	NA	NA	1	None	NA	NA	NA	HHW	NA	
Kennedy Park ES (#24)	EF-Small	Roof	Various	Exhaust Fan	Various	Various		None	NA	NA	NA	None	Various	
Kennedy Park ES (#24)	EF-Medium	Roof	Various	Exhaust Fan	Various	Various	14	None	NA	NA	NA	None	Various	
Kennedy Park ES (#24)	EF-Large	Roof	Various	Exhaust Fan	Various	Various		None	NA	NA	NA	None	Various	

Boilers

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Fuel	Burner Capacity MBH	Input BTU/hr	Cert of Inspection - Input Btuh	Output Btuh	Age	Estimated Service Life
Kennedy Park ES (#24)	B-1&B-2	MER	Building	Cast Iron HW Boilers	HB Smith	28A-S/W	2	Nat Gas	NA	NA	1,965,000	NA	2006	

Heating Hot Water Pumps

Bldg	Tag#	Location	Area Serving	Equipment	Motor Mfg	Motor Model	Quantity	GPM	Head ft	HP	RPM	VFD?	Efficiency	Estimated Service Life
Kennedy Park ES (#24)	P-1&2	MER	HW System	HW Pumps	Baldor	M3311T	2	175	65	7 1/2	1750	No	88.5%	

Domestic Hot Water Heaters - Natural Gas

Bldg	Tag#	Location	Area Serving	Equipment	Quantity	Mfg	Model	Fuel	Input (BTUh)	Output (MBH)	Age	Capacity (gal)	Estimated Service Life
Kennedy Park ES (#24)	DHW-1	MER	Building	DHW	1	Rheem	22V40F1	Nat Gas	38000	NA	2010	40	

Kitchen Equipment Inventory List

Bldg	Room	EQUIPMENT	MANUFACTURER	MODEL #	Quantity
Kennedy Park ES (#24)	Kitchen	Double Door Cooler	Continental	NA	1
Kennedy Park ES (#24)	Kitchen	Double Door Freezer	Continental	NA	1
Kennedy Park ES (#24)	Kitchen	Commercial Electric Oven	Blodgett	NA	1
Kennedy Park ES (#24)	Faculty Rm	Soda Machine	NA	NA	1
Kennedy Park ES (#24)	Kitchen	Reach In Cooler	TRUE	TMC-58	1

Lafayette Estates Elementary School (#25)

Air Handling Units - AHUs

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Cooling Technology	Supply Air CFM	Fan HP	Cooling Capacity (Tons)	Heating Technology	Age	Estimated Service Life
Lafayette Estates ES (#25)	WAC	Windows	Local Rooms	Window AC Units	Various	Various	26	DX	NA	NA	NA	None	Various	
Lafayette Estates ES (#25)	UV	Classrooms	Classrooms	Unit Ventilator	Trane		20	None	NA	NA	NA	HHW	2006	
Lafayette Estates ES (#25)	RTU	Roof	Media Center & Rm 27	Rooftop Units	Trane	SLHFC20E	1	DX	**5000**	**3**	NA	Nat Gas	2006	
Lafayette Estates ES (#25)	RTU	Roof	Rms 14, 13, 38, 39	Rooftop Units	Trane	SLHFC20E	1	DX	**5000**	**3**	NA	Nat Gas	2006	
Lafayette Estates ES (#25)	RTU	Roof	Rms 16, 15, 34, 33, 31, 29	Rooftop Units	Trane	SLHFC20E	1	DX	**5000**	**3**	NA	Nat Gas	2006	
Lafayette Estates ES (#25)	VAV	Ceiling	RTUs	Variable Air Volume Terminal Units	NA	NA	NA	None	NA	NA	NA	NA	2006	
Lafayette Estates ES (#25)	EF-Small	Roof	Various	Exhaust Fan	Various	Various		None	NA	NA	NA	None	Various	
Lafayette Estates ES (#25)	EF-Medium	Roof	Various	Exhaust Fan	Various	Various		None	NA	NA	NA	None	Various	
Lafayette Estates ES (#25)	EF-Large	Roof	Various	Exhaust Fan	Various	Various		None	NA	NA	NA	None	Various	

Boilers

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Fuel	I=B=R Input MBH	Net I=B=R Rating MBH	Cert of Inspection - Input Btuh	Gross I=B=R Output MBH	Age	Estimated Service Life
Lafayette Estates ES (#25)	B-1&B-2	MER	Building	HW Boiler	Weil McLain	Model 988	2	Nat Gas	2,713	1,982	2,176,000	2,176		

Heating Hot Water Pumps

Bldg	Tag#	Location	Area Serving	Equipment	Motor Mfg	Motor Model	Quantity	GPM	Head ft	HP	RPM	VFD?	Efficiency	Estimated Service Life
Lafayette Estates ES (#25)	P-1&2	MER	HW System	HW Pumps	Baldor	M3313T	2	NA	NA	10	1760	No	89.5%	

Domestic Hot Water Heaters - Natural Gas

Bldg	Tag#	Location	Area Serving	Equipment	Quantity	Mfg	Model	Fuel	Input (BTUh)	Output (MBH)	Age	Capacity (gal)	Estimated Service Life
Lafayette Estates ES (#25)	DHW-1	MER	Building	DHW	1	A.O. Smith	GCV 40 200	Natural Gas	40000	NA	2008	40	

Domestic Hot Water Heaters - Electric

Bldg	Tag#	Location	Area Serving	Equipment	Quantity	Mfg	Model	Fuel	Upper	Lower	Age	Capacity (gal)	Estimated Service Life
Lafayette Estates ES (#25)	DHW-2	MER	Pod	DHW	1	A.O. Smith	DSE30	Electric	-	9000			
Lafayette Estates ES (#25)	DHW-3	MER	Pod	DHW	1	A.O. Smith	EES 52 913	Electric	4500	4500		50	
Lafayette Estates ES (#25)	DHW-4	MER	Pod	DHW	1	Eemax	EMT6	Electric	-	1440		6	
Lafayette Estates ES (#25)	DHW-5	MER	Pod	DHW	1	NA	NA	Electric	-	1440		6	

Kitchen Equipment Inventory List

Bldg	Room	EQUIPMENT	MANUFACTURER	MODEL #	Quantity
Lafayette Estates ES (#25)	Kitchen	Double Door Cooler	Continental	NA	1
Lafayette Estates ES (#25)	Kitchen	Double Door Freezer	Continental	NA	1
Lafayette Estates ES (#25)	Kitchen	Commercial Electric Oven	Blodgett	NA	2
Lafayette Estates ES (#25)	Kitchen	Reach In Cooler	Beverage Air	SMF34	1
Lafayette Estates ES (#25)	Kitchen	Reach In Cooler	TRUE	TMC-34-S	1
Lafayette Estates ES (#25)	Faculty Rm	Soda Machine	NA	NA	1

38degF
11degF

Robert Mascenik Elementary School (#26)

Air Handling Units - AHUs

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Cooling Technology	Supply Air CFM	Fan HP	Cooling Capacity (Tons)	Heating Technology	Age	Estimated Service Life
Robert Mascenik ES (#26)	WAC	Windows	Local Rooms	Window AC Units	Various	Various	22	DX	NA	NA	NA	None	Various	
Robert Mascenik ES (#26)	UV	Classrooms	Classrooms	Unit Ventilator	Trane	VUVE	19	None	NA	NA	NA	HHW	2006	
Robert Mascenik ES (#26)	HV	MPR	MPR	Heating & Ventilating Unit	Herman	V-3550-LZS	1	None	NA	NA	NA	HHW	NA	
Robert Mascenik ES (#26)	EF-Small	Roof	Various	Exhaust Fan	Various	Various	1	None	NA	NA	NA	None	Various	
Robert Mascenik ES (#26)	EF-Medium	Roof	Various	Exhaust Fan	Various	Various	8	None	NA	NA	NA	None	Various	
Robert Mascenik ES (#26)	EF-Large	Roof	Various	Exhaust Fan	Various	Various	4	None	NA	NA	NA	None	Various	

Boilers

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Fuel	Burner Capacity MBH	Input BTU/hr	Cert of Inspection - Input Btuh	Output Btuh	Age	Estimated Service Life
Robert Mascenik ES (#26)	B-1&B-2	MER	Building	Hot Water Boilers	Cleaver Brooks	CB 810-60	2	Nat Gas	NA	2,510,000	2,070,000	NA	1963	

Heating Hot Water Pumps

Bldg	Tag#	Location	Area Serving	Equipment	Motor Mfg	Motor Model	Quantity	GPM	Head ft	HP	RPM	VFD?	Efficiency	Estimated Service Life
Robert Mascenik ES (#26)	P-1&2	MER	HW System	HW Pumps	Baldor	M3218T	2	100	75	5	1750	No	87.5%	

Domestic Hot Water Heaters - Natural Gas

Bldg	Tag#	Location	Area Serving	Equipment	Quantity	Mfg	Model	Fuel	Input (BTUh)	Output (MBH)	Age	Capacity (gal)	Estimated Service Life
Robert Mascenik ES (#26)	DHW-1	MER	Building	DHW	1	A.O. Smith	GCV 40	Natural Gas	40000	NA	NA	40	

Kitchen Equipment Inventory List

Bldg	Room	EQUIPMENT	MANUFACTURER	MODEL #	Quantity
Robert Mascenik ES (#26)	Kitchen	Double Door Cooler	Continental	NA	1
Robert Mascenik ES (#26)	Kitchen	Double Door Freezer	Continental	NA	1
Robert Mascenik ES (#26)	Kitchen	Commercial Electric Oven	Blodgett	NA	0
Robert Mascenik ES (#26)	Faculty Rm	Soda Machine	NA	NA	1
Robert Mascenik ES (#26)	Kitchen	Reach In Cooler	Beverage Air	SMF58	1

38degF
18degF

Pennsylvania Elementary School (#27)

Air Handling Units - AHUs

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Cooling Technology	Supply Air CFM	Fan HP	Cooling Capacity (Tons)	Heating Technology	Age	Estimated Service Life
Pennsylvania ES (#27)	WAC	Windows	Local Rooms	Window AC Units	Various	Various	26	DX	NA	NA	NA	None	Various	
Pennsylvania ES (#27)	UV	Classrooms	Classrooms	Unit Ventilator	Trane	VUVE	23	None	NA	NA	NA	HHW	2006	
Pennsylvania ES (#27)	RTU	Roof	MPR	Rooftop Unit	York	D4CE060A25A	2	DX	NA	NA	NA			
Pennsylvania ES (#27)	EF-Small	Roof	Various	Exhaust Fan	Various	Various	0	None	NA	NA	NA	None	Various	
Pennsylvania ES (#27)	EF-Medium	Roof	Various	Exhaust Fan	Various	Various	14	None	NA	NA	NA	None	Various	
Pennsylvania ES (#27)	EF-Large	Roof	Various	Exhaust Fan	Various	Various	0	None	NA	NA	NA	None	Various	

Boilers

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Fuel	Burner Capacity MBH	Input BTU/hr	Cert of Inspection - Input Btuh	Output Btuh	Age	Estimated Service Life
Pennsylvania ES (#27)	B-1&B-2	MER	Building	Hot Water Boilers	Cleaver Brooks	CB 810-60	2	Nat Gas	NA	2,510,000	NA	NA	1964	

Heating Hot Water Pumps

Bldg	Tag#	Location	Area Serving	Equipment	Motor Mfg	Motor Model	Quantity	GPM	Head ft	HP	RPM	VFD?	Efficiency	Estimated Service Life
Pennsylvania ES (#27)	P-1	MER	HW System	HW Pumps	Marathon Electric	V213TT	1	200	60	7 1/2	NA	No	88.5%	
Pennsylvania ES (#27)	P-2	MER	HW System	HW Pumps	Marathon Electric	V213TT	1	200	60	7 1/2	NA	No	88.5%	

Domestic Hot Water Heaters

Bldg	Tag#	Location	Area Serving	Equipment	Quantity	Mfg	Model	Fuel	Input BTU/hr		Age	Capacity (gal)	Estimated Service Life
Pennsylvania ES (#27)	DHW-1	MER	Building	DHW	1	A.O. Smith	GCVL 40 300	Nat Gas	40000			40	

Kitchen Equipment Inventory List

Bldg	Room	EQUIPMENT	MANUFACTURER	MODEL #	Quantity	
Pennsylvania ES (#27)	Kitchen	Double Door Cooler	Continental	NA	1	35degF
Pennsylvania ES (#27)	Kitchen	Double Door Freezer	Continental	NA	1	13degF
Pennsylvania ES (#27)	Kitchen	Commercial Electric Oven	Blodgett	NA	1	
Pennsylvania ES (#27)	Kitchen	Reach In Cooler	Beverage Air	SMF58	1	
Pennsylvania ES (#27)	Faculty Rm	Soda Machine	NA	NA	1	
Pennsylvania ES (#27)						

Matthew Jago Elementary School (#28)

Air Handling Units - AHUs

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Cooling Technology	Supply Air CFM	Fan HP	Cooling Capacity (Tons)	Heating Technology	Age	Estimated Service Life
Matthew Jago ES (#28)	WAC	Windows	Local Rooms	Window AC Units	Various	Various	32	DX	NA	NA	NA	None	Various	
Matthew Jago ES (#28)	UV	Classrooms	Classrooms	Unit Ventilator	Trane	VUVE	29	None	NA	NA	NA	HW	2006	
Matthew Jago ES (#28)	HV-1	Plenum	MPR	Heating & Ventilation	NA	NA	1	None	NA	NA	NA	HW		
Matthew Jago ES (#28)	HV-2	Plenum	Pool	100% O.A. - Heating & Ventilation	NA	NA	1	None	NA	NA	NA	HW		
Matthew Jago ES (#28)	HV-3	Plenum	Gym	Heating & Ventilation	NA	NA	1	None	NA	NA	NA	HW		
Matthew Jago ES (#28)	HV-4	Plenum	Office	100% O.A. - Heating & Ventilation	NA	NA	1	None	NA	NA	NA	HW		
Matthew Jago ES (#28)	HV-	Plenum	Corridors	Heating & Ventilation	Trane	NA	2	None	NA	NA	NA	HW		
Matthew Jago ES (#28)	AC	Nurse	Nurse	Split System AC	Fujitsu	NA	1	DX	NA	NA	NA	None		
Matthew Jago ES (#28)	EF-Small	Roof	Various	Exhaust Fan	Various	Various		None	NA	NA	NA	None	Various	
Matthew Jago ES (#28)	EF-Medium	Roof	Various	Exhaust Fan	Various	Various	6	None	NA	NA	NA	None	Various	
Matthew Jago ES (#28)	EF-Large	Roof	Various	Exhaust Fan	Various	Various	6	None	NA	NA	NA	None	Various	

Boilers

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Fuel	Burner Capacity MBH	Input BTU/hr	Cert of Inspection - Object Capacity Btuh	Output Btuh	Age	Estimated Service Life
Matthew Jago ES (#28)	B-1&B-2	MER	Building	Hot Water Boilers	Cleaver Brooks	CB	2	Nat Gas	NA	NA	3,347,000	NA	1969	

Heating Hot Water Pumps

Bldg	Tag#	Location	Area Serving	Equipment	Motor Mfg	Motor Model	Quantity	GPM	Head ft	HP	RPM	VFD?	Efficiency	Estimated Service Life
Matthew Jago ES (#28)	P-1&2	MER	HW System	HW Pumps	Marathon	NA	2	165	75	7 1/2	NA	No	NA	

Domestic Hot Water Heaters - Natural Gas

Bldg	Tag#	Location	Area Serving	Equipment	Quantity	Mfg	Model	Fuel	Input (BTUh)	Output (MBH)	Age	Capacity (gal)	Estimated Service Life
Matthew Jago ES (#28)	DHW-1	MER	Building	DHW	1	Ruud	PR75	Natural Gas	75500	NA		75	

Kitchen Equipment Inventory List

Bldg	Room	EQUIPMENT	MANUFACTURER	MODEL #	Quantity
Matthew Jago ES (#28)	Kitchen	Double Door Cooler	Continental	NA	1
Matthew Jago ES (#28)	Kitchen	Double Door Freezer	Continental	NA	1
Matthew Jago ES (#28)	Kitchen	Commercial Electric Oven	Blodgett	NA	2
Matthew Jago ES (#28)	Faculty Rm	Soda Machine	NA	NA	1
Matthew Jago ES (#28)	Faculty Rm	Snack Machine	NA	NA	1

38degF
12degF

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

EQUIPMENT LIST

Avenel Middle School (#40)

Supply & Exhaust Fans

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Cooling Technology	Cooling Capacity (Tons)	Heating Technology	HW GPM	Heating Capacity (MBH)	Heating Design dT	Supply Air CFM
Avenel Middle School (#40)	WAC	Windows	Local Rooms	Window AC Units	Various	Various	24	DX						
Avenel Middle School (#40)	HV-1	Gym Roof MER	Gym	Heating & Ventilation Unit	Nesbitt	G2018	1	NA	NA	HW	26.5	522	40.0	10,500
Avenel Middle School (#40)	HV-2	Gym Roof MER	Gym	Heating & Ventilation Unit	Nesbitt	G2018	1	NA	NA	HW	26.5	522	40.0	10,500
Avenel Middle School (#40)	HV-3	Gym Roof MER	Gym	Heating & Ventilation Unit	Nesbitt	G2018	1	NA	NA	HW	26.5	522	40.0	10,500
Avenel Middle School (#40)	HV-4	Gym Storage Closet	Exercise Room	Heating & Ventilation Unit	Nesbitt	G1010	1	NA	NA	HW	4.2	83.4	40.0	1,750
Avenel Middle School (#40)	HV-5	Gym Storage Closet	Exercise Room	Heating & Ventilation Unit	Nesbitt	G1010	1	NA	NA	HW	4.2	83.4	40.0	1,750
Avenel Middle School (#40)	HV-6	Stage Loft	Cafeteria	Heating & Ventilation Unit	Nesbitt	LP-70	1	NA	NA	HW	16	385	48.0	7,000
Avenel Middle School (#40)	HV-7	Stage Loft	Cafeteria	Heating & Ventilation Unit	Nesbitt	LP-70	1	NA	NA	HW	16	385	48.0	7,000
Avenel Middle School (#40)	UV-1	Local Rooms	Local Rooms	Unit Ventilator	Trane		Multiple	NA	NA	HW	3.8	75	40.0	1,250
Avenel Middle School (#40)	UV-2	Local Rooms	Local Rooms	Unit Ventilator	Trane		Multiple	NA	NA	HW	2.2	43	40.0	750
Avenel Middle School (#40)	UV-3	Local Rooms	Local Rooms	Unit Ventilator	Trane		Multiple	NA	NA	HW	4.7	92.4	40.0	1,500
Avenel Middle School (#40)	EF-1	Roof	Toilet	Exhaust Fan	Greenheck	GB-081-6	1	NA	NA	NA	NA	NA	NA	600
Avenel Middle School (#40)	EF-2	Roof	Toilet	Exhaust Fan	Greenheck	GB-081-6	1	NA	NA	NA	NA	NA	NA	525
Avenel Middle School (#40)	EF-3	Roof	Storage	Exhaust Fan	Greenheck	GB-081-3	1	NA	NA	NA	NA	NA	NA	1,700
Avenel Middle School (#40)	EF-4	Roof	Toilet	Exhaust Fan	Greenheck	GB-081-6	1	NA	NA	NA	NA	NA	NA	225
Avenel Middle School (#40)	EF-5	Roof	Toilet	Exhaust Fan	Greenheck	GB-081-6	1	NA	NA	NA	NA	NA	NA	150
Avenel Middle School (#40)	EF-6	Roof	Toilet	Exhaust Fan	Greenheck	GB-081-6	1	NA	NA	NA	NA	NA	NA	225
Avenel Middle School (#40)	EF-7	Roof	Toilet	Exhaust Fan	Greenheck	GB-081-6	1	NA	NA	NA	NA	NA	NA	300
Avenel Middle School (#40)	RF-1	Roof	Classrooms	Relief Fan	Greenheck	GB-240-7	1	NA	NA	NA	NA	NA	NA	4,000
Avenel Middle School (#40)	RF-2	Roof	Classrooms	Relief Fan	Greenheck	GB-260-7	1	NA	NA	NA	NA	NA	NA	5,000
Avenel Middle School (#40)	RF-3	Roof	Classrooms	Relief Fan	Greenheck	GB-240-7	1	NA	NA	NA	NA	NA	NA	3,700
Avenel Middle School (#40)	RF-4	Roof	Classrooms	Relief Fan	Greenheck	GB-260-7	1	NA	NA	NA	NA	NA	NA	4,300
Avenel Middle School (#40)	RF-5	Roof	Classrooms	Relief Fan	Greenheck	GB-220-5	1	NA	NA	NA	NA	NA	NA	3,500
Avenel Middle School (#40)	RF-6	Roof	Classrooms	Relief Fan	Greenheck	GB-260-7	1	NA	NA	NA	NA	NA	NA	4,300
Avenel Middle School (#40)	RF-7	Roof	Metal Shop	Relief Fan	Greenheck	GB-101-4	1	NA	NA	NA	NA	NA	NA	800
Avenel Middle School (#40)	RF-8	Roof	Wood Shop	Relief Fan	Greenheck	GB-101-4	1	NA	NA	NA	NA	NA	NA	800
Avenel Middle School (#40)	RF-9	Roof	Vocal Music Rm.	Relief Fan	Greenheck	GB-101-4	1	NA	NA	NA	NA	NA	NA	900
Avenel Middle School (#40)	RF-10	Roof	Inst. Music Rm.	Relief Fan	Greenheck	GB-101-4	1	NA	NA	NA	NA	NA	NA	800
Avenel Middle School (#40)	RF-11	Roof	Classrooms	Relief Fan	Greenheck	GB-240-7	1	NA	NA	NA	NA	NA	NA	3,700
Avenel Middle School (#40)	RF-12	Roof	Storage	Relief Fan	Greenheck	GB-081-6	1	NA	NA	NA	NA	NA	NA	400
Avenel Middle School (#40)	RF-13	Roof	Classrooms	Relief Fan	Greenheck	GB-300-5	1	NA	NA	NA	NA	NA	NA	4,960

Boilers

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Fuel	Burner Input Capacity MBH	Cert of Inspection - Object Capacity MBH	Boiler Type	Age	Estimated Service Life	Efficiency
Avenel Middle School (#40)	B-1 & B-2	MER	Building	Hot Water Boilers	Cleaver Brooks	CB810-200	2	Nat Gas	8,375	6,900	Fire-Tube	1964	25	82%
Avenel Middle School (#40)		MER	Building	DHW Boiler	Lochnivar	CWN0665	1	Nat Gas	665	532	Water-Tube	1999		80%

Hot Water Pumps

Bldg	Tag#	Location	Area Serving	Equipment	Motor Mfg	Pump Model	Quantity	GPM	Head ft	HP	Volts	Amps	Watts	RPM
Avenel Middle School (#40)	New P-1	MER	Building	Hot Water Pump	Marathon	B&G 1510 BF 8.625 4BC	1	480	65	15	460	14.50	6,670	1765
Avenel Middle School (#40)	New P-2	MER	Building	Hot Water Pump	Marathon	B&G 1510 BF 8.625 4BC	1	480	65	15	460	14.50	6,670	1765
Avenel Middle School (#40)	Old P-2	MER	Building	Hot Water Pump		B&G U-12T	1	480	64	15				1725
Avenel Middle School (#40)	P-4	Gym Roof MER	HV-1	Hot Water Pump	Emerson		1	26.5	5	1/6	115	3.80	437	1725
Avenel Middle School (#40)	P-5	Gym Roof MER	HV-2	Hot Water Pump	Emerson		1	26.5	5	1/6	115	3.80	437	1725
Avenel Middle School (#40)	P-6	Gym Roof MER	HV-3	Hot Water Pump	Emerson		1	26.5	5	1/6	115	3.80	437	1725
Avenel Middle School (#40)	P-7	Gym Storage Closet	HV-4	Hot Water Pump	B&G		1	4.2	4	0.0833	115	2.50	288	1725
Avenel Middle School (#40)	P-8	Gym Storage Closet	HV-5	Hot Water Pump	B&G		1	4.2	4	0.0833	115	2.50	288	1725
Avenel Middle School (#40)	P-9	Stage Loft	HV-6	Hot Water Pump	Emerson		1	18.2	5	0.0833	115	2.50	288	1725
Avenel Middle School (#40)	P-10	Stage Loft	HV-7	Hot Water Pump	Emerson		1	18.2	5	0.0833	115	2.50	288	1725
Avenel Middle School (#40)		MER	DHW	DHW Boiler Pump	Emerson		1			1/6	115	3.80	437	1725
Avenel Middle School (#40)		MER	DHW	DHW Zone Pump		Armstrong - H-32 AB	1			1/3	115	5.40	621	1725
													10,189	

EQUIPMENT LIST

Avenel Middle School (#40)

Domestic Hot Water Heaters													
Bldg	**Tag#**	**Location**	**Area Serving**	**Equipment**	**Quantity**	**Mfg**	**Model**	**Fuel**	**Capacity (gal)**	**Input MBH**	**Boiler Type**	**Age**	**Estimated Service Life**
Avenel Middle School (#40)		MER	Building	DHW Storage Tanks	2	A.O. Smith	Custom			5403		2001	
Avenel Middle School (#40)		Kitchen	Kitchen	DHW Heater	1	A.O. Smith	BTC-250A-920	Nat Gas	100	250			

Kitchen Equipment Inventory List					
Bldg	**Room**	**EQUIPMENT**	**MANUFACTURER**	**Tag #**	**Quantity**
Avenel Middle School (#40)	Kitchen	Food Cooler / Chest	Lakeside	3093 (M/N/ 602)	1
Avenel Middle School (#40)	Kitchen	Food Cooler / Chest		3096	1
Avenel Middle School (#40)	Kitchen	Food Cooler / Chest		4460798	1
Avenel Middle School (#40)	Kitchen	Walk-In Cooler		9	
Avenel Middle School (#40)	Kitchen	Walk-In Freezer		10	
Avenel Middle School (#40)	Kitchen	Food Cooler / Chest	Beverage Air	11	1
Avenel Middle School (#40)	Kitchen	Electric Warmer			2
Avenel Middle School (#40)	Kitchen	Hot Food Tray Server		3095	1
Avenel Middle School (#40)	Kitchen	Food Warmer	Cres-Cor		1
Avenel Middle School (#40)	Kitchen	Freezer	Continental	6136	1
Avenel Middle School (#40)	Kitchen	Exhaust Hood		3108	1
Avenel Middle School (#40)	Kitchen	Convection Oven	Vulcan	3109 / 3110 / 3111 / 3112	4
Avenel Middle School (#40)	Kitchen	Gas Griddle (part of stove)	Vulcan	3114	1
Avenel Middle School (#40)	Kitchen	4 Burner Stove	Vulcan	3115	1
Avenel Middle School (#40)	Kitchen	Electric Steamer	Intek	3116	1
Avenel Middle School (#40)	Kitchen	2 Door Refrigerator		3118	1
Avenel Middle School (#40)	Kitchen	2 Door Refrigerator		3119 (AMS-UPRR-74)	1
Avenel Middle School (#40)	Kitchen	2 Door Refrigerator	Traulsen	3120	1
Avenel Middle School (#40)	Kitchen	Dishwasher	Hobart	3121 (M/N CRS-66A)	1

Colonia Middle School (#41)

Supply & Exhaust Fans

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Cooling Technology	Cooling Capacity (Tons)	Heating Technology	HW GPM	Heating Capacity (MBH)	Heating Design dT	Supply Air CFM
Colonia Middle School (#41)	WAC	Windows	Local Rooms	Window AC Units	Various	Various	32	DX						
Colonia Middle School (#41)	HV-1	Gym	Gym	Heating & Ventilation Unit	McQuay	CAH006GHAC	1	NA	NA	HW	5.6	87.934	31.4	2,200
Colonia Middle School (#41)	HV-2	Gym	Gym	Heating & Ventilation Unit	McQuay	CAH006GHAC	1	NA	NA	HW	5.6	87.934	31.4	2,200
Colonia Middle School (#41)	HV-3	Gym	Gym	Heating & Ventilation Unit	McQuay	CAH006GHAC	1	NA	NA	HW	5.6	87.934	31.4	2,200
Colonia Middle School (#41)	HV-4	Gym	Gym	Heating & Ventilation Unit	McQuay	CAH006GHAC	1	NA	NA	HW	5.6	87.934	31.4	2,200
Colonia Middle School (#41)	HV-5	Stage Loft	Cafeteria	Heating & Ventilation Unit			1	NA	NA	HW			#DIV/0!	***14,598***
Colonia Middle School (#41)	UV-1	Local Rooms	Local Rooms	Unit Ventilator	Trane	VUE125	Multiple	NA	NA	HW	5	75	30.0	1,250
Colonia Middle School (#41)	UV-2	Local Rooms	Local Rooms	Unit Ventilator	Trane		Multiple	NA	NA	HW	3	43	28.7	750
Colonia Middle School (#41)	CUH-1	C107	C107	Cabinet Unit Heater	Sterlling	RC-1200-04	1	NA	NA	HW	4	30.9	15.5	430
Colonia Middle School (#41)	CUH-2	C109	C109	Cabinet Unit Heater	Sterlling	RC-1200-04	1	NA	NA	HW	4	30.9	15.5	430
Colonia Middle School (#41)	CUH-3	C108	C108	Cabinet Unit Heater	Sterlling	RC-1200-04	1	NA	NA	HW	4	30.9	15.5	430
Colonia Middle School (#41)	CUH-4	C104	C104	Cabinet Unit Heater	Sterlling	RC-1200-04	1	NA	NA	HW	4	30.9	15.5	430
Colonia Middle School (#41)	CUH-5	C100	C100	Cabinet Unit Heater	Sterlling	RC-1200-04	1	NA	NA	HW	4	30.9	15.5	430
Colonia Middle School (#41)	CUH-6	C110	C110	Cabinet Unit Heater	Sterlling	RC-1200-04	1	NA	NA	HW	4	30.9	15.5	430
Colonia Middle School (#41)	CUH-7	C102	C102	Cabinet Unit Heater	Sterlling	RC-1200-04	1	NA	NA	HW	4	30.9	15.5	430
Colonia Middle School (#41)	CUH-8	C103	C103	Cabinet Unit Heater	Sterlling	RC-1200-04	1	NA	NA	HW	4	30.9	15.5	430
Colonia Middle School (#41)	CUH-9	C100	C100	Cabinet Unit Heater	Sterlling	RC-1200-04	1	NA	NA	HW	4	30.9	15.5	430
Colonia Middle School (#41)	CUH-10	C100	C100	Cabinet Unit Heater	Sterlling	RC-1200-04	1	NA	NA	HW	4	30.9	15.5	430
Colonia Middle School (#41)	CUH-11	C100	C100	Cabinet Unit Heater	Sterlling	RC-1200-04	1	NA	NA	HW	4	30.9	15.5	430
Colonia Middle School (#41)	CUH-12	C105	C105	Cabinet Unit Heater	Sterlling	RC-1200-04	1	NA	NA	HW	4	30.9	15.5	430
Colonia Middle School (#41)	CUH-13	C100	C100	Cabinet Unit Heater	Sterlling	RC-1200-04	1	NA	NA	HW	4	30.9	15.5	430
Colonia Middle School (#41)	CUH-14	C101	C101	Cabinet Unit Heater	Sterlling	RC-1200-04	1	NA	NA	HW	4	30.9	15.5	430
Colonia Middle School (#41)	CUH-15	C101	C101	Cabinet Unit Heater	Sterlling	RC-1200-04	1	NA	NA	HW	4	30.9	15.5	430
Colonia Middle School (#41)	CUH-17	C200	C200	Cabinet Unit Heater	Sterlling	RC-1200-04	1	NA	NA	HW	4	30.9	15.5	430
Colonia Middle School (#41)	CUH-18	C200	C200	Cabinet Unit Heater	Sterlling	RC-1200-04	1	NA	NA	HW	4	30.9	15.5	430
Colonia Middle School (#41)	FCU-1		Locker Rooms	Fan Coil Unit	Modine			NA	NA	HW	2.4	23.7	19.8	550
Colonia Middle School (#41)	FCU-2		Locker Rooms	Fan Coil Unit	Modine			NA	NA	HW	2.9	28.2	19.4	620
Colonia Middle School (#41)	FCU-3		Locker Rooms	Fan Coil Unit	Modine			NA	NA	HW	3.1	30.9	19.9	740
Colonia Middle School (#41)	FCU-4		Locker Rooms	Fan Coil Unit	Modine			NA	NA	HW	2.9	28.2	19.4	620
Colonia Middle School (#41)	FCU-5		Locker Rooms	Fan Coil Unit	Modine			NA	NA	HW	1	6.1	12.2	300
Colonia Middle School (#41)	FCU-6		Locker Rooms	Fan Coil Unit	Modine			NA	NA	HW	1	6.1	12.2	300
Colonia Middle School (#41)	FCU-7		Locker Rooms	Fan Coil Unit	Modine			NA	NA	HW	2.9	28.2	19.4	620
Colonia Middle School (#41)	FCU-8		Locker Rooms	Fan Coil Unit	Modine			NA	NA	HW	2.1	21.6	20.6	550
Colonia Middle School (#41)	FCU-9		Locker Rooms	Fan Coil Unit	Modine			NA	NA	HW	1.7	16.2	19.1	400
Colonia Middle School (#41)	EF-1	Roof	Showers	Exhaust Fan	Greenheck	GB-081-6	1	NA	NA	NA	NA	NA	NA	500
Colonia Middle School (#41)	EF-2	Roof	Showers	Exhaust Fan	Greenheck	GB-081-6	1	NA	NA	NA	NA	NA	NA	500
Colonia Middle School (#41)	EF-3	Roof	Toilet	Exhaust Fan	Greenheck	GB-081-6	1	NA	NA	NA	NA	NA	NA	515
Colonia Middle School (#41)	EF-4	Roof	Storage	Exhaust Fan	Greenheck	GB-081-6	1	NA	NA	NA	NA	NA	NA	400
Colonia Middle School (#41)	EF-5	Roof	Storage	Exhaust Fan	Greenheck	GB-081-6	1	NA	NA	NA	NA	NA	NA	400
Colonia Middle School (#41)	EF-6	Roof	Showers	Exhaust Fan	Greenheck	GB-081-6	1	NA	NA	NA	NA	NA	NA	580
Colonia Middle School (#41)	EF-7	Roof	Showers	Exhaust Fan	Greenheck	GB-101-4	1	NA	NA	NA	NA	NA	NA	870
Colonia Middle School (#41)	EF-8	Roof	Dishwasher	Exhaust Fan	Greenheck	GB-081-6	1	NA	NA	NA	NA	NA	NA	450
Colonia Middle School (#41)	EF-9	Roof	Toilet & Locker Rm	Exhaust Fan	Greenheck	GB-071-6	1	NA	NA	NA	NA	NA	NA	150
Colonia Middle School (#41)	EF-10	Roof	Electrical Rm	Exhaust Fan	Greenheck	GB-071-6	1	NA	NA	NA	NA	NA	NA	250
Colonia Middle School (#41)	EF-11	Roof	Toilet	Exhaust Fan	Greenheck	G-070-D	1	NA	NA	NA	NA	NA	NA	100
Colonia Middle School (#41)	EF-12	Roof	Finishing	Exhaust Fan	Greenheck	GB-071-6	1	NA	NA	NA	NA	NA	NA	200
Colonia Middle School (#41)	EF-13	Roof	Storage	Exhaust Fan	Greenheck	GB-081-6	1	NA	NA	NA	NA	NA	NA	570
Colonia Middle School (#41)	EF-14	Roof	Boiler Rm	Exhaust Fan	Greenheck	GB-141-10	1	NA	NA	NA	NA	NA	NA	2,630
Colonia Middle School (#41)	EF-15	Roof	Not-Used											
Colonia Middle School (#41)	EF-16	Roof	Toilet	Exhaust Fan	Greenheck	GB-091-4	1	NA	NA	NA	NA	NA	NA	900
Colonia Middle School (#41)	EF-17	Roof	Toilet	Exhaust Fan	Greenheck	GB-071-6	1	NA	NA	NA	NA	NA	NA	225
Colonia Middle School (#41)	EF-18	Roof	Toilet	Exhaust Fan	Greenheck	G-070-D	1	NA	NA	NA	NA	NA	NA	100
Colonia Middle School (#41)	EF-19	Roof	Toilet	Exhaust Fan	Greenheck	G-070-D	1	NA	NA	NA	NA	NA	NA	100
Colonia Middle School (#41)	EF-20	Roof	Storage	Exhaust Fan	Greenheck	GB-081-6	1	NA	NA	NA	NA	NA	NA	350
Colonia Middle School (#41)	EF-21	Roof	Toilet	Exhaust Fan	Greenheck	GB-081-6	1	NA	NA	NA	NA	NA	NA	450
Colonia Middle School (#41)	EF-22	Roof	Toilet	Exhaust Fan	Greenheck	GB-121-4	1	NA	NA	NA	NA	NA	NA	1,350
Colonia Middle School (#41)	RF-1	Roof	Corridor	Relief Fan	Greenheck	GB-071-6	1	NA	NA	NA	NA	NA	NA	130
Colonia Middle School (#41)	RF-2	Roof	Storage	Relief Fan	Greenheck	GB-071-6	1	NA	NA	NA	NA	NA	NA	100
Colonia Middle School (#41)	RF-3	Roof	Stage	Relief Fan	Greenheck	GB-141-10	1	NA	NA	NA	NA	NA	NA	2,585
Colonia Middle School (#41)	RF-4	Roof	Classrooms	Relief Fan	Greenheck	GB-091-4	1	NA	NA	NA	NA	NA	NA	1,100
Colonia Middle School (#41)	RF-5	Roof	Offices	Relief Fan	Greenheck	GB-081-6	1	NA	NA	NA	NA	NA	NA	600
Colonia Middle School (#41)	RF-6	Roof	Library	Relief Fan	Greenheck	GB-081-6	1	NA	NA	NA	NA	NA	NA	400
Colonia Middle School (#41)	RF-7	Roof	Offices	Relief Fan	Greenheck	GB-081-6	1	NA	NA	NA	NA	NA	NA	420
Colonia Middle School (#41)	RF-8	Roof	Classrooms	Relief Fan	Greenheck	GB-141-10	1	NA	NA	NA	NA	NA	NA	2,880
Colonia Middle School (#41)	RF-9	Roof	Classrooms	Relief Fan	Greenheck	GB-141-10	1	NA	NA	NA	NA	NA	NA	2,880

EQUIPMENT LIST

Colonia Middle School (#41)

Supply & Exhaust Fans

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Cooling Technology	Cooling Capacity (Tons)	Heating Technology	HW GPM	Heating Capacity (MBH)	Heating Design dT	Supply Air CFM
Colonia Middle School (#41)	RF-10	Roof	Classrooms	Relief Fan	Greenheck	GB-141-7	1	NA	NA	NA	NA	NA	NA	2,400
Colonia Middle School (#41)	RF-11	Roof	Classrooms	Relief Fan	Greenheck	GB-141-7	1	NA	NA	NA	NA	NA	NA	2,400
Colonia Middle School (#41)	RF-12	Roof	Classrooms	Relief Fan	Greenheck	GB-141-7	1	NA	NA	NA	NA	NA	NA	2,325
Colonia Middle School (#41)	RF-13	Roof	Classrooms	Relief Fan	Greenheck	GB-141-7	1	NA	NA	NA	NA	NA	NA	2,325

Boilers

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Fuel	Burner Input Capacity MBH	Cert of Inspection - Object Capacity MBH	Boiler Type	Age	Estimated Service Life	Efficiency
Colonia Middle School (#41)	B-1 & B-2	MER	Building	Hot Water Boilers	Cleaver	CB700-150-30	2	Nat Gas	6,300	6,000	Fire-Tube	1994-1995	25	80%
Colonia Middle School (#41)		MER	Building	DHW Boiler	Lochnivar	CWN0665	1	Nat Gas	665	532	Water-Tube	1994		80%

Hot Water Pumps

Bldg	Tag#	Location	Area Serving	Equipment	Motor Mfg	Pump Model	Quantity	GPM	Head ft	HP	Volts	Amps	Watts	RPM
Colonia Middle School (#41)	New P-1	MER	Building	Hot Water Pump	Marathon	B&G 1510 BF 11 -4E	1	500	110	25	480		14,406	1765
Colonia Middle School (#41)	New P-2	MER	Building	Hot Water Pump	Marathon	B&G 1510 BF 11 -4E	1	500	110	25	480		0	1765
Colonia Middle School (#41)		MER	DHW	DHW Boiler Pump	Emerson		1			1/4	115	4.60	529	1725
Colonia Middle School (#41)		MER	DHW	DHW Zone Pump			1			1/3	115	5.40	621	1725
													15,556	

Domestic Hot Water Heaters

Bldg	Tag#	Location	Area Serving	Equipment	Quantity	Mfg	Model	Fuel	Capacity (gal)	Input MBH	Boiler Type	Age	Estimated Service Life
Colonia Middle School (#41)		MER	Building	DHW Storage Tanks	1		Custom		Large			Original	

EQUIPMENT LIST

Fords Middle School (#42)

Air Handling Units - AHUs

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Cooling Technology	Supply Air CFM	Fan HP	Cooling Capacity (Tons)	Heating Technology	Age
Fords Middle School (#42)	WAC	Windows	Local Rooms	Window AC Units	Various	Various	6	DX			NA	None	Various
Fords Middle School (#42)	UV	Classrooms	Classrooms	Unit Ventilator	Snyder General	AGBEANBAAV	41	None		1/8	NA	HHW	NA
Fords Middle School (#42)	HV-8	Kitchen Closet	Kitchen	Heating & Ventilation	Nesbit	NA	1	None	3,500	1	NA	HHW	
Fords Middle School (#42)	HV-1,2,3,4	Penthouse	Gymnasium	Heating & Ventilation	Trane	MCCB003UA	4	None	4,500	1.5	NA	HHW	2006
Fords Middle School (#42)	HV-	Penthouse	Gymnasium	Heating & Ventilation	Trane	MCCB010U	4	None	NA	NA	NA	HHW	2006
Fords Middle School (#42)	AC-1	Office Break Room	Office Areas	HVAC	First Co	60MAX0-93	1	DX	NA	NA	NA	HHW	
Fords Middle School (#42)	AC-	2007 Mech Closets	2007 Wing	AC Unit	Change Air	HRA 58-1600-BC	6	DX	NA	NA	NA		2006
Fords Middle School (#42)	ACCU-	Roof	2007 Wing AC Units	Air Cooled Condensing Unit		2TTB3024A	6	DX	NA	NA	NA		2006
Fords Middle School (#42)	EF-Small	Roof	Various	Exhaust Fan	Various	Various	1	None	NA	NA	NA	None	Various
Fords Middle School (#42)	EF-Medium	Roof	Various	Exhaust Fan	Various	Various	31	None	NA	NA	NA	None	Various
Fords Middle School (#42)	EF-Large	Roof	Various	Exhaust Fan	Various		3	None	NA	NA	NA	None	Various

Boilers

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Fuel	Net I=B=R Ratings (MBH)	Input BTU/hr	I=B=R Burner Capacity (MBH)	Output Btuh	Age
Fords Middle School (#42)	B-1&B-2	MER	Building	HW Boilers	HB Smith	450 Mills	2	Nat Gas	5,704		8,277		
Fords Middle School (#42)	B-3	MER	Domstic HW	HW Boiler	Lochinvar	CWN0645	1	Nat Gas		645,000		522,450	1995

Heating Hot Water Pumps

Bldg	Tag#	Location	Area Serving	Equipment	Motor Mfg	Motor Model	Quantity	GPM	Head ft	HP	RPM	VFD?	Efficiency
Fords Middle School (#42)	P-1,2,3	MER	HW System	HW Pumps	Marathon	215TTDC6026AA	3	240	80	10	1765	No	91.7%
Fords Middle School (#42)	P-4,5,6,7	MER	HW System	HW Pumps	Baldor	VEJMM3211T	4	40	70	3	1755	No	90.2%
Fords Middle School (#42)													

Domestic Hot Water Storage Tanks

Bldg	Tag#	Location	Area Serving	Equipment	Quantity	Mfg	Model	Capacity (gal)	Estimated Service Life
Fords Middle School (#42)	DHWS-1	MER	DHW Boiler	Storage Tank	1	NA	NA	NA	
Fords Middle School (#42)									

Domestic Hot Water Heaters - Natural Gas

Bldg	Tag#	Location	Area Serving	Equipment	Quantity	Mfg	Model	Fuel	Input (BTUh)	Output (MBH)	Age	Capacity (gal)	Estimated Service Life
Fords Middle School (#42)	DHW-1	MER	Building	DHW	1			Natural Gas					
Fords Middle School (#42)													

Domestic Hot Water Heaters - Electric

Bldg	Tag#	Location	Area Serving	Equipment	Quantity	Mfg	Model	Fuel	Upper	Lower	Age	Capacity (gal)	Estimated Service Life
Fords Middle School (#42)	DHW-1	MER	Building	DHW				Electric					
Fords Middle School (#42)													

Kitchen Equipment Inventory List

Bldg	Room	EQUIPMENT	MANUFACTURER	MODEL #	Quantity
Fords Middle School (#42)	Kitchen	Walk in Refrigerator	NA	NA	1
Fords Middle School (#42)	Kitchen	Reach in Freezer	NA	NA	2
Fords Middle School (#42)	Kitchen	Double Wide Refrigerator	Koch	3842	2
Fords Middle School (#42)	Kitchen	Dishwasher	Hobart	AM-14	1
Fords Middle School (#42)	Kitchen	Booster Heater	Hatco	OC-15	1
Fords Middle School (#42)	Kitchen	Crescor	Hot Food Cabinet	NA	1
Fords Middle School (#42)	Kitchen	Steamer	Intek	Xtreme Steam	1
Fords Middle School (#42)	Kitchen	Double Door Freezer	Vulcan	CB-9	1
Fords Middle School (#42)	Kitchen	Kitchen Hoods	NA	NA	2
Fords Middle School (#42)	Kitchen	Natural Gas Oven	Vulcan	NA	1
Fords Middle School (#42)	Kitchen	Natural Gas 6 Burner Stove/Oven	Vulcan	NA	1
Fords Middle School (#42)	Kitchen	Hot Food Cabinet	Metro	C5	1
Fords Middle School (#42)	Kitchen	Reach In Cooler	Beverage Air	SMF-34	2
Fords Middle School (#42)	Kitchen	1/2 Size Beverage Refrigerator	Imbera	VR06	2
Fords Middle School (#42)	Cafeteria	Soda Machine	NA	NA	4
Fords Middle School (#42)	Cafeteria	Snack Machine	NA	NA	4

Iselin Middle School (#43)

Air Handling Units - AHUs

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Cooling Technology	Supply Air CFM	Fan HP	Cooling Capacity (Tons)	Heating Technology	Age	Estimated Service Life
Iselin Middle School (#43)	WAC	Windows	Local Rooms	Window AC Units	Various	Various	18	DX						
Iselin Middle School (#43)	UV	Classrooms	Classrooms	Unit Ventilator	Trane	VUVE…	44	None		1/10	NA	HHW	2006	
Iselin Middle School (#43)	HV-1	Stage	Café/Auditorium	Heat & Ventilation Unit			1	None			NA	HHW	2011?	
Iselin Middle School (#43)	HV's 2, 3 & 4	Boys Locker	Gym	Heat & Ventilation Unit			3	None			NA	HHW	1959	
Iselin Middle School (#43)														
Iselin Middle School (#43)	Relief Fan	Roof	Various	Relief Fan	Various	Various	14				NA	None	Various	
Iselin Middle School (#43)	EF-Small	Roof	Various	Exhaust Fan	Various	Various		None	NA		NA	None	Various	
Iselin Middle School (#43)	EF-Medium	Roof	Various	Exhaust Fan	Various	Various	6	None	NA		NA	None	Various	
Iselin Middle School (#43)	EF-Large	Roof	Various	Exhaust Fan	Various	Various		None	NA		NA	None	Various	

Boilers

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Fuel	Burner Capacity MBH	Input BTU/hr	Cert of Inspection - Input Btuh	Output Btuh	Age	Estimated Service Life
Iselin Middle School (#43)	B1 -B5	MER	Building	Hot Water Boilers	Patterson Kelly	N2000-MFD	5	Nat Gas		2,000,000		1,700,000	2007	
Iselin Middle School (#43)														

Heating Hot Water Pumps

Bldg	Tag#	Location	Area Serving	Equipment	Motor Mfg	Motor Model	Quantity	GPM	Head ft	HP	RPM	VFD?	Efficiency	Estimated Service Life
Iselin Middle School (#43)	Pump	MER	Primary		Grundfos	UPS 80-80 F	5					no		
Iselin Middle School (#43)	Pump #1 & #2	MER	Secondary	B&G 1510 BF 9.625	Marathon	EVE 254ttdx40288e l	2	340	80	15	1760	no	91%	
Iselin Middle School (#43)														

Domestic Hot Water Heaters

Bldg	Tag#	Location	Area Serving	Equipment	Quantity	Mfg	Model	Fuel	Input MBH	Output MBH	Age	Capacity (gal)	Estimated Service Life	Efficiency
Iselin Middle School (#43)	DHW-1	MER	Building	DHW Boiler	1	Lochinvar	CWN0645PM	Gas	645	522.45	1995			81.0%
Iselin Middle School (#43)				Storage Tanks	2	Lochinvar						≈120 gallons each		

DHW Pumps

Bldg	Tag#	Location	Area Serving	Equipment	Motor Mfg	Motor Model	Quantity	GPM	Head ft	HP	Efficiency	Motor RPM	VFD?	Age
Iselin Middle School (#43)		MER	DHW Boiler	DHW Pump	Armstrong	Armstrong	1			1/4		1725	no	1995
		MER	Building	DHW Circ. Pump	Armstrong	Armstrong	1			1/12			no	

Kitchen Equipment Inventory List

Bldg	Room	EQUIPMENT	MANUFACTURER	MODEL #	Quantity
Iselin Middle School (#43)					1
Iselin Middle School (#43)					1
Iselin Middle School (#43)					1
Iselin Middle School (#43)					1
Iselin Middle School (#43)					

EQUIPMENT LIST

Woodbridge Middle School (#44)

Air Handling Units - AHUs

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Cooling Technology	Supply Air CFM	Fan HP	Cooling Capacity (Tons)	Heating Technology	Age	Estimated Service Life
Woodbridge Middle School (#44)	WAC	Windows	Local Rooms	Window AC Units	Various	Various	42	DX						
Woodbridge Middle School (#44)	UV	Classrooms	Classrooms	Unit Ventilator	Trane		50	None		1/10	NA	HHW	2004-2006	
Woodbridge Middle School (#44)	HV	Gym	Various	Heating Ventilator			2	None			NA	HHW		
Woodbridge Middle School (#44)	HV	Hallways	Hallways	Heating Ventilator	Trane	BCHC….	7	None		1/3	NA	HHW		
Woodbridge Middle School (#44)														
Woodbridge Middle School (#44)	Relief Fan	Roof	Various	Relief Fan			?							
Woodbridge Middle School (#44)	EF-Small	Roof	Various	Exhaust Fan	Various	Various		None	NA		NA	None	Various	
Woodbridge Middle School (#44)	EF-Medium	Roof	Various	Exhaust Fan	Various	Various	11	None	NA		NA	None	Various	
Woodbridge Middle School (#44)	EF-Large	Roof	Various	Exhaust Fan	Various	Various		None	NA		NA	None	Various	

Boilers

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Fuel	Burner Capacity MBH	Input BTU/hr	Cert of Inspection - Output	Output Btuh	Age	Estimated Service Life
Woodbridge Middle School (#44)	B1 -B5	MER	Building	Steam boiler	Cleaver Brooks	CB048-150	1	Nat Gas		42 GPH oil	5,180 #/hour		1960	
Woodbridge Middle School (#44)					Federal	FST 150	1	Nat Gas		6,300,000	5,175 #/hour	5,021,000	1997	

Heating Hot Water Pumps

Bldg	Tag#	Location	Area Serving	Equipment	Motor Mfg	Motor Model	Quantity	GPM	Head ft	HP	RPM	VFD?	Efficiency	Estimated Service Life
Woodbridge Middle School (#44)	Pump	Pump Room Converter	Building	HHW Pump	Marathon	V184TTDB7357AA	1			5	1745	no	86.5%	
Woodbridge Middle School (#44)	Pump	Pump Room Converter	Building	HHW Pump	US Motors		1			5		no		Old- Off
Woodbridge Middle School (#44)	Pump	Boiler Room Converter	Café	HHW Pump	Armstrong	816027-007	2	40	40	1/3	1725	no	50.0%	
Woodbridge Middle School (#44)	Pump #1	Converter Near DHW Heater	Building	HHW Pump	US Motors	Armstrong 3x2x10 4030 / 9" impeller	1			7 1/2	1765	no	88.5%	
Woodbridge Middle School (#44)	Pump #3	Converter Near DHW Heater	Building	HHW Pump	Baldor		1			3	1750	no	87.5%	

Domestic Hot Water Heaters

Bldg	Tag#	Location	Area Serving	Equipment	Quantity	Mfg	Model	Fuel	Input	Lower	Age	Capacity (gal)	Estimated Service Life
Woodbridge Middle School (#44)	DHW-1	Boiler Room	Building	DHW Boiler	1	Lochinvar		Gas	645 MBH				
Woodbridge Middle School (#44)		Boiler Room		Storage Tanks	1	AO Smith						180	

DHW Pumps

Bldg	Tag#	Location	Area Serving	Equipment	Motor Mfg	Motor Model	Quantity	GPM	Head ft	HP	Efficiency	Motor RPM	VFD?	Age
Woodbridge Middle School (#44)			DHW Boiler	DHW Pump	Armstrong		1			1/4		1725	no	
Woodbridge Middle School (#44)			Building	DHW Circ. Pump	Armstrong	810119-001	1	10	7	1/12		1725	no	
Woodbridge Middle School (#44)			Building	DHW Circ. Pump	Armstrong	S-25 BF	1	10	7	1/12		1725	no	

Kitchen Equipment Inventory List

Bldg	Room	EQUIPMENT	MANUFACTURER	MODEL #	Quantity
Woodbridge Middle School (#44)					1
Woodbridge Middle School (#44)					1
Woodbridge Middle School (#44)					1
Woodbridge Middle School (#44)					1
Woodbridge Middle School (#44)					

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

EQUIPMENT LIST

Woodbridge High School (#50)

Air Handling Units - AHUs

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Cooling Capacity (Tons)	Cooling Technology	Heating Technology	Heating Capacity (MBH)	Heating GPM	Supply Air CFM	Static Pressure w.c.	Fan HP	Age	Estimated Service Life	Efficiency	Controls	Notes:
Woodbridge High School (#50)	AHU#2	Mech Rm Above Rm 166		H&V			1	N/A	N/A	Steam							15			unit not running
Woodbridge High School (#50)	AHU#3	Mech Rm Above Rm 166		H&V			1	N/A	N/A	Steam							15			
Woodbridge High School (#50)	AHU#4	Mech Rm Above Rm 166		H&V			1	N/A	N/A	Steam							15			
Woodbridge High School (#50)		Mech Rm Above Rm 166		H&V			1	N/A	N/A	Steam							15			
Woodbridge High School (#50)		Mech Rm Above Rm 166		RTU			1	N/A	N/A	Steam							15			
Woodbridge High School (#50)		Classrooms	Classrooms	Unit Vents	Trane	same as Elementary-see Elementary notes	85	N/A	N/A	Steam						11	15		Internal, with Grasslin time clocks	

Boilers

Bldg	Tag#		Area Serving	Equipment	Mfg	Model	Quantity	Fuel	Heating Input Btuh	Output Btuh	Age	Estimated Service Life	Efficiency	Notes
Woodbridge High School (#50)	Boiler 1	Boiler Room	Steam	Steam Boiler	Cleaver Brooks	CB700-400	1	nat ga	16,738,000	14,059,920	19	25	83.4% hi,	boilers enabled and disabled manually
Woodbridge High School (#50)	Boiler 2	Boiler Room	Steam	Steam Boiler	Cleaver Brooks	CB700-400	1	nat ga	16,738,000	14,059,920	19	25	84.0% hi,	

Heating Hot Water Pumps

Bldg	Tag#	Location	Area Serving	Equipment	Motor Mfg	Motor Model	Quantity	GPM	Head ft	HP	Efficiency	Motor RPM	VFD?	Age	Estimated Service Life	Notes
Woodbridge High School (#50)		Boiler Room	HW Loop	HW Pump	Baldor	Pump: Taco #F11506E2EAH1L08	1	N/A	N/A	5	0.825		No		20	230V, pump cavitating

Domestic Hot Water Storage Tanks

Bldg	Tag#	Location	Area Serving	Equipment	Quantity	Mfg	Model	Fuel	Gal	Btuh	# of elements	Age	Estimated Service Life	Notes
Woodbridge High School (#50)		Boiler Room	DHW	DHW Heater	1	AO Smith	Duramax	nat gas	N/A	N/A	N/A		30	atmospheric burner
Woodbridge High School (#50)		Boiler Room	DHW	DHW Storage Tank	1	N/A	N/A	N/A	~1,100				30	

Kitchen Equipment Inventory List

Bldg	Equipment	TAG #	Model #	Manufacturer	Quantity	AREA SERVING	Capacity	Estimated Service Life	Age	Efficiency	CFM (SA/OA)	NOTES
Woodbridge High School (#50)	Kitchen Hood				1			12				
Woodbridge High School (#50)	Tray Washer	WTSD #000543		Hobart	1			12				
Woodbridge High School (#50)												
Woodbridge High School (#50)	Walk in Refrigerator				1							
Woodbridge High School (#50)	Walk in Refrigerator				1							
Woodbridge High School (#50)	Walk in Freezer			Amerikooler	1							
Woodbridge High School (#50)	Serving Station				1			12				
Woodbridge High School (#50)	Gas Range	WTSD #000546 &		Vulcan	2			12				
Woodbridge High School (#50)	Gas Oven			Blodgett	2			12				
Woodbridge High School (#50)	Gas Oven				1			12				
Woodbridge High School (#50)	Gas Pizza Oven				1			12				
Woodbridge High School (#50)	Tray Warmer/ Cooler		#1290 002	Cres Cor	1		2 kW	12				
Woodbridge High School (#50)	Tray Warmer/ Cooler		C5- 3 series	Metro	1			12				
Woodbridge High School (#50)	Tray Warmer				1			12				
Woodbridge High School (#50)	Refrigerator	WTSD #000562	N/A	Glenco	1			12				
Woodbridge High School (#50)	Open Top Refrigerator				1			12				
Woodbridge High School (#50)	Refrigerator	WTSD #000590		Traulsen	1			12				
Woodbridge High School (#50)	Glass Front				1			12				

Other Mechanical Equipment

Bldg	Tag#	Location	Area Serving	Equipment	Quantity	Mfg	Model	Fuel	Input Btuh	Output Btuh	Age	Estimated Service Life	Efficiency	Notes
Woodbridge High School (#50)		Boiler Room	Pneumatic Controls	Air Compressor	1	Quincy							82.5% motors	(2x) compressors, (2x) 3 Hp motors

JFK High School (#51)

Air Handling Units - AHUs

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Cooling Capacity (Tons)	Cooling Technology	Heating Technology	Heating Capacity (MBH)	Heating GPM	Supply Air CFM	Static Pressure w.c.	Fan HP	Age	Estimated Service Life	Efficiency	Controls	Notes:
JFK High School (#51)	HV102	Mech Rm Above Auditorium	Boys Locker	H&V	McQuay	CAH008GHAC	1	N/A	N/A	HW			~2700			~10	15		Andover Continuum- not working	unit not running- controller failure?
JFK High School (#51)	HV103	Mech Rm Above Auditorium	Gym	H&V	McQuay	CAH012GHAC	1	N/A	N/A	HW			~4000			~10	15		Andover Continuum- not working	unit not running- controller failure?
JFK High School (#51)	HV104	Mech Rm Above Auditorium	Gym	H&V	McQuay	CAH012GHAC	1	N/A	N/A	HW			~4000			~10	15		Andover Continuum- not working	unit not running- controller failure?
JFK High School (#51)	HV105	Mech Rm Above Auditorium	Auditorium	H&V	McQuay	CAH021GHAC	1	N/A	N/A	HW			~7000		3.85 BHP	~10	15		Andover Continuum- not working	unit not running- controller failure?
JFK High School (#51)	RTU	Rooftop	New Office/ Class Addition	RTU	McQuay	RPS025CLW	1	~25	DX	HW			~10,000		10Hp Supply, 5 Hp Return	~10	15		Andover?	
JFK High School (#51)		Classrooms	Classrooms	Unit Ventilators	Herman Nelson	AAF	59	N/A	N/A	HW						11	15		Internal/ Grasslin time clocks	

Boilers

Bldg	Tag#	Location	Area Serving	Equipment	Motor Mfg	Motor Model	Quantity	GPM	Head ft	HP	Efficiency	Motor RPM	VFD?	Age	Estimated Service Life	Notes
JFK High School (#51)	Pump 1	Boiler Room	Standby	HW Pump	Baldor	Pump: Taco	1	N/A	N/A	7.5	Standard	1800	No	7	20	Running, 25.6 psig differential
JFK High School (#51)	Pump 2	Boiler Room	Zone 4 Cafeteria	HW Pump	Baldor	Pump: Taco	1	N/A	N/A	5	Standard	1800	No	7	20	Running, 25.2 psig differential
JFK High School (#51)	Pump 3	Boiler Room	Zone 1 Science & English	HW Pump	Baldor	Pump: Taco	1	N/A	N/A	7.5	Standard	1800	No	7	20	Pump Off
JFK High School (#51)	Pump 4	Boiler Room	Zone 3 Office	HW Pump	Baldor	Pump: Taco	1	N/A	N/A	2	Standard	1800	No	7	20	Running, 19.8 psig differential
JFK High School (#51)	Pump 5	Boiler Room	Zone 2 Business & Social Studies	HW Pump	Baldor	N/A	1	N/A	N/A	7.5	"Super- E" 88.5%	1800	No	7	20	Running, 25 psig differential
JFK High School (#51)	Pump 6	Boiler Room	Zone 6 Auditorium	HW Pump	Baldor	N/A	1	N/A	N/A	7.5	Standard	1800	No	7	20	Running, 25 psig differential
JFK High School (#51)	Pump 7	Boiler Room	Zone 5 Gymnasium	HW Pump	Baldor	N/A	1	N/A	N/A	7.5	Standard	1800	No	7	20	Running, 11 psig differential
JFK High School (#51)																All pumps' isolation valves and balance valves very corroded

Domestic Hot Water Storage Tanks

Bldg	Tag#	Location	Area Serving	Equipment	Quantity	Mfg	Model	Fuel	Gal	Btuh	# of elements	Age	Estimated Service Life	Notes
JFK High School (#51)		Boiler Room	DHW	DHW Heater	1	Lochinvar	CWN1255 PM	nat gas	N/A	360.3- 1,255 MBH input	N/A		30	atmospheric burner
JFK High School (#51)		Boiler Room	DHW	DHW Storage Tank	2	Lochinvar	541 PG	nat gas	200	N/A	N/A		30	80% thermal efficiency

Domestic Hot Water Pumps

Bldg	Tag#	Location	Area Serving	Equipment	Quantity	Motor Mfg	Motor Model	GPM	Head ft	HP	Efficiency	Motor RPM	VFD?	Age	Estimated Service Life
JFK High School (#51)		Boiler Room	DHW Heater	Heater Pump	1	Armstrong				1/4			no		20
JFK High School (#51)		Boiler Room	DHW Zone	Zone Pumps	3	Armstrong				1/12			no		20

Kitchen Equipment Inventory List

Bldg	Equipment	TAG #	Model #	Manufacturer	Quantity	AREA SERVING	Capacity	Estimated Service Life	Age	Efficiency	CFM (SA/OA)	NOTES
JFK High School (#51)	Kitchen Hood	WTSD #001591 & #001592		N/A	2			12				
JFK High School (#51)	Walk in Refrigerator				1							Bohn evap ADT0900F DCH 165F
JFK High School (#51)	Walk in Refrigerator				1							outer fridge. Old Evap
JFK High School (#51)	Walk in Freezer				1							inner freezer. Bohn evap LET0901F
JFK High School (#51)	Serving Station Heated/ Cooled		N8143B	Delfield	4		2.7 kW heating	12				115V, 4A, R-134a cooler
JFK High School (#51)	Gas Range	WTSD #001602		Vulcan	1			12				
JFK High School (#51)	Gas Oven	WTSD #001593 & #1594		Vulcan	2			12				
JFK High School (#51)	Gas Oven	WTSD #001595 & #001596		Blodgett	2			12				
JFK High School (#51)	Gas Pizza Oven	WTSD #001597		Blodgett	1			12				
JFK High School (#51)	Tray Warmer/ Cooler			Metro	2			12				
JFK High School (#51)	Tray Warmer		GRSDS-360	Hatco	1		1.81 kW	12				120V, 15.1 A
JFK High School (#51)	Refrigerator	WTSD #001600		Beverage Aire	1			12				
JFK High School (#51)	Open Top Refrigerator	WTSD #001582		Beverage Aire	1			12				
JFK High School (#51)	Refrigerator			Traulsen	1			12				
JFK High School (#51)	Glass Front Dairy Cooler		VR06	Imbera	3			12				115V, 2.6A, R-134a

Other Mechanical Equipment

Bldg	Tag#	Location	Area Serving	Equipment	Quantity	Mfg	Model	Fuel	Input Btuh	Output Btuh	Age	Estimated Service Life	Efficiency	Notes
JFK High School (#51)		Boiler Room	Pneumatic Controls	Air Compressor	1	Quincy							82.5% motors	(2x) compressors, (2x) 3 Hp motors

EQUIPMENT LIST

Colonia High School (#52)

Air Handling Units - AHUs

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Cooling Technology	Supply Air CFM	Fan HP	Cooling Capacity (Tons)	Heating Technology	Age	Estimated Service Life
Colonia High School (#52)	WAC	Windows	Local Rooms	Window AC Units	Various	Various	46	DX						
Colonia High School (#52)	UV	Classrooms	Classrooms	Unit Ventilator	Trane		Approx 62	None			None	HHW	2006	
Colonia High School (#52)	HV-9,10	Ceiling	Weight Room	Heating & Ventilating	Nesbit	NA	2	None	1,750	1/3	None	HHW		
Colonia High School (#52)	HV-7	Ceiling	Woodshop	Heating & Ventilating	Nesbit	NA	1	None	2,500	1/2	None	HHW		
Colonia High School (#52)	HV-8	Ceiling	Choral Music	Heating & Ventilating	NA	NA	1	None	1,750	1/3	None	HHW		
Colonia High School (#52)	HV-1,2,3	Ceiling	Gymnasium	Heating & Ventilating	NA	NA	3	None	10,000	3	None	HHW		
Colonia High School (#52)	HV-4	Ceiling	Team Room	Heating & Ventilating	NA	NA	1	None	1,750	1/3	None	HHW		
Colonia High School (#52)	HV-15,16	Ceiling	Locker Rooms	Heating & Ventilating	NA	NA	2	None	3,500		None	HHW		
Colonia High School (#52)	HV-5	Ceiling	Drying Room	Heating & Ventilating	NA	NA	1	None	1,250	1/4	None	HHW		
Colonia High School (#52)	HV-6	Ceiling	Instrum. Music	Heating & Ventilating	NA	NA	1	None	2,500	1/2	None	HHW		
Colonia High School (#52)	HV-13,14	Ceiling	Kitchen	Heating & Ventilating	NA	NA	2	None	7,250	1 1/2	None	HHW		
Colonia High School (#52)	HV-11,12	Stage Ceiling	Auditorium	Heating & Ventilating	NA	NA	2	None	12,500	5	None	HHW		
Colonia High School (#52)	RTU-1	Roof	New Wing	Rooftop Unit	Trane		1	DX				Natural Gas		
Colonia High School (#52)	RTU-2	Roof	Admin Areas	Rooftop Unit	Carrier		1	DX	4100	3	14	Natural Gas		
Colonia High School (#52)	EF-Small	Roof	Various	Exhaust Fan	Various	Various	5	None	NA		NA	None	Various	
Colonia High School (#52)	EF-Medium	Roof	Various	Exhaust Fan	Various	Various	31	None	NA		NA	None	Various	
Colonia High School (#52)	EF-Large	Roof	Various	Exhaust Fan	Various	Various	3	None	NA		NA	None	Various	

Boilers

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Fuel	Burner Capacity MBH	Input BTU/hr	Cert of Inspection - Input Btuh	Output Btuh	Age	Estimated Service Life
Colonia High School (#52)	B-1&B-2	MER	Building	HW Boiler	Cleaver Brooks	CB655-250	2	Nat Gas		10,461,000			1966	
Colonia High School (#52)	B-3	MER	Domstic HW	HW Boiler	Lochinvar	CWN0645	1	Nat Gas		645,000		522,450	1998	

Heating Hot Water Pumps

Bldg	Tag#	Location	Area Serving	Equipment	Motor Mfg	Motor Model	Quantity	GPM	Head ft	HP	RPM	VFD?	Efficiency	Estimated Service Life
Colonia High School (#52)	P-1	MER	HW System	HW Pumps	GE	5K256	1	NA	NA	20	1760	No	NA	
Colonia High School (#52)	P-2	MER	HW System	HW Pumps	Marathon Electric	NA	1	NA	NA	7 1/2	NA	No	NA	
Colonia High School (#52)	P-3	MER	DHW System	Inline Pump	Armstrong	NA	1	NA	NA	1/4	1725	No	NA	
Colonia High School (#52)	P-4	MER	DHW System	Inline Pump	Armstrong	4VE56T17	1	NA	NA	3/4	1725	No	NA	

Domestic Hot Water Storage Tanks

Bldg	Tag#	Location	Area Serving	Equipment	Quantity	Mfg	Model	Capacity (gal)	Estimated Service Life
Colonia High School (#52)	DHWS-1,2,3	MER	DHW Boiler	Storage Tanks	3	A.O. Smith	TJV200A100	200	
Colonia High School (#52)									

Kitchen Equipment Inventory List

Bldg	Room	EQUIPMENT	MANUFACTURER	MODEL #	Quantity
Colonia High School (#52)	Kitchen	Double Door Cooler	NA	NA	2
Colonia High School (#52)	Kitchen	Double Door Freezer	Continental	NA	1
Colonia High School (#52)	Kitchen	Commercial Nat Gas Oven	Blodgett	NA	1
Colonia High School (#52)	Kitchen	Reach In Cooler	TRUE	TMC49	1
Colonia High School (#52)	Entry	Soda Machine	NA	NA	1
Colonia High School (#52)	Entry	Snack Machine	NA	NA	1

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

EQUIPMENT LIST

Woodbridge Administration Building (#60)

Air Handling Units - AHUs

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Cooling Technology	Supply Air CFM	Fan HP	Cooling Capacity (Tons)	Heating Technology	Age	Estimated Service Life
Admin. Bldg. (#60)	WAC	Windows	Local Rooms	Window AC Units	Various	Various	37	DX						
Admin. Bldg. (#60)	AC	Payroll	Payroll & Adjacent Offices	Split System AC	Sanyo	KM0712W	3	DX						
Admin. Bldg. (#60)	EF-Small	Roof	Various	Exhaust Fan	Various	Various		None	NA		NA	None	Various	
Admin. Bldg. (#60)	EF-Medium	Roof	Various	Exhaust Fan	Various	Various	2	None	NA		NA	None	Various	
Admin. Bldg. (#60)	EF-Large	Roof	Various	Exhaust Fan	Various	Various		None	NA		NA	None	Various	

Boilers

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Fuel	Burner Capacity MBH	Input BTU/hr	DOE Heating Capacity BTU/hr	Output MBH	Age	Estimated Service Life
Admin. Bldg. (#60)	B-1	MER	Back of Bldg	Steam Boiler	Weil McLain	EG/PEG-50	1	Nat Gas		175,000	145,000	109	2006?	
Admin. Bldg. (#60)	B-2	MER	Front of Bldg	Steam Boiler	Weil McLain	EG/PEG-30	1	Nat Gas		75,000.0	62,000	47	2006?	

Heating Hot Water Pumps

Bldg	Tag#	Location	Area Serving	Equipment	Motor Mfg	Motor Model	Quantity	GPM	Head ft	HP	RPM	VFD?	Efficiency	Estimated Service Life
Admin. Bldg. (#60)	P-1&2	MER	HW System	HW Pumps								No		

Domestic Hot Water Heaters - Electric

Bldg	Tag#	Location	Area Serving	Equipment	Quantity	Mfg	Model	Fuel	Upper	Lower	Age	Capacity (gal)	Estimated Service Life
Admin. Bldg. (#60)	DHW-1	MER	Building	DHW	1	Bradford White	MI40S6D	Electric	4500	4500		40	

Electric Heaters

Bldg	Tag#	Location	Area Serving	Equipment	Mfg	Model	Quantity	Fuel	Volts	Watts	Amps	Estimated Service Life
Admin. Bldg. (#60)	E-1	Offices	Offices	Electric Heaters	Dimplex North	RFI815D31	*20*	Electric	240/208	1500/1125	6.3/5.4	
Admin. Bldg. (#60)		Offices	Offices	Electric Heaters	Dimplex North	RFI840D31	*21*	Electric	240/208	4000/3000	16.7/14.4	
Admin. Bldg. (#60)	E-2	Offices	Offices	Radiant Heating	Glassheat	1145 DTC	8	Electric	208	1500		

Kitchen Equipment Inventory List

Bldg	Room	EQUIPMENT	MANUFACTURER	MODEL #	Quantity
Admin. Bldg. (#60)	Entry Lobby	Soda Machine	NA	NA	1
Admin. Bldg. (#60)	Entry Lobby	Snack Machine	NA	NA	1
Admin. Bldg. (#60)	Entry Lobby	Coffee Machine	NA	NA	1

LIGHTING RETROFIT SUMMARY FOR:
Mawbey Street Elementary School #01
275 Mawbey Street, Woodbridge, NJ 07095

BUILDING INFORMATION		EXISTING FIXTURES				PROPOSED FIXTURES				SAVINGS						FINANCIAL					
BUILDING	SQ. FT.	PRE TOTAL FIXT. QTY	PRE TOTAL FIXT. WATTS	PRE ANNUAL KWH CONSUMPTION	PRE WATTS / SQ. FT	POST TOTAL FIXT. QTY	POST TOTAL FIXT. WATTS	POST ANNUAL KWH CONSUMPTION	POST WATTS / SQ. FT	WATTS SAVED	ANNUAL KWH SAVED	ANNUAL KWH SAVED WITH SENSORS	ANNUAL SAVINGS $ FIXT.	ANNUAL SAVINGS $ SENSORS	ANNUAL SAVINGS $ TOTAL	CO2 REDUCTION (TONS)	NJ Smart Start REBATE $	**FIXTURES** TOTAL (INSTALLED) COST $	**SENSORS** TOTAL (INSTALLED) COST $	**MATERIAL** TOTAL (INSTALLED) COST $	SIMPLE PAYBACK NET OF REBATE (YEARS)
Mawbey Street Elementary School #01	27,930	269	19,764	33,702	0.71	269	14,352	21,302	0.51	5,412	12,400	3,101	$1,996	$499	$2,496	4.1	$2,900	$18,794	$5,231	$24,025	**8.5**

12%	PERCENTAGE OF REBATES IN TOTAL INSTALLED COST
63%	PERCENTAGE OF CONSUMPTION COMPARE TO EXISTING STATE
26%	EXISTING PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING
17%	PROPOSED PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Mawbey Street Elementary School #01	FACILITY SQ. FT. 27,930	DATE OF AUDIT: 2/26/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES										ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.161	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
1	160101	CLASSROOM 1	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$54	$614	$215	$719
2	160101	CLASSROOM 1 REST ROOM	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	360	22		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	360	5	5	46	46	0	17	0	$3	$16	$0	$16
3	160102	CLASSROOM 3	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$54	$614	$215	$719
4	160102	CLASSROOM 3 REST ROOM	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	360	22		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	360	5	5	46	46	0	17	0	$3	$16	$0	$16
5	160103	CLASSROOM 5	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$54	$614	$215	$719
6	160103	CLASSROOM 5 REST ROOM	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	360	22		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	360	5	5	46	46	0	17	0	$3	$16	$0	$16
7	160104	CLASSROOM 7	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$54	$614	$215	$719
8	160104	CLASSROOM 7 REST ROOM	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	360	22		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	360	5	5	46	46	0	17	0	$3	$16	$0	$16
9	160105	CLASSROOM 9	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$54	$614	$215	$719
10	160105	CLASSROOM 9 REST ROOM	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	360	22		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	360	5	5	46	46	0	17	0	$3	$16	$0	$16
11	160106	MECHANICAL	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	360	125		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42				252	360	91	91	16	96	0	35	0	$6	$410	$0	$350
12	160107	CUSTODIAN OFFICE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,610	303		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,610	219	219	16	32	0	84	0	$13	$137	$0	$117
13	160108	MECHANICAL	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	2	34	68	360	24		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	2	28				56	360	20	20	6	12	0	4	0	$1	$121	$0	$101
14	160109	FACULTY ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	306	Wall	1	126	1,224	193	154	16	48	306	73	39	$18	$205	$215	$389
15	160109	FACULTY ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
16	160110	SPEECH	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$54	$614	$215	$719
17	160111	NURSE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	1,530	177		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	1,530	129	129	16	32	0	49	0	$8	$137	$0	$117
18	160111	NURSE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
19	160111	NURSE REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
20	160112	MAIN OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,070	360		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	2,070	261	261	16	48	0	99	0	$16	$205	$0	$175
21	160112	MAIN OFFICE	4'x4' Troffer w/ (6) FO32T8/32w Lamps & (2) Electronic Ballasts	1	166	166	2,070	344		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast (2) 2x4 Silver Reflector Kit, New Prismatic Lens	1	84				84	2,070	174	174	82	82	0	170	0	$27	$176	$0	$166
22	160113	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
23	160114	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
24	160115	MAIN OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	2,070	480		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42	724.5	Wall	1	168	1,346	348	226	16	64	725	132	122	$41	$273	$215	$448
25	160116	MENS REST ROOM	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast 2'x2' Silver Reflector Kit	1	28	252	Wall	1	28	108	10	3	30	30	252	11	7	$3	$72	$215	$276
26	160116	MENS REST ROOM	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
27	160117	JC	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	1,500	51		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	1,500	42	42	6	6	0	9	0	$1	$60	$0	$50
28	160118	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,610	454		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	522	Ceiling	1	126	2,088	329	263	16	48	522	125	66	$31	$205	$363	$538
29	160119	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,610	454		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	522	Ceiling	1	126	2,088	329	263	16	48	522	125	66	$31	$205	$363	$538
30	160120	CLASSROOM 15	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	9	112	1,008	1,530	1,542		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	9	84	306	Wall	1	756	1,224	1,157	925	28	252	306	386	231	$99	$755	$215	$859
31	160121	CLASSROOM 17	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	9	112	1,008	1,530	1,542		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	9	84	306	Wall	1	756	1,224	1,157	925	28	252	306	386	231	$99	$755	$215	$859
32	160122	CLASSROOM 10	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	9	112	1,008	1,530	1,542		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	9	84	306	Wall	1	756	1,224	1,157	925	28	252	306	386	231	$99	$755	$215	$859
33	160123	CLASSROOM 12	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	9	112	1,008	1,530	1,542		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	9	84	306	Wall	1	756	1,224	1,157	925	28	252	306	386	231	$99	$755	$215	$859
34	160124	CLASSROOM 14	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	9	112	1,008	1,530	1,542		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	9	84	306	Wall	1	756	1,224	1,157	925	28	252	306	386	231	$99	$755	$215	$859
35	160125	CLASSROOM 16	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	9	112	1,008	1,530	1,542		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	9	84	306	Wall	1	756	1,224	1,157	925	28	252	306	386	231	$99	$755	$215	$859
36	160126	CLASSROOM 18	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	9	112	1,008	1,530	1,542		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	9	84	306	Wall	1	756	1,224	1,157	925	28	252	306	386	231	$99	$755	$215	$859

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER:	Woodbridge School District	FACILITY SQ. FT.	DATE OF AUDIT:
	FACILITY:	Mawbey Street Elementary School #01	27,930	2/26/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.161	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
37	160127	MEDIA CENTER	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	2,610	1,817	74	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42				504	2,610	1,315	1,315	16	192	0	501	0	$81	$819	$0	$699
38	160127	MEDIA CENTER	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	2,610	167		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	2,610	115	115	10	20	0	52	0	$8	$101	$0	$81
39	160127	MEDIA CENTER	Exit Sign w/ (2) 15W Incandescent Lamps Battery Backup	1	30	30	8,760	263		New LED Exit Sign w/ Battery backup	1	2				2	8,760	18	18	28	28	0	245	0	$39	$94	$0	$84
40	160128	GIRLS REST ROOM	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	2,610	157		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	2,610	37	37	46	46	0	120	0	$19	$16	$0	$16
41	160129	BOYS REST ROOM	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	2,610	157		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	2,610	37	37	46	46	0	120	0	$19	$16	$0	$16
42	160130	COMPUTER ROOM	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	2	112	224	1,530	343	60	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84	306	Wall	1	168	1,224	257	206	28	56	306	86	51	$22	$168	$215	$362
43	160130	COMPUTER ROOM	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	1,530	177		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	1,530	129	129	16	32	0	49	0	$8	$137	$0	$117
44	160131	CLASSROOM 21	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$48	$546	$215	$661
45	160131	CLASSROOM 21	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	1,530	98		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	1,530	67	67	10	20	0	31	0	$5	$101	$0	$81
46	160132	BOYS REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	2,610	89		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,610	73	73	6	6	0	16	0	$3	$60	$0	$50
47	160133	GIRLS REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	2,610	89		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,610	73	73	6	6	0	16	0	$3	$60	$0	$50
48	160134	CLASSROOM 26	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$54	$614	$215	$719
49	160135	CLASSROOM 26	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$54	$614	$215	$719
50	160131	CLASSROOM 21	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	4	112	448	1,530	685		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	4	84	306	Wall	1	336	1,224	514	411	28	112	306	171	103	$44	$335	$215	$490
51	160131	CLASSROOM 21	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	1,530	89		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	1,530	64	64	16	16	0	24	0	$4	$68	$0	$58
52	160136	WOMENS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
53	160136	WOMENS REST ROOM	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast 2'x2' Silver Reflector Kit	1	28				28	360	10	10	30	30	0	11	0	$2	$72	$0	$62
54	160137	MULTIPURPOSE	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	16	112	1,792	2,610	4,677	26	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	16	84				1,344	2,610	3,508	3,508	28	448	0	1,169	0	$188	$1,342	$0	$1,182
55	160137	MULTIPURPOSE	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,610	303		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,610	219	219	16	32	0	84	0	$13	$137	$0	$117
56	160138	STORAGE	Compact Fluorescent Circleline Drum Fixture w/ (1) FC8T9 & (1) FC12T9 Circleline Lamp and (1) Magnetic Ballast	6	47	282	360	102		None	6	47				282	360	102	102	0	0	0	0	0	$0	$0	$0	$0
57	160139	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	360	42		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117
58	160140	STORAGE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	4	32	128	360	46		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	4	22				88	360	32	32	10	40	0	14	0	$2	$203	$0	$163
59	160141	CORRIDORS	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	20	58	1,160	2,610	3,028	28	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	20	42				840	2,610	2,192	2,192	16	320	0	835	0	$134	$1,365	$0	$1,165
				269		**19,764**		**33,702**			**269**				**23**	**14,352**		**24,403**	**21,302**		**5,412**	**7,835**	**9,299**	**3,101**	**$1,996**	**$18,794**	**$5,231**	**$21,125**

LIGHTING RETROFIT SUMMARY FOR:
Avenel Street Elementary School #4/5
230 Avenel Street, Avenel, NJ 07001

BUILDING INFORMATION		EXISTING FIXTURES				PROPOSED FIXTURES				SAVINGS						FINANCIAL					
BUILDING	SQ. FT.	PRE TOTAL FIXT. QTY	PRE TOTAL FIXT. WATTS	PRE ANNUAL KWH CONSUMPTION	PRE WATTS / SQ. FT	POST TOTAL FIXT. QTY	POST TOTAL FIXT. WATTS	POST ANNUAL KWH CONSUMPTION	POST WATTS / SQ. FT	WATTS SAVED	ANNUAL KWH SAVED	ANNUAL KWH SAVED WITH SENSORS	ANNUAL SAVINGS $ FIXT.	ANNUAL SAVINGS $ SENSORS	ANNUAL SAVINGS $ TOTAL	CO2 REDUCTION (TONS)	NJ Smart Start REBATE $	**FIXTURES** TOTAL (INSTALLED) COST $	**SENSORS** TOTAL (INSTALLED) COST $	**MATERIAL** TOTAL (INSTALLED) COST $	SIMPLE PAYBACK NET OF REBATE (YEARS)
Avenel Street Elementary School #4/5	**41,979**	**435**	**36,505**	**69,555**	**0.87**	**435**	**26,183**	**43,958**	**0.62**	**10,322**	**25,597**	**4,330**	**$4,019**	**$680**	**$4,699**	**8.5**	**$4,570**	**$36,130**	**$7,757**	**$43,887**	**8.4**

10%	**PERCENTAGE OF REBATES IN TOTAL INSTALLED COST**
63%	**PERCENTAGE OF CONSUMPTION COMPARE TO EXISTING STATE**
32%	**EXISTING PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**
20%	**PROPOSED PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Avenel Street Elementary School #4/5	FACILITY SQ. FT. 41,979	DATE OF AUDIT: 2/25/2013

SPACE DESCRIPTION			EXISTING FIXTURES						REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS **2610**	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS **2610**	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) **$0.157**	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
1	030101	ART/MUSIC	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	8	112	896	1,530	1,371	48	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	8	84	306	Wall	**1**	672	1,224	1,028	823	28	224	306	343	206	$86	$671	$215	$785
2	030102	CAFETERIA	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	7	58	406	2,610	1,060	36	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	7	42				294	2,610	767	767	16	112	0	292	0	$46	$478	$0	$408
3	030102	CAFETERIA	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	2,610	251		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	2,610	172	172	10	30	0	78	0	$12	$152	$0	$122
4	030103	BREAK ROOM	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	1,530	89		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	1,530	64	64	16	16	0	24	0	$4	$68	$0	$58
5	030104	MECHANICAL ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	360	42		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117
6	030104	MECHANICAL ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	360	35		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	360	24	24	10	30	0	11	0	$2	$152	$0	$122
7	030105	STORAGE	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	360	22		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	360	5	5	46	46	0	17	0	$3	$16	$0	$16
8	030106	ART ROOM	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	4	112	448	1,530	685		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	4	84				336	1,530	514	514	28	112	0	171	0	$27	$335	$0	$295
9	030107	OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,070	174	174	16	32	0	66	0	$10	$137	$0	$117
10	030107	OFFICE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	2,070	66		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	2,070	46	46	10	10	0	21	0	$3	$51	$0	$41
11	030107	OFFICE LOBBY	Fixture w/ 23w Screw-In CFL	1	23	23	2,070	48		None	1	23				23	2,070	48	48	0	0	0	0	0	$0	$0	$0	$0
12	030108	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,610	454	50	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	522	Ceiling	**1**	126	2,088	329	263	16	48	522	125	66	$30	$205	$363	$538
13	030108	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$146	$0	$136
14	030109	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
15	030109	STORAGE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	360	12		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41
16	030110	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,610	454	48	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	522	Ceiling	**1**	126	2,088	329	263	16	48	522	125	66	$30	$205	$363	$538
17	030110	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$146	$0	$136
18	030111	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
19	030112	CORRIDOR	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	2,610	1,754	58	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84				504	2,610	1,315	1,315	28	168	0	438	0	$69	$503	$0	$443
20	030112	CORRIDOR	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts Batery Backup	2	112	224	2,610	585		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast Battery Backup	2	84				168	2,610	438	438	28	56	0	146	0	$23	$382	$0	$362
21	030112	CORRIDOR	Exit Sign w/ (2) 15W Incandescent Lamps	2	30	60	8,760	526		New LED Exit Sign w/ Battery backup	2	2				4	8,760	35	35	28	56	0	491	0	$77	$189	$0	$169
22	030301	CLASSROOM 28	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	**1**	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
23	030301	CLASSROOM 28	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$12	$205	$0	$175
24	030302	CLASSROOM 27	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	**1**	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
25	030302	CLASSROOM 27	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$12	$205	$0	$175
26	030303	CLASSROOM 26	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	**1**	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
27	030303	CLASSROOM 26	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$12	$205	$0	$175
28	030304	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
29	030305	REST ROOM	Incandescent Poker Hat Fixture w/ (1) 60w Incandescent Lamp	1	60	60	2,610	157		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	2,610	37	37	46	46	0	120	0	$19	$16	$0	$16
30	030306	CLASSROOM 25	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	**1**	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
31	030306	CLASSROOM 25	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$12	$205	$0	$175
32	030307	OFFICE	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	1	112	112	2,070	232		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84	724.5	Wall	**1**	84	1,346	174	113	28	28	725	58	61	$19	$84	$215	$288
33	030308	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,610	454		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	2,610	329	329	16	48	0	125	0	$20	$205	$0	$175
34	030308	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	3	58	174	2,610	454		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	3	42				126	2,610	329	329	16	48	0	125	0	$20	$439	$0	$409
35	030308	CORRIDOR	Exit Sign w/ (2) 15W Incandescent Lamps	2	30	60	8,760	526		New LED Exit Sign w/ Battery backup	2	2				4	8,760	35	35	28	56	0	491	0	$77	$189	$0	$169
36	030309	STAIRS 1	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts Batery Backup	8	112	896	2,610	2,339		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast Battery Backup	8	84				672	2,610	1,754	1,754	28	224	0	585	0	$92	$1,529	$0	$1,449

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Avenel Street Elementary School #4/5	FACILITY SQ. FT. 41,979	DATE OF AUDIT: 2/25/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.157	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
37	030310	STAIRS 2	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts Batery Backup	8	112	896	2,610	2,339		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast Battery Backup	8	84				672	2,610	1,754	1,754	28	224	0	585	0	$92	$1,529	$0	$1,449
38	030201	CLASSROOM 24	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
39	030201	CLASSROOM 24	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$12	$205	$0	$175
40	030202	CLASSROOM 23	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
41	030202	CLASSROOM 23	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$12	$205	$0	$175
42	030203	CLASSROOM 22	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
43	030203	CLASSROOM 22	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$12	$205	$0	$175
44	030204	MULTIPURPOSE ROOM	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	16	112	1,792	2,610	4,677	30	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	16	84				1,344	2,610	3,508	3,508	28	448	0	1,169	0	$184	$1,342	$0	$1,182
45	030204	STAGE	Incandescent Fixture w/ (1) 150w Incandescent PAR38 Lamp	2	150	300	360	108		17/18W LED PAR38 Screw-In Lamp, Outdoor Rated, Dimmable / PHILIPS	2	18				36	360	13	13	132	264	0	95	0	$15	$176	$0	$176
46	030205	STORAGE	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	1	112	112	360	40		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	1	42				42	360	15	15	70	70	0	25	0	$4	$101	$0	$91
47	030206	STORAGE	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	1	112	112	360	40		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	1	42				42	360	15	15	70	70	0	25	0	$4	$101	$0	$91
48	030207	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
49	030208	REST ROOM	Fixture w/ 23w Screw-In CFL	1	23	23	2,610	60		None	1	23				23	2,610	60	60	0	0	0	0	0	$0	$0	$0	$0
50	030209	CLASSROOM 21	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	9	112	1,008	1,530	1,542		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	9	84	306	Wall	1	756	1,224	1,157	925	28	252	306	386	231	$97	$755	$215	$859
51	030210	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	5	58	290	2,610	757		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	5	42				210	2,610	548	548	16	80	0	209	0	$33	$341	$0	$291
52	030210	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	4	58	232	2,610	606		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	4	42				168	2,610	438	438	16	64	0	167	0	$26	$585	$0	$545
53	030210	CORRIDOR	Exit Sign w/ LED	2	2	4	8,760	35		None	2	2				4	8,760	35	35	0	0	0	0	0	$0	$0	$0	$0
54	030211	STAIRS	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts Batery Backup	2	112	224	2,610	585		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast Battery Backup	2	84				168	2,610	438	438	28	56	0	146	0	$23	$382	$0	$362
55	030212	LOBBY	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$68	$0	$58
56	030212	LOBBY	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$146	$0	$136
57	030213	CLASSROOM 9	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
58	030214	CLASSROOM 10	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
59	030215	NURSE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	1,530	177		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	1,530	129	129	16	32	0	49	0	$8	$137	$0	$117
60	030215	NURSE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
61	030215	NURSE REST ROOM	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	360	22		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	360	5	5	46	46	0	17	0	$3	$16	$0	$16
62	030216	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,610	303		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	522	Ceiling	1	84	2,088	219	175	16	32	522	84	44	$20	$137	$363	$480
63	030216	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$146	$0	$136
64	030217	MEDIA CENTER	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	8	112	896	2,610	2,339	58	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	8	84				672	2,610	1,754	1,754	28	224	0	585	0	$92	$671	$0	$591
65	030217	MEDIA CENTER	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	2,610	606		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	2,610	438	438	16	64	0	167	0	$26	$273	$0	$233
66	030113	STORAGE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	360	35		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	360	24	24	10	30	0	11	0	$2	$152	$0	$122
67	030114	MECHANICAL ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	360	125		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42				252	360	91	91	16	96	0	35	0	$5	$410	$0	$350
68	030220	MAIN OFFICE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,070	360		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	2,070	261	261	16	48	0	99	0	$16	$205	$0	$175
69	030221	OFFICE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,070	360		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	2,070	261	261	16	48	0	99	0	$16	$205	$0	$175
70	030222	OFFICE REST ROOM	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	360	22		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	360	5	5	46	46	0	17	0	$3	$16	$0	$16
71	030223	STORAGE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
72	030224	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,610	454		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	522	Ceiling	1	126	2,088	329	263	16	48	522	125	66	$30	$205	$363	$538

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Avenel Street Elementary School #4/5	FACILITY SQ. FT. 41,979	DATE OF AUDIT: 2/25/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.157	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
73	030224	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$146	$0	$136
74	030225	BREAK ROOM	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	3	112	336	2,070	696		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	3	84				252	2,070	522	522	28	84	0	174	0	$27	$252	$0	$222
75	030225	BREAK ROOM REST ROOM	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	360	22		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	360	5	5	46	46	0	17	0	$3	$16	$0	$16
76	030226	CLASSROOM 1	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
77	030227	STORAGE	Compact Fluorescent Circleline Drum Fixture w/ (1) FC8T9 & (1) FC12T9 Circleline Lamp and (1) Magnetic Ballast	1	47	47	360	17		None	1	47				47	360	17	17	0	0	0	0	0	$0	$0	$0	$0
78	030228	COAT ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	360	23		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	360	16	16	10	20	0	7	0	$1	$101	$0	$81
79	030229	REST ROOM	Compact Fluorescent Circleline Drum Fixture w/ (1) FC8T9 & (1) FC12T9 Circleline Lamp and (1) Magnetic Ballast	1	47	47	2,610	123		None	1	47				47	2,610	123	123	0	0	0	0	0	$0	$0	$0	$0
80	030230	ENTRANCE	Compact Fluorescent Circleline Drum Fixture w/ (1) FC8T9 & (1) FC12T9 Circleline Lamp and (1) Magnetic Ballast	1	47	47	2,610	123		None	1	47				47	2,610	123	123	0	0	0	0	0	$0	$0	$0	$0
81	030230	ENTRANCE	Exit Sign w/ (2) 15W Incandescent Lamps	1	30	30	8,760	263		New LED Exit Sign w/ Battery backup	1	2				2	8,760	18	18	28	28	0	245	0	$39	$94	$0	$84
82	030231	REST ROOM	Compact Fluorescent Circleline Drum Fixture w/ (1) FC8T9 & (1) FC12T9 Circleline Lamp and (1) Magnetic Ballast	1	47	47	2,610	123		None	1	47				47	2,610	123	123	0	0	0	0	0	$0	$0	$0	$0
83	030232	CLASSROOM 2	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84				504	1,530	771	771	28	168	0	257	0	$40	$503	$0	$443
84	030233	STORAGE	Compact Fluorescent Circleline Drum Fixture w/ (1) FC8T9 & (1) FC12T9 Circleline Lamp and (1) Magnetic Ballast	1	47	47	360	17		None	1	47				47	360	17	17	0	0	0	0	0	$0	$0	$0	$0
85	030234	CLASSROOM 6	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
86	030234	CLASSROOM 6	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	1,530	177		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	1,530	129	129	16	32	0	49	0	$8	$137	$0	$117
87	030235	CLASSROOM 5	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
88	030235	CLASSROOM 5	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	1,530	177		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	1,530	129	129	16	32	0	49	0	$8	$137	$0	$117
89	030236	CLASSROOM 4	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
90	030236	CLASSROOM 4	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	1,530	177		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	1,530	129	129	16	32	0	49	0	$8	$137	$0	$117
91	030237	CLASSROOM 3	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
92	030237	CLASSROOM 3	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	1,530	177		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	1,530	129	129	16	32	0	49	0	$8	$137	$0	$117
93	030238	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42	522	Ceiling	1	42	2,088	110	88	16	16	522	42	22	$10	$68	$363	$422
94	030238	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$146	$0	$136
95	030239	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42	522	Ceiling	1	42	2,088	110	88	16	16	522	42	22	$10	$68	$363	$422
96	030239	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$146	$0	$136
97	030240	STORAGE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	360	12		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41
98	030241	MECHANICAL ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
99	030241	MECHANICAL ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	360	12		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41
100	030242	CLASSROOM 12	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
101	030242	CLASSROOM 12	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$12	$205	$0	$175
102	030243	CLASSROOM 13	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
103	030243	CLASSROOM 13	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$12	$205	$0	$175
104	030244	CLASSROOM 14	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
105	030244	CLASSROOM 14	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$12	$205	$0	$175
106	030245	CLASSROOM 15	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
107	030245	CLASSROOM 15	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$12	$205	$0	$175
108	030246	CLASSROOM 16	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Avenel Street Elementary School #4/5	FACILITY SQ. FT. 41,979	DATE OF AUDIT: 2/25/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES										ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.157	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
109	030246	CLASSROOM 16	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$12	$205	$0	$175
110	030247	CLASSROOM 17	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
111	030247	CLASSROOM 17	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$12	$205	$0	$175
112	030248	CLASSROOM 18	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
113	030248	CLASSROOM 18	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$12	$205	$0	$175
114	030249	CLASSROOM 19	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
115	030249	CLASSROOM 19	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$12	$205	$0	$175
116	030250	CLASSROOM 11	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
117	030250	CLASSROOM 11	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$12	$205	$0	$175
118	030251	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	16	58	928	2,610	2,422		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	16	42				672	2,610	1,754	1,754	16	256	0	668	0	$105	$1,092	$0	$932
119	030251	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	16	58	928	2,610	2,422		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	16	42				672	2,610	1,754	1,754	16	256	0	668	0	$105	$2,340	$0	$2,180
120	030251	CORRIDOR	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast	2	58	116	2,610	303		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast 2'x2' Silver Reflector Kit	2	28				56	2,610	146	146	30	60	0	157	0	$25	$143	$0	$123
121	030251	CORRIDOR	Exit Sign w/ (2) 15W Incandescent Lamps	3	30	90	8,760	788		New LED Exit Sign w/ Battery backup	3	2				6	8,760	53	53	28	84	0	736	0	$116	$283	$0	$253
122	03EXT	EXTERIOR	Downlight Fixture w/ (1) 60w Incandescent Lamp	12	60	720	4,745	3,416		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	12	14				168	4,745	797	797	46	552	0	2,619	0	$411	$195	$0	$195
				435		**36,505**		**69,555**			**435**				**32**	**26,183**		**48,288**	**43,958**		**10,322**	**11,507**	**21,267**	**4,330**	**$4,019**	**$36,130**	**$7,757**	**$39,317**

HOURS 113 AGE OR REBATES)

LIGHTING RETROFIT SUMMARY FOR:
Port Reading Elementary School #09
77 Turner Street, Port Readintg, NJ 07064

BUILDING INFORMATION		EXISTING FIXTURES				PROPOSED FIXTURES				SAVINGS						FINANCIAL					
BUILDING	SQ. FT.	PRE TOTAL FIXT. QTY	PRE TOTAL FIXT. WATTS	PRE ANNUAL KWH CONSUMPTION	PRE WATTS / SQ. FT	POST TOTAL FIXT. QTY	POST TOTAL FIXT. WATTS	POST ANNUAL KWH CONSUMPTION	POST WATTS / SQ. FT	WATTS SAVED	ANNUAL KWH SAVED	ANNUAL KWH SAVED WITH SENSORS	ANNUAL SAVINGS $ FIXT.	ANNUAL SAVINGS $ SENSORS	ANNUAL SAVINGS $ TOTAL	CO2 REDUCTION (TONS)	NJ Smart Start REBATE $	**FIXTURES** TOTAL (INSTALLED) COST $	**SENSORS** TOTAL (INSTALLED) COST $	**MATERIAL** TOTAL (INSTALLED) COST $	SIMPLE PAYBACK NET OF REBATE (YEARS)
Port Reading Elementary School #09	**47,198**	**508**	**46,813**	**87,582**	**0.99**	**508**	**34,013**	**56,401**	**0.72**	**12,800**	**31,181**	**6,253**	**$5,363**	**$1,075**	**$6,439**	**10.3**	**$5,920**	**$36,482**	**$7,674**	**$44,156**	**5.9**

13%	**PERCENTAGE OF REBATES IN TOTAL INSTALLED COST**
64%	**PERCENTAGE OF CONSUMPTION COMPARE TO EXISTING STATE**
37%	**EXISTING PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**
24%	**PROPOSED PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Port Reading Elementary School #09	FACILITY SQ. FT. 47,198	DATE OF AUDIT: 2/28/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES										ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.172	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
1	200101	MAIN OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	2,070	480	45	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	2,070	348	348	16	64	0	132	0	$23	$273	$0	$233
2	200101	MAIN OFFICE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	2,070	199		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	2,070	137	137	10	30	0	62	0	$11	$152	$0	$122
3	200102	STORAGE	Incandescent Drum Fixture w/ (1) 60w Incandescent Lamp	1	60	60	360	22		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	360	5	5	46	46	0	17	0	$3	$16	$0	$16
4	200103	OFFICE	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	2	112	224	2,070	464	56	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84	724.5	Wall	1	168	1,346	348	226	28	56	725	116	122	$41	$168	$215	$362
5	200103	OFFICE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,070	120		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,070	87	87	16	16	0	33	0	$6	$68	$0	$58
6	200104	NURSE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	1,530	177		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	1,530	129	129	16	32	0	49	0	$8	$137	$0	$117
7	200105	CLASSROOM 3	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028	25	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$71	$503	$215	$638
8	200106	CLASSROOM 3 & 5 REST ROOMS	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	3	34	102	360	37		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	3	28				84	360	30	30	6	18	0	6	0	$1	$181	$0	$151
9	200107	CLASSROOM 5	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	8	112	896	1,530	1,371		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	8	84	306	Wall	1	672	1,224	1,028	823	28	224	306	343	206	$94	$671	$215	$785
10	200108	ENTRANCE	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	2,610	89		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,610	73	73	6	6	0	16	0	$3	$60	$0	$50
11	200109	CLASSROOM 4	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	9	112	1,008	1,530	1,542	56	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	9	84	306	Wall	1	756	1,224	1,157	925	28	252	306	386	231	$106	$755	$215	$859
12	200110	STORAGE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	360	42		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117
13	200111	CLASSROOM 2 & 4 REST ROOMS	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
14	200111	CLASSROOM 2 & 4 REST ROOMS	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	2	34	68	360	24		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	2	28				56	360	20	20	6	12	0	4	0	$1	$121	$0	$101
15	200112	CLASSROOM 2	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	12	112	1,344	1,530	2,056		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	12	84	306	Wall	1	1,008	1,224	1,542	1,234	28	336	306	514	308	$141	$1,006	$215	$1,081
16	200113	CORRIDOR	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	7	32	224	2,610	585		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	7	22				154	2,610	402	402	10	70	0	183	0	$31	$355	$0	$285
17	200113	CORRIDOR	Exit Sign w/ LED	1	2	2	8,760	18		None	1	2				2	8,760	18	18	0	0	0	0	0	$0	$0	$0	$0
18	200114	STORAGE	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	2	112	224	360	81		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84				168	360	60	60	28	56	0	20	0	$3	$168	$0	$148
19	200115	CLASSROOM	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	2	112	224	1,530	343		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84	306	Wall	1	168	1,224	257	206	28	56	306	86	51	$24	$168	$215	$362
20	200116	CLASSROOM 21	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	9	112	1,008	1,530	1,542		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	9	84	306	Wall	1	756	1,224	1,157	925	28	252	306	386	231	$106	$755	$215	$859
21	200117	CLASSROOM 21 & 23 REST ROOMS	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
22	200117	CLASSROOM 21 & 23 REST ROOMS	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	2	34	68	360	24		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	2	28				56	360	20	20	6	12	0	4	0	$1	$121	$0	$101
23	200118	CLASSROOM 23	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	9	112	1,008	1,530	1,542		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	9	84	306	Wall	1	756	1,224	1,157	925	28	252	306	386	231	$106	$755	$215	$859
24	200119	CLASSROOM 25	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	9	112	1,008	1,530	1,542		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	9	84	306	Wall	1	756	1,224	1,157	925	28	252	306	386	231	$106	$755	$215	$859
25	200120	CLASSROOM 25 & 27 REST ROOMS	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
26	200120	CLASSROOM 25 & 27 REST ROOMS	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	2	34	68	360	24		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	2	28				56	360	20	20	6	12	0	4	0	$1	$121	$0	$101
27	200121	CLASSROOM 27	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	9	112	1,008	1,530	1,542		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	9	84	306	Wall	1	756	1,224	1,157	925	28	252	306	386	231	$106	$755	$215	$859
28	200122	ENTRANCE	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	2,610	89		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,610	73	73	6	6	0	16	0	$3	$60	$0	$50
29	200123	CLASSROOM 26	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	8	112	896	1,530	1,371		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	8	84	306	Wall	1	672	1,224	1,028	823	28	224	306	343	206	$94	$671	$215	$785
30	200124	CLASSROOM 24 & 26 REST ROOMS	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
31	200124	CLASSROOM 24 & 26 REST ROOMS	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	2	34	68	360	24		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	2	28				56	360	20	20	6	12	0	4	0	$1	$121	$0	$101
32	200125	CLASSROOM 24	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	9	112	1,008	1,530	1,542		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	9	84	306	Wall	1	756	1,224	1,157	925	28	252	306	386	231	$106	$755	$215	$859
33	200126	CLASSROOM 22	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	9	112	1,008	1,530	1,542		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	9	84	306	Wall	1	756	1,224	1,157	925	28	252	306	386	231	$106	$755	$215	$859
34	200127	CLASSROOM 20 & 22 REST ROOMS	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
35	200127	CLASSROOM 20 & 22 REST ROOMS	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	2	34	68	360	24		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	2	28				56	360	20	20	6	12	0	4	0	$1	$121	$0	$101
36	200128	CLASSROOM 20	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	9	112	1,008	1,530	1,542		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	9	84	306	Wall	1	756	1,224	1,157	925	28	252	306	386	231	$106	$755	$215	$859

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Port Reading Elementary School #09	FACILITY SQ. FT. 47,198	DATE OF AUDIT: 2/28/2013

SPACE DESCRIPTION			EXISTING FIXTURES						REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.172	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
37	200129	CLASSROOM 28	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	10	112	1,120	1,530	1,714		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	10	84	306	Wall	1	840	1,224	1,285	1,028	28	280	306	428	257	$118	$839	$215	$933
38	200130	JC	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	1,500	51		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	1,500	42	42	6	6	0	9	0	$2	$60	$0	$50
39	200131	CORRIDOR	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	12	32	384	2,610	1,002		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	12	22				264	2,610	689	689	10	120	0	313	0	$54	$608	$0	$488
40	200131	CORRIDOR	Exit Sign w/ LED	1	2	2	8,760	18		None	1	2				2	8,760	18	18	0	0	0	0	0	$0	$0	$0	$0
41	200132	MENS REST ROOM	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
42	200132	MENS REST ROOM	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	360	22		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	360	5	5	46	46	0	17	0	$3	$16	$0	$16
43	200133	WOMENS REST ROOM	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	360	42		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117
44	200133	WOMENS REST ROOM	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	360	22		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	360	5	5	46	46	0	17	0	$3	$16	$0	$16
45	200134	STORAGE	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
46	200135	BREAK ROOM	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	9	112	1,008	1,530	1,542		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	9	84				756	1,530	1,157	1,157	28	252	0	386	0	$66	$755	$0	$665
47	200136	CLASSROOM 33	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	9	112	1,008	1,530	1,542		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	9	84	306	Wall	1	756	1,224	1,157	925	28	252	306	386	231	$106	$755	$215	$859
48	200137	CLASSROOM 35	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	9	112	1,008	1,530	1,542		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	9	84	306	Wall	1	756	1,224	1,157	925	28	252	306	386	231	$106	$755	$215	$859
49	200138	CLASSROOM 37	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	9	112	1,008	1,530	1,542		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	9	84	306	Wall	1	756	1,224	1,157	925	28	252	306	386	231	$106	$755	$215	$859
50	200139	CLASSROOM 39	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	9	112	1,008	1,530	1,542		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	9	84	306	Wall	1	756	1,224	1,157	925	28	252	306	386	231	$106	$755	$215	$859
51	200140	ENTRANCE	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$68	$0	$58
52	200141	JC	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,500	48		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,500	33	33	10	10	0	15	0	$3	$51	$0	$41
53	200142	CLASSROOM 40	2'x4' Troffer w/ (3) FO32T8 Lamps & (2) Electronic Ballasts Dual Switched	12	92	1,104	1,530	1,689		Relamp & Reballast w/ (3) F28T8 (1) 2/32 Elec. LP & (1) 1/32 Elec. Low-Power High Efficiency Ballasts Dual Switched	12	64	306	Wall	1	768	1,224	1,175	940	28	336	306	514	235	$129	$0	$215	$75
54	200143	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,610	454		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	522	Ceiling	1	126	2,088	329	263	16	48	522	125	66	$33	$205	$363	$538
55	200143	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	2	58	116	2,610	303		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	2	42				84	2,610	219	219	16	32	0	84	0	$14	$293	$0	$273
56	200144	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,610	454		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	522	Ceiling	1	126	2,088	329	263	16	48	522	125	66	$33	$205	$363	$538
57	200144	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	2	58	116	2,610	303		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	2	42				84	2,610	219	219	16	32	0	84	0	$14	$293	$0	$273
58	200145	CLASSROOM 41	2'x4' Troffer w/ (3) FO32T8 Lamps & (2) Electronic Ballasts Dual Switched	11	92	1,012	1,530	1,548		Relamp & Reballast w/ (3) F28T8 (1) 2/32 Elec. LP & (1) 1/32 Elec. Low-Power High Efficiency Ballasts Dual Switched	11	64	306	Wall	1	704	1,224	1,077	862	28	308	306	471	215	$118	$0	$215	$85
59	200146	MECHANICAL	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	360	12		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41
60	200147	CLASSROOM 42	2'x4' Troffer w/ (3) FO32T8 Lamps & (2) Electronic Ballasts Dual Switched	12	92	1,104	1,530	1,689		Relamp & Reballast w/ (3) F28T8 (1) 2/32 Elec. LP & (1) 1/32 Elec. Low-Power High Efficiency Ballasts Dual Switched	12	64	306	Wall	1	768	1,224	1,175	940	28	336	306	514	235	$129	$0	$215	$75
61	200148	CLASSROOM 43	Downlight Fixture w/ (2) 32w Lamp and (1) Electronic Ballast	4	70	280	1,530	428		None	4	70	306	Wall	1	280	1,224	428	343	0	0	306	0	86	$15	$0	$215	$195
62	200148	CLASSROOM 43	2'x4' Troffer w/ (3) FO32T8 Lamps & (2) Electronic Ballasts Dual Switched	12	92	1,104	1,530	1,689		Relamp & Reballast w/ (3) F28T8 (1) 2/32 Elec. LP & (1) 1/32 Elec. Low-Power High Efficiency Ballasts Dual Switched	12	64				768	1,530	1,175	1,175	28	336	0	514	0	$88	$0	$0	-$120
63	200148	CLASSROOM 43	Compact Fluorescent Fixture w/ (4) 32w Lamp and (2) Electronic Ballast	1	140	140	1,530	214		None	1	140				140	1,530	214	214	0	0	0	0	0	$0	$0	$0	$0
64	200148	CLASSROOM 43	3' Strip Fluorescent w/ (1) F25T8 Lamp & (1) Electronic Ballast	12	24	288	1,530	441		Relamp & Reballast w/ (1) F25T8 Lamps & (1) 1/25 Elec. Low-Power High Efficiency Ballast	12	21				252	1,530	386	386	3	36	0	55	0	$9	$562	$0	$442
65	200149	CLASSROOM 43 REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$146	$0	$136
66	200150	ENTRANCE	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$68	$0	$58
67	200150	ENTRANCE	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$146	$0	$136
68	200151	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	2,610	1,817		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42				504	2,610	1,315	1,315	16	192	0	501	0	$86	$819	$0	$699
69	200151	CORRIDOR	Downlight Fixture w/ (2) 32w Lamp and (1) Electronic Ballast	13	70	910	2,610	2,375		None	13	70				910	2,610	2,375	2,375	0	0	0	0	0	$0	$0	$0	$0
70	200151	CORRIDOR	Exit Sign w/ LED	2	2	4	8,760	35		None	2	2				4	8,760	35	35	0	0	0	0	0	$0	$0	$0	$0
71	200152	CLASSROOM 38	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	9	112	1,008	1,530	1,542		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	9	84	306	Wall	1	756	1,224	1,157	925	28	252	306	386	231	$106	$755	$215	$859
72	200153	CLASSROOM 36	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	9	112	1,008	1,530	1,542		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	9	84	306	Wall	1	756	1,224	1,157	925	28	252	306	386	231	$106	$755	$215	$859

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Port Reading Elementary School #09	FACILITY SQ. FT. 47,198	DATE OF AUDIT: 2/28/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES										ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.172	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
73	200154	CLASSROOM 34	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	9	112	1,008	1,530	1,542		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	9	84	306	Wall	1	756	1,224	1,157	925	28	252	306	386	231	$106	$755	$215	$859
74	200155	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,610	303		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	522	Ceiling	1	84	2,088	219	175	16	32	522	84	44	$22	$137	$363	$480
75	200155	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	2	58	116	2,610	303		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	2	42				84	2,610	219	219	16	32	0	84	0	$14	$293	$0	$273
76	200157	JC	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	360	22		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	360	5	5	46	46	0	17	0	$3	$16	$0	$16
77	200156	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,610	303		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	522	Ceiling	1	84	2,088	219	175	16	32	522	84	44	$22	$137	$363	$480
78	200156	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	2	58	116	2,610	303		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	2	42				84	2,610	219	219	16	32	0	84	0	$14	$293	$0	$273
79	200158	MECHANICAL	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	360	125		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42				252	360	91	91	16	96	0	35	0	$6	$410	$0	$350
80	200159	CLASSROOM 30	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	4	112	448	1,530	685		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	4	84	306	Wall	1	336	1,224	514	411	28	112	306	171	103	$47	$335	$215	$490
81	200160	CORRIDOR	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	12	32	384	2,610	1,002		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	12	22				264	2,610	689	689	10	120	0	313	0	$54	$608	$0	$488
82	200160	CORRIDOR	Exit Sign w/ LED	2	2	4	8,760	35		None	2	2				4	8,760	35	35	0	0	0	0	0	$0	$0	$0	$0
83	200161	LOBBY	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	9	32	288	2,610	752		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	9	22				198	2,610	517	517	10	90	0	235	0	$40	$456	$0	$366
84	200161	LOBBY	Exit Sign w/ LED	2	2	4	8,760	35		None	2	2				4	8,760	35	35	0	0	0	0	0	$0	$0	$0	$0
85	200162	MULTIPURPOSE	HID High Bay Fixture w/ (1) 400w Metal Halide Lamp & Ballast	9	455	4,095	2,610	10,688		New 2'x4' Singlepoint-Mount High Bay w/ (6) F54T5HO Lamps & (3) 2/54 T5 Elec. HO Ballasts Wire Guard Occupancy Sensor	9	351				3,159	2,610	8,245	8,245	104	936	0	2,443	0	$420	$3,528	$0	$2,628
86	200163	KITCHEN	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	5	58	290	1,500	435		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	5	42				210	1,500	315	315	16	80	0	120	0	$21	$341	$0	$291
87	200162	MULTIPURPOSE	Exit Sign w/ LED	4	2	8	8,760	70		None	4	2				8	8,760	70	70	0	0	0	0	0	$0	$0	$0	$0
88	200169	MEDIA CENTER	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	44	112	4,928	2,610	12,862		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	44	84				3,696	2,610	9,647	9,647	28	1,232	0	3,216	0	$553	$3,689	$0	$3,249
89	200169	MEDIA CENTER	Exit Sign w/ LED	2	2	4	8,760	35		None	2	2				4	8,760	35	35	0	0	0	0	0	$0	$0	$0	$0
90	200167	MUSIC ROOM	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	12	112	1,344	1,530	2,056		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	12	84	306	Wall	1	1,008	1,224	1,542	1,234	28	336	306	514	308	$141	$1,006	$215	$1,081
91	200164	PLAY ROOM	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	6	42	306	Wall	1	252	1,224	386	308	70	420	306	643	77	$124	$605	$215	$739
92	200165	REST ROOM	3' Wrap Fluorescent w/ (1) F25T8 Lamp & (1) Electronic Ballast	1	24	24	360	9		Relamp & Reballast w/ (1) F25T8 Lamps & (1) 1/25 Elec. Low-Power High Efficiency Ballast	1	21				21	360	8	8	3	3	0	1	0	$0	$47	$0	$37
93	200166	KITCHEN	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	1,500	51		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	1,500	42	42	6	6	0	9	0	$2	$60	$0	$50
94	200168	STORAGE	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	1	112	112	360	40		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	1	42				42	360	15	15	70	70	0	25	0	$4	$101	$0	$91
95	200169	MEDIA CENTER	Incandescent Drum Fixture w/ (1) 75w Incandescent Lamp	5	75	375	2,610	979		Relamp w/ (1) 19 watt Compact Fluorescent Screw-In	5	19				95	2,610	248	248	56	280	0	731	0	$126	$0	$0	$0
96	200170	MECHANICAL	Incandescent Vapor Proof Fixture w/ (1) 60w Incandescent Lamp	3	60	180	360	65		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	3	14				42	360	15	15	46	138	0	50	0	$9	$49	$0	$49
97	200171	WOMENS REST ROOM	3' Fixture w/ (2) F25T8 Lamp & (1) Electronic Ballast	1	46	46	360	17		Relamp & Reballast w/ (2) F25T8 Lamps & (1) 2/25 Elec. LP HE Ballast 2x Tandem Wire	1	41				41	360	15	15	5	5	0	2	0	$0	$51	$0	$41
98	200172	MENS REST ROOM	4' Fixture w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
99	20EXT	EXTERIOR	Incandescent Drum Fixture w/ (1) 75w Incandescent Lamp	3	75	225	4,745	1,068		Relamp w/ (1) 19 watt Compact Fluorescent Screw-In	3	19				57	4,745	270	270	56	168	0	797	0	$137	$0	$0	$0
100	20EXT	EXTERIOR	HID Wall Pack Fixture w/ (1) 175w Metal Halide Lamp & Ballast	4	210	840	4,745	3,986		LED (1) New 56w Wall Pack Fixture	4	56				224	4,745	1,063	1,063	154	616	0	2,923	0	$503	$1,768	$0	$1,768
				508		**46,813**		**87,582**			**508**				**33**	**34,013**		**62,654**	**56,401**		**12,800**	**11,381**	**24,928**	**6,253**	**$5,363**	**$36,482**	**$7,674**	**$38,236**

LIGHTING RETROFIT SUMMARY FOR:
Ross Street Elementary School #11
110 Ross Street, Woodbridge, NJ 07095

BUILDING INFORMATION		EXISTING FIXTURES				PROPOSED FIXTURES				SAVINGS						FINANCIAL					
BUILDING	SQ. FT.	PRE TOTAL FIXT. QTY	PRE TOTAL FIXT. WATTS	PRE ANNUAL KWH CONSUMPTION	PRE WATTS / SQ. FT	POST TOTAL FIXT. QTY	POST TOTAL FIXT. WATTS	POST ANNUAL KWH CONSUMPTION	POST WATTS / SQ. FT	WATTS SAVED	ANNUAL KWH SAVED	ANNUAL KWH SAVED WITH SENSORS	ANNUAL SAVINGS $ FIXT.	ANNUAL SAVINGS $ SENSORS	ANNUAL SAVINGS $ TOTAL	CO2 REDUCTION (TONS)	NJ Smart Start REBATE $	**FIXTURES** TOTAL (INSTALLED) COST $	**SENSORS** TOTAL (INSTALLED) COST $	**MATERIAL** TOTAL (INSTALLED) COST $	SIMPLE PAYBACK NET OF REBATE (YEARS)
Ross Street Elementary School #11	**47,484**	**418**	**33,836**	**62,698**	**0.71**	**418**	**23,532**	**38,248**	**0.50**	**10,304**	**24,450**	**3,857**	**$3,790**	**$598**	**$4,388**	**8.1**	**$4,550**	**$33,257**	**$8,103**	**$41,360**	**8.4**

11%	**PERCENTAGE OF REBATES IN TOTAL INSTALLED COST**
61%	**PERCENTAGE OF CONSUMPTION COMPARE TO EXISTING STATE**
29%	**EXISTING PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**
18%	**PROPOSED PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER:	Woodbridge School District	FACILITY SQ. FT.	DATE OF AUDIT:
	FACILITY:	Ross Street Elementary School #11	47,484	2/26/2013

SPACE DESCRIPTION			EXISTING FIXTURES						REPLACEMENT FIXTURES										ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.155	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
1	220300	CLASSROOM 20	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	6	88	528	1,530	808	41	Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	6	63				378	1,530	578	578	25	150	0	230	0	$36	$456	$0	$396
2	220301	BOYS REST ROOM	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	3	88	264	2,610	689	60	Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	3	63	522	Wall	1	189	2,088	493	395	25	75	522	196	99	$46	$228	$215	$393
3	220302	CLASSROOM 18	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	6	88	528	1,530	808		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	6	63	306	Ceiling	1	378	1,224	578	463	25	150	306	230	116	$54	$456	$363	$725
4	220303	CLASSROOM 16	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	6	88	528	1,530	808		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	6	63	306	Wall	1	378	1,224	578	463	25	150	306	230	116	$54	$456	$215	$591
5	220304	CLASSROOM 14	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	6	88	528	1,530	808		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	6	63	306	Wall	1	378	1,224	578	463	25	150	306	230	116	$54	$456	$215	$591
6	220305	OFFICE	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	3	88	264	2,070	546	46	Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	3	63	724.5	Wall	1	189	1,346	391	254	25	75	725	155	137	$45	$228	$215	$393
7	220306	CLASSROOM 12	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	6	88	528	1,530	808		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	6	63	306	Wall	1	378	1,224	578	463	25	150	306	230	116	$54	$456	$215	$591
8	220307	CLASSROOM 10	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	6	88	528	1,530	808		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	6	63	306	Wall	1	378	1,224	578	463	25	150	306	230	116	$54	$456	$215	$591
9	220308	CLASSROOM 8	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	7	88	616	1,530	942		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	7	63	306	Wall	1	441	1,224	675	540	25	175	306	268	135	$62	$532	$215	$657
10	220309	GIRLS REST ROOM	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	3	88	264	2,610	689	58	Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	3	63	522	Wall	1	189	2,088	493	395	25	75	522	196	99	$46	$228	$215	$393
11	220310	CLASSROOM 6	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	6	88	528	1,530	808		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	6	63	306	Ceiling	1	378	1,224	578	463	25	150	306	230	116	$54	$456	$363	$725
12	220311	CLASSROOM 4	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	6	88	528	1,530	808		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	6	63	306	Wall	1	378	1,224	578	463	25	150	306	230	116	$54	$456	$215	$591
13	220312	CLASSROOM 20	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	6	88	528	1,530	808		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	6	63	306	Wall	1	378	1,224	578	463	25	150	306	230	116	$54	$456	$215	$591
14	220313	CLASSROOM 24	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	6	88	528	1,530	808		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	6	63	306	Wall	1	378	1,224	578	463	25	150	306	230	116	$54	$456	$215	$591
15	220314	CLASSROOM 22	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	6	88	528	1,530	808		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	6	63	306	Wall	1	378	1,224	578	463	25	150	306	230	116	$54	$456	$215	$591
16	220315	CLASSROOM 28	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	6	88	528	1,530	808		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	6	63	306	Wall	1	378	1,224	578	463	25	150	306	230	116	$54	$456	$215	$591
17	220316	CLASSROOM 26	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	6	88	528	1,530	808		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	6	63	306	Wall	1	378	1,224	578	463	25	150	306	230	116	$54	$456	$215	$591
18	220317	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	14	58	812	2,610	2,119	34	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	14	42	522	Wall	1	588	2,088	1,535	1,228	16	224	522	585	307	$138	$956	$215	$1,010
19	220317	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	13	58	754	2,610	1,968		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	13	42				546	2,610	1,425	1,425	16	208	0	543	0	$84	$1,901	$0	$1,771
20	220318	STAIRS	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	2,610	606	9	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	2,610	438	438	16	64	0	167	0	$26	$273	$0	$233
21	220319	STAIRS	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	2,610	606		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	2,610	438	438	16	64	0	167	0	$26	$273	$0	$233
22	220320	STAIRS	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	2,610	606		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	2,610	438	438	16	64	0	167	0	$26	$273	$0	$233
23	220321	STAIRS	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	2,610	606		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	2,610	438	438	16	64	0	167	0	$26	$273	$0	$233
24	220200	CLASSROOM 17	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028	66	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84				504	1,530	771	771	28	168	0	257	0	$40	$503	$0	$443
25	220201	NURSE	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	2	112	224	1,530	343		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84	306	Wall	1	168	1,224	257	206	28	56	306	86	51	$21	$168	$215	$362
26	220202	NURSE REST ROOM	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
27	220203	CLASSROOM 15	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84				504	1,530	771	771	28	168	0	257	0	$40	$503	$0	$443
28	220204	CLASSROOM 13	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$64	$503	$215	$638
29	220205	CLASSROOM 11	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$64	$503	$215	$638
30	220206	BOOK STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	360	42		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	252	Wall	1	84	108	30	9	16	32	252	12	21	$5	$137	$215	$331
31	220206	BOOK STORAGE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	360	23		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	360	16	16	10	20	0	7	0	$1	$101	$0	$81
32	220207	CLASSROOM 9	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84				504	1,530	771	771	28	168	0	257	0	$40	$503	$0	$443
33	220208	CLASSROOM 7	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$64	$503	$215	$638
34	220209	CLASSROOM 5	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$64	$503	$215	$638
35	220210	BREAK ROOM	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	4	112	448	1,530	685	51	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	4	42	306	Wall	1	168	1,224	257	206	70	280	306	428	51	$74	$403	$215	$578
36	220211	CLASSROOM 3	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$64	$503	$215	$638

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER:	Woodbridge School District	FACILITY SQ. FT.	DATE OF AUDIT:
	FACILITY:	Ross Street Elementary School #11	47,484	2/26/2013

SPACE DESCRIPTION			EXISTING FIXTURES						REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.155	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
37	220212	CLASSROOM 1	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$64	$503	$215	$638
38	220213	FACULTY ROOM	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	3	112	336	1,530	514		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	3	42	306	Wall	1	126	1,224	193	154	70	210	306	321	39	$56	$302	$215	$487
39	220214	MAIN OFFICE	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	2	112	224	2,070	464	56	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	2	42	724.5	Wall	1	84	1,346	174	113	70	140	725	290	61	$54	$202	$215	$396
40	220215	OFFICE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,070	120		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,070	87	87	16	16	0	33	0	$5	$68	$0	$58
41	220216	REST ROOM	Fixture w/ 23w Screw-In CFL	1	23	23	360	8		None	1	23				23	360	8	8	0	0	0	0	0	$0	$0	$0	$0
42	220217	CLASSROOM 19	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84				504	1,530	771	771	28	168	0	257	0	$40	$503	$0	$443
43	220218	STORAGE	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	1	112	112	360	40		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84	252	Wall	1	84	108	30	9	28	28	252	10	21	$5	$84	$215	$288
44	220219	STORAGE	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	1	112	112	360	40		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84				84	360	30	30	28	28	0	10	0	$2	$84	$0	$74
45	220220	STAGE	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	2	112	224	360	81		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84				168	360	60	60	28	56	0	20	0	$3	$168	$0	$148
46	220221	GYM	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	28	58	1,624	2,310	3,751	22	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	28	42				1,176	2,310	2,717	2,717	16	448	0	1,035	0	$160	$1,911	$0	$1,631
47	220222	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	16	58	928	2,610	2,422		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	16	42				672	2,610	1,754	1,754	16	256	0	668	0	$104	$1,092	$0	$932
48	220222	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	15	58	870	2,610	2,271		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	15	42				630	2,610	1,644	1,644	16	240	0	626	0	$97	$2,194	$0	$2,044
49	220223	JC	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	360	22		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	360	5	5	46	46	0	17	0	$3	$16	$0	$16
50	220127	PIPE CHASE	Fixture w/ 23w Screw-In CFL	3	23	69	360	25		None	3	23				69	360	25	25	0	0	0	0	0	$0	$0	$0	$0
51	220101	REST ROOM	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	4	88	352	2,610	919	50	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	4	42				168	2,610	438	438	46	184	0	480	0	$74	$403	$0	$363
52	220101	REST ROOM	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	2,610	157		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14	522	Ceiling	1	14	2,088	37	29	46	46	522	120	7	$20	$16	$363	$380
53	220102	MENS REST ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$68	$0	$58
54	220103	JC	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	360	22		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	360	5	5	46	46	0	17	0	$3	$16	$0	$16
55	220104	AIDES ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710	37	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42				336	1,530	514	514	16	128	0	196	0	$30	$546	$0	$466
56	220105	CAFETERIA	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	2,610	1,362	48	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	522	Wall	1	378	2,088	987	789	16	144	522	376	197	$89	$614	$215	$719
57	220106	KITCHEN	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast, Surface Mounted	8	58	464	1,500	696	47	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42				336	1,500	504	504	16	128	0	192	0	$30	$546	$0	$466
58	220106	KITCHEN	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	2	112	224	1,500	336		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84				168	1,500	252	252	28	56	0	84	0	$13	$168	$0	$148
59	220106	KITCHEN REST ROOM	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
60	220107	MECHANICAL	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	14	58	812	360	292		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	14	42				588	360	212	212	16	224	0	81	0	$12	$956	$0	$816
61	220107	MECHANICAL	Incandescent Fixture w/ (1) 60w Incandescent Lamp	3	60	180	360	65		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	3	14				42	360	15	15	46	138	0	50	0	$8	$49	$0	$49
62	220108	MULTIPURPOSE	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	2,610	1,817	28	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42				504	2,610	1,315	1,315	16	192	0	501	0	$78	$819	$0	$699
63	220109	BREAK ROOM	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84				504	1,530	771	771	28	168	0	257	0	$40	$503	$0	$443
64	220109	BREAK ROOM	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	1,530	177		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	306	Wall	1	84	1,224	129	103	16	32	306	49	26	$12	$137	$215	$331
65	220110	NURSE	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	1	112	112	1,530	171		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84				84	1,530	129	129	28	28	0	43	0	$7	$84	$0	$74
66	220111	LIBRARY	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	7	112	784	2,610	2,046	47	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	7	84				588	2,610	1,535	1,535	28	196	0	512	0	$79	$587	$0	$517
67	220111	LIBRARY	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,610	303		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,610	219	219	16	32	0	84	0	$13	$137	$0	$117
68	220112	OFFICE	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	1	112	112	2,070	232		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84				84	2,070	174	174	28	28	0	58	0	$9	$84	$0	$74
69	220113	MEDIA CENTER	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84				504	1,530	771	771	28	168	0	257	0	$40	$503	$0	$443
70	220114	ELECTRICAL	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
71	220115	JC	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	360	22		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	360	5	5	46	46	0	17	0	$3	$16	$0	$16
72	220116	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	2,610	606		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	2,610	438	438	16	64	0	167	0	$26	$273	$0	$233

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Ross Street Elementary School #11	FACILITY SQ. FT. 47,484	DATE OF AUDIT: 2/26/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.155	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
73	220116	GIRLS REST ROOM	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	2,610	157		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14	522	Ceiling	1	14	2,088	37	29	46	46	522	120	7	$20	$16	$363	$380
74	220117	WOMENS REST ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$68	$0	$58
75	220118	OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,070	120		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,070	87	87	16	16	0	33	0	$5	$68	$0	$58
76	220119	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
77	220120	STORAGE	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	2	112	224	360	81		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84				168	360	60	60	28	56	0	20	0	$3	$168	$0	$148
78	220120	STORAGE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	360	42		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117
79	220121	STORAGE	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	2	112	224	360	81		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84				168	360	60	60	28	56	0	20	0	$3	$168	$0	$148
80	220122	OFFICE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,070	120		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,070	87	87	16	16	0	33	0	$5	$68	$0	$58
81	220123	CLASSROOM 30	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84				504	1,530	771	771	28	168	0	257	0	$40	$503	$0	$443
82	220124	CLASSROOM 29	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$64	$503	$215	$638
83	220125	CORRIDOR	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	2,610	908		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	522	Wall	1	252	2,088	658	526	16	96	522	251	132	$59	$410	$215	$544
84	220126	CORRIDOR	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	2,610	908		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42				252	2,610	658	658	16	96	0	251	0	$39	$410	$0	$350
85	22EXT	EXTERIOR	Incandescent Fixture w/ (1) 150w Incandescent PAR38 Lamp	4	150	600	4,745	2,847		Retrofit with 17/18W LED PAR38 Screw-In Lamp, Outdoor Rated, Dimmable / PHILIPS	4	18				72	4,745	342	342	132	528	0	2,505	0	$388	$0	$0	$0
86	22EXT	EXTERIOR	HID Wall Pack Fixture w/ (1) 175w Metal Halide Lamp & Ballast	2	210	420	4,745	1,993		LED (1) New 56w Wall Pack Fixture	2	56				112	4,745	531	531	154	308	0	1,461	0	$227	$884	$0	$884
				418		**33,836**		**62,698**			**418**				**35**	**23,532**		**42,105**	**38,248**		**10,304**	**12,951**	**20,593**	**3,857**	**$3,790**	**$33,257**	**$8,103**	**$36,810**

LIGHTING RETROFIT SUMMARY FOR:
Ford Avenue Elementary School #14
186 Ford Avenue, Fords, NJ 08863

BUILDING INFORMATION		EXISTING FIXTURES				PROPOSED FIXTURES				SAVINGS						FINANCIAL					
BUILDING	SQ. FT.	PRE TOTAL FIXT. QTY	PRE TOTAL FIXT. WATTS	PRE ANNUAL KWH CONSUMPTION	PRE WATTS / SQ. FT	POST TOTAL FIXT. QTY	POST TOTAL FIXT. WATTS	POST ANNUAL KWH CONSUMPTION	POST WATTS / SQ. FT	WATTS SAVED	ANNUAL KWH SAVED	ANNUAL KWH SAVED WITH SENSORS	ANNUAL SAVINGS $ FIXT.	ANNUAL SAVINGS $ SENSORS	ANNUAL SAVINGS $ TOTAL	CO2 REDUCTION (TONS)	NJ Smart Start REBATE $	**FIXTURES** TOTAL (INSTALLED) COST $	**SENSORS** TOTAL (INSTALLED) COST $	**MATERIAL** TOTAL (INSTALLED) COST $	SIMPLE PAYBACK NET OF REBATE (YEARS)
Ford Avenue Elementary School #14	**25,759**	**305**	**18,907**	**31,671**	**0.73**	**305**	**12,573**	**19,446**	**0.49**	**6,334**	**12,225**	**2,236**	**$1,883**	**$344**	**$2,227**	**4.0**	**$3,020**	**$19,941**	**$3,944**	**$23,885**	**9.4**

13%	**PERCENTAGE OF REBATES IN TOTAL INSTALLED COST**
61%	**PERCENTAGE OF CONSUMPTION COMPARE TO EXISTING STATE**
27%	**EXISTING PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**
17%	**PROPOSED PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Ford Avenue Elementary School #14	FACILITY SQ. FT. 25,759	DATE OF AUDIT: 2/19/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES										ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.154	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
1	070101	MEDIA CENTER	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	12	32	384	1,530	588	41	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	12	22	306	Wall	1	264	1,224	404	323	10	120	306	184	81	$41	$608	$215	$683
2	070102	MEDIA CENTER	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	5	58	290	1,530	444	62	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	5	42				210	1,530	321	321	16	80	0	122	0	$19	$341	$0	$291
3	070103	BOYS REST ROOM	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	3	88	264	2,610	689	58	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	3	42	522	Ceiling	1	126	2,088	329	263	46	138	522	360	66	$66	$302	$363	$636
4	070104	GIRLS REST ROOM	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	3	88	264	2,610	689	56	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	3	42	522	Ceiling	1	126	2,088	329	263	46	138	522	360	66	$66	$302	$363	$636
5	070105	NURSE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266	28	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$11	$205	$0	$175
6	070106	KINDERGARTEN	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$63	$503	$215	$638
7	070106	KINDERGARTEN	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	1,530	177	68	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	1,530	129	129	16	32	0	49	0	$8	$137	$0	$117
8	070107	RESOURCE ROOM	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	2	112	224	1,530	343	25	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84	306	Wall	1	168	1,224	257	206	28	56	306	86	51	$21	$168	$215	$362
9	070107	RESOURCE ROOM	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	1,530	355		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	1,530	257	257	16	64	0	98	0	$15	$273	$0	$233
10	070108	STAGE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	360	84		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	360	60	60	16	64	0	23	0	$4	$273	$0	$233
11	070108	STAGE	Incandescent Fixture w/ (1) 100w Incandescent Lamp	16	100	1,600	360	576		Incandescent Fixture w/ 32w Screw-In CFL	16	32				512	360	184	184	68	1,088	0	392	0	$60	$406	$0	$406
12	070109	GYM	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast, Surface Mounted	33	58	1,914	2,310	4,421	26	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	33	42				1,386	2,310	3,202	3,202	16	528	0	1,220	0	$188	$2,252	$0	$1,922
13	070109	GYM	Exit Sign w/ LED	4	2	8	8,760	70		None	4	2				8	8,760	70	70	0	0	0	0	0	$0	$0	$0	$0
14	070110	OFFICE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,070	120	36	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,070	87	87	16	16	0	33	0	$5	$68	$0	$58
15	070111	STORAGE	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	1	112	112	360	40		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84				84	360	30	30	28	28	0	10	0	$2	$84	$0	$74
16	070111	STORAGE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
17	070112	MECHANICAL	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	360	42		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117
18	070112	MECHANICAL	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	1	112	112	360	40		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84				84	360	30	30	28	28	0	10	0	$2	$84	$0	$74
19	070113	CORRIDOR	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	2,610	251		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	2,610	172	172	10	30	0	78	0	$12	$152	$0	$122
20	070113	CORRIDOR	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	5	58	290	2,610	757		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	5	42				210	2,610	548	548	16	80	0	209	0	$32	$341	$0	$291
21	070113	CORRIDOR	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	1	112	112	2,610	292		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	1	42				42	2,610	110	110	70	70	0	183	0	$28	$101	$0	$91
22	070113	CORRIDOR	Exit Sign w/ LED	5	2	10	8,760	88		None	5	2				10	8,760	88	88	0	0	0	0	0	$0	$0	$0	$0
23	070115	STAIRS	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	2,610	606		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	2,610	438	438	16	64	0	167	0	$26	$273	$0	$233
24	070115	STAIRS	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$68	$0	$58
25	070116	STAIRS	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	2,610	606		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	2,610	438	438	16	64	0	167	0	$26	$273	$0	$233
26	070116	STAIRS	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$68	$0	$58
27	070117	STAIRS	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,610	303		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,610	219	219	16	32	0	84	0	$13	$137	$0	$117
28	070117	STAIRS	Exit Sign w/ LED	2	2	4	8,760	35		None	2	2				4	8,760	35	35	0	0	0	0	0	$0	$0	$0	$0
29	070218	CLASSROOM 3	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	1,530	1,065		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42	306	Wall	1	504	1,224	771	617	16	192	306	294	154	$69	$819	$215	$894
30	070119	CLASSROOM 5	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	1,530	1,065		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42	306	Wall	1	504	1,224	771	617	16	192	306	294	154	$69	$819	$215	$894
31	070220	OFFICE	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	1	112	112	2,070	232		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84				84	2,070	174	174	28	28	0	58	0	$9	$84	$0	$74
32	070221	REST ROOM	Compact Fluorescent Circleline Drum Fixture w/ (1) FC8T9 & (1) FC12T9 Circleline Lamp and (1) Magnetic Ballast	1	47	47	2,610	123		None	1	47				47	2,610	123	123	0	0	0	0	0	$0	$0	$0	$0
33	070222	CLASSROOM 7	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84				504	1,530	771	771	28	168	0	257	0	$40	$503	$0	$443
34	070223	CLASSROOM 9	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	1,530	1,065		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42	306	Wall	1	504	1,224	771	617	16	192	306	294	154	$69	$819	$215	$894
35	070224	CLASSROOM 11	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	1,530	1,065		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42	306	Wall	1	504	1,224	771	617	16	192	306	294	154	$69	$819	$215	$894
36	070225	OPEN OFFICE	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	3	88	264	2,070	546		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	3	42				126	2,070	261	261	46	138	0	286	0	$44	$302	$0	$272

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Ford Avenue Elementary School #14	FACILITY SQ. FT. 25,759	DATE OF AUDIT: 2/19/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES										ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.154	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
37	070225	OPEN OFFICE	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	2,070	124		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	2,070	29	29	46	46	0	95	0	$15	$16	$0	$16
38	070226	SERVICE CENTER	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	1,530	177		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	1,530	129	129	16	32	0	49	0	$8	$137	$0	$117
39	070227	CLASSROOM 1	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	1,530	1,065		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42	306	Wall	1	504	1,224	771	617	16	192	306	294	154	$69	$819	$215	$894
40	070228	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	2,610	1,211		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42				336	2,610	877	877	16	128	0	334	0	$51	$546	$0	$466
41	070329	CLASSROOM 4	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	1,530	1,065		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42	306	Wall	1	504	1,224	771	617	16	192	306	294	154	$69	$819	$215	$894
42	070330	CLASSROOM 6	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	1,530	1,065		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42	306	Wall	1	504	1,224	771	617	16	192	306	294	154	$69	$819	$215	$894
43	070331	FACULTY ROOM	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	4	112	448	2,070	927		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	4	42	724.5	Wall	1	168	1,346	348	226	70	280	725	580	122	$108	$403	$215	$578
44	070333	CLASSROOM 8	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	1,530	1,065		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42	306	Wall	1	504	1,224	771	617	16	192	306	294	154	$69	$819	$215	$894
45	070334	CLASSROOM 10	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	1,530	1,065		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42	306	Wall	1	504	1,224	771	617	16	192	306	294	154	$69	$819	$215	$894
46	070335	CLASSROOM 12	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	1,530	1,065		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42	306	Wall	1	504	1,224	771	617	16	192	306	294	154	$69	$819	$215	$894
47	070336	GUIDANCE OFFICE	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	3	88	264	2,070	546		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	3	42				126	2,070	261	261	46	138	0	286	0	$44	$302	$0	$272
48	070337	REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	2	34	68	2,610	177		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	2	28				56	2,610	146	146	6	12	0	31	0	$5	$121	$0	$101
49	070338	ACADEMIC SUPPORT	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	2	88	176	1,530	269		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	2	42				84	1,530	129	129	46	92	0	141	0	$22	$202	$0	$182
50	070339	CLASSROOM 2	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	1,530	1,065		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42	306	Wall	1	504	1,224	771	617	16	192	306	294	154	$69	$819	$215	$894
51	070340	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	2,610	1,211		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42				336	2,610	877	877	16	128	0	334	0	$51	$546	$0	$466
52	070340	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$146	$0	$136
				305		**18,907**		**31,671**			**305**					**12,573**		**21,682**	**19,446**		**6,334**	**6,053**	**9,989**	**2,236**	**$1,883**	**$19,941**	**$3,944**	**$20,865**

LIGHTING RETROFIT SUMMARY FOR:
Indiana Avenue Elementary School #18
256 Indiana Avenue, Iselin, NJ 08830

BUILDING INFORMATION		EXISTING FIXTURES				PROPOSED FIXTURES				SAVINGS						FINANCIAL					
BUILDING	SQ. FT.	PRE TOTAL FIXT. QTY	PRE TOTAL FIXT. WATTS	PRE ANNUAL KWH CONSUMPTION	PRE WATTS / SQ. FT	POST TOTAL FIXT. QTY	POST TOTAL FIXT. WATTS	POST ANNUAL KWH CONSUMPTION	POST WATTS / SQ. FT	WATTS SAVED	ANNUAL KWH SAVED	ANNUAL KWH SAVED WITH SENSORS	ANNUAL SAVINGS $ FIXT.	ANNUAL SAVINGS $ SENSORS	ANNUAL SAVINGS $ TOTAL	CO2 REDUCTION (TONS)	NJ Smart Start REBATE $	**FIXTURES** TOTAL (INSTALLED) COST $	**SENSORS** TOTAL (INSTALLED) COST $	**MATERIAL** TOTAL (INSTALLED) COST $	SIMPLE PAYBACK NET OF REBATE (YEARS)
Indiana Avenue Elementary School #18	**52,054**	**470**	**38,898**	**77,980**	**0.75**	**470**	**27,752**	**50,015**	**0.53**	**11,146**	**27,965**	**3,894**	**$4,139**	**$576**	**$4,715**	**9.2**	**$6,420**	**$40,957**	**$6,864**	**$47,821**	**8.8**

13%	**PERCENTAGE OF REBATES IN TOTAL INSTALLED COST**
64%	**PERCENTAGE OF CONSUMPTION COMPARE TO EXISTING STATE**
58%	**EXISTING PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**
37%	**PROPOSED PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Indiana Avenue Elementary School #18	FACILITY SQ. FT. 52,054	DATE OF AUDIT: 2/21/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES										ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.148	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
1	090101	MAIN OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	5	58	290	2,070	600	45	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	5	42				210	2,070	435	435	16	80	0	166	0	$25	$341	$0	$291
2	090102	STORAGE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21	0	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
3	090103	CLOSET	Incandescent Fixture w/ (1) 100w Incandescent Lamp	1	100	100	360	36	0	Incandescent Fixture w/ 32w Screw-In CFL	1	32				32	360	12	12	68	68	0	24	0	$4	$25	$0	$25
4	090104	OFFICE	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	1	112	112	2,070	232	58	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84				84	2,070	174	174	28	28	0	58	0	$9	$84	$0	$74
5	090105	REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	2,610	89	0	Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,610	73	73	6	6	0	16	0	$2	$60	$0	$50
6	090106	REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	2,610	89	0	Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,610	73	73	6	6	0	16	0	$2	$60	$0	$50
7	090107	CLASSROOM 1	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	8	112	896	1,530	1,371	0	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	8	84	306	Wall	1	672	1,224	1,028	823	28	224	306	343	206	$81	$671	$215	$785
8	090108	CLASSROOM 2	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028	0	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$61	$503	$215	$638
9	090109	CLASSROOM 3	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028	0	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$61	$503	$215	$638
10	090110	CLASSROOM 4	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028	0	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$61	$503	$215	$638
11	090111	CLASSROOM 5	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028	0	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$61	$503	$215	$638
12	090112	CLASSROOM 6	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028	0	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$61	$503	$215	$638
13	090113	CLASSROOM 8	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028	0	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$61	$503	$215	$638
14	090114	CLASSROOM 10	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028	0	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$61	$503	$215	$638
15	090115	CLASSROOM 11	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028	0	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$61	$503	$215	$638
16	090116	CLASSROOM 12	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028	0	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$61	$503	$215	$638
17	090117	CLASSROOM 13	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028	0	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$61	$503	$215	$638
18	090118	CLASSROOM 14	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	8	112	896	1,530	1,371	62	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	8	84	306	Wall	1	672	1,224	1,028	823	28	224	306	343	206	$81	$671	$215	$785
19	090119	CLASSROOM 15	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	9	112	1,008	1,530	1,542	0	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	9	84	306	Wall	1	756	1,224	1,157	925	28	252	306	386	231	$91	$755	$215	$859
20	090120	CLASSROOM 9	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028	0	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$61	$503	$215	$638
21	090121	CLASSROOM 7	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028	0	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$61	$503	$215	$638
22	090122	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,610	303	68	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,610	219	219	16	32	0	84	0	$12	$137	$0	$117
23	090122	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	1	58	58	2,610	151	0	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$146	$0	$136
24	090122	BOYS REST ROOM	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast Battery Backup	1	58	58	2,610	151	0	Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast Battery Back-up 2'x2' Silver Reflector Kit	1	28				28	2,610	73	73	30	30	0	78	0	$12	$159	$0	$149
25	090123	JC	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	1,500	87	0	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	1,500	63	63	16	16	0	24	0	$4	$68	$0	$58
26	090124	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,610	303	64	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,610	219	219	16	32	0	84	0	$12	$137	$0	$117
27	090124	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	1	58	58	2,610	151	0	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$146	$0	$136
28	090124	GIRLS REST ROOM	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast Battery Backup	1	58	58	2,610	151	0	Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast Battery Back-up 2'x2' Silver Reflector Kit	1	28				28	2,610	73	73	30	30	0	78	0	$12	$159	$0	$149
29	090125	REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12	0	Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
30	090126	REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12	0	Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
31	090127	KITCHEN	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	2	34	68	1,500	102	0	Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	2	28				56	1,500	84	84	6	12	0	18	0	$3	$121	$0	$101
32	090128	STORAGE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21	0	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
33	090129	FACULTY ROOM	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532	21	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42				252	1,530	386	386	16	96	0	147	0	$22	$410	$0	$350
34	090130	MUSIC ROOM	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	1,530	355	24	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42	306	Wall	1	168	1,224	257	206	16	64	306	98	51	$22	$273	$215	$448
35	090131	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,610	303	0	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,610	219	219	16	32	0	84	0	$12	$137	$0	$117
36	090131	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	1	58	58	2,610	151	0	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$146	$0	$136

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER:	Woodbridge School District	FACILITY SQ. FT.	DATE OF AUDIT:
	FACILITY:	Indiana Avenue Elementary School #18	52,054	2/21/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.148	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
37	090131	GIRLS REST ROOM	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast Battery Backup	1	58	58	2,610	151	0	Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast Battery Back-up 2'x2' Silver Reflector Kit	1	28				28	2,610	73	73	30	30	0	78	0	$12	$159	$0	$149
38	090132	JC	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	1,500	87	0	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	1,500	63	63	16	16	0	24	0	$4	$68	$0	$58
39	090133	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,610	303	0	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,610	219	219	16	32	0	84	0	$12	$137	$0	$117
40	090133	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	1	58	58	2,610	151	0	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$146	$0	$136
41	090133	BOYS REST ROOM	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast Battery Backup	1	58	58	2,610	151	0	Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast Battery Back-up 2'x2' Silver Reflector Kit	1	28				28	2,610	73	73	30	30	0	78	0	$12	$159	$0	$149
42	090134	CONFERENCE ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	2,070	480	0	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	2,070	348	348	16	64	0	132	0	$20	$273	$0	$233
43	090134	CONFERENCE ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	2,070	132	0	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	2,070	91	91	10	20	0	41	0	$6	$101	$0	$81
44	090135	REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	2,610	89	0	Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,610	73	73	6	6	0	16	0	$2	$60	$0	$50
45	090136	STORAGE	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12	0	Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
46	090137	MEDIA CENTER OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240	42	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,070	174	174	16	32	0	66	0	$10	$137	$0	$117
47	090137	MEDIA CENTER OFFICE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	2,070	66	0	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	2,070	46	46	10	10	0	21	0	$3	$51	$0	$41
48	090138	MEDIA CENTER	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	20	112	2,240	2,610	5,846	43	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	20	84				1,680	2,610	4,385	4,385	28	560	0	1,462	0	$216	$1,677	$0	$1,477
49	090139	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21	0	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
50	090140	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21	0	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
51	090141	MECHANICAL	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	7	58	406	360	146	0	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	7	42				294	360	106	106	16	112	0	40	0	$6	$478	$0	$408
52	090141	MECHANICAL	Incandescent Fixture w/ (1) 100w Incandescent Lamp	4	100	400	360	144	0	Incandescent Fixture w/ 32w Screw-In CFL	4	32				128	360	46	46	68	272	0	98	0	$14	$101	$0	$101
53	090142	STAIRS	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	2,610	167	12	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	2,610	115	115	10	20	0	52	0	$8	$101	$0	$81
54	090143	JC	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	1,500	174	0	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	1,500	126	126	16	32	0	48	0	$7	$137	$0	$117
55	090143	JC	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,500	48	0	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,500	33	33	10	10	0	15	0	$2	$51	$0	$41
56	090144	STORAGE	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	1	112	112	360	40	0	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84				84	360	30	30	28	28	0	10	0	$1	$84	$0	$74
57	090145	REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12	0	Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
58	090146	NURSE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	1,530	355	0	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	1,530	257	257	16	64	0	98	0	$14	$273	$0	$233
59	090146	NURSE	HID Fixture w/ (1) 70w High Pressure Sodium Lamp & Ballast	1	92	92	1,530	141	0	New 2' Wrap Fixture w/ (2) F17/T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	1,530	43	43	64	64	0	98	0	$14	$111	$0	$111
60	090147	STORAGE	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12	0	Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
61	090148	STORAGE	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12	0	Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
62	090149	REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12	0	Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
63	090150	MULTIPURPOSE ROOM	HID High Bay Fixture w/ (1) 400w Metal Halide Lamp & Ballast	14	455	6,370	2,610	16,626	0	New 2'x4' Singlepoint-Mount High Bay w/ (6) F54T5HO Lamps & (3) 2/54 T5 Elec. HO Ballasts Wire Guard Occupancy Sensor	14	351				4,914	2,610	12,826	12,826	104	1,456	0	3,800	0	$562	$5,487	$0	$4,087
64	090151	STORAGE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21	0	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
65	090152	KITCHEN	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	1	112	112	1,500	168	26	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84				84	1,500	126	126	28	28	0	42	0	$6	$84	$0	$74
66	090153	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	360	42	0	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117
67	090154	COOLER ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	360	42	0	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117
68	090155	STORAGE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	360	42	0	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117
69	090156	STORAGE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	360	84	0	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	360	60	60	16	64	0	23	0	$3	$273	$0	$233
70	090157	STORAGE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	360	42	0	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117
71	090158	CLASSROOM 31	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532	0	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$33	$410	$215	$544
72	090158	CLASSROOM 31	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147	0	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER:	Woodbridge School District	FACILITY SQ. FT.	DATE OF AUDIT:
	FACILITY:	Indiana Avenue Elementary School #18	52,054	2/21/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.148	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
73	090159	JC	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	1,500	51	0	Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	1,500	42	42	6	6	0	9	0	$1	$60	$0	$50
74	090160	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151	0	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$68	$0	$58
75	090161	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	1	58	58	2,610	151	0	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$146	$0	$136
76	090162	CLASSROOM 17	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532	0	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$33	$410	$215	$544
77	090162	CLASSROOM 17	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147	0	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
78	090163	CLASSROOM 18	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532	0	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$33	$410	$215	$544
79	090163	CLASSROOM 18	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147	0	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
80	090164	CLASSROOM 19	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532	0	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$33	$410	$215	$544
81	090164	CLASSROOM 19	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147	0	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
82	090165	CLASSROOM 20	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532	0	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$33	$410	$215	$544
83	090165	CLASSROOM 20	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147	0	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
84	090166	CLASSROOM 21	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532	0	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$33	$410	$215	$544
85	090166	CLASSROOM 21	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147	0	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
86	090167	CLASSROOM 22	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532	0	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$33	$410	$215	$544
87	090167	CLASSROOM 22	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147	0	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
88	090168	CLASSROOM 23	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532	0	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$33	$410	$215	$544
89	090168	CLASSROOM 23	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147	0	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
90	090169	CLASSROOM 24	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532	0	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$33	$410	$215	$544
91	090169	CLASSROOM 24	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147	0	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
92	090170	CLASSROOM 25	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532	0	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$33	$410	$215	$544
93	090170	CLASSROOM 25	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147	0	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
94	090171	CLASSROOM 26	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532	0	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$33	$410	$215	$544
95	090171	CLASSROOM 26	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147	0	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
96	090172	CLASSROOM 27	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532	0	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$33	$410	$215	$544
97	090172	CLASSROOM 27	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147	0	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
98	090173	CLASSROOM 28	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532	0	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$33	$410	$215	$544
99	090173	CLASSROOM 28	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147	0	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
100	090174	AID ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266	0	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	306	Wall	1	126	1,224	193	154	16	48	306	73	39	$17	$205	$215	$389
101	090174	AID ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147	0	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
102	090175	CLASSROOM 29	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	1,530	1,065	0	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42	306	Wall	1	504	1,224	771	617	16	192	306	294	154	$66	$819	$215	$894
103	090175	CLASSROOM 29	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147	0	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
104	090175	CLASSROOM 29 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12	0	Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
105	090176	CLASSROOM 30	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	1,530	1,065	0	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42	306	Wall	1	504	1,224	771	617	16	192	306	294	154	$66	$819	$215	$894
106	090176	CLASSROOM 30	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147	0	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
107	090176	CLASSROOM 30 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12	0	Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
108	090177	CORRIDOR	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	73	58	4,234	2,610	11,051	0	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	73	42				3,066	2,610	8,002	8,002	16	1,168	0	3,048	0	$451	$4,982	$0	$4,252

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER:	Woodbridge School District	FACILITY SQ. FT.	DATE OF AUDIT:
	FACILITY:	Indiana Avenue Elementary School #18	52,054	2/21/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES										ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.148	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
109	090178	LOBBY	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	4	34	136	2,610	355	0	Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	4	28				112	2,610	292	292	6	24	0	63	0	$9	$242	$0	$202
110	09EXT	EXTERIOR	HID Wall Pack Fixture w/ (1) 175w Metal Halide Lamp & Ballast	8	210	1,680	4,745	7,972	0	LED (1) New 56w Wall Pack Fixture	8	56				448	4,745	2,126	2,126	154	1,232	0	5,846	0	$865	$3,536	$0	$3,536
				470		**38,898**		**77,980**			**470**					**27,752**		**53,909**	**50,015**		**11,146**	**9,792**	**24,071**	**3,894**	**$4,139**	**$40,957**	**$6,864**	**$41,401**

LIGHTING RETROFIT SUMMARY FOR:
Menlo Park Terrace Elementary School #19
19 Maryknoll Road, Metuchen, NJ 08840

BUILDING INFORMATION		EXISTING FIXTURES				PROPOSED FIXTURES				SAVINGS						FINANCIAL					
BUILDING	SQ. FT.	PRE TOTAL FIXT. QTY	PRE TOTAL FIXT. WATTS	PRE ANNUAL KWH CONSUMPTION	PRE WATTS / SQ. FT	POST TOTAL FIXT. QTY	POST TOTAL FIXT. WATTS	POST ANNUAL KWH CONSUMPTION	POST WATTS / SQ. FT	WATTS SAVED	ANNUAL KWH SAVED	ANNUAL KWH SAVED WITH SENSORS	ANNUAL SAVINGS $ FIXT.	ANNUAL SAVINGS $ SENSORS	ANNUAL SAVINGS $ TOTAL	CO2 REDUCTION (TONS)	NJ Smart Start REBATE $	**FIXTURES** TOTAL (INSTALLED) COST $	**SENSORS** TOTAL (INSTALLED) COST $	**MATERIAL** TOTAL (INSTALLED) COST $	SIMPLE PAYBACK NET OF REBATE (YEARS)
Menlo Park Terrace Elementary School #19	**31,569**	**333**	**24,921**	**46,904**	**0.79**	**333**	**17,889**	**29,804**	**0.57**	**7,032**	**17,100**	**2,373**	**$2,531**	**$351**	**$2,882**	**5.7**	**$3,490**	**$25,169**	**$4,802**	**$29,972**	**9.2**

12%	**PERCENTAGE OF REBATES IN TOTAL INSTALLED COST**
64%	**PERCENTAGE OF CONSUMPTION COMPARE TO EXISTING STATE**
59%	**EXISTING PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**
37%	**PROPOSED PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Menlo Park Terrace Elementary School #19	FACILITY SQ. FT. 31,569	DATE OF AUDIT: 2/19/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES										ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.148	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
1	170101	GYM	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	24	112	2,688	2,310	6,209	28	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	24	84				2,016	2,310	4,657	4,657	28	672	0	1,552	0	$230	$2,012	$0	$1,772
2	170102	KITCHEN	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	5	32	160	1,500	240	19	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	5	22				110	1,500	165	165	10	50	0	75	0	$11	$254	$0	$204
3	170102	KITCHEN REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
4	170103	STORAGE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	360	23		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	360	16	16	10	20	0	7	0	$1	$101	$0	$81
5	170104	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,224	213	82	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,224	154	154	16	48	0	59	0	$9	$205	$0	$175
6	170105	JC	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	1,500	51		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	1,500	42	42	6	6	0	9	0	$1	$60	$0	$50
7	170106	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	1,224	142		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	1,224	103	103	16	32	0	39	0	$6	$137	$0	$117
8	170107	STORAGE	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	360	63		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	252	Wall	1	126	108	45	14	16	48	252	17	32	$7	$205	$215	$389
9	170108	LIBRARY	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	2,610	1,362		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	522	Wall	1	378	2,088	987	789	16	144	522	376	197	$85	$614	$215	$719
10	170108	LIBRARY	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,610	454		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	522	Wall	1	126	2,088	329	263	16	48	522	125	66	$28	$205	$215	$389
11	170109	CLASSROOM 25	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	18	58	1,044	1,530	1,597	45	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	18	42	306	Wall	1	756	1,224	1,157	925	16	288	306	441	231	$99	$1,229	$215	$1,243
12	170110	CLASSROOM 24	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	18	58	1,044	1,530	1,597		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	18	42				756	1,530	1,157	1,157	16	288	0	441	0	$65	$1,229	$0	$1,049
13	170111	CLASSROOM 23	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	18	58	1,044	1,530	1,597		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	18	42				756	1,530	1,157	1,157	16	288	0	441	0	$65	$1,229	$0	$1,049
14	170112	CLASSROOM 22	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	18	58	1,044	1,530	1,597		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	18	42				756	1,530	1,157	1,157	16	288	0	441	0	$65	$1,229	$0	$1,049
15	170113	OFFICE	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	2,070	480	47	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	2,070	348	348	16	64	0	132	0	$20	$273	$0	$233
16	170114	MAIN OFFICE	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	2,070	480	46	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	2,070	348	348	16	64	0	132	0	$20	$273	$0	$233
17	170114	MAIN OFFICE CLOSET	Fixture w/ 23w Screw-In CFL	1	23	23	360	8		None	1	23				23	360	8	8	0	0	0	0	0	$0	$0	$0	$0
18	170114	MAIN OFFICE STORAGE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
19	170115	NURSE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	4	32	128	1,530	196		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	4	22				88	1,530	135	135	10	40	0	61	0	$9	$203	$0	$163
20	170116	REST ROOM	Compact Fluorescent Wall Sconce Fixture w/ (1) 13w CFL & Magnetic Ballast	1	15	15	360	5		None	1	15				15	360	5	5	0	0	0	0	0	$0	$0	$0	$0
21	170117	REST ROOM	Fixture w/ 13w Screw-In CFL	1	13	13	360	5		None	1	13				13	360	5	5	0	0	0	0	0	$0	$0	$0	$0
22	170118	FACULTY ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	4	32	128	1,530	196		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	4	22	306	Wall	1	88	1,224	135	108	10	40	306	61	27	$13	$203	$215	$377
23	170119	MEDIA CENTER	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	10	112	1,120	2,610	2,923		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	10	84	522	Wall	1	840	2,088	2,192	1,754	28	280	522	731	438	$173	$839	$215	$933
24	170120	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42	252	Wall	1	42	108	15	5	16	16	252	6	11	$2	$68	$215	$273
25	170121	CLASSROOM 16	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	9	112	1,008	1,530	1,542		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	9	84				756	1,530	1,157	1,157	28	252	0	386	0	$57	$755	$0	$665
26	170122	CLASSROOM 15	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$61	$503	$215	$638
27	170123	CLASSROOM 14	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$61	$503	$215	$638
28	170124	MECHANICAL	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	5	58	290	360	104		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	5	42	252	Wall	1	210	108	76	23	16	80	252	29	53	$12	$341	$215	$486
29	170125	CLASSROOM 12	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$61	$503	$215	$638
30	170126	CLASSROOM 11	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$61	$503	$215	$638
31	170127	CLASSROOM 10	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$61	$503	$215	$638
32	170128	CLASSROOM 9	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$61	$503	$215	$638
33	170129	CLASSROOM 8	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84				504	1,530	771	771	28	168	0	257	0	$38	$503	$0	$443
34	170130	CLASSROOM 7	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$61	$503	$215	$638
35	170131	CLASSROOM 6	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$61	$503	$215	$638
36	170132	STORAGE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	360	35		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	360	24	24	10	30	0	11	0	$2	$152	$0	$122

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER:	Woodbridge School District	FACILITY SQ. FT.	DATE OF AUDIT:
	FACILITY:	Menlo Park Terrace Elementary School #19	31,569	2/19/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.148	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
37	170133	CLASSROOM 5	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	4	112	448	1,530	685		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	4	84				336	1,530	514	514	28	112	0	171	0	$25	$335	$0	$295
38	170134	CLASSROOM 4	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	5	112	560	1,530	857		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	5	84				420	1,530	643	643	28	140	0	214	0	$32	$419	$0	$369
39	170134	CLASSROOM 4	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	1,530	177		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	1,530	129	129	16	32	0	49	0	$7	$137	$0	$117
40	170135	REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28	252	Wall	**1**	28	108	10	3	6	6	252	2	7	$1	$60	$215	$265
41	170136	REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
42	170148	CORRIDOR	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42	522	Wall	**1**	42	2,088	110	88	16	16	522	42	22	$9	$68	$215	$273
43	170137	CLASSROOM 3	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84				504	1,530	771	771	28	168	0	257	0	$38	$503	$0	$443
44	170137	CLASSROOM 3	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	1,530	177		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	1,530	129	129	16	32	0	49	0	$7	$137	$0	$117
45	170138	CLASSROOM 2	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	7	112	784	1,530	1,200		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	7	84				588	1,530	900	900	28	196	0	300	0	$44	$587	$0	$517
46	170138	CLASSROOM 2	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	1,530	177		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	1,530	129	129	16	32	0	49	0	$7	$137	$0	$117
47	170139	REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28	252	Wall	**1**	28	108	10	3	6	6	252	2	7	$1	$60	$215	$265
48	170140	REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
49	170141	CORRIDOR	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42	522	Ceiling	**1**	42	2,088	110	88	16	16	522	42	22	$9	$68	$363	$422
50	170142	CLASSROOM 1	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	7	112	784	1,530	1,200		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	7	84				588	1,530	900	900	28	196	0	300	0	$44	$587	$0	$517
51	170142	CLASSROOM 1	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	1,530	177		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	306	Ceiling	**1**	84	1,224	129	103	16	32	306	49	26	$11	$137	$363	$480
52	170143	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	5	58	290	2,610	757		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	5	42				210	2,610	548	548	16	80	0	209	0	$31	$341	$0	$291
53	170144	JC	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	1,500	87		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	1,500	63	63	16	16	0	24	0	$4	$68	$0	$58
54	170145	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	2,610	606		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	2,610	438	438	16	64	0	167	0	$25	$273	$0	$233
55	170146	JC	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	1,500	87		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	1,500	63	63	16	16	0	24	0	$4	$68	$0	$58
56	170147	CORRIDOR	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	47	32	1,504	2,610	3,925	18	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	47	22				1,034	2,610	2,699	2,699	10	470	0	1,227	0	$182	$2,383	$0	$1,913
57	17EXT	EXTERIOR	HID Wall Pack Fixture w/ (1) 175w Metal Halide Lamp & Ballast	5	210	1,050	4,745	4,982		LED (1) New 56w Wall Pack Fixture	5	56				280	4,745	1,329	1,329	154	770	0	3,654	0	$541	$2,210	$0	$2,210
				333		**24,921**		**46,904**			**333**				**21**	**17,889**		**32,177**	**29,804**		**7,032**	**7,236**	**14,727**	**2,373**	**$2,531**	**$25,169**	**$4,802**	**$26,482**

LIGHTING RETROFIT SUMMARY FOR:
Claremont Avenue Elementary School #20
90 Claremont Avenue, Colonia, NJ 07067

BUILDING INFORMATION		EXISTING FIXTURES				PROPOSED FIXTURES				SAVINGS						FINANCIAL					
BUILDING	SQ. FT.	PRE TOTAL FIXT. QTY	PRE TOTAL FIXT. WATTS	PRE ANNUAL KWH CONSUMPTION	PRE WATTS / SQ. FT	POST TOTAL FIXT. QTY	POST TOTAL FIXT. WATTS	POST ANNUAL KWH CONSUMPTION	POST WATTS / SQ. FT	WATTS SAVED	ANNUAL KWH SAVED	ANNUAL KWH SAVED WITH SENSORS	ANNUAL SAVINGS $ FIXT.	ANNUAL SAVINGS $ SENSORS	ANNUAL SAVINGS $ TOTAL	CO2 REDUCTION (TONS)	NJ Smart Start REBATE $	**FIXTURES** TOTAL (INSTALLED) COST $	**SENSORS** TOTAL (INSTALLED) COST $	**MATERIAL** TOTAL (INSTALLED) COST $	SIMPLE PAYBACK NET OF REBATE (YEARS)
Claremont Avenue Elementary School #20	**31,569**	**286**	**23,527**	**46,938**	**0.75**	**286**	**16,985**	**29,238**	**0.54**	**6,542**	**17,700**	**3,244**	**$2,797**	**$513**	**$3,309**	**5.8**	**$3,060**	**$22,112**	**$5,446**	**$27,557**	**7.4**

11%	**PERCENTAGE OF REBATES IN TOTAL INSTALLED COST**
62%	**PERCENTAGE OF CONSUMPTION COMPARE TO EXISTING STATE**
33%	**EXISTING PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**
20%	**PROPOSED PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Claremont Avenue Elementary School #20	FACILITY SQ. FT. 31,569	DATE OF AUDIT: 2/20/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES										ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.158	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
1	040101	CLASSROOM 15	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028	47	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
2	040102	CLASSROOM 16	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028	40	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
3	040103	CLASSROOM 14	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028	34	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
4	040104	CLASSROOM 17	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
5	040105	CLASSROOM 13	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
6	040106	CLASSROOM 18	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
7	040107	REST ROOM	Compact Fluorescent Wall Sconce Fixture w/ (2) 13w CFL & Magnetic Ballast	1	30	30	2,610	78		None	1	30				30	2,610	78	78	0	0	0	0	0	$0	$0	$0	$0
8	040108	LOUNGE	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	2	112	224	1,530	343		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84				168	1,530	257	257	28	56	0	86	0	$14	$168	$0	$148
9	040109	CLASSROOM 12	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028	48	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
10	040110	BOILER ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	7	32	224	2,610	585		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	7	22				154	2,610	402	402	10	70	0	183	0	$29	$355	$0	$285
11	040111	NURSE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	1,530	177		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	1,530	129	129	16	32	0	49	0	$8	$137	$0	$117
12	040111	NURSE REST ROOM	Compact Fluorescent Wall Sconce Fixture w/ (2) 13w CFL & Magnetic Ballast	1	30	30	360	11		None	1	30				30	360	11	11	0	0	0	0	0	$0	$0	$0	$0
13	040112	MAIN OFFICE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,070	360		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	2,070	261	261	16	48	0	99	0	$16	$205	$0	$175
14	040112	PRINCIPAL OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,070	120		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42	724.5	Wall	1	42	1,346	87	57	16	16	725	33	30	$10	$68	$215	$273
15	040112	OFFICE REST ROOM	Compact Fluorescent Wall Sconce Fixture w/ (2) 13w CFL & Magnetic Ballast	1	30	30	360	11		None	1	30				30	360	11	11	0	0	0	0	0	$0	$0	$0	$0
16	040113	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	17	58	986	2,610	2,573		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	17	42				714	2,610	1,864	1,864	16	272	0	710	0	$112	$1,160	$0	$990
17	040113	CORRIDOR	Exit Sign w/ LED	2	2	4	8,760	35		None	2	2				4	8,760	35	35	0	0	0	0	0	$0	$0	$0	$0
18	040114	JC	Compact Fluorescent Drum Fixture w/ (2) 13w CFL & Magnetic Ballast	1	30	30	1,500	45		None	1	30				30	1,500	45	45	0	0	0	0	0	$0	$0	$0	$0
19	040115	CUSTODIAL ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,610	303		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	522	Wall	1	84	2,088	219	175	16	32	522	84	44	$20	$137	$215	$331
20	040116	SUPPLY	No Access. Area inaccessible during audit.	1	0	0	360	0		None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
21	040117	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	2,610	606		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42	522	Ceiling	1	168	2,088	438	351	16	64	522	167	88	$40	$273	$363	$596
22	040118	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	2,610	606		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42	522	Ceiling	1	168	2,088	438	351	16	64	522	167	88	$40	$273	$363	$596
23	040119	CLASSROOM 5	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
24	040120	CLASSROOM 6	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
25	040121	CLASSROOM 11	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
26	040122	CLASSROOM 7	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
27	040123	CLASSROOM 10	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
28	040124	CLASSROOM 8	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
29	040125	CLASSROOM 9	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
30	040126	CORRIDOR	Exit Sign w/ LED	2	2	4	8,760	35		None	2	2				4	8,760	35	35	0	0	0	0	0	$0	$0	$0	$0
31	040126	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	17	58	986	2,610	2,573		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	17	42				714	2,610	1,864	1,864	16	272	0	710	0	$112	$1,160	$0	$990
32	040127	MULTIPURPOSE	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	19	112	2,128	2,610	5,554	35	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	19	84				1,596	2,610	4,166	4,166	28	532	0	1,389	0	$219	$1,593	$0	$1,403
33	040128	KITCHEN	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	4	32	128	1,500	192	17	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	4	22				88	1,500	132	132	10	40	0	60	0	$9	$203	$0	$163
34	040128	KITCHEN REST ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	360	12		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Claremont Avenue Elementary School #20	FACILITY SQ. FT. 31,569	DATE OF AUDIT: 2/20/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.158	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
35	040129	LOBBY	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	2,610	908		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42				252	2,610	658	658	16	96	0	251	0	$40	$410	$0	$350
36	040129	LOBBY	Exit Sign w/ LED	3	2	6	8,760	53		None	3	2				6	8,760	53	53	0	0	0	0	0	$0	$0	$0	$0
37	040130	CLASSROOM 4	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
38	040130	CLASSROOM 4	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$12	$205	$0	$175
39	040131	CLASSROOM 3	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028	41	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
40	040131	CLASSROOM 3	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$12	$205	$0	$175
41	040132	CLASSROOM 3 & 4 REST ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	360	35		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	360	24	24	10	30	0	11	0	$2	$152	$0	$122
42	040133	CLASSROOM 2	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
43	040133	CLASSROOM 2	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$12	$205	$0	$175
44	040134	CLASSROOM 1	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028	46	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
45	040134	CLASSROOM 1	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$12	$205	$0	$175
46	040135	CLASSROOM 1 & 2 REST ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	360	35		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	360	24	24	10	30	0	11	0	$2	$152	$0	$122
47	040136	CLASSROOM 19	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$53	$614	$215	$719
48	040136	CLASSROOM 19	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	1,530	52		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	1,530	43	43	6	6	0	9	0	$1	$60	$0	$50
49	040137	CLASSROOM 20	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$47	$546	$215	$661
50	040137	CLASSROOM 20	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	4	32	128	1,530	196		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	4	22				88	1,530	135	135	10	40	0	61	0	$10	$203	$0	$163
51	040137	CLASSROOM 20	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	1,530	52		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	1,530	43	43	6	6	0	9	0	$1	$60	$0	$50
52	040138	LIBRARY	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	10	112	1,120	2,610	2,923	48	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	10	84				840	2,610	2,192	2,192	28	280	0	731	0	$115	$839	$0	$739
53	040139	LIBRARY REST ROOM	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	1	112	112	360	40		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84				84	360	30	30	28	28	0	10	0	$2	$84	$0	$74
54	040139	LIBRARY REST ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	360	23		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	360	16	16	10	20	0	7	0	$1	$101	$0	$81
55	040140	JC	Fixture w/ 23w Screw-In CFL	1	23	23	1,500	35		None	1	23				23	1,500	35	35	0	0	0	0	0	$0	$0	$0	$0
56	040141	CORRIDOR	Exit Sign w/ LED	2	2	4	8,760	35		None	2	2				4	8,760	35	35	0	0	0	0	0	$0	$0	$0	$0
57	040141	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	15	58	870	2,610	2,271		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	15	42				630	2,610	1,644	1,644	16	240	0	626	0	$99	$1,024	$0	$874
58	04EXT	EXTERIOR	HID Wall Pack Fixture w/ (1) 175w Metal Halide Lamp & Ballast	5	210	1,050	4,745	4,982		LED (1) New 56w Wall Pack Fixture	5	56				280	4,745	1,329	1,329	154	770	0	3,654	0	$577	$2,210	$0	$2,210
				286		**23,527**		**46,938**			**286**				**24**	**16,985**		**32,482**	**29,238**		**6,542**	**8,411**	**14,456**	**3,244**	**$2,797**	**$22,112**	**$5,446**	**$24,497**

LIGHTING RETROFIT SUMMARY FOR:
Oak Ridge Heights Elementary School #21
720 Inman Avenue, Colonia, NJ 07067

BUILDING INFORMATION		EXISTING FIXTURES				PROPOSED FIXTURES				SAVINGS						FINANCIAL					
BUILDING	SQ. FT.	PRE TOTAL FIXT. QTY	PRE TOTAL FIXT. WATTS	PRE ANNUAL KWH CONSUMPTION	PRE WATTS / SQ. FT	POST TOTAL FIXT. QTY	POST TOTAL FIXT. WATTS	POST ANNUAL KWH CONSUMPTION	POST WATTS / SQ. FT	WATTS SAVED	ANNUAL KWH SAVED	ANNUAL KWH SAVED WITH SENSORS	ANNUAL SAVINGS $ FIXT.	ANNUAL SAVINGS $ SENSORS	ANNUAL SAVINGS $ TOTAL	CO2 REDUCTION (TONS)	NJ Smart Start REBATE $	**FIXTURES** TOTAL (INSTALLED) COST $	**SENSORS** TOTAL (INSTALLED) COST $	**MATERIAL** TOTAL (INSTALLED) COST $	SIMPLE PAYBACK NET OF REBATE (YEARS)
Oak Ridge Heights Elementary School #21	**33,475**	**419**	**22,901**	**44,632**	**0.68**	**419**	**16,073**	**27,169**	**0.48**	**6,828**	**17,463**	**3,263**	**$2,480**	**$463**	**$2,943**	**5.8**	**$4,470**	**$28,360**	**$5,148**	**$33,508**	**9.9**

13%	**PERCENTAGE OF REBATES IN TOTAL INSTALLED COST**
61%	**PERCENTAGE OF CONSUMPTION COMPARE TO EXISTING STATE**
36%	**EXISTING PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**
22%	**PROPOSED PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Oak Ridge Heights Elementary School #21	FACILITY SQ. FT. 33,475	DATE OF AUDIT: 2/20/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES										ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.142	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
1	180101	CLASSROOM 21	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532	37	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$32	$410	$215	$544
2	180101	CLASSROOM 21	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
3	180101	CLASSROOM 21 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
4	180102	CLASSROOM 22	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532	41	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$32	$410	$215	$544
5	180102	CLASSROOM 22	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
6	180102	CLASSROOM 22 REST ROOM	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	360	22		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	360	5	5	46	46	0	17	0	$2	$16	$0	$16
7	180104	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
8	180103	CLASSROOM 23	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532	39	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$32	$410	$215	$544
9	180103	CLASSROOM 23	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
10	180103	CLASSROOM 23 REST ROOM	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	360	22		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	360	5	5	46	46	0	17	0	$2	$16	$0	$16
11	180105	CLASSROOM 2	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710	31	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$42	$546	$215	$661
12	180105	CLASSROOM 2	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
13	180106	CLASSROOM 1	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710	34	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$42	$546	$215	$661
14	180106	CLASSROOM 1	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
15	180107	CLASSROOM 1 & 2 REST ROOM	4' Fixture w/ (1) FO32T8 Lamp (1) Electronic Ballast	2	32	64	360	23		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	360	16	16	10	20	0	7	0	$1	$101	$0	$81
16	180107	CLASSROOM 1 & 2 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	2	34	68	360	24		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	2	28				56	360	20	20	6	12	0	4	0	$1	$121	$0	$101
17	180108	CLASSROOM 3	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710	29	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$42	$546	$215	$661
18	180108	CLASSROOM 3	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
19	180109	CLASSROOM 4	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710	33	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$42	$546	$215	$661
20	180109	CLASSROOM 4	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
21	180110	CLASSROOM 3 & 4 REST ROOM	4' Fixture w/ (1) FO32T8 Lamp (1) Electronic Ballast	2	32	64	360	23		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	360	16	16	10	20	0	7	0	$1	$101	$0	$81
22	180110	CLASSROOM 3 & 4 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	2	34	68	360	24		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	2	28				56	360	20	20	6	12	0	4	0	$1	$121	$0	$101
23	180111	CLASSROOM 5	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710	29	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$42	$546	$215	$661
24	180111	CLASSROOM 5	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
25	180112	CLASSROOM 6	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710	28	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$42	$546	$215	$661
26	180112	CLASSROOM 6	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
27	180113	CLASSROOM 5 & 6 REST ROOM	4' Fixture w/ (1) FO32T8 Lamp (1) Electronic Ballast	2	32	64	360	23		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	360	16	16	10	20	0	7	0	$1	$101	$0	$81
28	180113	CLASSROOM 5 & 6 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	2	34	68	360	24		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	2	28				56	360	20	20	6	12	0	4	0	$1	$121	$0	$101
29	180114	CLASSROOM 8	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710	32	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$42	$546	$215	$661
30	180114	CLASSROOM 8	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
31	180115	CLASSROOM 7	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$42	$546	$215	$661
32	180115	CLASSROOM 7	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
33	180116	CLASSROOM 7 & 8 REST ROOM	4' Fixture w/ (1) FO32T8 Lamp (1) Electronic Ballast	2	32	64	360	23		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	360	16	16	10	20	0	7	0	$1	$101	$0	$81
34	180116	CLASSROOM 7 & 8 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	2	34	68	360	24		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	2	28				56	360	20	20	6	12	0	4	0	$1	$121	$0	$101
35	180117	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	13	58	754	2,610	1,968	21	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	13	42				546	2,610	1,425	1,425	16	208	0	543	0	$77	$887	$0	$757
36	180117	CORRIDOR	Exit Sign w/ LED	2	2	4	8,760	35		None	2	2				4	8,760	35	35	0	0	0	0	0	$0	$0	$0	$0

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Oak Ridge Heights Elementary School #21	FACILITY SQ. FT. 33,475	DATE OF AUDIT: 2/20/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.142	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
37	180118	CLASSROOM 13	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	18	58	1,044	1,530	1,597	45	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	18	42	306	Wall	1	756	1,224	1,157	925	16	288	306	441	231	$95	$1,229	$215	$1,243
38	180119	MEDIA CENTER	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	36	58	2,088	2,610	5,450	48	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	36	42	522	Wall	2	1,512	2,088	3,946	3,157	16	576	522	1,503	789	$326	$2,457	$429	$2,486
39	180119	MEDIA CENTER	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$68	$0	$58
40	180120	MEDIA CENTER REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	3	34	102	360	37		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	3	28				84	360	30	30	6	18	0	6	0	$1	$181	$0	$151
41	180121	FACULTY	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	18	58	1,044	1,530	1,597	42	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	18	42	306	Wall	1	756	1,224	1,157	925	16	288	306	441	231	$95	$1,229	$215	$1,243
42	180122	FACULTY REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	3	34	102	360	37		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	3	28				84	360	30	30	6	18	0	6	0	$1	$181	$0	$151
43	180123	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	11	58	638	2,610	1,665		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	11	42				462	2,610	1,206	1,206	16	176	0	459	0	$65	$751	$0	$641
44	180124	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,610	454		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	2,610	329	329	16	48	0	125	0	$18	$205	$0	$175
45	180124	CORRIDOR	Exit Sign w/ LED	2	2	4	8,760	35		None	2	2				4	8,760	35	35	0	0	0	0	0	$0	$0	$0	$0
46	180125	CLASSROOM 9	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710	29	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$42	$546	$215	$661
47	180125	CLASSROOM 9	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49	28	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
48	180126	CLASSROOM 10	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$42	$546	$215	$661
49	180126	CLASSROOM 10	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
50	180127	CLASSROOM 9 & 10 REST ROOM	4' Fixture w/ (1) FO32T8 Lamp (1) Electronic Ballast	2	32	64	360	23		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	360	16	16	10	20	0	7	0	$1	$101	$0	$81
51	180127	CLASSROOM 9 & 10 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	2	34	68	360	24		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	2	28				56	360	20	20	6	12	0	4	0	$1	$121	$0	$101
52	180128	CLASSROOM 12	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710	31	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$42	$546	$215	$661
53	180128	CLASSROOM 12	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
54	180129	CLASSROOM 11	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$42	$546	$215	$661
55	180129	CLASSROOM 11	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
56	180130	CLASSROOM 11 & 12 REST ROOM	4' Fixture w/ (1) FO32T8 Lamp (1) Electronic Ballast	2	32	64	360	23		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	360	16	16	10	20	0	7	0	$1	$101	$0	$81
57	180130	CLASSROOM 11 & 12 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	2	34	68	360	24		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	2	28				56	360	20	20	6	12	0	4	0	$1	$121	$0	$101
58	180131	MAINTENANCE OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$68	$0	$58
59	180132	BOILER ROOM	4' Industrial Hood w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	2,610	908		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42				252	2,610	658	658	16	96	0	251	0	$36	$410	$0	$350
60	180133	KITCHEN	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	1,500	174		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	1,500	126	126	16	32	0	48	0	$7	$137	$0	$117
61	180134	MULTIPURPOSE	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	36	58	2,088	2,610	5,450	38	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	36	42				1,512	2,610	3,946	3,946	16	576	0	1,503	0	$213	$2,457	$0	$2,097
62	180134	MULTIPURPOSE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$68	$0	$58
63	180135	GYM OFFICE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	360	23		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	360	16	16	10	20	0	7	0	$1	$101	$0	$81
64	180136	GYM STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
65	180134	MULTIPURPOSE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	2,610	167		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	2,610	115	115	10	20	0	52	0	$7	$101	$0	$81
66	180137	HANDICAP REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
67	180138	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$68	$0	$58
68	180139	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,610	303		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,610	219	219	16	32	0	84	0	$12	$137	$0	$117
69	180140	AIDES ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532	38	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42				252	1,530	386	386	16	96	0	147	0	$21	$410	$0	$350
70	180141	NURSE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266	22	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$10	$205	$0	$175
71	180141	NURSE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
72	180142	MAIN OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240	32	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,070	174	174	16	32	0	66	0	$9	$137	$0	$117

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Oak Ridge Heights Elementary School #21	FACILITY SQ. FT. 33,475	DATE OF AUDIT: 2/20/2013

SPACE DESCRIPTION			EXISTING FIXTURES						REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS **2610**	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS **2610**	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) **$0.142**	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
73	180142	MAIN OFFICE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	2,070	132		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	2,070	91	91	10	20	0	41	0	$6	$101	$0	$81
74	180143	OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	724.5	Wall	**1**	84	1,346	174	113	16	32	725	66	61	$18	$137	$215	$331
75	180143	OFFICE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	2,070	66		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	2,070	46	46	10	10	0	21	0	$3	$51	$0	$41
76	180144	OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	724.5	Wall	**1**	84	1,346	174	113	16	32	725	66	61	$18	$137	$215	$331
77	180144	OFFICE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	2,070	132		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	2,070	91	91	10	20	0	41	0	$6	$101	$0	$81
78	180145	OFFICE REST ROOM	Incandescent Wall Sconce w/ (1) 60w Incandescent Lamp	1	60	60	360	22		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	360	5	5	46	46	0	17	0	$2	$16	$0	$16
79	180146	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
80	180147	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	5	58	290	2,610	757		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	5	42				210	2,610	548	548	16	80	0	209	0	$30	$341	$0	$291
81	180148	LOBBY	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	5	32	160	2,610	418		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	5	22				110	2,610	287	287	10	50	0	131	0	$19	$254	$0	$204
82	180148	LOBBY	8' Fixture w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	2	112	224	2,610	585		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84				168	2,610	438	438	28	56	0	146	0	$21	$168	$0	$148
83	180148	LOBBY	Exit Sign w/ LED	2	2	4	8,760	35		None	2	2				4	8,760	35	35	0	0	0	0	0	$0	$0	$0	$0
84	180149	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	2,610	1,817		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42				504	2,610	1,315	1,315	16	192	0	501	0	$71	$819	$0	$699
85	180150	ART/MUSIC 18	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	24	58	1,392	1,530	2,130		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	24	42	306	Wall	**2**	1,008	1,224	1,542	1,234	16	384	306	588	308	$127	$1,638	$429	$1,787
86	180151	ART/MUSIC 18 STORAGE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	360	12		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41
87	180150	ART/MUSIC 18 REST ROOM	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	360	22		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	360	5	5	46	46	0	17	0	$2	$16	$0	$16
88	180152	CLASSROOM 17	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	**1**	378	1,224	578	463	16	144	306	220	116	$48	$614	$215	$719
89	180152	CLASSROOM 17	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
90	180152	CLASSROOM 17 REST ROOM	Fixture w/ 23w Screw-In CFL	1	23	23	360	8		None	1	23				23	360	8	8	0	0	0	0	0	$0	$0	$0	$0
91	180153	CLASSROOM 17 STORAGE	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	360	22		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	360	5	5	46	46	0	17	0	$2	$16	$0	$16
92	18EXT	EXTERIOR	HID Wall Pack Fixture w/ (1) 175w Metal Halide Lamp & Ballast	4	210	840	4,745	3,986		LED (1) New 56w Wall Pack Fixture	4	56				224	4,745	1,063	1,063	154	616	0	2,923	0	$415	$1,768	$0	$1,768
				419		**22,901**		**44,632**			**419**				**24**	**16,073**		**30,432**	**27,169**		**6,828**	**7,785**	**14,200**	**3,263**	**$2,480**	**$28,360**	**$5,148**	**$29,038**

LIGHTING RETROFIT SUMMARY FOR:
Lynn Crest Elementary School #22
98 Ira Avenue, Colonia, NJ 07067

BUILDING INFORMATION		EXISTING FIXTURES				PROPOSED FIXTURES				SAVINGS						FINANCIAL					
BUILDING	SQ. FT.	PRE TOTAL FIXT. QTY	PRE TOTAL FIXT. WATTS	PRE ANNUAL KWH CONSUMPTION	PRE WATTS / SQ. FT	POST TOTAL FIXT. QTY	POST TOTAL FIXT. WATTS	POST ANNUAL KWH CONSUMPTION	POST WATTS / SQ. FT	WATTS SAVED	ANNUAL KWH SAVED	ANNUAL KWH SAVED WITH SENSORS	ANNUAL SAVINGS $ FIXT.	ANNUAL SAVINGS $ SENSORS	ANNUAL SAVINGS $ TOTAL	CO2 REDUCTION (TONS)	NJ Smart Start REBATE $	**FIXTURES** TOTAL (INSTALLED) COST $	**SENSORS** TOTAL (INSTALLED) COST $	**MATERIAL** TOTAL (INSTALLED) COST $	SIMPLE PAYBACK NET OF REBATE (YEARS)
Lynn Crest Elementary School #22	**41,570**	**501**	**27,340**	**51,647**	**0.66**	**501**	**19,088**	**30,100**	**0.46**	**8,252**	**21,546**	**4,497**	**$3,275**	**$683**	**$3,959**	**7.1**	**$5,350**	**$34,138**	**$7,079**	**$41,217**	**9.1**

13%	**PERCENTAGE OF REBATES IN TOTAL INSTALLED COST**
58%	**PERCENTAGE OF CONSUMPTION COMPARE TO EXISTING STATE**
28%	**EXISTING PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**
16%	**PROPOSED PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Lynn Crest Elementary School #22	FACILITY SQ. FT. 41,570	DATE OF AUDIT: 2/20/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES										ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.152	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
1	140101	CLASSROOM K3	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	25	58	1,450	1,530	2,219	41	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	25	42	306	Wall	**1**	1,050	1,224	1,607	1,285	16	400	306	612	321	$142	$1,706	$215	$1,651
2	140101	CLASSROOM K3	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
3	140101	CLASSROOM K3	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	1,530	52		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	1,530	43	43	6	6	0	9	0	$1	$60	$0	$50
4	140102	CLASSROOM K2	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799	36	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	**1**	378	1,224	578	463	16	144	306	220	116	$51	$614	$215	$719
5	140102	CLASSROOM K2	4' Fixture w/ (1) FO32T8 Lamp (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
6	140102	CLASSROOM K2	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	1,530	52		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	1,530	43	43	6	6	0	9	0	$1	$60	$0	$50
7	140102	CLASSROOM K2	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
8	140103	CLASSROOM K1	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799	37	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	**1**	378	1,224	578	463	16	144	306	220	116	$51	$614	$215	$719
9	140103	CLASSROOM K1	4' Fixture w/ (1) FO32T8 Lamp (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
10	140103	CLASSROOM K1	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	1,530	52		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	1,530	43	43	6	6	0	9	0	$1	$60	$0	$50
11	140103	CLASSROOM K1	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
12	140104	CLASSROOM 3	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	**1**	336	1,224	514	411	16	128	306	196	103	$45	$546	$215	$661
13	140104	CLASSROOM 3	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
14	140105	CLASSROOM 2	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	**1**	336	1,224	514	411	16	128	306	196	103	$45	$546	$215	$661
15	140105	CLASSROOM 2	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
16	140106	CLASSROOM 1	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	**1**	336	1,224	514	411	16	128	306	196	103	$45	$546	$215	$661
17	140106	CLASSROOM 1	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
18	140107	CLASSROOM 1 & 2 REST ROOM	4' Fixture w/ (1) FO32T8 Lamp (1) Electronic Ballast	2	32	64	360	23		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	360	16	16	10	20	0	7	0	$1	$101	$0	$81
19	140107	CLASSROOM 1 & 2 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	2	34	68	360	24		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	2	28				56	360	20	20	6	12	0	4	0	$1	$121	$0	$101
20	140108	CLASSROOM 6	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710	36	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	**1**	336	1,224	514	411	16	128	306	196	103	$45	$546	$215	$661
21	140108	CLASSROOM 6	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
22	140109	CLASSROOM 5	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710	39	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	**1**	336	1,224	514	411	16	128	306	196	103	$45	$546	$215	$661
23	140109	CLASSROOM 5	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
24	140110	CLASSROOM 5 & 6 REST ROOM	4' Fixture w/ (1) FO32T8 Lamp (1) Electronic Ballast	2	32	64	360	23		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	360	16	16	10	20	0	7	0	$1	$101	$0	$81
25	140110	CLASSROOM 5 & 6 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	2	34	68	360	24		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	2	28				56	360	20	20	6	12	0	4	0	$1	$121	$0	$101
26	140111	CLASSROOM 4	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710	38	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	**1**	336	1,224	514	411	16	128	306	196	103	$45	$546	$215	$661
27	140111	CLASSROOM 4	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
28	140112	CLASSROOM 3 & 4 REST ROOM	4' Fixture w/ (1) FO32T8 Lamp (1) Electronic Ballast	2	32	64	360	23		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	360	16	16	10	20	0	7	0	$1	$101	$0	$81
29	140112	CLASSROOM 3 & 4 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	2	34	68	360	24		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	2	28				56	360	20	20	6	12	0	4	0	$1	$121	$0	$101
30	140112	CLASSROOM 3 & 4 REST ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	360	12		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41
31	140113	CLASSROOM 7	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710	38	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	**1**	336	1,224	514	411	16	128	306	196	103	$45	$546	$215	$661
32	140113	CLASSROOM 7	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
33	140114	CLASSROOM 12	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710	37	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	**1**	336	1,224	514	411	16	128	306	196	103	$45	$546	$215	$661
34	140114	CLASSROOM 12	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
35	140115	CLASSROOM 11	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710	38	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	**1**	336	1,224	514	411	16	128	306	196	103	$45	$546	$215	$661
36	140115	CLASSROOM 11	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Lynn Crest Elementary School #22	FACILITY SQ. FT. 41,570	DATE OF AUDIT: 2/20/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.152	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
37	140116	CLASSROOM 11 & 12 REST ROOM	4' Fixture w/ (1) FO32T8 Lamp (1) Electronic Ballast	2	32	64	360	23		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	360	16	16	10	20	0	7	0	$1	$101	$0	$81
38	140116	CLASSROOM 11 & 12 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	2	34	68	360	24		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	2	28				56	360	20	20	6	12	0	4	0	$1	$121	$0	$101
39	140117	CLASSROOM 10	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710	38	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$45	$546	$215	$661
40	140117	CLASSROOM 10	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
41	140118	CLASSROOM 9	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710	40	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$45	$546	$215	$661
42	140118	CLASSROOM 9	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
43	140119	CLASSROOM 9 & 10 REST ROOM	4' Fixture w/ (1) FO32T8 Lamp (1) Electronic Ballast	2	32	64	360	23		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	360	16	16	10	20	0	7	0	$1	$101	$0	$81
44	140119	CLASSROOM 9 & 10 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	2	34	68	360	24		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	2	28				56	360	20	20	6	12	0	4	0	$1	$121	$0	$101
45	140119	CLASSROOM 9 & 10 REST ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	360	12		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41
46	140120	CLASSROOM 8	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710	39	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$45	$546	$215	$661
47	140120	CLASSROOM 8	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
48	140121	CLASSROOM 7 & 8 REST ROOM	4' Fixture w/ (1) FO32T8 Lamp (1) Electronic Ballast	2	32	64	360	23		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	360	16	16	10	20	0	7	0	$1	$101	$0	$81
49	140121	CLASSROOM 7 & 8 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	2	34	68	360	24		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	2	28				56	360	20	20	6	12	0	4	0	$1	$121	$0	$101
50	140121	CLASSROOM 7 & 8 REST ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	360	12		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41
51	140122	FACULTY ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
52	140123	STORAGE	No Access. Area inaccessible during audit.	1	0	0	360	0		None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
53	140124	JC	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	1,500	90		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	1,500	21	21	46	46	0	69	0	$10	$16	$0	$16
54	140125	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,610	303		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,610	219	219	16	32	0	84	0	$13	$137	$0	$117
55	140126	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$68	$0	$58
56	140127	BREAK ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	1,530	177		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	306	Wall	1	84	1,224	129	103	16	32	306	49	26	$11	$137	$215	$331
57	140128	OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,070	120		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42	724.5	Wall	1	42	1,346	87	57	16	16	725	33	30	$10	$68	$215	$273
58	140128	OFFICE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	2,070	66		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	2,070	46	46	10	10	0	21	0	$3	$51	$0	$41
59	140129	MAIN OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,070	174	174	16	32	0	66	0	$10	$137	$0	$117
60	140129	MAIN OFFICE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	2,070	199		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	2,070	137	137	10	30	0	62	0	$9	$152	$0	$122
61	140130	OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,070	120		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42	724.5	Wall	1	42	1,346	87	57	16	16	725	33	30	$10	$68	$215	$273
62	140130	OFFICE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	2,070	66		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	2,070	46	46	10	10	0	21	0	$3	$51	$0	$41
63	140131	OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	724.5	Wall	1	84	1,346	174	113	16	32	725	66	61	$19	$137	$215	$331
64	140131	OFFICE REST ROOM	Incandescent Wall Sconce w/ (1) 60w Incandescent Lamp	1	60	60	360	22		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	360	5	5	46	46	0	17	0	$3	$16	$0	$16
65	140132	STORAGE	No Access. Area inaccessible during audit.	1	0	0	360	0		None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
66	140133	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	7	58	406	2,610	1,060		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	7	42				294	2,610	767	767	16	112	0	292	0	$44	$478	$0	$408
67	140134	LOBBY	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	2,610	251		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	2,610	172	172	10	30	0	78	0	$12	$152	$0	$122
68	140134	LOBBY	8' Fixture w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	2	112	224	2,610	585		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84				168	2,610	438	438	28	56	0	146	0	$22	$168	$0	$148
69	140134	LOBBY	Exit Sign w/ LED	2	2	4	8,760	35		None	2	2				4	8,760	35	35	0	0	0	0	0	$0	$0	$0	$0
70	140135	MULTIPURPOSE	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	36	58	2,088	2,610	5,450		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	36	42				1,512	2,610	3,946	3,946	16	576	0	1,503	0	$229	$2,457	$0	$2,097
71	140135	MULTIPURPOSE STORAGE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	360	12		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41
72	140135	MULTIPURPOSE STORAGE	Incandescent Fixture w/ (1) 60w Incandescent Lamp	2	60	120	360	43		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	2	14				28	360	10	10	46	92	0	33	0	$5	$33	$0	$33

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Lynn Crest Elementary School #22	FACILITY SQ. FT. 41,570	DATE OF AUDIT: 2/20/2013

SPACE DESCRIPTION			EXISTING FIXTURES						REPLACEMENT FIXTURES								ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.152	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
73	140136	MAINTENANCE	4' Wrap Fluorescent w/ (2) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	360	23		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	360	16	16	10	20	0	7	0	$1	$101	$0	$81
74	140136	MAINTENANCE	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	360	22		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	360	5	5	46	46	0	17	0	$3	$16	$0	$16
75	140137	BOILER ROOM	4' Industrial Hood w/ (2) FO32T8 Lamps & (1) Electronic Ballast	5	58	290	2,610	757		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	5	42				210	2,610	548	548	16	80	0	209	0	$32	$341	$0	$291
76	140137	BOILER ROOM	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$68	$0	$58
77	140137	BOILER ROOM	Exit Sign w/ LED	2	2	4	8,760	35		None	2	2				4	8,760	35	35	0	0	0	0	0	$0	$0	$0	$0
78	140138	STORAGE	No Access. Area inaccessible during audit.	1	0	0	360	0		None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
79	140139	JC	No Access. Area inaccessible during audit.	1	0	0	1,500	0		None	1	0				0	1,500	0	0	0	0	0	0	0	$0	$0	$0	$0
80	140140	CLASSROOM 24	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	18	58	1,044	1,530	1,597		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	18	42	306	Wall	**1**	756	1,224	1,157	925	16	288	306	441	231	$102	$1,229	$215	$1,243
81	140141	CLASSROOM 21	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	1,530	1,065		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42	306	Wall	**1**	504	1,224	771	617	16	192	306	294	154	$68	$819	$215	$894
82	140144	MEDIA 23	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	36	58	2,088	2,610	5,450	33	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	36	42	522	Wall	**2**	1,512	2,088	3,946	3,157	16	576	522	1,503	789	$348	$2,457	$429	$2,486
83	140142	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,610	454		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	2,610	329	329	16	48	0	125	0	$19	$205	$0	$175
84	140143	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,610	454		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	2,610	329	329	16	48	0	125	0	$19	$205	$0	$175
85	140146	CLASSROOM 19	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	18	58	1,044	1,530	1,597		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	18	42	306	Wall	**1**	756	1,224	1,157	925	16	288	306	441	231	$102	$1,229	$215	$1,243
86	140147	CLASSROOM 22	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	18	58	1,044	1,530	1,597		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	18	42	306	Wall	**1**	756	1,224	1,157	925	16	288	306	441	231	$102	$1,229	$215	$1,243
87	140145	CLASSROOM 20	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	18	58	1,044	1,530	1,597		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	18	42	306	Wall	**1**	756	1,224	1,157	925	16	288	306	441	231	$102	$1,229	$215	$1,243
88	140148	CLASSROOM 15	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710	41	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	**1**	336	1,224	514	411	16	128	306	196	103	$45	$546	$215	$661
89	140148	CLASSROOM 15	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
90	140149	CLASSROOM 14	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	**1**	336	1,224	514	411	16	128	306	196	103	$45	$546	$215	$661
91	140149	CLASSROOM 14	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
92	140150	CLASSROOM 13	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	**1**	336	1,224	514	411	16	128	306	196	103	$45	$546	$215	$661
93	140150	CLASSROOM 13	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
94	140151	CLASSROOM 13 & 14 REST ROOM	4' Fixture w/ (1) FO32T8 Lamp (1) Electronic Ballast	2	32	64	360	23		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	360	16	16	10	20	0	7	0	$1	$101	$0	$81
95	140151	CLASSROOM 13 & 14 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	2	34	68	360	24		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	2	28				56	360	20	20	6	12	0	4	0	$1	$121	$0	$101
96	140151	CLASSROOM 13 & 14 REST ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	360	12		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41
97	140152	CLASSROOM 18	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	**1**	336	1,224	514	411	16	128	306	196	103	$45	$546	$215	$661
98	140152	CLASSROOM 18	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
99	140153	CLASSROOM 17	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	**1**	336	1,224	514	411	16	128	306	196	103	$45	$546	$215	$661
100	140153	CLASSROOM 17	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
101	140154	CLASSROOM 17 & 18 REST ROOM	4' Fixture w/ (1) FO32T8 Lamp (1) Electronic Ballast	2	32	64	360	23		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	360	16	16	10	20	0	7	0	$1	$101	$0	$81
102	140154	CLASSROOM 17 & 18 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	2	34	68	360	24		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	2	28				56	360	20	20	6	12	0	4	0	$1	$121	$0	$101
103	140154	CLASSROOM 17 & 18 REST ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	360	12		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41
104	140155	CLASSROOM 16	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	**1**	336	1,224	514	411	16	128	306	196	103	$45	$546	$215	$661
105	140155	CLASSROOM 16	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
106	140156	CLASSROOM 15 & 16 REST ROOM	4' Fixture w/ (1) FO32T8 Lamp (1) Electronic Ballast	2	32	64	360	23		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	360	16	16	10	20	0	7	0	$1	$101	$0	$81
107	140156	CLASSROOM 15 & 16 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	2	34	68	360	24		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	2	28				56	360	20	20	6	12	0	4	0	$1	$121	$0	$101
108	140157	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	14	58	812	2,610	2,119		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	14	42				588	2,610	1,535	1,535	16	224	0	585	0	$89	$956	$0	$816

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Lynn Crest Elementary School #22	FACILITY SQ. FT. 41,570	DATE OF AUDIT: 2/20/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.152	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
109	140157	CORRIDOR	Exit Sign w/ LED	5	2	10	8,760	88		None	5	2				10	8,760	88	88	0	0	0	0	0	$0	$0	$0	$0
110	140158	VESTIBULE	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$68	$0	$58
111	140159	CORRIDOR	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,610	303		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,610	219	219	16	32	0	84	0	$13	$137	$0	$117
112	140159	CORRIDOR	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	2,610	84		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	2,610	57	57	10	10	0	26	0	$4	$51	$0	$41
113	14EXT	EXTERIOR	HID Wall Pack Fixture w/ (1) 175w Metal Halide Lamp & Ballast	6	210	1,260	4,745	5,979		LED (1) New 56w Wall Pack Fixture	6	56				336	4,745	1,594	1,594	154	924	0	4,384	0	$666	$2,652	$0	$2,652
				501		**27,340**		**51,647**			**501**				**33**	**19,088**		**34,597**	**30,100**		**8,252**	**11,264**	**17,050**	**4,497**	**$3,275**	**$34,138**	**$7,079**	**$35,867**

LIGHTING RETROFIT SUMMARY FOR:
Woodbine Avenue Elementary School #23
89 Woodbine Avenue, Avenel, NJ 07001

BUILDING INFORMATION		EXISTING FIXTURES				PROPOSED FIXTURES				SAVINGS						FINANCIAL					
BUILDING	SQ. FT.	PRE TOTAL FIXT. QTY	PRE TOTAL FIXT. WATTS	PRE ANNUAL KWH CONSUMPTION	PRE WATTS / SQ. FT	POST TOTAL FIXT. QTY	POST TOTAL FIXT. WATTS	POST ANNUAL KWH CONSUMPTION	POST WATTS / SQ. FT	WATTS SAVED	ANNUAL KWH SAVED	ANNUAL KWH SAVED WITH SENSORS	ANNUAL SAVINGS $ FIXT.	ANNUAL SAVINGS $ SENSORS	ANNUAL SAVINGS $ TOTAL	CO2 REDUCTION (TONS)	NJ Smart Start REBATE $	**FIXTURES** TOTAL (INSTALLED) COST $	**SENSORS** TOTAL (INSTALLED) COST $	**MATERIAL** TOTAL (INSTALLED) COST $	SIMPLE PAYBACK NET OF REBATE (YEARS)
Woodbine Avenue Elementary School #23	**46,621**	**481**	**37,560**	**64,423**	**0.81**	**481**	**27,104**	**41,683**	**0.58**	**10,456**	**22,740**	**4,382**	**$4,002**	**$771**	**$4,774**	**7.5**	**$5,180**	**$39,116**	**$5,792**	**$44,908**	**8.3**

12%	**PERCENTAGE OF REBATES IN TOTAL INSTALLED COST**
65%	**PERCENTAGE OF CONSUMPTION COMPARE TO EXISTING STATE**
48%	**EXISTING PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**
31%	**PROPOSED PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Woodbine Avenue Elementary School #23	FACILITY SQ. FT. 46,621	DATE OF AUDIT: 2/25/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES										ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.176	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
1	230101	MAIN OFFICE	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	3	112	336	2,070	696		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	3	84				252	2,070	522	522	28	84	0	174	0	$31	$252	$0	$222
2	230102	OFFICE	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	2	112	224	2,070	464		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84	724.5	Wall	1	168	1,346	348	226	28	56	725	116	122	$42	$168	$215	$362
3	230102	OFFICE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,070	120		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,070	87	87	16	16	0	33	0	$6	$68	$0	$58
4	230103	STORAGE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
5	230104	REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	2,610	89		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,610	73	73	6	6	0	16	0	$3	$60	$0	$50
6	230105	NURSE	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	2	112	224	1,530	343		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84				168	1,530	257	257	28	56	0	86	0	$15	$168	$0	$148
7	230105	NURSE	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	1,530	52		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	1,530	43	43	6	6	0	9	0	$2	$60	$0	$50
8	230106	STORAGE	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	1	112	112	360	40		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84				84	360	30	30	28	28	0	10	0	$2	$84	$0	$74
9	230107	CLASSROOM 2	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$72	$503	$215	$638
10	230108	CLASSROOM 1	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	4	112	448	1,530	685		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	4	84	306	Wall	1	336	1,224	514	411	28	112	306	171	103	$48	$335	$215	$490
11	230109	MECHANICAL	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	360	125		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42				252	360	91	91	16	96	0	35	0	$6	$410	$0	$350
12	230110	ELECTRICAL	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	360	42		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117
13	230111	FACULTY ROOM	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	4	112	448	1,530	685		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	4	84	306	Wall	1	336	1,224	514	411	28	112	306	171	103	$48	$335	$215	$490
14	230112	REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
15	230113	REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
16	230114	KITCHEN	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	1,500	87		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	1,500	63	63	16	16	0	24	0	$4	$68	$0	$58
17	230115	STORAGE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	360	42		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117
18	230116	MULTIPURPOSE	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	5	112	560	2,610	1,462	25	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	5	84				420	2,610	1,096	1,096	28	140	0	365	0	$64	$419	$0	$369
19	230116	MULTIPURPOSE	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	16	58	928	2,610	2,422		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	16	42				672	2,610	1,754	1,754	16	256	0	668	0	$118	$1,092	$0	$932
20	230117	MEDIA CENTER	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	10	112	1,120	2,610	2,923	60	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	10	84				840	2,610	2,192	2,192	28	280	0	731	0	$129	$839	$0	$739
21	230117	MEDIA CENTER	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$68	$0	$58
22	230118	ELECTRICAL	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
23	230119	MEDIA CENTER REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
24	230120	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
25	230121	CLASSROOM E2 & E4 CORRIDOR	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	1,530	89		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	1,530	64	64	16	16	0	24	0	$4	$68	$0	$58
26	230122	CLASSROOM E2 & E4 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
27	230123	CLASSROOM E2 & E4 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
28	230124	CLASSROOM E1 & E3 CORRIDOR	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	1,530	89		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	1,530	64	64	16	16	0	24	0	$4	$68	$0	$58
29	230125	CLASSROOM E1 & E3 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
30	230126	CLASSROOM E1 & E3 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
31	230127	CLASSROOM E4	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799	51	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$59	$614	$215	$719
32	230128	CLASSROOM E2	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	7	58	406	1,530	621		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	7	42	306	Wall	1	294	1,224	450	360	16	112	306	171	90	$46	$478	$215	$602
33	230129	CLASSROOM E3	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	7	58	406	1,530	621		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	7	42	306	Wall	1	294	1,224	450	360	16	112	306	171	90	$46	$478	$215	$602
34	230130	CLASSROOM E1	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	7	58	406	1,530	621		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	7	42	306	Wall	1	294	1,224	450	360	16	112	306	171	90	$46	$478	$215	$602
35	230131	CLASSROOM B4 & B3 CORRIDOR	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	1,530	89		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	1,530	64	64	16	16	0	24	0	$4	$68	$0	$58
36	230132	CLASSROOM B4 & B3 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Woodbine Avenue Elementary School #23	FACILITY SQ. FT. 46,621	DATE OF AUDIT: 2/25/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.176	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
37	230133	JC	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	1,500	90		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	1,500	21	21	46	46	0	69	0	$12	$16	$0	$16
38	230134	CLASSROOM B4 & B3 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
39	230135	CLASSROOM B4	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	7	112	784	1,530	1,200	65	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	7	84	306	Wall	1	588	1,224	900	720	28	196	306	300	180	$84	$587	$215	$711
40	230135	CLASSROOM B4	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$13	$205	$0	$175
41	230136	CLASSROOM B3	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	7	112	784	1,530	1,200		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	7	84	306	Wall	1	588	1,224	900	720	28	196	306	300	180	$84	$587	$215	$711
42	230136	CLASSROOM B3	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$13	$205	$0	$175
43	230137	CLASSROOM B2	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	7	112	784	1,530	1,200		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	7	84	306	Wall	1	588	1,224	900	720	28	196	306	300	180	$84	$587	$215	$711
44	230137	CLASSROOM B2	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$13	$205	$0	$175
45	230138	CLASSROOM B1	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	7	112	784	1,530	1,200		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	7	84	306	Wall	1	588	1,224	900	720	28	196	306	300	180	$84	$587	$215	$711
46	230138	CLASSROOM B1	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$13	$205	$0	$175
47	230139	CLASSROOM B1 & B2 CORRIDOR	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	1,530	89		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	1,530	64	64	16	16	0	24	0	$4	$68	$0	$58
48	230140	CLASSROOM B1 & B2 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
49	230141	PIPE CHASE	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	360	22		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	360	5	5	46	46	0	17	0	$3	$16	$0	$16
50	230142	CLASSROOM B1 & B2 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
51	230143	CLASSROOM D1 & D3 CORRIDOR	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	1,530	89		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	1,530	64	64	16	16	0	24	0	$4	$68	$0	$58
52	230144	CLASSROOM D1 & D3 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
53	230145	PIPE CHASE	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	360	22		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	360	5	5	46	46	0	17	0	$3	$16	$0	$16
54	230146	CLASSROOM D1 & D3 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
55	230147	CLASSROOM D3	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	7	112	784	1,530	1,200		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	7	84	306	Wall	1	588	1,224	900	720	28	196	306	300	180	$84	$587	$215	$711
56	230147	CLASSROOM D3	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$13	$205	$0	$175
57	230148	CLASSROOM D1	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	7	112	784	1,530	1,200		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	7	84	306	Wall	1	588	1,224	900	720	28	196	306	300	180	$84	$587	$215	$711
58	230148	CLASSROOM D1	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$13	$205	$0	$175
59	230149	CLASSROOM D4	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	7	112	784	1,530	1,200		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	7	84	306	Wall	1	588	1,224	900	720	28	196	306	300	180	$84	$587	$215	$711
60	230149	CLASSROOM D4	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$13	$205	$0	$175
61	230150	CLASSROOM D2	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	7	112	784	1,530	1,200		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	7	84	306	Wall	1	588	1,224	900	720	28	196	306	300	180	$84	$587	$215	$711
62	230150	CLASSROOM D2	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$13	$205	$0	$175
63	230151	CLASSROOM D2 & D4 CORRIDOR	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	1,530	89		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	1,530	64	64	16	16	0	24	0	$4	$68	$0	$58
64	230152	CLASSROOM D2 & D4 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
65	230153	PIPE CHASE	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	360	22		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	360	5	5	46	46	0	17	0	$3	$16	$0	$16
66	230154	CLASSROOM D2 & D4 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
67	230155	CLASSROOM A1 & A2 CORRIDOR	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	1,530	89		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	1,530	64	64	16	16	0	24	0	$4	$68	$0	$58
68	230156	CLASSROOM A1 & A2 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
69	230157	JC	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	1,500	90		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	1,500	21	21	46	46	0	69	0	$12	$16	$0	$16
70	230158	CLASSROOM A1 & A2 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
71	230159	CLASSROOM A1	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	7	112	784	1,530	1,200		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	7	84	306	Wall	1	588	1,224	900	720	28	196	306	300	180	$84	$587	$215	$711
72	230159	CLASSROOM A1	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$13	$205	$0	$175

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Woodbine Avenue Elementary School #23	FACILITY SQ. FT. 46,621	DATE OF AUDIT: 2/25/2013

SPACE DESCRIPTION			EXISTING FIXTURES						REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.176	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
73	230160	CLASSROOM A3	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	7	112	784	1,530	1,200		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	7	84	306	Wall	1	588	1,224	900	720	28	196	306	300	180	$84	$587	$215	$711
74	230160	CLASSROOM A3	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$13	$205	$0	$175
75	230161	CLASSROOM A4	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	7	112	784	1,530	1,200		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	7	84	306	Wall	1	588	1,224	900	720	28	196	306	300	180	$84	$587	$215	$711
76	230161	CLASSROOM A4	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$13	$205	$0	$175
77	230162	CLASSROOM A2	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	7	112	784	1,530	1,200		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	7	84	306	Wall	1	588	1,224	900	720	28	196	306	300	180	$84	$587	$215	$711
78	230162	CLASSROOM A2	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$13	$205	$0	$175
79	230163	CLASSROOM A3 & A4 CORRIDOR	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	1,530	89		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	1,530	64	64	16	16	0	24	0	$4	$68	$0	$58
80	230164	CLASSROOM A3 & A4 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
81	230165	JC	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	1,500	90		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	1,500	21	21	46	46	0	69	0	$12	$16	$0	$16
82	230166	CLASSROOM A3 & A4 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
83	230167	CLASSROOM 35	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	11	88	968	1,224	1,185		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	11	63				693	1,224	848	848	25	275	0	337	0	$59	$837	$0	$727
84	230167	CLASSROOM 35	2'x4' Troffer w/ (3) FO32T8 Lamps & (2) Electronic Ballast Battery Backup	1	88	88	1,224	108		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast Battery Backup	1	63				63	1,224	77	77	25	25	0	31	0	$5	$164	$0	$154
85	230168	CLASSROOM 30	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	10	88	880	1,224	1,077		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	10	63				630	1,224	771	771	25	250	0	306	0	$54	$761	$0	$661
86	230168	CLASSROOM 30	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast	4	58	232	1,224	284		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast 2'x2' Silver Reflector Kit	4	28				112	1,224	137	137	30	120	0	147	0	$26	$286	$0	$246
87	230168	CLASSROOM 30	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast Battery Backup	1	58	58	1,224	71		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast Battery Back-up 2'x2' Silver Reflector Kit	1	28				28	1,224	34	34	30	30	0	37	0	$6	$159	$0	$149
88	230169	CLASSROOM 29	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	11	88	968	1,224	1,185		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	11	63				693	1,224	848	848	25	275	0	337	0	$59	$837	$0	$727
89	230169	CLASSROOM 29	2'x4' Troffer w/ (3) FO32T8 Lamps & (2) Electronic Ballast Battery Backup	1	88	88	1,224	108		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast Battery Backup	1	63				63	1,224	77	77	25	25	0	31	0	$5	$164	$0	$154
90	230170	REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	1	58	58	2,088	121		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	1	42				42	2,088	88	88	16	16	0	33	0	$6	$146	$0	$136
91	230171	REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	1	58	58	2,088	121		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	1	42				42	2,088	88	88	16	16	0	33	0	$6	$146	$0	$136
92	230172	REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	1	58	58	2,088	121		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	1	42				42	2,088	88	88	16	16	0	33	0	$6	$146	$0	$136
93	230173	ELECTRICAL	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast, Surface Mounted	1	58	58	360	21		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast 2'x2' Silver Reflector Kit	1	28				28	360	10	10	30	30	0	11	0	$2	$72	$0	$62
94	230174	JC	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast, Surface Mounted	1	58	58	1,500	87		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast 2'x2' Silver Reflector Kit	1	28				28	1,500	42	42	30	30	0	45	0	$8	$72	$0	$62
95	230175	STORAGE	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast, Surface Mounted	1	58	58	360	21		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast 2'x2' Silver Reflector Kit	1	28				28	360	10	10	30	30	0	11	0	$2	$72	$0	$62
96	230176	ELECTRICAL	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast, Surface Mounted	1	58	58	360	21		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast 2'x2' Silver Reflector Kit	1	28				28	360	10	10	30	30	0	11	0	$2	$72	$0	$62
97	230177	CLASSROOM C3 & C4 CORRIDOR	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	1,530	89		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	1,530	64	64	16	16	0	24	0	$4	$68	$0	$58
98	230178	CLASSROOM C3 & C4 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
99	230179	JC	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	1,500	90		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	1,500	21	21	46	46	0	69	0	$12	$16	$0	$16
100	230180	CLASSROOM C3 & C4 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
101	230181	CLASSROOM C4	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	7	112	784	1,530	1,200		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	7	84	306	Wall	1	588	1,224	900	720	28	196	306	300	180	$84	$587	$215	$711
102	230181	CLASSROOM C4	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$13	$205	$0	$175
103	230182	CLASSROOM C2	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	7	112	784	1,530	1,200		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	7	84	306	Wall	1	588	1,224	900	720	28	196	306	300	180	$84	$587	$215	$711
104	230182	CLASSROOM C2	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$13	$205	$0	$175
105	230183	CLASSROOM C3	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	7	112	784	1,530	1,200		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	7	84	306	Wall	1	588	1,224	900	720	28	196	306	300	180	$84	$587	$215	$711
106	230183	CLASSROOM C3	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$13	$205	$0	$175
107	230184	CLASSROOM C1	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	7	112	784	1,530	1,200		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	7	84	306	Wall	1	588	1,224	900	720	28	196	306	300	180	$84	$587	$215	$711
108	230184	CLASSROOM C1	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$13	$205	$0	$175

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Woodbine Avenue Elementary School #23	FACILITY SQ. FT. 46,621	DATE OF AUDIT: 2/25/2013

SPACE DESCRIPTION			EXISTING FIXTURES						REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.176	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
109	230185	CLASSROOM C1 & C2 CORRIDOR	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	1,530	89		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	1,530	64	64	16	16	0	24	0	$4	$68	$0	$58
110	230186	CLASSROOM C1 & C2 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
111	230187	JC	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	1,500	90		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	1,500	21	21	46	46	0	69	0	$12	$16	$0	$16
112	230188	CLASSROOM C1 & C2 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
113	230189	REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	1	58	58	2,088	121		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	1	42				42	2,088	88	88	16	16	0	33	0	$6	$146	$0	$136
114	230190	REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	1	58	58	2,088	121		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	1	42				42	2,088	88	88	16	16	0	33	0	$6	$146	$0	$136
115	230191	REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	1	58	58	2,088	121		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	1	42				42	2,088	88	88	16	16	0	33	0	$6	$146	$0	$136
116	230192	CLASSROOM 24	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	11	88	968	1,530	1,481		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	11	63	306	Wall	1	693	1,224	1,060	848	25	275	306	421	212	$111	$837	$215	$921
117	230192	CLASSROOM 24	2'x4' Troffer w/ (3) FO32T8 Lamps & (2) Electronic Ballast Battery Backup	1	88	88	1,530	135		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast Battery Backup	1	63				63	1,530	96	96	25	25	0	38	0	$7	$164	$0	$154
118	230193	CLASSROOM 21	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	11	88	968	1,530	1,481		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	11	63	306	Wall	1	693	1,224	1,060	848	25	275	306	421	212	$111	$837	$215	$921
119	230193	CLASSROOM 21	2'x4' Troffer w/ (3) FO32T8 Lamps & (2) Electronic Ballast Battery Backup	1	88	88	1,530	135		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast Battery Backup	1	63				63	1,530	96	96	25	25	0	38	0	$7	$164	$0	$154
120	230194	CLASSROOM 20	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	11	88	968	1,530	1,481		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	11	63	306	Wall	1	693	1,224	1,060	848	25	275	306	421	212	$111	$837	$215	$921
121	230194	CLASSROOM 20	2'x4' Troffer w/ (3) FO32T8 Lamps & (2) Electronic Ballast Battery Backup	1	88	88	1,530	135		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast Battery Backup	1	63				63	1,530	96	96	25	25	0	38	0	$7	$164	$0	$154
122	230195	CORRIDORS	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	40	58	2,320	2,610	6,055		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	40	42				1,680	2,610	4,385	4,385	16	640	0	1,670	0	$294	$2,730	$0	$2,330
123	230195	CORRIDORS	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	37	58	2,146	2,610	5,601		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	37	42				1,554	2,610	4,056	4,056	16	592	0	1,545	0	$272	$5,411	$0	$5,041
124	230195	CORRIDORS	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	2,610	908		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42				252	2,610	658	658	16	96	0	251	0	$44	$410	$0	$350
125	230195	CORRIDORS	Downlight Fixture w/ (2) 26w CFL & (1) Magnetic Ballast	4	52	208	2,610	543		None	4	52				208	2,610	543	543	0	0	0	0	0	$0	$0	$0	$0
126	230195	CORRIDORS	Exit Sign w/ (2) 15W Incandescent Lamps	4	30	120	2,610	313		New LED Exit Sign w/ Battery backup	4	2				8	2,610	21	21	28	112	0	292	0	$51	$377	$0	$337
127	23EXT	EXTERIOR	Incandescent Fixture w/ (1) 100w Incandescent Lamp	2	100	200	4,745	949		Incandescent Fixture w/ 32w Screw-In CFL	2	32				64	4,745	304	304	68	136	0	645	0	$114	$51	$0	$51
128	23EXT	EXTERIOR	HID Wall Pack Fixture w/ (1) 175w Metal Halide Lamp & Ballast	1	210	210	4,745	996		LED (1) New 56w Wall Pack Fixture	1	56				56	4,745	266	266	154	154	0	731	0	$129	$442	$0	$442
				481		**37,560**		**64,423**			**481**				**27**	**27,104**		**46,065**	**41,683**		**10,456**	**8,681**	**18,358**	**4,382**	**$4,002**	**$39,116**	**$5,792**	**$39,728**

LIGHTING RETROFIT SUMMARY FOR:
Kennedy Park Elementary School #24
150 Goodrich Street, Iselin, NJ 08830

BUILDING INFORMATION		EXISTING FIXTURES				PROPOSED FIXTURES				SAVINGS						FINANCIAL					
BUILDING	SQ. FT.	PRE TOTAL FIXT. QTY	PRE TOTAL FIXT. WATTS	PRE ANNUAL KWH CONSUMPTION	PRE WATTS / SQ. FT	POST TOTAL FIXT. QTY	POST TOTAL FIXT. WATTS	POST ANNUAL KWH CONSUMPTION	POST WATTS / SQ. FT	WATTS SAVED	ANNUAL KWH SAVED	ANNUAL KWH SAVED WITH SENSORS	ANNUAL SAVINGS $ FIXT.	ANNUAL SAVINGS $ SENSORS	ANNUAL SAVINGS $ TOTAL	CO2 REDUCTION (TONS)	NJ Smart Start REBATE $	**FIXTURES** TOTAL (INSTALLED) COST $	**SENSORS** TOTAL (INSTALLED) COST $	**MATERIAL** TOTAL (INSTALLED) COST $	SIMPLE PAYBACK NET OF REBATE (YEARS)
Kennedy Park Elementary School #24	**33,334**	**404**	**35,810**	**57,570**	**1.07**	**404**	**26,584**	**36,609**	**0.80**	**9,226**	**20,961**	**5,655**	**$3,312**	**$893**	**$4,205**	**6.9**	**$3,960**	**$31,064**	**$0**	**$31,064**	**6.4**

13%	**PERCENTAGE OF REBATES IN TOTAL INSTALLED COST**
64%	**PERCENTAGE OF CONSUMPTION COMPARE TO EXISTING STATE**
44%	**EXISTING PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**
28%	**PROPOSED PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Kennedy Park Elementary School #24	FACILITY SQ. FT. 33,334	DATE OF AUDIT: 2/21/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES										ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.158	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
1	120101	CLASSROOM C1	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	13	112	1,456	1,530	2,228	48	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	13	84	306	OSDTW	1	1,092	1,224	1,671	1,337	28	364	306	557	334	$141	$1,090	$0	$960
2	120101	CLASSROOM C1	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$12	$205	$0	$175
3	120102	CLASSROOM C4	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	13	112	1,456	1,530	2,228		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	13	84	306	OSDTW	1	1,092	1,224	1,671	1,337	28	364	306	557	334	$141	$1,090	$0	$960
4	120102	CLASSROOM C4	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$12	$205	$0	$175
5	120103	REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
6	120104	REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
7	120105	STORAGE	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
8	120106	LOBBY	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$68	$0	$58
9	120107	CLASSROOM C3	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	13	112	1,456	1,530	2,228		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	13	84	306	OSDTW	1	1,092	1,224	1,671	1,337	28	364	306	557	334	$141	$1,090	$0	$960
10	120107	CLASSROOM C3	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$12	$205	$0	$175
11	120108	CLASSROOM C2	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	13	112	1,456	1,530	2,228		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	13	84	306	OSDTW	1	1,092	1,224	1,671	1,337	28	364	306	557	334	$141	$1,090	$0	$960
12	120108	CLASSROOM C2	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$12	$205	$0	$175
13	120109	REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
14	120110	REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
15	120111	STORAGE	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
16	120112	LOBBY	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$68	$0	$58
17	120113	LOBBY	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$68	$0	$58
18	120114	MUSIC ROOM	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	1,530	177	22	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	1,530	129	129	16	32	0	49	0	$8	$137	$0	$117
19	120115	MUSIC ROOM	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	10	112	1,120	1,530	1,714	26	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	10	84	306	OSDTW	2	840	1,224	1,285	1,028	28	280	306	428	257	$108	$839	$0	$739
20	120115	MUSIC ROOM	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	18	58	1,044	1,530	1,597		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	18	42				756	1,530	1,157	1,157	16	288	0	441	0	$70	$1,229	$0	$1,049
21	120116	KITCHEN	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	1,500	87		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	1,500	63	63	16	16	0	24	0	$4	$68	$0	$58
22	120117	BREAK ROOM	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	4	112	448	1,530	685	58	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	4	84				336	1,530	514	514	28	112	0	171	0	$27	$335	$0	$295
23	120118	OFFICE	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,070	120		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,070	87	87	16	16	0	33	0	$5	$68	$0	$58
24	120119	WOMENS REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	2	34	68	360	24	17	Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	2	28				56	360	20	20	6	12	0	4	0	$1	$121	$0	$101
25	120120	MENS REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
26	120121	NURSE	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	4	112	448	1,530	685	55	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	4	84				336	1,530	514	514	28	112	0	171	0	$27	$335	$0	$295
27	120121	NURSE REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
28	120122	OFFICE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,070	174	174	16	32	0	66	0	$10	$137	$0	$117
29	120123	MECHANICAL ROOM	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	360	167		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42				336	360	121	121	16	128	0	46	0	$7	$546	$0	$466
30	120124	AIDES ROOM	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	4	112	448	1,530	685		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	4	84	306	OSDTW	1	336	1,224	514	411	28	112	306	171	103	$43	$335	$0	$295
31	120125	ART ROOM	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	6	112	672	1,530	1,028	68	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	OSDTW	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$0	$443
32	120126	SUPPLY ROOM	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	360	42		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117
33	120127	MAIN OFFICE	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	8	112	896	2,070	1,855	80	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	8	84				672	2,070	1,391	1,391	28	224	0	464	0	$73	$671	$0	$591
34	120128	OFFICE	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	4	112	448	2,070	927	62	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	4	84				336	2,070	696	696	28	112	0	232	0	$37	$335	$0	$295
35	120129	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,610	454	34	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	2,610	329	329	16	48	0	125	0	$20	$205	$0	$175
36	120129	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	2	58	116	2,610	303		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	2	42				84	2,610	219	219	16	32	0	84	0	$13	$293	$0	$273

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Kennedy Park Elementary School #24	FACILITY SQ. FT. 33,334	DATE OF AUDIT: 2/21/2013

SPACE DESCRIPTION			EXISTING FIXTURES						REPLACEMENT FIXTURES								ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.158	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
37	120129	CORRIDOR	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	2,610	1,211		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42				336	2,610	877	877	16	128	0	334	0	$53	$546	$0	$466
38	120130	JC	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	1,500	90		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	1,500	21	21	46	46	0	69	0	$11	$16	$0	$16
39	120131	REST ROOM	Compact Fluorescent Circleline Drum Fixture w/ (1) FC8T9 & (1) FC12T9 Circleline Lamp and (1) Magnetic Ballast	1	47	47	360	17		None	1	47				47	360	17	17	0	0	0	0	0	$0	$0	$0	$0
40	120132	STORAGE	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	360	22		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	360	5	5	46	46	0	17	0	$3	$16	$0	$16
41	120133	MEDIA CENTER	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	10	112	1,120	2,610	2,923		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	10	84				840	2,610	2,192	2,192	28	280	0	731	0	$115	$839	$0	$739
42	120134	KINDERGARTEN	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	8	112	896	1,530	1,371		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	8	84	306	OSDTW	1	672	1,224	1,028	823	28	224	306	343	206	$87	$671	$0	$591
43	120134	KINDERGARTEN	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	4	32	128	1,530	196		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	4	22				88	1,530	135	135	10	40	0	61	0	$10	$203	$0	$163
44	120134	KINDERGARTEN REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
45	120135	JC	Compact Fluorescent Circleline Drum Fixture w/ (1) FC8T9 & (1) FC12T9 Circleline Lamp and (1) Magnetic Ballast	1	47	47	1,500	71		None	1	47				47	1,500	71	71	0	0	0	0	0	$0	$0	$0	$0
46	120136	CLASSROOM D1	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	OSDTW	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$0	$443
47	120136	CLASSROOM D1	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	1,530	98		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	1,530	67	67	10	20	0	31	0	$5	$101	$0	$81
48	120136	CLASSROOM D1 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
49	120137	CLASSROOM D2	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	OSDTW	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$0	$443
50	120137	CLASSROOM D2	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	1,530	98		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	1,530	67	67	10	20	0	31	0	$5	$101	$0	$81
51	120137	CLASSROOM D2 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
52	120138	CLASSROOM D3	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	OSDTW	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$0	$443
53	120138	CLASSROOM D3	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	1,530	98		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	1,530	67	67	10	20	0	31	0	$5	$101	$0	$81
54	120138	CLASSROOM D3 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
55	120139	CLASSROOM D4	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	OSDTW	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$0	$443
56	120139	CLASSROOM D4	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	1,530	98		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	1,530	67	67	10	20	0	31	0	$5	$101	$0	$81
57	120139	CLASSROOM D4 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
58	120140	CLASSROOM D5	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	OSDTW	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$0	$443
59	120140	CLASSROOM D5	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	1,530	98		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	1,530	67	67	10	20	0	31	0	$5	$101	$0	$81
60	120140	CLASSROOM D5 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
61	120141	CLASSROOM D6	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	OSDTW	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$0	$443
62	120141	CLASSROOM D6	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	1,530	98		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	1,530	67	67	10	20	0	31	0	$5	$101	$0	$81
63	120141	CLASSROOM D6 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
64	120142	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	2,610	908		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42				252	2,610	658	658	16	96	0	251	0	$40	$410	$0	$350
65	120142	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	5	58	290	2,610	757		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	5	42				210	2,610	548	548	16	80	0	209	0	$33	$731	$0	$681
66	120143	CLASSROOM A2	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	13	112	1,456	1,530	2,228		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	13	84	306	OSDTW	1	1,092	1,224	1,671	1,337	28	364	306	557	334	$141	$1,090	$0	$960
67	120143	CLASSROOM A2	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$12	$205	$0	$175
68	120144	CLASSROOM A3	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	13	112	1,456	1,530	2,228		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	13	84	306	OSDTW	1	1,092	1,224	1,671	1,337	28	364	306	557	334	$141	$1,090	$0	$960
69	120144	CLASSROOM A3	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$12	$205	$0	$175
70	120145	STORAGE	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
71	120146	REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
72	120142	REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER:	Woodbridge School District	FACILITY SQ. FT.	DATE OF AUDIT:
	FACILITY:	Kennedy Park Elementary School #24	33,334	2/21/2013

SPACE DESCRIPTION			EXISTING FIXTURES						REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.158	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
73	120148	LOBBY	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$68	$0	$58
74	120149	CLASSROOM A4	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	13	112	1,456	1,530	2,228		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	13	84	306	OSDTW	1	1,092	1,224	1,671	1,337	28	364	306	557	334	$141	$1,090	$0	$960
75	120149	CLASSROOM A4	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$12	$205	$0	$175
76	120150	CLASSROOM A1	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	13	112	1,456	1,530	2,228		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	13	84	306	OSDTW	1	1,092	1,224	1,671	1,337	28	364	306	557	334	$141	$1,090	$0	$960
77	120150	CLASSROOM A1	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$12	$205	$0	$175
78	120151	STORAGE	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
79	120152	REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
80	120153	REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
81	120154	LOBBY	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$68	$0	$58
82	120155	CLASSROOM B2	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	13	112	1,456	1,530	2,228		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	13	84	306	OSDTW	1	1,092	1,224	1,671	1,337	28	364	306	557	334	$141	$1,090	$0	$960
83	120155	CLASSROOM B2	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$12	$205	$0	$175
84	120156	CLASSROOM B3	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	13	112	1,456	1,530	2,228		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	13	84	306	OSDTW	1	1,092	1,224	1,671	1,337	28	364	306	557	334	$141	$1,090	$0	$960
85	120156	CLASSROOM B3	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$12	$205	$0	$175
86	120157	STORAGE	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
87	120158	REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
88	120159	LOBBY	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$68	$0	$58
89	120160	REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
90	120161	CLASSROOM B4	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	13	112	1,456	1,530	2,228		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	13	84	306	OSDTW	1	1,092	1,224	1,671	1,337	28	364	306	557	334	$141	$1,090	$0	$960
91	120161	CLASSROOM B4	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$12	$205	$0	$175
92	120162	CLASSROOM B1	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	13	112	1,456	1,530	2,228		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	13	84	306	OSDTW	1	1,092	1,224	1,671	1,337	28	364	306	557	334	$141	$1,090	$0	$960
93	120162	CLASSROOM B1	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$12	$205	$0	$175
94	120163	STORAGE	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
95	120164	REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
96	120165	LOBBY	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$68	$0	$58
97	120166	REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
98	12EXT	EXTERIOR	Incandescent Fixture w/ (1) 60w Incandescent Lamp	4	60	240	4,745	1,139		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	4	14				56	4,745	266	266	46	184	0	873	0	$138	$65	$0	$65
				404		**35,810**		**57,570**			**404**				**23**	**26,584**		**42,263**	**36,609**		**9,226**	**6,732**	**15,306**	**5,655**	**$3,312**	**$31,064**	**$0**	**$27,104**

LIGHTING RETROFIT SUMMARY FOR:
Lafayette Estates Elementary School #25
500 Ford Avenue, Fords, NJ 08863

BUILDING INFORMATION		EXISTING FIXTURES				PROPOSED FIXTURES				SAVINGS						FINANCIAL					
BUILDING	SQ. FT.	PRE TOTAL FIXT. QTY	PRE TOTAL FIXT. WATTS	PRE ANNUAL KWH CONSUMPTION	PRE WATTS / SQ. FT	POST TOTAL FIXT. QTY	POST TOTAL FIXT. WATTS	POST ANNUAL KWH CONSUMPTION	POST WATTS / SQ. FT	WATTS SAVED	ANNUAL KWH SAVED	ANNUAL KWH SAVED WITH SENSORS	ANNUAL SAVINGS $ FIXT.	ANNUAL SAVINGS $ SENSORS	ANNUAL SAVINGS $ TOTAL	CO2 REDUCTION (TONS)	NJ Smart Start REBATE $	**FIXTURES** TOTAL (INSTALLED) COST $	**SENSORS** TOTAL (INSTALLED) COST $	**MATERIAL** TOTAL (INSTALLED) COST $	SIMPLE PAYBACK NET OF REBATE (YEARS)
Lafayette Estates Elementary School #25	**41,374**	**741**	**45,830**	**81,643**	**1.11**	**741**	**33,382**	**56,562**	**0.81**	**12,448**	**25,081**	**2,909**	**$4,239**	**$492**	**$4,730**	**8.3**	**$6,970**	**$45,911**	**$3,861**	**$49,772**	**9.0**

14%	**PERCENTAGE OF REBATES IN TOTAL INSTALLED COST**
69%	**PERCENTAGE OF CONSUMPTION COMPARE TO EXISTING STATE**
32%	**EXISTING PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**
22%	**PROPOSED PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Lafayette Estates Elementary School #25	FACILITY SQ. FT. 41,374	DATE OF AUDIT: 2/19/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES										ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.169	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
1	130101	MULTIPURPOSE	2'x4' Troffer w/ (3) FO32T8 Lamps & (2) Electronic Ballasts Dual Switched	11	92	1,012	2,610	2,641	43	Relamp & Reballast w/ (3) F28T8 (1) 2/32 Elec. LP & (1) 1/32 Elec. Low-Power High Efficiency Ballasts Dual Switched	11	64				704	2,610	1,837	1,837	28	308	0	804	0	$136	$0	$0	-$110
2	130101	MULTIPURPOSE	2'x4' Troffer w/ (3) FO32T8 Lamps & (2) Electronic Ballasts Dual Switched	11	92	1,012	2,610	2,641		Relamp & Reballast w/ (3) F28T8 (1) 2/32 Elec. LP & (1) 1/32 Elec. Low-Power High Efficiency Ballasts Dual Switched	11	64				704	2,610	1,837	1,837	28	308	0	804	0	$136	$0	$0	-$110
3	130102	WORK ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	1	58	58	1,530	89	20	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	1	42				42	1,530	64	64	16	16	0	24	0	$4	$146	$0	$136
4	130103	KITCHEN	2'x4' Troffer w/ (3) FO32T8 Lamps & (2) Electronic Ballasts Dual Switched	15	92	1,380	1,500	2,070		Relamp & Reballast w/ (3) F28T8 (1) 2/32 Elec. LP & (1) 1/32 Elec. Low-Power High Efficiency Ballasts Dual Switched	15	64				960	1,500	1,440	1,440	28	420	0	630	0	$106	$0	$0	-$150
5	130104	FACULTY ROOM	2'x2' Troffer w/ (3) F17T8 Lamps & (1) Electronic Ballast Battery Backup	1	54	54	1,530	83		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast Battery Back-up 2'x2' Silver Reflector Kit	1	28				28	1,530	43	43	26	26	0	40	0	$7	$159	$0	$149
6	130105	WOMENS REST ROOM	2'x4' Troffer w/ (3) FO32T8 Lamps & (2) Electronic Ballasts Dual Switched	15	92	1,380	2,610	3,602	38	Relamp & Reballast w/ (3) F28T8 (1) 2/32 Elec. LP & (1) 1/32 Elec. Low-Power High Efficiency Ballasts Dual Switched	15	64				960	2,610	2,506	2,506	28	420	0	1,096	0	$185	$0	$0	-$150
7	130105	WOMENS REST ROOM	2'x2' Troffer w/ (3) F17T8 Lamps & (1) Electronic Ballast Battery Backup	1	54	54	2,610	141		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast Battery Back-up 2'x2' Silver Reflector Kit	1	28				28	2,610	73	73	26	26	0	68	0	$11	$159	$0	$149
8	130106	MENS REST ROOM	2'x4' Troffer w/ (3) FO32T8 Lamps & (2) Electronic Ballasts Dual Switched	9	92	828	2,610	2,161		Relamp & Reballast w/ (3) F28T8 (1) 2/32 Elec. LP & (1) 1/32 Elec. Low-Power High Efficiency Ballasts Dual Switched	9	64				576	2,610	1,503	1,503	28	252	0	658	0	$111	$0	$0	-$90
9	130107	NURSE	2'x4' Troffer w/ (3) FO32T8 Lamps & (2) Electronic Ballasts Dual Switched	9	92	828	1,530	1,267		Relamp & Reballast w/ (3) F28T8 (1) 2/32 Elec. LP & (1) 1/32 Elec. Low-Power High Efficiency Ballasts Dual Switched	9	64				576	1,530	881	881	28	252	0	386	0	$65	$0	$0	-$90
10	130108	CUSTODIAL OFFICE	2'x4' Troffer w/ (3) FO32T8 Lamps & (2) Electronic Ballasts Dual Switched	12	92	1,104	2,070	2,285		Relamp & Reballast w/ (3) F28T8 (1) 2/32 Elec. LP & (1) 1/32 Elec. Low-Power High Efficiency Ballasts Dual Switched	12	64				768	2,070	1,590	1,590	28	336	0	696	0	$118	$0	$0	-$120
11	130109	MECHANICAL	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	360	42		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117
12	130109	REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	360	42		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117
13	130110	CLASSROOM 21	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	1,530	89		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42	306	Wall	**1**	42	1,224	64	51	16	16	306	24	13	$6	$68	$215	$273
14	130111	CLASSROOM 22	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	1,530	177	48	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	306	Wall	**1**	84	1,224	129	103	16	32	306	49	26	$13	$137	$215	$331
15	130112	OFFICE	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,070	174	174	16	32	0	66	0	$11	$137	$0	$117
16	1301136	STORAGE	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	25	58	1,450	360	522		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	25	42				1,050	360	378	378	16	400	0	144	0	$24	$1,706	$0	$1,456
17	130114	MAIN OFFICE	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	25	58	1,450	2,070	3,002	53	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	25	42				1,050	2,070	2,174	2,174	16	400	0	828	0	$140	$3,656	$0	$3,406
18	130115	CORRIDOR	Downlight Fixture w/ (2) 26w CFL & (1) Magnetic Ballast	32	52	1,664	2,610	4,343	22	None	32	52				1,664	2,610	4,343	4,343	0	0	0	0	0	$0	$0	$0	$0
19	130116	CLASSROOM 20	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	1,530	52	50	Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28	306	Wall	**1**	28	1,224	43	34	6	6	306	9	9	$3	$60	$215	$265
20	130117	REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
21	130118	STORAGE	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
22	130119	SERVER ROOM	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
23	130120	CLASSROOM 17	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	17	58	986	1,530	1,509	49	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	17	42	306	Wall	**1**	714	1,224	1,092	874	16	272	306	416	218	$107	$1,160	$215	$1,185
24	130121	CLASSROOM 18	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	17	58	986	1,530	1,509		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	17	42	306	Wall	**1**	714	1,224	1,092	874	16	272	306	416	218	$107	$1,160	$215	$1,185
25	130122	CLASSROOM 19	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	1,530	52	53	Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28	306	Wall	**1**	28	1,224	43	34	6	6	306	9	9	$3	$60	$215	$265
26	130123	SUPPLY	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
27	130124	REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
28	130125	CORRIDOR	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$68	$0	$58
29	130125	CORRIDOR	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	17	58	986	2,610	2,573		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	17	42				714	2,610	1,864	1,864	16	272	0	710	0	$120	$1,160	$0	$990
30	130126	CORRIDOR	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	17	58	986	2,610	2,573		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	17	42				714	2,610	1,864	1,864	16	272	0	710	0	$120	$1,160	$0	$990
31	130126	CORRIDOR	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	2,610	89		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,610	73	73	6	6	0	16	0	$3	$60	$0	$50
32	130127	CORRIDOR	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	2,610	89	38	Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,610	73	73	6	6	0	16	0	$3	$60	$0	$50
33	130127	CORRIDOR	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	2,610	89		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,610	73	73	6	6	0	16	0	$3	$60	$0	$50
34	130128	REST ROOM	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21	52	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
35	130129	REST ROOM	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	17	58	986	360	355		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	17	42				714	360	257	257	16	272	0	98	0	$17	$1,160	$0	$990
36	130130	ELECTRICAL	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	17	58	986	360	355		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	17	42				714	360	257	257	16	272	0	98	0	$17	$1,160	$0	$990

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Lafayette Estates Elementary School #25	FACILITY SQ. FT. 41,374	DATE OF AUDIT: 2/19/2013

SPACE DESCRIPTION			EXISTING FIXTURES						REPLACEMENT FIXTURES								ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.169	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
37	130131	MEDIA ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	2,610	89	57	Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,610	73	73	6	6	0	16	0	$3	$60	$0	$50
38	130131	MEDIA ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	2,610	89		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,610	73	73	6	6	0	16	0	$3	$60	$0	$50
39	130131	MEDIA ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	2,610	89		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,610	73	73	6	6	0	16	0	$3	$60	$0	$50
40	130131	MEDIA ROOM	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$68	$0	$58
41	130132	WORK ROOM	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	17	58	986	1,530	1,509		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	17	42				714	1,530	1,092	1,092	16	272	0	416	0	$70	$1,160	$0	$990
42	130133	STORAGE	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	17	58	986	360	355		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	17	42				714	360	257	257	16	272	0	98	0	$17	$1,160	$0	$990
43	130134	CLASSROOM 29	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	1,224	42		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	1,224	34	34	6	6	0	7	0	$1	$60	$0	$50
44	130135	CLASSROOM 31	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	1,224	42		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	1,224	34	34	6	6	0	7	0	$1	$60	$0	$50
45	130136	CLASSROOM 33	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	1,224	42		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	1,224	34	34	6	6	0	7	0	$1	$60	$0	$50
46	130137	REST ROOM	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,088	121		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,088	88	88	16	16	0	33	0	$6	$68	$0	$58
47	130138	CLASSROOM 15	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	17	58	986	1,224	1,207		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	17	42				714	1,224	874	874	16	272	0	333	0	$56	$1,160	$0	$990
48	130139	CLASSROOM 14	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	17	58	986	1,224	1,207		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	17	42				714	1,224	874	874	16	272	0	333	0	$56	$1,160	$0	$990
49	130140	REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	2,088	71		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,088	58	58	6	6	0	13	0	$2	$60	$0	$50
50	130141	CLASSROOM 39	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	1,224	42		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	1,224	34	34	6	6	0	7	0	$1	$60	$0	$50
51	130141	CLASSROOM 39	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	1,530	52		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	1,530	43	43	6	6	0	9	0	$2	$60	$0	$50
52	130142	CLASSROOM 38	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	1,224	71		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	1,224	51	51	16	16	0	20	0	$3	$68	$0	$58
53	130142	CLASSROOM 38	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	17	58	986	1,530	1,509		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	17	42				714	1,530	1,092	1,092	16	272	0	416	0	$70	$1,160	$0	$990
54	130143	CLASSROOM 13	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	17	58	986	1,224	1,207		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	17	42				714	1,224	874	874	16	272	0	333	0	$56	$1,160	$0	$990
55	130144	CLASSROOM 16	HID Wall Pack Fixture w/ (1) 175w Metal Halide Lamp & Ballast	3	210	630	1,224	771		LED (1) New 56w Wall Pack Fixture	3	56				168	1,224	206	206	154	462	0	565	0	$96	$1,326	$0	$1,326
56	130145	CLASSROOM 34	2'x4' Troffer w/ (3) FO32T8 Lamps & (2) Electronic Ballasts Dual Switched	12	92	1,104	1,224	1,351		Relamp & Reballast w/ (3) F28T8 (1) 2/32 Elec. LP & (1) 1/32 Elec. Low-Power High Efficiency Ballasts Dual Switched	12	64				768	1,224	940	940	28	336	0	411	0	$70	$0	$0	-$120
57	130146	GIRLS REST ROOM	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,088	242		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,088	175	175	16	32	0	67	0	$11	$137	$0	$117
58	130146	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,610	303		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,610	219	219	16	32	0	84	0	$14	$137	$0	$117
59	130147	JC	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	1,500	87		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	1,500	63	63	16	16	0	24	0	$4	$68	$0	$58
60	130148	BOYS REST ROOM	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,088	242		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,088	175	175	16	32	0	67	0	$11	$137	$0	$117
61	130148	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,610	303		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,610	219	219	16	32	0	84	0	$14	$137	$0	$117
62	130149	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	25	58	1,450	2,088	3,028	44	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	25	42				1,050	2,088	2,192	2,192	16	400	0	835	0	$141	$1,706	$0	$1,456
63	130149	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	25	58	1,450	2,610	3,785		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	25	42				1,050	2,610	2,741	2,741	16	400	0	1,044	0	$176	$3,656	$0	$3,406
64	130149	CORRIDOR	Downlight Fixture w/ (2) 26w CFL & (1) Magnetic Ballast	32	52	1,664	2,610	4,343		None	32	52				1,664	2,610	4,343	4,343	0	0	0	0	0	$0	$0	$0	$0
65	130150	GIRLS REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	2,610	89		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,610	73	73	6	6	0	16	0	$3	$60	$0	$50
66	130151	JC	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	1,500	51		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	1,500	42	42	6	6	0	9	0	$2	$60	$0	$50
67	130152	BOYS REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	2,610	89		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,610	73	73	6	6	0	16	0	$3	$60	$0	$50
68	130153	LOBBY	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$68	$0	$58
69	130154	CLASSROOM 4	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	17	58	986	1,530	1,509		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	17	42	306	Wall	1	714	1,224	1,092	874	16	272	306	416	218	$107	$1,160	$215	$1,185
70	130155	CLASSROOM 1	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	17	58	986	1,530	1,509		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	17	42	306	Wall	1	714	1,224	1,092	874	16	272	306	416	218	$107	$1,160	$215	$1,185
71	130156	GIRLS REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	2,610	89		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,610	73	73	6	6	0	16	0	$3	$60	$0	$50
72	130157	JC	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	1,500	51		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	1,500	42	42	6	6	0	9	0	$2	$60	$0	$50

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Lafayette Estates Elementary School #25	FACILITY SQ. FT. 41,374	DATE OF AUDIT: 2/19/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.169	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
73	130158	BOYS REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	2,610	89		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,610	73	73	6	6	0	16	0	$3	$60	$0	$50
74	130159	LOBBY	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$68	$0	$58
75	130160	CLASSROOM 2	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	17	58	986	1,530	1,509		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	17	42	306	Wall	1	714	1,224	1,092	874	16	272	306	416	218	$107	$1,160	$215	$1,185
76	130161	CLASSROOM 3	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	17	58	986	1,530	1,509		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	17	42	306	Wall	1	714	1,224	1,092	874	16	272	306	416	218	$107	$1,160	$215	$1,185
77	130162	GIRLS REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	2,610	89		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,610	73	73	6	6	0	16	0	$3	$60	$0	$50
78	130163	JC	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	1,500	51		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	1,500	42	42	6	6	0	9	0	$2	$60	$0	$50
79	130164	BOYS REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	2,610	89		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,610	73	73	6	6	0	16	0	$3	$60	$0	$50
80	130165	LOBBY	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$68	$0	$58
81	130166	CLASSROOM 7	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	17	58	986	1,530	1,509		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	17	42	306	Wall	1	714	1,224	1,092	874	16	272	306	416	218	$107	$1,160	$215	$1,185
82	130167	CLASSROOM 6	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	17	58	986	1,530	1,509		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	17	42	306	Wall	1	714	1,224	1,092	874	16	272	306	416	218	$107	$1,160	$215	$1,185
83	130168	GIRLS REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	2,610	89		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,610	73	73	6	6	0	16	0	$3	$60	$0	$50
84	130169	JC	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	1,500	51		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	1,500	42	42	6	6	0	9	0	$2	$60	$0	$50
85	130170	BOYS REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	2,610	89		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,610	73	73	6	6	0	16	0	$3	$60	$0	$50
86	130171	LOBBY	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	17	58	986	2,610	2,573		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	17	42				714	2,610	1,864	1,864	16	272	0	710	0	$120	$1,160	$0	$990
87	130172	CLASSROOM 5	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	17	58	986	1,530	1,509		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	17	42	306	Wall	1	714	1,224	1,092	874	16	272	306	416	218	$107	$1,160	$215	$1,185
88	130173	CLASSROOM 8	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	1,530	89		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42	306	Wall	1	42	1,224	64	51	16	16	306	24	13	$6	$68	$215	$273
89	130174	GIRLS REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	2,610	89		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,610	73	73	6	6	0	16	0	$3	$60	$0	$50
90	130175	JC	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	1,500	51		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	1,500	42	42	6	6	0	9	0	$2	$60	$0	$50
91	130176	BOYS REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	2,610	89		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,610	73	73	6	6	0	16	0	$3	$60	$0	$50
92	130177	LOBBY	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$68	$0	$58
93	130178	CLASSROOM 10	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	17	58	986	1,530	1,509		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	17	42	306	Wall	1	714	1,224	1,092	874	16	272	306	416	218	$107	$1,160	$215	$1,185
94	130179	CLASSROOM 12	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	17	58	986	1,530	1,509		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	17	42	306	Wall	1	714	1,224	1,092	874	16	272	306	416	218	$107	$1,160	$215	$1,185
95	130180	GIRLS REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	2,610	89		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,610	73	73	6	6	0	16	0	$3	$60	$0	$50
96	130181	JC	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	1,500	51		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	1,500	42	42	6	6	0	9	0	$2	$60	$0	$50
97	130182	BOYS REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	2,610	89		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,610	73	73	6	6	0	16	0	$3	$60	$0	$50
98	130183	LOBBY	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$68	$0	$58
99	130184	CLASSROOM 11	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	17	58	986	1,530	1,509		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	17	42	306	Wall	1	714	1,224	1,092	874	16	272	306	416	218	$107	$1,160	$215	$1,185
100	130185	CLASSROOM 9	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	17	58	986	1,530	1,509		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	17	42	306	Wall	1	714	1,224	1,092	874	16	272	306	416	218	$107	$1,160	$215	$1,185
101	13EXT	EXTERIOR	HID Wall Pack Fixture w/ (1) 175w Metal Halide Lamp & Ballast	3	210	630	4,745	2,989		LED (1) New 56w Wall Pack Fixture	3	56				168	4,745	797	797	154	462	0	2,192	0	$370	$1,326	$0	$1,326
				741		**45,830**		**81,643**			**741**				**18**	**33,382**		**59,470**	**56,562**		**12,448**	**5,508**	**22,172**	**2,909**	**$4,239**	**$45,911**	**$3,861**	**$42,802**

LIGHTING RETROFIT SUMMARY FOR:
Robert Mascenik Elementary School #26
300 Benjamin Avenue, Iselin, NJ 08830

BUILDING INFORMATION		EXISTING FIXTURES				PROPOSED FIXTURES				SAVINGS						FINANCIAL					
BUILDING	SQ. FT.	PRE TOTAL FIXT. QTY	PRE TOTAL FIXT. WATTS	PRE ANNUAL KWH CONSUMPTION	PRE WATTS / SQ. FT	POST TOTAL FIXT. QTY	POST TOTAL FIXT. WATTS	POST ANNUAL KWH CONSUMPTION	POST WATTS / SQ. FT	WATTS SAVED	ANNUAL KWH SAVED	ANNUAL KWH SAVED WITH SENSORS	ANNUAL SAVINGS $ FIXT.	ANNUAL SAVINGS $ SENSORS	ANNUAL SAVINGS $ TOTAL	CO2 REDUCTION (TONS)	NJ Smart Start REBATE $	**FIXTURES** TOTAL (INSTALLED) COST $	**SENSORS** TOTAL (INSTALLED) COST $	**MATERIAL** TOTAL (INSTALLED) COST $	SIMPLE PAYBACK NET OF REBATE (YEARS)
Robert Mascenik Elementary School #26	**29,050**	**309**	**17,918**	**35,649**	**0.62**	**309**	**12,446**	**20,984**	**0.43**	**5,472**	**14,665**	**1,889**	**$2,478**	**$319**	**$2,798**	**4.8**	**$3,440**	**$22,175**	**$5,017**	**$27,191**	**8.5**

13%	**PERCENTAGE OF REBATES IN TOTAL INSTALLED COST**
59%	**PERCENTAGE OF CONSUMPTION COMPARE TO EXISTING STATE**
30%	**EXISTING PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**
18%	**PROPOSED PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**

Dome-Tech, Inc.
A UTC Power Company

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Robert Mascenik Elementary School #26	FACILITY SQ. FT. 29,050	DATE OF AUDIT: 2/21/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES										ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.169	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
1	210101	MAIN OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240	41	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,070	174	174	16	32	0	66	0	$11	$137	$0	$117
2	210102	OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	724.5	Wall	1	84	1,346	174	113	16	32	725	66	61	$21	$137	$215	$331
3	210103	OFFICE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	2,070	132	18	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	2,070	91	91	10	20	0	41	0	$7	$101	$0	$81
4	210104	REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
5	210104	REST ROOM	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast 2'x2' Silver Reflector Kit	1	28				28	360	10	10	30	30	0	11	0	$2	$72	$0	$62
6	210105	NURSE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266	57	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$12	$205	$0	$175
7	210106	REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
8	210106	REST ROOM	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast 2'x2' Silver Reflector Kit	1	28				28	360	10	10	30	30	0	11	0	$2	$72	$0	$62
9	210107	FACULTY ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	1,530	177		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	1,530	129	129	16	32	0	49	0	$8	$137	$0	$117
10	210108	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	360	42		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117
11	210109	KINDERGARTEN REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
12	210110	KINDERGARTEN REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
13	210111	KINDERGARTEN	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532	36	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$38	$410	$215	$544
14	210111	KINDERGARTEN	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	4	32	128	1,530	196		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	4	22				88	1,530	135	135	10	40	0	61	0	$10	$203	$0	$163
15	210112	STORAGE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	360	23		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	360	16	16	10	20	0	7	0	$1	$101	$0	$81
16	210113	MEDIA CENTER REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
17	210114	MEDIA CENTER REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
18	210115	MEDIA CENTER	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	2,610	908		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42				252	2,610	658	658	16	96	0	251	0	$42	$410	$0	$350
19	210115	MEDIA CENTER	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	4	32	128	2,610	334		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	4	22				88	2,610	230	230	10	40	0	104	0	$18	$203	$0	$163
20	210116	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	360	42		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117
21	210117	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	360	42		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117
22	210118	CLASSROOM 7	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	7	58	406	1,530	621	48	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	7	42	306	Wall	1	294	1,224	450	360	16	112	306	171	90	$44	$478	$215	$602
23	210118	CLASSROOM 7	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$3	$51	$0	$41
24	210119	CLASSROOM 5	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	7	58	406	1,530	621		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	7	42	306	Wall	1	294	1,224	450	360	16	112	306	171	90	$44	$478	$215	$602
25	210119	CLASSROOM 5	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$3	$51	$0	$41
26	210120	CLASSROOM 3	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	7	58	406	1,530	621		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	7	42	306	Wall	1	294	1,224	450	360	16	112	306	171	90	$44	$478	$215	$602
27	210120	CLASSROOM 3	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$3	$51	$0	$41
28	210121	CLASSROOM 1	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	7	58	406	1,530	621	44	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	7	42	306	Wall	1	294	1,224	450	360	16	112	306	171	90	$44	$478	$215	$602
29	210121	CLASSROOM 1	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$3	$51	$0	$41
30	210122	CLASSROOM 10	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	7	58	406	1,530	621		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	7	42	306	Wall	1	294	1,224	450	360	16	112	306	171	90	$44	$478	$215	$602
31	210122	CLASSROOM 10	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$3	$51	$0	$41
32	210123	CLASSROOM 12	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	7	58	406	1,530	621		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	7	42	306	Wall	1	294	1,224	450	360	16	112	306	171	90	$44	$478	$215	$602
33	210123	CLASSROOM 12	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$3	$51	$0	$41
34	210124	CLASSROOM 14	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	7	58	406	1,530	621	49	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	7	42	306	Wall	1	294	1,224	450	360	16	112	306	171	90	$44	$478	$215	$602
35	210124	CLASSROOM 14	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$3	$51	$0	$41
36	210125	CLASSROOM 16	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	7	58	406	1,530	621		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	7	42	306	Wall	1	294	1,224	450	360	16	112	306	171	90	$44	$478	$215	$602

Dome-Tech, Inc.
A LEC Power Company

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Robert Mascenik Elementary School #26	FACILITY SQ. FT. 29,050	DATE OF AUDIT: 2/21/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.169	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
37	210125	CLASSROOM 16	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$3	$51	$0	$41
38	210126	CLASSROOM 18	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	7	58	406	1,530	621		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	7	42	306	Wall	1	294	1,224	450	360	16	112	306	171	90	$44	$478	$215	$602
39	210126	CLASSROOM 18	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$3	$51	$0	$41
40	210127	MECHANICAL	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	360	125		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42				252	360	91	91	16	96	0	35	0	$6	$410	$0	$350
41	210128	STORAGE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	360	42		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117
42	210129	CUSTODIAL OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$68	$0	$58
43	210130	STORAGE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	360	23		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	360	16	16	10	20	0	7	0	$1	$101	$0	$81
44	210131	KITCHEN	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	1,500	174		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	1,500	126	126	16	32	0	48	0	$8	$137	$0	$117
45	210132	MULTIPURPOSE	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	18	112	2,016	2,610	5,262	27	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	18	84				1,512	2,610	3,946	3,946	28	504	0	1,315	0	$222	$1,509	$0	$1,329
46	210132	MULTIPURPOSE	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,610	303		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,610	219	219	16	32	0	84	0	$14	$137	$0	$117
47	210133	STAFF REST ROOM	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast 2'x2' Silver Reflector Kit	1	28				28	360	10	10	30	30	0	11	0	$2	$72	$0	$62
48	210134	BOYS REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	2,610	89		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,610	73	73	6	6	0	16	0	$3	$60	$0	$50
49	210134	BOYS REST ROOM	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast 2'x2' Silver Reflector Kit	1	28				28	2,610	73	73	30	30	0	78	0	$13	$72	$0	$62
50	210135	GIRLS REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	2,610	89		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,610	73	73	6	6	0	16	0	$3	$60	$0	$50
51	210135	GIRLS REST ROOM	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast 2'x2' Silver Reflector Kit	1	28				28	2,610	73	73	30	30	0	78	0	$13	$72	$0	$62
52	210136	STAFF REST ROOM	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast 2'x2' Silver Reflector Kit	1	28				28	360	10	10	30	30	0	11	0	$2	$72	$0	$62
53	210137	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	360	42		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117
54	210137	STORAGE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	360	23		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	360	16	16	10	20	0	7	0	$1	$101	$0	$81
55	210138	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	360	42		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117
56	210138	STORAGE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	360	23		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	360	16	16	10	20	0	7	0	$1	$101	$0	$81
57	210139	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,610	454		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	522	Ceiling	1	126	2,088	329	263	16	48	522	125	66	$32	$205	$363	$538
58	210139	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$146	$0	$136
59	210140	JC	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast	1	58	58	1,500	87		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast 2'x2' Silver Reflector Kit	1	28				28	1,500	42	42	30	30	0	45	0	$8	$72	$0	$62
60	210141	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,610	454		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	522	Ceiling	1	126	2,088	329	263	16	48	522	125	66	$32	$205	$363	$538
61	210141	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$146	$0	$136
62	210142	CLASSROOM 38	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	7	58	406	1,530	621	48	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	7	42	306	Wall	1	294	1,224	450	360	16	112	306	171	90	$44	$478	$215	$602
63	210142	CLASSROOM 38	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$3	$51	$0	$41
64	210143	CLASSROOM 36	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	7	58	406	1,530	621		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	7	42	306	Wall	1	294	1,224	450	360	16	112	306	171	90	$44	$478	$215	$602
65	210143	CLASSROOM 36	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$3	$51	$0	$41
66	210144	CLASSROOM 34	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	7	58	406	1,530	621		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	7	42	306	Wall	1	294	1,224	450	360	16	112	306	171	90	$44	$478	$215	$602
67	210144	CLASSROOM 34	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$3	$51	$0	$41
68	210145	CLASSROOM 32	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	7	58	406	1,530	621		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	7	42	306	Wall	1	294	1,224	450	360	16	112	306	171	90	$44	$478	$215	$602
69	210145	CLASSROOM 32	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$3	$51	$0	$41
70	210146	CLASSROOM 30	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	7	58	406	1,530	621		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	7	42	306	Wall	1	294	1,224	450	360	16	112	306	171	90	$44	$478	$215	$602
71	210146	CLASSROOM 30	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$3	$51	$0	$41
72	210147	CLASSROOM 20	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	7	58	406	1,530	621		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	7	42	306	Wall	1	294	1,224	450	360	16	112	306	171	90	$44	$478	$215	$602

Dome-Tech, Inc.
A UTC Power Company

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Robert Mascenik Elementary School #26	FACILITY SQ. FT. 29,050	DATE OF AUDIT: 2/21/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.169	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
73	210147	CLASSROOM 20	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$3	$51	$0	$41
74	210148	CLASSROOM 22	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	7	58	406	1,530	621		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	7	42	306	Wall	1	294	1,224	450	360	16	112	306	171	90	$44	$478	$215	$602
75	210148	CLASSROOM 22	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$3	$51	$0	$41
76	210149	CLASSROOM 24	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	7	58	406	1,530	621		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	7	42	306	Wall	1	294	1,224	450	360	16	112	306	171	90	$44	$478	$215	$602
77	210149	CLASSROOM 24	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$3	$51	$0	$41
78	210150	CLASSROOM 26	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	7	58	406	1,530	621		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	7	42	306	Wall	1	294	1,224	450	360	16	112	306	171	90	$44	$478	$215	$602
79	210150	CLASSROOM 26	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$3	$51	$0	$41
80	210151	CORRIDORS	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	44	58	2,552	2,610	6,661	16	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	44	42				1,848	2,610	4,823	4,823	16	704	0	1,837	0	$311	$3,003	$0	$2,563
81	210151	CORRIDORS	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	2,610	167		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	2,610	115	115	10	20	0	52	0	$9	$101	$0	$81
82	210151	CORRIDORS	Exit Sign w/ (2) 15W Incandescent Lamps Battery Backup	9	30	270	8,760	2,365		New LED Exit Sign w/ Battery backup	9	2				18	8,760	158	158	28	252	0	2,208	0	$373	$848	$0	$758
83	210152	STORAGE SHED	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	360	84		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	360	60	60	16	64	0	23	0	$4	$273	$0	$233
84	21EXT	EXTERIOR	HID Wall Pack Fixture w/ (1) 175w Metal Halide Lamp & Ballast	3	210	630	4,745	2,989		LED (1) New 56w Wall Pack Fixture	3	56				168	4,745	797	797	154	462	0	2,192	0	$370	$1,326	$0	$1,326
				309		**17,918**		**35,649**			**309**				**22**	**12,446**		**22,873**	**20,984**		**5,472**	**7,583**	**12,776**	**1,889**	**$2,478**	**$22,175**	**$5,017**	**$23,751**

LIGHTING RETROFIT SUMMARY FOR:
Pennsylvania Avenue Elementary School #27
80 N. Pennsylvania Avenue, Colonia, NJ 07067

BUILDING INFORMATION		EXISTING FIXTURES				PROPOSED FIXTURES				SAVINGS						FINANCIAL					
BUILDING	SQ. FT.	PRE TOTAL FIXT. QTY	PRE TOTAL FIXT. WATTS	PRE ANNUAL KWH CONSUMPTION	PRE WATTS / SQ. FT	POST TOTAL FIXT. QTY	POST TOTAL FIXT. WATTS	POST ANNUAL KWH CONSUMPTION	POST WATTS / SQ. FT	WATTS SAVED	ANNUAL KWH SAVED	ANNUAL KWH SAVED WITH SENSORS	ANNUAL SAVINGS $ FIXT.	ANNUAL SAVINGS $ SENSORS	ANNUAL SAVINGS $ TOTAL	CO2 REDUCTION (TONS)	NJ Smart Start REBATE $	**FIXTURES** TOTAL (INSTALLED) COST $	**SENSORS** TOTAL (INSTALLED) COST $	**MATERIAL** TOTAL (INSTALLED) COST $	SIMPLE PAYBACK NET OF REBATE (YEARS)
Pennsylvania Avenue Elementary School #27	**28,799**	**263**	**23,328**	**43,038**	**0.81**	**263**	**16,886**	**26,802**	**0.59**	**6,442**	**16,236**	**3,445**	**$2,581**	**$548**	**$3,129**	**5.4**	**$2,940**	**$23,176**	**$7,245**	**$30,421**	**8.8**

10%	**PERCENTAGE OF REBATES IN TOTAL INSTALLED COST**
62%	**PERCENTAGE OF CONSUMPTION COMPARE TO EXISTING STATE**
34%	**EXISTING PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**
21%	**PROPOSED PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Pennsylvania Avenue Elementary School #27	FACILITY SQ. FT. 28,799	DATE OF AUDIT: 2/20/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES										ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.159	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
1	190101	MAIN OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	2,070	720	52	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42				252	2,070	522	522	16	96	0	199	0	$32	$410	$0	$350
2	190101	MAIN OFFICE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	2,070	199		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	2,070	137	137	10	30	0	62	0	$10	$152	$0	$122
3	190102	STORAGE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
4	190103	NURSE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	1,530	355	17	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	1,530	257	257	16	64	0	98	0	$16	$273	$0	$233
5	190103	NURSE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	1,530	98		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	1,530	67	67	10	20	0	31	0	$5	$101	$0	$81
6	190103	NURSE REST ROOM	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast, Wall Mounted	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
7	190100	OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240	64	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	724.5	Wall	1	84	1,346	174	113	16	32	725	66	61	$20	$137	$215	$331
8	190100	OFFICE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	2,070	132		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	2,070	91	91	10	20	0	41	0	$7	$101	$0	$81
9	190104	CLASSROOM 23	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	2	112	224	1,530	343	78	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84	306	Wall	1	168	1,224	257	206	28	56	306	86	51	$22	$168	$215	$362
10	190104	CLASSROOM 23	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	1,530	177		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	1,530	129	129	16	32	0	49	0	$8	$137	$0	$117
11	190105	CLASSROOM 25	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
12	190106	CLASSROOM 26	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
13	190107	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,610	454	53	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	522	Ceiling	1	126	2,088	329	263	16	48	522	125	66	$30	$205	$363	$538
14	190107	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$146	$0	$136
15	190121	JC	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	1,500	90		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	1,500	21	21	46	46	0	69	0	$11	$16	$0	$16
16	190108	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,610	454	51	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	522	Ceiling	1	126	2,088	329	263	16	48	522	125	66	$30	$205	$363	$538
17	190108	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$146	$0	$136
18	190109	CLASSROOM 31	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	9	112	1,008	1,530	1,542	82	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	9	84	306	Wall	1	756	1,224	1,157	925	28	252	306	386	231	$98	$755	$215	$859
19	190109	CLASSROOM 31 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
20	190109	CLASSROOM 31 STORAGE	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
21	190110	CLASSROOM 33	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	9	112	1,008	1,530	1,542		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	9	84				756	1,530	1,157	1,157	28	252	0	386	0	$61	$755	$0	$665
22	190110	CLASSROOM 33 REST ROOM	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
23	190110	CLASSROOM 33 STORAGE	2' Wrap Fluorescent w/ (2) F17T8 Lamps & (1) Electronic Ballasts	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
24	190111	CLASSROOM 32	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
25	190112	CLASSROOM 30	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
26	190113	CLASSROOM 28	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
27	190114	CLASSROOM 26	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
28	190115	CLASSROOM 24	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
29	190116	CLASSROOM 22	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
30	190117	CLASSROOM 20	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
31	190118	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	360	42		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117
32	190119	AIDES ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	1,530	355		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42	306	Wall	1	168	1,224	257	206	16	64	306	98	51	$24	$273	$215	$448
33	190120	FACULTY ROOM	4'x4' Troffer w/ (6) FO32T8/32w Lamps & (2) Electronic Ballasts	2	166	332	1,530	508	19	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast (2) 2x4 Silver Reflector Kit, New Prismatic Lens	2	84	306	Wall	1	168	1,224	257	206	82	164	306	251	51	$48	$351	$215	$546
34	190121	KITCHEN	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	1,500	174		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	1,500	126	126	16	32	0	48	0	$8	$137	$0	$117
35	190122	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
36	190123	MULTIPURPOSE	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	12	112	1,344	2,610	3,508		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	12	84				1,008	2,610	2,631	2,631	28	336	0	877	0	$139	$1,006	$0	$886

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER:	Woodbridge School District	FACILITY SQ. FT.	DATE OF AUDIT:
	FACILITY:	Pennsylvania Avenue Elementary School #27	28,799	2/20/2013

SPACE DESCRIPTION			EXISTING FIXTURES						REPLACEMENT FIXTURES								ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.159	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
37	190123	MULTIPURPOSE STORAGE	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
38	190124	CUSTODIAN OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,610	303		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	522	Wall	1	84	2,088	219	175	16	32	522	84	44	$20	$137	$215	$331
39	190125	MECHANICAL	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	7	58	406	360	146		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	7	42				294	360	106	106	16	112	0	40	0	$6	$478	$0	$408
40	190126	WOMENS REST ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	360	12		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22	252	Wall	1	22	108	8	2	10	10	252	4	6	$1	$51	$215	$255
41	190126	WOMENS REST ROOM	2' Fixture w/ (2) F17T8 Lamps & (1) Electronic Ballast	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
42	190127	MENS REST ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	360	12		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22	252	Wall	1	22	108	8	2	10	10	252	4	6	$1	$51	$215	$255
43	190127	MENS REST ROOM	2' Fixture w/ (2) F17T8 Lamps & (1) Electronic Ballast	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
44	190128	CLASSROOM 1	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
45	190129	CLASSROOM 3	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
46	190130	CLASSROOM 5	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	2	112	224	1,530	343		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84	306	Wall	1	168	1,224	257	206	28	56	306	86	51	$22	$168	$215	$362
47	190130	CLASSROOM 5	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	2	112	224	1,530	343		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84	306	Wall	1	168	1,224	257	206	28	56	306	86	51	$22	$168	$215	$362
48	190131	LIBRARY	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	2,610	1,754		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84				504	2,610	1,315	1,315	28	168	0	438	0	$70	$503	$0	$443
49	190132	CLASSROOM 9	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
50	190133	CLASSROOM 11	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
51	190134	CLASSROOM 12	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
52	190135	CLASSROOM 10	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
53	190136	CLASSROOM 8	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
54	190137	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,610	303		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	522	Ceiling	1	84	2,088	219	175	16	32	522	84	44	$20	$137	$363	$480
55	190137	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$146	$0	$136
56	190138	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,610	303		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	522	Ceiling	1	84	2,088	219	175	16	32	522	84	44	$20	$137	$363	$480
57	190138	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$146	$0	$136
58	190132	JC	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	1,500	90		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	1,500	21	21	46	46	0	69	0	$11	$16	$0	$16
59	190139	CLASSROOM 4	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$65	$503	$215	$638
60	190140	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	26	58	1,508	2,610	3,936	38	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	26	42				1,092	2,610	2,850	2,850	16	416	0	1,086	0	$173	$1,775	$0	$1,515
61	190140	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	21	58	1,218	2,610	3,179		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	21	42				882	2,610	2,302	2,302	16	336	0	877	0	$139	$3,071	$0	$2,861
62	190140	CORRIDOR	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast 2'x2' Silver Reflector Kit	1	28				28	2,610	73	73	30	30	0	78	0	$12	$72	$0	$62
63	19EXT	EXTERIOR	HID Wall Pack Fixture w/ (1) 175w Metal Halide Lamp & Ballast	3	210	630	4,745	2,989		LED (1) New 56w Wall Pack Fixture	3	56				168	4,745	797	797	154	462	0	2,192	0	$349	$1,326	$0	$1,326
				263		**23,328**		**43,038**			**263**				**31**	**16,886**		**30,247**	**26,802**		**6,442**	**10,877**	**12,790**	**3,445**	**$2,581**	**$23,176**	**$7,245**	**$27,481**

LIGHTING RETROFIT SUMMARY FOR:
Matthew Jago Elementary School #28
99 Central Avenue, Sewaren, NJ 07077

BUILDING INFORMATION		EXISTING FIXTURES				PROPOSED FIXTURES				SAVINGS						FINANCIAL					
BUILDING	SQ. FT.	PRE TOTAL FIXT. QTY	PRE TOTAL FIXT. WATTS	PRE ANNUAL KWH CONSUMPTION	PRE WATTS / SQ. FT	POST TOTAL FIXT. QTY	POST TOTAL FIXT. WATTS	POST ANNUAL KWH CONSUMPTION	POST WATTS / SQ. FT	WATTS SAVED	ANNUAL KWH SAVED	ANNUAL KWH SAVED WITH SENSORS	ANNUAL SAVINGS $ FIXT.	ANNUAL SAVINGS $ SENSORS	ANNUAL SAVINGS $ TOTAL	CO2 REDUCTION (TONS)	NJ Smart Start REBATE $	**FIXTURES** TOTAL (INSTALLED) COST $	**SENSORS** TOTAL (INSTALLED) COST $	**MATERIAL** TOTAL (INSTALLED) COST $	SIMPLE PAYBACK NET OF REBATE (YEARS)
Matthew Jago Elementary School #28	**51,311**	**504**	**38,616**	**71,927**	**0.75**	**504**	**25,935**	**40,936**	**0.51**	**12,681**	**30,991**	**5,352**	**$5,516**	**$953**	**$6,469**	**10.2**	**$5,410**	**$40,044**	**$9,604**	**$49,648**	**6.8**

11%	**PERCENTAGE OF REBATES IN TOTAL INSTALLED COST**
57%	**PERCENTAGE OF CONSUMPTION COMPARE TO EXISTING STATE**
27%	**EXISTING PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**
15%	**PROPOSED PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Matthew Jago Elementary School #28	FACILITY SQ. FT. 51,311	DATE OF AUDIT: 2/28/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES										ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.178	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
1	150101	MAIN OFFICE	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	6	88	528	2,610	1,378	36	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	6	42				252	2,610	658	658	46	276	0	720	0	$128	$605	$0	$545
2	150102	STORAGE	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	1	88	88	360	32		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	1	42				42	360	15	15	46	46	0	17	0	$3	$101	$0	$91
3	150103	OFFICE	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	2	88	176	2,070	364		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	2	42	724.5	Wall	1	84	1,346	174	113	46	92	725	190	61	$45	$202	$215	$396
4	150104	STORAGE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	360	12		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41
5	150105	MEDIA CENTER	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	9	88	792	2,610	2,067	36	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	9	42				378	2,610	987	987	46	414	0	1,081	0	$192	$907	$0	$817
6	150105	MEDIA CENTER	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast	2	58	116	2,610	303		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast 2'x2' Silver Reflector Kit	2	28				56	2,610	146	146	30	60	0	157	0	$28	$143	$0	$123
7	150106	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	30	58	1,740	2,610	4,541		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	30	42				1,260	2,610	3,289	3,289	16	480	0	1,253	0	$223	$2,048	$0	$1,748
8	150106	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	32	58	1,856	2,610	4,844		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	32	42				1,344	2,610	3,508	3,508	16	512	0	1,336	0	$238	$4,680	$0	$4,360
9	150106	CORRIDOR	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	4	88	352	2,610	919		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	4	42				168	2,610	438	438	46	184	0	480	0	$85	$403	$0	$363
10	150106	CORRIDOR	4' Strip Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	5	32	160	2,610	418		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	5	22				110	2,610	287	287	10	50	0	131	0	$23	$254	$0	$204
11	150106	CORRIDOR	Downlight Fixture w/ (1) 60w Incandescent Lamp	10	60	600	2,610	1,566		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	10	14				140	2,610	365	365	46	460	0	1,201	0	$214	$163	$0	$163
12	150107	CORRIDOR	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	18	88	1,584	2,610	4,134		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	18	42				756	2,610	1,973	1,973	46	828	0	2,161	0	$385	$1,814	$0	$1,634
13	150108	CLASSROOM 2	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	9	88	792	1,530	1,212	46	Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	9	63	306	Wall	1	567	1,224	868	694	25	225	306	344	174	$92	$684	$215	$789
14	150109	CLASSROOM 4	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	9	88	792	1,530	1,212		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	9	63	306	Wall	1	567	1,224	868	694	25	225	306	344	174	$92	$684	$215	$789
15	150110	CLASSROOM 6	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	9	88	792	1,530	1,212		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	9	63	306	Wall	1	567	1,224	868	694	25	225	306	344	174	$92	$684	$215	$789
16	150111	CLASSROOM 8	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	9	88	792	1,530	1,212		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	9	63	306	Wall	1	567	1,224	868	694	25	225	306	344	174	$92	$684	$215	$789
17	150112	GIRLS REST ROOM	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	3	88	264	2,610	689	37	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	3	42	522	Ceiling	1	126	2,088	329	263	46	138	522	360	66	$76	$302	$363	$636
18	150113	FACULTY ROOM	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	4	88	352	1,530	539	34	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	4	42	306	Wall	1	168	1,224	257	206	46	184	306	282	51	$59	$403	$215	$578
19	150114	JC	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	1,500	174	36	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	1,500	126	126	16	32	0	48	0	$9	$137	$0	$117
20	150115	REST ROOM	4' Fixture w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
21	150116	REST ROOM	2' Fixture w/ (2) F17T8 Lamps & (1) Electronic Ballast	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
22	150117	REST ROOM	2' Fixture w/ (2) F17T8 Lamps & (1) Electronic Ballast	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
23	150118	CONFERENCE	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	2	88	176	1,530	269		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	2	63	306	Wall	1	126	1,224	193	154	25	50	306	77	39	$20	$152	$215	$347
24	150119	REST ROOM	2' Fixture w/ (2) F17T8 Lamps & (1) Electronic Ballast	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
25	150120	REST ROOM	2' Fixture w/ (2) F17T8 Lamps & (1) Electronic Ballast	1	34	34	360	12		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
26	150121	NURSE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$3	$51	$0	$41
27	150121	NURSE	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42				252	1,530	386	386	16	96	0	147	0	$26	$410	$0	$350
28	150122	STORAGE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	360	35		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	360	24	24	10	30	0	11	0	$2	$152	$0	$122
29	150123	WOMENS REST ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42	522	Ceiling	1	42	2,088	110	88	16	16	522	42	22	$11	$68	$363	$422
30	150124	MENS REST ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42	522	Ceiling	1	42	2,088	110	88	16	16	522	42	22	$11	$68	$363	$422
31	150125	WORK ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	1,530	177		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	1,530	129	129	16	32	0	49	0	$9	$137	$0	$117
32	150126	WORK ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	1,530	177		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	1,530	129	129	16	32	0	49	0	$9	$137	$0	$117
33	150127	CLASSROOM 18	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	9	88	792	1,530	1,212		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	9	63	306	Wall	1	567	1,224	868	694	25	225	306	344	174	$92	$684	$215	$789
34	150128	CLASSROOM 16	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	9	88	792	1,530	1,212		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	9	63	306	Wall	1	567	1,224	868	694	25	225	306	344	174	$92	$684	$215	$789
35	150129	CLASSROOM 14	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	9	88	792	1,530	1,212		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	9	63	306	Wall	1	567	1,224	868	694	25	225	306	344	174	$92	$684	$215	$789
36	150130	CLASSROOM 12	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	9	88	792	1,530	1,212		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	9	63	306	Wall	1	567	1,224	868	694	25	225	306	344	174	$92	$684	$215	$789

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Matthew Jago Elementary School #28	FACILITY SQ. FT. 51,311	DATE OF AUDIT: 2/28/2013

SPACE DESCRIPTION			EXISTING FIXTURES						REPLACEMENT FIXTURES								ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.178	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
37	150131	CLASSROOM 10	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	9	88	792	1,530	1,212		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	9	63	306	Wall	1	567	1,224	868	694	25	225	306	344	174	$92	$684	$215	$789
38	150132	CLASSROOM 2	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	18	88	1,584	1,530	2,424		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	18	63	306	Wall	2	1,134	1,224	1,735	1,388	25	450	306	689	347	$184	$1,369	$429	$1,578
39	150133	FACULTY ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	1,530	355		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	1,530	257	257	16	64	0	98	0	$17	$273	$0	$233
40	150134	MULTIPURPOSE	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	21	88	1,848	2,610	4,823		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	21	63				1,323	2,610	3,453	3,453	25	525	0	1,370	0	$244	$1,597	$0	$1,387
41	150134	STORAGE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	360	12		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41
42	150134	STORAGE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	360	12		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41
43	150135	MECHANICAL	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	7	58	406	360	146		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	7	42				294	360	106	106	16	112	0	40	0	$7	$478	$0	$408
44	150136	CLASSROOM 20	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	9	88	792	1,530	1,212		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	9	63	306	Wall	1	567	1,224	868	694	25	225	306	344	174	$92	$684	$215	$789
45	150137	KITCHEN	Wall Sconce Fixture w/ (2) 26w CFL & (1) Magnetic Ballast	1	52	52	1,500	78		None	1	52				52	1,500	78	78	0	0	0	0	0	$0	$0	$0	$0
46	150137	KITCHEN	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	1,500	87		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	1,500	63	63	16	16	0	24	0	$4	$68	$0	$58
47	150138	STORAGE	Wall Sconce Fixture w/ (2) 26w CFL & (1) Magnetic Ballast	1	52	52	360	19		None	1	52				52	360	19	19	0	0	0	0	0	$0	$0	$0	$0
48	150138	STORAGE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	360	12		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41
49	150139	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	360	167		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42				336	360	121	121	16	128	0	46	0	$8	$546	$0	$466
50	150140	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	360	42		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117
51	150140	STORAGE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	360	12		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41
52	150141	OFFICE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	2,070	132		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	2,070	91	91	10	20	0	41	0	$7	$101	$0	$81
53	150141	OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,070	174	174	16	32	0	66	0	$12	$137	$0	$117
54	150142	GYM	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	10	88	880	2,310	2,033		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	10	63				630	2,310	1,455	1,455	25	250	0	578	0	$103	$761	$0	$661
55	150142	GYM STORAGE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	360	12		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41
56	150142	GYM STORAGE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	360	12		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41
57	150143	CLASSROOM 27	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	9	88	792	1,530	1,212		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	9	63	306	Wall	1	567	1,224	868	694	25	225	306	344	174	$92	$684	$215	$789
58	150144	CLASSROOM 107	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	9	88	792	1,530	1,212		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	9	63	306	Wall	1	567	1,224	868	694	25	225	306	344	174	$92	$684	$215	$789
59	150145	OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	724.5	Wall	1	84	1,346	174	113	16	32	725	66	61	$23	$137	$215	$331
60	150145	OFFICE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	2,070	132		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	2,070	91	91	10	20	0	41	0	$7	$101	$0	$81
61	150146	OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	724.5	Wall	1	84	1,346	174	113	16	32	725	66	61	$23	$137	$215	$331
62	150146	OFFICE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	2,070	132		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	2,070	91	91	10	20	0	41	0	$7	$101	$0	$81
63	150147	JC	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	1,500	87		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	1,500	63	63	16	16	0	24	0	$4	$68	$0	$58
64	150148	OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,070	120		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42	724.5	Wall	1	42	1,346	87	57	16	16	725	33	30	$11	$68	$215	$273
65	150148	OFFICE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	2,070	66		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	2,070	46	46	10	10	0	21	0	$4	$51	$0	$41
66	150149	OFFICE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	2,070	66		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22	724.5	Wall	1	22	1,346	46	30	10	10	725	21	16	$7	$51	$215	$255
67	150149	OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,070	120		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,070	87	87	16	16	0	33	0	$6	$68	$0	$58
68	150150	CLASSROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	306	Wall	1	126	1,224	193	154	16	48	306	73	39	$20	$205	$215	$389
69	150150	CLASSROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$8	$152	$0	$122
70	150151	CLASSROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	306	Wall	1	126	1,224	193	154	16	48	306	73	39	$20	$205	$215	$389
71	150151	CLASSROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	1,530	98		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	1,530	67	67	10	20	0	31	0	$5	$101	$0	$81
72	150152	CLASSROOM 13	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	9	88	792	1,530	1,212		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	9	63	306	Wall	1	567	1,224	868	694	25	225	306	344	174	$92	$684	$215	$789

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Matthew Jago Elementary School #28	FACILITY SQ. FT. 51,311	DATE OF AUDIT: 2/28/2013

SPACE DESCRIPTION			EXISTING FIXTURES						REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.178	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
73	150153	CLASSROOM 15	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	9	88	792	1,530	1,212		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	9	63	306	Wall	1	567	1,224	868	694	25	225	306	344	174	$92	$684	$215	$789
74	150154	CLASSROOM 23	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	9	88	792	1,530	1,212		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	9	63	306	Wall	1	567	1,224	868	694	25	225	306	344	174	$92	$684	$215	$789
75	150155	CLASSROOM 25	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	9	88	792	1,530	1,212		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	9	63	306	Wall	1	567	1,224	868	694	25	225	306	344	174	$92	$684	$215	$789
76	150156	CLASSROOM 21	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	9	88	792	1,530	1,212		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	9	63	306	Wall	1	567	1,224	868	694	25	225	306	344	174	$92	$684	$215	$789
77	150157	CLASSROOM 19	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	9	88	792	1,530	1,212		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	9	63	306	Wall	1	567	1,224	868	694	25	225	306	344	174	$92	$684	$215	$789
78	150158	CLASSROOM 17	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	9	88	792	1,530	1,212		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	9	63	306	Wall	1	567	1,224	868	694	25	225	306	344	174	$92	$684	$215	$789
79	150159	JC	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	1	88	88	1,500	132		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	1	42				42	1,500	63	63	46	46	0	69	0	$12	$101	$0	$91
80	150160	TESTING	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	3	88	264	1,530	404		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	3	63	306	Wall	1	189	1,224	289	231	25	75	306	115	58	$31	$228	$215	$393
81	150161	CLASSROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	306	Wall	1	126	1,224	193	154	16	48	306	73	39	$20	$205	$215	$389
82	150161	CLASSROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	1,530	98		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	1,530	67	67	10	20	0	31	0	$5	$101	$0	$81
83	150162	STORAGE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	360	12		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41
84	150163	BOYS REST ROOM	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	3	88	264	2,610	689		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	3	42	522	Ceiling	1	126	2,088	329	263	46	138	522	360	66	$76	$302	$363	$636
85	150164	CLASSROOM 5	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	9	88	792	1,530	1,212		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	9	63	306	Wall	1	567	1,224	868	694	25	225	306	344	174	$92	$684	$215	$789
86	150165	CLASSROOM 3	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	9	88	792	1,530	1,212		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	9	63	306	Wall	1	567	1,224	868	694	25	225	306	344	174	$92	$684	$215	$789
87	150166	CLASSROOM 1	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	9	88	792	1,530	1,212		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	9	63	306	Wall	1	567	1,224	868	694	25	225	306	344	174	$92	$684	$215	$789
88	150167	CLASSROOM 11	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	9	88	792	1,530	1,212		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	9	63	306	Wall	1	567	1,224	868	694	25	225	306	344	174	$92	$684	$215	$789
89	150168	CLASSROOM 9	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	9	88	792	1,530	1,212		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	9	63	306	Wall	1	567	1,224	868	694	25	225	306	344	174	$92	$684	$215	$789
90	150169	CLASSROOM 7	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	9	88	792	1,530	1,212		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	9	63	306	Wall	1	567	1,224	868	694	25	225	306	344	174	$92	$684	$215	$789
91	15EXT	EXTERIOR	HID Wall Pack Fixture w/ (1) 175w Metal Halide Lamp & Ballast	2	210	420	4,745	1,993		LED (1) New 56w Wall Pack Fixture	2	56				112	4,745	531	531	154	308	0	1,461	0	$260	$884	$0	$884
92	15EXT	EXTERIOR	Incandescent Fixture w/ (1) 150w Incandescent PAR38 Lamp	1	150	150	4,745	712		17/18W LED PAR38 Screw-In Lamp, Outdoor Rated, Dimmable / PHILIPS	1	18				18	4,745	85	85	132	132	0	626	0	$111	$88	$0	$88
93	15EXT	EXTERIOR	Downlight Fixture w/ (1) 60w Incandescent Lamp	4	60	240	4,745	1,139		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	4	14				56	4,745	266	266	46	184	0	873	0	$155	$65	$0	$65
				504		**38,616**		**71,927**			**504**				**42**	**25,935**		**46,288**	**40,936**		**12,681**	**15,503**	**25,639**	**5,352**	**$5,516**	**$40,044**	**$9,604**	**$44,238**

LIGHTING RETROFIT SUMMARY FOR:
Avenel Middle School
85 Woodbine Avenue, Avenel, NJ 07001

BUILDING INFORMATION		EXISTING FIXTURES				PROPOSED FIXTURES				SAVINGS						FINANCIAL					
BUILDING	SQ. FT.	PRE TOTAL FIXT. QTY	PRE TOTAL FIXT. WATTS	PRE ANNUAL KWH CONSUMPTION	PRE WATTS / SQ. FT	POST TOTAL FIXT. QTY	POST TOTAL FIXT. WATTS	POST ANNUAL KWH CONSUMPTION	POST WATTS / SQ. FT	WATTS SAVED	ANNUAL KWH SAVED	ANNUAL KWH SAVED WITH SENSORS	ANNUAL SAVINGS $ FIXT.	ANNUAL SAVINGS $ SENSORS	ANNUAL SAVINGS $ TOTAL	CO2 REDUCTION (TONS)	NJ Smart Start REBATE $	**FIXTURES** TOTAL (INSTALLED) COST $	**SENSORS** TOTAL (INSTALLED) COST $	**MATERIAL** TOTAL (INSTALLED) COST $	SIMPLE PAYBACK NET OF REBATE (YEARS)
Avenel Middle School	**118,667**	**1118**	**68,873**	**139,908**	**0.58**	**1,118**	**48,029**	**88,702**	**0.40**	**20,844**	**51,207**	**6,266**	**$7,374**	**$902**	**$8,276**	**16.9**	**$14,475**	**$78,844**	**$16,337**	**$95,181**	**9.8**

15%	**PERCENTAGE OF REBATES IN TOTAL INSTALLED COST**
63%	**PERCENTAGE OF CONSUMPTION COMPARE TO EXISTING STATE**
24%	**EXISTING PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**
15%	**PROPOSED PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	Woodbridge School District Avenel Middle School	FACILITY SQ. FT. 118,667	DATE OF AUDIT: 2/25/2013

SPACE DESCRIPTION			EXISTING FIXTURES	REPLACEMENT FIXTURES										ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.144	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
1	2	3	4	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
1	020101	MAIN OFFICE	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	11	42				462	2,070	956	956	16	176	0	364	0	$52	$751	$0	$641
2	020101	MAIN OFFICE	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast 2'x2' Silver Reflector Kit	6	28				168	2,070	348	348	30	180	0	373	0	$54	$429	$0	$369
3	020102	OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	724.5	Wall	1	84	1,346	174	113	16	32	725	66	61	$18	$137	$215	$331
4	020103	PRINCIPALS OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	724.5	Wall	1	84	1,346	174	113	16	32	725	66	61	$18	$137	$215	$331
5	020104	STORAGE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41
6	020101	MAIN OFFICE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	2,070	91	91	10	20	0	41	0	$6	$101	$0	$81
7	020105	BREAK ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	306	Wall	1	84	1,224	129	103	16	32	306	49	26	$11	$137	$215	$331
8	020106	GUIDANCE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	724.5	Wall	1	84	1,346	174	113	16	32	725	66	61	$18	$137	$215	$331
9	020106	GUIDANCE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	2,070	137	137	10	30	0	62	0	$9	$152	$0	$122
10	020107	OFFICE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	2,070	91	91	10	20	0	41	0	$6	$101	$0	$81
11	020108	NURSE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	7	22				154	1,530	236	236	10	70	0	107	0	$15	$355	$0	$285
12	020108	NURSE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$11	$205	$0	$175
13	020108	NURSE	Incandescent Wall Sconce w/ (1) 60w Incandescent Lamp	Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	2	14				28	1,530	43	43	46	92	0	141	0	$20	$33	$0	$33
14	020109	CLASSROOM 4	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$48	$614	$215	$719
15	020109	CLASSROOM 4	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	4	22				88	1,530	135	135	10	40	0	61	0	$9	$203	$0	$163
16	020110	LAUNDRY	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	360	16	16	10	20	0	7	0	$1	$101	$0	$81
17	020111	SUPPLY	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41
18	020112	CLASSROOM 109	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$32	$410	$215	$544
19	020112	CLASSROOM 109	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
20	020113	FACULTY ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	306	Wall	1	126	1,224	193	154	16	48	306	73	39	$16	$205	$215	$389
21	020113	FACULTY ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
22	020114	CAFETERIA	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	50	42				2,100	2,610	5,481	5,481	16	800	0	2,088	0	$301	$3,413	$0	$2,913
23	020115	KITCHEN	4' Vapor-Tight Wrap w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	25	42				1,050	1,500	1,575	1,575	16	400	0	600	0	$86	$1,706	$0	$1,456
24	020115	KITCHEN	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	1,500	66	66	10	20	0	30	0	$4	$101	$0	$81
25	020115	KITCHEN	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	1,500	63	63	16	16	0	24	0	$3	$68	$0	$58
26	020115	KITCHEN	Fixture w/ 23w Screw-In CFL	None	2	23				46	1,500	69	69	0	0	0	0	0	$0	$0	$0	$0
27	020115	KITCHEN	Incandescent Fixture w/ (1) 60w Incandescent Lamp	Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	2	14				28	1,500	42	42	46	92	0	138	0	$20	$33	$0	$33
28	020115	KITCHEN	Compact Fluorescent Circleline Drum Fixture w/ (1) FC8T9 & (1) FC12T9 Circleline Lamp and (1) Magnetic Ballast	None	1	47				47	1,500	71	71	0	0	0	0	0	$0	$0	$0	$0
29	020114	CAFETERIA	Incandescent Fixture w/ (1) 75w Incandescent PAR38 Lamp	17/18W LED PAR38 Screw-In Lamp, Outdoor Rated, Dimmable / PHILIPS	8	18				144	2,610	376	376	57	456	0	1,190	0	$171	$702	$0	$702

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	Woodbridge School District Avenel Middle School	FACILITY SQ. FT. 118,667	DATE OF AUDIT: 2/25/2013

SPACE DESCRIPTION			EXISTING FIXTURES	REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.144	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
30	020114	CAFETERIA	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	2,610	115	115	10	20	0	52	0	$8	$101	$0	$81
31	020116	SCHOOL STORE	No Access. Area inaccessible during audit.	None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
32	020117	STAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	360	45	45	16	48	0	17	0	$2	$205	$0	$175
33	020117	STAGE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	360	45	45	16	48	0	17	0	$2	$205	$0	$175
34	020118	BOYS REST ROOM	No Access. Area inaccessible during audit.	None	1	0				0	2,610	0	0	0	0	0	0	0	$0	$0	$0	$0
35	020119	GIRLS REST ROOM	No Access. Area inaccessible during audit.	None	1	0				0	2,610	0	0	0	0	0	0	0	$0	$0	$0	$0
36	020120	CLASSROOM 114	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	7	42	306	Wall	**1**	294	1,224	450	360	16	112	306	171	90	$38	$478	$215	$602
37	020120	CLASSROOM 114	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	1,530	67	67	10	20	0	31	0	$4	$101	$0	$81
38	020121	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
39	020122	JC	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,500	33	33	10	10	0	15	0	$2	$51	$0	$41
40	020123	CLASSROOM 116	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	7	42	306	Wall	**1**	294	1,224	450	360	16	112	306	171	90	$38	$478	$215	$602
41	020123	CLASSROOM 116	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	1,530	67	67	10	20	0	31	0	$4	$101	$0	$81
42	020124	MAINTENANCE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	2,070	261	261	16	48	0	99	0	$14	$205	$0	$175
43	020125	BOILER ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	5	42				210	2,610	548	548	16	80	0	209	0	$30	$341	$0	$291
44	020125	BOILER ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	2,610	172	172	10	30	0	78	0	$11	$152	$0	$122
45	020127	BAND 123	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	18	42	306	Wall	**2**	756	1,224	1,157	925	16	288	306	441	231	$97	$1,229	$429	$1,438
46	020128	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
47	020129	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117
48	020130	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
49	020131	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
50	020126	CLASSROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	18	42	306	Wall	**2**	756	1,224	1,157	925	16	288	306	441	231	$97	$1,229	$429	$1,438
51	020132	MUSIC ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	11	42	306	Wall	**1**	462	1,224	707	565	16	176	306	269	141	$59	$751	$215	$835
52	020132	MUSIC ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
53	020133	MUSIC ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	**1**	378	1,224	578	463	16	144	306	220	116	$48	$614	$215	$719
54	020134	CLASSROOM 400	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42	306	Wall	**1**	504	1,224	771	617	16	192	306	294	154	$65	$819	$215	$894
55	020135	CLASSROOM 402	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42	306	Wall	**1**	504	1,224	771	617	16	192	306	294	154	$65	$819	$215	$894
56	020136	CLASSROOM 406	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	**1**	378	1,224	578	463	16	144	306	220	116	$48	$614	$215	$719
57	020136	CLASSROOM 406	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
58	020137	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
59	020137	STORAGE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	Woodbridge School District Avenel Middle School	FACILITY SQ. FT. 118,667	DATE OF AUDIT: 2/25/2013

SPACE DESCRIPTION			EXISTING FIXTURES	REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.144	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
60	020138	ELECTRICAL	No Access. Area inaccessible during audit.	None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
61	020139	CLASSROOM 410	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$48	$614	$215	$719
62	020139	CLASSROOM 410	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
63	020140	CLASSROOM 412	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$32	$410	$215	$544
64	020140	CLASSROOM 412	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
65	020141	CLASSROOM 414	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$32	$410	$215	$544
66	020141	CLASSROOM 414	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
67	020142	CLASSROOM 416	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$32	$410	$215	$544
68	020142	CLASSROOM 416	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
69	020143	CLASSROOM 418	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$32	$410	$215	$544
70	020143	CLASSROOM 418	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
71	020144	CLASSROOM 420	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$32	$410	$215	$544
72	020144	CLASSROOM 420	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
73	020145	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42	522	Ceiling	1	168	2,088	438	351	16	64	522	167	88	$37	$273	$363	$596
74	020146	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42	522	Ceiling	1	168	2,088	438	351	16	64	522	167	88	$37	$273	$363	$596
75	020147	FACULTY WOMEN	Compact Fluorescent Wall Sconce Fixture w/ (2) 13w CFL & Magnetic Ballast	0	1	0				0	360	0	0	30	30	0	11	0	$2	$0	$0	$0
76	020148	JC	Incandescent Fixture w/ (1) 60w Incandescent Lamp	Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	1,500	21	21	46	46	0	69	0	$10	$16	$0	$16
77	020149	FACULTY MEN	Compact Fluorescent Wall Sconce Fixture w/ (2) 13w CFL & Magnetic Ballast	0	1	0				0	360	0	0	30	30	0	11	0	$2	$0	$0	$0
78	020150	FACULTY ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42	306	Wall	1	168	1,224	257	206	16	64	306	98	51	$22	$273	$215	$448
79	020150	FACULTY ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
80	020151	CLASSROOM 405	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$48	$614	$215	$719
81	020151	CLASSROOM 405	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
82	020152	CLASSROOM 407	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$32	$410	$215	$544
83	020152	CLASSROOM 407	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
84	020153	CLASSROOM 409	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$32	$410	$215	$544
85	020153	CLASSROOM 409	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
86	020154	CLASSROOM 411	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$32	$410	$215	$544
87	020154	CLASSROOM 411	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
88	020155	CLASSROOM 413	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$32	$410	$215	$544
89	020155	CLASSROOM 413	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	Woodbridge School District Avenel Middle School	FACILITY SQ. FT. 118,667	DATE OF AUDIT: 2/25/2013

SPACE DESCRIPTION			EXISTING FIXTURES	REPLACEMENT FIXTURES										ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.144	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
90	020156	CLASSROOM 415	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$32	$410	$215	$544
91	020156	CLASSROOM 415	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
92	020157	CLASSROOM 417	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$32	$410	$215	$544
93	020157	CLASSROOM 417	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
94	020158	CLASSROOM 419	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$32	$410	$215	$544
95	020158	CLASSROOM 419	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
96	020159	BOYS LOCKER	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42				336	2,310	776	776	16	128	0	296	0	$43	$546	$0	$466
97	020159	BOYS LOCKER	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	19	22				418	2,310	966	966	10	190	0	439	0	$63	$963	$0	$773
98	020159	BOYS LOCKER	Incandescent Fixture w/ (1) 60w Incandescent Lamp	Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	4	14				56	2,310	129	129	46	184	0	425	0	$61	$65	$0	$65
99	020160	GYM	HID Low Bay Fixture w/ (1) 400w Metal Halide Lamp & Ballast	New 2'x4' Singlepoint-Mount High Bay w/ (6) F54T5HO Lamps & (3) 2/54 T5 Elec. HO Ballasts Wire Guard Occupancy Sensor	30	351				10,530	2,310	24,324	24,324	104	3,120	0	7,207	0	$1,038	$11,759	$0	$8,759
100	020160	GYM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	4	22				88	2,310	203	203	10	40	0	92	0	$13	$203	$0	$163
101	020161	OFFICES	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	18	42				756	2,070	1,565	1,565	16	288	0	596	0	$86	$1,229	$0	$1,049
102	020163	STORAGE	No Access. Area inaccessible during audit.	None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
103	020164	STORAGE	No Access. Area inaccessible during audit.	None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
104	020162	GIRLS LOCKER	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42				378	2,310	873	873	16	144	0	333	0	$48	$614	$0	$524
105	020162	GIRLS LOCKER	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	18	22				396	2,310	915	915	10	180	0	416	0	$60	$913	$0	$733
106	020165	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	2,610	329	329	16	48	0	125	0	$18	$205	$0	$175
107	020166	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	2,610	329	329	16	48	0	125	0	$18	$205	$0	$175
108	020167	MEDIA CENTER	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	36	42				1,512	2,610	3,946	3,946	16	576	0	1,503	0	$216	$2,457	$0	$2,097
109	020168	MEDIA CENTER OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	306	Wall	1	126	1,224	193	154	16	48	306	73	39	$16	$205	$215	$389
110	020168	MEDIA CENTER OFFICE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
111	020169	LOUNGE 120	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	306	Wall	1	126	1,224	193	154	16	48	306	73	39	$16	$205	$215	$389
112	020169	LOUNGE 120	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
113	020170	STORAGE	No Access. Area inaccessible during audit.	None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
114	020171	MEETING ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	2,070	348	348	16	64	0	132	0	$19	$273	$0	$233
115	020171	MEETING ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	2,070	91	91	10	20	0	41	0	$6	$101	$0	$81
116	020172	MEETING ROOM	No Access. Area inaccessible during audit.	None	1	0				0	2,070	0	0	0	0	0	0	0	$0	$0	$0	$0
117	020173	CLASSROOM 301	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$48	$614	$215	$719
118	020174	CLASSROOM 302	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42				378	1,530	578	578	16	144	0	220	0	$32	$614	$0	$524
119	020174	CLASSROOM 302	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22	306	Wall	1	66	1,224	101	81	10	30	306	46	20	$10	$152	$215	$337

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	Woodbridge School District Avenel Middle School	FACILITY SQ. FT. 118,667	DATE OF AUDIT: 2/25/2013

SPACE DESCRIPTION			EXISTING FIXTURES	REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.144	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
120	020175	CLASSROOM 303	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	**1**	252	1,224	386	308	16	96	306	147	77	$32	$410	$215	$544
121	020175	CLASSROOM 303	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
122	020176	JC	No Access. Area inaccessible during audit.	None	1	0				0	1,500	0	0	0	0	0	0	0	$0	$0	$0	$0
123	020177	CHEM STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
124	020177	CHEM STORAGE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41
125	020178	CLASSROOM 305	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	**1**	252	1,224	386	308	16	96	306	147	77	$32	$410	$215	$544
126	020178	CLASSROOM 305	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
127	020179	CLASSROOM 306	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	**1**	378	1,224	578	463	16	144	306	220	116	$48	$614	$215	$719
128	020179	CLASSROOM 306	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
129	020180	CLASSROOM 307	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	**1**	252	1,224	386	308	16	96	306	147	77	$32	$410	$215	$544
130	020180	CLASSROOM 307	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
131	020181	CLASSROOM 308	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	**1**	252	1,224	386	308	16	96	306	147	77	$32	$410	$215	$544
132	020181	CLASSROOM 308	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
133	020182	FACULTY LOUNGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	1,530	129	129	16	32	0	49	0	$7	$137	$0	$117
134	020182	FACULTY LOUNGE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
135	020182	FACULTY MEN	2' Fixture w/ (1) F17T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F17T8 Lamp & (1) 1/17 Elec. Low-Power High Efficiency Ballast	1	15				15	360	5	5	4	4	0	1	0	$0	$47	$0	$47
136	020182	FACULTY WOMEN	Compact Fluorescent Wall Sconce Fixture w/ (2) 13w CFL & Magnetic Ballast	0	1	0				0	360	0	0	30	30	0	11	0	$2	$0	$0	$0
137	020183	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42	522	Ceiling	**1**	168	2,088	438	351	16	64	522	167	88	$37	$273	$363	$596
138	020184	JC	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	1,500	63	63	16	16	0	24	0	$3	$68	$0	$58
139	020185	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	5	42	522	Ceiling	**1**	210	2,088	548	438	16	80	522	209	110	$46	$341	$363	$620
140	020186	CLASSROOM 313	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	**1**	378	1,224	578	463	16	144	306	220	116	$48	$614	$215	$719
141	020187	CLASSROOM 314	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	**1**	252	1,224	386	308	16	96	306	147	77	$32	$410	$215	$544
142	020187	CLASSROOM 314	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
143	020188	CLASSROOM 315	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	**1**	252	1,224	386	308	16	96	306	147	77	$32	$410	$215	$544
144	020188	CLASSROOM 315	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
145	020189	CLASSROOM 316	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	**1**	252	1,224	386	308	16	96	306	147	77	$32	$410	$215	$544
146	020189	CLASSROOM 316	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
147	020190	CLASSROOM 317	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	**1**	252	1,224	386	308	16	96	306	147	77	$32	$410	$215	$544
148	020190	CLASSROOM 317	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
149	020191	CLASSROOM 318	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	**1**	252	1,224	386	308	16	96	306	147	77	$32	$410	$215	$544

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	Woodbridge School District Avenel Middle School	FACILITY SQ. FT. 118,667	DATE OF AUDIT: 2/25/2013

SPACE DESCRIPTION			EXISTING FIXTURES	REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.144	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
150	020191	CLASSROOM 318	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
151	020192	CLASSROOM 319	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$32	$410	$215	$544
152	020192	CLASSROOM 319	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
153	020193	CLASSROOM 320	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$32	$410	$215	$544
154	020193	CLASSROOM 320	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
155	020194	CORRIDOR	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	41	22				902	2,610	2,354	2,354	10	410	0	1,070	0	$154	$2,079	$0	$1,669
156	020194	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	2,610	329	329	16	48	0	125	0	$18	$205	$0	$175
157	020194	CORRIDOR	Incandescent Fixture w/ (3) 60w Incandescent Lamps	Relamp w/ (3) 15 watt Compact Fluorescent Screw-In	2	45				90	2,610	235	235	135	270	0	705	0	$101	$59	$0	$59
158	020197	CORRIDOR	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	2,610	172	172	10	30	0	78	0	$11	$152	$0	$122
159	020197	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42				336	2,610	877	877	16	128	0	334	0	$48	$546	$0	$466
160	020196	CORRIDOR	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	37	22				814	2,610	2,125	2,125	10	370	0	966	0	$139	$1,876	$0	$1,506
161	020196	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	5	42				210	2,610	548	548	16	80	0	209	0	$30	$341	$0	$291
162	020195	CORRIDOR	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	13	22				286	2,610	746	746	10	130	0	339	0	$49	$659	$0	$529
163	020195	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	5	42				210	2,610	548	548	16	80	0	209	0	$30	$341	$0	$291
164	020198	STAIRS	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,610	219	219	16	32	0	84	0	$12	$137	$0	$117
165	020198	STAIRS	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$68	$0	$58
166	020199	STAIRS	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,610	219	219	16	32	0	84	0	$12	$137	$0	$117
167	020199	STAIRS	Incandescent Drum Fixture w/ (4) 60w Incandescent Lamps	New 2' Wrap Fixture w/ (2) F17/T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,610	73	73	212	212	0	553	0	$80	$111	$0	$111
168	020199	STAIRS	Incandescent Box w/ (2) 60w Lamps	Relamp w/ (2) 15 watt Compact Fluorescent Screw-In	1	30				30	2,610	78	78	90	90	0	235	0	$34	$23	$0	$23
169	020201	CLASSROOM 201	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$48	$614	$215	$719
170	020202	CLASSROOM 203	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$32	$410	$215	$544
171	020202	CLASSROOM 203	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
172	020203	CLASSROOM 205	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$32	$410	$215	$544
173	020203	CLASSROOM 205	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
174	020204	CLASSROOM 207	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$32	$410	$215	$544
175	020205	FACULTY WOMEN	Compact Fluorescent Wall Sconce Fixture w/ (2) 13w CFL & Magnetic Ballast	0	1	0				0	360	0	0	30	30	0	11	0	$2	$0	$0	$0
176	020206	FACULTY MEN	Compact Fluorescent Wall Sconce Fixture w/ (2) 13w CFL & Magnetic Ballast	0	1	0				0	360	0	0	30	30	0	11	0	$2	$0	$0	$0
177	020207	FACULTY ROOM	No Access. Area inaccessible during audit.	None	1	0				0	1,530	0	0	0	0	0	0	0	$0	$0	$0	$0
178	020208	STAIRS	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,610	219	219	16	32	0	84	0	$12	$137	$0	$117
179	020208	STAIRS	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	2,610	172	172	10	30	0	78	0	$11	$152	$0	$122

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	Woodbridge School District Avenel Middle School	FACILITY SQ. FT. 118,667	DATE OF AUDIT: 2/25/2013

SPACE DESCRIPTION			EXISTING FIXTURES	REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.144	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
180	020209	CLASSROOM 213	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$48	$614	$215	$719
181	020210	CLASSROOM 215	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$32	$410	$215	$544
182	020210	CLASSROOM 215	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
183	020211	CLASSROOM 217	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$32	$410	$215	$544
184	020211	CLASSROOM 217	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
185	020212	CLASSROOM 219	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$48	$614	$215	$719
186	020213	STORAGE	4' Industrial Hood w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
187	020213	STORAGE	Compact Fluorescent Drum Fixture w/ (3) 13w CFL & Magnetic Ballast	None	1	45				45	360	16	16	0	0	0	0	0	$0	$0	$0	$0
188	020214	CLASSROOM 220	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$32	$410	$215	$544
189	020214	CLASSROOM 220	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
190	020215	CLASSROOM 218	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$32	$410	$215	$544
191	020215	CLASSROOM 218	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
192	020216	CLASSROOM 216	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$32	$410	$215	$544
193	020216	CLASSROOM 216	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
194	020217	CLASSROOM 214	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$32	$410	$215	$544
195	020217	CLASSROOM 214	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
196	020218	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	5	42	522	Ceiling	1	210	2,088	548	438	16	80	522	209	110	$46	$341	$363	$620
197	020219	JC	Incandescent Fixture w/ (1) 60w Incandescent Lamp	Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	2	14				28	1,500	42	42	46	92	0	138	0	$20	$33	$0	$33
198	020220	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	5	42	522	Ceiling	1	210	2,088	548	438	16	80	522	209	110	$46	$341	$363	$620
199	020221	CLASSROOM 208	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$32	$410	$215	$544
200	020221	CLASSROOM 208	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
201	020222	CLASSROOM 206	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$48	$614	$215	$719
202	020222	CLASSROOM 206	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
203	020225	OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	724.5	Wall	1	84	1,346	174	113	16	32	725	66	61	$18	$137	$215	$331
204	020225	OFFICE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	2,070	46	46	10	10	0	21	0	$3	$51	$0	$41
205	020223	STORAGE	No Access. Area inaccessible during audit.	None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
206	020224	CLASSROOM 202	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$48	$614	$215	$719
207	020224	CLASSROOM 202	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
208	020226	ELECTRICAL	No Access. Area inaccessible during audit.	None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
209	020227	CORRIDOR	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	20	22				440	2,610	1,148	1,148	10	200	0	522	0	$75	$1,014	$0	$814

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	Woodbridge School District Avenel Middle School	FACILITY SQ. FT. 118,667	DATE OF AUDIT: 2/25/2013

SPACE DESCRIPTION			EXISTING FIXTURES	REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.144	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
210	02EXT	EXTERIOR	Incandescent Box w/ (2) 60w Lamps	Relamp w/ (2) 15 watt Compact Fluorescent Screw-In	8	30				240	4,745	1,139	1,139	90	720	0	3,416	0	$492	$182	$0	$182
211	02EXT	EXTERIOR	HID Wall Pack Fixture w/ (1) 175w Metal Halide Lamp & Ballast	LED (1) New 56w Wall Pack Fixture	3	56				168	4,745	797	797	154	462	0	2,192	0	$316	$1,326	$0	$1,326
212	02EXT	EXTERIOR	Incandescent Fixture w/ (1) 60w Incandescent Lamp	Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	2	14				28	4,745	133	133	46	92	0	437	0	$63	$33	$0	$33
213	02EXT	EXTERIOR	Incandescent Wall Pack Fixture w/ (1) 60w Incandescent Lamp	Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	3	14				42	4,745	199	199	46	138	0	655	0	$94	$49	$0	$49
214	02EXT	EXTERIOR	Incandescent Fixture w/ (1) 75w Incandescent PAR38 Lamp	17/18W LED PAR38 Screw-In Lamp, Outdoor Rated, Dimmable / PHILIPS	2	18				36	4,745	171	171	57	114	0	541	0	$78	$176	$0	$176
					1,118				**72**	**48,029**		**94,968**	**88,702**		**20,844**	**24,390**	**44,940**	**6,266**	**$7,374**	**$78,844**	**$16,337**	**$80,706**

LIGHTING RETROFIT SUMMARY FOR:
Colonia Middle School
100 Delaware Avenue, Colonia, NJ 07067

BUILDING INFORMATION		EXISTING FIXTURES				PROPOSED FIXTURES				SAVINGS						FINANCIAL					
BUILDING	SQ. FT.	PRE TOTAL FIXT. QTY	PRE TOTAL FIXT. WATTS	PRE ANNUAL KWH CONSUMPTION	PRE WATTS / SQ. FT	POST TOTAL FIXT. QTY	POST TOTAL FIXT. WATTS	POST ANNUAL KWH CONSUMPTION	POST WATTS / SQ. FT	WATTS SAVED	ANNUAL KWH SAVED	ANNUAL KWH SAVED WITH SENSORS	ANNUAL SAVINGS $ FIXT.	ANNUAL SAVINGS $ SENSORS	ANNUAL SAVINGS $ TOTAL	CO2 REDUCTION (TONS)	NJ Smart Start REBATE $	**FIXTURES** TOTAL (INSTALLED) COST $	**SENSORS** TOTAL (INSTALLED) COST $	**MATERIAL** TOTAL (INSTALLED) COST $	SIMPLE PAYBACK NET OF REBATE (YEARS)
Colonia Middle School	**102,959**	**1030**	**76,403**	**148,736**	**0.74**	**1,030**	**53,941**	**99,437**	**0.52**	**22,462**	**49,299**	**6,368**	**$8,529**	**$1,102**	**$9,630**	**16.3**	**$15,670**	**$88,150**	**$14,836**	**$102,985**	**9.1**

15%	**PERCENTAGE OF REBATES IN TOTAL INSTALLED COST**
67%	**PERCENTAGE OF CONSUMPTION COMPARE TO EXISTING STATE**
40%	**EXISTING PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**
27%	**PROPOSED PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Colonia Middle School	FACILITY SQ. FT. 102,959	DATE OF AUDIT: 2/20/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES										ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.173	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
1	060101	MAIN OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	5	58	290	2,070	600	33	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	5	42				210	2,070	435	435	16	80	0	166	0	$29	$341	$0	$291
2	060102	OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,070	120	42	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42	724.5	Wall	1	42	1,346	87	57	16	16	725	33	30	$11	$68	$215	$273
3	060102	OFFICE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	2,070	66		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	2,070	46	46	10	10	0	21	0	$4	$51	$0	$41
4	060103	BREAK ROOM	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	1,530	177		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	306	Wall	1	84	1,224	129	103	16	32	306	49	26	$13	$137	$215	$331
5	060104	COPY ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	2,070	132		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	2,070	91	91	10	20	0	41	0	$7	$101	$0	$81
6	060105	CLOSET	Fixture w/ 23w Screw-In CFL	1	23	23	360	8		None	1	23				23	360	8	8	0	0	0	0	0	$0	$0	$0	$0
7	060106	OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	724.5	Wall	1	84	1,346	174	113	16	32	725	66	61	$22	$137	$215	$331
8	060106	OFFICE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	2,070	66		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	2,070	46	46	10	10	0	21	0	$4	$51	$0	$41
9	060106	OFFICE CLOSET	Fixture w/ 23w Screw-In CFL	1	23	23	360	8		None	1	23				23	360	8	8	0	0	0	0	0	$0	$0	$0	$0
10	060107	OPEN OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,070	120	40	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,070	87	87	16	16	0	33	0	$6	$68	$0	$58
11	060108	OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,070	120		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42	724.5	Wall	1	42	1,346	87	57	16	16	725	33	30	$11	$68	$215	$273
12	060109	OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,070	120		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42	724.5	Wall	1	42	1,346	87	57	16	16	725	33	30	$11	$68	$215	$273
13	060110	OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,070	120		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42	724.5	Wall	1	42	1,346	87	57	16	16	725	33	30	$11	$68	$215	$273
14	060111	WOMENS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,610	303	53	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	522	Wall	1	84	2,088	219	175	16	32	522	84	44	$22	$137	$215	$331
15	060112	MENS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,610	303		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	522	Wall	1	84	2,088	219	175	16	32	522	84	44	$22	$137	$215	$331
16	060113	CLASSROOM 115	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	1,530	1,065		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42	306	Wall	1	504	1,224	771	617	16	192	306	294	154	$78	$819	$215	$894
17	060114	NURSE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	1,530	355		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	1,530	257	257	16	64	0	98	0	$17	$273	$0	$233
18	060114	NURSE REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
19	060114	NURSE REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
20	060114	NURSE STORAGE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	360	42		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117
21	060115	CLASSROOM 113	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532	63	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$39	$410	$215	$544
22	060115	CLASSROOM 113	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	9	32	288	1,530	441		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	9	22	306	Wall	1	198	1,224	303	242	10	90	306	138	61	$34	$456	$215	$561
23	060116	STORAGE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	360	12		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41
24	060117	CLASSROOM 111	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799	70	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$58	$614	$215	$719
25	060117	CLASSROOM 111	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$8	$152	$0	$122
26	060118	CLASSROOM 109	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$58	$614	$215	$719
27	060118	CLASSROOM 109	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$8	$152	$0	$122
28	060119	CLASSROOM 107	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$58	$614	$215	$719
29	060119	CLASSROOM 107	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$8	$152	$0	$122
30	060120	CLASSROOM 105	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$58	$614	$215	$719
31	060120	CLASSROOM 105	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$8	$152	$0	$122
32	060121	CLASSROOM 103	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$58	$614	$215	$719
33	060121	CLASSROOM 103	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$8	$152	$0	$122
34	060122	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	2,610	606		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42	522	Ceiling	1	168	2,088	438	351	16	64	522	167	88	$44	$273	$363	$596
35	060123	JC	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,500	48		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,500	33	33	10	10	0	15	0	$3	$51	$0	$41
36	060124	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	2,610	606		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42	522	Ceiling	1	168	2,088	438	351	16	64	522	167	88	$44	$273	$363	$596

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Colonia Middle School	FACILITY SQ. FT. 102,959	DATE OF AUDIT: 2/20/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.173	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
37	060125	CLASSROOM 101	Downlight Fixture w/ (1) 65w Incandescent Lamp	25	65	1,625	1,530	2,486		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	25	14	306	Wall	1	350	1,224	536	428	51	1,275	306	1,951	107	$356	$406	$215	$601
38	060126	CLASSROOM 102	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$39	$410	$215	$544
39	060126	CLASSROOM 102	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$8	$152	$0	$122
40	060127	CLASSROOM 104	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$58	$614	$215	$719
41	060127	CLASSROOM 104	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$8	$152	$0	$122
42	060128	CLASSROOM 106	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$58	$614	$215	$719
43	060128	CLASSROOM 106	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$8	$152	$0	$122
44	060129	CLASSROOM 108	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$58	$614	$215	$719
45	060129	CLASSROOM 108	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$8	$152	$0	$122
46	060130	CLASSROOM 110	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$58	$614	$215	$719
47	060130	CLASSROOM 110	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$8	$152	$0	$122
48	060131	FACULTY ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	1,530	177	25	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	306	Wall	1	84	1,224	129	103	16	32	306	49	26	$13	$137	$215	$331
49	060131	FACULTY ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	1,530	98		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	1,530	67	67	10	20	0	31	0	$5	$101	$0	$81
50	060132	MENS REST ROOM	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,610	73	73	30	30	0	78	0	$14	$60	$0	$50
51	060133	WOMENS REST ROOM	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,610	73	73	30	30	0	78	0	$14	$60	$0	$50
52	060134	CLASSROOM 112	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$58	$614	$215	$719
53	060134	CLASSROOM 112	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$8	$152	$0	$122
54	060135	ELECTRICAL	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
55	060136	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	19	58	1,102	2,610	2,876	24	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	19	42				798	2,610	2,083	2,083	16	304	0	793	0	$137	$1,297	$0	$1,107
56	060136	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	18	58	1,044	2,610	2,725		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	18	42				756	2,610	1,973	1,973	16	288	0	752	0	$130	$2,633	$0	$2,453
57	060137	STORAGE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	360	23		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	360	16	16	10	20	0	7	0	$1	$101	$0	$81
58	060138	CONFERENCE ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,070	174	174	16	32	0	66	0	$11	$137	$0	$117
59	060139	WORK ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240	46	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,070	174	174	16	32	0	66	0	$11	$137	$0	$117
60	060140	MEDIA ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	18	58	1,044	2,610	2,725		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	18	42				756	2,610	1,973	1,973	16	288	0	752	0	$130	$1,229	$0	$1,049
61	060141	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
62	060142	CORRIDOR	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	2,610	1,211		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42				336	2,610	877	877	16	128	0	334	0	$58	$546	$0	$466
63	060142	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,610	454		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	2,610	329	329	16	48	0	125	0	$22	$205	$0	$175
64	060142	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	3	58	174	2,610	454		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	3	42				126	2,610	329	329	16	48	0	125	0	$22	$439	$0	$409
65	060143	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$68	$0	$58
66	060144	JC	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	1,500	87		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	1,500	63	63	16	16	0	24	0	$4	$68	$0	$58
67	060145	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$68	$0	$58
68	060146	STORAGE	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	360	22		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	360	5	5	46	46	0	17	0	$3	$16	$0	$16
69	060147	WOMENS REST ROOM	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,610	73	73	30	30	0	78	0	$14	$60	$0	$50
70	060148	MENS REST ROOM	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,610	73	73	30	30	0	78	0	$14	$60	$0	$50
71	060149	BREAK ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	1,530	355		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	1,530	257	257	16	64	0	98	0	$17	$273	$0	$233
72	060150	CLASSROOM 312	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$58	$614	$215	$719

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Colonia Middle School	FACILITY SQ. FT. 102,959	DATE OF AUDIT: 2/20/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.173	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
73	060150	CLASSROOM 312	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$8	$152	$0	$122
74	060151	CLASSROOM 310	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$58	$614	$215	$719
75	060151	CLASSROOM 310	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$8	$152	$0	$122
76	060152	CLASSROOM 308	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$58	$614	$215	$719
77	060152	CLASSROOM 308	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$8	$152	$0	$122
78	060153	CLASSROOM 306	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$58	$614	$215	$719
79	060153	CLASSROOM 306	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$8	$152	$0	$122
80	060154	CLASSROOM 304	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$58	$614	$215	$719
81	060154	CLASSROOM 304	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$8	$152	$0	$122
82	060155	CLASSROOM 302	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$39	$410	$215	$544
83	060155	CLASSROOM 302	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$8	$152	$0	$122
84	060156	OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,070	174	174	16	32	0	66	0	$11	$137	$0	$117
85	060156	OFFICE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	2,070	66		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	2,070	46	46	10	10	0	21	0	$4	$51	$0	$41
86	060157	CLASSROOM 301	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$39	$410	$215	$544
87	060157	CLASSROOM 301	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$8	$152	$0	$122
88	060158	CLASSROOM 303	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$58	$614	$215	$719
89	060158	CLASSROOM 303	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$8	$152	$0	$122
90	060159	CLASSROOM 305	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$58	$614	$215	$719
91	060159	CLASSROOM 305	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$8	$152	$0	$122
92	060160	CLASSROOM 307	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$58	$614	$215	$719
93	060160	CLASSROOM 307	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$8	$152	$0	$122
94	060161	CLASSROOM 309	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$58	$614	$215	$719
95	060161	CLASSROOM 309	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$8	$152	$0	$122
96	060162	CLASSROOM 311	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$58	$614	$215	$719
97	060162	CLASSROOM 311	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$8	$152	$0	$122
98	060163	CLASSROOM 313	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$58	$614	$215	$719
99	060163	CLASSROOM 313	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$8	$152	$0	$122
100	060164	CLASSROOM 315	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$58	$614	$215	$719
101	060164	CLASSROOM 315	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$8	$152	$0	$122
102	060165	CLASSROOM 317A	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	306	Wall	1	126	1,224	193	154	16	48	306	73	39	$19	$205	$215	$389
103	060165	CLASSROOM 317A	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$8	$152	$0	$122
104	060166	CLASSROOM 317	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$58	$614	$215	$719
105	060167	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	360	42		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117
106	060168	CLASSROOM 314	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$58	$614	$215	$719
107	060168	CLASSROOM 314	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$8	$152	$0	$122
108	060169	CLASSROOM LIVING	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	306	Wall	1	126	1,224	193	154	16	48	306	73	39	$19	$205	$215	$389

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Colonia Middle School	FACILITY SQ. FT. 102,959	DATE OF AUDIT: 2/20/2013

SPACE DESCRIPTION			EXISTING FIXTURES						REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.173	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
109	060170	CLASSROOM 316	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$58	$614	$215	$719
110	060170	CLASSROOM 316	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$8	$152	$0	$122
111	060171	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	5	58	290	2,610	757		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	5	42				210	2,610	548	548	16	80	0	209	0	$36	$341	$0	$291
112	060171	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	5	58	290	2,610	757		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	5	42				210	2,610	548	548	16	80	0	209	0	$36	$731	$0	$681
113	060172	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	18	58	1,044	2,610	2,725		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	18	42				756	2,610	1,973	1,973	16	288	0	752	0	$130	$1,229	$0	$1,049
114	060172	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	18	58	1,044	2,610	2,725		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	18	42				756	2,610	1,973	1,973	16	288	0	752	0	$130	$2,633	$0	$2,453
115	060173	OFFICE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,070	174	174	16	32	0	66	0	$11	$137	$0	$117
116	060173	OFFICE REST ROOM	Compact Fluorescent Circleline Drum Fixture w/ (1) FC8T9 & (1) FC12T9 Circleline Lamp and (1) Magnetic Ballast	1	47	47	360	17		None	1	47				47	360	17	17	0	0	0	0	0	$0	$0	$0	$0
117	060174	LOBBY	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,610	73	73	30	30	0	78	0	$14	$60	$0	$50
118	060175	GIRLS LOCKER ROOM	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	18	58	1,044	2,310	2,412		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	18	42				756	2,310	1,746	1,746	16	288	0	665	0	$115	$1,229	$0	$1,049
119	060175	GIRLS LOCKER ROOM	Fixture w/ 23w Screw-In CFL	12	23	276	2,310	638		None	12	23				276	2,310	638	638	0	0	0	0	0	$0	$0	$0	$0
120	060176	WEIGHT ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42				252	1,530	386	386	16	96	0	147	0	$25	$410	$0	$350
121	060177	LOBBY	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,610	303		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,610	219	219	16	32	0	84	0	$14	$137	$0	$117
122	060178	GYM	HID High Bay Fixture w/ (1) 400w Metal Halide Lamp & Ballast	26	455	11,830	2,310	27,327	30	New 2'x4' Singlepoint-Mount High Bay w/ (6) F54T5HO Lamps & (3) 2/54 T5 Elec. HO Ballasts Wire Guard Occupancy Sensor	26	351				9,126	2,310	21,081	21,081	104	2,704	0	6,246	0	$1,081	$10,191	$0	$7,591
123	060179	LOBBY	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,610	303		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,610	219	219	16	32	0	84	0	$14	$137	$0	$117
124	060180	MENS LOCKER ROOM	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	23	58	1,334	2,310	3,082		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	23	42				966	2,310	2,231	2,231	16	368	0	850	0	$147	$1,570	$0	$1,340
125	060180	MENS LOCKER ROOM	Fixture w/ 23w Screw-In CFL	8	23	184	2,310	425		None	8	23				184	2,310	425	425	0	0	0	0	0	$0	$0	$0	$0
126	060181	OFFICE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,070	174	174	16	32	0	66	0	$11	$137	$0	$117
127	060181	OFFICE REST ROOM	Compact Fluorescent Circleline Drum Fixture w/ (1) FC8T9 & (1) FC12T9 Circleline Lamp and (1) Magnetic Ballast	1	47	47	360	17		None	1	47				47	360	17	17	0	0	0	0	0	$0	$0	$0	$0
128	060182	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,610	454	84	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	522	Ceiling	1	126	2,088	329	263	16	48	522	125	66	$33	$205	$363	$538
129	060182	GIRLS REST ROOM	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,610	73	73	30	30	0	78	0	$14	$60	$0	$50
130	060183	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,610	303		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	522	Ceiling	1	84	2,088	219	175	16	32	522	84	44	$22	$137	$363	$480
131	060184	MULTIPURPOSE	Incandescent Fixture w/ (1) 150w Incandescent PAR38 Lamp	7	150	1,050	2,610	2,741	18	17/18W LED PAR38 Screw-In Lamp, Outdoor Rated, Dimmable / PHILIPS	7	18				126	2,610	329	329	132	924	0	2,412	0	$417	$614	$0	$614
132	060184	MULTIPURPOSE	HID High Bay Fixture w/ (1) 250w Metal Halide Lamp & Ballast	30	295	8,850	2,610	23,099		New 2'x4' Singlepoint-Mount High Bay w/ (4) F54T5HO Lamps & (2) 2/54 T5 Elec. HO Ballasts Wire Guard Occupancy Sensor	30	234				7,020	2,610	18,322	18,322	61	1,830	0	4,776	0	$826	$11,759	$0	$8,759
133	060184	MULTIPURPOSE	Exit Sign w/ (2) 15W Incandescent Lamps	4	30	120	8,760	1,051		New LED Exit Sign w/ Battery backup	4	2				8	8,760	70	70	28	112	0	981	0	$170	$377	$0	$337
134	060185	STAGE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	360	63		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	360	45	45	16	48	0	17	0	$3	$205	$0	$175
135	060185	STAGE	Incandescent Poker Hat Fixture w/ (1) 100w Incandescent Lamp	5	100	500	360	180		Incandescent Fixture w/ 32w Screw-In CFL	5	32				160	360	58	58	68	340	0	122	0	$21	$127	$0	$127
136	060185	STAGE	HID Low Bay Fixture w/ (1) 250w Metal Halide Lamp & Ballast	3	295	885	360	319		New 2'x4' Singlepoint-Mount High Bay w/ (4) F54T5HO Lamps & (2) 2/54 T5 Elec. HO Ballasts Wire Guard Occupancy Sensor	3	234				702	360	253	253	61	183	0	66	0	$11	$1,176	$0	$876
137	060186	STORAGE	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	1	112	112	360	40		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84				84	360	30	30	28	28	0	10	0	$2	$84	$0	$74
138	060187	PLAY ROOM	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	1	112	112	1,530	171		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84				84	1,530	129	129	28	28	0	43	0	$7	$84	$0	$74
139	060188	JC	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	1,500	90		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	1,500	21	21	46	46	0	69	0	$12	$16	$0	$16
140	060189	PLAY ROOM	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	1	112	112	1,530	171		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84				84	1,530	129	129	28	28	0	43	0	$7	$84	$0	$74
141	060190	STAGE	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	360	22		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	360	5	5	46	46	0	17	0	$3	$16	$0	$16
142	060191	KITCHEN	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast, Surface Mounted	14	58	812	1,500	1,218		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	14	28				392	1,500	588	588	30	420	0	630	0	$109	$846	$0	$706
143	060191	KITCHEN	Incandescent Vapor Proof Fixture w/ (1) 60w Incandescent Lamp	4	60	240	1,500	360		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	4	14				56	1,500	84	84	46	184	0	276	0	$48	$65	$0	$65
144	060191	KITCHEN DISHWASHING	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast, Surface Mounted	2	58	116	1,500	174		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	2	28				56	1,500	84	84	30	60	0	90	0	$16	$121	$0	$101

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Colonia Middle School	FACILITY SQ. FT. 102,959	DATE OF AUDIT: 2/20/2013

SPACE DESCRIPTION			EXISTING FIXTURES						REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.173	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
145	060191	KITCHEN	Incandescent Poker Hat Fixture w/ (1) 60w Incandescent Lamp	4	60	240	1,500	360		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	4	14				56	1,500	84	84	46	184	0	276	0	$48	$65	$0	$65
146	060192	OFFICE	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	724.5	Wall	1	84	1,346	174	113	16	32	725	66	61	$22	$137	$215	$331
147	060193	REST ROOM	Incandescent Fixture w/ (1) 60w Incandescent Lamp	2	60	120	2,610	313		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	2	14				28	2,610	73	73	46	92	0	240	0	$42	$33	$0	$33
148	060194	JC	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	1,500	90		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	1,500	21	21	46	46	0	69	0	$12	$16	$0	$16
149	060195	COOLER	Incandescent Vapor Proof Fixture w/ (1) 60w Incandescent Lamp	1	60	60	360	22		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	360	5	5	46	46	0	17	0	$3	$16	$0	$16
150	060196	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	360	42		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117
151	060197	MECHANICAL	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	7	58	406	360	146		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	7	42				294	360	106	106	16	112	0	40	0	$7	$478	$0	$408
152	060198	OFFICE	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast	1	58	58	2,070	120		Relamp & Reballast w/ (1) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,070	58	58	30	30	0	62	0	$11	$60	$0	$50
153	060198	OFFICE REST ROOM	Compact Fluorescent Circleline Drum Fixture w/ (1) FC8T9 & (1) FC12T9 Circleline Lamp and (1) Magnetic Ballast	1	47	47	360	17		None	1	47				47	360	17	17	0	0	0	0	0	$0	$0	$0	$0
154	060198	OFFICE REST ROOM	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	360	22		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	360	5	5	46	46	0	17	0	$3	$16	$0	$16
155	060199	OFFICE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,070	360		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	724.5	Wall	1	126	1,346	261	170	16	48	725	99	91	$33	$205	$215	$389
156	0601100	CLASSROOM 117	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	18	112	2,016	1,530	3,084	39	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	18	84	306	Wall	1	1,512	1,224	2,313	1,851	28	504	306	771	463	$213	$1,509	$215	$1,524
157	0601101	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	360	84		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	360	60	60	16	64	0	23	0	$4	$273	$0	$233
158	0601102	OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	724.5	Wall	1	84	1,346	174	113	16	32	725	66	61	$22	$137	$215	$331
159	0601103	STORAGE	Incandescent Poker Hat Fixture w/ (1) 60w Incandescent Lamp	2	60	120	360	43		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	2	14				28	360	10	10	46	92	0	33	0	$6	$33	$0	$33
160	0601104	CLASSROOM 114	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	18	112	2,016	1,530	3,084		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	18	84				1,512	1,530	2,313	2,313	28	504	0	771	0	$133	$1,509	$0	$1,329
161	0601105	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	2,610	1,211		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42				336	2,610	877	877	16	128	0	334	0	$58	$546	$0	$466
162	0601105	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	8	58	464	2,610	1,211		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	8	42				336	2,610	877	877	16	128	0	334	0	$58	$1,170	$0	$1,090
163	060201	CLASSROOM 211	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$58	$614	$215	$719
164	060201	CLASSROOM 211	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$8	$152	$0	$122
165	060202	CLASSROOM 209	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$58	$614	$215	$719
166	060202	CLASSROOM 209	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$8	$152	$0	$122
167	060203	CLASSROOM 207	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799	64	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$58	$614	$215	$719
168	060203	CLASSROOM 207	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$8	$152	$0	$122
169	060204	CLASSROOM 205	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799	58	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$58	$614	$215	$719
170	060204	CLASSROOM 205	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$8	$152	$0	$122
171	060205	CLASSROOM 203	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$58	$614	$215	$719
172	060205	CLASSROOM 203	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$8	$152	$0	$122
173	060206	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	2,610	606		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42	522	Ceiling	1	168	2,088	438	351	16	64	522	167	88	$44	$273	$363	$596
174	060207	JC	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,500	48		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,500	33	33	10	10	0	15	0	$3	$51	$0	$41
175	060208	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	2,610	606		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42	522	Ceiling	1	168	2,088	438	351	16	64	522	167	88	$44	$273	$363	$596
176	060209	CLASSROOM 201	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$39	$410	$215	$544
177	060209	CLASSROOM 201	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$8	$152	$0	$122
178	060210	STORAGE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	360	35		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	360	24	24	10	30	0	11	0	$2	$152	$0	$122
179	060211	CLASSROOM 202	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$39	$410	$215	$544
180	060211	CLASSROOM 202	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$8	$152	$0	$122

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Colonia Middle School	FACILITY SQ. FT. 102,959	DATE OF AUDIT: 2/20/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES										ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.173	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
181	060212	CLASSROOM 204	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	**1**	378	1,224	578	463	16	144	306	220	116	$58	$614	$215	$719
182	060212	CLASSROOM 204	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$8	$152	$0	$122
183	060213	CLASSROOM 206	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	**1**	378	1,224	578	463	16	144	306	220	116	$58	$614	$215	$719
184	060213	CLASSROOM 206	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$8	$152	$0	$122
185	060214	CLASSROOM 208	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	**1**	378	1,224	578	463	16	144	306	220	116	$58	$614	$215	$719
186	060214	CLASSROOM 208	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$8	$152	$0	$122
187	060215	CLASSROOM 210	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	**1**	378	1,224	578	463	16	144	306	220	116	$58	$614	$215	$719
188	060215	CLASSROOM 210	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$8	$152	$0	$122
189	060216	FACULTY ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	1,530	355		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	1,530	257	257	16	64	0	98	0	$17	$273	$0	$233
190	060217	GIRLS REST ROOM	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast	1	58	58	2,310	134		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,310	65	65	30	30	0	69	0	$12	$60	$0	$50
191	060218	BOYS REST ROOM	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,610	73	73	30	30	0	78	0	$14	$60	$0	$50
192	060219	JC	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	1,500	87		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	1,500	63	63	16	16	0	24	0	$4	$68	$0	$58
193	060220	CLASSROOM 212	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	**1**	378	1,224	578	463	16	144	306	220	116	$58	$614	$215	$719
194	060220	CLASSROOM 212	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$8	$152	$0	$122
195	060221	STORAGE	Incandescent Fixture w/ (1) 60w Incandescent Lamp	2	60	120	360	43		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	2	14				28	360	10	10	46	92	0	33	0	$6	$33	$0	$33
196	060222	STORAGE	Incandescent Fixture w/ (1) 60w Incandescent Lamp	2	60	120	360	43		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	2	14				28	360	10	10	46	92	0	33	0	$6	$33	$0	$33
197	060223	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	2,610	1,211		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42				336	2,610	877	877	16	128	0	334	0	$58	$546	$0	$466
198	060223	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	8	58	464	2,610	1,211		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	8	42				336	2,610	877	877	16	128	0	334	0	$58	$1,170	$0	$1,090
199	060224	STAIRS	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,610	454		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	2,610	329	329	16	48	0	125	0	$22	$205	$0	$175
200	060224	STAIRS	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	2	58	116	2,610	303		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	2	42				84	2,610	219	219	16	32	0	84	0	$14	$293	$0	$273
201	060225	STAIRS	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,610	454		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	2,610	329	329	16	48	0	125	0	$22	$205	$0	$175
202	060225	STAIRS	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	2	58	116	2,610	303		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	2	42				84	2,610	219	219	16	32	0	84	0	$14	$293	$0	$273
				1,030		**76,403**		**148,736**			**1,030**					**53,941**		**105,804**	**99,437**		**22,462**	**24,966**	**42,932**	**6,368**	**$8,529**	**$88,150**	**$14,836**	**$87,315**

LIGHTING RETROFIT SUMMARY FOR:
Fords Middle School
100 Fanning Street, Fords, NJ 08863

Dome-Tech, Inc.

BUILDING INFORMATION		EXISTING FIXTURES				PROPOSED FIXTURES				SAVINGS						FINANCIAL					
BUILDING	SQ. FT.	PRE TOTAL FIXT. QTY	PRE TOTAL FIXT. WATTS	PRE ANNUAL KWH CONSUMPTION	PRE WATTS / SQ. FT	POST TOTAL FIXT. QTY	POST TOTAL FIXT. WATTS	POST ANNUAL KWH CONSUMPTION	POST WATTS / SQ. FT	WATTS SAVED	ANNUAL KWH SAVED	ANNUAL KWH SAVED WITH SENSORS	ANNUAL SAVINGS $ FIXT.	ANNUAL SAVINGS $ SENSORS	ANNUAL SAVINGS $ TOTAL	CO2 REDUCTION (TONS)	NJ Smart Start REBATE $	**FIXTURES** TOTAL (INSTALLED) COST $	**SENSORS** TOTAL (INSTALLED) COST $	**MATERIAL** TOTAL (INSTALLED) COST $	SIMPLE PAYBACK NET OF REBATE (YEARS)
Fords Middle School	**119,588**	**1112**	**73,792**	**149,149**	**0.62**	**1,112**	**52,171**	**98,121**	**0.44**	**21,621**	**51,027**	**6,720**	**$8,317**	**$1,095**	**$9,413**	**16.9**	**$10,330**	**$64,581**	**$14,704**	**$79,285**	**7.3**

13%	**PERCENTAGE OF REBATES IN TOTAL INSTALLED COST**
66%	**PERCENTAGE OF CONSUMPTION COMPARE TO EXISTING STATE**
48%	**EXISTING PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**
31%	**PROPOSED PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Fords Middle School	FACILITY SQ. FT. 119,588	DATE OF AUDIT: 2/19/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES										ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.163	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
1	080101	CLASSROOM 73	2'x4' Troffer w/ (3) FO32T8 Lamps & (2) Electronic Ballasts Dual Switched	11	92	1,012	1,530	1,548	60	Relamp & Reballast w/ (3) F28T8 (1) 2/32 Elec. LP & (1) 1/32 Elec. Low-Power High Efficiency Ballasts Dual Switched	11	64	306	Wall	1	704	1,224	1,077	862	28	308	306	471	215	$112	$0	$215	$85
2	080102	CLASSROOM 75	2'x4' Troffer w/ (3) FO32T8 Lamps & (2) Electronic Ballasts Dual Switched	11	92	1,012	1,530	1,548	60	Relamp & Reballast w/ (3) F28T8 (1) 2/32 Elec. LP & (1) 1/32 Elec. Low-Power High Efficiency Ballasts Dual Switched	11	64	306	Wall	1	704	1,224	1,077	862	28	308	306	471	215	$112	$0	$215	$85
3	080103	CLASSROOM 74	2'x4' Troffer w/ (3) FO32T8 Lamps & (2) Electronic Ballasts Dual Switched	11	92	1,012	1,530	1,548	63	Relamp & Reballast w/ (3) F28T8 (1) 2/32 Elec. LP & (1) 1/32 Elec. Low-Power High Efficiency Ballasts Dual Switched	11	64	306	Wall	1	704	1,224	1,077	862	28	308	306	471	215	$112	$0	$215	$85
4	080104	MECHANICAL M103	No Access. Area inaccessible during audit.	1	0	0	360	0		None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
5	080105	MECHANICAL M102	No Access. Area inaccessible during audit.	1	0	0	360	0		None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
6	080106	CLASSROOM 72	2'x4' Troffer w/ (3) FO32T8 Lamps & (2) Electronic Ballasts Dual Switched	11	92	1,012	1,530	1,548	66	Relamp & Reballast w/ (3) F28T8 (1) 2/32 Elec. LP & (1) 1/32 Elec. Low-Power High Efficiency Ballasts Dual Switched	11	64	306	Wall	1	704	1,224	1,077	862	28	308	306	471	215	$112	$0	$215	$85
7	080107	VESTIBULE	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$68	$0	$58
8	080108	CLASSROOM 71	2'x4' Troffer w/ (3) FO32T8 Lamps & (2) Electronic Ballasts Dual Switched	11	92	1,012	1,530	1,548	55	Relamp & Reballast w/ (3) F28T8 (1) 2/32 Elec. LP & (1) 1/32 Elec. Low-Power High Efficiency Ballasts Dual Switched	11	64				704	1,530	1,077	1,077	28	308	0	471	0	$77	$0	$0	-$110
9	080109	MECHANICAL M101	No Access. Area inaccessible during audit.	1	0	0	360	0		None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
10	080110	CLASSROOM 70 A/B	2'x4' Troffer w/ (3) FO32T8 Lamps & (2) Electronic Ballasts Dual Switched	12	92	1,104	1,530	1,689	63	Relamp & Reballast w/ (3) F28T8 (1) 2/32 Elec. LP & (1) 1/32 Elec. Low-Power High Efficiency Ballasts Dual Switched	12	64	306	Wall	1	768	1,224	1,175	940	28	336	306	514	235	$122	$0	$215	$75
11	080111	MECHANICAL M100	No Access. Area inaccessible during audit.	1	0	0	360	0		None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
12	080112	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	2,610	606	66	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42	522	Ceiling	1	168	2,088	438	351	16	64	522	167	88	$42	$273	$363	$596
13	080112	BOYS REST ROOM	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,610	73	73	30	30	0	78	0	$13	$60	$0	$50
14	080113	JC	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	1,500	90		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	1,500	21	21	46	46	0	69	0	$11	$16	$0	$16
15	080114	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	2,610	606		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42	522	Ceiling	1	168	2,088	438	351	16	64	522	167	88	$42	$273	$363	$596
16	080114	GIRLS REST ROOM	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,610	73	73	30	30	0	78	0	$13	$60	$0	$50
17	080115	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	20	58	1,160	2,610	3,028	31	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	20	42				840	2,610	2,192	2,192	16	320	0	835	0	$136	$1,365	$0	$1,165
18	080116	ELECTRICAL E100	No Access. Area inaccessible during audit.	1	0	0	360	0		None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
19	080117	CLASSROOM 11	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$49	$546	$215	$661
20	080117	CLASSROOM 11	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	4	32	128	1,530	196		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	4	22				88	1,530	135	135	10	40	0	61	0	$10	$203	$0	$163
21	080118	FACULTY WOMEN	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
22	080118	FACULTY WOMEN	4' Fixture w/ (1) F40T12/34w Lamp & (1) Energy Efficient Magnetic Ballast	1	42	42	360	15		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	20	20	0	7	0	$1	$51	$0	$41
23	080118	FACULTY WOMEN	Incandescent Fixture w/ (1) 60w Incandescent Lamp	2	60	120	360	43		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	2	14				28	360	10	10	46	92	0	33	0	$5	$33	$0	$33
24	080119	CLASSROOM 10	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$49	$546	$215	$661
25	080119	CLASSROOM 10	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	4	32	128	1,530	196		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	4	22				88	1,530	135	135	10	40	0	61	0	$10	$203	$0	$163
26	080120	CLASSROOM 9	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$49	$546	$215	$661
27	080120	CLASSROOM 9	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	4	32	128	1,530	196		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	4	22				88	1,530	135	135	10	40	0	61	0	$10	$203	$0	$163
28	080122	CLASSROOM 8	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$49	$546	$215	$661
29	080122	CLASSROOM 8	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	4	32	128	1,530	196		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	4	22				88	1,530	135	135	10	40	0	61	0	$10	$203	$0	$163
30	080121	CLASSROOM 7	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$49	$546	$215	$661
31	080121	CLASSROOM 7	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	4	32	128	1,530	196		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	4	22				88	1,530	135	135	10	40	0	61	0	$10	$203	$0	$163
32	080124	CLASSROOM 6	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$49	$546	$215	$661
33	080124	CLASSROOM 6	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	4	32	128	1,530	196		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	4	22				88	1,530	135	135	10	40	0	61	0	$10	$203	$0	$163
34	080123	CLASSROOM 5	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$49	$546	$215	$661
35	080123	CLASSROOM 5	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	4	32	128	1,530	196		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	4	22				88	1,530	135	135	10	40	0	61	0	$10	$203	$0	$163
36	080126	CLASSROOM 4	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$49	$546	$215	$661

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Fords Middle School	FACILITY SQ. FT. 119,588	DATE OF AUDIT: 2/19/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.163	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
37	080126	CLASSROOM 4	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	4	32	128	1,530	196		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	4	22				88	1,530	135	135	10	40	0	61	0	$10	$203	$0	$163
38	080125	CLASSROOM 3	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$49	$546	$215	$661
39	080125	CLASSROOM 3	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	4	32	128	1,530	196		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	4	22				88	1,530	135	135	10	40	0	61	0	$10	$203	$0	$163
40	080127	CLASSROOM 1	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$49	$546	$215	$661
41	080127	CLASSROOM 1	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	4	32	128	1,530	196		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	4	22				88	1,530	135	135	10	40	0	61	0	$10	$203	$0	$163
42	080128	CLASSROOM 2	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$49	$546	$215	$661
43	080128	CLASSROOM 2	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	4	32	128	1,530	196		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	4	22				88	1,530	135	135	10	40	0	61	0	$10	$203	$0	$163
44	080129	CORRIDOR	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,610	303		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,610	219	219	16	32	0	84	0	$14	$137	$0	$117
45	080129	CORRIDOR	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	11	58	638	2,610	1,665		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	11	42				462	2,610	1,206	1,206	16	176	0	459	0	$75	$751	$0	$641
46	080129	CORRIDOR	Incandescent Fixture w/ (1) 60w Incandescent Lamp	7	60	420	2,610	1,096		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	7	14				98	2,610	256	256	46	322	0	840	0	$137	$114	$0	$114
47	080129	CORRIDOR	Exit Sign w/ LED	1	2	2	8,760	18		None	1	2				2	8,760	18	18	0	0	0	0	0	$0	$0	$0	$0
48	080130	GIRLS REST ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	5	32	160	2,610	418		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	5	22	522	Ceiling	1	110	2,088	287	230	10	50	522	131	57	$31	$254	$363	$567
49	080131	BOYS REST ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	5	32	160	2,610	418		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	5	22	522	Ceiling	1	110	2,088	287	230	10	50	522	131	57	$31	$254	$363	$567
50	080132	AV	Incandescent Fixture w/ (1) 60w Incandescent Lamp	2	60	120	360	43		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	2	14				28	360	10	10	46	92	0	33	0	$5	$33	$0	$33
51	080133	SWITCHGEAR	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	7	32	224	360	81		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	7	22				154	360	55	55	10	70	0	25	0	$4	$355	$0	$285
52	080133	SWITCHGEAR	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	360	22		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	360	5	5	46	46	0	17	0	$3	$16	$0	$16
53	080134	BOILER ROOM	8' Industrial Hood w/ (4) FO32T8 Lamps & (1) Electronic Ballast	9	112	1,008	2,610	2,631		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	9	84				756	2,610	1,973	1,973	28	252	0	658	0	$107	$755	$0	$665
54	080134	BOILER ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	2,610	251		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	2,610	172	172	10	30	0	78	0	$13	$152	$0	$122
55	080135	MAINTENANCE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	2,070	199		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	2,070	137	137	10	30	0	62	0	$10	$152	$0	$122
56	080135	MAINTENANCE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,070	174	174	16	32	0	66	0	$11	$137	$0	$117
57	080136	MENS REST ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	2,610	84		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	2,610	57	57	10	10	0	26	0	$4	$51	$0	$41
58	080137	WOMENS REST ROOM	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$68	$0	$58
59	080138	CORRIDOR	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	2,610	1,211		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42				336	2,610	877	877	16	128	0	334	0	$54	$546	$0	$466
60	080138	CORRIDOR	Exit Sign w/ LED	2	2	4	8,760	35		None	2	2				4	8,760	35	35	0	0	0	0	0	$0	$0	$0	$0
61	080139	CAFETERIA	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	28	112	3,136	2,610	8,185	43	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	28	84				2,352	2,610	6,139	6,139	28	784	0	2,046	0	$334	$2,348	$0	$2,068
62	080139	CAFETERIA	Incandescent Fixture w/ (1) 75w Incandescent PAR38 Lamp	53	75	3,975	2,610	10,375		17/18W LED PAR38 Screw-In Lamp, Outdoor Rated, Dimmable / PHILIPS	53	18				954	2,610	2,490	2,490	57	3,021	0	7,885	0	$1,285	$4,651	$0	$4,651
63	080139	CAFETERIA	Incandescent Fixture w/ (1) 60w Incandescent Lamp	3	60	180	2,610	470		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	3	14				42	2,610	110	110	46	138	0	360	0	$59	$49	$0	$49
64	080139	CAFETERIA	8' Strip Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	7	112	784	2,610	2,046		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	7	84				588	2,610	1,535	1,535	28	196	0	512	0	$83	$587	$0	$517
65	080140	KITCHEN	No Access. Area inaccessible during audit.	1	0	0	1,500	0		None	1	0				0	1,500	0	0	0	0	0	0	0	$0	$0	$0	$0
66	080141	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	2,610	606	53	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42	522	Ceiling	1	168	2,088	438	351	16	64	522	167	88	$42	$273	$363	$596
67	080142	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	2,610	606	53	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42	522	Ceiling	1	168	2,088	438	351	16	64	522	167	88	$42	$273	$363	$596
68	080145	JC	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	1,500	90		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	1,500	21	21	46	46	0	69	0	$11	$16	$0	$16
69	080143	MUSIC 30	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710	48	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$49	$546	$215	$661
70	080143	MUSIC 30	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	4	32	128	1,530	196		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	4	22				88	1,530	135	135	10	40	0	61	0	$10	$203	$0	$163
71	080144	MUSIC 31	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$49	$546	$215	$661
72	080144	MUSIC 31	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	4	32	128	1,530	196		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	4	22				88	1,530	135	135	10	40	0	61	0	$10	$203	$0	$163

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Fords Middle School	FACILITY SQ. FT. 119,588	DATE OF AUDIT: 2/19/2013

SPACE DESCRIPTION			EXISTING FIXTURES						REPLACEMENT FIXTURES								ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.163	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
73	080145	FACULTY WOMEN	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
74	080145	FACULTY WOMEN	4' Fixture w/ (1) FO32T8 Lamp (1) Electronic Ballast	1	32	32	360	12		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41
75	080145	FACULTY WOMEN	Incandescent Fixture w/ (1) 60w Incandescent Lamp	3	60	180	360	65		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	3	14				42	360	15	15	46	138	0	50	0	$8	$49	$0	$49
76	080146	FACULTY MEN	4' Fixture w/ (1) FO32T8 Lamp (1) Electronic Ballast	1	32	32	360	12		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41
77	080146	FACULTY MEN	Incandescent Fixture w/ (1) 60w Incandescent Lamp	2	60	120	360	43		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	2	14				28	360	10	10	46	92	0	33	0	$5	$33	$0	$33
78	080147	SUPPLY	No Access. Area inaccessible during audit.	1	0	0	360	0		None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
79	080148	MEDIA CENTER	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	24	58	1,392	2,610	3,633	43	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	24	42				1,008	2,610	2,631	2,631	16	384	0	1,002	0	$163	$1,638	$0	$1,398
80	080149	SUPPLY	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	360	42		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117
81	080150	OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	2,070	480		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	2,070	348	348	16	64	0	132	0	$22	$273	$0	$233
82	080151	OFFICE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	2,070	480		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	2,070	348	348	16	64	0	132	0	$22	$273	$0	$233
83	080152	BOOK SUPPLY	Incandescent Drum Fixture w/ (3) 60w Incandescent Lamps	2	180	360	360	130		Relamp w/ (3) 14 watt Compact Fluorescent Screw-In	2	42				84	360	30	30	138	276	0	99	0	$16	$59	$0	$59
84	080153	CORRIDOR	Exit Sign w/ LED	2	2	4	8,760	35		None	2	2				4	8,760	35	35	0	0	0	0	0	$0	$0	$0	$0
85	080153	CORRIDOR	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	2,610	167		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	2,610	115	115	10	20	0	52	0	$9	$101	$0	$81
86	080153	CORRIDOR	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	14	58	812	2,610	2,119		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	14	42				588	2,610	1,535	1,535	16	224	0	585	0	$95	$956	$0	$816
87	080154	LOUNGE 55	4' Fixture w/ (1) FO32T8 Lamp (1) Electronic Ballast	3	32	96	2,070	199		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22	724.5	Wall	1	66	1,346	137	89	10	30	725	62	48	$18	$152	$215	$337
88	080154	LOUNGE 55	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,070	120		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,070	87	87	16	16	0	33	0	$5	$68	$0	$58
89	080154	LOUNGE 55	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,070	174	174	16	32	0	66	0	$11	$137	$0	$117
90	080155	CLASSROOM 32	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$49	$546	$215	$661
91	080155	CLASSROOM 32	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	1,530	355		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	1,530	257	257	16	64	0	98	0	$16	$273	$0	$233
92	080156	CLASSROOM 34	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$49	$546	$215	$661
93	080156	CLASSROOM 34	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	1,530	355		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	1,530	257	257	16	64	0	98	0	$16	$273	$0	$233
94	080157	CLASSROOM 33	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$49	$546	$215	$661
95	080157	CLASSROOM 33	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	1,530	355		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	1,530	257	257	16	64	0	98	0	$16	$273	$0	$233
96	080158	CLASSROOM 36	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$49	$546	$215	$661
97	080158	CLASSROOM 36	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	1,530	355		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	1,530	257	257	16	64	0	98	0	$16	$273	$0	$233
98	080159	CLASSROOM 35	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$49	$546	$215	$661
99	080159	CLASSROOM 35	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	1,530	355		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	1,530	257	257	16	64	0	98	0	$16	$273	$0	$233
100	080160	CLASSROOM 38	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$49	$546	$215	$661
101	080160	CLASSROOM 38	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	1,530	355		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	1,530	257	257	16	64	0	98	0	$16	$273	$0	$233
102	080161	CLASSROOM 37	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	1,530	1,065		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42	306	Wall	1	504	1,224	771	617	16	192	306	294	154	$73	$819	$215	$894
103	080162	CLASSROOM 40	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$49	$546	$215	$661
104	080162	CLASSROOM 40	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	1,530	355		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	1,530	257	257	16	64	0	98	0	$16	$273	$0	$233
105	080164	CLASSROOM 39	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	1,530	1,065		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42	306	Wall	1	504	1,224	771	617	16	192	306	294	154	$73	$819	$215	$894
106	080163	CLASSROOM 42	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$49	$546	$215	$661
107	080163	CLASSROOM 42	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	1,530	355		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	1,530	257	257	16	64	0	98	0	$16	$273	$0	$233
108	080165	CORRIDOR	Exit Sign w/ LED	2	2	4	8,760	35		None	2	2				4	8,760	35	35	0	0	0	0	0	$0	$0	$0	$0

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Fords Middle School	FACILITY SQ. FT. 119,588	DATE OF AUDIT: 2/19/2013

SPACE DESCRIPTION			EXISTING FIXTURES						REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.163	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
109	080165	CORRIDOR	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	23	58	1,334	2,610	3,482		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	23	42				966	2,610	2,521	2,521	16	368	0	960	0	$157	$1,570	$0	$1,340
110	080166	GIRLS LOCKER ROOM	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	1	112	112	2,310	259		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	1	42				42	2,310	97	97	70	70	0	162	0	$26	$101	$0	$91
111	080166	GIRLS LOCKER ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	9	32	288	2,310	665		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	9	22				198	2,310	457	457	10	90	0	208	0	$34	$456	$0	$366
112	080166	GIRLS LOCKER ROOM	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	7	58	406	2,310	938		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	7	42				294	2,310	679	679	16	112	0	259	0	$42	$478	$0	$408
113	080166	GIRLS LOCKER ROOM	Compact Fluorescent Drum Fixture w/ (2) 13w CFL & Magnetic Ballast	5	30	150	2,310	347		None	5	30				150	2,310	347	347	0	0	0	0	0	$0	$0	$0	$0
114	080166	GIRLS LOCKER ROOM	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	2,310	139		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	2,310	32	32	46	46	0	106	0	$17	$16	$0	$16
115	080166	GIRLS LOCKER ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,310	268		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,310	194	194	16	32	0	74	0	$12	$137	$0	$117
116	080167	GYM	Compact Fluorescent High Bay Fixture w/ (8) 42w Lamp and (4) Electronic Ballast	30	336	10,080	2,310	23,285		None	30	336				10,080	2,310	23,285	23,285	0	0	0	0	0	$0	$0	$0	$0
117	080168	GYM STORAGE	Incandescent Drum Fixture w/ (2) 60w Incandescent Lamps	1	120	120	360	43		Relamp w/ (2) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	28				28	360	10	10	92	92	0	33	0	$5	$20	$0	$20
118	080168	GYM STORAGE	Incandescent Fixture w/ (1) 60w Incandescent Lamp	3	60	180	360	65		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	3	14				42	360	15	15	46	138	0	50	0	$8	$49	$0	$49
119	080168	GYM STORAGE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	360	42		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117
120	080169	VESTIBULE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$68	$0	$58
121	080167	GYM	Exit Sign w/ LED	4	2	8	8,760	70		None	4	2				8	8,760	70	70	0	0	0	0	0	$0	$0	$0	$0
122	080170	BOYS LOCKER ROOM	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	1	112	112	2,310	259		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	1	42				42	2,310	97	97	70	70	0	162	0	$26	$101	$0	$91
123	080170	BOYS LOCKER ROOM	Incandescent Fixture w/ (1) 60w Incandescent Lamp	3	60	180	2,310	416		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	3	14				42	2,310	97	97	46	138	0	319	0	$52	$49	$0	$49
124	080170	BOYS LOCKER ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,310	268		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,310	194	194	16	32	0	74	0	$12	$137	$0	$117
125	080170	BOYS LOCKER ROOM	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	2,310	139		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	2,310	32	32	46	46	0	106	0	$17	$16	$0	$16
126	080170	BOYS LOCKER ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	2,310	74		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	2,310	51	51	10	10	0	23	0	$4	$51	$0	$41
127	080170	BOYS LOCKER ROOM	Compact Fluorescent Circleline Drum Fixture w/ (1) FC8T9 & (1) FC12T9 Circleline Lamp and (1) Magnetic Ballast	6	47	282	2,310	651		None	6	47				282	2,310	651	651	0	0	0	0	0	$0	$0	$0	$0
128	080170	BOYS LOCKER ROOM	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	2,310	1,072		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42				336	2,310	776	776	16	128	0	296	0	$48	$546	$0	$466
129	080170	BOYS LOCKER ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	7	32	224	2,310	517		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	7	22				154	2,310	356	356	10	70	0	162	0	$26	$355	$0	$285
130	080171	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	2,610	606		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42	522	Ceiling	1	168	2,088	438	351	16	64	522	167	88	$42	$273	$363	$596
131	080172	JC	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	1,500	90		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	1,500	21	21	46	46	0	69	0	$11	$16	$0	$16
132	080173	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	2,610	606		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42	522	Ceiling	1	168	2,088	438	351	16	64	522	167	88	$42	$273	$363	$596
133	080173	BOYS REST ROOM	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,610	73	73	30	30	0	78	0	$13	$60	$0	$50
134	080171	GIRLS REST ROOM	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,610	73	73	30	30	0	78	0	$13	$60	$0	$50
135	080174	CLASSROOM 28	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	1,530	1,065		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42	306	Wall	1	504	1,224	771	617	16	192	306	294	154	$73	$819	$215	$894
136	080174	CLASSROOM 28	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	4	32	128	1,530	196		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	4	22				88	1,530	135	135	10	40	0	61	0	$10	$203	$0	$163
137	080175	NURSE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	2,070	480		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	2,070	348	348	16	64	0	132	0	$22	$273	$0	$233
138	080175	NURSE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	2,070	132		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	2,070	91	91	10	20	0	41	0	$7	$101	$0	$81
139	080175	NURSE REST ROOM	Incandescent Box w/ (2) 60w Lamps	1	120	120	360	43		Relamp w/ (2) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	28				28	360	10	10	92	92	0	33	0	$5	$20	$0	$20
140	080176	CORRIDOR	Exit Sign w/ LED	2	2	4	8,760	35		None	2	2				4	8,760	35	35	0	0	0	0	0	$0	$0	$0	$0
141	080176	CORRIDOR	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	2,610	167		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	2,610	115	115	10	20	0	52	0	$9	$101	$0	$81
142	080176	CORRIDOR	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	2,610	1,817		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42				504	2,610	1,315	1,315	16	192	0	501	0	$82	$819	$0	$699
143	080177	MAIN OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	724.5	Wall	1	84	1,346	174	113	16	32	725	66	61	$21	$137	$215	$331
144	080177	OFFICE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,070	174	174	16	32	0	66	0	$11	$137	$0	$117

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Fords Middle School	FACILITY SQ. FT. 119,588	DATE OF AUDIT: 2/19/2013

SPACE DESCRIPTION			EXISTING FIXTURES						REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.163	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
145	080177	OFFICE	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	724.5	Wall	1	84	1,346	174	113	16	32	725	66	61	$21	$137	$215	$331
146	080177	OFFICE	4'x4' Troffer w/ (6) FO32T8/32w Lamps & (2) Electronic Ballasts	1	166	166	2,070	344		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast (2) 2x4 Silver Reflector Kit, New Prismatic Lens	1	84	724.5	Wall	1	84	1,346	174	113	82	82	725	170	61	$38	$176	$215	$380
147	080177	MAIN OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	7	58	406	2,070	840	66	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	7	42				294	2,070	609	609	16	112	0	232	0	$38	$478	$0	$408
148	080177	MAIN OFFICE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	2,070	66		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	2,070	46	46	10	10	0	21	0	$3	$51	$0	$41
149	080177	COPY ROOM	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,070	174	174	16	32	0	66	0	$11	$137	$0	$117
150	080177	PRINCIPALS OFFICE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240	27	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	724.5	Wall	1	84	1,346	174	113	16	32	725	66	61	$21	$137	$215	$331
151	080177	PRINCIPALS OFFICE	8' Fixture w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,070	120		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,070	87	87	16	16	0	33	0	$5	$68	$0	$58
152	080177	VICE PRINCIPALS OFFICE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240	29	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	724.5	Wall	1	84	1,346	174	113	16	32	725	66	61	$21	$137	$215	$331
153	080177	VICE PRINCIPALS OFFICE	8' Fixture w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,070	120		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,070	87	87	16	16	0	33	0	$5	$68	$0	$58
154	080177	BREAK ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,070	174	174	16	32	0	66	0	$11	$137	$0	$117
155	080178	WOMEN FACULTY	Incandescent Fixture w/ (1) 60w Incandescent Lamp	2	60	120	360	43		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	2	14				28	360	10	10	46	92	0	33	0	$5	$33	$0	$33
156	080178	WOMEN FACULTY	4' Fixture w/ (1) FO32T8 Lamp (1) Electronic Ballast	1	32	32	360	12		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41
157	080179	MEN FACULTY	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
158	080180	CLASSROOM 29	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$49	$546	$215	$661
159	080180	CLASSROOM 29	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	4	32	128	1,530	196		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	4	22				88	1,530	135	135	10	40	0	61	0	$10	$203	$0	$163
160	080181	CLASSROOM 26	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	1,530	1,065		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42	306	Wall	1	504	1,224	771	617	16	192	306	294	154	$73	$819	$215	$894
161	080182	CLASSROOM 27	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$49	$546	$215	$661
162	080182	CLASSROOM 27	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	4	32	128	1,530	196		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	4	22				88	1,530	135	135	10	40	0	61	0	$10	$203	$0	$163
163	080183	CLASSROOM 24	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	1,530	1,065		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42	306	Wall	1	504	1,224	771	617	16	192	306	294	154	$73	$819	$215	$894
164	080184	CLASSROOM 25	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$49	$546	$215	$661
165	080184	CLASSROOM 25	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	4	32	128	1,530	196		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	4	22				88	1,530	135	135	10	40	0	61	0	$10	$203	$0	$163
166	080185	CLASSROOM 22	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$49	$546	$215	$661
167	080185	CLASSROOM 22	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	4	32	128	1,530	196		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	4	22				88	1,530	135	135	10	40	0	61	0	$10	$203	$0	$163
168	080186	CLASSROOM 23	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$49	$546	$215	$661
169	080186	CLASSROOM 23	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	4	32	128	1,530	196		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	4	22				88	1,530	135	135	10	40	0	61	0	$10	$203	$0	$163
170	080187	CLASSROOM 20	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$49	$546	$215	$661
171	080187	CLASSROOM 20	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	4	32	128	1,530	196		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	4	22				88	1,530	135	135	10	40	0	61	0	$10	$203	$0	$163
172	080188	CLASSROOM 21	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$49	$546	$215	$661
173	080188	CLASSROOM 21	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	4	32	128	1,530	196		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	4	22				88	1,530	135	135	10	40	0	61	0	$10	$203	$0	$163
174	080190	FACULTY ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	1,530	177		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	1,530	129	129	16	32	0	49	0	$8	$137	$0	$117
175	080189	CORRIDOR	Exit Sign w/ LED	2	2	4	8,760	35		None	2	2				4	8,760	35	35	0	0	0	0	0	$0	$0	$0	$0
176	080189	CORRIDOR	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	31	58	1,798	2,610	4,693		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	31	42				1,302	2,610	3,398	3,398	16	496	0	1,295	0	$211	$2,116	$0	$1,806
177	080189	CORRIDOR	8' Fixture w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,610	303		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,610	219	219	16	32	0	84	0	$14	$137	$0	$117
178	080190	CLASSROOM 17	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	1,530	1,065		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42	306	Wall	1	504	1,224	771	617	16	192	306	294	154	$73	$819	$215	$894
179	080191	CLASSROOM 15	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	18	58	1,044	1,530	1,597		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	18	42	306	Wall	2	756	1,224	1,157	925	16	288	306	441	231	$110	$1,229	$429	$1,438
180	080191	CLASSROOM 15	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	4	32	128	1,530	196		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	4	22	306	Wall	2	88	1,224	135	108	10	40	306	61	27	$14	$203	$429	$592

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Fords Middle School	FACILITY SQ. FT. 119,588	DATE OF AUDIT: 2/19/2013

SPACE DESCRIPTION			EXISTING FIXTURES						REPLACEMENT FIXTURES								ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS **2610**	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS **2610**	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) **$0.163**	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
181	080193	LOUNGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	2,070	960		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42				336	2,070	696	696	16	128	0	265	0	$43	$546	$0	$466
182	080191	CLASSROOM 15	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	1,530	355		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	1,530	257	257	16	64	0	98	0	$16	$273	$0	$233
183	080191	CLASSROOM 15	4' Fixture w/ (1) FO32T8 Lamp (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
184	080191	CLASSROOM 15	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
185	080191	CLASSROOM 15	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	1,530	89		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	1,530	64	64	16	16	0	24	0	$4	$68	$0	$58
186	080192	CLASSROOM 16	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	1,530	1,065		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42	306	Wall	**1**	504	1,224	771	617	16	192	306	294	154	$73	$819	$215	$894
187	080194	LAUNDRY	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	1,530	177		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	1,530	129	129	16	32	0	49	0	$8	$137	$0	$117
188	080195	ISS	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	5	32	160	1,530	245		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	5	22	306	Wall	**1**	110	1,224	168	135	10	50	306	77	34	$18	$254	$215	$418
189	080196	CLASSROOM 12	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	1,530	1,065		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42	306	Wall	**1**	504	1,224	771	617	16	192	306	294	154	$73	$819	$215	$894
190	080197	CLASSROOM 13	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	17	58	986	1,530	1,509		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	17	42	306	Wall	**2**	714	1,224	1,092	874	16	272	306	416	218	$103	$1,160	$429	$1,379
191	080197	CLASSROOM 13	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	4	32	128	1,530	196		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	4	22				88	1,530	135	135	10	40	0	61	0	$10	$203	$0	$163
192	080197	CLASSROOM 13 STORAGE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
193	080197	CLASSROOM 13	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	1,530	89		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	1,530	64	64	16	16	0	24	0	$4	$68	$0	$58
194	080198	FACULTY LOUNGE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22	306	Wall	**1**	22	1,224	34	27	10	10	306	15	7	$4	$51	$215	$255
195	080198	FACULTY LOUNGE	4' Fixture w/ (1) FO32T8 Lamp (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
196	080199	FACULTY MEN	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
197	080199	FACULTY MEN	4' Fixture w/ (1) FO32T8 Lamp (1) Electronic Ballast	1	32	32	360	12		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41
198	080199	FACULTY MEN	Compact Fluorescent Circleline Drum Fixture w/ (1) FC8T9 & (1) FC12T9 Circleline Lamp and (1) Magnetic Ballast	1	47	47	360	17		None	1	47				47	360	17	17	0	0	0	0	0	$0	$0	$0	$0
199	0801100	CORRIDOR	Exit Sign w/ LED	2	2	4	8,760	35		None	2	2				4	8,760	35	35	0	0	0	0	0	$0	$0	$0	$0
200	0801100	CORRIDOR	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	2,610	1,362		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42				378	2,610	987	987	16	144	0	376	0	$61	$614	$0	$524
201	0801100	CORRIDOR	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	10	58	580	2,610	1,514		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	10	42				420	2,610	1,096	1,096	16	160	0	418	0	$68	$683	$0	$583
202	08EXT	EXTERIOR	Incandescent Fixture w/ (1) 60w Incandescent Lamp	10	60	600	4,745	2,847		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	10	14				140	4,745	664	664	46	460	0	2,183	0	$356	$163	$0	$163
203	08EXT	EXTERIOR	HID Wall Pack Fixture w/ (1) 175w Metal Halide Lamp & Ballast	3	210	630	4,745	2,989		LED (1) New 56w Wall Pack Fixture	3	56				168	4,745	797	797	154	462	0	2,192	0	$357	$1,326	$0	$1,326
				1,112		**73,792**		**149,149**			**1,112**					**52,171**		**104,841**	**98,121**		**21,621**	**22,599**	**44,308**	**6,720**	**$8,317**	**$64,581**	**$14,704**	**$68,955**

LIGHTING RETROFIT SUMMARY FOR:
Iselin Middle School
900 Woodruff Street, Iselin, NJ 08830

BUILDING INFORMATION		EXISTING FIXTURES				PROPOSED FIXTURES				SAVINGS						FINANCIAL					
BUILDING	SQ. FT.	PRE TOTAL FIXT. QTY	PRE TOTAL FIXT. WATTS	PRE ANNUAL KWH CONSUMPTION	PRE WATTS / SQ. FT	POST TOTAL FIXT. QTY	POST TOTAL FIXT. WATTS	POST ANNUAL KWH CONSUMPTION	POST WATTS / SQ. FT	WATTS SAVED	ANNUAL KWH SAVED	ANNUAL KWH SAVED WITH SENSORS	ANNUAL SAVINGS $ FIXT.	ANNUAL SAVINGS $ SENSORS	ANNUAL SAVINGS $ TOTAL	CO2 REDUCTION (TONS)	NJ Smart Start REBATE $	**FIXTURES** TOTAL (INSTALLED) COST $	**SENSORS** TOTAL (INSTALLED) COST $	**MATERIAL** TOTAL (INSTALLED) COST $	SIMPLE PAYBACK NET OF REBATE (YEARS)
Iselin Middle School	**97,972**	**953**	**69,217**	**136,761**	**0.71**	**953**	**46,810**	**84,330**	**0.48**	**22,407**	**52,431**	**6,258**	**$8,546**	**$1,020**	**$9,566**	**17.3**	**$12,595**	**$75,234**	**$13,978**	**$89,211**	**8.0**

14%	**PERCENTAGE OF REBATES IN TOTAL INSTALLED COST**
62%	**PERCENTAGE OF CONSUMPTION COMPARE TO EXISTING STATE**
54%	**EXISTING PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**
34%	**PROPOSED PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**

Dome-Tech, Inc.

Woodbridge School District Iselin Middle School	FACILITY SQ. FT. 97,972	DATE OF AUDIT: 2/26/2013

SPACE DESCRIPTION			REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.163	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
1	2	3	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
1	100101	MAIN OFFICE	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42				252	2,070	522	522	16	96	0	199	0	$32	$410	$0	$350
2	100101	MAIN OFFICE	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,070	174	174	16	32	0	66	0	$11	$137	$0	$117
3	100102	OFFICE	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	4	42	724.5	Wall	1	168	1,346	348	226	70	280	725	580	122	$114	$403	$215	$578
4	100103	CONFERENCE ROOM	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	1,530	257	257	16	64	0	98	0	$16	$273	$0	$233
5	100103	CONFERENCE ROOM	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
6	100104	STORAGE	Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
7	100105	OFFICE	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	4	42	724.5	Wall	1	168	1,346	348	226	70	280	725	580	122	$114	$403	$215	$578
8	100106	STORAGE	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117
9	100107	CLASSROOM 112	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$37	$410	$215	$544
10	100107	CLASSROOM 112	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42				378	1,530	578	578	16	144	0	220	0	$36	$614	$0	$524
11	100108	OFFICE	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	724.5	Wall	1	84	1,346	174	113	16	32	725	66	61	$21	$137	$215	$331
12	100108	OFFICE	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	2,070	261	261	16	48	0	99	0	$16	$205	$0	$175
13	100109	OFFICE	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22	724.5	Wall	1	66	1,346	137	89	10	30	725	62	48	$18	$152	$215	$337
14	100110	OFFICE	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22	724.5	Wall	1	44	1,346	91	59	10	20	725	41	32	$12	$101	$215	$296
15	100111	OFFICE	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	724.5	Wall	1	84	1,346	174	113	16	32	725	66	61	$21	$137	$215	$331
16	100112	NURSE	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	1,530	129	129	16	32	0	49	0	$8	$137	$0	$117
17	100112	NURSE REST ROOM	Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
18	100113	STORAGE	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41
19	100114	STORAGE	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	360	16	16	10	20	0	7	0	$1	$101	$0	$81
20	100115	BOYS REST ROOM	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	2,610	115	115	10	20	0	52	0	$9	$101	$0	$81
21	100116	FACULTY MENS ROOM	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	360	16	16	10	20	0	7	0	$1	$101	$0	$81
22	100117	CAFETORIUM	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	34	42				1,428	2,610	3,727	3,727	70	2,380	0	6,212	0	$1,013	$3,426	$0	$3,086
23	100117	CAFETORIUM	17/18W LED PAR38 Screw-In Lamp, Outdoor Rated, Dimmable / PHILIPS	12	18				216	2,610	564	564	82	984	0	2,568	0	$419	$1,053	$0	$1,053
24	100118	STAGE	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117

Dome-Tech, Inc.

Woodbridge School District Iselin Middle School	FACILITY SQ. FT. 97,972	DATE OF AUDIT: 2/26/2013

SPACE DESCRIPTION			REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.163	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
25	100118	STAGE	New 8' Strip Fixture w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84				84	360	30	30	39	39	0	14	0	$2	$189	$0	$164
26	100118	STAGE	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117
27	100119	FACULTY WOMENS ROOM	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	360	16	16	10	20	0	7	0	$1	$101	$0	$81
28	100120	GIRLS REST ROOM	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	2,610	115	115	10	20	0	52	0	$9	$101	$0	$81
29	100121	STORAGE	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
30	100122	STORAGE	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
31	100123	KITCHEN	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42				504	1,500	756	756	16	192	0	288	0	$47	$819	$0	$699
32	100123	KITCHEN	Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	5	14				70	1,500	105	105	46	230	0	345	0	$56	$81	$0	$81
33	100123	KITCHEN OFFICE	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	1,500	63	63	16	16	0	24	0	$4	$68	$0	$58
34	100123	KITCHEN STORAGE	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117
35	100124	REST ROOM	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
36	100125	REST ROOM	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
37	100126	REST ROOM	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
38	100127	REST ROOM	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
39	100128	MAINTENANCE OFFICE	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	2,070	348	348	16	64	0	132	0	$22	$273	$0	$233
40	100129	TRASH ROOM	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117
41	100130	MECHANICAL ROOM	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42				252	360	91	91	16	96	0	35	0	$6	$410	$0	$350
42	100131	CLASSROOM 123	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$49	$546	$215	$661
43	100131	CLASSROOM 123	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
44	100132	LAUNDRY	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41
45	100132	LAUNDRY	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
46	100133	CLASSROOM LIVING	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$37	$410	$215	$544
47	100133	CLASSROOM LIVING	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
48	100134	CLASSROOM 122	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	11	42	306	Wall	1	462	1,224	707	565	16	176	306	269	141	$67	$751	$215	$835
49	100135	CLASSROOM 135	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	5	42	306	Wall	1	210	1,224	321	257	16	80	306	122	64	$30	$341	$215	$486

Dome-Tech, Inc.

Woodbridge School District Iselin Middle School	FACILITY SQ. FT. 97,972	DATE OF AUDIT: 2/26/2013

SPACE DESCRIPTION			REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.163	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
50	100136	CLASSROOM 121	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$55	$614	$215	$719
51	100137	CLASSROOM 120	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	306	Wall	1	84	1,224	129	103	16	32	306	49	26	$12	$137	$215	$331
52	100137	CLASSROOM 120	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
53	100138	STORAGE	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
54	100139	STORAGE	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	360	16	16	10	20	0	7	0	$1	$101	$0	$81
55	100140	STORAGE	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41
56	100141	CLASSROOM 117	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	15	42	306	Wall	1	630	1,224	964	771	16	240	306	367	193	$91	$1,024	$215	$1,068
57	100141	CLASSROOM 117	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
58	100142	GYM	New 2'x4' Singlepoint-Mount High Bay w/ (6) F54T5HO Lamps & (3) 2/54 T5 Elec. HO Ballasts Wire Guard Occupancy Sensor	26	351				9,126	2,310	21,081	21,081	104	2,704	0	6,246	0	$1,018	$10,191	$0	$7,591
59	100142	GYM	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	2,310	388	388	16	64	0	148	0	$24	$273	$0	$233
60	100143	GIRLS REST ROOM	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	2,610	115	115	10	20	0	52	0	$9	$101	$0	$81
61	100144	JC	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,500	33	33	10	10	0	15	0	$2	$51	$0	$41
62	100145	FITNESS ROOM	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	1,530	67	67	10	20	0	31	0	$5	$101	$0	$81
63	100145	FITNESS ROOM	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	1,530	129	129	16	32	0	49	0	$8	$137	$0	$117
64	100145	FITNESS ROOM	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	1,530	129	129	16	32	0	49	0	$8	$137	$0	$117
65	100146	GIRLS LOCKER ROOM	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	20	42				840	2,310	1,940	1,940	16	320	0	739	0	$120	$1,365	$0	$1,165
66	100147	GIRLS COACHES OFFICE	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	360	16	16	10	20	0	7	0	$1	$101	$0	$81
67	100147	GIRLS COACHES OFFICE REST ROOM	Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
68	100148	STORAGE	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	360	45	45	16	48	0	17	0	$3	$205	$0	$175
69	100149	BOYS REST ROOM	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	2,610	115	115	10	20	0	52	0	$9	$101	$0	$81
70	100150	BOYS LOCKER ROOM	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	46	42				1,932	2,310	4,463	4,463	16	736	0	1,700	0	$277	$3,140	$0	$2,680
71	100151	BOYS COACHES OFFICE	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	360	16	16	10	20	0	7	0	$1	$101	$0	$81
72	100151	BOYS COACHES OFFICE REST ROOM	Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
73	100152	STORAGE	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	360	45	45	16	48	0	17	0	$3	$205	$0	$175
74	100153	BOYS REST ROOM	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	522	Ceiling	1	126	2,088	329	263	16	48	522	125	66	$31	$205	$363	$538

Dome-Tech, Inc.

Woodbridge School District Iselin Middle School	FACILITY SQ. FT. 97,972	DATE OF AUDIT: 2/26/2013

SPACE DESCRIPTION			REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.163	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
75	100154	JC	None	1	23				23	1,500	35	35	0	0	0	0	0	$0	$0	$0	$0
76	100155	GIRLS REST ROOM	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	522	Ceiling	1	84	2,088	219	175	16	32	522	84	44	$21	$137	$363	$480
77	100156	JC	None	1	23				23	1,500	35	35	0	0	0	0	0	$0	$0	$0	$0
78	100157	CLASSROOM 304	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$67	$503	$215	$638
79	100158	CLASSROOM 305	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$55	$614	$215	$719
80	100159	CLASSROOM 307	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$55	$614	$215	$719
81	100160	CLASSROOM 309	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$55	$614	$215	$719
82	100161	CLASSROOM 311	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$55	$614	$215	$719
83	100162	CLASSROOM 313	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$55	$614	$215	$719
84	100163	CLASSROOM 314	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$55	$614	$215	$719
85	100164	CLASSROOM 312	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$55	$614	$215	$719
86	100165	CLASSROOM 310	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$55	$614	$215	$719
87	100166	CLASSROOM 308	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$55	$614	$215	$719
88	100167	CLASSROOM 306	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$55	$614	$215	$719
89	100168	MEDIA CENTER	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	29	84				2,436	2,610	6,358	6,358	28	812	0	2,119	0	$345	$2,432	$0	$2,142
90	100168	MEDIA CENTER	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	2,610	329	329	16	48	0	125	0	$20	$205	$0	$175
91	100169	MEDIA CENTER REST ROOM	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	360	16	16	10	20	0	7	0	$1	$101	$0	$81
92	100170	STORAGE	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	360	45	45	16	48	0	17	0	$3	$205	$0	$175
93	100171	OFFICE	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,070	174	174	16	32	0	66	0	$11	$137	$0	$117
94	100172	STORAGE	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	360	45	45	16	48	0	17	0	$3	$205	$0	$175
95	100173	BOYS REST ROOM	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	522	Ceiling	1	126	2,088	329	263	16	48	522	125	66	$31	$205	$363	$538
96	100174	JC	None	1	23				23	1,500	35	35	0	0	0	0	0	$0	$0	$0	$0
97	100175	GIRLS REST ROOM	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	522	Ceiling	1	84	2,088	219	175	16	32	522	84	44	$21	$137	$363	$480
98	100176	REST ROOM	Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50
99	100177	STORAGE	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41

Dome-Tech, Inc.

Woodbridge School District Iselin Middle School	FACILITY SQ. FT. 97,972	DATE OF AUDIT: 2/26/2013

SPACE DESCRIPTION			REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.163	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
100	100178	BREAK ROOM	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	9	42	306	Wall	1	378	1,224	578	463	46	414	306	633	116	$122	$907	$215	$1,011
101	100179	CLASSROOM 409	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$55	$614	$215	$719
102	100179	CLASSROOM 409	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
103	100180	CLASSROOM 411	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$55	$614	$215	$719
104	100181	CLASSROOM 413	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$55	$614	$215	$719
105	100182	CLASSROOM 415	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$55	$614	$215	$719
106	100183	CLASSROOM 417	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$55	$614	$215	$719
107	100184	CLASSROOM 418	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$55	$614	$215	$719
108	100185	CLASSROOM 416	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$55	$614	$215	$719
109	100186	CLASSROOM 414	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$55	$614	$215	$719
110	100187	CLASSROOM 412	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$55	$614	$215	$719
111	100188	CLASSROOM 410	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$55	$614	$215	$719
112	100188	CLASSROOM 410	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
113	100189	GIRLS REST ROOM	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	522	Ceiling	1	126	2,088	329	263	16	48	522	125	66	$31	$205	$363	$538
114	100190	BOYS REST ROOM	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	522	Ceiling	1	126	2,088	329	263	16	48	522	125	66	$31	$205	$363	$538
115	100191	STORAGE	None	1	47				47	360	17	17	0	0	0	0	0	$0	$0	$0	$0
116	100192	FACULTY ROOM	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	9	42				378	1,530	578	578	46	414	0	633	0	$103	$907	$0	$817
117	100193	CLASSROOM 505	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$55	$614	$215	$719
118	100193	CLASSROOM 505	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
119	100194	CLASSROOM 507	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$55	$614	$215	$719
120	100194	CLASSROOM 507	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
121	100195	CLASSROOM 509	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$55	$614	$215	$719
122	100196	CLASSROOM 511	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$55	$614	$215	$719
123	100197	CLASSROOM 513	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$55	$614	$215	$719
124	100198	CLASSROOM 515	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$55	$614	$215	$719

Dome-Tech, Inc.

Woodbridge School District Iselin Middle School	FACILITY SQ. FT. 97,972	DATE OF AUDIT: 2/26/2013

SPACE DESCRIPTION			REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.163	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
125	100199	CLASSROOM 516	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$55	$614	$215	$719
126	1001100	CLASSROOM 514	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$55	$614	$215	$719
127	1001101	CLASSROOM 512	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$55	$614	$215	$719
128	1001102	CLASSROOM 510	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$55	$614	$215	$719
129	1001103	CLASSROOM 508	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$55	$614	$215	$719
130	1001103	CLASSROOM 508	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	306	Wall	1	126	1,224	193	154	16	48	306	73	39	$18	$205	$215	$389
131	1001104	CLASSROOM 506	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$55	$614	$215	$719
132	1001104	CLASSROOM 506	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
133	1001105	CLASSROOM 602	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$37	$410	$215	$544
134	1001105	CLASSROOM 602	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
135	1001106	CLASSROOM 604	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$55	$614	$215	$719
136	1001106	CLASSROOM 604	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
137	1001107	OFFICE	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	2,070	46	46	10	10	0	21	0	$3	$51	$0	$41
138	1001108	STORAGE	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41
139	1001109	LOBBY	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	2,610	57	57	10	10	0	26	0	$4	$51	$0	$41
140	1001110	STORAGE	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41
141	1001112	CLASSROOM 606	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$55	$614	$215	$719
142	1001112	CLASSROOM 606	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
143	1001111	STORAGE	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41
144	1001113	CLASSROOM 607	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$55	$614	$215	$719
145	1001113	CLASSROOM 607	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
146	1001114	CLASSROOM 605	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$55	$614	$215	$719
147	1001114	CLASSROOM 605	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
148	1001115	CLASSROOM 603	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$55	$614	$215	$719
149	1001115	CLASSROOM 603	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122

Dome-Tech, Inc.

Woodbridge School District Iselin Middle School	FACILITY SQ. FT. 97,972	DATE OF AUDIT: 2/26/2013

SPACE DESCRIPTION			REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.163	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
150	1001116	CORRIDOR	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	85	42				3,570	2,610	9,318	9,318	16	1,360	0	3,550	0	$579	$5,801	$0	$4,951
151	1001116	CORRIDOR	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	22	42				924	2,610	2,412	2,412	70	1,540	0	4,019	0	$655	$2,217	$0	$1,997
152	1001116	CORRIDOR	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	28	22				616	2,610	1,608	1,608	10	280	0	731	0	$119	$1,420	$0	$1,140
153	1001116	CORRIDOR	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,610	219	219	16	32	0	84	0	$14	$137	$0	$117
154	1001116	CORRIDOR	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	2,610	57	57	10	10	0	26	0	$4	$51	$0	$41
155	10EXT	EXTERIOR	LED (1) New 56w Wall Pack Fixture	2	56				112	4,745	531	531	154	308	0	1,461	0	$238	$884	$0	$884
				953					**46,810**		**90,587**	**84,330**		**22,407**	**22,473**	**46,173**	**6,258**	**$8,546**	**$75,234**	**$13,978**	**$76,616**

LIGHTING RETROFIT SUMMARY FOR:
Woodbridge Middle School
525 Barron Avenue, Woodbridge, NJ 07095

BUILDING INFORMATION		EXISTING FIXTURES				PROPOSED FIXTURES				SAVINGS						FINANCIAL					
BUILDING	SQ. FT.	PRE TOTAL FIXT. QTY	PRE TOTAL FIXT. WATTS	PRE ANNUAL KWH CONSUMPTION	PRE WATTS / SQ. FT	POST TOTAL FIXT. QTY	POST TOTAL FIXT. WATTS	POST ANNUAL KWH CONSUMPTION	POST WATTS / SQ. FT	WATTS SAVED	ANNUAL KWH SAVED	ANNUAL KWH SAVED WITH SENSORS	ANNUAL SAVINGS $ FIXT.	ANNUAL SAVINGS $ SENSORS	ANNUAL SAVINGS $ TOTAL	CO2 REDUCTION (TONS)	NJ Smart Start REBATE $	**FIXTURES** TOTAL (INSTALLED) COST $	**SENSORS** TOTAL (INSTALLED) COST $	**MATERIAL** TOTAL (INSTALLED) COST $	SIMPLE PAYBACK NET OF REBATE (YEARS)
Woodbridge Middle School	**79,113**	**668**	**49,457**	**96,151**	**0.63**	**668**	**32,945**	**57,687**	**0.42**	**16,512**	**38,464**	**4,105**	**$5,808**	**$620**	**$6,428**	**12.7**	**$8,725**	**$51,600**	**$12,678**	**$64,278**	**8.6**

14%	**PERCENTAGE OF REBATES IN TOTAL INSTALLED COST**
60%	**PERCENTAGE OF CONSUMPTION COMPARE TO EXISTING STATE**
21%	**EXISTING PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**
13%	**PROPOSED PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	Woodbridge School District Woodbridge Middle School	FACILITY SQ. FT. 79,113	DATE OF AUDIT: 2/26/2013

SPACE DESCRIPTION			EXISTING FIXTURES	REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS			REBATES		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.151	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES	TOTAL FIXTURES REBATE PER LINE	TOTAL SENSORS REBATE PER LINE	TOTAL REBATE / LINE
1	2	3	4	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	53	54	55
1	250120	CLASSROOM H	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	4	84	306	Wall	1	336	1,224	514	411	28	112	306	171	103	$41	$335	$215	$490	$40	$20	$60
2	250120	CLASSROOM H	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84				84	1,530	129	129	28	28	0	43	0	$6	$84	$0	$74	$10	$0	$10
3	250119	CUSTODIAL OFFICE	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84				84	2,610	219	219	28	28	0	73	0	$11	$84	$0	$74	$10	$0	$10
4	250101	KITCHEN	4' Vapor-Tight Wrap w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	40	42				1,680	1,500	2,520	2,520	16	640	0	960	0	$145	$2,730	$0	$2,330	$400	$0	$400
5	250102	KITCHEN STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	1,500	126	126	16	32	0	48	0	$7	$137	$0	$117	$20	$0	$20
6	250103	BATH	2'x2' Troffer w/ (4) F17T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (4) F17T8 Lamps & (1) 4/17 Elec. Low-Power High Efficiency Ballast	2	51				102	360	37	37	13	26	0	9	0	$1	$0	$0	$0	$0	$0	$0
7	250104	KITCHEN SLOP SINK	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58	$10	$0	$10
8	250105	KITCHEN OFFICE	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	1,500	126	126	16	32	0	48	0	$7	$137	$0	$117	$20	$0	$20
9	250101	KITCHEN	8' Fixture w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84				84	1,500	126	126	28	28	0	42	0	$6	$84	$0	$74	$10	$0	$10
10	250106	COMPUTER ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	7	42				294	1,530	450	450	16	112	0	171	0	$26	$478	$0	$408	$70	$0	$70
11	250107	CAFETERIA	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	35	42				1,470	2,610	3,837	3,837	16	560	0	1,462	0	$221	$2,389	$0	$2,039	$350	$0	$350
12	250108	AUDITORIUM	Chandelier w/ (12) 60w Incandescent Lamps	Relamp w/ (12) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	4	168				672	1,530	1,028	1,028	552	2,208	0	3,378	0	$510	$780	$0	$780	$0	$0	$0
13	250108	AUDITORIUM	Incandescent Fixture w/ (1) 300w Incandescent PS Lamp	None	4	300				1,200	1,530	1,836	1,836	0	0	0	0	0	$0	$0	$0	$0	$0	$0	$0
14	250108	AUDITORIUM	Incandescent Wall Sconce Fixture w/ (2) 40w Incandescent Lamps	Relamp w/ (2) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	10	28				280	1,530	428	428	52	520	0	796	0	$120	$325	$0	$325	$0	$0	$0
15	250109	AUDITORIUM VESTIBULE	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts, Microlouver, Surface Mount	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	3	84				252	2,610	658	658	28	84	0	219	0	$33	$252	$0	$222	$30	$0	$30
16	250110	STORAGE	Incandescent Fixture w/ (1) 60w Incandescent Lamp	Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	2	14				28	360	10	10	46	92	0	33	0	$5	$33	$0	$33	$0	$0	$0
17	250111	STAIRS	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	2,610	57	57	10	10	0	26	0	$4	$51	$0	$41	$10	$0	$10
18	250201	MEZZANINE	Incandescent Fixture w/ (2) 60w Incandescent Lamps	Relamp w/ (2) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	2	28				56	1,530	86	86	92	184	0	282	0	$43	$65	$0	$65	$0	$0	$0
19	250202	MEZZANINE STORAGE	Incandescent Fixture w/ (2) 60w Incandescent Lamps	Relamp w/ (2) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	28				28	360	10	10	92	92	0	33	0	$5	$33	$0	$33	$0	$0	$0
20	250203	CONTROL BOOTH	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41	$10	$0	$10
21	250204	STORAGE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41	$10	$0	$10
22	250205	STORAGE	Fixture w/ 23w Screw-In CFL	None	1	23				23	360	8	8	0	0	0	0	0	$0	$0	$0	$0	$0	$0	$0
23	250112	CORRIDOR	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	2,610	115	115	10	20	0	52	0	$8	$101	$0	$81	$20	$0	$20
24	250113	STAIRS	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,610	219	219	16	32	0	84	0	$13	$137	$0	$117	$20	$0	$20
25	250114	CHEM STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58	$10	$0	$10
26	250115	OLD BOILER	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58	$10	$0	$10
27	250116	ELECTRICAL	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58	$10	$0	$10
28	250117	HOME ECONOMICS I	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	18	42	306	Wall	1	756	1,224	1,157	925	16	288	306	441	231	$101	$1,229	$215	$1,243	$180	$20	$200
29	250118	CLASSROOM G	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	5	42	306	Wall	1	210	1,224	321	257	16	80	306	122	64	$28	$341	$215	$486	$50	$20	$70
30	250121	FACULTY LOUNGE	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	4	42	306	Ceiling	1	168	1,224	257	206	70	280	306	428	51	$72	$403	$363	$726	$40	$0	$40
31	250121	FACULTY REST ROOM	Fixture w/ 23w Screw-In CFL	None	1	23				23	360	8	8	0	0	0	0	0	$0	$0	$0	$0	$0	$0	$0
32	250122	HEALTH	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	1,530	257	257	16	64	0	98	0	$15	$273	$0	$233	$40	$0	$40
33	250122	HEALTH	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	1,530	67	67	10	20	0	31	0	$5	$101	$0	$81	$20	$0	$20

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	Woodbridge School District Woodbridge Middle School	FACILITY SQ. FT. 79,113	DATE OF AUDIT: 2/26/2013

SPACE DESCRIPTION			EXISTING FIXTURES	REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS			REBATES		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.151	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES	TOTAL FIXTURES REBATE PER LINE	TOTAL SENSORS REBATE PER LINE	TOTAL REBATE / LINE
34	250123	HEALTH STORAGE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41	$10	$0	$10
35	250124	ELECTRICAL	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117	$20	$0	$20
36	250125	LIBRARY OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	1,530	257	257	16	64	0	98	0	$15	$273	$0	$233	$40	$0	$40
37	250125	LIBRARY OFFICE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	1,530	67	67	10	20	0	31	0	$5	$101	$0	$81	$20	$0	$20
38	250126	MEDIA CENTER	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	18	42				756	2,610	1,973	1,973	16	288	0	752	0	$114	$1,229	$0	$1,049	$180	$0	$180
39	250126	MEDIA CENTER	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	9	22				198	2,610	517	517	10	90	0	235	0	$35	$456	$0	$366	$90	$0	$90
40	250127	CLASSROOM F	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42	306	Wall	1	168	1,224	257	206	16	64	306	98	51	$23	$273	$215	$448	$40	$0	$40
41	250127	CLASSROOM F	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	1,530	67	67	10	20	0	31	0	$5	$101	$0	$81	$20	$0	$20
42	250128	STORAGE	4' Strip Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117	$20	$0	$20
43	250129	CORRIDOR	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	2,610	329	329	16	48	0	125	0	$19	$205	$0	$175	$30	$0	$30
44	250129	CORRIDOR	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	2,610	115	115	10	20	0	52	0	$8	$101	$0	$81	$20	$0	$20
45	250130	CORRIDOR	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	5	42				210	2,610	548	548	16	80	0	209	0	$32	$341	$0	$291	$50	$0	$50
46	250130	CORRIDOR	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	2,610	115	115	10	20	0	52	0	$8	$101	$0	$81	$20	$0	$20
47	250131	BAND ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	18	42	306	Wall	2	756	1,224	1,157	925	16	288	306	441	231	$101	$1,229	$429	$1,438	$180	$40	$220
48	250132	STORAGE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117	$20	$0	$20
49	250133	PRACTICE	Incandescent Fixture w/ (1) 60w Incandescent Lamp	Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	360	5	5	46	46	0	17	0	$3	$16	$0	$16	$0	$0	$0
50	250134	OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	1,530	64	64	16	16	0	24	0	$4	$68	$0	$58	$10	$0	$10
51	250135	MUSIC	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	15	42	306	Wall	2	630	1,224	964	771	16	240	306	367	193	$85	$1,024	$429	$1,263	$150	$40	$190
52	250135	MUSIC	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	5	22				110	1,530	168	168	10	50	0	77	0	$12	$254	$0	$204	$50	$0	$50
53	250136	STORAGE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117	$20	$0	$20
54	250137	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,610	219	219	16	32	0	84	0	$13	$137	$0	$117	$20	$0	$20
55	250138	BOYS LOCKER ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	2,310	388	388	16	64	0	148	0	$22	$273	$0	$233	$40	$0	$40
56	250138	BOYS LOCKER ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	2,310	152	152	10	30	0	69	0	$10	$152	$0	$122	$30	$0	$30
57	250138	BOYS LOCKER ROOM	8' Vapor-Tight Wrap w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,310	97	97	16	16	0	37	0	$6	$68	$0	$58	$10	$0	$10
58	250138	BOYS LOCKER ROOM	4' Vapor-Tight Wrap w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	2,310	51	51	10	10	0	23	0	$3	$51	$0	$41	$10	$0	$10
59	250139	BOYS COACHES OFFICE	No Access. Area inaccessible during audit.	None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0	$0	$0	$0
60	250140	GYM	HID Low Bay Fixture w/ (1) 400w Metal Halide Lamp & Ballast	New 2'x4' Singlepoint-Mount High Bay w/ (6) F54T5HO Lamps & (3) 2/54 T5 Elec. HO Ballasts Wire Guard Occupancy Sensor	12	351				4,212	2,310	9,730	9,730	104	1,248	0	2,883	0	$435	$4,703	$0	$3,503	$1,200	$0	$1,200
61	250141	GIRLS LOCKER ROOM	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,310	97	97	16	16	0	37	0	$6	$68	$0	$58	$10	$0	$10
62	250141	GIRLS LOCKER ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	2,310	388	388	16	64	0	148	0	$22	$273	$0	$233	$40	$0	$40
63	250141	GIRLS LOCKER ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	2,310	51	51	10	10	0	23	0	$3	$51	$0	$41	$10	$0	$10
64	250141	GIRLS LOCKER ROOM	4' Vapor-Tight Wrap w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,310	194	194	16	32	0	74	0	$11	$137	$0	$117	$20	$0	$20
65	250142	GIRLS COACHES OFFICE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	360	16	16	10	20	0	7	0	$1	$101	$0	$81	$20	$0	$20
66	250143	STAIRS	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,610	219	219	16	32	0	84	0	$13	$137	$0	$117	$20	$0	$20

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	Woodbridge School District Woodbridge Middle School	FACILITY SQ. FT. 79,113	DATE OF AUDIT: 2/26/2013

SPACE DESCRIPTION			EXISTING FIXTURES	REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS			REBATES		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.151	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES	TOTAL FIXTURES REBATE PER LINE	TOTAL SENSORS REBATE PER LINE	TOTAL REBATE / LINE
67	250144	CORRIDOR	Incandescent Fixture w/ (2) 60w Incandescent Lamps	Relamp w/ (2) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	2	28				56	2,610	146	146	92	184	0	480	0	$73	$65	$0	$65	$0	$0	$0
68	250144	CORRIDOR	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	7	42				294	2,610	767	767	16	112	0	292	0	$44	$478	$0	$408	$70	$0	$70
69	250145	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58	$10	$0	$10
70	250146	FACULTY WOMEN ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	252	Ceiling	1	126	108	45	14	16	48	252	17	32	$7	$205	$363	$538	$30	$0	$30
71	250147	CLASSROOM A	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	8	84	306	Wall	1	672	1,224	1,028	823	28	224	306	343	206	$83	$671	$215	$785	$80	$20	$100
72	250147	CLASSROOM A	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	1,530	64	64	16	16	0	24	0	$4	$68	$0	$58	$10	$0	$10
73	250147	CLASSROOM A STORAGE	Incandescent Fixture w/ (1) 60w Incandescent Lamp	Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	1,530	21	21	46	46	0	70	0	$11	$16	$0	$16	$0	$0	$0
74	250148	CLASSROOM B	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84				168	1,530	257	257	28	56	0	86	0	$13	$168	$0	$148	$20	$0	$20
75	250149	CLASSROOM C	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$62	$503	$215	$638	$60	$20	$80
76	250150	CLASSROOM D	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84	306	Wall	1	168	1,224	257	206	28	56	306	86	51	$21	$168	$215	$362	$20	$0	$20
77	250151	CLASSROOM E	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	5	42				210	1,530	321	321	16	80	0	122	0	$18	$341	$0	$291	$50	$0	$50
78	250152	STAIRS	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$68	$0	$58	$10	$0	$10
79	250153	FACULTY MEN ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58	$10	$0	$10
80	250154	PUMP ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117	$20	$0	$20
81	250155	BOILER ROOM	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	5	42				210	2,610	548	548	16	80	0	209	0	$32	$341	$0	$291	$50	$0	$50
82	250156	PUMP ROOM	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117	$20	$0	$20
83	250157	BOILER ROOM	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117	$20	$0	$20
84	250155	BOILER ROOM	Incandescent Fixture w/ (1) 60w Incandescent Lamp	Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	2,610	37	37	46	46	0	120	0	$18	$16	$0	$16	$0	$0	$0
85	250158	CORRIDOR	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42				378	2,610	987	987	16	144	0	376	0	$57	$614	$0	$524	$90	$0	$90
86	250158	CORRIDOR	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	2,610	115	115	10	20	0	52	0	$8	$101	$0	$81	$20	$0	$20
87	250159	BOOK STORAGE	No Access. Area inaccessible during audit.	None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0	$0	$0	$0
88	250301	CLASSROOM 4	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Ceiling	1	336	1,224	514	411	16	128	306	196	103	$45	$546	$363	$794	$80	$35	$115
89	250302	CLASSROOM 2B	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	10	84	306	Ceiling	2	840	1,224	1,285	1,028	28	280	306	428	257	$104	$839	$727	$1,395	$100	$70	$170
90	250303	CLASSROOM 2A	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Ceiling	1	336	1,224	514	411	16	128	306	196	103	$45	$546	$363	$794	$80	$35	$115
91	250304	STAIRS	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$68	$0	$58	$10	$0	$10
92	250305	CLASSROOM 26	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Ceiling	1	336	1,224	514	411	16	128	306	196	103	$45	$546	$363	$794	$80	$35	$115
93	250306	CLASSROOM 24A	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42	306	Ceiling	1	168	1,224	257	206	16	64	306	98	51	$23	$273	$363	$596	$40	$0	$40
94	250307	CLASSROOM 24B	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42	306	Ceiling	1	168	1,224	257	206	16	64	306	98	51	$23	$273	$363	$596	$40	$0	$40
95	250308	GIRLS REST ROOM	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	3	42	522	Ceiling	1	126	2,088	329	263	46	138	522	360	66	$64	$302	$363	$636	$30	$0	$30
96	250309	CLASSROOM 20	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Ceiling	1	336	1,224	514	411	16	128	306	196	103	$45	$546	$363	$794	$80	$35	$115
97	250310	CLASSROOM 18	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Ceiling	1	336	1,224	514	411	16	128	306	196	103	$45	$546	$363	$794	$80	$35	$115
98	250311	CLASSROOM 16	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544	$60	$20	$80
99	250311	CLASSROOM 16	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122	$30	$0	$30

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	Woodbridge School District Woodbridge Middle School	FACILITY SQ. FT. 79,113	DATE OF AUDIT: 2/26/2013

SPACE DESCRIPTION			EXISTING FIXTURES	REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS			REBATES		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.151	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES	TOTAL FIXTURES REBATE PER LINE	TOTAL SENSORS REBATE PER LINE	TOTAL REBATE / LINE
100	250312	CLASSROOM 14	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544	$60	$20	$80
101	250312	CLASSROOM 14	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122	$30	$0	$30
102	250313	CLASSROOM 12	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544	$60	$20	$80
103	250313	CLASSROOM 12	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122	$30	$0	$30
104	250314	CLASSROOM 10	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544	$60	$20	$80
105	250314	CLASSROOM 10	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122	$30	$0	$30
106	250315	BOYS REST ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	522	Ceiling	1	126	2,088	329	263	16	48	522	125	66	$29	$205	$363	$538	$30	$0	$30
107	250316	CLASSROOM 8	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	8	22	306	Wall	1	176	1,224	269	215	10	80	306	122	54	$27	$406	$215	$540	$80	$0	$80
108	250317	CLASSROOM 6	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$45	$546	$215	$661	$80	$20	$100
109	250318	STAIRS	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	2,610	57	57	10	10	0	26	0	$4	$51	$0	$41	$10	$0	$10
110	250319	CLASSROOM 28	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	15	42	306	Ceiling	1	630	1,224	964	771	16	240	306	367	193	$85	$1,024	$363	$1,202	$150	$35	$185
111	250320	COPY ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,070	87	87	16	16	0	33	0	$5	$68	$0	$58	$10	$0	$10
112	250321	COPY ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	724.5	Wall	1	84	1,346	174	113	16	32	725	66	61	$19	$137	$215	$331	$20	$0	$20
113	250322	FACULTY LOUNGE	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Ceiling	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$363	$678	$60	$35	$95
114	250323	STAIRS	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$68	$0	$58	$10	$0	$10
115	250324	CORRIDOR	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	7	42				294	2,610	767	767	16	112	0	292	0	$44	$478	$0	$408	$70	$0	$70
116	250325	STAIRS	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$68	$0	$58	$10	$0	$10
117	250326	CORRIDOR	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	2,610	329	329	16	48	0	125	0	$19	$205	$0	$175	$30	$0	$30
118	250327	CORRIDOR	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	2,610	329	329	16	48	0	125	0	$19	$205	$0	$175	$30	$0	$30
119	250328	CORRIDOR	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	2,610	329	329	16	48	0	125	0	$19	$205	$0	$175	$30	$0	$30
120	250201	CLASSROOM 19	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544	$60	$20	$80
121	250202	CLASSROOM 17	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42				252	1,530	386	386	16	96	0	147	0	$22	$410	$0	$350	$60	$0	$60
122	250203	GUIDANCE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	3	252	1,224	386	308	16	96	306	147	77	$34	$410	$644	$933	$60	$60	$120
123	250203	GUIDANCE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41	$10	$0	$10
124	250204	CLASSROOM 15	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544	$60	$20	$80
125	250204	CLASSROOM 15	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122	$30	$0	$30
126	250205	CLASSROOM 11	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544	$60	$20	$80
127	250205	CLASSROOM 11	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122	$30	$0	$30
128	250206	CLASSROOM 9	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544	$60	$20	$80
129	250207	BOYS REST ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22	522	Ceiling	1	44	2,088	115	92	10	20	522	52	23	$11	$101	$363	$445	$20	$0	$20
130	250208	CLASSROOM 7	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544	$60	$20	$80
131	250209	CLASSROOM 5	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	5	42	306	Wall	1	210	1,224	321	257	16	80	306	122	64	$28	$341	$215	$486	$50	$20	$70
132	250210	STAIRS	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$68	$0	$58	$10	$0	$10

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	Woodbridge School District Woodbridge Middle School	FACILITY SQ. FT. 79,113	DATE OF AUDIT: 2/26/2013

SPACE DESCRIPTION			EXISTING FIXTURES	REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS			REBATES		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.151	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES	TOTAL FIXTURES REBATE PER LINE	TOTAL SENSORS REBATE PER LINE	TOTAL REBATE / LINE
133	250211	CLASSROOM 3	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42	306	Wall	**1**	168	1,224	257	206	16	64	306	98	51	$23	$273	$215	$448	$40	$0	$40
134	250211	CLASSROOM 3	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41	$10	$0	$10
135	250212	PRINCIPALS OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,070	87	87	16	16	0	33	0	$5	$68	$0	$58	$10	$0	$10
136	250213	VESTIBULE	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts, Microlouver, Surface Mount	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	2	42				84	2,610	219	219	70	140	0	365	0	$55	$202	$0	$182	$20	$0	$20
137	250214	NURSE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	1,530	64	64	16	16	0	24	0	$4	$68	$0	$58	$10	$0	$10
138	250214	NURSE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41	$10	$0	$10
139	250214	NURSE REST ROOM	2' Fixture w/ (2) F17T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	360	10	10	6	6	0	2	0	$0	$60	$0	$50	$10	$0	$10
140	250215	CLASSROOM 1	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	**1**	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544	$60	$20	$80
141	250216	STAIRS	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$68	$0	$58	$10	$0	$10
142	250217	CLASSROOM 27	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	**1**	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544	$60	$20	$80
143	250218	CLASSROOM 25	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	**1**	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544	$60	$20	$80
144	250218	CLASSROOM 25	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122	$30	$0	$30
145	250219	GIRLS REST ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$68	$0	$58	$10	$0	$10
146	250220	SUPPLY	No Access. Area inaccessible during audit.	None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0	$0	$0	$0
147	250221	CLASSROOM 23	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	**1**	336	1,224	514	411	16	128	306	196	103	$45	$546	$215	$661	$80	$20	$100
148	250221	CLASSROOM 23	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	1,530	67	67	10	20	0	31	0	$5	$101	$0	$81	$20	$0	$20
149	250222	MAIN OFFICE	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84				168	2,070	348	348	28	56	0	116	0	$18	$168	$0	$148	$20	$0	$20
150	250222	SECRETARY OFFICE	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84				84	2,070	174	174	28	28	0	58	0	$9	$84	$0	$74	$10	$0	$10
151	250222	PRINCIPALS OFFICE	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84				84	2,070	174	174	28	28	0	58	0	$9	$84	$0	$74	$10	$0	$10
152	250222	OFFICE CLOSET	Compact Fluorescent Circleline Drum Fixture w/ (1) FC8T9 & (1) FC12T9 Circleline Lamp and (1) Magnetic Ballast	None	1	47				47	360	17	17	0	0	0	0	0	$0	$0	$0	$0	$0	$0	$0
153	250223	STAIRS	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$68	$0	$58	$10	$0	$10
154	250225	CORRIDOR	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	7	42				294	2,610	767	767	16	112	0	292	0	$44	$478	$0	$408	$70	$0	$70
155	250224	STAIRS	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$68	$0	$58	$10	$0	$10
156	250226	CORRIDOR	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	2,610	329	329	16	48	0	125	0	$19	$205	$0	$175	$30	$0	$30
157	250227	CORRIDOR	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	2,610	329	329	16	48	0	125	0	$19	$205	$0	$175	$30	$0	$30
158	250228	CORRIDOR	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	2,610	329	329	16	48	0	125	0	$19	$205	$0	$175	$30	$0	$30
159	25EXT	EXTERIOR	HID Wall Pack Fixture w/ (1) 175w Metal Halide Lamp & Ballast	LED (1) New 56w Wall Pack Fixture	8	56				448	4,745	2,126	2,126	154	1,232	0	5,846	0	$883	$3,920	$0	$3,360	$560	$0	$560
160	25EXT	EXTERIOR	Incandescent Fixture w/ (1) 75w Incandescent R30 Lamp	Relamp w/ (1) 10W LED PAR30 Dimmable Lamp	6	10				60	4,745	285	285	65	390	0	1,851	0	$279	$293	$0	$293	$0	$0	$0
161	25EXT	EXTERIOR	HID Wallpack Fixture w/ (1) 70w High Pressure Sodium Lamp & Ballast	LED (1) New 56w Wall Pack Fixture	1	56				56	4,745	266	266	36	36	0	171	0	$26	$490	$0	$420	$70	$0	$70
162	25EXT	EXTERIOR	Incandescent Fixture w/ (1) 60w Incandescent Lamp	Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	4,745	66	66	46	46	0	218	0	$33	$16	$0	$16	$0	$0	$0

LIGHTING RETROFIT SUMMARY FOR:
Woodbridge High School
25 Kelly Street, Woodbridge, NJ 07095

BUILDING INFORMATION		EXISTING FIXTURES				PROPOSED FIXTURES				SAVINGS						FINANCIAL					
BUILDING	SQ. FT.	PRE TOTAL FIXT. QTY	PRE TOTAL FIXT. WATTS	PRE ANNUAL KWH CONSUMPTION	PRE WATTS / SQ. FT	POST TOTAL FIXT. QTY	POST TOTAL FIXT. WATTS	POST ANNUAL KWH CONSUMPTION	POST WATTS / SQ. FT	WATTS SAVED	ANNUAL KWH SAVED	ANNUAL KWH SAVED WITH SENSORS	ANNUAL SAVINGS $ FIXT.	ANNUAL SAVINGS $ SENSORS	ANNUAL SAVINGS $ TOTAL	CO2 REDUCTION (TONS)	NJ Smart Start REBATE $	**FIXTURES** TOTAL (INSTALLED) COST $	**SENSORS** TOTAL (INSTALLED) COST $	**MATERIAL** TOTAL (INSTALLED) COST $	SIMPLE PAYBACK NET OF REBATE (YEARS)
Woodbridge High School	**204,206**	**1637**	**140,382**	**305,334**	**0.69**	**1,637**	**97,440**	**191,168**	**0.48**	**42,942**	**114,166**	**9,904**	**$17,125**	**$1,486**	**$18,610**	**37.7**	**$21,555**	**$152,975**	**$22,903**	**$175,878**	**8.3**

12%	**PERCENTAGE OF REBATES IN TOTAL INSTALLED COST**
63%	**PERCENTAGE OF CONSUMPTION COMPARE TO EXISTING STATE**
28%	**EXISTING PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**
17%	**PROPOSED PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Woodbridge High School	FACILITY SQ. FT. 204,206	DATE OF AUDIT: 2/27/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES										ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.150	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
1	240201	MAIN OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	2,070	720	46	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42				252	2,070	522	522	16	96	0	199	0	$30	$410	$0	$350
2	240201	MAIN OFFICE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	2,070	132		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	2,070	91	91	10	20	0	41	0	$6	$101	$0	$81
3	240202	VICE PRINCIPAL OFFICE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240	43	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	724.5	Wall	1	84	1,346	174	113	16	32	725	66	61	$19	$137	$215	$331
4	240203	PRINCIPAL OFFICE	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	1	112	112	2,070	232		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84	724.5	Wall	1	84	1,346	174	113	28	28	725	58	61	$18	$84	$215	$288
5	240204	VAULT	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
6	240205	SUPPLY	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	360	12		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41
7	240206	OFFICE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	2,070	132		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22	724.5	Wall	1	44	1,346	91	59	10	20	725	41	32	$11	$101	$215	$296
8	240207	OFFICE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	724.5	Wall	1	84	1,346	174	113	16	32	725	66	61	$19	$137	$215	$331
9	240208	BREAK ROOM	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	1,530	89		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	1,530	64	64	16	16	0	24	0	$4	$68	$0	$58
10	240209	ENTRY	2'x2' Troffer w/ (2) F17T8 Lamps & (1) Electronic Ballast	1	34	34	2,610	89		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,610	73	73	6	6	0	16	0	$2	$60	$0	$50
11	240210	ELECTRICAL	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	360	22		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	360	5	5	46	46	0	17	0	$2	$16	$0	$16
12	240211	FACULTY WOMEN	4' Fixture w/ (1) FO32T8 Lamp (1) Electronic Ballast	1	32	32	360	12		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41
13	240212	FACULTY MEN	4' Fixture w/ (1) FO32T8 Lamp (1) Electronic Ballast	1	32	32	360	12		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41
14	240213	GUIDANCE	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	2	112	224	2,070	464		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84				168	2,070	348	348	28	56	0	116	0	$17	$168	$0	$148
15	240213	GUIDANCE OFFICE 1	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	2,070	66		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	2,070	46	46	10	10	0	21	0	$3	$51	$0	$41
16	240213	GUIDANCE OFFICE 2	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	2,070	66		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	2,070	46	46	10	10	0	21	0	$3	$51	$0	$41
17	240213	GUIDANCE CORRIDOR	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	2,070	66		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	2,070	46	46	10	10	0	21	0	$3	$51	$0	$41
18	240213	GUIDANCE OFFICE 3	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	2,070	66		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	2,070	46	46	10	10	0	21	0	$3	$51	$0	$41
19	240213	GUIDANCE OFFICE 4	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	2,070	66		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	2,070	46	46	10	10	0	21	0	$3	$51	$0	$41
20	240213	GUIDANCE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,070	174	174	16	32	0	66	0	$10	$137	$0	$117
21	240213	GUIDANCE STORAGE	Incandescent Fixture w/ (1) 60w Incandescent Lamp	2	60	120	360	43		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	2	14				28	360	10	10	46	92	0	33	0	$5	$33	$0	$33
22	240213	GUIDANCE OFFICE 5	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,070	120		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,070	87	87	16	16	0	33	0	$5	$68	$0	$58
23	240213	GUIDANCE OFFICE 6	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,070	120		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,070	87	87	16	16	0	33	0	$5	$68	$0	$58
24	240213	GUIDANCE OFFICE 7	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,070	120		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,070	87	87	16	16	0	33	0	$5	$68	$0	$58
25	240213	GUIDANCE OFFICE 8	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,070	120		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,070	87	87	16	16	0	33	0	$5	$68	$0	$58
26	240213	GUIDANCE ENTRY	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,070	120		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,070	87	87	16	16	0	33	0	$5	$68	$0	$58
27	240213	CHILD STUDY	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	1,530	177		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	1,530	129	129	16	32	0	49	0	$7	$137	$0	$117
28	240213	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
29	240214	STAIRS	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	2,610	167		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	2,610	115	115	10	20	0	52	0	$8	$101	$0	$81
30	240215	CORRIDOR	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	5	58	290	2,610	757	15	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	5	42				210	2,610	548	548	16	80	0	209	0	$31	$341	$0	$291
31	240215	CORRIDOR	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	2,610	84		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	2,610	57	57	10	10	0	26	0	$4	$51	$0	$41
32	240216	ENTRY	Chandelier w/ (12) 60w Incandescent Lamps	1	720	720	2,610	1,879		Relamp w/ (12) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	168				168	2,610	438	438	552	552	0	1,441	0	$216	$195	$0	$195
33	240217	STAIRS	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	2,610	84		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	2,610	57	57	10	10	0	26	0	$4	$51	$0	$41
34	240217	WATER VALVE	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	360	22		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	360	5	5	46	46	0	17	0	$2	$16	$0	$16
35	240218	STORAGE	No Access. Area inaccessible during audit.	1	0	0	360	0		None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
36	240219	CLASSROOM 100	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	15	58	870	1,530	1,331	56	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	15	42	306	Wall	1	630	1,224	964	771	16	240	306	367	193	$84	$1,024	$215	$1,068

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Woodbridge High School	FACILITY SQ. FT. 204,206	DATE OF AUDIT: 2/27/2013

SPACE DESCRIPTION			EXISTING FIXTURES						REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.150	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
37	240220	CLASSROOM 102	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
38	240221	NURSE	No Access. Area inaccessible during audit.	1	0	0	1,530	0		None	1	0				0	1,530	0	0	0	0	0	0	0	$0	$0	$0	$0
39	240222	CLASSROOM 104	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	15	58	870	1,530	1,331		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	15	42	306	Wall	1	630	1,224	964	771	16	240	306	367	193	$84	$1,024	$215	$1,068
40	240223	CLASSROOM 105	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$45	$546	$215	$661
41	240224	BOYS REST ROOM	No Access. Area inaccessible during audit.	1	0	0	2,610	0		None	1	0				0	2,610	0	0	0	0	0	0	0	$0	$0	$0	$0
42	240225	JC	Incandescent Drum Fixture w/ (2) 60w Incandescent Lamps	1	120	120	1,500	180		Relamp w/ (2) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	28				28	1,500	42	42	92	92	0	138	0	$21	$33	$0	$33
43	240227	CLASSROOM 107	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
44	240228	CLASSROOM 108	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
45	240229	CLASSROOM 109	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
46	240226	GIRLS REST ROOM	No Access. Area inaccessible during audit.	1	0	0	2,610	0		None	1	0				0	2,610	0	0	0	0	0	0	0	$0	$0	$0	$0
47	240230	CLASSROOM 111	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
48	240231	CLASSROOM 110	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532	40	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
49	240232	CLASSROOM 113	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532	48	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
50	240233	CLASSROOM 112	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532	43	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
51	240234	CLASSROOM 115	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532	38	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
52	240235	CLASSROOM 114	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532	37	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
53	240236	STAIRS	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	2,610	167		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	2,610	115	115	10	20	0	52	0	$8	$101	$0	$81
54	240237	TEACHERS OFFICE	No Access. Area inaccessible during audit.	1	0	0	1,530	0		None	1	0				0	1,530	0	0	0	0	0	0	0	$0	$0	$0	$0
55	240238	BUSINESS OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	1,530	89		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42	306	Wall	1	42	1,224	64	51	16	16	306	24	13	$6	$68	$215	$273
56	240238	BUSINESS OFFICE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
57	240239	D2	No Access. Area inaccessible during audit.	1	0	0	360	0		None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
58	240240	CLASSROOM D3	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$45	$546	$215	$661
59	240240	CLASSROOM D3	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	4	32	128	1,530	196		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	4	22				88	1,530	135	135	10	40	0	61	0	$9	$203	$0	$163
60	240241	CLASSROOM D5	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	15	58	870	1,530	1,331		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	15	42	306	Wall	1	630	1,224	964	771	16	240	306	367	193	$84	$1,024	$215	$1,068
61	240242	CLASSROOM D4	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	15	58	870	1,530	1,331		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	15	42	306	Wall	1	630	1,224	964	771	16	240	306	367	193	$84	$1,024	$215	$1,068
62	240243	BOYS REST ROOM	No Access. Area inaccessible during audit.	1	0	0	2,610	0		None	1	0				0	2,610	0	0	0	0	0	0	0	$0	$0	$0	$0
63	240244	ELECTRICAL	Compact Fluorescent Circleline Drum Fixture w/ (1) FC8T9 & (1) FC12T9 Circleline Lamp and (1) Magnetic Ballast	1	47	47	360	17		None	1	47				47	360	17	17	0	0	0	0	0	$0	$0	$0	$0
64	240245	FACULTY WOMEN	No Access. Area inaccessible during audit.	1	0	0	360	0		None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
65	240246	STAIRS	2'x2' Troffer w/ (2) F17T8 Lamps & (1) Electronic Ballast	2	34	68	2,610	177		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	2	28				56	2,610	146	146	6	12	0	31	0	$5	$121	$0	$101
66	240246	STAIRS	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	2,610	157		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	2,610	37	37	46	46	0	120	0	$18	$16	$0	$16
67	240247	D6	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	360	125		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	252	Wall	1	252	108	91	27	16	96	252	35	64	$15	$410	$215	$544
68	240249	WOMENS REST ROOM	No Access. Area inaccessible during audit.	1	0	0	2,610	0		None	1	0				0	2,610	0	0	0	0	0	0	0	$0	$0	$0	$0
69	240248	FACULTY ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	306	Wall	1	126	1,224	193	154	16	48	306	73	39	$17	$205	$215	$389
70	240248	FACULTY ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
71	240248	FACULTY ROOM	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	1,530	92		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	1,530	21	21	46	46	0	70	0	$11	$16	$0	$16
72	240250	FACULTY MEN	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	360	12		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Woodbridge High School	FACILITY SQ. FT. 204,206	DATE OF AUDIT: 2/27/2013

SPACE DESCRIPTION			EXISTING FIXTURES						REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.150	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
73	240251	CLASSROOM D8	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	1,530	1,065		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42	306	Wall	1	504	1,224	771	617	16	192	306	294	154	$67	$819	$215	$894
74	240252	OFFICE D9	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	2,070	480		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42	724.5	Wall	1	168	1,346	348	226	16	64	725	132	122	$38	$273	$215	$448
75	240253	CLASSROOM D11	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	15	58	870	1,530	1,331		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	15	42	306	Wall	1	630	1,224	964	771	16	240	306	367	193	$84	$1,024	$215	$1,068
76	240253	CLASSROOM D11	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
77	240254	CLASSROOM D13	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
78	240255	OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	724.5	Wall	1	84	1,346	174	113	16	32	725	66	61	$19	$137	$215	$331
79	240255	OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	724.5	Wall	1	84	1,346	174	113	16	32	725	66	61	$19	$137	$215	$331
80	240256	CLASSROOM D12	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	10	58	580	1,530	887		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	10	42	306	Wall	1	420	1,224	643	514	16	160	306	245	129	$56	$683	$215	$777
81	240257	LAB STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
82	240257	LAB STORAGE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	360	12		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41
83	240258	CLASSROOM D15	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	1,530	355		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42	306	Wall	1	168	1,224	257	206	16	64	306	98	51	$22	$273	$215	$448
84	240258	CLASSROOM D15	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	1,530	98		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	1,530	67	67	10	20	0	31	0	$5	$101	$0	$81
85	240259	CLASSROOM D14	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	15	58	870	1,530	1,331		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	15	42	306	Wall	1	630	1,224	964	771	16	240	306	367	193	$84	$1,024	$215	$1,068
86	240260	CLASSROOM D17	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
87	240261	FACULTY MEN	4' Fixture w/ (1) FO32T8 Lamp (1) Electronic Ballast	4	32	128	360	46		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	4	22				88	360	32	32	10	40	0	14	0	$2	$203	$0	$163
88	240262	JC	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	1,500	90		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	1,500	21	21	46	46	0	69	0	$10	$16	$0	$16
89	240263	FACULTY WOMEN	4' Fixture w/ (1) FO32T8 Lamp (1) Electronic Ballast	3	32	96	360	35		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	360	24	24	10	30	0	11	0	$2	$152	$0	$122
90	240264	CLASSROOM D16	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
91	240265	CLASSROOM D18	No Access. Area inaccessible during audit.	1	0	0	1,530	0		None	1	0	306	Wall	1	0	1,224	0	0	0	0	306	0	0	$0	$0	$215	$215
92	240266	CLASSROOM D19	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	15	58	870	1,530	1,331		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	15	42	306	Wall	1	630	1,224	964	771	16	240	306	367	193	$84	$1,024	$215	$1,068
93	240266	CLASSROOM D19	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$7	$152	$0	$122
94	240267	CLASSROOM D20	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
95	240268	CLASSROOM D21	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
96	240269	CLASSROOM D22	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
97	240270	CLASSROOM D23	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
98	240271	CLASSROOM D25	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$50	$614	$215	$719
99	240272	CLASSROOM D24	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$50	$614	$215	$719
100	240272	CLASSROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22	306	Wall	1	66	1,224	101	81	10	30	306	46	20	$10	$152	$215	$337
101	240273	STORAGE	No Access. Area inaccessible during audit.	1	0	0	360	0		None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
102	240274	CORRIDOR	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	30	112	3,360	2,610	8,770		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	30	42				1,260	2,610	3,289	3,289	70	2,100	0	5,481	0	$822	$3,023	$0	$2,723
103	240275	CORRIDOR	2'x2' Troffer w/ (2) F17T8 Lamps & (1) Electronic Ballast	5	34	170	2,610	444		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	5	28				140	2,610	365	365	6	30	0	78	0	$12	$302	$0	$252
104	240275	CORRIDOR	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	17	58	986	2,610	2,573		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	17	42				714	2,610	1,864	1,864	16	272	0	710	0	$106	$1,160	$0	$990
105	240276	CLASSROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	1,530	1,065		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42	306	Wall	1	504	1,224	771	617	16	192	306	294	154	$67	$819	$215	$894
106	240277	CLASSROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	15	58	870	1,530	1,331		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	15	42	306	Wall	1	630	1,224	964	771	16	240	306	367	193	$84	$1,024	$215	$1,068
107	240278	CLASSROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	10	58	580	1,530	887		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	10	42	306	Wall	1	420	1,224	643	514	16	160	306	245	129	$56	$683	$215	$777
108	240279	CLASSROOM	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$62	$503	$215	$638

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Woodbridge High School	FACILITY SQ. FT. 204,206	DATE OF AUDIT: 2/27/2013

SPACE DESCRIPTION			EXISTING FIXTURES						REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.150	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
109	240280	CLASSROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
110	240281	CAFETERIA	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	20	112	2,240	2,610	5,846		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	20	42				840	2,610	2,192	2,192	70	1,400	0	3,654	0	$548	$2,015	$0	$1,815
111	240282	KITCHEN	4' Vapor-Tight Wrap w/ (2) FO32T8 Lamps & (1) Electronic Ballast	32	58	1,856	1,500	2,784		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	32	42				1,344	1,500	2,016	2,016	16	512	0	768	0	$115	$2,184	$0	$1,864
112	240282	KITCHEN	4' Vapor-Tight Wrap w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,500	48		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,500	33	33	10	10	0	15	0	$2	$51	$0	$41
113	240282	KITCHEN OFFICE	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	1	112	112	1,500	168		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84				84	1,500	126	126	28	28	0	42	0	$6	$84	$0	$74
114	240282	KITCHEN LOCKER	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	1	112	112	1,500	168		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84				84	1,500	126	126	28	28	0	42	0	$6	$84	$0	$74
115	240284	CLASSROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$45	$546	$215	$661
116	240285	CLASSROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
117	240286	BOYS REST ROOM	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	4	88	352	2,610	919		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	4	63	522	Ceiling	1	252	2,088	658	526	25	100	522	261	132	$59	$304	$363	$593
118	240286	BOYS REST ROOM	2'x4' Troffer w/ (3) FO32T8 Lamps & (2) Electronic Ballast Battery Backup	1	88	88	2,610	230		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power HE Ballast 2'x4' Silver Reflector Kit Battery Backup	1	42				42	2,610	110	110	46	46	0	120	0	$18	$189	$0	$179
119	240287	GIRLS REST ROOM	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	4	88	352	2,610	919		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	4	42	522	Ceiling	1	168	2,088	438	351	46	184	522	480	88	$85	$403	$363	$726
120	240287	GIRLS REST ROOM	2'x4' Troffer w/ (3) FO32T8 Lamps & (2) Electronic Ballast Battery Backup	1	88	88	2,610	230		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power HE Ballast 2'x4' Silver Reflector Kit Battery Backup	1	42				42	2,610	110	110	46	46	0	120	0	$18	$189	$0	$179
121	240288	JC	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	1,500	90		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	1,500	21	21	46	46	0	69	0	$10	$16	$0	$16
122	240283	CAFETERIA	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	20	112	2,240	2,610	5,846		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	20	42				840	2,610	2,192	2,192	70	1,400	0	3,654	0	$548	$2,015	$0	$1,815
123	240289	ELECTRICAL	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	360	63		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	360	45	45	16	48	0	17	0	$3	$205	$0	$175
124	240289	ELECTRICAL	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	360	35		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	360	24	24	10	30	0	11	0	$2	$152	$0	$122
125	240290	ELECTRICAL	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	360	42		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117
126	240291	STAGE LEFT	2'x2' Troffer w/ (2) F17T8 Lamps & (1) Electronic Ballast	2	34	68	360	24		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	2	28				56	360	20	20	6	12	0	4	0	$1	$121	$0	$101
127	240292	STAGE RIGHT	2'x2' Troffer w/ (2) F17T8 Lamps & (1) Electronic Ballast	2	34	68	360	24		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	2	28				56	360	20	20	6	12	0	4	0	$1	$121	$0	$101
128	240293	DRESSING ROOM 1	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	2	112	224	1,500	336		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84				168	1,500	252	252	28	56	0	84	0	$13	$168	$0	$148
129	240293	DRESSING ROOM 1	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	1,500	87		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	1,500	63	63	16	16	0	24	0	$4	$68	$0	$58
130	240293	DRESSING ROOM 1	4' Strip Fluorescent w/ (1) F40T12/34w Lamp & (1) Energy Efficient Magnetic Ballast	3	42	126	1,500	189		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,500	99	99	20	60	0	90	0	$14	$152	$0	$122
131	240293	DRESSING ROOM 1	Incandescent Drum Fixture w/ (1) 60w Incandescent Lamp	1	60	60	1,500	90		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	1,500	21	21	46	46	0	69	0	$10	$16	$0	$16
132	240294	DRESSING ROOM 2	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	1	112	112	1,500	168		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84				84	1,500	126	126	28	28	0	42	0	$6	$84	$0	$74
133	240294	DRESSING ROOM 2	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	1,500	87		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	1,500	63	63	16	16	0	24	0	$4	$68	$0	$58
134	240294	DRESSING ROOM 2	4' Strip Fluorescent w/ (1) F40T12/34w Lamp & (1) Energy Efficient Magnetic Ballast	2	42	84	1,500	126		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	1,500	66	66	20	40	0	60	0	$9	$101	$0	$81
135	240294	DRESSING ROOM 2	Incandescent Drum Fixture w/ (1) 60w Incandescent Lamp	1	60	60	1,500	90		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	1,500	21	21	46	46	0	69	0	$10	$16	$0	$16
136	240296	AUDITORIUM	Incandescent Fixture w/ (1) 150w Incandescent BR40 Lamp	83	150	12,450	1,500	18,675		None	83	150				12,450	1,500	18,675	18,675	0	0	0	0	0	$0	$0	$0	$0
137	240296	AUDITORIUM	Incandescent Wall Sconce w/ (1) 60w Incandescent Lamp	18	60	1,080	1,500	1,620		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	18	14				252	1,500	378	378	46	828	0	1,242	0	$186	$293	$0	$293
138	240295	BAND ROOM	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	13	112	1,456	1,530	2,228		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	13	84	306	Wall	1	1,092	1,224	1,671	1,337	28	364	306	557	334	$134	$1,090	$215	$1,155
139	240296	AUDITORIUM	Incandescent Drum Fixture w/ (1) 60w Incandescent Lamp	1	60	60	1,500	90		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	1,500	21	21	46	46	0	69	0	$10	$16	$0	$16
140	240297	CORRIDOR	2'x2' Troffer w/ (2) F17T8 Lamps & (1) Electronic Ballast	3	34	102	2,610	266		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	3	28				84	2,610	219	219	6	18	0	47	0	$7	$181	$0	$151
141	240298	CORRIDOR	2'x2' Troffer w/ (2) F17T8 Lamps & (1) Electronic Ballast	3	34	102	2,610	266		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	3	28				84	2,610	219	219	6	18	0	47	0	$7	$181	$0	$151
142	240299	BAND CHORUS	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	10	58	580	1,530	887		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	10	42	306	Wall	1	420	1,224	643	514	16	160	306	245	129	$56	$683	$215	$777
143	240299	BAND CHORUS	Compact Fluorescent Circleline Drum Fixture w/ (1) FC8T9 & (1) FC12T9 Circleline Lamp and (1) Magnetic Ballast	11	47	517	1,530	791		None	11	47				517	1,530	791	791	0	0	0	0	0	$0	$0	$0	$0
144	2402100	BOILER ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	5	58	290	2,610	757		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	5	42				210	2,610	548	548	16	80	0	209	0	$31	$341	$0	$291

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Woodbridge High School	FACILITY SQ. FT. 204,206	DATE OF AUDIT: 2/27/2013

SPACE DESCRIPTION			EXISTING FIXTURES						REPLACEMENT FIXTURES								ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.150	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
145	2402100	BOILER ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	5	32	160	2,610	418		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	5	22				110	2,610	287	287	10	50	0	131	0	$20	$254	$0	$204
146	2402101	MAINTENANCE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$68	$0	$58
147	2402101	MAINTENANCE REST ROOM	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
148	2402101	MAINTENANCE GARAGE	HID Low Bay Fixture w/ (1) 400w Metal Halide Lamp & Ballast	1	455	455	2,610	1,188		New 2'x4' Singlepoint-Mount High Bay w/ (6) F54T5HO Lamps & (3) 2/54 T5 Elec. HO Ballasts Wire Guard Occupancy Sensor	1	351				351	2,610	916	916	104	104	0	271	0	$41	$392	$0	$292
149	2402102	SCHOOL STORE	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	5	112	560	1,500	840		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	5	42				210	1,500	315	315	70	350	0	525	0	$79	$504	$0	$454
150	2402103	OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	724.5	Wall	1	84	1,346	174	113	16	32	725	66	61	$19	$137	$215	$331
151	2402104	ATHLETIC OFFICE	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	9	112	1,008	1,500	1,512		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	9	42				378	1,500	567	567	70	630	0	945	0	$142	$907	$0	$817
152	2402104	ATHLETIC OFFICE	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast	2	58	116	1,500	174		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast 2'x2' Silver Reflector Kit	2	28				56	1,500	84	84	30	60	0	90	0	$14	$143	$0	$123
153	2402104	ATHLETIC OFFICE	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	1,500	90		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	1,500	21	21	46	46	0	69	0	$10	$16	$0	$16
154	2402106	CLASSROOM 174	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$45	$546	$215	$661
155	2402107	CLASSROOM 135	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	4	112	448	1,530	685		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	4	84	306	Wall	1	336	1,224	514	411	28	112	306	171	103	$41	$335	$215	$490
156	2402108	CLASSROOM 137	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	4	112	448	1,530	685		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	4	84	306	Wall	1	336	1,224	514	411	28	112	306	171	103	$41	$335	$215	$490
157	2402109	CLASSROOM 139	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	17	112	1,904	1,530	2,913		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	17	84	306	Wall	1	1,428	1,224	2,185	1,748	28	476	306	728	437	$175	$1,425	$215	$1,450
158	2402109	CLASSROOM 139 OFFICE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,070	120		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,070	87	87	16	16	0	33	0	$5	$68	$0	$58
159	2402110	WRESTLING 141	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	4	112	448	1,530	685		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	4	84				336	1,530	514	514	28	112	0	171	0	$26	$335	$0	$295
160	2402111	CLASSROOM 143	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	16	58	928	1,530	1,420		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	16	42	306	Wall	1	672	1,224	1,028	823	16	256	306	392	206	$90	$1,092	$215	$1,127
161	2402111	CLASSROOM 143 STORAGE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	360	12		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41
162	2402112	OFFICE	2'x2' Troffer w/ (2) F17T8 Lamps & (1) Electronic Ballast	2	34	68	2,070	141		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	2	28				56	2,070	116	116	6	12	0	25	0	$4	$121	$0	$101
163	2402112	CORRIDOR	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	2,610	606		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	2,610	438	438	16	64	0	167	0	$25	$273	$0	$233
164	2402113	BAND	2'x2' Troffer w/ (2) F17T8 Lamps & (1) Electronic Ballast	21	34	714	1,530	1,092		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	21	28	306	Wall	1	588	1,224	900	720	6	126	306	193	180	$56	$1,269	$215	$1,254
165	2402113	BAND	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	2	112	224	1,530	343		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84				168	1,530	257	257	28	56	0	86	0	$13	$168	$0	$148
166	2402113	BAND OFFICE	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	4	112	448	2,070	927		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	4	42				168	2,070	348	348	70	280	0	580	0	$87	$403	$0	$363
167	2402113	BAND STORAGE	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	2	88	176	360	63		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	2	42				84	360	30	30	46	92	0	33	0	$5	$202	$0	$182
168	2402113	BAND STORAGE	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	4	88	352	360	127		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	4	42				168	360	60	60	46	184	0	66	0	$10	$403	$0	$363
169	2402113	BAND CLASSROOM	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	6	88	528	1,530	808		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	6	63	306	Wall	1	378	1,224	578	463	25	150	306	230	116	$52	$456	$215	$591
170	2402113	BAND STORAGE	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	1	112	112	360	40		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84				84	360	30	30	28	28	0	10	0	$2	$84	$0	$74
171	2402113	BAND STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
172	2402114	GYM	HID High Bay Fixture w/ (1) 400w Metal Halide Lamp & Ballast	68	455	30,940	2,310	71,471	36	New 2'x4' Singlepoint-Mount High Bay w/ (6) F54T5HO Lamps & (3) 2/54 T5 Elec. HO Ballasts Wire Guard Occupancy Sensor	68	351				23,868	2,310	55,135	55,135	104	7,072	0	16,336	0	$2,450	$26,653	$0	$19,853
173	2402115	BOYS LOCKER ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,310	134		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,310	97	97	16	16	0	37	0	$6	$68	$0	$58
174	2402115	BOYS LOCKER ROOM	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	13	58	754	2,310	1,742		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	13	42				546	2,310	1,261	1,261	16	208	0	480	0	$72	$887	$0	$757
175	2402115	BOYS LOCKER ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	4	32	128	2,310	296		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	4	22				88	2,310	203	203	10	40	0	92	0	$14	$203	$0	$163
176	2402115	BOYS LOCKER ROOM	Incandescent Vapor Proof Fixture w/ (1) 60w Incandescent Lamp	2	60	120	2,310	277		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	2	14				28	2,310	65	65	46	92	0	213	0	$32	$33	$0	$33
177	2402116	WEIGHT ROOM	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84				504	1,530	771	771	28	168	0	257	0	$39	$503	$0	$443
178	2402116	WEIGHT ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	15	58	870	1,530	1,331		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	15	42				630	1,530	964	964	16	240	0	367	0	$55	$1,024	$0	$874
179	2402116	WEIGHT ROOM	8' Vapor-Tight Wrap w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	1	112	112	1,530	171		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84				84	1,530	129	129	28	28	0	43	0	$6	$84	$0	$74
180	2402117	GIRLS LOCKER ROOM	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	13	58	754	2,310	1,742		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	13	42				546	2,310	1,261	1,261	16	208	0	480	0	$72	$887	$0	$757

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Woodbridge High School	FACILITY SQ. FT. 204,206	DATE OF AUDIT: 2/27/2013

SPACE DESCRIPTION			EXISTING FIXTURES						REPLACEMENT FIXTURES								ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.150	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
181	2402117	GIRLS LOCKER ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	5	32	160	2,310	370		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	5	22				110	2,310	254	254	10	50	0	116	0	$17	$254	$0	$204
182	2402117	GIRLS LOCKER ROOM	4' Strip Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	2,310	222		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	2,310	152	152	10	30	0	69	0	$10	$152	$0	$122
183	2402117	GIRLS LOCKER ROOM	Incandescent Drum Fixture w/ (1) 60w Incandescent Lamp	1	60	60	2,310	139		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	2,310	32	32	46	46	0	106	0	$16	$16	$0	$16
184	2402118	GIRLS REST ROOM	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	4	88	352	2,610	919		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	4	42	522	Ceiling	1	168	2,088	438	351	46	184	522	480	88	$85	$403	$363	$726
185	2402118	GIRLS REST ROOM	2'x4' Troffer w/ (3) FO32T8 Lamps & (2) Electronic Ballast Battery Backup	1	88	88	2,610	230		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power HE Ballast 2'x4' Silver Reflector Kit Battery Backup	1	42				42	2,610	110	110	46	46	0	120	0	$18	$189	$0	$179
186	2402119	GYM LOBBY	2'x2' Troffer w/ (2) F17T8 Lamps & (1) Electronic Ballast, Surface Mounted	4	34	136	2,610	355		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	4	28				112	2,610	292	292	6	24	0	63	0	$9	$242	$0	$202
187	2402120	JC	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	1,500	90		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	1,500	21	21	46	46	0	69	0	$10	$16	$0	$16
188	2402121	STORAGE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
189	2402122	MECHANICAL	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	360	22		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	360	5	5	46	46	0	17	0	$2	$16	$0	$16
190	2402123	HVAC	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
191	2402124	ELECTRICAL	No Access. Area inaccessible during audit.	1	0	0	360	0		None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
192	2402125	BOYS REST ROOM	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	4	88	352	2,610	919		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	4	42	522	Ceiling	1	168	2,088	438	351	46	184	522	480	88	$85	$403	$363	$726
193	2402125	BOYS REST ROOM	2'x4' Troffer w/ (3) FO32T8 Lamps & (2) Electronic Ballast Battery Backup	1	88	88	2,610	230		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power HE Ballast 2'x4' Silver Reflector Kit Battery Backup	1	42				42	2,610	110	110	46	46	0	120	0	$18	$189	$0	$179
194	2402126	AD OFFICE	No Access. Area inaccessible during audit.	1	0	0	1,500	0		None	1	0				0	1,500	0	0	0	0	0	0	0	$0	$0	$0	$0
195	2402127	ENTRANCE	4' Strip Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	12	32	384	2,610	1,002		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	12	22				264	2,610	689	689	10	120	0	313	0	$47	$608	$0	$488
196	2402127	ENTRANCE	2' Strip Fluorescent w/ (1) FO20T8 Lamp & (1) Electronic Ballast	8	19	152	2,610	397		Relamp & Reballast w/ (1) F17T8 Lamp & (1) 1/17 Elec. Low-Power High Efficiency Ballast	8	15				120	2,610	313	313	4	32	0	84	0	$13	$374	$0	$374
197	2402128	LOBBY	4' Strip Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	34	32	1,088	2,610	2,840		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	34	22				748	2,610	1,952	1,952	10	340	0	887	0	$133	$1,724	$0	$1,384
198	2402128	LOBBY	2' Strip Fluorescent w/ (1) FO20T8 Lamp & (1) Electronic Ballast	2	19	38	2,610	99		Relamp & Reballast w/ (1) F17T8 Lamp & (1) 1/17 Elec. Low-Power High Efficiency Ballast	2	15				30	2,610	78	78	4	8	0	21	0	$3	$94	$0	$94
199	2402129	CORRIDOR	2'x2' Troffer w/ (2) F17T8 Lamps & (1) Electronic Ballast, Surface Mounted	8	34	272	2,610	710		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	8	28				224	2,610	585	585	6	48	0	125	0	$19	$484	$0	$404
200	2402131	CORRIDOR	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	2,610	606		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	2,610	438	438	16	64	0	167	0	$25	$273	$0	$233
201	2402132	BREEZEWAY	Incandescent Box w/ (1) 60w Incandescent Lamp	7	60	420	4,745	1,993		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	7	14				98	4,745	465	465	46	322	0	1,528	0	$229	$114	$0	$114
202	2402131	CORRIDOR	2'x2' Troffer w/ (2) F17T8 Lamps & (1) Electronic Ballast	1	34	34	2,610	89		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	1	28				28	2,610	73	73	6	6	0	16	0	$2	$60	$0	$50
203	2402130	CORRIDOR	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	36	58	2,088	2,610	5,450		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	36	42				1,512	2,610	3,946	3,946	16	576	0	1,503	0	$226	$2,457	$0	$2,097
204	2402132	CORRIDOR	2'x2' Troffer w/ (2) F17T8 Lamps & (1) Electronic Ballast, Surface Mounted	4	34	136	2,610	355		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	4	28				112	2,610	292	292	6	24	0	63	0	$9	$242	$0	$202
205	2402133	STAIRS	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	2,610	167		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	2,610	115	115	10	20	0	52	0	$8	$101	$0	$81
206	2402134	BREEZEWAY	Incandescent Box w/ (1) 60w Incandescent Lamp	7	60	420	4,745	1,993		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	7	14				98	4,745	465	465	46	322	0	1,528	0	$229	$114	$0	$114
207	2402135	BREEZEWAY	Incandescent Box w/ (1) 60w Incandescent Lamp	7	60	420	4,745	1,993		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	7	14				98	4,745	465	465	46	322	0	1,528	0	$229	$114	$0	$114
208	24EXT	EXTERIOR	Compact Fluorescent Fixture w/ (1) 32w Lamp and (1) Electronic Ballast	27	35	945	4,745	4,484		None	27	35				945	4,745	4,484	4,484	0	0	0	0	0	$0	$0	$0	$0
209	24EXT	EXTERIOR	HID Dusk To Dawn w/ (1) 175w Mercury Vapor Lamp & Ballast	9	202	1,818	4,745	8,626		New LED Floodlight Fixture w/ (6) 13 watt LED,720mA driver	9	90				810	4,745	3,843	3,843	112	1,008	0	4,783	0	$717	$5,850	$0	$5,850
210	24EXT	EXTERIOR	HID Floodlight w/ (1) 175w Mercury Vapor Lamp & Ballast	2	202	404	4,745	1,917		New LED Floodlight Fixture w/ (6) 13 watt LED,720mA driver	2	90				180	4,745	854	854	112	224	0	1,063	0	$159	$1,300	$0	$1,300
211	24EXT	EXTERIOR	HID Wall Pack Fixture w/ (1) 175w Metal Halide Lamp & Ballast	11	210	2,310	4,745	10,961		LED (1) New 56w Wall Pack Fixture	11	56				616	4,745	2,923	2,923	154	1,694	0	8,038	0	$1,206	$4,862	$0	$4,862
212	24EXT	EXTERIOR	HID Wallpack Fixture w/ (1) 70w High Pressure Sodium Lamp & Ballast	3	92	276	4,745	1,310		LED (1) New 56w Wall Pack Fixture	3	56				168	4,745	797	797	36	108	0	512	0	$77	$1,326	$0	$1,326
213	24EXT	EXTERIOR	HID Flood Fixture w/ (1) 400w Metal Halide Lamp & Ballast	12	455	5,460	4,745	25,908		New LED Floodlight Fixture w/ 10 20-diode LED Bars, 350mA driver	12	221				2,652	4,745	12,584	12,584	234	2,808	0	13,324	0	$1,999	$20,124	$0	$20,124
214	240401	STORAGE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	360	12		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41
215	240402	CLASSROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532	45	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
216	240403	CLASSROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Woodbridge High School	FACILITY SQ. FT. 204,206	DATE OF AUDIT: 2/27/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.150	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
217	240404	CLASSROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
218	240405	CLASSROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
219	240406	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$68	$0	$58
220	240407	JC	Incandescent Drum Fixture w/ (2) 60w Incandescent Lamps	1	120	120	1,500	180		Relamp w/ (2) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	28				28	1,500	42	42	92	92	0	138	0	$21	$33	$0	$33
221	240408	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$68	$0	$58
222	240409	STAIRS	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	6	32	192	2,610	501	20	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	6	22				132	2,610	345	345	10	60	0	157	0	$23	$304	$0	$244
223	240410	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
224	240411	CLASSROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
225	240412	CLASSROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
226	240413	CLASSROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
227	240414	CLASSROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
228	240415	STAIRS	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	6	32	192	2,610	501		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	6	22				132	2,610	345	345	10	60	0	157	0	$23	$304	$0	$244
229	240416	CLASSROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
230	240417	CLASSROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
231	240418	CLASSROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
232	240419	CLASSROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
233	240420	CLASSROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
234	240421	CLASSROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
235	240422	CLASSROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
236	240423	CLASSROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
237	240424	STAIRS	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	6	32	192	2,610	501		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	6	22				132	2,610	345	345	10	60	0	157	0	$23	$304	$0	$244
238	240425	STAIRS	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	6	32	192	2,610	501		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	6	22				132	2,610	345	345	10	60	0	157	0	$23	$304	$0	$244
239	240426	CORRIDOR	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	17	58	986	2,610	2,573	14	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	17	42				714	2,610	1,864	1,864	16	272	0	710	0	$106	$1,160	$0	$990
240	240426	CORRIDOR	Exit Sign w/ (2) 15W Incandescent Lamps	2	30	60	8,760	526		New LED Exit Sign w/ Battery backup	2	2				4	8,760	35	35	28	56	0	491	0	$74	$189	$0	$169
241	240426	CORRIDOR	Exit Sign w/ LED	1	2	2	8,760	18		None	1	2				2	8,760	18	18	0	0	0	0	0	$0	$0	$0	$0
242	240301	MEDIA CENTER	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	37	58	2,146	2,610	5,601	48	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	37	42				1,554	2,610	4,056	4,056	16	592	0	1,545	0	$232	$2,525	$0	$2,155
243	240301	MEDIA CENTER	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	2,610	167		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	2,610	115	115	10	20	0	52	0	$8	$101	$0	$81
244	240302	OFFICE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	2,070	132		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	2,070	91	91	10	20	0	41	0	$6	$101	$0	$81
245	240303	OFFICE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	2,070	132		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	2,070	91	91	10	20	0	41	0	$6	$101	$0	$81
246	240304	STAIRS	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	2,610	167		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	2,610	115	115	10	20	0	52	0	$8	$101	$0	$81
247	240304	STAIRS	Compact Fluorescent Circleline Drum Fixture w/ (1) FC8T9 & (1) FC12T9 Circleline Lamp and (1) Magnetic Ballast	2	47	94	2,610	245		None	2	47				94	2,610	245	245	0	0	0	0	0	$0	$0	$0	$0
248	240305	STUDIO	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	1,530	355		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42	306	Wall	1	168	1,224	257	206	16	64	306	98	51	$22	$273	$215	$448
249	240306	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	360	42		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117
250	240307	CORRIDOR	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,610	303	28	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,610	219	219	16	32	0	84	0	$13	$137	$0	$117
251	240307	CORRIDOR	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	2,610	84		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	2,610	57	57	10	10	0	26	0	$4	$51	$0	$41
252	240307	CORRIDOR	Exit Sign w/ LED	1	2	2	8,760	18		None	1	2				2	8,760	18	18	0	0	0	0	0	$0	$0	$0	$0

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Woodbridge High School	FACILITY SQ. FT. 204,206	DATE OF AUDIT: 2/27/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.150	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
253	240308	STORAGE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	360	12		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41
254	240309	CLASSROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
255	240310	CLASSROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
256	240311	CLASSROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
257	240312	CLASSROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
258	240313	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$68	$0	$58
259	240314	JC	Incandescent Drum Fixture w/ (2) 60w Incandescent Lamps	1	120	120	360	43		Relamp w/ (2) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	28				28	360	10	10	92	92	0	33	0	$5	$33	$0	$33
260	240315	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$68	$0	$58
261	240316	CLASSROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
262	240317	CLASSROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
263	240318	CLASSROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
264	240319	CLASSROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
265	240320	STORAGE	Incandescent Poker Hat Fixture w/ (1) 60w Incandescent Lamp	8	60	480	360	173		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	8	14				112	360	40	40	46	368	0	132	0	$20	$130	$0	$130
266	240321	CLASSROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	1,530	355	40	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42	306	Wall	1	168	1,224	257	206	16	64	306	98	51	$22	$273	$215	$448
267	240321	CLASSROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	1,530	98		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	1,530	67	67	10	20	0	31	0	$5	$101	$0	$81
268	240322	CLASSROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	1,530	355		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42	306	Wall	1	168	1,224	257	206	16	64	306	98	51	$22	$273	$215	$448
269	240322	CLASSROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	1,530	98		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	1,530	67	67	10	20	0	31	0	$5	$101	$0	$81
270	240323	CLASSROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	1,530	355		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42	306	Wall	1	168	1,224	257	206	16	64	306	98	51	$22	$273	$215	$448
271	240323	CLASSROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	1,530	98		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	1,530	67	67	10	20	0	31	0	$5	$101	$0	$81
272	240324	STORAGE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	360	12		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$1	$51	$0	$41
273	240325	CLASSROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	1,530	355		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42	306	Wall	1	168	1,224	257	206	16	64	306	98	51	$22	$273	$215	$448
274	240325	CLASSROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	1,530	98		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	1,530	67	67	10	20	0	31	0	$5	$101	$0	$81
275	240326	STAIRS	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,610	303		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,610	219	219	16	32	0	84	0	$13	$137	$0	$117
276	240326	STAIRS	2'x2' Troffer w/ (2) F17T8 Lamps & (1) Electronic Ballast, Surface Mounted	2	34	68	2,610	177	14	Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast	2	28				56	2,610	146	146	6	12	0	31	0	$5	$121	$0	$101
277	240326	STAIRS	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	2,610	157		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	2,610	37	37	46	46	0	120	0	$18	$16	$0	$16
278	240327	REST ROOM	4' Fixture w/ (1) FO32T8 Lamp (1) Electronic Ballast	3	32	96	2,610	251		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	2,610	172	172	10	30	0	78	0	$12	$152	$0	$122
279	240327	REST ROOM	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	2,610	157		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	2,610	37	37	46	46	0	120	0	$18	$16	$0	$16
280	240328	JC	Incandescent Poker Hat Fixture w/ (1) 60w Incandescent Lamp	1	60	60	1,500	90		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	1,500	21	21	46	46	0	69	0	$10	$16	$0	$16
281	240329	REST ROOM	4' Fixture w/ (1) FO32T8 Lamp (1) Electronic Ballast	3	32	96	2,610	251		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	2,610	172	172	10	30	0	78	0	$12	$152	$0	$122
282	240329	REST ROOM	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	2,610	157		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	2,610	37	37	46	46	0	120	0	$18	$16	$0	$16
283	240330	CLASSROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
284	240330	CLASSROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	1,530	98		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	1,530	67	67	10	20	0	31	0	$5	$101	$0	$81
285	240331	CLASSROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$45	$546	$215	$661
286	240331	CLASSROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	1,530	98		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	1,530	67	67	10	20	0	31	0	$5	$101	$0	$81
287	240332	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
288	240333	BREAK ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	1,530	177	39	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	306	Wall	1	84	1,224	129	103	16	32	306	49	26	$11	$137	$215	$331

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Woodbridge High School	FACILITY SQ. FT. 204,206	DATE OF AUDIT: 2/27/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.150	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
289	240333	BREAK ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	1,530	98		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	1,530	67	67	10	20	0	31	0	$5	$101	$0	$81
290	240334	CLASSROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532	48	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
291	240335	CLASSROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
292	240336	CLASSROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
293	240337	CLASSROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
294	240338	CLASSROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
295	240339	CLASSROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$34	$410	$215	$544
296	240340	BREAK ROOM	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	1,530	177	31	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	306	Wall	1	84	1,224	129	103	16	32	306	49	26	$11	$137	$215	$331
297	240340	BREAK ROOM ENTRANCE	Compact Fluorescent Circleline Drum Fixture w/ (1) FC8T9 & (1) FC12T9 Circleline Lamp and (1) Magnetic Ballast	1	47	47	2,610	123		None	1	47				47	2,610	123	123	0	0	0	0	0	$0	$0	$0	$0
298	240340	BREAK ROOM CLOSET	Compact Fluorescent Circleline Drum Fixture w/ (1) FC8T9 & (1) FC12T9 Circleline Lamp and (1) Magnetic Ballast	1	47	47	360	17		None	1	47				47	360	17	17	0	0	0	0	0	$0	$0	$0	$0
299	240341	REST ROOM	4' Fixture w/ (1) FO32T8 Lamp (1) Electronic Ballast	2	32	64	2,610	167		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	2,610	115	115	10	20	0	52	0	$8	$101	$0	$81
300	240341	REST ROOM	Compact Fluorescent Circleline Drum Fixture w/ (1) FC8T9 & (1) FC12T9 Circleline Lamp and (1) Magnetic Ballast	1	47	47	2,610	123		None	1	47				47	2,610	123	123	0	0	0	0	0	$0	$0	$0	$0
301	240342	BREAK ROOM	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	1,530	177		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	306	Wall	1	84	1,224	129	103	16	32	306	49	26	$11	$137	$215	$331
302	240342	BREAK ROOM	Compact Fluorescent Circleline Drum Fixture w/ (1) FC8T9 & (1) FC12T9 Circleline Lamp and (1) Magnetic Ballast	1	47	47	1,530	72		None	1	47				47	1,530	72	72	0	0	0	0	0	$0	$0	$0	$0
303	240342	BREAK ROOM	Compact Fluorescent Circleline Drum Fixture w/ (1) FC8T9 & (1) FC12T9 Circleline Lamp and (1) Magnetic Ballast	1	47	47	1,530	72		None	1	47				47	1,530	72	72	0	0	0	0	0	$0	$0	$0	$0
304	240343	REST ROOM	4' Fixture w/ (1) FO32T8 Lamp (1) Electronic Ballast	2	32	64	2,610	167		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	2,610	115	115	10	20	0	52	0	$8	$101	$0	$81
305	240343	REST ROOM	Compact Fluorescent Circleline Drum Fixture w/ (1) FC8T9 & (1) FC12T9 Circleline Lamp and (1) Magnetic Ballast	1	47	47	2,610	123		None	1	47				47	2,610	123	123	0	0	0	0	0	$0	$0	$0	$0
306	240344	CORRIDOR	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	17	58	986	2,610	2,573		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	17	42				714	2,610	1,864	1,864	16	272	0	710	0	$106	$1,160	$0	$990
307	240344	CORRIDOR	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	7	112	784	2,610	2,046		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	7	42				294	2,610	767	767	70	490	0	1,279	0	$192	$705	$0	$635
308	240345	STAIRS	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	6	32	192	2,610	501		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	6	22				132	2,610	345	345	10	60	0	157	0	$23	$304	$0	$244
				1,637		**140,382**		**305,334**			**1,637**				**104**	**97,440**		**201,072**	**191,168**		**42,942**	**35,982**	**104,263**	**9,904**	**$17,125**	**$152,975**	**$22,903**	**$154,323**

LIGHTING RETROFIT SUMMARY FOR:
John F. Kennedy High School
200 Washington Avenue, Iselin, NJ 08830

BUILDING INFORMATION		EXISTING FIXTURES				PROPOSED FIXTURES				SAVINGS						FINANCIAL					
BUILDING	SQ. FT.	PRE TOTAL FIXT. QTY	PRE TOTAL FIXT. WATTS	PRE ANNUAL KWH CONSUMPTION	PRE WATTS / SQ. FT	POST TOTAL FIXT. QTY	POST TOTAL FIXT. WATTS	POST ANNUAL KWH CONSUMPTION	POST WATTS / SQ. FT	WATTS SAVED	ANNUAL KWH SAVED	ANNUAL KWH SAVED WITH SENSORS	ANNUAL SAVINGS $ FIXT.	ANNUAL SAVINGS $ SENSORS	ANNUAL SAVINGS $ TOTAL	CO2 REDUCTION (TONS)	NJ Smart Start REBATE $	**FIXTURES** TOTAL (INSTALLED) COST $	**SENSORS** TOTAL (INSTALLED) COST $	**MATERIAL** TOTAL (INSTALLED) COST $	SIMPLE PAYBACK NET OF REBATE (YEARS)
John F. Kennedy High School	**172,250**	**1521**	**118,769**	**232,987**	**0.69**	**1,521**	**88,800**	**163,059**	**0.52**	**29,969**	**69,927**	**8,914**	**$9,440**	**$1,203**	**$10,644**	**23.1**	**$19,650**	**$106,053**	**$19,375**	**$125,429**	**9.9**

16%	**PERCENTAGE OF REBATES IN TOTAL INSTALLED COST**
70%	**PERCENTAGE OF CONSUMPTION COMPARE TO EXISTING STATE**
25%	**EXISTING PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**
18%	**PROPOSED PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: John F. Kennedy High School	FACILITY SQ. FT. 172,250	DATE OF AUDIT: 2/21/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES										ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.135	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
1	110201	CLASSROOM 246	2'x4' Troffer w/ (3) FO32T8 Lamps & (2) Electronic Ballasts Dual Switched	9	92	828	1,530	1,267	75	Relamp & Reballast w/ (3) F28T8 (1) 2/32 Elec. LP & (1) 1/32 Elec. Low-Power High Efficiency Ballasts Dual Switched	9	64	306	Wall	1	576	1,224	881	705	28	252	306	386	176	$76	$0	$215	$105
2	110202	CLASSROOM 245	2'x4' Troffer w/ (3) FO32T8 Lamps & (2) Electronic Ballasts Dual Switched	6	92	552	1,530	845	66	Relamp & Reballast w/ (3) F28T8 (1) 2/32 Elec. LP & (1) 1/32 Elec. Low-Power High Efficiency Ballasts Dual Switched	6	64	306	Wall	1	384	1,224	588	470	28	168	306	257	118	$51	$0	$215	$135
3	110203	CLASSROOM 244	2'x4' Troffer w/ (3) FO32T8 Lamps & (2) Electronic Ballasts Dual Switched	6	92	552	1,530	845	64	Relamp & Reballast w/ (3) F28T8 (1) 2/32 Elec. LP & (1) 1/32 Elec. Low-Power High Efficiency Ballasts Dual Switched	6	64	306	Wall	1	384	1,224	588	470	28	168	306	257	118	$51	$0	$215	$135
4	110204	CLASSROOM 243	2'x4' Troffer w/ (3) FO32T8 Lamps & (2) Electronic Ballasts Dual Switched	9	92	828	1,530	1,267	72	Relamp & Reballast w/ (3) F28T8 (1) 2/32 Elec. LP & (1) 1/32 Elec. Low-Power High Efficiency Ballasts Dual Switched	9	64	306	Wall	1	576	1,224	881	705	28	252	306	386	176	$76	$0	$215	$105
5	110205	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	360	167		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42				336	360	121	121	16	128	0	46	0	$6	$546	$0	$466
6	110205	CORRIDOR	Exit Sign w/ LED	3	2	6	8,760	53		None	3	2				6	8,760	53	53	0	0	0	0	0	$0	$0	$0	$0
7	110205	CORRIDOR	Downlight Fixture w/ (1) 42W QUAD CFL & Electronic Ballast	3	43	129	2,610	337		None	3	43				129	2,610	337	337	0	0	0	0	0	$0	$0	$0	$0
8	110206	STORAGE	No Access. Area inaccessible during audit.	1	0	0	360	0		None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
9	110207	STORAGE	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
10	110208	CLASSROOM 242	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$30	$410	$215	$544
11	110208	CLASSROOM 242	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$6	$152	$0	$122
12	110209	CLASSROOM 240	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$30	$410	$215	$544
13	110209	CLASSROOM 240	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$6	$152	$0	$122
14	110210	CLASSROOM 238	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$30	$410	$215	$544
15	110210	CLASSROOM 238	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$6	$152	$0	$122
16	110211	CLASSROOM 236	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$30	$410	$215	$544
17	110211	CLASSROOM 236	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$6	$152	$0	$122
18	110212	STORAGE	No Access. Area inaccessible during audit.	1	0	0	360	0		None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
19	110213	OFFICE	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240	36	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,070	174	174	16	32	0	66	0	$9	$137	$0	$117
20	110214	OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,070	174	174	16	32	0	66	0	$9	$137	$0	$117
21	110214	ENGLISH OFFICE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
22	110215	STORAGE	No Access. Area inaccessible during audit.	1	0	0	360	0		None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
23	110216	CLASSROOM 234	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$30	$410	$215	$544
24	110216	CLASSROOM 234	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$6	$152	$0	$122
25	110217	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,610	454	29	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	522	Ceiling	1	126	2,088	329	263	16	48	522	125	66	$26	$205	$363	$538
26	110218	CLASSROOM 232	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$30	$410	$215	$544
27	110218	CLASSROOM 232	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$6	$152	$0	$122
28	110219	CUSTODIAN	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	1,500	90		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	1,500	21	21	46	46	0	69	0	$9	$16	$0	$16
29	110220	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,610	454		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	522	Ceiling	1	126	2,088	329	263	16	48	522	125	66	$26	$205	$363	$538
30	110221	CLASSROOM 230	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$30	$410	$215	$544
31	110221	CLASSROOM 230	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$6	$152	$0	$122
32	110222	CLASSROOM 229	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$30	$410	$215	$544
33	110222	CLASSROOM 229	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$6	$152	$0	$122
34	110223	CLASSROOM 228	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$30	$410	$215	$544
35	110223	CLASSROOM 228	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$6	$152	$0	$122
36	110224	CLASSROOM 227	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$30	$410	$215	$544

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: John F. Kennedy High School	FACILITY SQ. FT. 172,250	DATE OF AUDIT: 2/21/2013

SPACE DESCRIPTION			EXISTING FIXTURES						REPLACEMENT FIXTURES								ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.135	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
37	110224	CLASSROOM 227	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$6	$152	$0	$122
38	110225	CLASSROOM 226	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$30	$410	$215	$544
39	110225	CLASSROOM 226	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$6	$152	$0	$122
40	110226	CLASSROOM 225	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532	47	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$30	$410	$215	$544
41	110226	CLASSROOM 225	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$6	$152	$0	$122
42	110228	OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,070	360		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	2,070	261	261	16	48	0	99	0	$13	$205	$0	$175
43	110229	STORAGE	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	3	112	336	360	121		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	3	42				126	360	45	45	70	210	0	76	0	$10	$302	$0	$272
44	110227	CLASSROOM 224	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$30	$410	$215	$544
45	110227	CLASSROOM 224	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$6	$152	$0	$122
46	110230	S-22	No Access. Area inaccessible during audit.	1	0	0	360	0		None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
47	110231	CLASSROOM 222	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$30	$410	$215	$544
48	110231	CLASSROOM 222	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$6	$152	$0	$122
49	110232	S-21	No Access. Area inaccessible during audit.	1	0	0	360	0		None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
50	110233	FACULTY WOMEN	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
51	110234	FACULTY MEN	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
52	110235	CLASSROOM 220	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$30	$410	$215	$544
53	110235	CLASSROOM 220	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	4	32	128	1,530	196		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	4	22				88	1,530	135	135	10	40	0	61	0	$8	$203	$0	$163
54	110236	OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,070	120		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,070	87	87	16	16	0	33	0	$4	$68	$0	$58
55	110237	OFFICE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	2,070	66		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	2,070	46	46	10	10	0	21	0	$3	$51	$0	$41
56	110238	CLASSROOM 218	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$40	$546	$215	$661
57	110238	CLASSROOM 218	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	4	32	128	1,530	196		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	4	22				88	1,530	135	135	10	40	0	61	0	$8	$203	$0	$163
58	110239	CLASSROOM 216	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$40	$546	$215	$661
59	110239	CLASSROOM 216	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	4	32	128	1,530	196		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	4	22				88	1,530	135	135	10	40	0	61	0	$8	$203	$0	$163
60	110240	CLASSROOM 214	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$40	$546	$215	$661
61	110240	CLASSROOM 214	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	4	32	128	1,530	196		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	4	22				88	1,530	135	135	10	40	0	61	0	$8	$203	$0	$163
62	110241	STORAGE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
63	110242	OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,070	174	174	16	32	0	66	0	$9	$137	$0	$117
64	110243	CLASSROOM 212	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$30	$410	$215	$544
65	110243	CLASSROOM 212	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$6	$152	$0	$122
66	110244	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,610	454		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	522	Ceiling	1	126	2,088	329	263	16	48	522	125	66	$26	$205	$363	$538
67	110245	JC	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast	1	58	58	1,500	87		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast 2'x2' Silver Reflector Kit	1	28				28	1,500	42	42	30	30	0	45	0	$6	$72	$0	$62
68	110245	JC	Incandescent Vapor Proof Fixture w/ (1) 60w Incandescent Lamp	1	60	60	1,500	90		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	1,500	21	21	46	46	0	69	0	$9	$16	$0	$16
69	110246	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,610	454		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	522	Ceiling	1	126	2,088	329	263	16	48	522	125	66	$26	$205	$363	$538
70	110247	CLASSROOM 210	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$30	$410	$215	$544
71	110247	CLASSROOM 210	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$6	$152	$0	$122
72	110248	CLASSROOM 208	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$30	$410	$215	$544

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: John F. Kennedy High School	FACILITY SQ. FT. 172,250	DATE OF AUDIT: 2/21/2013

SPACE DESCRIPTION			EXISTING FIXTURES						REPLACEMENT FIXTURES								ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.135	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
73	110248	CLASSROOM 208	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$6	$152	$0	$122
74	110249	CLASSROOM 207	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$30	$410	$215	$544
75	110249	CLASSROOM 207	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$6	$152	$0	$122
76	110250	CLASSROOM 206	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$30	$410	$215	$544
77	110250	CLASSROOM 206	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$6	$152	$0	$122
78	110251	CLASSROOM 205	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$30	$410	$215	$544
79	110251	CLASSROOM 205	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$6	$152	$0	$122
80	110252	CLASSROOM 204	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$30	$410	$215	$544
81	110252	CLASSROOM 204	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$6	$152	$0	$122
82	110253	CLASSROOM 203	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$30	$410	$215	$544
83	110253	CLASSROOM 203	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$6	$152	$0	$122
84	110254	CLASSROOM 202	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$30	$410	$215	$544
85	110254	CLASSROOM 202	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$6	$152	$0	$122
86	110255	CLASSROOM 201	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$30	$410	$215	$544
87	110255	CLASSROOM 201	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$6	$152	$0	$122
88	110256	CLASSROOM 200	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$30	$410	$215	$544
89	110256	CLASSROOM 200	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$6	$152	$0	$122
90	110257	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	56	58	3,248	2,610	8,477		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	56	42				2,352	2,610	6,139	6,139	16	896	0	2,339	0	$316	$3,822	$0	$3,262
91	110257	CORRIDOR	Exit Sign w/ LED	9	2	18	8,760	158		None	9	2				18	8,760	158	158	0	0	0	0	0	$0	$0	$0	$0
92	110259	STAIRS D	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,610	454		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	2,610	329	329	16	48	0	125	0	$17	$205	$0	$175
93	110260	STAIRS C	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,610	454		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	2,610	329	329	16	48	0	125	0	$17	$205	$0	$175
94	110260	STAIRS D	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	2,610	251		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	2,610	172	172	10	30	0	78	0	$11	$152	$0	$122
95	110261	STAIRS B	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,610	454		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	2,610	329	329	16	48	0	125	0	$17	$205	$0	$175
96	110258	STAIRS A	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	4	88	352	2,610	919		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	4	42				168	2,610	438	438	46	184	0	480	0	$65	$403	$0	$363
97	110101	KITCHEN	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	52	58	3,016	1,500	4,524		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	52	42				2,184	1,500	3,276	3,276	16	832	0	1,248	0	$168	$3,549	$0	$3,029
98	110101	KITCHEN	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,500	48		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,500	33	33	10	10	0	15	0	$2	$51	$0	$41
99	110101	KITCHEN	Incandescent Poker Hat Fixture w/ (1) 75w Incandescent Lamp	7	75	525	1,500	788		Relamp w/ (1) 19 watt Compact Fluorescent Screw-In	7	19				133	1,500	200	200	56	392	0	588	0	$79	$0	$0	$0
100	110102	KITCHEN REST ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
101	110103	KITCHEN OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	1,500	87		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	1,500	63	63	16	16	0	24	0	$3	$68	$0	$58
102	110104	FACULTY DINING	No Access. Area inaccessible during audit.	1	0	0	1,500	0		None	1	0				0	1,500	0	0	0	0	0	0	0	$0	$0	$0	$0
103	110105	DISHWASHING	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,500	522		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42				252	1,500	378	378	16	96	0	144	0	$19	$410	$0	$350
104	110106	STORAGE	No Access. Area inaccessible during audit.	1	0	0	360	0		None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
105	110107	STORAGE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
106	110108	CAFETERIA	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	52	58	3,016	2,610	7,872		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	52	42				2,184	2,610	5,700	5,700	16	832	0	2,172	0	$293	$3,549	$0	$3,029
107	110109	TRANSFORMER	No Access. Area inaccessible during audit.	1	0	0	360	0		None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
108	110110	CLASSROOM 100	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$40	$546	$215	$661

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: John F. Kennedy High School	FACILITY SQ. FT. 172,250	DATE OF AUDIT: 2/21/2013

SPACE DESCRIPTION			EXISTING FIXTURES						REPLACEMENT FIXTURES								ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.135	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
109	110110	CLASSROOM 100	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	1,530	98		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	1,530	67	67	10	20	0	31	0	$4	$101	$0	$81
110	110111	LAUNDRY	No Access. Area inaccessible during audit.	1	0	0	360	0		None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
111	110112	STORAGE	No Access. Area inaccessible during audit.	1	0	0	360	0		None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
112	110113	CLASSROOM 112	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$45	$614	$215	$719
113	110113	CLASSROOM 112	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$6	$152	$0	$122
114	110114	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	10	58	580	2,610	1,514		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	10	42				420	2,610	1,096	1,096	16	160	0	418	0	$56	$683	$0	$583
115	110114	CORRIDOR	Exit Sign w/ LED	2	2	4	8,760	35		None	2	2				4	8,760	35	35	0	0	0	0	0	$0	$0	$0	$0
116	110115	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	2,610	606		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	2,610	438	438	16	64	0	167	0	$23	$273	$0	$233
117	110115	CORRIDOR	Exit Sign w/ LED	1	2	2	8,760	18		None	1	2				2	8,760	18	18	0	0	0	0	0	$0	$0	$0	$0
118	110116	CLASSROOM 105	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	1,530	177		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	306	Wall	1	84	1,224	129	103	16	32	306	49	26	$10	$137	$215	$331
119	110116	CLASSROOM 105	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	1,530	98		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	1,530	67	67	10	20	0	31	0	$4	$101	$0	$81
120	110117	S-3	No Access. Area inaccessible during audit.	1	0	0	360	0		None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
121	110118	CLASSROOM 108	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$45	$614	$215	$719
122	110119	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,610	454		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	522	Ceiling	1	126	2,088	329	263	16	48	522	125	66	$26	$205	$363	$538
123	110120	TRANSFORMER	Compact Fluorescent Circleline Drum Fixture w/ (1) FC8T9 & (1) FC12T9 Circleline Lamp and (1) Magnetic Ballast	1	47	47	360	17		None	1	47				47	360	17	17	0	0	0	0	0	$0	$0	$0	$0
124	110121	JC	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast	1	58	58	1,500	87		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast 2'x2' Silver Reflector Kit	1	28				28	1,500	42	42	30	30	0	45	0	$6	$72	$0	$62
125	110122	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,610	454		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	522	Ceiling	1	126	2,088	329	263	16	48	522	125	66	$26	$205	$363	$538
126	110123	CLASSROOM 106	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	1,530	1,065		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42	306	Wall	1	504	1,224	771	617	16	192	306	294	154	$60	$819	$215	$894
127	110124	CLASSROOM 103	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$30	$410	$215	$544
128	110124	CLASSROOM 103	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$6	$152	$0	$122
129	110125	CLASSROOM 104	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$45	$614	$215	$719
130	110125	CLASSROOM 104	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$6	$152	$0	$122
131	110126	BUSINESS ED	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$10	$205	$0	$175
132	110127	OFFICE	No Access. Area inaccessible during audit.	1	0	0	2,070	0		None	1	0				0	2,070	0	0	0	0	0	0	0	$0	$0	$0	$0
133	110128	S-1	No Access. Area inaccessible during audit.	1	0	0	360	0		None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
134	110129	FACULTY ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$45	$614	$215	$719
135	110130	SPECIAL ED	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	1,530	177		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	1,530	129	129	16	32	0	49	0	$7	$137	$0	$117
136	110130	SPECIAL ED	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
137	110131	CLASSROOM 102	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	1,530	1,065		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42	306	Wall	1	504	1,224	771	617	16	192	306	294	154	$60	$819	$215	$894
138	110131	CLASSROOM 102	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	4	32	128	1,530	196		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	4	22				88	1,530	135	135	10	40	0	61	0	$8	$203	$0	$163
139	110132	STORAGE	No Access. Area inaccessible during audit.	1	0	0	360	0		None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
140	110133	FACULTY MEN	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	360	63		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	360	45	45	16	48	0	17	0	$2	$205	$0	$175
141	110134	PANEL	No Access. Area inaccessible during audit.	1	0	0	360	0		None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
142	110135	FACULTY WOMEN	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	360	63		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	360	45	45	16	48	0	17	0	$2	$205	$0	$175
143	110136	CLASSROOM 101	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	1,530	1,065		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42	306	Wall	1	504	1,224	771	617	16	192	306	294	154	$60	$819	$215	$894
144	110137	CLASSROOM 115	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	1,530	1,065		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42	306	Wall	1	504	1,224	771	617	16	192	306	294	154	$60	$819	$215	$894

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: John F. Kennedy High School	FACILITY SQ. FT. 172,250	DATE OF AUDIT: 2/21/2013

SPACE DESCRIPTION			EXISTING FIXTURES						REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.135	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
145	110138	CLASSROOM 113	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	1,530	1,065		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42	306	Wall	1	504	1,224	771	617	16	192	306	294	154	$60	$819	$215	$894
146	110140	CLASSROOM 111	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	15	58	870	1,530	1,331		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	15	42	306	Wall	1	630	1,224	964	771	16	240	306	367	193	$76	$1,024	$215	$1,068
147	110139	STORAGE	No Access. Area inaccessible during audit.	1	0	0	360	0		None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
148	110141	CLASSROOM 120	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	1,530	1,065		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42	306	Wall	1	504	1,224	771	617	16	192	306	294	154	$60	$819	$215	$894
149	110141	CLASSROOM 120	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$6	$152	$0	$122
150	110142	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,610	454		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	522	Ceiling	1	126	2,088	329	263	16	48	522	125	66	$26	$205	$363	$538
151	110143	TRANSFORMER	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	360	22		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	360	5	5	46	46	0	17	0	$2	$16	$0	$16
152	110145	JC	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast	1	58	58	1,500	87		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast 2'x2' Silver Reflector Kit	1	28				28	1,500	42	42	30	30	0	45	0	$6	$72	$0	$62
153	110144	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,610	454		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	522	Ceiling	1	126	2,088	329	263	16	48	522	125	66	$26	$205	$363	$538
154	110146	CLASSROOM 109	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	18	58	1,044	1,530	1,597		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	18	42	306	Wall	1	756	1,224	1,157	925	16	288	306	441	231	$91	$1,229	$215	$1,243
155	110146	CLASSROOM 109	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41
156	110147	LAB	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	360	63		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	360	45	45	16	48	0	17	0	$2	$205	$0	$175
157	110148	CLASSROOM 107	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$45	$614	$215	$719
158	110149	SCIENCE OFFICE	No Access. Area inaccessible during audit.	1	0	0	1,530	0		None	1	0				0	1,530	0	0	0	0	0	0	0	$0	$0	$0	$0
159	110152	CLASSROOM 116	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$45	$614	$215	$719
160	110152	CLASSROOM 116	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$6	$152	$0	$122
161	110150	STORAGE	No Access. Area inaccessible during audit.	1	0	0	360	0		None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
162	110151	CLASSROOM 118	2'x4' Troffer w/ (3) FO32T8 Lamps & (2) Electronic Ballasts Dual Switched, Surface Mounted	13	92	1,196	1,530	1,830		Relamp & Reballast w/ (3) F28T8 (1) 2/32 Elec. LP & (1) 1/32 Elec. Low-Power High Efficiency Ballasts Dual Switched	13	64	306	Wall	1	832	1,224	1,273	1,018	28	364	306	557	255	$110	$0	$215	$65
163	110153	LAB	No Access. Area inaccessible during audit.	1	0	0	1,530	0		None	1	0				0	1,530	0	0	0	0	0	0	0	$0	$0	$0	$0
164	110154	CLASSROOM 114	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$30	$410	$215	$544
165	110154	CLASSROOM 114	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$6	$152	$0	$122
166	110155	MEDIA CENTER	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	27	58	1,566	2,610	4,087		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	27	42				1,134	2,610	2,960	2,960	16	432	0	1,128	0	$152	$1,843	$0	$1,573
167	110155	MEDIA CENTER	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	5	32	160	2,610	418		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	5	22				110	2,610	287	287	10	50	0	131	0	$18	$254	$0	$204
168	110156	TRANSFORMER	No Access. Area inaccessible during audit.	1	0	0	360	0		None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
169	110157	CLASSROOM 107	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$30	$410	$215	$544
170	110158	SCHOOL STORE	No Access. Area inaccessible during audit.	1	0	0	360	0		None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
171	110159	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	65	58	3,770	2,610	9,840		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	65	42				2,730	2,610	7,125	7,125	16	1,040	0	2,714	0	$366	$4,436	$0	$3,786
172	110159	CORRIDOR	Exit Sign w/ LED	8	2	16	8,760	140		None	8	2				16	8,760	140	140	0	0	0	0	0	$0	$0	$0	$0
173	110159	CORRIDOR	Downlight Fixture w/ (1) 42W QUAD CFL & Electronic Ballast	4	43	172	2,610	449		None	4	43				172	2,610	449	449	0	0	0	0	0	$0	$0	$0	$0
174	110160	STAIRS B	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$68	$0	$58
175	110160	STAIRS B	Exit Sign w/ LED	1	2	2	8,760	18		None	1	2				2	8,760	18	18	0	0	0	0	0	$0	$0	$0	$0
176	110161	STAIRS A	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	4	88	352	2,610	919		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	4	42				168	2,610	438	438	46	184	0	480	0	$65	$403	$0	$363
177	110162	STAIRS D	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$68	$0	$58
178	110162	STAIRS D	Exit Sign w/ LED	1	2	2	8,760	18		None	1	2				2	8,760	18	18	0	0	0	0	0	$0	$0	$0	$0
179	110163	STAIRS C	Exit Sign w/ LED	1	2	2	8,760	18		None	1	2				2	8,760	18	18	0	0	0	0	0	$0	$0	$0	$0
180	110163	STAIRS C	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$68	$0	$58

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: John F. Kennedy High School	FACILITY SQ. FT. 172,250	DATE OF AUDIT: 2/21/2013

SPACE DESCRIPTION			EXISTING FIXTURES						REPLACEMENT FIXTURES								ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.135	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
181	110163	STAIRS C	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	2,610	84		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	2,610	57	57	10	10	0	26	0	$4	$51	$0	$41
182	110164	CLASSROOM 125	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast, Microlouver Lens	21	58	1,218	1,530	1,864		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	21	42	306	Wall	1	882	1,224	1,349	1,080	16	336	306	514	270	$106	$1,433	$215	$1,418
183	110165	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$68	$0	$58
184	110166	STORAGE	No Access. Area inaccessible during audit.	1	0	0	360	0		None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
185	110167	STORAGE	No Access. Area inaccessible during audit.	1	0	0	360	0		None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
186	110168	CLASSROOM 128	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast, Microlouver Lens	31	58	1,798	1,530	2,751		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	31	42	306	Wall	1	1,302	1,224	1,992	1,594	16	496	306	759	398	$156	$2,116	$215	$2,000
187	110169	CLASSROOM 130	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	15	58	870	1,530	1,331		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	15	42	306	Wall	1	630	1,224	964	771	16	240	306	367	193	$76	$1,024	$215	$1,068
188	110170	WOODSHOP 132	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	15	112	1,680	1,530	2,570		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	15	84				1,260	1,530	1,928	1,928	28	420	0	643	0	$87	$1,258	$0	$1,108
189	110170	WOODSHOP 132	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	5	58	290	1,530	444		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	5	42				210	1,530	321	321	16	80	0	122	0	$17	$341	$0	$291
190	110171	PAINT	Incandescent Fixture w/ (1) 60w Incandescent Lamp	2	60	120	1,530	184		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	2	14				28	1,530	43	43	46	92	0	141	0	$19	$33	$0	$33
191	110172	STORAGE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	360	63		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	360	45	45	16	48	0	17	0	$2	$205	$0	$175
192	110173	CLASSROOM 134	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	19	112	2,128	1,530	3,256		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	19	84	306	Wall	1	1,596	1,224	2,442	1,954	28	532	306	814	488	$176	$1,593	$215	$1,598
193	110173	CLASSROOM 134	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42				252	1,530	386	386	16	96	0	147	0	$20	$410	$0	$350
194	110174	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,610	454		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	522	Ceiling	1	126	2,088	329	263	16	48	522	125	66	$26	$205	$363	$538
195	110175	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,610	454		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	522	Ceiling	1	126	2,088	329	263	16	48	522	125	66	$26	$205	$363	$538
196	110176	AUDITORIUM	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast	2	58	116	1,530	177		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast 2'x2' Silver Reflector Kit	2	28				56	1,530	86	86	30	60	0	92	0	$12	$143	$0	$123
197	110176	AUDITORIUM	Incandescent Fixture w/ (1) 250w Incandescent R40 Lamp	51	250	12,750	1,530	19,508		None	51	250				12,750	1,530	19,508	19,508	0	0	0	0	0	$0	$0	$0	$0
198	110177	S-11	No Access. Area inaccessible during audit.	1	0	0	360	0		None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
199	110178	S-10	No Access. Area inaccessible during audit.	1	0	0	360	0		None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
200	110178	BOYS LOCKER ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	24	58	1,392	2,310	3,216		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	24	42				1,008	2,310	2,328	2,328	16	384	0	887	0	$120	$1,638	$0	$1,398
201	110178	BOYS LOCKER ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	5	32	160	2,310	370		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	5	22				110	2,310	254	254	10	50	0	116	0	$16	$254	$0	$204
202	110178	BOYS LOCKER ROOM	Incandescent Fixture w/ (1) 60w Incandescent Lamp	6	60	360	2,310	832		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	6	14				84	2,310	194	194	46	276	0	638	0	$86	$98	$0	$98
203	110179	TEAM ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	2,310	1,072		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42				336	2,310	776	776	16	128	0	296	0	$40	$546	$0	$466
204	110180	AUXILIARY GYM	HID High Bay Fixture w/ (1) 400w Metal Halide Lamp & Ballast	18	455	8,190	2,310	18,919		New 2'x4' Singlepoint-Mount High Bay w/ (6) F54T5HO Lamps & (3) 2/54 T5 Elec. HO Ballasts Wire Guard Occupancy Sensor	18	351				6,318	2,310	14,595	14,595	104	1,872	0	4,324	0	$584	$7,055	$0	$5,255
205	110180	AUXILIARY GYM	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	4	112	448	2,310	1,035		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	4	84				336	2,310	776	776	28	112	0	259	0	$35	$335	$0	$295
206	110180	AUXILIARY GYM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,310	268		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,310	194	194	16	32	0	74	0	$10	$137	$0	$117
207	110181	AD OFFICE	No Access. Area inaccessible during audit.	1	0	0	1,530	0		None	1	0				0	1,530	0	0	0	0	0	0	0	$0	$0	$0	$0
208	110182	STORAGE	No Access. Area inaccessible during audit.	1	0	0	360	0		None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
209	110183	GYM	HID High Bay Fixture w/ (1) 400w Metal Halide Lamp & Ballast	36	455	16,380	2,310	37,838		New 2'x4' Singlepoint-Mount High Bay w/ (6) F54T5HO Lamps & (3) 2/54 T5 Elec. HO Ballasts Wire Guard Occupancy Sensor	36	351				12,636	2,310	29,189	29,189	104	3,744	0	8,649	0	$1,168	$14,110	$0	$10,510
210	110183	GYM STORAGE	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	360	42		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117
211	110184	JC	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	5	58	290	1,500	435		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	5	42				210	1,500	315	315	16	80	0	120	0	$16	$341	$0	$291
212	110185	STORAGE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	360	12		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$0	$51	$0	$41
213	110185	STORAGE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
214	110186	BOILER ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	7	58	406	2,610	1,060		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	7	42				294	2,610	767	767	16	112	0	292	0	$39	$478	$0	$408
215	110186	BOILER ROOM	Incandescent Poker Hat Fixture w/ (1) 60w Incandescent Lamp	2	60	120	2,610	313		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	2	14				28	2,610	73	73	46	92	0	240	0	$32	$33	$0	$33
216	110187	TRANSFORMER	No Access. Area inaccessible during audit.	1	0	0	360	0		None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: John F. Kennedy High School	FACILITY SQ. FT. 172,250	DATE OF AUDIT: 2/21/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.135	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
217	110188	CUSTODIAN ROOM	4' Strip Fluorescent w/ (1) F40T12/34w Lamp & (1) Energy Efficient Magnetic Ballast	1	42	42	2,070	87		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	2,070	46	46	20	20	0	41	0	$6	$51	$0	$41
218	110188	CUSTODIAN ROOM	Compact Fluorescent Circleline Drum Fixture w/ (1) FC8T9 & (1) FC12T9 Circleline Lamp and (1) Magnetic Ballast	1	47	47	2,070	97		None	1	47				47	2,070	97	97	0	0	0	0	0	$0	$0	$0	$0
219	110197	GIRLS LOCKER ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	14	58	812	2,310	1,876		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	14	42				588	2,310	1,358	1,358	16	224	0	517	0	$70	$956	$0	$816
220	110197	GIRLS LOCKER ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	7	32	224	2,310	517		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	7	22				154	2,310	356	356	10	70	0	162	0	$22	$355	$0	$285
221	110197	GIRLS LOCKER ROOM	4' Strip Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	2,310	74		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	2,310	51	51	10	10	0	23	0	$3	$51	$0	$41
222	110197	GIRLS LOCKER ROOM	Incandescent Fixture w/ (1) 60w Incandescent Lamp	8	60	480	2,310	1,109		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	8	14				112	2,310	259	259	46	368	0	850	0	$115	$130	$0	$130
223	110197	GIRLS LOCKER ROOM	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	2	112	224	2,310	517		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84				168	2,310	388	388	28	56	0	129	0	$17	$168	$0	$148
224	110189	OFFICE	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	4	112	448	2,070	927		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	4	42	724.5	Wall	1	168	1,346	348	226	70	280	725	580	122	$95	$403	$215	$578
225	110190	HEALTH	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$40	$546	$215	$661
226	110190	HEALTH	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	4	32	128	1,530	196		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	4	22				88	1,530	135	135	10	40	0	61	0	$8	$203	$0	$163
227	110191	CLASSROOM 122	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$45	$614	$215	$719
228	110192	CLASSROOM 124	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$45	$614	$215	$719
229	110193	BOYS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,610	454		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	522	Ceiling	1	126	2,088	329	263	16	48	522	125	66	$26	$205	$363	$538
230	110193	JC	No Access. Area inaccessible during audit.	1	0	0	1,500	0		None	1	0				0	1,500	0	0	0	0	0	0	0	$0	$0	$0	$0
231	110193	S-9	No Access. Area inaccessible during audit.	1	0	0	360	0		None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
232	110194	GIRLS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,610	454		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	522	Ceiling	1	126	2,088	329	263	16	48	522	125	66	$26	$205	$363	$538
233	110198	MAIN OFFICE	2'x4' Parabolic Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	16	88	1,408	2,070	2,915		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	16	63	724.5	Wall	8	1,008	1,346	2,087	1,356	25	400	725	828	730	$210	$1,217	$1,716	$2,613
234	110198	MAIN OFFICE	2'x4' Parabolic Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	35	88	3,080	2,070	6,376		Relamp & Reballast w/ (3) F28T8 Lamps & (1) 3/32 Elec. Low-Power High Efficiency Ballast	35	63				2,205	2,070	4,564	4,564	25	875	0	1,811	0	$245	$2,662	$0	$2,312
235	110198	CONFERENCE	8' Uplight/Downlight Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,070	120		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42	724.5	Wall	1	42	1,346	87	57	16	16	725	33	30	$9	$68	$215	$273
236	110198	CONFERENCE	Downlight Fixture w/ (1) 42W QUAD CFL & Electronic Ballast	8	43	344	2,070	712		None	8	43				344	2,070	712	712	0	0	0	0	0	$0	$0	$0	$0
237	110198	MAIN OFFICE	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast, Surface Mounted	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,070	174	174	16	32	0	66	0	$9	$137	$0	$117
238	110196	CLASSROOM 117	2'x4' Troffer w/ (3) FO32T8 Lamps & (2) Electronic Ballasts Dual Switched	15	92	1,380	1,530	2,111		Relamp & Reballast w/ (3) F28T8 (1) 2/32 Elec. LP & (1) 1/32 Elec. Low-Power High Efficiency Ballasts Dual Switched	15	64				960	1,530	1,469	1,469	28	420	0	643	0	$87	$0	$0	-$150
239	110196	MECHANICAL	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
240	110199	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	71	58	4,118	2,610	10,748		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	71	42				2,982	2,610	7,783	7,783	16	1,136	0	2,965	0	$400	$4,846	$0	$4,136
241	110199	CORRIDOR	Exit Sign w/ LED	9	2	18	8,760	158		None	9	2				18	8,760	158	158	0	0	0	0	0	$0	$0	$0	$0
242	110199	CORRIDOR	Downlight Fixture w/ (1) 42W QUAD CFL & Electronic Ballast	3	43	129	2,610	337		None	3	43				129	2,610	337	337	0	0	0	0	0	$0	$0	$0	$0
243	1101100	VESTIBULE	Compact Fluorescent Fixture w/ (1) 42w Lamp and (1) Electronic Ballast	4	45	180	2,610	470		None	4	45				180	2,610	470	470	0	0	0	0	0	$0	$0	$0	$0
244	11EXT	EXTERIOR	HID Wall Pack Fixture w/ (1) 175w Metal Halide Lamp & Ballast	3	210	630	4,745	2,989		LED (1) New 56w Wall Pack Fixture	3	56				168	4,745	797	797	154	462	0	2,192	0	$296	$1,326	$0	$1,326
245	11EXT	EXTERIOR	LED Wall Pack Fixture w/ (1) 56w LED array and (1) LED Electronic Driver	3	56	168	4,745	797		None	3	56				168	4,745	797	797	0	0	0	0	0	$0	$0	$0	$0
246	11EXT	EXTERIOR	HID Fixture w/ (2) 100w Metal Halide Lamp & Ballast	2	240	480	4,745	2,278		Relamp w/ (2) 17/18W LED PAR38 Screw-In Lamps, Outdoor Rated, Dimmable, Rewire Existing HID fixtre	2	18				36	4,745	171	171	222	444	0	2,107	0	$284	$176	$0	$176
				1,521		**118,769**		**232,987**			**1,521**				**82**	**88,800**		**171,973**	**163,059**		**29,969**	**26,798**	**61,013**	**8,914**	**$9,440**	**$106,053**	**$19,375**	**$105,779**

LIGHTING RETROFIT SUMMARY FOR:
Colonia High School
180 East Street, Colonia, NJ 07067

BUILDING INFORMATION		EXISTING FIXTURES				PROPOSED FIXTURES				SAVINGS						FINANCIAL					
BUILDING	SQ. FT.	PRE TOTAL FIXT. QTY	PRE TOTAL FIXT. WATTS	PRE ANNUAL KWH CONSUMPTION	PRE WATTS / SQ. FT	POST TOTAL FIXT. QTY	POST TOTAL FIXT. WATTS	POST ANNUAL KWH CONSUMPTION	POST WATTS / SQ. FT	WATTS SAVED	ANNUAL KWH SAVED	ANNUAL KWH SAVED WITH SENSORS	ANNUAL SAVINGS $ FIXT.	ANNUAL SAVINGS $ SENSORS	ANNUAL SAVINGS $ TOTAL	CO2 REDUCTION (TONS)	NJ Smart Start REBATE $	**FIXTURES** TOTAL (INSTALLED) COST $	**SENSORS** TOTAL (INSTALLED) COST $	**MATERIAL** TOTAL (INSTALLED) COST $	SIMPLE PAYBACK NET OF REBATE (YEARS)
Colonia High School	**196,267**	**1654**	**117,036**	**218,461**	**0.60**	**1,654**	**85,174**	**143,059**	**0.43**	**31,862**	**75,402**	**11,015**	**$10,330**	**$1,509**	**$11,839**	**24.9**	**$20,055**	**$127,938**	**$23,022**	**$150,959**	**11.1**

13%	**PERCENTAGE OF REBATES IN TOTAL INSTALLED COST**
65%	**PERCENTAGE OF CONSUMPTION COMPARE TO EXISTING STATE**
25%	**EXISTING PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**
16%	**PROPOSED PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Colonia High School	FACILITY SQ. FT. 196,267	DATE OF AUDIT: 2/27/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES										ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS **2610**	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS **2610**	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) **$0.137**	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
1	050101	CONFERENCE ROOM	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	4	112	448	2,070	927	41	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	4	84	724.5	Ceiling	**1**	336	1,346	696	452	28	112	725	232	243	$65	$335	$363	$624
2	050101	CONFERENCE ROOM	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,070	360		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	2,070	261	261	16	48	0	99	0	$14	$205	$0	$175
3	050101	CONFERENCE ROOM	4' Strip Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	2,070	66		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	2,070	46	46	10	10	0	21	0	$3	$51	$0	$41
4	050102	OFFICE	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	2	112	224	2,070	464	57	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84	724.5	Wall	**1**	168	1,346	348	226	28	56	725	116	122	$33	$168	$215	$362
5	050102	OFFICE	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,070	174	174	16	32	0	66	0	$9	$137	$0	$117
6	050103	OFFICE REST ROOM	Fixture w/ 23w Screw-In CFL	1	23	23	360	8		None	1	23				23	360	8	8	0	0	0	0	0	$0	$0	$0	$0
7	050104	OFFICE	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	2	112	224	2,070	464		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84	724.5	Wall	**1**	168	1,346	348	226	28	56	725	116	122	$33	$168	$215	$362
8	050105	MAIN OFFICE	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	9	112	1,008	2,070	2,087	45	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	9	84				756	2,070	1,565	1,565	28	252	0	522	0	$71	$755	$0	$665
9	050105	MAIN OFFICE	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	5	58	290	2,070	600		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	5	42				210	2,070	435	435	16	80	0	166	0	$23	$341	$0	$291
10	050106	BREAK ROOM	4' Strip Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	1,530	98	26	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	1,530	67	67	10	20	0	31	0	$4	$101	$0	$81
11	0501060	BREAK ROOM STORAGE	4' Strip Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	360	23		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	360	16	16	10	20	0	7	0	$1	$101	$0	$81
12	050107	OFFICE	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,070	174	174	16	32	0	66	0	$9	$137	$0	$117
13	050108	WORK ROOM	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	2	112	224	1,530	343	53	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84	306	Wall	**1**	168	1,224	257	206	28	56	306	86	51	$19	$168	$215	$362
14	050108	WORK ROOM	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	1,530	177		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	306	Wall	**1**	84	1,224	129	103	16	32	306	49	26	$10	$137	$215	$331
15	050109	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42	252	Wall	**1**	42	108	15	5	16	16	252	6	11	$2	$68	$215	$273
16	050110	OFFICE	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	2	112	224	2,070	464	46	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84	724.5	Wall	**1**	168	1,346	348	226	28	56	725	116	122	$33	$168	$215	$362
17	050111	OFFICE	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240	50	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	724.5	Wall	**1**	84	1,346	174	113	16	32	725	66	61	$17	$137	$215	$331
18	050112	OFFICE	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	724.5	Wall	**1**	84	1,346	174	113	16	32	725	66	61	$17	$137	$215	$331
19	050113	OFFICE	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	724.5	Wall	**1**	84	1,346	174	113	16	32	725	66	61	$17	$137	$215	$331
20	050114	OFFICE	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	724.5	Wall	**1**	84	1,346	174	113	16	32	725	66	61	$17	$137	$215	$331
21	050115	OFFICE	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	724.5	Wall	**1**	84	1,346	174	113	16	32	725	66	61	$17	$137	$215	$331
22	050116	OFFICE	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	724.5	Wall	**1**	84	1,346	174	113	16	32	725	66	61	$17	$137	$215	$331
23	050117	CONFERENCE ROOM	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	3	112	336	2,070	696	73	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	3	42	724.5	Ceiling	**1**	126	1,346	261	170	70	210	725	435	91	$72	$302	$363	$636
24	050118	OPEN OFFICE	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	10	112	1,120	2,070	2,318	43	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	10	84				840	2,070	1,739	1,739	28	280	0	580	0	$79	$839	$0	$739
25	050119	NURSE	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	4	112	448	1,530	685		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	4	84				336	1,530	514	514	28	112	0	171	0	$23	$335	$0	$295
26	050120	NURSE OFFICE	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	1,530	177		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	1,530	129	129	16	32	0	49	0	$7	$137	$0	$117
27	050120	NURSE REST ROOM	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
28	050121	MENS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$68	$0	$58
29	050122	WOMENS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$68	$0	$58
30	050123	GYM	HID High Bay Fixture w/ (1) 400w Metal Halide Lamp & Ballast	27	455	12,285	2,310	28,378	23	New 2'x4' Singlepoint-Mount High Bay w/ (6) F54T5HO Lamps & (3) 2/54 T5 Elec. HO Ballasts Wire Guard Occupancy Sensor	27	351				9,477	2,310	21,892	21,892	104	2,808	0	6,486	0	$889	$10,583	$0	$7,883
31	050123	GYM	8' Industrial Hood w/ (2) FO96T8 Lamps & (1) Electronic Ballast	8	110	880	2,310	2,033		New 8' Industrial Fixture w/ (4) F28T8 Lamps & (1) 4/32 Elec. Normal-Power High Efficiency Ballast	8	95				760	2,310	1,756	1,756	15	120	0	277	0	$38	$0	$0	-$200
32	050124	STORAGE	4' Strip Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	360	35		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	360	24	24	10	30	0	11	0	$1	$152	$0	$122
33	050125	STORAGE	4' Strip Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	360	35		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	360	24	24	10	30	0	11	0	$1	$152	$0	$122
34	050126	STORAGE	4' Strip Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	360	35		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	360	24	24	10	30	0	11	0	$1	$152	$0	$122
35	050127	GIRLS LOCKER ROOM	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	3	112	336	2,310	776	32	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	3	84				252	2,310	582	582	28	84	0	194	0	$27	$252	$0	$222
36	050128	LOBBY	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,610	303		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,610	219	219	16	32	0	84	0	$11	$137	$0	$117

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Colonia High School	FACILITY SQ. FT. 196,267	DATE OF AUDIT: 2/27/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.137	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
37	050128	LOBBY	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	2,610	84		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	2,610	57	57	10	10	0	26	0	$4	$51	$0	$41
38	050129	GIRLS LOCKER ROOM	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	12	112	1,344	2,310	3,105		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	12	84				1,008	2,310	2,328	2,328	28	336	0	776	0	$106	$1,006	$0	$886
39	050130	BOYS LOCKER ROOM	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	18	112	2,016	2,310	4,657		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	18	84				1,512	2,310	3,493	3,493	28	504	0	1,164	0	$160	$1,509	$0	$1,329
40	050131	LOBBY	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	2,610	251		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	2,610	172	172	10	30	0	78	0	$11	$152	$0	$122
41	050132	BOYS LOCKER ROOM	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	18	112	2,016	2,310	4,657		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	18	84				1,512	2,310	3,493	3,493	28	504	0	1,164	0	$160	$1,509	$0	$1,329
42	050133	ELECTRICAL	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
43	050134	WOMENS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	2,610	908	53	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	522	Ceiling	1	252	2,088	658	526	16	96	522	251	132	$52	$410	$363	$678
44	050135	JC	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	1,500	87		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	1,500	63	63	16	16	0	24	0	$3	$68	$0	$58
45	050136	MENS REST ROOM	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	2,610	908		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42				252	2,610	658	658	16	96	0	251	0	$34	$410	$0	$350
46	050137	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	2,610	1,211		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42				336	2,610	877	877	16	128	0	334	0	$46	$546	$0	$466
47	050138	CLASSROOM 182	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
48	050139	CLASSROOM 183	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	1,530	1,065		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42	306	Wall	1	504	1,224	771	617	16	192	306	294	154	$61	$819	$215	$894
49	050140	CLASSROOM 181	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
50	050141	CLASSROOM 180	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
51	050142	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	11	58	638	2,610	1,665	34	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	11	42				462	2,610	1,206	1,206	16	176	0	459	0	$63	$751	$0	$641
52	050143	STAIRS LOBBY	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	2,070	480	18	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	2,070	348	348	16	64	0	132	0	$18	$273	$0	$233
53	050143	STAIRS LOBBY	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast, Wall Mounted	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,070	174	174	16	32	0	66	0	$9	$137	$0	$117
54	050143	STAIRS LOBBY	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup, Wall Mounted	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	2	42				84	2,070	174	174	16	32	0	66	0	$9	$293	$0	$273
55	050143	STAIRS LOBBY	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	2	112	224	2,070	464		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84				168	2,070	348	348	28	56	0	116	0	$16	$168	$0	$148
56	050143	STAIRS LOBBY	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,070	120		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,070	87	87	16	16	0	33	0	$5	$68	$0	$58
57	050144	CLASSROOM 110	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	6	112	672	1,530	1,028	75	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	306	Wall	1	504	1,224	771	617	28	168	306	257	154	$56	$503	$215	$638
58	050144	CLASSROOM 110	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	1,530	193	193	16	48	0	73	0	$10	$205	$0	$175
59	050145	STORAGE	4' Strip Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	360	35		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	360	24	24	10	30	0	11	0	$1	$152	$0	$122
60	050146	CLASSROOM 112	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799	68	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
61	050147	CLASSROOM 114	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
62	050148	CLASSROOM 116	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
63	050149	CLASSROOM 118	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
64	050150	CLASSROOM 120	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
65	050151	STORAGE	8' Strip Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
66	050152	OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240	43	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,070	174	174	16	32	0	66	0	$9	$137	$0	$117
67	050152	OFFICE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	2,070	66		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	2,070	46	46	10	10	0	21	0	$3	$51	$0	$41
68	050153	STORAGE	8' Strip Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
69	050154	OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,070	174	174	16	32	0	66	0	$9	$137	$0	$117
70	050154	OFFICE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	2,070	66		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	2,070	46	46	10	10	0	21	0	$3	$51	$0	$41
71	050155	WORK ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266	48	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	306	Wall	1	126	1,224	193	154	16	48	306	73	39	$15	$205	$215	$389
72	050155	WORK ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	1,530	49		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	1,530	34	34	10	10	0	15	0	$2	$51	$0	$41

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Colonia High School	FACILITY SQ. FT. 196,267	DATE OF AUDIT: 2/27/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.137	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
73	050156	CLASSROOM 124	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	1,530	1,065		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42	306	Wall	1	504	1,224	771	617	16	192	306	294	154	$61	$819	$215	$894
74	050157	STAIRS LOBBY	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast, Wall Mounted	7	58	406	2,070	840		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	7	42				294	2,070	609	609	16	112	0	232	0	$32	$478	$0	$408
75	050157	STAIRS LOBBY	1'x8' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,070	174	174	16	32	0	66	0	$9	$137	$0	$117
76	050157	STAIRS LOBBY	1'x4' Troffer w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	2,070	132		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	2,070	91	91	10	20	0	41	0	$6	$101	$0	$81
77	050158	CORRIDOR	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	14	58	812	2,610	2,119	23	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	14	42				588	2,610	1,535	1,535	16	224	0	585	0	$80	$956	$0	$816
78	050158	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,610	303		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,610	219	219	16	32	0	84	0	$11	$137	$0	$117
79	050159	JC	8' Strip Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	1,500	87		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	1,500	63	63	16	16	0	24	0	$3	$68	$0	$58
80	050160	BOYS REST ROOM	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast	6	58	348	2,610	908		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast 2'x2' Silver Reflector Kit	6	28	522	Ceiling	1	168	2,088	438	351	30	180	522	470	88	$76	$429	$363	$732
81	050161	GIRLS REST ROOM	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast	6	58	348	2,610	908		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast 2'x2' Silver Reflector Kit	6	28	522	Ceiling	1	168	2,088	438	351	30	180	522	470	88	$76	$429	$363	$732
82	050162	WOMENS REST ROOM	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast 2'x2' Silver Reflector Kit	1	28				28	2,610	73	73	30	30	0	78	0	$11	$72	$0	$62
83	050163	ELECTRICAL	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
84	050164	CORRIDOR	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	2,610	908		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42				252	2,610	658	658	16	96	0	251	0	$34	$410	$0	$350
85	050165	CLASSROOM 107	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
86	050166	CLASSROOM 105	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
87	050167	CLASSROOM 103	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	1,530	1,065		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42	306	Wall	1	504	1,224	771	617	16	192	306	294	154	$61	$819	$215	$894
88	050167	CLASSROOM OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,070	174	174	16	32	0	66	0	$9	$137	$0	$117
89	050167	CLASSROOM STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	360	42		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117
90	050168	CLASSROOM 101	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
91	050169	JC	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	1,500	87		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	1,500	63	63	16	16	0	24	0	$3	$68	$0	$58
92	050170	CLASSROOM 100	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	1,530	1,065		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42	306	Wall	1	504	1,224	771	617	16	192	306	294	154	$61	$819	$215	$894
93	050170	CLASSROOM OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,070	174	174	16	32	0	66	0	$9	$137	$0	$117
94	050170	CLASSROOM STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
95	050171	CLASSROOM 102	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	1,530	1,065		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42	306	Wall	1	504	1,224	771	617	16	192	306	294	154	$61	$819	$215	$894
96	050172	CLASSROOM 104	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
97	050173	CLASSROOM 106	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
98	050174	CLASSROOM 108	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
99	050175	CORRIDOR	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	11	58	638	2,610	1,665		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	11	42				462	2,610	1,206	1,206	16	176	0	459	0	$63	$751	$0	$641
100	050176	OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	2,070	480		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	2,070	348	348	16	64	0	132	0	$18	$273	$0	$233
101	050177	JC	8' Strip Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	1,500	87		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	1,500	63	63	16	16	0	24	0	$3	$68	$0	$58
102	050178	BOYS REST ROOM	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast	6	58	348	2,610	908		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast 2'x2' Silver Reflector Kit	6	28	522	Ceiling	1	168	2,088	438	351	30	180	522	470	88	$76	$429	$363	$732
103	050179	GIRLS REST ROOM	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast	6	58	348	2,610	908		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast 2'x2' Silver Reflector Kit	6	28	522	Ceiling	1	168	2,088	438	351	30	180	522	470	88	$76	$429	$363	$732
104	050180	WOMENS REST ROOM	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$68	$0	$58
105	050181	CORRIDOR	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	13	58	754	2,610	1,968		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	13	42				546	2,610	1,425	1,425	16	208	0	543	0	$74	$887	$0	$757
106	050181	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	2,610	908		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42				252	2,610	658	658	16	96	0	251	0	$34	$410	$0	$350
107	050182	CLASSROOM 142	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
108	050182	CLASSROOM 142	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$6	$152	$0	$122

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Colonia High School	FACILITY SQ. FT. 196,267	DATE OF AUDIT: 2/27/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.137	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
109	050183	STAIRS LOBBY	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast, Wall Mounted	5	58	290	2,070	600		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	5	42				210	2,070	435	435	16	80	0	166	0	$23	$341	$0	$291
110	050183	STAIRS LOBBY	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	2	112	224	2,070	464		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84				168	2,070	348	348	28	56	0	116	0	$16	$168	$0	$148
111	050183	STAIRS LOBBY	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,070	174	174	16	32	0	66	0	$9	$137	$0	$117
112	050184	CLASSROOM 140	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799	43	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
113	050185	CLASSROOM 138	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$41	$546	$215	$661
114	050186	CLASSROOM 136	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
115	050186	CLASSROOM 136	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$6	$152	$0	$122
116	050187	CLASSROOM 134	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	8	58	464	1,530	710		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	306	Wall	1	336	1,224	514	411	16	128	306	196	103	$41	$546	$215	$661
117	050188	CLASSROOM 132	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799	53	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
118	050189	FACULTY LOUNGE	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	10	112	1,120	1,530	1,714		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	10	42	306	Ceiling	1	420	1,224	643	514	70	700	306	1,071	129	$164	$1,008	$363	$1,236
119	050190	OPEN OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	2,070	720		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42				252	2,070	522	522	16	96	0	199	0	$27	$410	$0	$350
120	050190	OPEN OFFICE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	2,070	199		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	2,070	137	137	10	30	0	62	0	$9	$152	$0	$122
121	050191	STAIRS LOBBY	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast, Wall Mounted	5	58	290	2,070	600		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	5	42				210	2,070	435	435	16	80	0	166	0	$23	$341	$0	$291
122	050191	STAIRS LOBBY	1'x8' Troffer w/ (4) FO32T8 Lamps & (1) Electronic Ballast	2	112	224	2,070	464		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84				168	2,070	348	348	28	56	0	116	0	$16	$168	$0	$148
123	050191	STAIRS LOBBY	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,070	120		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,070	87	87	16	16	0	33	0	$5	$68	$0	$58
124	050192	CORRIDOR	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	11	58	638	2,610	1,665		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	11	42				462	2,610	1,206	1,206	16	176	0	459	0	$63	$751	$0	$641
125	050193	CLASSROOM 130	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	15	58	870	1,530	1,331	55	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	15	42	306	Wall	1	630	1,224	964	771	16	240	306	367	193	$77	$1,024	$215	$1,068
126	050194	STORAGE	8' Strip Fluorescent w/ (2) F40T12/34w Lamps & (1) Energy Efficient Magnetic Ballast	1	73	73	360	26		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	31	31	0	11	0	$2	$68	$0	$58
127	050195	STORAGE	8' Strip Fluorescent w/ (2) F40T12/34w Lamps & (1) Energy Efficient Magnetic Ballast	1	73	73	360	26		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	31	31	0	11	0	$2	$68	$0	$58
128	050196	CLASSROOM 128	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	15	58	870	1,530	1,331		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	15	42	306	Wall	1	630	1,224	964	771	16	240	306	367	193	$77	$1,024	$215	$1,068
129	050197	CLASSROOM 126	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
130	050198	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	360	84		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	360	60	60	16	64	0	23	0	$3	$273	$0	$233
131	050199	CLASSROOM 127	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	15	58	870	1,530	1,331		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	15	42	306	Wall	1	630	1,224	964	771	16	240	306	367	193	$77	$1,024	$215	$1,068
132	0501100	CLASSROOM 129	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	1,530	1,065		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42	306	Wall	1	504	1,224	771	617	16	192	306	294	154	$61	$819	$215	$894
133	0501101	CLASSROOM 131	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
134	0501101	CLASSROOM 131	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22	306	Wall	1	66	1,224	101	81	10	30	306	46	20	$9	$152	$215	$337
135	0501102	JC	Incandescent Fixture w/ (1) 60w Incandescent Lamp	1	60	60	1,500	90		Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	1,500	21	21	46	46	0	69	0	$9	$16	$0	$16
136	0501103	CLASSROOM 133	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799	46	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
137	0501103	CLASSROOM 133	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$6	$152	$0	$122
138	0501104	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	360	42		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117
139	0501104	STORAGE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	360	12		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$0	$51	$0	$41
140	0501105	CORRIDOR	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,610	454		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	2,610	329	329	16	48	0	125	0	$17	$205	$0	$175
141	0501105	CORRIDOR	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	2,610	167		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	2,610	115	115	10	20	0	52	0	$7	$101	$0	$81
142	0501105	CORRIDOR	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$68	$0	$58
143	0501106	CORRIDOR	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,610	454		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	2,610	329	329	16	48	0	125	0	$17	$205	$0	$175
144	0501106	CORRIDOR	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	2,610	167		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	2,610	115	115	10	20	0	52	0	$7	$101	$0	$81

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Colonia High School	FACILITY SQ. FT. 196,267	DATE OF AUDIT: 2/27/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.137	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
145	0501106	CORRIDOR	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$68	$0	$58
146	0501107	CAFETERIA	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	24	58	1,392	2,610	3,633	38	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	24	42				1,008	2,610	2,631	2,631	16	384	0	1,002	0	$137	$1,638	$0	$1,398
147	0501107	CAFETERIA	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	6	32	192	2,610	501		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	6	22				132	2,610	345	345	10	60	0	157	0	$21	$304	$0	$244
148	0501108	STAFF CAFETERIA	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	18	58	1,044	2,070	2,161		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	18	42				756	2,070	1,565	1,565	16	288	0	596	0	$82	$1,229	$0	$1,049
149	0501109	KITCHEN	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	24	58	1,392	1,500	2,088		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	24	42				1,008	1,500	1,512	1,512	16	384	0	576	0	$79	$1,638	$0	$1,398
150	0501110	CAFETERIA	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	24	58	1,392	2,610	3,633		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	24	42				1,008	2,610	2,631	2,631	16	384	0	1,002	0	$137	$1,638	$0	$1,398
151	0501110	CAFETERIA	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	6	32	192	2,610	501		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	6	22				132	2,610	345	345	10	60	0	157	0	$21	$304	$0	$244
152	0501111	CORRIDOR	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	6	32	192	2,610	501		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	6	22				132	2,610	345	345	10	60	0	157	0	$21	$304	$0	$244
153	0501111	CORRIDOR	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	7	58	406	2,610	1,060		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	7	42				294	2,610	767	767	16	112	0	292	0	$40	$478	$0	$408
154	0501112	MECHANICAL	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	2,610	606		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	2,610	438	438	16	64	0	167	0	$23	$273	$0	$233
155	0501112	MECHANICAL	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	5	32	160	2,610	418		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	5	22				110	2,610	287	287	10	50	0	131	0	$18	$254	$0	$204
156	0501112	MECHANICAL STORAGE	4' Strip Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
157	0501112	MECHANICAL STORAGE	4' Strip Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
158	0501112	MECHANICAL OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,070	120		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,070	87	87	16	16	0	33	0	$5	$68	$0	$58
159	0501113	RECEIVING	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	6	32	192	2,070	397		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	6	22				132	2,070	273	273	10	60	0	124	0	$17	$304	$0	$244
160	0501114	FITNESS CENTER	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	19	58	1,102	2,610	2,876		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	19	42				798	2,610	2,083	2,083	16	304	0	793	0	$109	$1,297	$0	$1,107
161	0501115	REST ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	2,610	84		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	2,610	57	57	10	10	0	26	0	$4	$51	$0	$41
162	0501116	REST ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	2,610	84		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	2,610	57	57	10	10	0	26	0	$4	$51	$0	$41
163	0501117	WOOD SHOP 146	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	30	58	1,740	1,530	2,662		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	30	42				1,260	1,530	1,928	1,928	16	480	0	734	0	$101	$2,048	$0	$1,748
164	0501118	CLASSROOM 148	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	1,530	1,065		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42	306	Wall	1	504	1,224	771	617	16	192	306	294	154	$61	$819	$215	$894
165	0501119	CLASSROOM 150	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	18	58	1,044	1,530	1,597		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	18	42	306	Wall	1	756	1,224	1,157	925	16	288	306	441	231	$92	$1,229	$215	$1,243
166	0501120	CORRIDOR	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	14	58	812	2,610	2,119	26	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	14	42				588	2,610	1,535	1,535	16	224	0	585	0	$80	$956	$0	$816
167	0501120	CORRIDOR	2'x4' Troffer w/ (3) FO32T8 Lamps & (1) Electronic Ballast	2	88	176	2,610	459		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast 2'x4' Silver Reflector Kit	2	42				84	2,610	219	219	46	92	0	240	0	$33	$202	$0	$182
168	0501121	STAGE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	10	58	580	360	209		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	10	42				420	360	151	151	16	160	0	58	0	$8	$683	$0	$583
169	0501122	AUDITORIUM	Incandescent Fixture w/ (1) 150w Incandescent PAR38 Lamp	38	150	5,700	360	2,052	25	None	38	150				5,700	360	2,052	2,052	0	0	0	0	0	$0	$0	$0	$0
170	0501122	AUDITORIUM	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	35	112	3,920	360	1,411		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	35	84				2,940	360	1,058	1,058	28	980	0	353	0	$48	$2,935	$0	$2,585
171	0501123	BOOTH	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	1	112	112	360	40		Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84				84	360	30	30	28	28	0	10	0	$1	$84	$0	$74
172	0501124	LOBBY	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	35	58	2,030	2,610	5,298	23	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	35	42				1,470	2,610	3,837	3,837	16	560	0	1,462	0	$200	$2,389	$0	$2,039
173	0501124	LOBBY	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$68	$0	$58
174	050200	CLASSROOM 280	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
175	050201	CLASSROOM 281	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
176	050202	CLASSROOM 282	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
177	050203	CLASSROOM 283	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	1,530	1,065		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42	306	Wall	1	504	1,224	771	617	16	192	306	294	154	$61	$819	$215	$894
178	050204	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	2,610	1,362		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42				378	2,610	987	987	16	144	0	376	0	$51	$614	$0	$524
179	050204	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Battery Backup	5	58	290	2,610	757		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 1/32 Elec. Low-Power HE Ballast & (1) Battery Backup 1-Lamp HE Ballast	5	42				210	2,610	548	548	16	80	0	209	0	$29	$731	$0	$681
180	050205	CLASSROOM 206	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799	47	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Colonia High School	FACILITY SQ. FT. 196,267	DATE OF AUDIT: 2/27/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.137	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
181	050205	CLASSROOM 206	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	4	32	128	1,530	196		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	4	22				88	1,530	135	135	10	40	0	61	0	$8	$203	$0	$163
182	050205	CLASSROOM 206	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42				252	1,530	386	386	16	96	0	147	0	$20	$410	$0	$350
183	050206	OFFICE	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,070	174	174	16	32	0	66	0	$9	$137	$0	$117
184	050207	STORAGE	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	360	42		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117
185	050208	CLASSROOM 204	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	10	58	580	1,530	887		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	10	42	306	Wall	1	420	1,224	643	514	16	160	306	245	129	$51	$683	$215	$777
186	050208	CLASSROOM 204	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	5	32	160	1,530	245		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	5	22				110	1,530	168	168	10	50	0	77	0	$10	$254	$0	$204
187	050209	MEDIA CENTER	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	28	58	1,624	2,610	4,239	40	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	28	42				1,176	2,610	3,069	3,069	16	448	0	1,169	0	$160	$1,911	$0	$1,631
188	050209	MEDIA CENTER	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	14	32	448	2,610	1,169		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	14	22				308	2,610	804	804	10	140	0	365	0	$50	$710	$0	$570
189	050210	OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	2,070	720		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42				252	2,070	522	522	16	96	0	199	0	$27	$410	$0	$350
190	050210	OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	2,070	360		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	2,070	261	261	16	48	0	99	0	$14	$205	$0	$175
191	050211	VIDEO ROOM	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,070	174	174	16	32	0	66	0	$9	$137	$0	$117
192	050211	VIDEO ROOM	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	2,070	132		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	2,070	91	91	10	20	0	41	0	$6	$101	$0	$81
193	050212	OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,070	174	174	16	32	0	66	0	$9	$137	$0	$117
194	050212	OFFICE	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	2	32	64	2,070	132		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	2	22				44	2,070	91	91	10	20	0	41	0	$6	$101	$0	$81
195	050212	OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,070	120		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,070	87	87	16	16	0	33	0	$5	$68	$0	$58
196	050213	CLASSROOM SPEECH	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$31	$410	$215	$544
197	050213	CLASSROOM SPEECH	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$6	$152	$0	$122
198	050214	STORAGE	4' Fluorescent Ice Tray w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	360	63		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42				126	360	45	45	16	48	0	17	0	$2	$205	$0	$175
199	050215	CLASSROOM 248	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	1,530	1,065	40	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42	306	Wall	1	504	1,224	771	617	16	192	306	294	154	$61	$819	$215	$894
200	050215	CLASSROOM 248	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	4	32	128	1,530	196		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	4	22				88	1,530	135	135	10	40	0	61	0	$8	$203	$0	$163
201	050216	CLASSROOM 246	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
202	050217	CLASSROOM 244	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
203	050218	CLASSROOM 242	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
204	050219	CLASSROOM 240	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
205	050220	CLASSROOM 238	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
206	050221	CLASSROOM 236	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
207	050222	CLASSROOM 235	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	3	58	174	1,530	266		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	306	Wall	1	126	1,224	193	154	16	48	306	73	39	$15	$205	$215	$389
208	050223	CLASSROOM 234	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
209	050223	CLASSROOM STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	360	42		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117
210	050224	CLASSROOM 232	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
211	050225	CLASSROOM 230	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
212	050226	CLASSROOM 228	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
213	050227	CLASSROOM 226	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
214	050228	CLASSROOM 224	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
215	050229	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
216	050230	CLASSROOM 222	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	10	58	580	1,530	887		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	10	42	306	Wall	1	420	1,224	643	514	16	160	306	245	129	$51	$683	$215	$777

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Colonia High School	FACILITY SQ. FT. 196,267	DATE OF AUDIT: 2/27/2013

SPACE DESCRIPTION			EXISTING FIXTURES						REPLACEMENT FIXTURES								ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.137	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
217	050231	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
218	050232	OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	2,070	240		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,070	174	174	16	32	0	66	0	$9	$137	$0	$117
219	050233	OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	2,070	480		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	2,070	348	348	16	64	0	132	0	$18	$273	$0	$233
220	050234	CLASSROOM 216	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
221	050235	CLASSROOM 214	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
222	050236	CLASSROOM 212	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
223	050237	CLASSROOM 210	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
224	050238	STORAGE	8' Strip Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	360	42		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117
225	050238	STORAGE	4' Strip Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	1	32	32	360	12		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	1	22				22	360	8	8	10	10	0	4	0	$0	$51	$0	$41
226	050239	CLASSROOM 208	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	1,530	177		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	306	Wall	1	84	1,224	129	103	16	32	306	49	26	$10	$137	$215	$331
227	050240	CLASSROOM 208A	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	2	58	116	1,530	177		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42	306	Wall	1	84	1,224	129	103	16	32	306	49	26	$10	$137	$215	$331
228	050241	CLASSROOM 211	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	6	58	348	1,530	532		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	6	42	306	Wall	1	252	1,224	386	308	16	96	306	147	77	$31	$410	$215	$544
229	050241	CLASSROOM 211	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	3	32	96	1,530	147		Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	3	22				66	1,530	101	101	10	30	0	46	0	$6	$152	$0	$122
230	050242	OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	4	58	232	2,070	480		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	2,070	348	348	16	64	0	132	0	$18	$273	$0	$233
231	050243	STORAGE	8' Strip Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
232	050244	CLASSROOM 207	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
233	050245	CLASSROOM 205	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
234	050246	CLASSROOM 203	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
235	050247	CLASSROOM 201	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
236	050248	STORAGE	8' Strip Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
237	050249	OFFICE	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,070	120		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,070	87	87	16	16	0	33	0	$5	$68	$0	$58
238	050250	JC	8' Strip Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	1,500	87		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	1,500	63	63	16	16	0	24	0	$3	$68	$0	$58
239	050251	BOYS REST ROOM	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast	6	58	348	2,610	908		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast 2'x2' Silver Reflector Kit	6	28	522	Ceiling	1	168	2,088	438	351	30	180	522	470	88	$76	$429	$363	$732
240	050252	GIRLS REST ROOM	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast	6	58	348	2,610	908		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast 2'x2' Silver Reflector Kit	6	28	522	Ceiling	1	168	2,088	438	351	30	180	522	470	88	$76	$429	$363	$732
241	050253	WOMENS REST ROOM	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$68	$0	$58
242	050254	STORAGE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	360	21		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
243	050255	CLASSROOM 233	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
244	050256	CLASSROOM 231	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
245	050257	CLASSROOM 229	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
246	050258	CLASSROOM 227	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
247	050259	CLASSROOM 225	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	9	58	522	1,530	799		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	9	42	306	Wall	1	378	1,224	578	463	16	144	306	220	116	$46	$614	$215	$719
248	050260	OFFICE	8' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,070	120		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,070	87	87	16	16	0	33	0	$5	$68	$0	$58
249	050261	JC	8' Strip Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	1,500	87		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	1,500	63	63	16	16	0	24	0	$3	$68	$0	$58
250	050262	BOYS REST ROOM	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast	6	58	348	2,610	908		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast 2'x2' Silver Reflector Kit	6	28	522	Ceiling	1	168	2,088	438	351	30	180	522	470	88	$76	$429	$363	$732
251	050263	GIRLS REST ROOM	2'x2' Troffer w/ (2) FB32T8 6"-U Lamps & (1) Electronic Ballast	6	58	348	2,610	908		Relamp & Reballast w/ (2) F17T8 Lamps & (1) 2/17 Elec. Low-Power High Efficiency Ballast 2'x2' Silver Reflector Kit	6	28	522	Ceiling	1	168	2,088	438	351	30	180	522	470	88	$76	$429	$363	$732
252	050265	WOMENS REST ROOM	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	1	58	58	2,610	151		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$6	$68	$0	$58

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	CUSTOMER: Woodbridge School District FACILITY: Colonia High School	FACILITY SQ. FT. 196,267	DATE OF AUDIT: 2/27/2013

SPACE DESCRIPTION			EXISTING FIXTURES							REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PRE FIXT. QTY	PRE WATTS / FIXT.	PRE TOTAL WATTS / LINE	DEFAULT ANNUAL HOURS 2610	PRE ANNUAL KWH	PRE AVERAGE LIGHT LEVEL FOOT CANDLES	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.137	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
253	050265	CORRIDOR	1'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	46	58	2,668	2,610	6,963		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	46	42				1,932	2,610	5,043	5,043	16	736	0	1,921	0	$263	$3,140	$0	$2,680
254	050265	CORRIDOR	2'x4' Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast	12	58	696	2,610	1,817		Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42				504	2,610	1,315	1,315	16	192	0	501	0	$69	$819	$0	$699
255	05EXT	EXTERIOR	HID Flood Fixture w/ (1) 175w Metal Halide Lamp & Ballast	1	210	210	4,745	996		New 30-diode Flood Luminaire, 500mA, photocell	1	60				60	4,745	285	285	150	150	0	712	0	$98	$722	$0	$722
256	05EXT	EXTERIOR	Incandescent Fixture w/ (1) 150w Incandescent PAR38 Lamp	8	150	1,200	4,745	5,694		New 30-diode Flood Luminaire, 500mA, photocell	8	60				480	4,745	2,278	2,278	90	720	0	3,416	0	$468	$5,772	$0	$5,772
257	05EXT	EXTERIOR	HID Wall Pack Fixture w/ (1) 175w Metal Halide Lamp & Ballast	3	210	630	4,745	2,989		LED (1) New 56w Wall Pack Fixture	3	56				168	4,745	797	797	154	462	0	2,192	0	$300	$1,326	$0	$1,326
258	05EXT	EXTERIOR	HID Flood Fixture w/ (1) 100w Metal Halide Lamp & Ballast	2	120	240	4,745	1,139		New 30-diode Flood Luminaire, 500mA, photocell	2	60				120	4,745	569	569	60	120	0	569	0	$78	$1,443	$0	$1,443
				1,654		**117,036**		**218,461**			**1,654**				**99**	**85,174**		**154,074**	**143,059**		**31,862**	**36,788**	**64,387**	**11,015**	**$10,330**	**$127,938**	**$23,022**	**$130,904**

LIGHTING RETROFIT SUMMARY FOR:
Woodbridge Administration Building
421 School Street, Woodbridge, NJ 07095

Dome-Tech, Inc.

BUILDING INFORMATION		EXISTING FIXTURES				PROPOSED FIXTURES				SAVINGS						FINANCIAL					
BUILDING	SQ. FT.	PRE TOTAL FIXT. QTY	PRE TOTAL FIXT. WATTS	PRE ANNUAL KWH CONSUMPTION	PRE WATTS / SQ. FT	POST TOTAL FIXT. QTY	POST TOTAL FIXT. WATTS	POST ANNUAL KWH CONSUMPTION	POST WATTS / SQ. FT	WATTS SAVED	ANNUAL KWH SAVED	ANNUAL KWH SAVED WITH SENSORS	ANNUAL SAVINGS $ FIXT.	ANNUAL SAVINGS $ SENSORS	ANNUAL SAVINGS $ TOTAL	CO2 REDUCTION (TONS)	NJ Smart Start REBATE $	**FIXTURES** TOTAL (INSTALLED) COST $	**SENSORS** TOTAL (INSTALLED) COST $	**MATERIAL** TOTAL (INSTALLED) COST $	SIMPLE PAYBACK NET OF REBATE (YEARS)
Woodbridge Administration Building	**32,273**	**299**	**27,808**	**57,109**	**0.86**	**299**	**19,218**	**32,707**	**0.60**	**8,590**	**24,402**	**7,029**	**$3,856**	**$1,111**	**$4,966**	**8.1**	**$3,170**	**$23,436**	**$9,955**	**$33,391**	**6.1**

9%	**PERCENTAGE OF REBATES IN TOTAL INSTALLED COST**
57%	**PERCENTAGE OF CONSUMPTION COMPARE TO EXISTING STATE**
25%	**EXISTING PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**
14%	**PROPOSED PERCENTAGE OF LIGHTING ENERGY CONSUMPTION OF THE WHOLE BUILDING**

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	Woodbridge School District Woodbridge Administration Building	FACILITY SQ. FT. 32,273	DATE OF AUDIT: 2/28/2013

SPACE DESCRIPTION			EXISTING FIXTURES	REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.158	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
1	2	3	4	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
1	010101	STORAGE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
2	010102	CORRIDOR	Incandescent Fixture w/ (1) 60w Incandescent Lamp	Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	2,610	37	37	46	46	0	120	0	$19	$16	$0	$16
3	010103	STAIRS	Fixture w/ 13w Screw-In CFL	None	1	13				13	2,610	34	34	0	0	0	0	0	$0	$0	$0	$0
4	010104	STORAGE	Incandescent Fixture w/ (1) 60w Incandescent Lamp	Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	2	14				28	360	10	10	46	92	0	33	0	$5	$33	$0	$33
5	010105	STORAGE	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84				84	360	30	30	28	28	0	10	0	$2	$84	$0	$74
6	010106	STORAGE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
7	010107	STORAGE	Incandescent Fixture w/ (1) 60w Incandescent Lamp	Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	2	14				28	360	10	10	46	92	0	33	0	$5	$33	$0	$33
8	010108	STORAGE	Incandescent Fixture w/ (1) 60w Incandescent Lamp	Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	360	5	5	46	46	0	17	0	$3	$16	$0	$16
9	010109	STAIRS	Fixture w/ 13w Screw-In CFL	None	1	13				13	2,610	34	34	0	0	0	0	0	$0	$0	$0	$0
10	010110	CORRIDOR	Incandescent Fixture w/ (1) 60w Incandescent Lamp	Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	2,610	37	37	46	46	0	120	0	$19	$16	$0	$16
11	010111	STORAGE	Incandescent Fixture w/ (1) 60w Incandescent Lamp	Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	360	5	5	46	46	0	17	0	$3	$16	$0	$16
12	010112	STORAGE	Incandescent Fixture w/ (1) 150w Incandescent Lamp	Incandescent Fixture w/ 32w Screw-In CFL	4	32				128	360	46	46	118	472	0	170	0	$27	$101	$0	$101
13	010112	STORAGE	Incandescent Fixture w/ (1) 60w Incandescent Lamp	Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	2	14				28	360	10	10	46	92	0	33	0	$5	$33	$0	$33
14	010113	STORAGE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
15	010114	STORAGE	Incandescent Fixture w/ (1) 60w Incandescent Lamp	Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	2	14				28	360	10	10	46	92	0	33	0	$5	$33	$0	$33
16	010114	STORAGE	Fixture w/ 13w Screw-In CFL	None	1	13				13	360	5	5	0	0	0	0	0	$0	$0	$0	$0
17	010115	CORRIDOR	Incandescent Fixture w/ (1) 60w Incandescent Lamp	Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	2,610	37	37	46	46	0	120	0	$19	$16	$0	$16
18	010116	STORAGE	Incandescent Fixture w/ (1) 75w Incandescent Lamp	Relamp w/ (1) 19 watt Compact Fluorescent Screw-In	1	19				19	360	7	7	56	56	0	20	0	$3	$0	$0	$0
19	010117	STORAGE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
20	010118	VAULT	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
21	010119	STORAGE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	360	30	30	16	32	0	12	0	$2	$137	$0	$117
22	010120	CORRIDOR	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$68	$0	$58
23	010121	STAIRS	Incandescent Fixture w/ (1) 60w Incandescent Lamp	Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	2,610	37	37	46	46	0	120	0	$19	$16	$0	$16
24	010122	ELECTRICAL	Incandescent Fixture w/ (1) 75w Incandescent Lamp	Relamp w/ (1) 19 watt Compact Fluorescent Screw-In	1	19				19	360	7	7	56	56	0	20	0	$3	$0	$0	$0
25	010123	PRINTS	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
26	010124	STAIRS	Incandescent Fixture w/ (1) 60w Incandescent Lamp	Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	2,610	37	37	46	46	0	120	0	$19	$16	$0	$16
27	010125	CORRIDOR	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$68	$0	$58
28	010126	EQUIPMENT	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84				168	360	60	60	28	56	0	20	0	$3	$168	$0	$148
29	010127	CUSTODIAN OFFICE	8' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84				84	2,070	174	174	28	28	0	58	0	$9	$84	$0	$74
30	010128	BOILER ROOM	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42				168	2,610	438	438	16	64	0	167	0	$26	$273	$0	$233
31	010129	STORAGE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	7	42				294	2,610	767	767	16	112	0	292	0	$46	$478	$0	$408

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	Woodbridge School District Woodbridge Administration Building	FACILITY SQ. FT. 32,273	DATE OF AUDIT: 2/28/2013

SPACE DESCRIPTION			EXISTING FIXTURES	REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.158	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
32	010130	VAULT	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	12	42				504	2,070	1,043	1,043	16	192	0	397	0	$63	$819	$0	$699
33	010131	STAIRS	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$68	$0	$58
34	010132	STAIRS	Incandescent Fixture w/ (1) 150w Incandescent Lamp	Incandescent Fixture w/ 32w Screw-In CFL	1	32				32	2,610	84	84	118	118	0	308	0	$49	$25	$0	$25
35	010201	STORAGE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
36	010202	STAIRS	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$68	$0	$58
37	010203	OFFICE	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	17	84				1,428	2,070	2,956	2,956	28	476	0	985	0	$156	$1,425	$0	$1,255
38	010204	OFFICE	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	9	84				756	2,070	1,565	1,565	28	252	0	522	0	$82	$755	$0	$665
39	010205	STAIRS	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84				84	2,610	219	219	28	28	0	73	0	$12	$84	$0	$74
40	010206	STORAGE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
41	010207	OFFICE	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84	724.5	Wall	1	168	1,346	348	226	28	56	725	116	122	$38	$168	$215	$362
42	010208	STORAGE	Incandescent Fixture w/ (1) 60w Incandescent Lamp	Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	360	5	5	46	46	0	17	0	$3	$16	$0	$16
43	010209	OFFICE	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	4	84	724.5	Ceiling	1	336	1,346	696	452	28	112	725	232	243	$75	$335	$363	$624
44	010210	KITCHEN	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	2	42				84	2,070	174	174	16	32	0	66	0	$10	$137	$0	$117
45	010211	STAIRS	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84				84	2,610	219	219	28	28	0	73	0	$12	$84	$0	$74
46	010212	CORRIDOR	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	3	84				252	2,610	658	658	28	84	0	219	0	$35	$252	$0	$222
47	010213	STAIRS	Fixture w/ 13w Screw-In CFL	None	1	13				13	2,610	34	34	0	0	0	0	0	$0	$0	$0	$0
48	010214	MAIL ROOM	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84				84	2,070	174	174	28	28	0	58	0	$9	$84	$0	$74
49	010215	STORAGE	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	360	15	15	16	16	0	6	0	$1	$68	$0	$58
50	010216	STAIRS	Incandescent Fixture w/ (1) 60w Incandescent Lamp	Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	2,610	37	37	46	46	0	120	0	$19	$16	$0	$16
51	010217	WOMENS REST ROOM	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84	724.5	Wall	1	84	1,346	174	113	28	28	725	58	61	$19	$84	$215	$288
52	010218	STAIRS	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84				84	2,610	219	219	28	28	0	73	0	$12	$84	$0	$74
53	010219	OFFICE	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	8	84	724.5	Ceiling	1	672	1,346	1,391	904	28	224	725	464	487	$150	$671	$363	$919
54	010220	CONFERENCE ROOM	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	3	84	724.5	Wall	1	252	1,346	522	339	28	84	725	174	183	$56	$252	$215	$416
55	010221	OFFICE	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	12	84	724.5	Ceiling	1	1,008	1,346	2,087	1,356	28	336	725	696	730	$225	$1,006	$363	$1,215
56	010222	CONFERENCE ROOM	2'x4' Parabolic Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Pendent Mounted	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	8	42	724.5	Ceiling	1	336	1,346	696	452	16	128	725	265	243	$80	$546	$363	$794
57	010223	STAIRS	Incandescent Fixture w/ (1) 60w Incandescent Lamp	Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	2,610	37	37	46	46	0	120	0	$19	$16	$0	$16
58	010224	LOBBY	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84				84	2,610	219	219	28	28	0	73	0	$12	$84	$0	$74
59	010225	MENS REST ROOM	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84	724.5	Wall	1	84	1,346	174	113	28	28	725	58	61	$19	$84	$215	$288
60	010226	VESTIBULE	Fixture w/ 23w Screw-In CFL	None	1	23				23	2,610	60	60	0	0	0	0	0	$0	$0	$0	$0
61	010227	TESTING	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84				84	360	30	30	28	28	0	10	0	$2	$84	$0	$74
62	010228	STAIRS	Fixture w/ 13w Screw-In CFL	None	1	13				13	2,610	34	34	0	0	0	0	0	$0	$0	$0	$0
63	010229	OFFICE	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	7	84	724.5	Ceiling	1	588	1,346	1,217	791	28	196	725	406	426	$131	$587	$363	$845

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	Woodbridge School District Woodbridge Administration Building	FACILITY SQ. FT. 32,273	DATE OF AUDIT: 2/28/2013

SPACE DESCRIPTION			EXISTING FIXTURES	REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.158	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
64	010230	OFFICE	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	4	84	724.5	Ceiling	1	336	1,346	696	452	28	112	725	232	243	$75	$335	$363	$624
65	010231	FILE ROOM	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84				168	2,610	438	438	28	56	0	146	0	$23	$168	$0	$148
66	010232	OFFICE	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	3	84	724.5	Wall	1	252	1,346	522	339	28	84	725	174	183	$56	$252	$215	$416
67	010233	OFFICE	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	3	84	724.5	Wall	1	252	1,346	522	339	28	84	725	174	183	$56	$252	$215	$416
68	010234	OFFICE	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	3	84	724.5	Wall	1	252	1,346	522	339	28	84	725	174	183	$56	$252	$215	$416
69	010235	OFFICE	2'x4' Parabolic Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Pendent Mounted	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	5	42	724.5	Ceiling	1	210	1,346	435	283	16	80	725	166	152	$50	$341	$363	$620
70	010236	OFFICE	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	4	84	724.5	Ceiling	1	336	1,346	696	452	28	112	725	232	243	$75	$335	$363	$624
71	010237	CORRIDOR	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84				504	2,610	1,315	1,315	28	168	0	438	0	$69	$503	$0	$443
72	010301	LUNCH ROOM	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84				84	2,070	174	174	28	28	0	58	0	$9	$84	$0	$74
73	010302	TECHNOLOGY OFFICE	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	3	84				252	2,070	522	522	28	84	0	174	0	$27	$252	$0	$222
74	010303	CORRIDOR	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84				168	2,610	438	438	28	56	0	146	0	$23	$168	$0	$148
75	010304	OFFICE	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	3	84	724.5	Wall	1	252	1,346	522	339	28	84	725	174	183	$56	$252	$215	$416
76	010305	CONFERENCE ROOM	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84	724.5	Wall	1	168	1,346	348	226	28	56	725	116	122	$38	$168	$215	$362
77	010306	OFFICE	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	4	84	724.5	Ceiling	1	336	1,346	696	452	28	112	725	232	243	$75	$335	$363	$624
78	010307	OFFICE	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84	724.5	Wall	1	168	1,346	348	226	28	56	725	116	122	$38	$168	$215	$362
79	010308	OFFICE	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84	724.5	Wall	1	168	1,346	348	226	28	56	725	116	122	$38	$168	$215	$362
80	010309	FILE ROOM	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84				84	2,070	174	174	28	28	0	58	0	$9	$84	$0	$74
81	010310	OFFICE	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84	724.5	Wall	1	168	1,346	348	226	28	56	725	116	122	$38	$168	$215	$362
82	010311	OFFICE	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	4	84	724.5	Ceiling	1	336	1,346	696	452	28	112	725	232	243	$75	$335	$363	$624
83	010312	OFFICE	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84	724.5	Wall	1	168	1,346	348	226	28	56	725	116	122	$38	$168	$215	$362
84	010313	CONFERENCE ROOM	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	4	84	724.5	Ceiling	1	336	1,346	696	452	28	112	725	232	243	$75	$335	$363	$624
85	010314	COPY ROOM	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84				84	2,070	174	174	28	28	0	58	0	$9	$84	$0	$74
86	010315	OFFICE	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84	724.5	Wall	1	168	1,346	348	226	28	56	725	116	122	$38	$168	$215	$362
87	010316	STORAGE	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84				84	360	30	30	28	28	0	10	0	$2	$84	$0	$74
88	010317	CORRIDOR	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$68	$0	$58
89	010318	OPEN OFFICE	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	12	84				1,008	2,070	2,087	2,087	28	336	0	696	0	$110	$1,006	$0	$886
90	010319	LUNCH ROOM	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84	724.5	Wall	1	168	1,346	348	226	28	56	725	116	122	$38	$168	$215	$362
91	010320	KITCHENETTE	Incandescent Fixture w/ (1) 75w Incandescent R30 Lamp	17/18W LED PAR38 Screw-In Lamp, Outdoor Rated, Dimmable / PHILIPS	4	18				72	2,070	149	149	57	228	0	472	0	$75	$351	$0	$351
92	010321	STAIRS	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84				84	2,610	219	219	28	28	0	73	0	$12	$84	$0	$74
93	010322	STAIRS	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$68	$0	$58
94	010323	CORRIDOR	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$68	$0	$58
95	010324	MENS REST ROOM	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84	724.5	Wall	1	84	1,346	174	113	28	28	725	58	61	$19	$84	$215	$288

Dome-Tech, Inc.

LIGHTING UPGRADE PROJECT LINE x LINE DETAIL	Woodbridge School District Woodbridge Administration Building	FACILITY SQ. FT. 32,273	DATE OF AUDIT: 2/28/2013

SPACE DESCRIPTION			EXISTING FIXTURES	REPLACEMENT FIXTURES									ENERGY ANALYSIS						COST ANALYSIS		
LINE	PRINT NUMBER	SPACE DESCRIPTION	PRE FIXTURE DESCRIPTION	PROPOSED FIXTURE DESCRIPTION	POST FIXT. QTY	POST WATTS / FIXT.	ANNUAL HOURS SAVED	SENSOR TYPE	QTY SENSORS / LINE	POST TOTAL WATTS / LINE	ANNUAL HOURS 2610	POST ANNUAL KWH	POST ANNUAL KWH WITH OCC SENSOR	WATTS SAVED / FIXT.	TOTAL WATTS SAVED / LINE	ANNUAL HOURS SAVED	ANNUAL KWH SAVED FROM FIXT.	ANNUAL KWH SAVED WITH OCC	TOTAL ANNUAL $ SAVINGS / LINE (INCLUDING SENSORS) $0.158	TOTAL FIXTURE COST (MATERIAL PLUS LABOR)	TOTAL SENSOR COST (MATERIAL PLUS LABOR)	TOTAL INSTALLED COST AFTER INCENTIVES
96	010325	WOMENS REST ROOM	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	1	84	724.5	Wall	1	84	1,346	174	113	28	28	725	58	61	$19	$84	$215	$288
97	010326	CORRIDOR	4' Wrap Fluorescent w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84				168	2,610	438	438	28	56	0	146	0	$23	$168	$0	$148
98	010327	STORAGE	No Access. Area inaccessible during audit.	None	1	0				0	360	0	0	0	0	0	0	0	$0	$0	$0	$0
99	010328	JC	Incandescent Fixture w/ (1) 60w Incandescent Lamp	Relamp w/ (1) 14 watt Compact Fluorescent Mini Spring Lamp Screw-In 1 Piece	1	14				14	1,500	21	21	46	46	0	69	0	$11	$16	$0	$16
100	010329	OFFICE	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	4	84	724.5	Ceiling	1	336	1,346	696	452	28	112	725	232	243	$75	$335	$363	$624
101	010331	OFFICE	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84	724.5	Wall	1	168	1,346	348	226	28	56	725	116	122	$38	$168	$215	$362
102	010330	OFFICE	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84	724.5	Wall	1	168	1,346	348	226	28	56	725	116	122	$38	$168	$215	$362
103	010332	OFFICE	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	4	84	724.5	Ceiling	1	336	1,346	696	452	28	112	725	232	243	$75	$335	$363	$624
104	010334	OFFICE	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84	724.5	Ceiling	1	504	1,346	1,043	678	28	168	725	348	365	$113	$503	$363	$771
105	010333	KITCHENETTE	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	2	84				168	2,070	348	348	28	56	0	116	0	$18	$168	$0	$148
106	010335	BLDGS & GROUNDS	2'x4' Parabolic Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Pendent Mounted	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	4	42	724.5	Ceiling	1	168	1,346	348	226	16	64	725	132	122	$40	$273	$363	$596
107	010337	OFFICE	2'x4' Parabolic Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Pendent Mounted	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	724.5	Wall	1	126	1,346	261	170	16	48	725	99	91	$30	$205	$215	$389
108	010336	OFFICE	2'x4' Parabolic Troffer w/ (2) FO32T8 Lamps & (1) Electronic Ballast Pendent Mounted	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	3	42	724.5	Wall	1	126	1,346	261	170	16	48	725	99	91	$30	$205	$215	$389
109	010338	CORRIDOR	2'x4' Troffer w/ (4) FO32T8 Lamps & (2) Electronic Ballasts	Relamp & Reballast w/ (4) F28T8 Lamps & (1) 4/32 Elec. Low-Power High Efficiency Ballast	6	84				504	2,610	1,315	1,315	28	168	0	438	0	$69	$503	$0	$443
110	010339	STAIRS	4' Wrap Fluorescent w/ (2) FO32T8 Lamps & (1) Electronic Ballast	Relamp & Reballast w/ (2) F28T8 Lamps & (1) 2/32 Elec. Low-Power High Efficiency Ballast	1	42				42	2,610	110	110	16	16	0	42	0	$7	$68	$0	$58
111	01EXT	EXTERIOR	HID Wall Pack Fixture w/ (1) 175w Metal Halide Lamp & Ballast	LED (1) New 56w Wall Pack Fixture	2	56				112	4,745	531	531	154	308	0	1,461	0	$231	$884	$0	$884
112	01EXT	EXTERIOR	HID Flood Fixture w/ (1) 100w Metal Halide Lamp & Ballast	New 30-diode Flood Luminaire, 500mA, photocell	1	60				60	4,745	285	285	60	60	0	285	0	$45	$722	$0	$722
113	01EXT	EXTERIOR	HID Floodlight w/ (1) 175w Mercury Vapor Lamp & Ballast	New 30-diode Flood Luminaire, 500mA, photocell	1	60				60	4,745	285	285	142	142	0	674	0	$106	$722	$0	$722
114	010401	ATTIC	4' Wrap Fluorescent w/ (1) FO32T8 Lamp & (1) Electronic Ballast	Relamp & Reballast w/ (1) F28T8 Lamp & (1) 1/32 Elec. Low-Power High Efficiency Ballast	8	22				176	360	63	63	10	80	0	29	0	$5	$406	$0	$326
					299				36	19,218		39,736	32,707		8,590	26,082	17,373	7,029	$3,856	$23,436	$9,955	$30,221

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ECM COSTS & CALCULATIONS

Dome-Tech, Inc.

LIST OF ECM'S BY SCHOOL

TAB	NAME OF SCHOOL
A	Mawbey Street Elementary School (#01)
B	Avenel Street Elementary School (#4/5)
C	Port Reading Elementary School (#09)
D	Ross Street Elementary School (#11)
E	Ford Avenue Elementary School (#14)
F	Indiana Avenue Elementary School (#18)
G	Menlo Park Terrace Elementary School (#19)
H	Claremont Avenue Elementary School (#20)
I	Oak Ridge Elementary School (#21)
J	Lynn Crest Elementary School (#22)
K	Woodbine Ave Elementary School (#23)
L	Kennedy Park Elem School (#24)
M	Lafayette Estates Elem School (#25)
N	Robert Mascenik Elem School (#26)
O	Pennsylvania Ave Elementary School (#27)
P	Matthew Jago Elem School (#28)
Q	Avenel Middle School (#40)
R	Colonia Middle School (#41)
S	Fords Middle School (#42)
T	Iselin Middle School (#43)
U	Woodbridge Middle School (#44)
V	Woodbridge High School (#50)
W	JFK High School (#51)
X	Colonia High School (#52)
Y	Woodbridge Admin Building (#60)

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

COST ESTIMATES

Mawbey Street Elementary School - Condensing Boiler

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	2,000 MBH Nat Gas Condensing Boiler	ea	2	37,000	74,000	10,000	20,000	94,000
2	Demo Existing Boilers	ls	2		-	2,776	5,552	5,552
3	Piping Modifications	ls	1	4,000	4,000	6,000	6,000	10,000
	Other Estimated Implementation Costs							71,373

	TOTAL		**$ 180,930**
	SUB-TOTAL		109,552
	O&P	15%	16,432.80
	ASBESTOS ABATEMENT	0%	-
	DIRECT COST		125,985
	PAYMENT & PERFORMANCE BOND	0%	-
	SUB-TOTAL		125,985
	CONTINGENCY	10%	12,598
	ASBESTOS CONTINGENCY	10%	10,955.20
	SUB-TOTAL		149,538
	ASBESTOS DESIGN & AIR MONITORING, TESTING	15%	16,432.80
	IC FEE	10.0%	14,954
	SUB-TOTAL		180,925
	INTEREST DURING CONSTRUCTION	0%	-
	TOTAL		**$ 180,925**
	Total SmartStart Rebate		**$ 4,000**
		Total	**$ 176,925**

Mawbey Street Elementary School - Like in Kind Boiler Replacement

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	2,000 MBH Nat Gas Boiler	ea	2	19,756	39,512	6,010	12,020	51,532
2	Demo Existing Boilers	ls	2		-	2,776	5,552	5,552
3	Piping Modifications	ls	1	4,000	4,000	6,000	6,000	10,000
	Other Estimated Implementation Costs							43,705

	TOTAL		**$ 110,790**
	SUB-TOTAL		67,084
	O&P	15%	10,062.60
	ASBESTOS ABATEMENT	0%	-
	DIRECT COST		77,147
	PAYMENT & PERFORMANCE BOND	0%	-
	SUB-TOTAL		77,147
	CONTINGENCY	10%	7,715
	ASBESTOS CONTINGENCY	10%	6,708.40
	SUB-TOTAL		91,570
	ASBESTOS DESIGN & AIR MONITORING, TESTING	15%	10,062.60
	IC FEE	10.0%	9,157
	SUB-TOTAL		110,789
	INTEREST DURING CONSTRUCTION	0%	-
	TOTAL		**$ 110,789**
	Total SmartStart Rebate		
		Total	**$ 110,789**

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

COST ESTIMATES

Mawbey Street Elementary School - DHW Pipe Insulation

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Pipe Insulation 1" Pipe	LF	6	2	11	4	26	37
2	1.5"	LF	4	2	8	4	18	25
3	2"	LF	5	2	12	5	23	34
	Other Estimated Implementation Costs							20
	TOTAL							**$ 117**
	SUB-TOTAL							96
	TOTAL							**$ 117**

Mawbey Street Elementary School - Vending Machine Power Management

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Soda Machine		1	179	179	500	500	679
2	Snack Machine		-	179	-	500	-	-
	Other Estimated Implementation Costs							-
	TOTAL							**$ 679**
	SUB-TOTAL							679
	TOTAL							**$ 679**

Mawbey Street Elementary School - Replace Window AC Units

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Energy Star Window AC		22	450	9,900	-	-	9,900
	Other Estimated Implementation Costs							-
	TOTAL							**$ 9,900**

Mawbey Street Elementary School - Winterize Window A/C Units

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Install Insulated Cover	each	22	40.37	888	28.00	616	1,504
	Other Estimated Implementation Costs							-
	TOTAL							**$ 1,504**

Mawbey Street Elementary School - Heating Hot Water Reset

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Heat Timer HWR Platinum	EA	1	2,500	2,500	200	200	2,700
2	Installation - Electrical	HRs	8	0	0	160	1,280	1,280
3	Installation - Mechanical/Plumbing	HRs	8	0	0	160	1,280	1,280
4	Calibration	HRs	8	0	0	160	1,280	1,280
	Other Estimated Implementation Costs							2,616
	TOTAL COST							**$ 9,156**
	SUB-TOTAL							6,540
	O&P						0%	-
	ASBESTOS ABATEMENT							-
	DIRECT COST							6,540
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							6,540
	CONTINGENCY						40%	2,616
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							9,156
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							9,156
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 9,156**

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

COST ESTIMATES

Mawbey Street Elementary School - UV Time of Day Optimization

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Occupancy Sensor	EA	21	400	8,400	200	4,200	12,600
2	1" Electrical Conduit	LF	-	5	-	4	-	-
3	Relay/Wiring	EA	-	425	-	250	-	-
4	10% Mics.		-		-		-	-
	Other Estimated Implementation Costs							3,780
	TOTAL							**$ 16,380**
	SUB-TOTAL							12,600
	O&P						0%	-
	ASBESTOS ABATEMENT							-
	DIRECT COST							12,600
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							12,600
	CONTINGENCY						30%	3,780
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							16,380
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							16,380
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 16,380**

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Mawbey Street Elementary School - Winterize Window AC Units

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.161
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.915

	Existing Condition	Proposed System	Savings
R-Value of Window A/C Uncovered and Covered	0.9	3.4	
Air Leakage of Window A/C Uncovered and Covered (CFM)	1,294.0	1,099.9	**194**
Annual heating loss, Therms	2,721	2,187	533
Annual Natural Gas Cost and Savings, $	$ 2,489	$ 2,001	$ 488
Annual Cost and Savings, $	$ 2,489	$ 2,001	**$ 488**

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Mawbey Street Elementary School - Savings from Replacing Window AC Units

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.161
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.915

	Existing Condition	Proposed System	Savings
Total Number of Units	22	22	
Number of Inefficient Units	22	22	
Capacity per Unit, Tons	1.00	1.00	
Total Capacity, Tons	22.0	22.0	
Assumed Efficiency, EER	9.8	10.8	
Total Hours of Normal Operation, hrs	2,008	2,008	
Cooling Load Factor	25%	25%	
Annual Cooling Production, ton-hours	10,893	10,893	
Annual Cooling Load, kBTU	130,713	130,713	
Annual Peak Demand Reduction (kW)	1.9	1.8	0.18
Annual Electrical Consumption, kWh	13,338	12,103	1,235
Annual Cost and Savings, $	$ 2,147	$ 1,949	**$ 199**

1. Assume existing systems runs when outside air temperature (OAT) is above 70F during building occupied hours.
2. Both conditions are simulated with non-programmable thermostats.
3. Load factor calculation represents the percentage of time when the unit operates at full load.
4.Conventional units have 9.8 EER.
5. Assume the new units have an efficiency of 10.8 EER which meets Energy Star standard.
6. Coincidence Factor for peak kW reduction taken from Maryland Public Utility Commission: Appendix A Measure Analysis Spreadsheet

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Mawbey Street Elementary School - Vending Machine Power Management System

Price of #2 Fuel Oil, $/gal	#N/A
Price of City Water, $/1000 gallons	
Price of Electricity, $/kWh (blended rate)	$0.161
Price of the Demand of Electricity, $/kW/month	$0.000
Price of Natural Gas, $/therm	$0.915

	Existing Condition	Proposed System	Savings
Soda Machine Power Consumption	100%	56%	44%
Soda Machine Annual Op Cost	$ 931	$ 410	521
Run Hours	5,256	5,256	
Soda Annual Energy Consumption (kWh)	5,782	2,544	3,238
Snack Machine Power Consumption	100%	56%	44%
Annual Op Cost	$ -	$ -	0
Run Hours	5,256	5,256	
Annual Energy Consumption (kWh)	-	-	-
Total Annual Energy Consumption (kWh)	5,782	2,544	**3,238**
Annual Cost and Savings, $	$ 931	$ 410	**$ 521**

Mawbey Street Elementary School - Increase Insulation on HHW Piping

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	x
3. Price of Electricity, $/kWh (blended rate)	$0.161
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.915

Total Savings

	Existing Condition	Proposed System	Savings
Number of Ft of underinsulated pipe		0	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	4,139,626	1,148,348	**2,991,277**
Annual Therms lost	41	11	**30**
Annual Cost and Savings, $	$ 38	$ 11	**$ 27**

1" pipe	Existing Condition	Proposed System	Savings
Number of Ft of underinsulated pipe	**6**	6	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	1,244,095	367,920	**876,175**
Annual Therms lost	12	4	**9**
Annual Cost and Savings, $	$ 11	$ 3	**$ 8**

1. Assumes DHW supply temp on 120 degrees F
2. Assumes 6 feet of 1.00 inch pipe.

1.5" pipe	Existing	Proposed	Savings
Number of Ft of underinsulated pipe	**4**	4	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	1,146,158	317,462	**828,696**
Annual Therms lost	11	3	**8**
Annual Cost and Savings, $	$ 10	$ 3	**$ 8**

1. Assumes DHW supply temp on degrees F
2. Assumes 6 feet of 1.00 inch pipe.

2" pipe	Existing Condition	Proposed System	Savings
Number of Ft of underinsulated pipe	**5**	5	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	1,749,372	462,966	**1,286,406**
Annual Therms lost	17	5	**13**
Annual Cost and Savings, $	$ 16	$ 4	**$ 12**

1. Assumes DHW supply temp on degrees F
2. Assumes 6 feet of 1.00 inch pipe.

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Mawbey Street Elementary School - Replace Boilers with Higher Efficiency Boilers

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.161
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.915

	Existing Condition	Proposed System	Savings
Heating Boiler Fuel Consumption, therms	10,760	9,923	837
Heating Boiler Fuel Cost	$ 9,845	$ 9,080	**$ 766**

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Mawbey Street Elementary School - Implement a HHW Temperature Setpoint Reset Program

1. Price of #2 Fuel Oil, $/gal		$0.000
2. Price of City Water, $/1000 gallons		$0.000
3. Price of Electricity, $/kWh (blended rate)		$0.161
4. Price of the Demand of Electricity, $/kW/month		$0.000
5. Price of Natural Gas, $/therm		$0.915

	Existing Condition	Proposed System	Savings
HHW Setpoint at OAT = 0 degrees F	**180**	180	
HHW Setpoint at OAT = 40 degrees F	180	**140**	
Annual Btu losses	293,908,500	178,715,310	**115,193,190**
Energy Use (Therms)	2,939	1,787	**1,152**
Energy Use (kWh)	--	--	**-**
Annual Cost and Savings, $	$ 2,689	$ 1,635	**$ 1,054**

** Assumes 1" cellular glass fiber insulation with AP-T casing
** Assumes 75 degree ambient temperature

CALCULATIONS

Mawbey Street Elementary School - Integrate Occupancy Sensor Control of UVs

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.161
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.915

	Existing Condition	Proposed System	Savings
Unit Ventilator Operating Condition	Zone Thermostat	Occupancy Override	
Annual Btu Required	1,314,734,318	858,551,022	**456,183,295**
Energy Use (Therms)	5,156	3,367	**1,789**
Energy Use (kWh)	--	--	**-**
Annual Operating Cost ($)	$ 4,718	$ 3,081	**$ 1,637**

Hours of Operation	*Hrs/Day*
Avg. Existing	5.0
Avg. Proposed	5.0

* There is no demand reduction for this measure
* No rebates or other financial incentives were available for this measure

WOODBRIDGE TOWSHIP SCHOOL DISTRICT

COST ESTIMATE

Computer Power Management

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Computer Power Management		30	29	870		-	870
	Other Estimated Implementation Costs							-
	TOTAL							**$ 870**
	SUB-TOTAL							870
	TOTAL							**$ 870**

DHW Pipe Insulation

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	1" Pipe Insulation	LF	8	2	14	4	35	49
	Other Estimated Implementation Costs							10
	TOTAL							**$ 59**
	SUB-TOTAL							49
	TOTAL							**$ 59**

HHW and Steam Pipe Insulation

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	4" Pipe	LF	75	3	238	6	453	691
2	4" Pipe	LF	25	3	79	6	151	230
3	2" Pipe	LF	20	2	47	5	91	138
4	6" Pipe	LF	8	4	31	8	60	91
5	12" Pipe	LF	6	10	57	12	73	130
6	6" Pipe	LF	12	4	46	8	90	136
7	4" Pipe	LF	12	3	38	6	72	111
	Other Estimated Implementation Costs							321
	TOTAL							**$ 1,847**
	SUB-TOTAL							1,527
	TOTAL							**$ 1,847**

Vending Machine Power Management

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Soda Machine		1	179	179	500	500	679
2	Snack Machine		1	179	179	500	500	679
	Other Estimated Implementation Costs							-
	TOTAL							**$ 1,358**
	SUB-TOTAL							1,358
	TOTAL							**$ 1,358**

End of Useful Life Energy Star Window AC

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Energy Star Window AC		31	450	13,950	-	-	13,950
	Other Estimated Implementation Costs							-
	TOTAL							**$ 13,950**

COST ESTIMATE

Winterize Window A/C Units

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Install Insulated Cover	each	31	50.00	1,550	28.00	868	2,418
	Other Estimated Implementation Costs							-
	TOTAL							**$ 2,418**

HHW Pump Controls

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Install Pump Controls		1	1,500	1,500	1,000	1,000	2,500
	Other Estimated Implementation Costs							250
	TOTAL							**$ 2,750**

UV Time of Day Optimization

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Occupancy Sensor in new T-stat	EA	36	400	14,400	200	7,200	21,600
	Other Estimated Implementation Costs							9,504
	TOTAL							**$ 31,104**
	SUB-TOTAL							21,600
	O&P						20%	4,320
	ASBESTOS ABATEMENT							-
	DIRECT COST							25,920
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							25,920
	CONTINGENCY						20%	5,184
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							31,104
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							31,104
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 31,104**

AHU Scheduling

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Programming (2 HVAC Units)	EA	2	-	-	100	200	200
2				-	-	-	-	-
	Other Estimated Implementation Costs							60
	TOTAL							**$ 260**
	SUB-TOTAL							200
	O&P						0%	-
	ASBESTOS ABATEMENT							-
	DIRECT COST							200
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							200
	CONTINGENCY						30%	60
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							260
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							260
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 260**

COST ESTIMATE

Boiler Conversion from Steam to Condensing Hot Water

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	2,000 MBH Nat Gas Condensing Boiler	EA	2	37,000	74,000	10,000	20,000	94,000
2	Demo Existing Steam Boilers	EA	2	0	-	2,776	5,552	5,552
3	Demo Existing Heat Exchanger	EA	3	0	-	2,000	6,000	6,000
4	Piping Modifications	EA	1	4,000	4,000	6,000	6,000	10,000
5	Controls Upgrade	EA	2	5,000	10,000	2,000	4,000	14,000
	Other Estimated Implementation Costs							45,239
	TOTAL							**$ 160,791**
	SUB-TOTAL							115,552
	O&P						15%	17,333
	ASBESTOS ABATEMENT							-
	DIRECT COST							132,885
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							132,885
	CONTINGENCY						10%	13,288
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							146,173
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						10.0%	14,617
	SUB-TOTAL							160,791
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 160,791**
	Total SmartStart Rebate							**$ 4,000**
							Total	**$ 156,791**

Boiler Conversion from Steam to Cast Iron Hot Water - Like in Kind

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	2,000 MBH Nat Gas Boiler	EA	2	19,756	39,512	6,010	12,020	51,532
2	Demo Existing Steam Boilers	EA	2	0	-	2,776	5,552	5,552
3	Demo Existing Heat Exchanger	EA	3	0	-	2,000	6,000	6,000
4	Piping Modifications	EA	1	4,000	4,000	6,000	6,000	10,000
5	Controls Upgrade	EA	2	5,000	10,000	2,000	4,000	14,000
	Other Estimated Implementation Costs							28,612
	TOTAL							**$ 101,696**
	SUB-TOTAL							73,084
	O&P						15%	10,963
	ASBESTOS ABATEMENT							-
	DIRECT COST							84,047
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							84,047
	CONTINGENCY						10%	8,405
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							92,451
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						10.0%	9,245
	SUB-TOTAL							101,696
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 101,696**
	Total SmartStart Rebate							
							Total	**$ 101,696**

COST ESTIMATE

Avenel Street Elementary School - Computer Time of Day Optimization

Summary

Electricity Savings (kWh/yr)	6,920
Natural Gas Savings (therms/yr)	0
Estimated Cost Savings ($/yr)	$1,086
Estimated Implementation Cost ($)	$863
Estimated Rebate ($)	$0
Estimated Implementation Cost after Rebate ($)	$863
Simple Payback (Years)	0.8

1. Assuming computers are completely powered down during summer vacation.
2. Computer and monitor power consumption values based on 2009 ASHRAE Fundamentals, Section 18.12, Table 8.
3. Savings assumes all computers go into standby/sleep mode during unoccupied building hours.

COST ESTIMATE

Avenel Street Elementary School - Winterize Window AC Units

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.157
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.899

	Existing Condition	Proposed System	Savings
R-Value of Window A/C Uncovered and Covered	0.9	3.4	
Air Leakage of Window A/C Uncovered and Covered (CFM)	1,823.4	1,549.9	**274**
Annual heating loss, Therms	2,489	2,004	485
Annual Natural Gas Cost and Savings, $	$ 2,237	$ 1,802	$ 436
Annual Cost and Savings, $	$ 2,237	$ 1,802	**$ 436**

Avenel Street Elementary School - Savings From Replacing Window AC Units

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.157
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.899

	Existing Condition	Proposed System	Savings
Total Number of Units	31	31	
Number of Inefficient Units	31	31	
Capacity per Unit, Tons	1.00	1.00	
Total Capacity, Tons	31.0	31.0	
Assumed Efficiency, EER	9.8	10.8	
Total Hours of Normal Operation, hrs	2,008	2,008	
Cooling Load Factor	25%	25%	
Annual Cooling Production, ton-hours	15,349	15,349	
Annual Cooling Load, kBTU	184,186	184,186	
Annual Peak Demand Reduction (kW)	2.7	2.5	0.25
Annual Electrical Consumption, kWh	18,794	17,054	1,740
Annual Cost and Savings, $	$ 2,951	$ 2,678	**$ 273**

1. Assume existing systems runs when outside air temperature (OAT) is above 70F during building occupied hours.
2. Both conditions are simulated with non-programmable thermostats.
3. Load factor calculation represents the percentage of time when the unit operates at full load.
4. Conventional units standard of 9.8 EER.
5. Assume the new units have an efficiency of 10.8 EER which meets Energy Star standard.
6. Coincidence Factor for peak kW reduction taken from Maryland Public Utility Commission: Appendix A Measure Analysis Spreadsheet

Avenel Street Elementary School - Vending Machine Power Management System

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.157
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.899

	Existing Condition	Proposed System	Savings
Soda Machine Power Consumption	100%	56%	44%
Soda Machine Annual Op Cost	$ 908	$ 399	508
Run Hours	5,256	5,256	
Soda Annual Energy Consumption (kWh)	5,782	2,544	3,238
Snack Machine Power Consumption	100%	56%	44%
Annual Op Cost	$ 66	$ 29	37
Run Hours	5,256	5,256	
Annual Energy Consumption (kWh)	420	185	**235**
Total Annual Energy Consumption (kWh)	6,202	2,729	**3,473**
Annual Cost and Savings, $	$ 974	$ 428	**$ 545**

1. Run hours based on fan motors being run 8760 hrs

Utility Unit Costs

Electrical Unit Cost, $/kwh	**$0.157**

Soda Machine Count	1
Snack Machine Count	1
Annual Run-Time Factor	60%

VendMiser Installation Savings

Soda Machine Power Consumption, kw	1.10	0.616
Annual Savings %	56%	
Electrical Unit Cost, $ per kilowatt-hour	$0.157	
Annual Energy Savings	$508	

VendMiser Installation Savings

Snack Machine Power Consumption, kw	0.08
Annual Savings %	56%
Electrical Unit Cost, $ per kilowatt-hour	$0.157
Annual Energy Savings	$37

Economics Summary

kWh Savings	3,473
Estimated Annual Savings	$545
Vendmiser Unit Cost	$179
Total Installation Cost ($500/unit)	$1,000
Total Vendmiser Cost (ECM)	**$1,358**
Simple Payback, Years	2.49

COST ESTIMATE

Avenel Street Elementary School - Increase insulation on HHW piping

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.157
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.899

Total Savings

	Existing Condition	Proposed System	Savings
Number of Ft of underinsulated pipe		0	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	108,928,785	19,610,744	**89,318,041**
Annual Therms lost	1,089	196	**893**
Annual Cost and Savings, $	$ 979	$ 176	**$ 803**

4" Pipe	Existing Condition	Proposed System	Savings
Number of Ft of underinsulated pipe	**75**	75	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	45,654,773	8,349,281	**37,305,491**
Annual Therms lost	457	83	**373**
Annual Cost and Savings, $	$ 410	$ 75	**$ 335**

1. Assumes DHW supply temp on 180 degrees F
2. Assumes 75 feet of 4.00 inch pipe.

COST ESTIMATE

Avenel Street Elementary School - Increase insulation on HHW piping

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.157
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.899

	Existing Condition	Proposed System	Savings
Number of Ft of underinsulated pipe	**8**	8	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	1,658,794	490,560	**1,168,234**
Annual Therms lost	17	5	**12**
Annual Cost and Savings, $	$ 15	$ 4	**$ 11**

1. Assumes DHW supply temp on 120 degrees F
2. Assumes 8 feet of 1.00 inch pipe.
3. Assuming 8ft on 1" pipe

Avenel Street Elementary School - Increase insulation on HHW piping

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.157
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.899

Savings

	Existing	Proposed	Savings
Pump kWh Consumption	15,078	3,715	11,363
Pump kWh Cost	$ 2,367	$ 583	$ 1,784

Existing Pumps

Pump	Equipment	Motor Mfg	Motor Model	Quantity	GPM	Head ft	HP	RPM	VFD?	Efficiency
1		Armstrong	116638	2	NA	NA	1/4	NA	No	84%
2	Inline HW Pumps	Armstrong		2	NA	NA	1/6	NA	No	84%
3	Inline HW Pumps	Marathon Electric	E903	2	90	35	2	1725	No	84%
4	HW Pumps	Marathon Electric	E903	2	NA	NA	2	1735	No	84%

Pump	Qty	HP	kW	Existing Op Hrs	Proposed Op Hrs	Current kWh	Proposed kWh
1	2	0.25	0.1865	3844	947	853	210
2	2	0.17	0.1243333	3844	947	569	140
3	2	2	1.492	3844	947	6828	1682
4	2	2	1.492	3844	947	6828	1682
					Total	**15077.78**	**3714.532**

1. Proposed pump controls would turn off pumps when OAT is above 35F.
2. Assuming heating season is when OAT goes below 65F.
3. Op hours are for unoccupied times when the school is not heating.

COST ESTIMATE

Avenel Street Elementary School - Replace Boilers with Higher Efficiency Boilers

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.157
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.899

	Existing Condition	Proposed System	Savings
Heating Boiler Fuel Consumption, therms	27,417	26,076	1,340
Heating Boiler Fuel Cost	$ 24,647	$ 23,442	**$ 1,205**

COST ESTIMATE

Avenel Street Elementary School - Integrate Occ. Sensor Control of UVs

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.157
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.899

	Existing Condition	Proposed System	Savings
Unit Ventilator Operating Condition	Zone Thermostat	Occupancy Override	
Annual Btu Required	2,219,269,133	1,410,746,951	**808,522,182**
Energy Use (Therms)	8,703	5,532	**3,171**
Energy Use (kWh)	--	--	**-**
Annual Operating Cost ($)	$ 7,824	$ 4,974	**$ 2,850**

Hours of Operation	*Hrs/Day*
Existing	4.7
Proposed	4.7

* Assumed Fans are equipped with Motors of HP listed in calculation table
* There is no demand reduction for this measure

COST ESTIMATE

Avenel Street Elementary School - Reschedule Trane AHUs

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.157
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.899

	Existing Condition	***Proposed System***	***Savings***
Programming	M-F 4a-10p S-S 8a-8p	M-F 6a-9p S-S 9a-3p	
Annual Btu	3,856,182,933	2,942,876,449	**913,306,484**
Energy Use (Therms)	8,021	6,121	**1,900**
Energy Use (kWh)	120,818	92,204	**28,615**
Annual Operating Cost ($)	$ 27,452	$ 20,950	**$ 6,502**

Hours of Operation	*Hrs/Day*
Existing	14
Proposed	9

* Assumed Fans are equipped with Motors of HP listed in calculation table
* There is no demand reduction for this measure

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

COST ESTIMATES

Port Reading Elementary School - Condensing Boiler

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	2,000 MBH Nat Gas Condensing Boiler	ea	2	37,000	74,000	10,000	20,000	94,000
2	Demo Existing Boilers	ls	2		-	2,776	5,552	5,552
3	Piping Modifications	ls	1	4,000	4,000	6,000	6,000	10,000
	Other Estimated Implementation Costs							71,373
	TOTAL							**$ 180,930**
	SUB-TOTAL							109,552
	O&P						15%	16,432.80
	ASBESTOS ABATEMENT						0%	-
	DIRECT COST							125,985
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							125,985
	CONTINGENCY						10%	12,598
	ASBESTOS CONTINGENCY						10%	10,955.20
	SUB-TOTAL							149,538
	ASBESTOS DESIGN & AIR MONITORING, TESTING						15%	16,432.80
	IC FEE						10.0%	14,954
	SUB-TOTAL							180,925
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 180,925**
	Total SmartStart Rebate							**$ 4,000**
							Total	**$ 176,925**

Port Reading Elementary School - Like in Kind Boiler Replacement

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	2,000 MBH Nat Gas Boiler	ea	2	19,756	39,512	6,010	12,020	51,532
2	Demo Existing Boilers	ls	2		-	2,776	5,552	5,552
3	Piping Modifications	ls	1	4,000	4,000	6,000	6,000	10,000
4		ls	1		-		-	-
	Other Estimated Implementation Costs							43,705
	TOTAL							**$ 110,790**
	SUB-TOTAL							67,084
	O&P						15%	10,062.60
	ASBESTOS ABATEMENT						0%	-
	DIRECT COST							77,147
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							77,147
	CONTINGENCY						10%	7,715
	ASBESTOS CONTINGENCY						10%	6,708.40
	SUB-TOTAL							91,570
	ASBESTOS DESIGN & AIR MONITORING, TESTING						15%	10,062.60
	IC FEE						10.0%	9,157
	SUB-TOTAL							110,789
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 110,789**
	Total SmartStart Rebate							
							Total	**$ 110,789**

Port Reading Elementary School - CRT to Flatscreen

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	CRT to Flat Screen		10	75	750		-	750
	Other Estimated Implementation Costs							-
	TOTAL							**$ 750**
	SUB-TOTAL							750
	TOTAL							**$ 750**

COST ESTIMATES

Port Reading Elementary School - Computer Power Management

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Computer Power Management		48	29	1,392		-	1,392
	Other Estimated Implementation Costs							-
	TOTAL							**$ 1,392**
	SUB-TOTAL							1,392
	TOTAL							**$ 1,392**

Port Reading Elementary School - DHW Pipe Insulation

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Pipe Insulation 1.5" Pipe	LF	15	2	29	4	66	95
	Other Estimated Implementation Costs							20
	TOTAL							**$ 115**
	SUB-TOTAL							95
	TOTAL							**$ 115**

Port Reading Elementary School - Vending Machine Power Management

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Soda Machine		1	179	179	500	500	679
2	Snack Machine		1	179	179	500	500	679
	Other Estimated Implementation Costs							-
	TOTAL							**$ 1,358**
	TOTAL							**$ 1,358**

Port Reading Elementary School - End of Useful Life Energy Star Window AC

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Energy Star Window AC over Convention	each	26	450	11,700	-	-	11,700
	Other Estimated Implementation Costs							-
	TOTAL							**$ 11,700**

COST ESTIMATES

Port Reading Elementary School - Winterize Window A/C Units

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Install Insulated Cover	each	26	50.00	1,300	28.00	728	2,028
	Other Estimated Implementation Costs							-
	TOTAL							**$ 2,028**

Port Reading Elementary School - Heating Hot Water Reset

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Heat Timer HWR Platinum	EA	1	2,500	2,500	200	200	2,700
2	Installation - Electrical	HRs	8	0	0	160	1,280	1,280
3	Installation - Mechanical/Plumbing	HRs	8	0	0	160	1,280	1,280
4	Calibration	HRs	8	0	0	160	1,280	1,280
	Other Estimated Implementation Costs							2,616
	TOTAL COST							**$ 9,156**
	SUB-TOTAL							6,540
	O&P						0%	-
	ASBESTOS ABATEMENT							-
	DIRECT COST							6,540
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							6,540
	CONTINGENCY						40%	2,616
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							9,156
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							9,156
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 9,156**

Port Reading Elementary School - UV Time of Day Optimization

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Occupancy Sensor	EA	22	400	8,800	200	4,400	13,200
	Other Estimated Implementation Costs							5,808
	TOTAL							**$ 19,008**
	SUB-TOTAL							13,200
	O&P						20%	2,640
	ASBESTOS ABATEMENT							-
	DIRECT COST							15,840
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							15,840
	CONTINGENCY						20%	3,168
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							19,008
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							19,008
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 19,008**

WOODBRIDGE TOWSHIP SCHOOL DISTRICT

CALCULATIONS

Port Reading Elementary School - Winterize Window AC Units

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.172
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.911

	Existing Condition	Proposed System	Savings
R-Value of Window A/C Uncovered and Covered	0.9	3.4	
Air Leakage of Window A/C Uncovered and Covered (CFM)	1,529.3	1,299.9	**229**
Annual heating loss, Therms	2,065	1,660	405
Annual Natural Gas Cost and Savings, $	$ 1,881	$ 1,512	$ 369
Annual Cost and Savings, $	$ 1,881	$ 1,512	**$ 369**

Port Reading Elementary School - Savings From Replacing Window AC Units

Central Elementary

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.172
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.911

	Existing Condition	Proposed System	Savings
Total Number of Units	26	26	
Number of Inefficient Units	26	26	
Capacity per Unit, Tons	1.00	1.00	
Total Capacity, Tons	26.0	26.0	
Assumed Efficiency, EER	9.8	10.8	
Total Hours of Normal Operation, hrs	2,008	2,008	
Cooling Load Factor	25%	25%	
Annual Cooling Production, ton-hours	12,873	12,873	
Annual Cooling Load, kBTU	154,478	154,478	
Annual Peak Demand Reduction (kW)	2.3	2.1	0.21
Annual Electrical Consumption, kWh	15,763	14,304	1,460
Annual Cost and Savings, $	$ 2,711	$ 2,460	**$ 251**

1. Assume existing systems runs when outside air temperature (OAT) is above 70F during building occupied hours.
2. Both conditions are simulated with non-programmable thermostats.
3. Load factor calculation represents the percentage of time when the unit operates at full load.
4. Conventional units standard of 9.8 EER.
5. Assume the new units have an efficiency of 10.8 EER which meets Energy Star standard.
6. Coincidence Factor for peak kW reduction taken from Maryland Public Utility Commission: Appendix A Measure Analysis Spreadsheet

WOODBRIDGE TOWSHIP SCHOOL DISTRICT

CALCULATIONS

Port Reading Elementary School - Vending Machine Power Management System

Elementary School

Price of #2 Fuel Oil, $/gal	
Price of City Water, $/1000 gallons	
Price of Electricity, $/kWh (blended rate)	$0.172
Price of the Demand of Electricity, $/kW/month	
Price of Natural Gas, $/therm	

	Existing Condition	Proposed System	Savings
Soda Machine Power Consumption	100%	56%	44%
Soda Machine Annual Op Cost	$ 994	$ 438	557
Run Hours	5,256	5,256	
Soda Annual Energy Consumption (kWh)	5,782	2,544	3,238
Snack Machine Power Consumption	100%	56%	44%
Annual Op Cost	$ 72	$ 32	41
Run Hours	5,256	5,256	
Annual Energy Consumption (kWh)	420	185	**235**
Total Annual Energy Consumption (kWh)	6,202	2,729	**3,473**
Annual Cost and Savings, $	$ 1,067	$ 469	**$ 597**

1. Run hours based on fan motors being run 8760 hrs

Utility Unit Costs

Electrical Unit Cost, $/kwh	**$0.172**

Soda Machine Count	1
Snack Machine Count	1
Annual Run-Time Factor	60%

VendMiser Installation Savings

Soda Machine Power Consumption, kw	1.10	0.616
Annual Savings %	56%	
Electrical Unit Cost, $ per kilowatt-hour	$0.172	
Annual Energy Savings	$557	

VendMiser Installation Savings

Snack Machine Power Consumption, kw	0.08
Annual Savings %	56%
Electrical Unit Cost, $ per kilowatt-hour	$0.172
Annual Energy Savings	$41

Economics Summary

kWh Savings	3,473
Estimated Annual Savings	$597
Vendmiser Unit Cost	$179
Total Installation Cost ($500/unit)	$1,000
Total Vendmiser Cost (ECM)	**$1,358**
Simple Payback, Years	2.27

WOODBRIDGE TOWSHIP SCHOOL DISTRICT

CALCULATIONS

Port Reading Elementary School - Increase insulation on HHW piping

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	x
3. Price of Electricity, $/kWh (blended rate)	$0.172
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.911

	Existing Condition	Proposed System	Savings
Number of Ft of underinsulated pipe	**15**	15	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	4,298,094	1,190,484	**3,107,610**
Annual Therms lost	43	12	**31**
Annual Cost and Savings, $	$ 39	$ 11	**$ 28**

1. Assumes DHW supply temp on 120 degrees F
2. Assumes 15 feet of 1.50 inch pipe.

Port Reading Elementary School - Replace Boilers with Higher Efficiency Boilers

Central Elementary

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.172
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.911

	Existing Condition	Proposed System	Savings
Heating Boiler Fuel Consumption, therms	19,621	18,095	1,526
Heating Boiler Fuel Cost	$ 17,875	$ 16,484	**$ 1,390**

Port Reading Elementary School - Computer Time of Day Optimization

Summary

Electricity Savings (kWh/yr)	11,072
Natural Gas Savings (therms/yr)	0
Estimated Cost Savings ($/yr)	$1,904
Estimated Implementation Cost ($)	$1,380
Estimated Rebate ($)	$0
Estimated Implementation Cost after Rebate ($)	$1,380
Simple Payback (Years)	0.7

1. Assuming computers are completely powered down during summer vacation.

2. Computer and monitor power consumption values based on 2009 ASHRAE Fundamentals, Section 18.12, Table 8.

3. Savings assumes all computers go into standby/sleep mode during unoccupied building hours.

Port Reading Elementary School - CRT to Flatscreen

Summary

Electricity Savings (kWh/yr)	1,004
Natural Gas Savings (therms/yr)	0
Estimated Cost Savings ($/yr)	$173
Estimated Implementation Cost ($)	$750
Estimated Rebate ($)	$0
Estimated Implementation Cost after Rebate ($)	$750
Simple Payback (Years)	4.3

1. Assuming computers are completely powered down during summer vacation.
2. Computer and monitor power consumption values based on 2009 ASHRAE Fundamentals, Section 18.12, Table 8.
3. Savings assumes all computers go into standby/sleep mode during unoccupied building hours.

WOODBRIDGE TOWSHIP SCHOOL DISTRICT

CALCULATIONS

Port Reading Elementary School - Implement a HHW Temperature Setpoint Reset Program

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.172
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.911

	Existing Condition	***Proposed System***	***Savings***
HHW Setpoint at OAT = 0 degrees F	**180**	180	
HHW Setpoint at OAT = 40 degrees F	180	**140**	
Annual Btu losses	525,451,050	319,508,103	**205,942,947**
Energy Use (Therms)	5,255	3,195	**2,059**
Energy Use (kWh)	--	--	**-**
Annual Cost and Savings, $	$ 4,787	$ 2,911	**$ 1,876**

** Assumes 1" cellular glass fiber insulation with AP-T casing
** Assumes 75 degree ambient temperature

CALCULATIONS

Port Reading Elementary School - Integrate Occ. Sensor Control of UVs

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.172
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.911

	Existing Condition	***Proposed System***	***Savings***
Unit Ventilator Operating Condition	Zone Thermostat	Occupancy Override	
Annual Btu Required	1,046,226,877	665,066,420	**381,160,457**
Energy Use (Therms)	3,487	2,217	**1,271**
Energy Use (kWh)	--	--	**-**
Annual Operating Cost ($)	$ 3,738	$ 2,376	**$ 1,362**

Hours of Operation	*Hrs/Day*
Existing	4.5
Proposed	4.5

* Assumed Fans are equipped with Motors of HP listed in calculation table
* There is no demand reduction for this measure

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

COST ESTIMATES

Ross Street Elementary School - DHW Pipe Insulation

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Pipe Insulation 3/4" Pipe	LF	50	2	87	4	206	293
	Other Estimated Implementation Costs							62
	TOTAL							**$ 355**
	SUB-TOTAL							293
	TOTAL							**$ 355**

Ross Street Elementary School - Vending Machine Power Management

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Soda Machine		1	179	179	500	500	679
2	Snack Machine		-	179	-	500	-	-
	Other Estimated Implementation Costs							-
	TOTAL							**$ 679**
	TOTAL							**$ 679**

End of Useful Life Energy Star Window AC

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Energy Star Window AC over Conventional U		37	450	16,650	-	-	16,650
	Other Estimated Implementation Costs							-
	TOTAL							**$ 16,650**

Ross Street Elementary School - Winterize Window A/C Units

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Install Insulated Cover	each	26	50.00	1,295	28.00	725	2,020
2	Interior Insulated Cover	each	11	27.00	300	28.00	311	611
3		l.f			-		-	-
	Other Estimated Implementation Costs							-
	TOTAL							**$ 2,631**

Ross Street Elementary School - Heating Hot Water Reset

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Heat Timer HWR Platinum	EA	1	2,500	2,500	200	200	2,700
2	Installation - Electrical	HRs	8	0	0	160	1,280	1,280
3	Installation - Mechanical/Plumbin	HRs	8	0	0	160	1,280	1,280
4	Calibration	HRs	8	0	0	160	1,280	1,280
	Other Estimated Implementation Costs							2,616
	TOTAL COST							**$ 9,156**
	SUB-TOTAL							6,540
	O&P						0%	-
	ASBESTOS ABATEMENT							-
	DIRECT COST							6,540
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							6,540
	CONTINGENCY						40%	2,616
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							9,156
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							9,156
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 9,156**

Ross Street Elementary School - UV Time of Day Optimization

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Occupancy Sensor	EA	24	400	9,600	200	4,800	14,400
	Other Estimated Implementation Costs							8,064
	TOTAL							**$ 22,464**
	SUB-TOTAL							14,400
	O&P						20%	2,880
	ASBESTOS ABATEMENT							-
	DIRECT COST							17,280
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							17,280
	CONTINGENCY						30%	5,184
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							22,464
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							22,464
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 22,464**

Ross Street Elementary School - Boiler Conversion from Steam to Condensing Hot Water

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	2,599 MBH Nat Gas Condensing Boiler	EA	2	46,250	92,500	10,000	20,000	112,500
2	Demo Existing Steam Boilers	EA	2	0	-	2,776	5,552	5,552
3	Demo Existing Heat Exchanger	EA	1	0	-	2,000	2,000	2,000
4	Piping Modifications	EA	1	4,000	4,000	6,000	6,000	10,000
5	Controls Upgrade	EA	2	5,000	10,000	2,000	4,000	14,000
	Other Estimated Implementation Costs							72,242
	TOTAL							**$ 216,294**
	SUB-TOTAL							144,052
	O&P						15%	21,608
	ASBESTOS ABATEMENT							14,405
	DIRECT COST							180,065
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							180,065
	CONTINGENCY						10%	16,566
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							196,631
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						10.0%	19,663
	SUB-TOTAL							216,294
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 216,294**
	Rebate							5000

Boiler Conversion from Steam to Cast Iron Hot Water

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	2,599 MBH Nat Gas Condensing Boiler	EA	2	28,425	56,850	10,971	21,942	78,792
2	Demo Existing Steam Boilers	EA	2	0	-	2,776	5,552	5,552
3	Demo Existing Heat Exchanger	EA	1	0	-	2,000	2,000	2,000
4	Piping Modifications	EA	1	4,000	4,000	6,000	6,000	10,000
5	Controls Upgrade	EA	2	5,000	10,000	2,000	4,000	14,000
	Other Estimated Implementation Costs							55,338
	TOTAL							**$ 165,682**
	SUB-TOTAL							110,344
	O&P						15%	16,552
	ASBESTOS ABATEMENT							11,034
	DIRECT COST							137,930
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							137,930
	CONTINGENCY						10%	12,690
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							150,620
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						10.0%	15,062
	SUB-TOTAL							165,682
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 165,682**

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Ross Street Elementary School - Winterize Window AC Units

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.155
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.899

	Existing Condition	Proposed System	Savings
R-Value of Window A/C Uncovered and Covered	0.9	3.4	
Air Leakage of Window A/C Uncovered and Covered (CFM)	2,176.3	1,849.8	**326**
Annual heating loss, Therms	2,977	2,394	584
Annual Natural Gas Cost and Savings, $	$ 2,677	$ 2,152	$ 525
Annual Cost and Savings, $	$ 2,677	$ 2,152	**$ 525**

Ross Street Elementary School - Savings From Replacing Window AC Units

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.155
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.899

	Existing Condition	Proposed System	Savings
Total Number of Units	37	37	
Number of Inefficient Units	37	37	
Capacity per Unit, Tons	1.00	1.00	
Total Capacity, Tons	37.0	37.0	
Assumed Efficiency, EER	9.8	10.8	
Total Hours of Normal Operation, hrs	2,008	2,008	
Cooling Load Factor	25%	25%	
Annual Cooling Production, ton-hours	18,320	18,320	
Annual Cooling Load, kBTU	219,835	219,835	
Annual Peak Demand Reduction (kW)	3.3	3.0	0.30
Annual Electrical Consumption, kWh	22,432	20,355	2,077
Annual Cost and Savings, $	$ 3,477	$ 3,155	**$ 322**

1. Assume existing systems runs when outside air temperature (OAT) is above 70F during building occupied hours.
2. Both conditions are simulated with non-programmable thermostats.
3. Load factor calculation represents the percentage of time when the unit operates at full load.
4. Conventional units standard of 9.8 EER.
5. Assume the new units have an efficiency of 10.8 EER which meets Energy Star standard.
6. Coincidence Factor for peak kW reduction taken from Maryland Public Utility Commission: Appendix A Measure Analysis Spreadsheet

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Ross Street Elementary School - Vending Machine Power Management System

Price of #2 Fuel Oil, $/gal	
Price of City Water, $/1000 gallons	
Price of Electricity, $/kWh (blended rate)	$0.155
Price of the Demand of Electricity, $/kW/month	
Price of Natural Gas, $/therm	$0.899

	Existing Condition	Proposed System	Savings
Soda Machine Power Consumption	100%	56%	44%
Soda Machine Annual Op Cost	$ 896	$ 394	502
Run Hours	5,256	5,256	
Soda Annual Energy Consumption (kWh)	5,782	2,544	3,238
Snack Machine Power Consumption	100%	56%	44%
Annual Op Cost	$ -	$ -	0
Run Hours	5,256	5,256	
Annual Energy Consumption (kWh)	-	-	**-**
Total Annual Energy Consumption (kWh)	5,782	2,544	**3,238**
Annual Cost and Savings, $	$ 896	$ 394	**$ 502**

1. Run hours based on fan motors being run 8760 hrs

Utility Unit Costs

Electrical Unit Cost, $/kwh	**$0.155**

Soda Machine Count	1
Snack Machine Count	0
Annual Run-Time Factor	60%

VendMiser Installation Savings

Soda Machine Power Consumption, kw	1.10	0.616
Annual Savings %	56%	
Electrical Unit Cost, $ per kilowatt-hour	$0.155	
Annual Energy Savings	$502	

VendMiser Installation Savings

Snack Machine Power Consumption, kw	0.08
Annual Savings %	56%
Electrical Unit Cost, $ per kilowatt-hour	$0.155
Annual Energy Savings	$0

Economics Summary

kWh Savings	3,238
Estimated Annual Savings	$502
Vendmiser Unit Cost	$179
Total Installation Cost ($500/unit)	$500
Total Vendmiser Cost (ECM)	**$679**
Simple Payback, Years	1.35

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Ross Street Elementary School - Increase insulation on HHW piping

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	x
3. Price of Electricity, $/kWh (blended rate)	$0.155
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.899

	Existing Condition	Proposed System	Savings
Number of Ft of underinsulated pipe	**50**	50	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	8,541,000	2,934,600	**5,606,400**
Annual Therms lost	85	29	**56**
Annual Cost and Savings, $	$ 77	$ 26	**$ 50**

1. Assumes DHW supply temp on 120 degrees F
2. Assumes 50 feet of 0.75 inch pipe.
3. Assuming 8ft on 1" pipe

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Ross Street Elementary School - Implement a HHW Temperature Setpoint Reset Program

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.155
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.899

	Existing Condition	Proposed System	Savings
HHW Setpoint at OAT = 0 degrees F	**185**	185	
HHW Setpoint at OAT = 40 degrees F	185	**140**	
Annual Btu losses	527,520,600	307,036,165	**220,484,435**
Energy Use (Therms)	5,275	3,070	**2,205**
Energy Use (kWh)	--	--	**-**
Annual Cost and Savings, $	$ 4,742	$ 2,760	**$ 1,982**

** Assumes 1" cellular glass fiber insulation with AP-T casing
** Assumes 75 degree ambient temperature

CALCULATIONS

Ross Street Elementary School - Integrate Occ. Sensor Control of UVs

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.155
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.899

	Existing Condition	Proposed System	Savings
Unit Ventilator Operating Condition	Zone Thermostat	Occupancy Override	
Annual Btu Required	1,602,762,892	897,794,859	**704,968,033**
Energy Use (Therms)	5,343	2,993	**2,350**
Energy Use (kWh)	--	--	**-**
Annual Operating Cost ($)	$ 4,803	$ 3,165	**$ 1,638**

Hours of Operation	*Hrs/Day*
Existing	4.0
Proposed	4.0

* Assumed Fans are equipped with Motors of HP listed in calculation table
* There is no demand reduction for this measure

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Ross Street Elementary School - Upgrade the Existing Boilers from Steam to Hot Water

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	$0.000
3.Price of Electricity, $/kWh	$0.155
4. Price of the Demand of Electricity, $/kW/month	$0.000
5.Price of Natural Gas, $/therm	$0.899

	Existing Condition	Proposed System	Savings
Boiler Plant Capacity, kBTU	5,198,000	5,198,000	--
Hours of Operation	1,408	1,408	--
Seasonal Efficiency	79%	88%	**8.1%**
Annual Gas Consumption (Therms)	24,651	22,648	**2,003**
Annual Cost and Savings, $	$22,161	$20,360	**$ 1,801**

* Assume the boilers have a temperature reset schedule where the hot water is supplied at 180F/160F when it is 0F/40F outside.

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

COST ESTIMATES

Ford Avenue Elementary School - DHW Heater Fuel Switch

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	40 Gallon Tank	ea.	1	930	930	315	315	1,245
2	Gas line	LF	30	5.00	150	10.00	300	450
3	Demolition	ea.	1		-	50	50	50
	Other Estimated Implementation Costs							573
	TOTAL							**$ 2,318**
	SUB-TOTAL							1,745
	TOTAL							**$ 2,318**
							NJSS Rebate	**$ 50**
							Total	**$ 2,268**

Ford Avenue Elementary School - Vending Machine Power Management

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Soda Machine		1	179	179	500	500	679
2	Snack Machine		-	179	-	500	-	-
	Other Estimated Implementation Costs							-
	TOTAL							**$ 679**
	SUB-TOTAL							679
	TOTAL							**$ 679**

Ford Avenue Elementary School - End of Useful Life Energy Star Window AC

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Energy Star Window AC over Conventional Unit		21	450	9,450	-	-	9,450
	Other Estimated Implementation Costs							-
	TOTAL							**$ 9,450**

Ford Avenue Elementary School - Winterize Window A/C Units

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Install Insulated Cover	each	11	50.00	550	28.00	308	858
2	Interior Insulated Cover	each	10.0	27.00	270	28.00	280	550
	Other Estimated Implementation Costs							-
	TOTAL							**$ 1,408**

Ford Avenue Elementary School - UV Time of Day Optimization

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Occupancy Sensor	EA	19	400	7,600	200	3,800	11,400
	Other Estimated Implementation Costs							6,384
	TOTAL							**$ 17,784**
	SUB-TOTAL							11,400
	O&P						20%	2,280
	ASBESTOS ABATEMENT							-
	DIRECT COST							13,680
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							13,680
	CONTINGENCY						30%	4,104
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							17,784
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							17,784
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 17,784**

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Ford Avenue Elementary School - Winterize Window AC Units

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.154
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.915

	Existing Condition	Proposed System	Savings
R-Value of Window A/C Uncovered and Covered	0.9	3.4	
Air Leakage of Window A/C Uncovered and Covered (CFM)	1,235.2	1,049.9	**185**
Annual heating loss, Therms	1,660	1,335	325
Annual Natural Gas Cost and Savings, $	$ 1,519	$ 1,221	$ 298
Annual Cost and Savings, $	$ 1,519	$ 1,221	**$ 298**

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Ford Avenue Elementary School - Savings From Replacing Window AC Units

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.154
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.915

	Existing Condition	Proposed System	Savings
Total Number of Units	21	21	
Number of Inefficient Units	21	21	
Capacity per Unit, Tons	1.00	1.00	
Total Capacity, Tons	21.0	21.0	
Assumed Efficiency, EER	9.8	10.8	
Total Hours of Normal Operation, hrs	2,008	2,008	
Cooling Load Factor	25%	25%	
Annual Cooling Production, ton-hours	10,398	10,398	
Annual Cooling Load, kBTU	124,771	124,771	
Annual Peak Demand Reduction (kW)	1.9	1.7	0.17
Annual Electrical Consumption, kWh	12,732	11,553	1,179
Annual Cost and Savings, $	$ 1,961	$ 1,779	**$ 182**

1. Assume existing systems runs when outside air temperature (OAT) is above 70F during building occupied hours.

2. Both conditions are simulated with non-programmable thermostats.

3. Load factor calculation represents the percentage of time when the unit operates at full load.

4. Conventional units standard of 9.8 EER.

5. Assume the new units have an efficiency of 10.8 EER which meets Energy Star standard.

6. Coincidence Factor for peak kW reduction taken from Maryland Public Utility Commission: Appendix A Measure Analysis Spreadsheet

CALCULATIONS

Ford Avenue Elementary School - Vending Machine Power Management System

Price of #2 Fuel Oil, $/gal	
Price of City Water, $/1000 gallons	
Price of Electricity, $/kWh (blended rate)	$0.154
Price of the Demand of Electricity, $/kW/month	
Price of Natural Gas, $/therm	$0.915

	Existing Condition	Proposed System	Savings
Soda Machine Power Consumption	100%	56%	44%
Soda Machine Annual Op Cost	$ 890	$ 392	499
Run Hours	5,256	5,256	
Soda Annual Energy Consumption (kWh)	5,782	2,544	3,238
Snack Machine Power Consumption	100%	56%	44%
Annual Op Cost	$ -	$ -	0
Run Hours	5,256	5,256	
Annual Energy Consumption (kWh)	-	-	**-**
Total Annual Energy Consumption (kWh)	5,782	2,544	**3,238**
Annual Cost and Savings, $	$ 890	$ 392	**$ 499**

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Ford Avenue Elementary School - Replace Electric Storage Type DHW Heater with Gas DHW Heater

UTILITY PRICES

Electric - $/kWh	$0.154
Gas - $/therm	$0.915

	Existing Condition	Proposed System	Savings
Total Annual Gallons DHW	71,723	71,723	
DHW Heater Efficiency, %	100%	82%	
Annual DHW Energy, MBtu	35,890	43,769	
Savings from Fuel Switch:			
Electric / Gas Unit Cost ($/Mbtu)	$0.0451	$0.0092	
Annual DHW Cost (w/o Stand-by losses)	$1,620	$400	**$1,219**
Total Savings:			
Total DHW Heater Input (Energy+Losses), MBtu	35,890	43,769	
Total DHW Heater Input, kWh	10,519	0	**10,519**
Total DHW Heater Input, therms	0	438	**-438**
Annual Total Cost and Total Savings, $	$1,620	$400	**$1,219**

1. Water usage estimates based on Federal Water Use Indices
2. Assumes 25% of water usage is hot water.
3. Assumes 179 occupants, 7 hours per day, 200 days per year.
4. Assumes existing heater experiences stand-by losses 8,760 hrs per year (i.e. not shut off during unoccupied hours)

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Ford Avenue Elementary School - Integrate Occ. Sensor Control of UVs

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.154
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.915

	Existing Condition	***Proposed System***	***Savings***
Unit Ventilator Operating Condition	Zone Thermostat	Occupancy Override	
Annual Btu Required	906,424,741	585,630,373	**320,794,367**
Energy Use (Therms)	3,555	2,297	**1,258**
Energy Use (kWh)	--	--	**-**
Annual Operating Cost ($)	$ 3,252	$ 2,101	**$ 1,151**

Hours of Operation	*Hrs/Day*
Existing	4.0
Proposed	4.0

* Assumed Fans are equipped with Motors of HP listed in calculation table
* There is no demand reduction for this measure

Indiana Avenue Elementary School - Door Weatherization

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Door Weatherstripping	Ea	16	$ 22	$ 346	$ 57	$ 910	$ 1,256
	Other Estimated Implementation Costs							-
	TOTAL							**$ 1,256**
	SUB-TOTAL							**1,256**
	TOTAL							**$ 1,256**

Indiana Avenue Elementary School -DHW Heater Fuel Switch

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	50 Gallon Tank	ea.	2	930	1,860	315	630	2,490
2	Gas line	LF	30	5.00	150	10.00	300	450
3	Demolition	ea.	2		-	50	100	100
	Other Estimated Implementation Costs							998
	TOTAL							**$ 4,038**
	SUB-TOTAL							3,040
	TOTAL							**$ 4,038**
							NJSS Rebate	$ 100
							Total	$ 3,938

Indiana Avenue Elementary School -DHW Pipe Insulation

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Pipe Insulation 1" Pipe	LF	30	2	4	4	118	123
	Other Estimated Implementation Costs							26
	TOTAL							**$ 148**
	SUB-TOTAL							123
	TOTAL							**$ 148**

Indiana Avenue Elementary School -Vending Machine Power Management

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Soda Machine		1	179	179	500	500	679
2	Snack Machine		1	179	179	500	500	679
	Other Estimated Implementation Costs							-
	TOTAL							**$ 1,358**
	SUB-TOTAL							1,358
	TOTAL							**$ 1,358**

Indiana Avenue Elementary School - Energy Star Window AC

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Energy Star Window AC over Conventional Uni		42	450	18,900	-	-	18,900
	Other Estimated Implementation Costs							-
	TOTAL							**$ 18,900**

Indiana Avenue Elementary School -Winterize Window A/C Units

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Install Insulated Cover	each	42	50.00	2,100	28.00	1,176	3,276
	Other Estimated Implementation Costs							-
	TOTAL							**$ 3,276**

Indiana Avenue Elementary School -UV Time of Day Optimization

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Occupancy Sensor	EA	32	400	12,800	200	6,400	19,200
	Other Estimated Implementation Costs							10,752
	TOTAL							**$ 29,952**
	SUB-TOTAL							19,200
	O&P						20%	3,840
	ASBESTOS ABATEMENT							-
	DIRECT COST							23,040
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							23,040
	CONTINGENCY						30%	6,912
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							29,952
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							29,952
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 29,952**

Indiana Avenue Elementary School -Boiler Conversion from Steam to Condensing Hot Water

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	3,270 MBH Nat Gas Condensing Boiler	EA	2	55,500	111,000	10,000	20,000	131,000
2	Demo Existing Steam Boilers	EA	2	0	-	2,776	5,552	5,552
3	Demo Existing Heat Exchanger	EA	2	0	-	2,000	4,000	4,000
4	Demo Condensate Return Tank	EA	2	0	-	2,000	4,000	4,000
5	Piping Modifications	EA	1	4,000	4,000	10,000	8,000	12,000
6	Controls Upgrade	EA	0	5,000	-	2,000	-	-
	Other Estimated Implementation Costs							61,290
	TOTAL							**$ 217,842**
	SUB-TOTAL							156,552
	O&P						15%	23,483
	ASBESTOS ABATEMENT							-
	DIRECT COST							180,035
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							180,035
	CONTINGENCY						10%	18,003
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							198,038
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						10.0%	19,804
	SUB-TOTAL							217,842
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 217,842**
	Rebates							6000

CALCULATIONS

Indiana Avenue Elementary School - Winterize Window AC Units

Administration Building

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.148
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.897

	Existing Condition	Proposed System	Savings
R-Value of Window A/C Uncovered and Covered	0.9	3.4	
Air Leakage of Window A/C Uncovered and Covered (CFM)	2,470.4	2,099.8	**371**
Annual heating loss, Therms	3,379	2,721	658
Annual Natural Gas Cost and Savings, $	$ 3,031	$ 2,441	$ 590
Annual Cost and Savings, $	$ 3,031	$ 2,441	**$ 590**

Indiana Avenue Elementary School - Savings From Replacing Window AC Units

Central Elementary

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.148
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.897

	Existing Condition	Proposed System	Savings
Total Number of Units	42	42	
Number of Inefficient Units	42	42	
Capacity per Unit, Tons	1.00	1.00	
Total Capacity, Tons	42.0	42.0	
Assumed Efficiency, EER	9.8	10.8	
Total Hours of Normal Operation, hrs	2,008	2,008	
Cooling Load Factor	25%	25%	
Annual Cooling Production, ton-hours	20,795	20,795	
Annual Cooling Load, kBTU	249,542	249,542	
Annual Peak Demand Reduction (kW)	3.7	3.4	0.34
Annual Electrical Consumption, kWh	25,463	23,106	2,358
Annual Cost and Savings, $	$ 3,769	$ 3,420	**$ 349**

1. Assume existing systems runs when outside air temperature (OAT) is above 70F during building occupied hours.
2. Both conditions are simulated with non-programmable thermostats.
3. Load factor calculation represents the percentage of time when the unit operates at full load.
4. Conventional units standard of 9.8 EER.
5. Assume the new units have an efficiency of 10.8 EER which meets Energy Star standard.
6. Coincidence Factor for peak kW reduction taken from Maryland Public Utility Commission: Appendix A Measure Analysis Spreadsheet

CALCULATIONS

Indiana Avenue Elementary School - Vending Machine Power Management System

Elementary School

Price of #2 Fuel Oil, $/gal	
Price of City Water, $/1000 gallons	
Price of Electricity, $/kWh (blended rate)	$0.148
Price of the Demand of Electricity, $/kW/month	
Price of Natural Gas, $/therm	$0.897

	Existing Condition	Proposed System	Savings
Soda Machine Power Consumption	100%	56%	44%
Soda Machine Annual Op Cost	$ 856	$ 376	479
Run Hours	5,256	5,256	
Soda Annual Energy Consumption (kWh)	5,782	2,544	3,238
Snack Machine Power Consumption	100%	56%	44%
Annual Op Cost	$ 62	$ 27	35
Run Hours	5,256	5,256	
Annual Energy Consumption (kWh)	420	185	**235**
Total Annual Energy Consumption (kWh)	6,202	2,729	**3,473**
Annual Cost and Savings, $	$ 918	$ 404	**$ 514**

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Indiana Avenue Elementary School - Increase insulation on HHW piping

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	x
3. Price of Electricity, $/kWh (blended rate)	$0.148
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.897

	Existing Condition	Proposed System	Savings
Number of Ft of underinsulated pipe	**30**	30	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	6,220,476	1,839,600	**4,380,876**
Annual Therms lost	62	18	**44**
Annual Cost and Savings, $	$ 56	$ 17	**$ 39**

1. Assumes DHW supply temp on 120 degrees F
2. Assumes 30 feet of 1.00 inch pipe.
3. Assuming 8ft on 1" pipe

CALCULATIONS

Indiana Avenue Elementary School - Replace Electric Storage Type DHW Heater with Gas DHW Heater

UTILITY PRICES

Electric - $/kWh	$0.148
Gas - $/therm	$0.897

	Existing Condition	Proposed System	Savings
Total Annual Gallons DHW	182,631	182,631	
DHW Heater Efficiency, %	100%	82%	
Annual DHW Energy, MBtu	91,388	111,449	
Savings from Fuel Switch:			
Electric / Gas Unit Cost ($/Mbtu)	$0.0434	$0.0090	
Annual DHW Cost (w/o Stand-by losses)	$3,964	$1,000	**$2,964**
Total Savings:			
Total DHW Heater Input (Energy+Losses), MBtu	91,388	111,449	
Total DHW Heater Input, kWh	26,784	0	**26,784**
Total DHW Heater Input, therms	0	1,114	**-1,114**
Annual Total Cost and Total Savings, $	$3,964	$1,000	**$2,964**

1. Water usage estimates based on Federal Water Use Indices
2. Assumes 25% of water usage is hot water.
3. Assumes 457 occupants, 7 hours per day, 200 days per year.
4. Assumes existing heater experiences stand-by losses 8,760 hrs per year (i.e. not shut off during unoccupied hours)

Indiana Avenue Elementary School - Savings From Weatherstripping Doors

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.148
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.897

	Existing Condition	Proposed System	Savings
Number of Doors	16	16	
Estimated Infiltration Rate per Door, CFM	132	26	
Annual Cooling Infiltration Total Hours, OAT > 80F	814	814	
Annual Heating Infiltration Total Hours, OAT < 65F	1,729	1,729	
Annual Cooling Load, kBTU	48,866	9,638	
Annual Cooling Electrical Consumption, kWh	5,294	1,044	4,250
Annual Heating Load, kBTU	126,974	32,272	
Annual Heating Consumption, Therms	1,494	379.67	1,114
Annual Cost and Savings, $	$ 2,123	$ 495	**$ 1,628**

1. Infiltration rate was calculated according to ASHRAE Fundamentals 2005 Door Leakage Rate Equation F27.12

2. Estimated hours of infiltration was based on all hours below 65F and above 80F for the region.

3. It is assumed that each door has a leakage area of 4 square inches (7 linear feet by 0.05 in). Vestibule doors are not included. There is/are 16 door(s).

4. A 60% load factor was used when calculating the existing leakage rate.

5. Assume all AHUs have an supply air temperature of 55F in the summer and 80F in the winter.

6. The average outside air temperature above 80F during the year is 81F. The average outside air temperature below 65F is 42F.

7. Assume the cooling plant has an efficiency of 1.3 kw/ton and the heating plant has an efficiency of 85%.

8. New weatherstripping is assumed to reduce inflitration by 80%.

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Indiana Avenue Elementary School - Integrate Occ. Sensor Control of UVs

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.148
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.897

	Existing Condition	***Proposed System***	***Savings***
Unit Ventilator Operating Condition	Zone Thermostat	Occupancy Override	
Annual Btu Required	1,908,262,612	1,232,906,049	**675,356,563**
Energy Use (Therms)	6,361	4,110	**2,251**
Energy Use (kWh)	--	--	**-**
Annual Operating Cost ($)	$ 5,706	$ 3,686	**$ 2,019**

Hours of Operation	*Hrs/Day*
Existing	5.0
Proposed	5.0

* Assumed Fans are equipped with Motors of HP listed in calculation table
* There is no demand reduction for this measure

CALCULATIONS

Indiana Avenue Elementary School - Upgrade the Existing Boilers from Steam to Hot Water

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	$0.000
3.Price of Electricity, $/kWh	$0.148
4. Price of the Demand of Electricity, $/kW/month	$0.000
5.Price of Natural Gas, $/therm	$0.897

	Existing Condition	Proposed System	Savings
Boiler Plant Capacity, kBTU	7,560,240	7,560,240	--
Hours of Operation	3,153	3,153	--
Seasonal Efficiency	79%	88%	**8.0%**
Annual Gas Consumption (Therms)	28,575	26,297	**2,278**
Annual Cost and Savings, $	$25,632	$23,589	**$ 2,043**

* Assume the boilers have a temperature reset schedule where the hot water is supplied at 180F/160F when it is 0F/40F outside.

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

COST ESTIMATES

Menlo Park Terrace Elementary School - Door Weatherization

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Door Weatherstripping	Ea	14	$ 22	$ 303	$ 57	$ 796	$ 1,099
	Other Estimated Implementation Costs							-
	TOTAL							**$ 1,099**
	SUB-TOTAL							**1,099**
	TOTAL							**$ 1,099**

Menlo Park Terrace Elementary School - Window Weatherization

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Window Weatherstripping	Ea	100	$ 10	$ 1,000	$ 25	$ 2,500	$ 3,500
	Other Estimated Implementation Costs							-
	TOTAL							**$ 3,500**
	SUB-TOTAL							**3,500**
	O&P						0%	-
	TOTAL							**$ 3,500**

Menlo Park Terrace Elementary School - DHW Pipe Insulation

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Pipe Insulation 1.5" Pipe	LF	20	2	38	4	88	127
2	2"		20	2	47	5	91	138
3			1		-		-	-
4			1		-		-	-
5			1		-		-	-
6			1		-		-	-
	Other Estimated Implementation Costs							56
	TOTAL							**$ 320**
	SUB-TOTAL							265
	TOTAL							**$ 320**

Menlo Park Terrace Elementary School - HHW Pipe Insulation

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	4" Pipe Insulation	LF	60	3	190	6	362	553
2	2" Pipe Insulation	LF	25	2	59	5	114	172
3					-		-	-
4					-		-	-
5					-		-	-
6					-		-	-
	Other Estimated Implementation Costs							152
	TOTAL							**$ 877**
	SUB-TOTAL							725
	TOTAL							**$ 877**

Menlo Park Terrace Elementary School - Vending Machine Power Management

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Soda Machine		1	179	179	500	500	679
2	Snack Machine		-	179	-	500	-	-
	Other Estimated Implementation Costs							-
	TOTAL							**$ 679**
	TOTAL							**$ 679**

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

COST ESTIMATES

Menlo Park Terrace Elementary School - End of Useful Life Energy Star Window AC

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Energy Star Window AC		28	450	12,600	-	-	12,600
2			1		-		-	-
3			1		-		-	-
4			1		-		-	-
5			1		-		-	-
6			1		-		-	-
	Other Estimated Implementation Costs							-
	TOTAL							**$ 12,600**

Menlo Park Terrace Elementary School - Winterize Window A/C Units

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Install Insulated Cover	each	28	50.00	1,400	28.00	784	2,184
2		sq ft			-		-	-
3		l.f			-		-	-
	Other Estimated Implementation Costs							-
	TOTAL							**$ 2,184**

Menlo Park Terrace Elementary School - HHW Pump Controls

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Install Pump Controls		1	1,500	1,500	1,000	1,000	2,500
2			-	0	-	-	-	-
	Other Estimated Implementation Costs							250
	TOTAL							**$ 2,750**

UV Time of Day Optimization

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Occupancy Sensor	EA	22	400	8,800	200	4,400	13,200
2			-	-	-	-	-	-
	Other Estimated Implementation Costs							5,808
	TOTAL							**$ 19,008**
	SUB-TOTAL							13,200
	O&P						20%	2,640
	ASBESTOS ABATEMENT							-
	DIRECT COST							15,840
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							15,840
	CONTINGENCY						20%	3,168
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							19,008
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							19,008
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 19,008**

Menlo Park Terrace Elementary School - Winterize Window AC Units

Administration Building

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.148
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.911

	Existing Condition	Proposed System	Savings
R-Value of Window A/C Uncovered and Covered	0.9	3.4	
Air Leakage of Window A/C Uncovered and Covered (CFM)	1,646.9	1,399.9	**247**
Annual heating loss, Therms	2,218	1,786	432
Annual Natural Gas Cost and Savings, $	$ 2,021	$ 1,627	$ 394
Annual Cost and Savings, $	$ 2,021	$ 1,627	**$ 394**

Menlo Park Terrace Elementary School - Savings from Replacing Window AC Units

Central Elementary

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.148
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.911

	Existing Condition	Proposed System	Savings
Total Number of Units	28	28	
Number of Inefficient Units	28	28	
Capacity per Unit, Tons	1.00	1.00	
Total Capacity, Tons	28.0	28.0	
Assumed Efficiency, EER	9.8	10.8	
Total Hours of Normal Operation, hrs	2,008	2,008	
Cooling Load Factor	25%	25%	
Annual Cooling Production, ton-hours	13,863	13,863	
Annual Cooling Load, kBTU	166,361	166,361	
Annual Peak Demand Reduction (kW)	2.5	2.2	0.23
Annual Electrical Consumption, kWh	16,976	15,404	1,572
Annual Cost and Savings, $	$ 2,512	$ 2,280	**$ 233**

1. Assume existing systems runs when outside air temperature (OAT) is above 70F during building occupied hours.
2. Both conditions are simulated with non-programmable thermostats.
3. Load factor calculation represents the percentage of time when the unit operates at full load.
4. Conventional units standard of 9.8 EER.
5. Assume the new units have an efficiency of 10.8 EER which meets Energy Star standard.
6. Coincidence Factor for peak kW reduction taken from Maryland Public Utility Commission: Appendix A Measure Analysis Spreadsheet

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Menlo Park Terrace Elementary School - Vending Machine Power Management System

Elementary School

Price of #2 Fuel Oil, $/gal	
Price of City Water, $/1000 gallons	
Price of Electricity, $/kWh (blended rate)	$0.148
Price of the Demand of Electricity, $/kW/month	
Price of Natural Gas, $/therm	$0.911

	Existing Condition	Proposed System	Savings
Soda Machine Power Consumption	100%	56%	44%
Soda Machine Annual Op Cost	$ 856	$ 376	479
Run Hours	5,256	5,256	
Soda Annual Energy Consumption (kWh)	5,782	2,544	3,238
Snack Machine Power Consumption	100%	56%	44%
Annual Op Cost	$ -	$ -	0
Run Hours	5,256	5,256	
Annual Energy Consumption (kWh)	-	-	**-**
Total Annual Energy Consumption (kWh)	5,782	2,544	**3,238**
Annual Cost and Savings, $	$ 856	$ 376	**$ 479**

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Menlo Park Terrace Elementary School - Increase insulation on HHW piping

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	x
3. Price of Electricity, $/kWh (blended rate)	$0.148
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.911

Total Savings			
	Existing Condition	**Proposed System**	**Savings**
Number of Ft of underinsulated pipe		0	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	40,559,154	7,571,820	**32,987,333**
Annual Therms lost	406	76	**330**
Annual Cost and Savings, $	$ 369	$ 69	**$ 301**

4 Pipe	**Existing Condition**	**Proposed System**	**Savings**
Number of Ft of underinsulated pipe	**60**	60	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	36,523,818	6,679,425	**29,844,393**
Annual Therms lost	365	67	**298**
Annual Cost and Savings, $	$ 333	$ 61	**$ 272**

1. Assumes DHW supply temp on 180°F
2. Assumes 60 feet of 4.00 inch pipe.

2 Pipe	**Existing**	**Proposed**	**Savings**
Number of Ft of underinsulated pipe	**25**	25	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	4,035,336	892,395	**3,142,940**
Annual Therms lost	40	9	**31**
Annual Cost and Savings, $	$ 37	$ 8	**$ 29**

1. Assumes DHW supply temp on degrees F
2. Assumes 60 feet of 4.00 inch pipe.

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Menlo Park Terrace Elementary School - Increase insulation on HHW piping

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	x
3. Price of Electricity, $/kWh (blended rate)	$0.148
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.911

Total Savings			
	Existing Condition	**Proposed System**	**Savings**
Number of Ft of underinsulated pipe		0	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	12,728,280	3,439,176	**9,289,104**
Annual Therms lost	127	34	**93**
Annual Cost and Savings, $	$ 116	$ 31	**$ 85**

1.5 Pipe	**Existing Condition**	**Proposed System**	**Savings**
Number of Ft of underinsulated pipe	**20**	20	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	5,730,792	1,587,312	**4,143,480**
Annual Therms lost	57	16	**41**
Annual Cost and Savings, $	$ 52	$ 14	**$ 38**

1. Assumes DHW supply temp on 120 °F
2. Assumes 20 feet of 1.50 inch pipe.

2 Pipe	**Existing**	**Proposed**	**Savings**
Number of Ft of underinsulated pipe	**20**	20	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	6,997,488	1,851,864	**5,145,624**
Annual Therms lost	70	19	**51**
Annual Cost and Savings, $	$ 64	$ 17	**$ 47**

1. Assumes DHW supply temp on degrees F
2. Assumes 20 feet of 1.50 inch pipe.

Menlo Park Terrace Elementary School - HHW Pump Controls

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.148
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.911

Savings

	Existing	Proposed	Savings
Pump kWh Consumption	18,776	4,626	14,150
Pump kWh Cost	$ 2,779	$ 685	$ 2,094

Exisitng Pumps

Pump	Equipment	Motor Mfg	Motor Model	Quantity	GPM	Head ft	HP	RPM	VFD?	Efficiency
1	HW Pumps	Century E	E100	1			1		No	84%
2	HW Pumps			1			1 1/2		No	84%
3	HW Pumps	Armstrong		1			1 1/2	1745	No	84%
4	HW Pumps	Armstrong		1	155	25	1 1/2	1730	No	84%

Pump	Qty	HP	kW	Existing Op Hrs	Proposed Op Hrs	Current kWh	Proposed kWh
1	1	1.00	0.746	3844	947	3414	841
2	1	1.50	1.119	3844	947	5121	1262
3	1	1.50	1.119	3844	947	5121	1262
4	1	1.50	1.119	3844	947	5121	1262
					Total	**18776.11**	**4625.644**

1. Proposed pump controls would turn off pumps when OAT is above 35°F.
2. Assuming heating season is when OAT goes below 65°F.
3. Op hours are for unoccupied times when the school is not heating.

Menlo Park Terrace Elementary School - Savings from Weatherstripping Doors

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.148
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.911

	Existing Condition	Proposed System	Savings
Number of Windows	100	100	
Estimated Infiltration Rate per Door, CFM	235	47	
Annual Cooling Infiltration Total Hours, OAT > 80F	814	814	
Annual Heating Infiltration Total Hours, OAT < 65F	1,731	1,731	
Annual Cooling Load, kBTU	545,384	107,567	
Annual Cooling Electrical Consumption, kWh	59,083	11,653	47,430
Annual Heating Load, kBTU	1,421,363	360,668	
Annual Heating Consumption, Therms	16,722	4,243.15	12,479
Annual Cost and Savings, $	$ 23,978	$ 5,590	**$ 18,388**

1. Infiltration rate was calculated according to ASHRAE Fundamentals 2005 Door Leakage Rate Equation F27.12
2. Estimated hours of infiltration was based on all hours below 65°F and above 80°F for the region.
3. It is assumed that each window has a leakage area of 1 square inches (2 linear feet by 0.05 in). There is/are 100 window(s).
4. A 60% load factor was used when calculating the existing leakage rate.
5. Assume all AHUs have an supply air temperature of 55°F in the summer and 80°F in the winter.
6. The average outside air temperature above 80°F during the year is 81°F. The average outside air temperature below 65°F is 42°F.
7. Assume the cooling plant has an efficiency of 1.3 kw/ton and the heating plant has an efficiency of 85%.
8. New weatherstripping is assumed to reduce inflitration by 80%.

CALCULATIONS

Menlo Park Terrace Elementary School - Savings From Weatherstripping Doors

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.148
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.911

	Existing Condition	Proposed System	Savings
Number of Doors	14	14	
Estimated Infiltration Rate per Door, CFM	115	23	
Annual Cooling Infiltration Total Hours, OAT > 80F	814	814	
Annual Heating Infiltration Total Hours, OAT < 65F	1,731	1,731	
Annual Cooling Load, kBTU	37,413	7,379	
Annual Cooling Electrical Consumption, kWh	4,053	799	3,254
Annual Heating Load, kBTU	97,505	24,742	
Annual Heating Consumption, Therms	1,147	291.08	856
Annual Cost and Savings, $	$ 1,645	$ 383	**$ 1,261**

1. Infiltration rate was calculated according to ASHRAE Fundamentals 2005 Door Leakage Rate Equation F27.12
2. Estimated hours of infiltration was based on all hours below 55°F and above 80°F for the region.
3. It is assumed that each door has a leakage area of 4 square inches (7 linear feet by 0.05 in). Vestibule doors are not included. There is/are 14 door(s).
4. A 60% load factor was used when calculating the existing leakage rate.
5. Assume all AHUs have an supply air temperature of 55°F in the summer and 80°F in the winter.
6. The average outside air temperature above 80°F during the year is 81°F. The average outside air temperature below 65°F is 42°F.
7. Assume the cooling plant has an efficiency of 1.3 kw/ton and the heating plant has an efficiency of 85%.
8. New weatherstripping is assumed to reduce inflitration by 80%.

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Menlo Park Terrace Elementary School - Integrate Occ. Sensor Control of UVs

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.148
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.911

	Existing Condition	Proposed System	Savings
Unit Ventilator Operating Condition	Zone Thermostat	Occupancy Override	
Annual Btu Required	1,224,468,509	791,114,715	**433,353,794**
Energy Use (Therms)	4,802	3,102	**1,699**
Energy Use (kWh)	--	--	**-**
Annual Operating Cost ($)	$ 4,374	$ 2,826	**$ 1,548**

Hours of Operation	*Hrs/Day*
Existing	4.7
Proposed	4.7

* Assumed Fans are equipped with Motors of HP listed in calculation table
* There is no demand reduction for this measure

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

COST ESTIMATES

Claremont Avenue Elementary School - Computer Power Management

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Computer Power Management		55	29	1,595		-	1,595
2					-		-	-
	Other Estimated Implementation Costs							-
	TOTAL							**$ 1,595**
	SUB-TOTAL							1,595
	TOTAL							**$ 1,595**

Claremont Avenue Elementary School - DHW Pipe Insulation

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	2" Pipe Insulation	LF	22	2	52	5	100	152
2			1		-		-	-
3			1		-		-	-
4			1		-		-	-
5			1		-		-	-
6			1		-		-	-
	Other Estimated Implementation Costs							32
	TOTAL							**$ 183**
	SUB-TOTAL							152
	TOTAL							**$ 183**

Claremont Avenue Elementary School - Vending Meiser

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Soda Machine		1	179	179	500	500	679
2	Snack Machine		-	179	-	500	-	-
	Other Estimated Implementation Costs							-
	TOTAL							**$ 679**
	SUB-TOTAL							679
	TOTAL							**$ 679**

Claremont Avenue Elementary School - End of Useful Life Energy Star Window AC

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Energy Star Window AC over Conventional		29	450	13,050	-	-	13,050
2			1		-		-	-
3			1		-		-	-
4			1		-		-	-
5			1		-		-	-
6			1		-		-	-
	Other Estimated Implementation Costs							-
	TOTAL							**$ 13,050**

Claremont Avenue Elementary School - Winterize Window A/C Units

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Install Insulated Cover	each	29	50.00	1,450	28.00	812	2,262
2		sq ft			-		-	-
3		l.f			-		-	-
	Other Estimated Implementation Costs							-
	TOTAL							**$ 2,262**

Claremont Avenue Elementary School - HHW Pump Controls

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Install Pump Controls		1	1,500	1,500	1,000	1,000	2,500
2			-	0	-	-	-	-
	Other Estimated Implementation Costs							250
	TOTAL							**$ 2,750**

Claremont Avenue Elementary School - Heating Hot Water Reset

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Heat Timer HWR Platinum	EA	1	2,500	2,500	200	200	2,700
2	Installation - Electrical	HRs	8	0	0	160	1,280	1,280
3	Installation - Mechanical/Plumbi	HRs	8	0	0	160	1,280	1,280
4	Calibration	HRs	8	0	0	160	1,280	1,280
	Other Estimated Implementation Costs							2,616
	TOTAL COST							**$ 9,156**
	SUB-TOTAL							6,540
	O&P						0%	-
	ASBESTOS ABATEMENT							-
	DIRECT COST							6,540
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							6,540
	CONTINGENCY						40%	2,616
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							9,156
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							9,156
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 9,156**

Claremont Avenue Elementary School - UV Time of Day Optimization

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Occupancy Sensor	EA	23	400	9,200	200	4,600	13,800
2			-	-	-	-	-	-
	Other Estimated Implementation Costs							7,728
	TOTAL							**$ 21,528**
	SUB-TOTAL							13,800
	O&P						20%	2,760
	ASBESTOS ABATEMENT							-
	DIRECT COST							16,560
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							16,560
	CONTINGENCY						30%	4,968
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							21,528
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							21,528
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 21,528**

Claremont Avenue Elementary School - Computer Time of Day Optimization

Summary

Electricity Savings (kWh/yr)	12,687
Natural Gas Savings (therms/yr)	0
Estimated Cost Savings ($/yr)	$2,004
Estimated Implementation Cost ($)	$1,581
Estimated Rebate ($)	$0
Estimated Implementation Cost after Rebate ($)	$1,581
Simple Payback (Years)	0.8

1. Assuming computers are completely powered down during summer vacation.
2. Computer and monitor power consumption values based on 2009 ASHRAE Fundamentals, Section 18.12, Table 8.
3. Savings assumes all computers go into standby/sleep mode during unoccupied building hours.

Claremont Avenue Elementary School - Winterize Window A/C Units

N/N	DESCRIPTION WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Install Insulated Cover	each	29	40.37	1,171	28.00	812	1,983
2		sq ft			-		-	-
3		l.f			-		-	-
	Other Estimated Implementation							-

	TOTAL		**$ 1,983**
	SUB-TOTAL		1,983
	O&P	0%	-
	ASBESTOS ABATEMENT		-
	DIRECT COST		1,983
	PAYMENT & PERFORMANCE BOND	0%	-
	SUB-TOTAL		1,983
	CONTINGENCY	0%	-
	ASBESTOS CONTINGENCY	0%	-
	SUB-TOTAL		1,983
	ASBESTOS DESIGN & AIR MONITORING, TESTING		-
	IC FEE	0.0%	-
	SUB-TOTAL		1,983
	INTEREST DURING CONSTRUCTION	0%	-
	TOTAL		**$ 1,983**
	NJ SmartStart Rebate		**$ -**

Claremont Avenue Elementary School - SAVINGS FROM REPLACING WINDOW AC UNITS

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.158
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.910

	Existing Condition	Proposed System	Savings
Total Number of Units	29	29	
Number of Inefficient Units	29	29	
Capacity per Unit, Tons	1.00	1.00	
Total Capacity, Tons	29.0	29.0	
Assumed Efficiency, EER	9.8	10.8	
Total Hours of Normal Operation, hrs	2,008	2,008	
Cooling Load Factor	25%	25%	
Annual Cooling Production, ton-hours	14,359	14,359	
Annual Cooling Load, kBTU	172,303	172,303	
Annual Peak Demand Reduction (kW)	2.6	2.3	0.24
Annual Electrical Consumption, kWh	17,582	15,954	1,628
Annual Cost and Savings, $	$ 2,778	$ 2,521	**$ 257**

1. Assume existing systems runs when outside air temperature (OAT) is above 70F during building occupied hours.
2. Both conditions are simulated with non-programmable thermostats.
3. Load factor calculation represents the percentage of time when the unit operates at full load.
4. Conventional units standard of 9.8 EER.
5. Assume the new units have an efficiency of 10.8 EER which meets Energy Star standard.
6. Coincidence Factor for peak kW reduction taken from Maryland Public Utility Commission: Appendix A Measure Analysis Spreadsheet

CALCULATIONS

Claremont Avenue Elementary School - VENDING MACHINE POWER MANAGEMENT SYSTEM

Price of #2 Fuel Oil, $/gal	
Price of City Water, $/1000 gallons	
Price of Electricity, $/kWh (blended rate)	$0.158
Price of the Demand of Electricity, $/kW/month	
Price of Natural Gas, $/therm	

	Existing Condition	Proposed System	Savings
Soda Machine Power Consumption	100%	56%	44%
Soda Machine Annual Op Cost	$ 913	$ 402	512
Run Hours	5,256	5,256	
Soda Annual Energy Consumption (kWh)	5,782	2,544	3,238
Snack Machine Power Consumption	100%	56%	44%
Annual Op Cost	$ -	$ -	0
Run Hours	5,256	5,256	
Annual Energy Consumption (kWh)	-	-	**-**
Total Annual Energy Consumption (kWh)	5,782	2,544	**3,238**
Annual Cost and Savings, $	$ 913	$ 402	**$ 512**

1. Run hours based on fan motors being run 8760 hrs

Utility Unit Costs

Electrical Unit Cost, $/kwh	**$0.158**

Soda Machine Count	1
Snack Machine Count	0
Annual Run-Time Factor	60%

VendMiser Installation Savings

Soda Machine Power Consumption, kw	1.10	0.616
Annual Savings %	56%	
Electrical Unit Cost, $ per kilowatt-hour	$0.158	
Annual Energy Savings	$512	

VendMiser Installation Savings

Snack Machine Power Consumption, kw	0.08
Annual Savings %	56%
Electrical Unit Cost, $ per kilowatt-hour	$0.158
Annual Energy Savings	$0

Economics Summary

kWh Savings	3,238
Estimated Annual Savings	$512
Vendmiser Unit Cost	$179
Total Installation Cost ($500/unit)	$500
Total Vendmiser Cost (ECM)	**$679**
Simple Payback, Years	1.33

CALCULATIONS

Claremont Avenue Elementary School - Increase insulation on HHW piping

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	x
3. Price of Electricity, $/kWh (blended rate)	$0.158
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.910

Total Savings

	Existing Condition	Proposed System	Savings
Number of Ft of underinsulated pipe		0	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	5,736,223	1,543,424	**4,192,799**
Annual Therms lost	57	15	**42**
Annual Cost and Savings, $	$ 52	$ 14	**$ 38**

2 Pipe	Existing Condition	Proposed System	Savings
Number of Ft of underinsulated pipe	**15**	15	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	5,248,116	1,388,898	**3,859,218**
Annual Therms lost	52	14	**39**
Annual Cost and Savings, $	$ 48	$ 13	**$ 35**

1. Assumes DHW supply temp on 120 degrees F
2. Assumes 15 feet of 2.00 inch pipe.

Claremont Avenue Elementary School - HHW Pump Controls

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.158
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.910

Savings

	Existing	Proposed	Savings
Pump kWh Consumption	14,897	3,670	11,227
Pump kWh Cost	$ 2,354	$ 580	$ 1,774

Exisitng Pumps

Pump	Equipment	Motor Mfg	Motor Model	Quantity	GPM	Head ft	HP	RPM	VFD?	Efficiency
1	HW Pumps	Century	E175	1	NA	NA	2	NA	No	77%
2	HW Pumps	Baldor	JPM 3116	1	NA	NA	1	1725	No	77%
3	HW Pumps	NA	NA	1	NA	NA	1	NA	No	77%
4										

Pump	Qty	HP	kW	Existing Op Hrs	Proposed Op Hrs	Current kWh	Proposed kWh
1	1	2.00	1.492	3844	947	7448	1835
2	1	1.00	0.746	3844	947	3724	917
3	1	1.00	0.746	3844	947	3724	917
4	0	0.00	0	3844	947		
					Total	**14896.75**	**3669.932**

1. Proposed pump controls would turn off pumps when OAT is above 35°F.
2. Assuming heating season is when OAT goes below 65°F.
3. Op hours are for unoccupied times when the school is not heating.

CALCULATIONS

Claremont Avenue Elementary School - Implement a HHW Temperature Setpoint Reset Program

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.158
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.910

	Existing Condition	Proposed System	Savings
HHW Setpoint at OAT = 0 degrees F	180	180	
HHW Setpoint at OAT = 40 degrees F	180	140	
Annual Btu losses	404,661,825	246,060,470	**158,601,356**
Energy Use (Therms)	4,047	2,461	**1,586**
Energy Use (kWh)	--	--	**-**
Annual Cost and Savings, $	$ 3,682	$ 2,239	**$ 1,443**

** Assumes 1" cellular glass fiber insulation with AP-T casing
** Assumes 75 degree ambient temperature

CALCULATIONS

Claremont Avenue Elementary School - Integrate Occ. Sensor Control of UVs

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.158
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.910

	Existing Condition	Proposed System	Savings
Unit Ventilator Operating Condition	Zone Thermostat	Occupancy Override	
Annual Btu Required	1,439,947,110	940,317,786	**499,629,323**
Energy Use (Therms)	5,647	3,688	**1,959**
Energy Use (kWh)	--	--	**-**
Annual Operating Cost ($)	$ 5,139	$ 3,356	**$ 1,783**

Hours of Operation	*Hrs/Day*
Avg. Existing	5
Avg. Proposed	5

* Assumed Fans are equipped with Motors of HP listed in calculation table
* There is no demand reduction for this measure

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

COST ESTIMATES

Oak Ridge Elementary School - DHW Heater Fuel Switch

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	50 Gallon Tank	ea.	1	930	930	315	315	1,245
2	Gas line	LF	30	5.00	150	10.00	300	450
3	Demolition	ea.	1		-	50	50	50
	Other Estimated Implementation Costs							573
	TOTAL							**$ 2,318**
	SUB-TOTAL							1,745
	TOTAL							**$ 2,318**
							NJSS Rebate	**$ 50.00**
							Total	**$ 2,268**

Oak Ridge Elementary School - Door Weatherization

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Door Weatherstripping	Ea	21	$ 22	$ 454	$ 57	$ 1,194	$ 1,648
	Other Estimated Implementation Costs							-
	TOTAL							**$ 1,648**
	SUB-TOTAL							**1,648**
	TOTAL							**$ 1,648**

Oak Ridge Elementary School - RTU Replacement

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	5 Ton Packaged Efficient RTU premium over n	ea	2	6,329	12,658	1,321	2,642	15,300
2	Remove Exisitng RTU	ls	2		-	898	1,796	1,796
	Other Estimated Implementation Costs							5,179
	TOTAL							**$ 22,275**
	SUB-TOTAL							17,096
	TOTAL							**$ 22,275**
							NJSS Rebate	**$ 920**
							TOTAL	**$ 21,355**

Oak Ridge Elementary School - HHW Pipe Insulation

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	3" Pipe Insulation	LF	27	3	70	5	136	206
2	2" Pipe Insulation	LF	15	2	35	5	68	103
	Other Estimated Implementation Costs							65
	TOTAL							**$ 374**
	SUB-TOTAL							309
	TOTAL							**$ 374**

Oak Ridge Elementary School - Vending Meiser

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Soda Machine		1	179	179	500	500	679
2	Snack Machine		-	179	-	500	-	-
	Other Estimated Implementation Costs							-
	TOTAL							**$ 679**
	SUB-TOTAL							679
	TOTAL							**$ 679**

Oak Ridge Elementary School - Condensing Boiler

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	2,000 MBH Nat Gas Condensing Boiler	ea	2	37,000	74,000	10,000	20,000	94,000
2	Demo Existing Boilers	ls	2		-	2,776	5,552	5,552
3	Piping Modifications	ls	1	4,000	4,000	6,000	6,000	10,000
	Other Estimated Implementation Costs							42,890
	TOTAL							**$ 152,440**
	SUB-TOTAL							109,552
	O&P						15%	16,432.80
	ASBESTOS ABATEMENT						0%	-
	DIRECT COST							125,985
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							125,985
	CONTINGENCY						10%	12,598
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							138,583
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						10.0%	13,858
	SUB-TOTAL							152,442
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 152,442**
	Total SmartStart Rebate							**$ 4,000**
							Total	**$ 148,442**

Oak Ridge Elementary School - Like in Kind Boiler Replacement

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	2,000 MBH Nat Gas Boiler	ea	2	19,756	39,512	6,010	12,020	51,532
2	Demo Existing Boilers	ls	2		-	2,776	5,552	5,552
3	Piping Modifications	ls	1	4,000	4,000	6,000	6,000	10,000
4		ls	1		-		-	-
	Other Estimated Implementation Costs							26,263
	TOTAL							**$ 93,350**
	SUB-TOTAL							67,084
	O&P						15%	10,062.60
	ASBESTOS ABATEMENT						0%	-
	DIRECT COST							77,147
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							77,147
	CONTINGENCY						10%	7,715
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							84,861
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						10.0%	8,486
	SUB-TOTAL							93,347
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 93,347**
	Total SmartStart Rebate							
							Total	**$ 93,347**

Oak Ridge Elementary School - End of Useful Life Energy Star Window AC

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Energy Star Window AC over Conventional Unit		27	450	12,150	-	-	12,150
	Other Estimated Implementation Costs							-
	TOTAL							**$ 12,150**

Oak Ridge Elementary School - Winterize Window A/C Units

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Install Insulated Cover	each	27	50.00	1,350	28.00	756	2,106
	Other Estimated Implementation Costs							-
	TOTAL							**$ 2,106**

Oak Ridge Elementary School - HHW Pump Controls

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Install Pump Controls		1	1,500	1,500	1,000	1,000	2,500
	Other Estimated Implementation Costs							250
	TOTAL							**$ 2,750**

Oak Ridge Elementary School - Heating Hot Water Reset

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Heat Timer HWR Platinum	EA	1	2,500	2,500	200	200	2,700
2	Installation - Electrical	HRs	8	0	0	160	1,280	1,280
3	Installation - Mechanical/Plumbing	HRs	8	0	0	160	1,280	1,280
4	Calibration	HRs	8	0	0	160	1,280	1,280
	Other Estimated Implementation Costs							2,616
	TOTAL COST							**$ 9,156**
	SUB-TOTAL							6,540
	O&P						0%	-
	ASBESTOS ABATEMENT							-
	DIRECT COST							6,540
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							6,540
	CONTINGENCY						40%	2,616
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							9,156
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							9,156
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 9,156**

Oak Ridge Elementary School - UV Time of Day Optimization

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Occupancy Sensor	EA	21	400	8,400	200	4,200	12,600
	Other Estimated Implementation Costs							7,056
	TOTAL							**$ 19,656**
	SUB-TOTAL							12,600
	O&P						20%	2,520
	ASBESTOS ABATEMENT							-
	DIRECT COST							15,120
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							15,120
	CONTINGENCY						30%	4,536
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							19,656
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							19,656
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 19,656**

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Oak Ridge Elementary School - Winterize Window AC Units

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.142
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.906

	Existing Condition	Proposed System	Savings
R-Value of Window A/C Uncovered and Covered	0.9	3.4	
Air Leakage of Window A/C Uncovered and Covered (CFM)	1,588.1	1,349.9	**238**
Annual heating loss, Therms	2,156	1,733	423
Annual Natural Gas Cost and Savings, $	$ 1,953	$ 1,570	$ 383
Annual Cost and Savings, $	$ 1,953	$ 1,570	**$ 383**

Oak Ridge Elementary School - Savings from Replacing Window AC Units

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.142
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.906

	Existing Condition	Proposed System	Savings
Total Number of Units	27	27	
Number of Inefficient Units	27	27	
Capacity per Unit, Tons	1.00	1.00	
Total Capacity, Tons	27.0	27.0	
Assumed Efficiency, EER	9.8	10.8	
Total Hours of Normal Operation, hrs	2,008	2,008	
Cooling Load Factor	25%	25%	
Annual Cooling Production, ton-hours	13,368	13,368	
Annual Cooling Load, kBTU	160,420	160,420	
Annual Peak Demand Reduction (kW)	2.4	2.2	0.22
Annual Electrical Consumption, kWh	16,369	14,854	1,516
Annual Cost and Savings, $	$ 2,324	$ 2,109	**$ 215**

1. Assume existing systems runs when outside air temperature (OAT) is above 70F during building occupied hours.
2. Both conditions are simulated with non-programmable thermostats.
3. Load factor calculation represents the percentage of time when the unit operates at full load.
4. Conventional units standard of 9.8 EER.
5. Assume the new units have an efficiency of 10.8 EER which meets Energy Star standard.
6. Coincidence Factor for peak kW reduction taken from Maryland Public Utility Commission: Appendix A Measure Analysis Spreadsheet

CALCULATIONS

Oak Ridge Elementary School - Vending Machine Power Management System

Price of #2 Fuel Oil, $/gal	
Price of City Water, $/1000 gallons	
Price of Electricity, $/kWh (blended rate)	$0.142
Price of the Demand of Electricity, $/kW/month	
Price of Natural Gas, $/therm	

	Existing Condition	Proposed System	Savings
Soda Machine Power Consumption	100%	56%	44%
Soda Machine Annual Op Cost	$ 821	$ 361	460
Run Hours	5,256	5,256	
Soda Annual Energy Consumption (kWh)	5,782	2,544	3,238
Snack Machine Power Consumption	100%	56%	44%
Annual Op Cost	$ -	$ -	0
Run Hours	5,256	5,256	
Annual Energy Consumption (kWh)	-	-	**-**
Total Annual Energy Consumption (kWh)	5,782	2,544	**3,238**
Annual Cost and Savings, $	$ 821	$ 361	**$ 460**

CALCULATIONS

Oak Ridge Elementary School - Increase Insulation on HHW piping

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	x
3. Price of Electricity, $/kWh (blended rate)	$0.142
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.906

Total Savings

	Existing Condition	Proposed System	Savings
Number of Ft of underinsulated pipe		0	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	17,311,625	3,420,010	**13,891,615**
Annual Therms lost	173	34	**139**
Annual Cost and Savings, $	$ 157	$ 31	**$ 126**

3" Pipe	Existing Condition	Proposed System	Savings
Number of Ft of underinsulated pipe	**12**	12	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	5,057,588	993,032	**4,064,556**
Annual Therms lost	51	10	**41**
Annual Cost and Savings, $	$ 46	$ 9	**$ 37**

1. Assumes DHW supply temp on 170 degrees F
2. Assumes 12 feet of 3.00 inch pipe.

Oak Ridge Elementary School - HHW Pump Controls

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.142
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.906

Savings

	Existing	Proposed	Savings
Pump kWh Consumption	55,863	13,762	42,101
Pump kWh Cost	$ 7,933	$ 1,954	$ 5,978

Exisitng Pumps

Pump	Equipment	Motor Mfg	Motor Model	Quantity	GPM	Head ft	HP	RPM	VFD?	Efficiency
1		Marathon Electric	8VL	1	480	64	15	1760	No	77.0%

Pump	Qty	HP	kW	Existing Op Hrs	Proposed Op Hrs	Current kWh	Proposed kWh
1	1	15.00	11.19	3844	947	55863	13762
					Total	**55863**	**13762.24675**

1. Proposed pump controls would turn off pumps when OAT is above 35°F.
2. Assuming heating season is when OAT goes below 65°F.
3. Savings calcs is only for one of the two pumps that was operating during the site visit.

CALCULATIONS

Oak Ridge Elementary School - Replace Boilers with Higher Efficiency Boilers

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.142
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.906

	Existing Condition	Proposed System	Savings
Heating Boiler Fuel Consumption, therms	16,457	15,177	1,280
Heating Boiler Fuel Cost	$ 14,910	$ 13,751	**$ 1,160**

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Oak Ridge Elementary School - Replace Electric Storage Type DHW Heater with Gas DHW Heater

UTILITY PRICES	
Electric - $/kWh	$0.142
Gas - $/therm	$0.906

	Existing Condition	Proposed System	Savings
Total Annual Gallons DHW	89,938	89,938	
DHW Heater Efficiency, %	100%	82%	
Annual DHW Energy, MBtu	45,005	54,884	
Savings from Fuel Switch:			
Electric / Gas Unit Cost ($/Mbtu)	$0.0416	$0.0091	
Annual DHW Cost (w/o Stand-by losses)	$1,873	$497	**$1,376**
Total Savings:			
Total DHW Heater Input (Energy+Losses), MBtu	45,005	54,884	
Total DHW Heater Input, kWh	13,190	0	**13,190**
Total DHW Heater Input, therms	0	549	**-549**
Annual Total Cost and Total Savings, $	$1,873	$497	**$1,376**

1. Water usage estimates based on Federal Water Use Indices
2. Assumes 25% of water usage is hot water.
3. Assumes 225 occupants, 7 hours per day, 200 days per year.
4. Assumes existing heater experiences stand-by losses 8,760 hrs per year (i.e. not shut off during unoccupied hours)

Oak Ridge Elementary School - Savings From Weatherstripping Doors

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.142
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.906

	Existing Condition	Proposed System	Savings
Number of Doors	21	21	
Estimated Infiltration Rate per Door, CFM	173	35	
Annual Cooling Infiltration Total Hours, OAT > 80F	814	814	
Annual Heating Infiltration Total Hours, OAT < 65F	1,729	1,729	
Annual Cooling Load, kBTU	84,180	16,603	
Annual Cooling Electrical Consumption, kWh	9,119	1,799	7,321
Annual Heating Load, kBTU	218,733	55,594	
Annual Heating Consumption, Therms	2,734	694.93	2,039
Annual Cost and Savings, $	$ 3,772	$ 885	**$ 2,887**

1. Infiltration rate was calculated according to ASHRAE Fundamentals 2005 Door Leakage Rate Equation F27.12

2. Estimated hours of infiltration was based on all hours below 65F and above 80°F for the region.

3. It is assumed that each door has a leakage area of 4 square inches (7 linear feet by 0.05 in). Vestibule doors are not included. There are 21 door(s).

4. A 60% load factor was used when calculating the existing leakage rate.

5. Assume all AHUs have an supply air temperature of 55°F in the summer and 80F in the winter.

6. The average outside air temperature above 80F during the year is 81°F. The average outside air temperature below 65°F is 42°F.

7. Assume the cooling plant has an efficiency of 1.3 kw/ton and the heating plant has an efficiency of 80%.

8. New weatherstripping is assumed to reduce inflitration by 80%.

CALCULATIONS

Oak Ridge Elementary School - Replace Aging AHUs with Higher Efficiency Units

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.142
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.906

	Existing Condition	Proposed System	Savings
Total Tons	5	5	
Typical SEER	13.0	15.5	
Annual Run Hours	495	495	
Annual kWh	2,971	1,917	1,054
Annual Cost and Savings, $	$ 422	$ 272	**$ 150**

1. Some SEER values estimated - data on old units no longer available

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Oak Ridge Elementary School - Implement a HHW Temperature Setpoint Reset Program

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.142
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.906

	Existing Condition	Proposed System	Savings
HHW Setpoint at OAT = 0 degrees F	180	180	
HHW Setpoint at OAT = 40 degrees F	180	140	
Annual Btu losses	715,416,300	435,019,218	**280,397,082**
Energy Use (Therms)	7,154	4,350	**2,804**
Energy Use (kWh)	--	--	**-**
Annual Cost and Savings, $	$ 6,482	$ 3,941	**$ 2,540**

** Assumes 1" cellular glass fiber insulation with AP-T casing
** Assumes 75 degree ambient temperature

CALCULATIONS

Oak Ridge Elementary School - Integrate Occ. Sensor Control of UVs

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.142
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.906

	Existing Condition	Proposed System	Savings
Unit Ventilator Operating Condition	Zone Thermostat	Occupancy Override	
Annual Btu Required	1,314,734,318	858,551,022	**456,183,295**
Energy Use (Therms)	5,156	3,367	**1,789**
Energy Use (kWh)	--	--	**-**
Annual Operating Cost ($)	$ 4,671	$ 3,050	**$ 1,621**

Hours of Operation	*Hrs/Day*
Avg. Existing	5
Avg. Proposed	5

* Assumed Fans are equipped with Motors of HP listed in calculation table
* There is no demand reduction for this measure

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

COST ESTIMATES

Lynn Crest Elementary School - HHW Pipe Insulation

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	3" Pipe Insulation	LF	2	2	5	5	9	14
	Other Estimated Implementation Costs							3
	TOTAL							**$ 17**
	SUB-TOTAL							14
	TOTAL							**$ 17**

Lynn Crest Elementary School - Vending Machine Power Management

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Soda Machine		2	179	358	500	1,000	1,358
2	Snack Machine		-	179	-	500	-	-
	Other Estimated Implementation Costs							-
	TOTAL							**$ 1,358**
	SUB-TOTAL							1,358
	TOTAL							**$ 1,358**

Lynn Crest Elementary School - Condensing Boiler

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	2,500 MBH Nat Gas Condensing Boiler	ea	2	46,250	92,500	10,000	20,000	112,500
2	Demo Existing Boilers	ls	2		-	2,776	5,552	5,552
3	Piping Modifications	ls	1	4,000	4,000	6,000	6,000	10,000
	Other Estimated Implementation Costs							50,132
	TOTAL							**$ 178,180**
	SUB-TOTAL							128,052
	O&P						15%	19,207.80
	ASBESTOS ABATEMENT						0%	-
	DIRECT COST							147,260
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							147,260
	CONTINGENCY						10%	14,726
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							161,986
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						10.0%	16,199
	SUB-TOTAL							178,184
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 178,184**
	Total SmartStart Rebate							**$ 5,000**
							Total	**$ 173,184**

Lynn Crest Elementary School - Like in Kind Boiler Replacement

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	2,312 MBH Nat Gas Boiler	ea	2	22,579	45,158	7,091	14,182	59,340
2	Demo Existing Boilers	ls	2		-	2,776	5,552	5,552
3	Piping Modifications	ls	1	4,000	4,000	6,000	6,000	10,000
4		ls	1		-		-	-
	Other Estimated Implementation Costs							29,320
	TOTAL							**$ 104,210**
	SUB-TOTAL							74,892
	O&P						15%	11,233.80
	ASBESTOS ABATEMENT						0%	-
	DIRECT COST							86,126
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							86,126
	CONTINGENCY						10%	8,613
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							94,738
	ASBESTOS DESIGN & AIR MONITORING, TESTING						0%	-
	IC FEE						10.0%	9,474
	SUB-TOTAL							104,212
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 104,212**
	Total SmartStart Rebate							
							Total	**$ 104,212**

Lynn Crest Elementary School - End of Useful Life Energy Star Window AC

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Energy Star Window AC over Conventional Unit		31	450	13,950	-	-	13,950
	Other Estimated Implementation Costs							-
	TOTAL							**$ 13,950**

Lynn Crest Elementary School - Winterize Window A/C Units

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Install Insulated Cover	each	31	50.00	1,550	28.00	868	2,418
	Other Estimated Implementation Costs							-
	TOTAL							**$ 2,418**

Lynn Crest Elementary School - HHW Pump Controls

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Program Existing HW Reset Controls		1	100	100	1,000	1,000	1,100
	Other Estimated Implementation Costs							110
	TOTAL							**$ 1,210**

Lynn Crest Elementary School - UV Time of Day Optimization

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Occupancy Sensor	EA	29	400	11,600	200	5,800	17,400
2	10% Mics.		-		-		-	-
	Other Estimated Implementation Costs							7,656
	TOTAL							**$ 25,056**
	SUB-TOTAL							17,400
	O&P						20%	3,480
	ASBESTOS ABATEMENT							-
	DIRECT COST							20,880
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							20,880
	CONTINGENCY						20%	4,176
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							25,056
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							25,056
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 25,056**

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Lynn Crest Elementary School - Winterize Window AC Units

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.152
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.904

	Existing Condition	Proposed System	Savings
R-Value of Window A/C Uncovered and Covered	0.9	3.4	
Air Leakage of Window A/C Uncovered and Covered (CFM)	1,823.4	1,549.9	**274**
Annual heating loss, Therms	2,481	1,994	486
Annual Natural Gas Cost and Savings, $	$ 2,243	$ 1,803	$ 440
Annual Cost and Savings, $	$ 2,243	$ 1,803	**$ 440**

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Lynn Crest Elementary School - SAVINGS FROM REPLACING WINDOW AC UNITS

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.152
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.904

	Existing Condition	Proposed System	Savings
Total Number of Units	31	31	
Number of Inefficient Units	31	31	
Capacity per Unit, Tons	1.00	1.00	
Total Capacity, Tons	31.0	31.0	
Assumed Efficiency, EER	9.8	10.8	
Total Hours of Normal Operation, hrs	2,008	2,008	
Cooling Load Factor	25%	25%	
Annual Cooling Production, ton-hours	15,349	15,349	
Annual Cooling Load, kBTU	184,186	184,186	
Annual Peak Demand Reduction (kW)	2.7	2.5	0.25
Annual Electrical Consumption, kWh	18,794	17,054	1,740
Annual Cost and Savings, $	$ 2,857	$ 2,592	**$ 265**

1. Assume existing systems runs when outside air temperature (OAT) is above 70F during building occupied hours.
2. Both conditions are simulated with non-programmable thermostats.
3. Load factor calculation represents the percentage of time when the unit operates at full load.
4. Conventional units standard of 9.8 EER.
5. Assume the new units have an efficiency of 10.8 EER which meets Energy Star standard.
6. Coincidence Factor for peak kW reduction taken from Maryland Public Utility Commission: Appendix A Measure Analysis Spreadsheet

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Lynn Crest Elementary School - VENDING MACHINE POWER MANAGEMENT SYSTEM

Price of #2 Fuel Oil, $/gal	
Price of City Water, $/1000 gallons	
Price of Electricity, $/kWh (blended rate)	$0.152
Price of the Demand of Electricity, $/kW/month	
Price of Natural Gas, $/therm	

	Existing Condition	Proposed System	Savings
Soda Machine Power Consumption	100%	56%	44%
Soda Machine Annual Op Cost	$ 1,758	$ 773	984
Run Hours	5,256	5,256	
Soda Annual Energy Consumption (kWh)	11,563	5,088	6,475
Snack Machine Power Consumption	100%	56%	44%
Annual Op Cost	$ -	$ -	0
Run Hours	5,256	5,256	
Annual Energy Consumption (kWh)	-	-	**-**
Total Annual Energy Consumption (kWh)	11,563	5,088	**6,475**
Annual Cost and Savings, $	$ 1,758	$ 773	**$ 984**

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Lynn Crest Elementary School - Increase insulation on HHW piping

1. Price of #2 Fuel Oil, $/gal		$0.000
2. Price of City Water, $/1000 gallons		x
3. Price of Electricity, $/kWh (blended rate)		$0.152
4. Price of the Demand of Electricity, $/kW/month		$0.000
5. Price of Natural Gas, $/therm		$0.904

	Existing Condition	Proposed System	Savings
Number of Ft of underinsulated pipe	**2**	2	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	961,837	186,206	**775,632**
Annual Therms lost	10	2	**8**
Annual Cost and Savings, $	$ 9	$ 2	**$ 7**

1. Assumes DHW supply temp on 180 degrees F
2. Assumes 2 feet of 3.00 inch pipe.

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Lynn Crest Elementary School - Replace Boilers with Higher Efficiency Boilers

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.152
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.904

	Existing Condition	Proposed System	Savings
Heating Boiler Fuel Consumption, therms	19,626	18,100	1,526
Heating Boiler Fuel Cost	$ 17,742	$ 16,362	**$ 1,380**

Lynn Crest Elementary School - Replace Boilers with Higher Efficiency Boilers

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.152
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.904

Savings

	Existing	Proposed	Savings
Pump kWh Consumption	51,164	12,605	38,559
Pump kWh Cost	$ 7,777	$ 1,916	$ 5,861

Exisitng Pumps

Pump	Equipment	Motor Mfg	Motor Model	Quantity	GPM	Head ft	HP	RPM	VFD?	Efficiency
1	HW Pumps	Marathon Electric	V213TT	2	NA	NA	7 1/2	NA	No	88.5%
2	In-Line	NA	NA	3	NA	NA	1/4	NA	No	0.84

Pump	Qty	HP	kW	Existing Op Hrs	Proposed Op Hrs	Current kWh	Proposed kWh
1	2	15.00	11.19	3844	947	48604	11974
2	3	0.75	0.5595	3844	947	2560	631
					Total	**51164.18**	**12604.7**

1. Proposed pump controls would turn off pumps when OAT is above 35F.
2. Assuming heating season is when OAT goes below 65F.
3. Op hours are for unoccupied times when the school is not heating.

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Lynn Crest Elementary School - Integrate Occ. Sensor Control of UVs

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.152
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.904

	Existing Condition	Proposed System	Savings
Unit Ventilator Operating Condition	Zone Thermostat	Occupancy Override	
Annual Btu Required	1,573,507,421	1,027,535,668	**545,971,753**
Energy Use (Therms)	6,171	4,030	**2,141**
Energy Use (kWh)	--	--	**-**
Annual Operating Cost ($)	$ 5,578	$ 3,643	**$ 1,936**

Hours of Operation	*Hrs/Day*
Avg. Existing	4.333333
Avg. Proposed	4.333333

* Assumed Fans are equipped with Motors of HP listed in calculation table
* There is no demand reduction for this measure

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

COST ESTIMATES

Woodbine Avenue Elementary School - DHW Pipe Insulation

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	1" Pipe Insulation	LF	60	2	107	4	259	367
	Other Estimated Implementation Costs							77
	TOTAL							**$ 444**
	SUB-TOTAL							367
	TOTAL							**$ 444**

Woodbine Avenue Elementary School - HHW Pipe Insulation

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	4" Pipe Insulation	LF	40	3	127	6	242	368
2	3" Pipe Insulation	LF	90	3	232	5	454	686
	Other Estimated Implementation Costs							221
	TOTAL							**$ 1,276**
	SUB-TOTAL							1,054
	TOTAL							**$ 1,276**

Woodbine Avenue Elementary School - Vending Meiser

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Soda Machine		1	179	179	500	500	679
2	Snack Machine		-	179	-	500	-	-
	Other Estimated Implementation Costs							-
	TOTAL							**$ 679**
	SUB-TOTAL							679
	TOTAL							**$ 679**

Woodbine Avenue Elementary School - End of Useful Life Energy Star Window AC

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Energy Star Window AC over Conventic		29	450	13,050	-	-	13,050
	Other Estimated Implementation Costs							-
	TOTAL							**$ 13,050**

Woodbine Avenue Elementary School - Winterize Window A/C Units

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Install Insulated Cover	each	29	50.00	1,450	28.00	812	2,262
	Other Estimated Implementation Costs							-
	TOTAL							**$ 2,262**

Woodbine Avenue Elementary School - UV Time of Day Optimization

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Occupancy Sensor	EA	22	400	8,800	200	4,400	13,200
2			-	-	-	-	-	-
	Other Estimated Implementation Costs							7,392
	TOTAL							**$ 20,592**
	SUB-TOTAL							13,200
	O&P						20%	2,640
	ASBESTOS ABATEMENT							-
	DIRECT COST							15,840
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							15,840
	CONTINGENCY						30%	4,752
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							20,592
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							20,592
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 20,592**

COST ESTIMATES

Woodbine Avenue Elementary School - AHU Scheduling

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Programming (5 HVAC Units	EA	5	-	-	100	500	500
	Other Estimated Implementation Costs							150
	TOTAL							**$ 650**
	SUB-TOTAL							500
	O&P						0%	-
	ASBESTOS ABATEMENT							-
	DIRECT COST							500
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							500
	CONTINGENCY						30%	150
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							650
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							650
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 650**

CALCULATIONS

Woodbine Avenue Elementary School - Winterize Window AC Units

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.176
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.895

	Existing Condition	Proposed System	Savings
R-Value of Window A/C Uncovered and Covered	0.9	3.4	
Air Leakage of Window A/C Uncovered and Covered (CFM)	1,705.7	1,449.9	**256**
Annual heating loss, Therms	2,339	1,883	455
Annual Natural Gas Cost and Savings, $	$ 2,093	$ 1,685	$ 408
Annual Cost and Savings, $	$ 2,093	$ 1,685	**$ 408**

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Woodbine Avenue Elementary School - Savings from Replacing Window AC Units

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.176
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.895

	Existing Condition	Proposed System	Savings
Total Number of Units	29	29	
Number of Inefficient Units	29	29	
Capacity per Unit, Tons	1.00	1.00	
Total Capacity, Tons	29.0	29.0	
Assumed Efficiency, EER	9.8	10.8	
Total Hours of Normal Operation, hrs	2,008	2,008	
Cooling Load Factor	25%	25%	
Annual Cooling Production, ton-hours	14,359	14,359	
Annual Cooling Load, kBTU	172,303	172,303	
Annual Peak Demand Reduction (kW)	2.6	2.3	0.24
Annual Electrical Consumption, kWh	17,582	15,954	1,628
Annual Cost and Savings, $	$ 3,094	$ 2,808	**$ 287**

1. Assume existing systems runs when outside air temperature (OAT) is above 70F during building occupied hours.
2. Both conditions are simulated with non-programmable thermostats.
3. Load factor calculation represents the percentage of time when the unit operates at full load.
4. Conventional units standard of 9.8 EER.
5. Assume the new units have an efficiency of 10.8 EER which meets Energy Star standard.
6. Coincidence Factor for peak kW reduction taken from Maryland Public Utility Commission: Appendix A Measure Analysis Spreadsheet

Woodbine Avenue Elementary School - Vending Machine Power Management System

Price of #2 Fuel Oil, $/gal	
Price of City Water, $/1000 gallons	
Price of Electricity, $/kWh (blended rate)	$0.176
Price of the Demand of Electricity, $/kW/month	
Price of Natural Gas, $/therm	

	Existing Condition	Proposed System	Savings
Soda Machine Power Consumption	100%	56%	44%
Soda Machine Annual Op Cost	$ 1,018	$ 448	570
Run Hours	5,256	5,256	
Soda Annual Energy Consumption (kWh)	5,782	2,544	3,238
Snack Machine Power Consumption	100%	56%	44%
Annual Op Cost	$ -	$ -	0
Run Hours	5,256	5,256	
Annual Energy Consumption (kWh)	-	-	**-**
Total Annual Energy Consumption (kWh)	5,782	2,544	**3,238**
Annual Cost and Savings, $	$ 1,018	$ 448	**$ 570**

1. Run hours based on fan motors being run 8760 hrs

Utility Unit Costs

Electrical Unit Cost, $/kwh	**$0.176**

Soda Machine Count	1
Snack Machine Count	0
Annual Run-Time Factor	60%

VendMiser Installation Savings

Soda Machine Power Consumption, kw	1.10	0.616
Annual Savings %	56%	
Electrical Unit Cost, $ per kilowatt-hour	$0.176	
Annual Energy Savings	$570	

VendMiser Installation Savings

Snack Machine Power Consumption, kw	0.08
Annual Savings %	56%
Electrical Unit Cost, $ per kilowatt-hour	$0.176
Annual Energy Savings	$0

Economics Summary

kWh Savings	3,238
Estimated Annual Savings	$570
Vendmiser Unit Cost	$179
Total Installation Cost ($500/unit)	$500
Total Vendmiser Cost (ECM)	**$679**
Simple Payback, Years	1.19

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Woodbine Avenue Elementary School - Increase insulation on HHW piping

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	x
3. Price of Electricity, $/kWh (blended rate)	$0.176
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.895

Total Savings			
	Existing Condition	**Proposed System**	**Savings**
Number of Ft of underinsulated pipe		0	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	47,348,097	9,327,005	**38,021,092**
Annual Therms lost	473	93	**380**
Annual Cost and Savings, $	$ 424	$ 83	**$ 340**

4" Pipe	**Existing Condition**	**Proposed System**	**Savings**
Number of Ft of underinsulated pipe	**20**	20	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	9,218,810	1,736,410	**7,482,400**
Annual Therms lost	92	17	**75**
Annual Cost and Savings, $	$ 83	$ 16	**$ 67**

1. Assumes DHW supply temp on 160 degrees F
2. Assumes 20 feet of 4.00 inch pipe.

CALCULATIONS

Woodbine Avenue Elementary School - Increase insulation on DHW piping

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	x
3. Price of Electricity, $/kWh (blended rate)	$0.176
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.895

	Existing Condition	Proposed System	Savings
Number of Ft of underinsulated pipe	**60**	60	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	12,440,952	3,679,200	**8,761,752**
Annual Therms lost	124	37	**88**
Annual Cost and Savings, $	$ 111	$ 33	**$ 78**

1. Assumes DHW supply temp on 120 degrees F
2. Assumes 60 feet of 1.00 inch pipe.

CALCULATIONS

Woodbine Avenue Elementary School - Integrate Occ. Sensor Control of UVs

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.176
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.895

	Existing Condition	Proposed System	Savings
Unit Ventilator Operating Condition	Zone Thermostat	Occupancy Override	
Annual Btu Required	1,377,340,714	899,434,404	**477,906,309**
Energy Use (Therms)	5,401	3,527	**1,874**
Energy Use (kWh)	--	--	**-**
Annual Operating Cost ($)	$ 4,834	$ 3,157	**$ 1,677**

Hours of Operation	*Hrs/Day*
Avg. Existing	5
Avg. Proposed	5

* Assumed Fans are equipped with Motors of HP listed in calculation table
* There is no demand reduction for this measure

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Woodbine Avenue Elementary School - Reschedule Trane AHUs

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.176
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.895

	Existing Condition	Proposed System	Savings
Programming	M-F 6:30a-9:30p	M-F 8a-5p	
Annual Btu	1,649,025,596	989,415,358	**659,610,239**
Energy Use (Therms)	3,430	2,058	**1,372**
Energy Use (kWh)	51,666	30,999	**20,666**
Annual Operating Cost ($)	$ 12,705	$ 7,623	**$ 5,082**

Hours of Operation	*Hrs/Day*
Existing	5
Proposed	3

* Assumed Fans are equipped with Motors of HP listed in calculation table
* There is no demand reduction for this measure

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

COST ESTIMATES

Kennedy Park Elementary School - CRT to Flatscreen

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	CRT to Flat Screen		3	75	225		-	225
2					-		-	-
	Other Estimated Implementation Costs							-
	TOTAL							**$ 225**
	SUB-TOTAL							225
	TOTAL							**$ 225**

Kennedy Park Elementary School - DHW Pipe Insulation

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	1" Pipe Insulation	LF	80	2	143	4	346	489
2			1		-		-	-
3			1		-		-	-
4			1		-		-	-
5			1		-		-	-
6			1		-		-	-
	Other Estimated Implementation Costs							103
	TOTAL							**$ 591**
	SUB-TOTAL							489
	TOTAL							**$ 591**

Kennedy Park Elementary School - Vending Meiser

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Soda Machine		1	179	179	500	500	679
2	Snack Machine		-	179	-	500	-	-
	Other Estimated Implementation Costs							-
	TOTAL							**$ 679**
	SUB-TOTAL							679
	TOTAL							**$ 679**

Kennedy Park Elementary School - End of Useful Life Energy Star Window AC

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Energy Star Window AC over Conventio	each	26	450	11,700	-	-	11,700
2			1		-		-	-
3			1		-		-	-
4			1		-		-	-
5			1		-		-	-
6			1		-		-	-
	Other Estimated Implementation Costs							-
	TOTAL							**$ 11,700**

Kennedy Park Elementary School - Winterize Window A/C Units

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Install Insulated Cover	each	26	50.00	1,300	28.00	728	2,028
2		sq ft			-		-	-
3		l.f			-		-	-
	Other Estimated Implementation Costs							-
	TOTAL							**$ 2,028**

Kennedy Park Elementary School - HHW Pump Controls

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Install Pump Controls		1	1,500	1,500	1,000	1,000	2,500
2			-	0	-	-	-	-
	Other Estimated Implementation Costs							250
	TOTAL							**$ 2,750**

Kennedy Park Elementary School - Heating Hot Water Reset

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Heat Timer HWR Platinum	EA	1	2,500	2,500	200	200	2,700
2	Installation - Electrical	HRs	8	0	0	160	1,280	1,280
3	Installation - Mechanical/Plumbing	HRs	8	0	0	160	1,280	1,280
4	Calibration	HRs	8	0	0	160	1,280	1,280
	Other Estimated Implementation Costs							2,616
	TOTAL COST							**$ 9,156**
	SUB-TOTAL							6,540
	O&P						0%	-
	ASBESTOS ABATEMENT							-
	DIRECT COST							6,540
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							6,540
	CONTINGENCY						40%	2,616
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							9,156
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							9,156
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 9,156**

COST ESTIMATES

Kennedy Park Elementary School - UV Time of Day Optimization

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Occupancy Sensor	EA	20	400	8,000	200	4,000	12,000
2			-	-	-	-	-	-
	Other Estimated Implementation Costs							6,720
	TOTAL							**$ 18,720**
	SUB-TOTAL							12,000
	O&P						20%	2,400
	ASBESTOS ABATEMENT							-
	DIRECT COST							14,400
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							14,400
	CONTINGENCY						30%	4,320
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							18,720
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							18,720
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 18,720**

CALCULATIONS

Kennedy Park Elementary School - CRT to Flat Screen

Summary

Electricity Savings (kWh/yr)	301
Natural Gas Savings (therms/yr)	0
Estimated Cost Savings ($/yr)	$48
Estimated Implementation Cost ($)	$225
Estimated Rebate ($)	$0
Estimated Implementation Cost after Rebate ($)	$225
Simple Payback (Years)	4.7

1. Assuming computers are completely powered down during summer vacation.
2. Computer and monitor power consumption values based on 2009 ASHRAE Fundamentals, Section 18.12, Table 8.
3. Savings assumes all computers go into standby/sleep mode during unoccupied building hours.

CALCULATIONS

Kennedy Park Elementary School - Winterize Window AC Units

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.158
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.911

	Existing Condition	Proposed System	Savings
R-Value of Window A/C Uncovered and Covered	0.9	3.4	
Air Leakage of Window A/C Uncovered and Covered (CFM)	1,529.3	1,299.9	**229**
Annual heating loss, Therms	2,060	1,659	401
Annual Natural Gas Cost and Savings, $	$ 1,877	$ 1,511	$ 365
Annual Cost and Savings, $	$ 1,877	$ 1,511	**$ 365**

CALCULATIONS

Kennedy Park Elementary School - Savings from Replacing Window AC Units

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.158
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.911

	Existing Condition	Proposed System	Savings
Total Number of Units	26	26	
Number of Inefficient Units	26	26	
Capacity per Unit, Tons	1.00	1.00	
Total Capacity, Tons	26.0	26.0	
Assumed Efficiency, EER	9.8	10.8	
Total Hours of Normal Operation, hrs	2,008	2,008	
Cooling Load Factor	25%	25%	
Annual Cooling Production, ton-hours	12,873	12,873	
Annual Cooling Load, kBTU	154,478	154,478	
Annual Peak Demand Reduction (kW)	2.3	2.1	0.21
Annual Electrical Consumption, kWh	15,763	14,304	1,460
Annual Cost and Savings, $	$ 2,491	$ 2,260	**$ 231**

1. Assume existing systems runs when outside air temperature (OAT) is above 70F during building occupied hours.
2. Both conditions are simulated with non-programmable thermostats.
3. Load factor calculation represents the percentage of time when the unit operates at full load.
4. Conventional units standard of 9.8 EER.
5. Assume the new units have an efficiency of 10.8 EER which meets Energy Star standard.
6. Coincidence Factor for peak kW reduction taken from Maryland Public Utility Commission: Appendix A Measure Analysis Spreadsheet

CALCULATIONS

Kennedy Park Elementary School - Vending Machine Power Management System

Price of #2 Fuel Oil, $/gal	
Price of City Water, $/1000 gallons	
Price of Electricity, $/kWh (blended rate)	$0.158
Price of the Demand of Electricity, $/kW/month	
Price of Natural Gas, $/therm	

	Existing Condition	Proposed System	Savings
Soda Machine Power Consumption	100%	56%	44%
Soda Machine Annual Op Cost	$ 913	$ 402	512
Run Hours	5,256	5,256	
Soda Annual Energy Consumption (kWh)	5,782	2,544	3,238
Snack Machine Power Consumption	100%	56%	44%
Annual Op Cost	$ -	$ -	0
Run Hours	5,256	5,256	
Annual Energy Consumption (kWh)	-	-	-
Total Annual Energy Consumption (kWh)	5,782	2,544	**3,238**
Annual Cost and Savings, $	$ 913	$ 402	**$ 512**

1. Run hours based on fan motors being run 8760 hrs

Utility Unit Costs

Electrical Unit Cost, $/kwh	**$0.158**

Soda Machine Count	1
Snack Machine Count	0
Annual Run-Time Factor	60%

VendMiser Installation Savings

Soda Machine Power Consumption, kw	1.10	0.616
Annual Savings %	56%	
Electrical Unit Cost, $ per kilowatt-hour	$0.158	
Annual Energy Savings	$512	

VendMiser Installation Savings

Snack Machine Power Consumption, kw	0.08
Annual Savings %	56%
Electrical Unit Cost, $ per kilowatt-hour	$0.158
Annual Energy Savings	$0

Economics Summary

kWh Savings	3,238
Estimated Annual Savings	$512
Vendmiser Unit Cost	$179
Total Installation Cost ($500/unit)	$500
Total Vendmiser Cost (ECM)	**$679**
Simple Payback, Years	1.33

CALCULATIONS

Kennedy Park Elementary School - Increase insulation on DHW piping

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	x
3. Price of Electricity, $/kWh (blended rate)	$0.158
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.911

	Existing Condition	Proposed System	Savings
Number of Ft of underinsulated pipe	**80**	80	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	7,351,392	2,382,720	**4,968,672**
Annual Therms lost	74	24	**50**
Annual Cost and Savings, $	$ 67	$ 22	**$ 45**

1. Assumes DHW supply temp on 100 degrees F
2. Assumes 80 feet of 1.00 inch pipe.

Kennedy Park Elementary School - HHW Pump Controls

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.158
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.911

Savings

	Existing	Proposed	Savings
Pump kWh Consumption	24,302	5,987	18,315
Pump kWh Cost	$ 3,840	$ 946	$ 2,894

Exisitng Pumps

Pump	Equipment	Motor Mfg	Motor Model	Quantity	GPM	Head ft	HP	RPM	VFD?	Efficiency
1	HW Pumps	Baldor	M3311T	1	175	65	7 1/2	1750	No	88.5%

Pump	Qty	Total HP	kW	Existing Op Hrs	Proposed Op Hrs	Current kWh	Proposed kWh
1	1	7.50	5.595	3844	947	24302	5987
					Total	**24301.9**	**5986.966**

1. Proposed pump controls would turn off pumps when OAT is above 35F.
2. Assuming heating season is when OAT goes below 65 F.
3. Savings calculated for one of two pumps that was operating during site visit.

CALCULATIONS

Kennedy Park Elementary School - Implement a HHW Temperature Setpoint Reset Program

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.158
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.911

	Existing Condition	Proposed System	Savings
HHW Setpoint at OAT = 0 degrees F	**180**	180	
HHW Setpoint at OAT = 40 degrees F	180	**140**	
Annual Btu losses	547,673,400	333,020,724	**214,652,676**
Energy Use (Therms)	5,477	3,330	**2,147**
Energy Use (kWh)	--	--	**-**
Annual Cost and Savings, $	$ 4,989	$ 3,034	**$ 1,955**

** Assumes 1" cellular glass fiber insulation with AP-T casing
** Assumes 75 degree ambient temperature

CALCULATIONS

Kennedy Park Elementary School - Integrate Occ. Sensor Control of UVs

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.158
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.911

	Existing Condition	Proposed System	Savings
Unit Ventilator Operating Condition	Zone Thermostat	Occupancy Override	
Annual Btu Required	1,013,347,399	641,170,522	**372,176,878**
Energy Use (Therms)	3,378	2,137	**1,241**
Energy Use (kWh)	--	--	**-**
Annual Operating Cost ($)	$ 3,620	$ 2,291	**$ 1,330**

Hours of Operation	*Hrs/Day*
Avg. Existing	4.8
Avg. Proposed	4.8

* Assumed Fans are equipped with Motors of HP listed in calculation table
* There is no demand reduction for this measure

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

COST ESTIMATES

Lafayette Estates Elementary School - DHW Pipe Insulation

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	1.5" Pipe Insulation	LF	50	2	96	4	221	317
	Other Estimated Implementation Costs							67
	TOTAL							**$ 384**
	SUB-TOTAL							317
	TOTAL							**$ 384**

Lafayette Estates Elementary School - Vending Meiser

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Soda Machine		1	179	179	500	500	679
2	Snack Machine		-	179	-	500	-	-
	Other Estimated Implementation Costs							-
	TOTAL							**$ 679**
	SUB-TOTAL							679
	TOTAL							**$ 679**

Lafayette Estates Elementary School - End of Useful Life Energy Star Window AC

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Energy Star Window AC over Conventional Unit		26	450	11,700	-	-	11,700
	Other Estimated Implementation Costs							-
	TOTAL							**$ 11,700**

Lafayette Estates Elementary School - Winterize Window A/C Units

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Install Insulated Cover	each	26	50.00	1,300	28.00	728	2,028
	Other Estimated Implementation Costs							-
	TOTAL							**$ 2,028**

Lafayette Estates Elementary School - UV Time of Day Optimization

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Occupancy Sensor	EA	20	400	8,000	200	4,000	12,000
	Other Estimated Implementation Costs							6,720
	TOTAL							**$ 18,720**
	SUB-TOTAL							12,000
	O&P						20%	2,400
	ASBESTOS ABATEMENT							-
	DIRECT COST							14,400
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							14,400
	CONTINGENCY						30%	4,320
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							18,720
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							18,720
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 18,720**

Lafayette Estates Elementary School - AHU Scheduling

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Programming (3 HVAC Units)	EA	3	-	-	100	300	300
2			-	-	-	-	-	-
	Other Estimated Implementation Costs							90
	TOTAL							**$ 390**
	SUB-TOTAL							300
	O&P						0%	-
	ASBESTOS ABATEMENT							-
	DIRECT COST							300
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							300
	CONTINGENCY						30%	90
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							390
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							390
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 390**

Lafayette Estates Elementary School - Themostatic Radiator Valves

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Radiator Control Valve (3/4")	EA	10	150	1,500	200	2,000	3,500
	Other Estimated Implementation Costs							1,050
	TOTAL							**$ 4,550**
	SUB-TOTAL							3,500
	O&P						0%	-
	ASBESTOS ABATEMENT							-
	DIRECT COST							3,500
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							3,500
	CONTINGENCY						30%	1,050
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							4,550
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							4,550
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 4,550**

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Lafayette Estates Elementary School - Winterize Window AC Units

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.169
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.906

	Existing Condition	Proposed System	Savings
R-Value of Window A/C Uncovered and Covered	0.9	3.4	
Air Leakage of Window A/C Uncovered and Covered (CFM)	1,529.3	1,299.9	**229**
Annual heating loss, Therms	2,071	1,668	403
Annual Natural Gas Cost and Savings, $	$ 1,877	$ 1,511	$ 365
Annual Cost and Savings, $	$ 1,877	$ 1,511	**$ 365**

Lafayette Estates Elementary School - Savings From Replacing Window AC Units

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.169
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.906

	Existing Condition	Proposed System	Savings
Total Number of Units	26	26	
Number of Inefficient Units	26	26	
Capacity per Unit, Tons	1.00	1.00	
Total Capacity, Tons	26.0	26.0	
Assumed Efficiency, EER	9.8	10.8	
Total Hours of Normal Operation, hrs	2,008	2,008	
Cooling Load Factor	25%	25%	
Annual Cooling Production, ton-hours	12,873	12,873	
Annual Cooling Load, kBTU	154,478	154,478	
Annual Peak Demand Reduction (kW)	2.3	2.1	0.21
Annual Electrical Consumption, kWh	15,763	14,304	1,460
Annual Cost and Savings, $	$ 2,664	$ 2,417	**$ 247**

1. Assume existing systems runs when outside air temperature (OAT) is above 70F during building occupied hours.
2. Both conditions are simulated with non-programmable thermostats.
3. Load factor calculation represents the percentage of time when the unit operates at full load.
4. Conventional units standard of 9.8 EER.
5. Assume the new units have an efficiency of 10.8 EER which meets Energy Star standard.
6. Coincidence Factor for peak kW reduction taken from Maryland Public Utility Commission: Appendix A Measure Analysis Spreadsheet

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Lafayette Estates Elementary School - Vending Machine Power Management System

Price of #2 Fuel Oil, $/gal	
Price of City Water, $/1000 gallons	
Price of Electricity, $/kWh (blended rate)	$0.169
Price of the Demand of Electricity, $/kW/month	
Price of Natural Gas, $/therm	

	Existing Condition	Proposed System	Savings
Soda Machine Power Consumption	100%	56%	44%
Soda Machine Annual Op Cost	$ 977	$ 430	547
Run Hours	5,256	5,256	
Soda Annual Energy Consumption (kWh)	5,782	2,544	3,238
Snack Machine Power Consumption	100%	56%	44%
Annual Op Cost	$ -	$ -	0
Run Hours	5,256	5,256	
Annual Energy Consumption (kWh)	-	-	**-**
Total Annual Energy Consumption (kWh)	5,782	2,544	**3,238**
Annual Cost and Savings, $	$ 977	$ 430	**$ 547**

1. Run hours based on fan motors being run 8760 hrs

Utility Unit Costs

Electrical Unit Cost, $/kwh	**$0.169**

Soda Machine Count	1
Snack Machine Count	0
Annual Run-Time Factor	60%

VendMiser Installation Savings

Soda Machine Power Consumption, kw	1.10	0.616
Annual Savings %	56%	
Electrical Unit Cost, $ per kilowatt-hour	$0.169	
Annual Energy Savings	$547	

VendMiser Installation Savings

Snack Machine Power Consumption, kw	0.08
Annual Savings %	56%
Electrical Unit Cost, $ per kilowatt-hour	$0.169
Annual Energy Savings	$0

Economics Summary

kWh Savings	3,238
Estimated Annual Savings	$547
Vendmiser Unit Cost	$179
Total Installation Cost ($500/unit)	$500
Total Vendmiser Cost (ECM)	**$679**
Simple Payback, Years	1.24

CALCULATIONS

Lafayette Estates Elementary School - Increase insulation on HHW piping

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	x
3. Price of Electricity, $/kWh (blended rate)	$0.169
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.906

	Existing Condition	Proposed System	Savings
Number of Ft of underinsulated pipe	**50**	50	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	14,326,980	3,968,280	**10,358,700**
Annual Therms lost	143	40	**104**
Annual Cost and Savings, $	$ 130	$ 36	**$ 94**

1. Assumes DHW supply temp on 120 degrees F
2. Assumes 50 feet of 1.50 inch pipe.

CALCULATIONS

Lafayette Estates Elementary School - Integrate Occ. Sensor Control of UVs

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.169
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.906

	Existing Condition	Proposed System	Savings
Unit Ventilator Operating Condition	Zone Thermostat	Occupancy Override	
Annual Btu Required	1,056,794,825	671,784,262	**385,010,563**
Energy Use (Therms)	4,144	2,634	**1,510**
Energy Use (kWh)	--	--	**-**
Annual Operating Cost ($)	$ 3,755	$ 2,387	**$ 1,368**

Hours of Operation	*Hrs/Day*
Avg. Existing	5
Avg. Proposed	5

* Assumed Fans are equipped with Motors of HP listed in calculation table
* There is no demand reduction for this measure

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Lafayette Estates Elementary School - Reschedule Trane AHUs

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.169
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.906

	Existing Condition	Proposed System	Savings
Programming	M-Su 6a-5p	M-F 6a-5p	
Annual Btu	1,953,461,091	1,395,329,351	**558,131,740**
Energy Use (Therms)	4,063	2,902	**1,161**
Energy Use (kWh)	61,204	43,717	**17,487**
Annual Operating Cost ($)	$ 14,675	$ 10,482	**$ 4,193**

Hours of Operation	*Hrs/Day*
Existing	11
Proposed	3.666667

* Assumed Fans are equipped with Motors of HP listed in calculation table
* There is no demand reduction for this measure

CALCULATIONS

Lafayette Estates Elementary School - Install Thermostatic Radiator Valves

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.169
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.906

	Existing Condition	Proposed System	Savings
Simultaneous Conditioning	**Coincident Heat and Cool**	**Thermostatic Valves**	
Annual Btu Required	806,514,705	689,052,594	**117,462,112**
Energy Use (Therms)	4,439	4,047	**392**
Energy Use (kWh)	--	--	**-**
Annual Operating Cost ($)	$ 4,731	$ 4,314	**$ 417**

CALCULATIONS

Lafayette Estates Elementary School - Inhibit Simultaneous Heating and Cooling

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.169
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.906

	Existing Condition	Proposed System	Savings
Simultaneous Conditioning	**Coincident Heat and Cool**	**Interlocks**	
Annual Btu Required	806,514,705	689,052,594	**117,462,112**
Energy Use (Therms)	4,439	4,047	**392**
Energy Use (kWh)	--	--	**-**
Annual Operating Cost ($)	$ 4,731	$ 4,314	**$ 417**

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

COST ESTIMATES

Robert Mascenik Elementary School -Computer Power Management

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Computer Power Management		26	29	754		-	754
	Other Estimated Implementation Costs							-
	TOTAL							**$ 754**
	SUB-TOTAL							754
	TOTAL							**$ 754**

Robert Mascenik Elementary School -DHW Pipe Insulation

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	2" Pipe Insulation	LF	50	2	118	5	227	345
	Other Estimated Implementation Costs							72
	TOTAL							**$ 417**
	SUB-TOTAL							345
	TOTAL							**$ 417**

Robert Mascenik Elementary School -Condensing Boiler

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	2,000 MBH Nat Gas Condensing Boiler	ea	2	37,000	74,000	10,000	20,000	94,000
2	Demo Existing Boilers	ls	2		-	2,776	5,552	5,552
3	Piping Modifications	ls	1	4,000	4,000	6,000	6,000	10,000
	Other Estimated Implementation Costs							71,373
	TOTAL							**$ 180,930**
	SUB-TOTAL							109,552
	O&P						15%	16,432.80
	ASBESTOS ABATEMENT						0%	-
	DIRECT COST							125,985
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							125,985
	CONTINGENCY						10%	12,598
	ASBESTOS CONTINGENCY						10%	10,955.20
	SUB-TOTAL							149,538
	ASBESTOS DESIGN & AIR MONITORING, TESTING						15%	16,432.80
	IC FEE						10.0%	14,954
	SUB-TOTAL							180,925
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 180,925**
	Total SmartStart Rebate							**$ 4,000**
							Total	**$ 176,925**

Robert Mascenik Elementary School - Like in Kind Boiler Replacement

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	2,000 MBH Nat Gas Boiler	ea	2	19,756	39,512	6,010	12,020	51,532
2	Demo Existing Boilers	ls	2		-	2,776	5,552	5,552
3	Piping Modifications	ls	1	4,000	4,000	6,000	6,000	10,000
4		ls	1		-		-	-
	Other Estimated Implementation Costs							43,705
	TOTAL							**$ 110,790**
	SUB-TOTAL							67,084
	O&P						15%	10,062.60
	ASBESTOS ABATEMENT						0%	-
	DIRECT COST							77,147
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							77,147
	CONTINGENCY						10%	7,715
	ASBESTOS CONTINGENCY						10%	6,708.40
	SUB-TOTAL							91,570
	ASBESTOS DESIGN & AIR MONITORING, TESTING						15%	10,062.60
	IC FEE						10.0%	9,157
	SUB-TOTAL							110,789
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 110,789**
	Total SmartStart Rebate							
							Total	**$ 110,789**

Robert Mascenik Elementary School - End of Useful Life Energy Star Window AC

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Energy Star Window AC over Conventional Unit	each	22	450	9,900	-	-	9,900
	Other Estimated Implementation Costs							-
	TOTAL							**$ 9,900**

Robert Mascenik Elementary School - Winterize Window A/C Units

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Install Insulated Cover	each	22	50.00	1,100	28.00	616	1,716
	Other Estimated Implementation Costs							-
	TOTAL							**$ 1,716**

Robert Mascenik Elementary School - HHW Pump Controls

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Install Pump Controls		1	1,500	1,500	1,000	1,000	2,500
	Other Estimated Implementation Costs							250
	TOTAL							**$ 2,750**

Robert Mascenik Elementary School - UV Time of Day Optimization

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Occupancy Sensor	EA	19	400	7,600	200	3,800	11,400
	Other Estimated Implementation Costs							6,384
	TOTAL							**$ 17,784**
	SUB-TOTAL							11,400
	O&P						20%	2,280
	ASBESTOS ABATEMENT							-
	DIRECT COST							13,680
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							13,680
	CONTINGENCY						30%	4,104
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							17,784
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							17,784
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 17,784**

Robert Mascenik Elementary School - Computer Time of Day Optimization

Summary

Electricity Savings (kWh/yr)	5,997
Natural Gas Savings (therms/yr)	0
Estimated Cost Savings ($/yr)	$942
Estimated Implementation Cost ($)	$748
Estimated Rebate ($)	$0
Estimated Implementation Cost after Rebate ($)	$748
Simple Payback (Years)	0.8

1. Assuming computers are completely powered down during summer vacation.
2. Computer and monitor power consumption values based on 2009 ASHRAE Fundamentals, Section 18.12, Table 8.
3. Savings assumes all computers go into standby/sleep mode during unoccupied building hours.

CALCULATIONS

Robert Mascenik Elementary School - Winterize Window AC Units

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.169
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.918

	Existing Condition	Proposed System	Savings
R-Value of Window A/C Uncovered and Covered	0.9	3.4	
Air Leakage of Window A/C Uncovered and Covered (CFM)	1,294.0	1,099.9	**194**
Annual heating loss, Therms	1,734	1,394	340
Annual Natural Gas Cost and Savings, $	$ 1,592	$ 1,280	$ 312
Annual Cost and Savings, $	$ 1,592	$ 1,280	**$ 312**

Robert Mascenik Elementary School - SAVINGS FROM REPLACING WINDOW AC UNITS

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.169
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.918

	Existing Condition	Proposed System	Savings
Total Number of Units	22	22	
Number of Inefficient Units	22	22	
Capacity per Unit, Tons	1.00	1.00	
Total Capacity, Tons	22.0	22.0	
Assumed Efficiency, EER	9.8	10.8	
Total Hours of Normal Operation, hrs	2,008	2,008	
Cooling Load Factor	25%	25%	
Annual Cooling Production, ton-hours	10,893	10,893	
Annual Cooling Load, kBTU	130,713	130,713	
Annual Peak Demand Reduction (kW)	1.9	1.8	0.18
Annual Electrical Consumption, kWh	13,338	12,103	1,235
Annual Cost and Savings, $	$ 2,254	$ 2,045	**$ 209**

1. Assume existing systems runs when outside air temperature (OAT) is above 70F during building occupied hours.
2. Both conditions are simulated with non-programmable thermostats.
3. Load factor calculation represents the percentage of time when the unit operates at full load.
4. Conventional units standard of 9.8 EER.
5. Assume the new units have an efficiency of 10.8 EER which meets Energy Star standard.
6. Coincidence Factor for peak kW reduction taken from Maryland Public Utility Commission: Appendix A Measure Analysis Spreadsheet

CALCULATIONS

Robert Mascenik Elementary School - Increase insulation on DHW piping

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	x
3. Price of Electricity, $/kWh (blended rate)	$0.169
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.918

	Existing Condition	Proposed System	Savings
Number of Ft of underinsulated pipe	**50**	50	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	17,493,720	4,629,660	**12,864,060**
Annual Therms lost	175	46	**129**
Annual Cost and Savings, $	$ 161	$ 43	**$ 118**

1. Assumes DHW supply temp on 120 degrees F
2. Assumes 50 feet of 2.00 inch pipe.

Robert Mascenik Elementary School - HHW Pump Controls

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.169
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.918

Savings

	Existing	Proposed	Savings
Pump kWh Consumption	16,386	4,037	12,349
Pump kWh Cost	$ 2,769	$ 682	$ 2,087

Exisitng Pumps

Pump	Equipment	Motor Mfg	Motor Model	Quantity	GPM	Head ft	HP	RPM	VFD?	Efficiency
1	HW Pumps	Baldor	M3218T	1	100	75	5	1750	No	87.5%

Pump	Qty	Total HP	kW	Existing Op Hrs	Proposed Op Hrs	Current kWh	Proposed kWh
1	1	5.00	3.73	3844	947	16386	4037
					Total	**16386.42**	**4036.926**

1. Proposed pump controls would turn off pumps when OAT is above 35F.
2. Assuming heating season is when OAT goes below 65 F.
3. Savings calcs are for one of two pumps that was operating during site visit.

CALCULATIONS

Robert Mascenik Elementary School - Replace Boilers with Higher Efficiency Boilers

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.169
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.918

	Existing Condition	Proposed System	Savings
Heating Boiler Fuel Consumption, therms	8,816	8,130	686
Heating Boiler Fuel Cost	$ 8,093	$ 7,464	**$ 629**

CALCULATIONS

Robert Mascenik Elementary School - Integrate Occ. Sensor Control of UVs

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.169
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.918

	Existing Condition	Proposed System	Savings
Unit Ventilator Operating Condition	Zone Thermostat	Occupancy Override	
Annual Btu Required	872,004,516	560,605,595	**311,398,921**
Energy Use (Therms)	3,420	2,198	**1,221**
Energy Use (kWh)	--	--	**-**
Annual Operating Cost ($)	$ 3,139	$ 2,018	**$ 1,121**

Hours of Operation	*Hrs/Day*
Avg. Existing	4
Avg. Proposed	4

* Assumed Fans are equipped with Motors of HP listed in calculation table
* There is no demand reduction for this measure

Pennsylvania Avenue Elementary School - RTU Replacement

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	5 Ton Packaged Efficient RTU premium over n	ea	2	6,329	12,658	1,321	2,642	15,300
2	Remove Exisitng RTU	ls	2		-	898	1,796	1,796
	Other Estimated Implementation Costs							5,179
	TOTAL							**$ 22,275**
	SUB-TOTAL							17,096
	TOTAL							**$ 22,275**
							NJSS Rebate	**$ 920**
							TOTAL	**$ 21,355**

Pennsylvania Avenue Elementary School - DHW Pipe Insulation

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	1" Pipe Insulation	LF	6	2	11	4	26	37
	Other Estimated Implementation Costs							8
	TOTAL							**$ 44**
	SUB-TOTAL							37
	TOTAL							**$ 44**

Pennsylvania Avenue Elementary School - HHW Pipe Insulation

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	4" Pipe Insulation	LF	20	3	63	6	121	184
	Other Estimated Implementation Costs							39
	TOTAL							**$ 223**
	SUB-TOTAL							184
	TOTAL							**$ 223**

Pennsylvania Avenue Elementary School - Vending Machine Power Management

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Soda Machine		1	179	179	500	500	679
2	Snack Machine		-	179	-	500	-	-
	Other Estimated Implementation Costs							-
	TOTAL							**$ 679**
	SUB-TOTAL							679
	TOTAL							**$ 679**

Pennsylvania Avenue Elementary School - Condensing Boiler

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	2,500 MBH Nat Gas Condensing Boiler	ea	2	46,250	92,500	10,000	20,000	112,500
2	Demo Existing Boilers	ls	2		-	2,776	5,552	5,552
3	Piping Modifications	ls	1	4,000	4,000	6,000	6,000	10,000
	Other Estimated Implementation Costs							83,426
	TOTAL							**$ 211,480**
	SUB-TOTAL							128,052
	O&P						15%	19,207.80
	ASBESTOS ABATEMENT						0%	-
	DIRECT COST							147,260
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							147,260
	CONTINGENCY						10%	14,726
	ASBESTOS CONTINGENCY						10%	12,805.20
	SUB-TOTAL							174,791
	ASBESTOS DESIGN & AIR MONITORING, TESTING						15%	19,207.80
	IC FEE						10.0%	17,479
	SUB-TOTAL							211,478
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 211,478**
	Total SmartStart Rebate							**$ 5,000**
							Total	**$ 206,478**

Pennsylvania Avenue Elementary School - Like in Kind Boiler Replacement

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	2,312 MBH Nat Gas Boiler	ea	2	22,579	45,158	7,091	14,182	59,340
2	Demo Existing Boilers	ls	2		-	2,776	5,552	5,552
3	Piping Modifications	ls	1	4,000	4,000	6,000	6,000	10,000
4		ls	1		-		-	-
	Other Estimated Implementation Costs							48,792
	TOTAL							**$ 123,680**
	SUB-TOTAL							74,892
	O&P						15%	11,233.80
	ASBESTOS ABATEMENT						0%	-
	DIRECT COST							86,126
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							86,126
	CONTINGENCY						10%	8,613
	ASBESTOS CONTINGENCY						10%	7,489.20
	SUB-TOTAL							102,228
	ASBESTOS DESIGN & AIR MONITORING, TESTING						15%	11,233.80
	IC FEE						10.0%	10,223
	SUB-TOTAL							123,684
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 123,684**
	Total SmartStart Rebate							
							Total	**$ 123,684**

Pennsylvania Avenue Elementary School - End of Useful Life Energy Star Window AC

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Energy Star Window AC over Conventional Unit		26	450	11,700	-	-	11,700
	Other Estimated Implementation Costs							-
	TOTAL							**$ 11,700**

Pennsylvania Avenue Elementary School - Winterize Window A/C Units

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Install Insulated Cover	each	26	50.00	1,300	28.00	728	2,028
	Other Estimated Implementation Costs							-
	TOTAL							**$ 2,028**

Pennsylvania Avenue Elementary School - HHW Pump Controls

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Install Pump Controls		1	1,500	1,500	1,000	1,000	2,500
	Other Estimated Implementation Costs							250
	TOTAL							**$ 2,750**

Pennsylvania Avenue Elementary School - UV Time of Day Optimization

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Occupancy Sensor	EA	23	400	9,200	200	4,600	13,800
	Other Estimated Implementation Costs							7,728
	TOTAL							**$ 21,528**
	SUB-TOTAL							13,800
	O&P						20%	2,760
	ASBESTOS ABATEMENT							-
	DIRECT COST							16,560
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							16,560
	CONTINGENCY						30%	4,968
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							21,528
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							21,528
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 21,528**

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Pennsylvania Avenue Elementary School - Winterize Window AC Units

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.159
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.911

	Existing Condition	Proposed System	Savings
R-Value of Window A/C Uncovered and Covered	0.9	3.4	
Air Leakage of Window A/C Uncovered and Covered (CFM)	1,529.3	1,299.9	**229**
Annual heating loss, Therms	2,065	1,660	405
Annual Natural Gas Cost and Savings, $	$ 1,881	$ 1,512	$ 369
Annual Cost and Savings, $	$ 1,881	$ 1,512	**$ 369**

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Pennsylvania Avenue Elementary School - Savings from Replacing Window AC Units

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.159
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.911

	Existing Condition	Proposed System	Savings
Total Number of Units	26	26	
Number of Inefficient Units	26	26	
Capacity per Unit, Tons	1.00	1.00	
Total Capacity, Tons	26.0	26.0	
Assumed Efficiency, EER	9.8	10.8	
Total Hours of Normal Operation, hrs	2,008	2,008	
Cooling Load Factor	25%	25%	
Annual Cooling Production, ton-hours	12,873	12,873	
Annual Cooling Load, kBTU	154,478	154,478	
Annual Peak Demand Reduction (kW)	2.3	2.1	0.21
Annual Electrical Consumption, kWh	15,763	14,304	1,460
Annual Cost and Savings, $	$ 2,506	$ 2,274	**$ 232**

1. Assume existing systems runs when outside air temperature (OAT) is above 70F during building occupied hours.
2. Both conditions are simulated with non-programmable thermostats.
3. Load factor calculation represents the percentage of time when the unit operates at full load.
4. Conventional units standard of 9.8 EER.
5. Assume the new units have an efficiency of 10.8 EER which meets Energy Star standard.
6. Coincidence Factor for peak kW reduction taken from Maryland Public Utility Commission: Appendix A Measure Analysis Spreadsheet

CALCULATIONS

Pennsylvania Avenue Elementary School - Vending Machine Power Management System

Elementary School

Price of #2 Fuel Oil, $/gal	
Price of City Water, $/1000 gallons	
Price of Electricity, $/kWh (blended rate)	$0.159
Price of the Demand of Electricity, $/kW/month	
Price of Natural Gas, $/therm	

	Existing Condition	Proposed System	Savings
Soda Machine Power Consumption	100%	56%	44%
Soda Machine Annual Op Cost	$ 919	$ 404	515
Run Hours	5,256	5,256	
Soda Annual Energy Consumption (kWh)	5,782	2,544	3,238
Snack Machine Power Consumption	100%	56%	44%
Annual Op Cost	$ -	$ -	0
Run Hours	5,256	5,256	
Annual Energy Consumption (kWh)	-	-	**-**
Total Annual Energy Consumption (kWh)	5,782	2,544	**3,238**
Annual Cost and Savings, $	$ 919	$ 404	**$ 515**

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Pennsylvania Avenue Elementary School - Increase insulation on HHW Piping

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	x
3. Price of Electricity, $/kWh (blended rate)	$0.159
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.911

	Existing Condition	Proposed System	Savings
Number of Ft of underinsulated pipe	**20**	20	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	12,174,606	2,226,475	**9,948,131**
Annual Therms lost	122	22	**99**
Annual Cost and Savings, $	$ 111	$ 20	**$ 91**

1. Assumes DHW supply temp on 180 degrees F
2. Assumes 20 feet of 4.00 inch pipe.

CALCULATIONS

Pennsylvania Avenue Elementary School - Increase insulation on DHW Piping

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	x
3. Price of Electricity, $/kWh (blended rate)	$0.159
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.911

	Existing Condition	Proposed System	Savings
Number of Ft of underinsulated pipe	**6**	6	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	885,110	272,261	**612,850**
Annual Therms lost	9	3	**6**
Annual Cost and Savings, $	$ 8	$ 2	**$ 6**

1. Assumes DHW supply temp on 110 degrees F
2. Assumes 6 feet of 1.00 inch pipe.

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Pennsylvania Avenue Elementary School - Increase insulation on HHW Piping

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.159
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.911

Savings

	Existing	Proposed	Savings
Pump kWh Consumption	24,302	5,987	18,315
Pump kWh Cost	$ 3,864	$ 952	$ 2,912

Exisitng Pumps

Pump	Equipment	Motor Mfg	Motor Model	Quantity	GPM	Head ft	HP	RPM	VFD?	Efficiency
1	HW Pumps	Marathon Electric	V213TT	1	200	60	7 1/2		No	88.5%

Pump	Qty	HP	kW	Existing Op Hrs	Proposed Op Hrs	Current kWh	Proposed kWh
1	1	7.50	5.595	3844	947	24302	5987
					Total	**24301.9**	**5986.966**

1. Proposed pump controls would turn off pumps when OAT is above 35F.
2. Assuming heating season is when OAT goes below 65 F.
3. This savings calc is only for the one pump that was operating during the site visit.

CALCULATIONS

Pennsylvania Avenue Elementary School - Replace Aging AHUs With Higher Efficiency Units

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.159
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.911

	Existing Condition	Proposed System	Savings
Total Tons	5	5	
Typical SEER	13.0	15.5	
Annual Run Hours	495	495	
Annual kWh	2,971	1,917	1,054
Annual Cost and Savings, $	$ 472	$ 305	**$ 168**

1. Some SEER values estimated - data on old units no longer available

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Pennsylvania Avenue Elementary School - Replace Boilers with Higher Efficiency Boilers

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.159
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.911

	Existing Condition	Proposed System	Savings
Heating Boiler Fuel Consumption, therms	10,393	9,584	808
Heating Boiler Fuel Cost	$ 9,468	$ 8,731	**$ 736**

CALCULATIONS

Pennsylvania Avenue Elementary School - Integrate Occ. Sensor Control of UVs

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.159
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.911

	Existing Condition	Proposed System	Savings
Unit Ventilator Operating Condition	Zone Thermostat	Occupancy Override	
Annual Btu Required	1,289,254,238	836,202,544	**453,051,694**
Energy Use (Therms)	5,056	3,279	**1,777**
Energy Use (kWh)	--	--	**-**
Annual Operating Cost ($)	$ 4,606	$ 2,987	**$ 1,619**

Hours of Operation	*Hrs/Day*
Avg. Existing	4.7
Avg. Proposed	4.7

* Assumed Fans are equipped with Motors of HP listed in calculation table
* There is no demand reduction for this measure

Matthew Jago Elementary School - DHW Pipe Insulation

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	1.5" Pipe Insulation	LF	12	2	23	4	53	76
	Other Estimated Implementation Costs							16
	TOTAL							**$ 92**
	SUB-TOTAL							76
	TOTAL							**$ 92**

Matthew Jago Elementary School - Vending Machine Power Management

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Soda Machine		1	179	179	500	500	679
2	Snack Machine		1	179	179	500	500	679
	Other Estimated Implementation Costs							-
	TOTAL							**$ 1,358**
	SUB-TOTAL							1,358
	TOTAL							**$ 1,358**

Matthew Jago Elementary School - Condensing Boiler

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	2,000 MBH Nat Gas Condensing Boiler	ea	3	37,000	111,000	10,000	30,000	141,000
2	Demo Existing Boilers	ls	2		-	2,776	5,552	5,552
3	Piping Modifications	ls	1	4,000	4,000	6,000	6,000	10,000
	Other Estimated Implementation Costs							73,582
	TOTAL							**$ 230,130**
	SUB-TOTAL							156,552
	O&P						15%	2.40
	ASBESTOS ABATEMENT						0%	-
	DIRECT COST							156,554
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							156,554
	CONTINGENCY						10%	15,655
	ASBESTOS CONTINGENCY						10%	15,655.20
	SUB-TOTAL							187,865
	ASBESTOS DESIGN & AIR MONITORING, TESTING						15%	23,482.80
	IC FEE						10.0%	18,787
	SUB-TOTAL							230,134
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 230,134**
	Total SmartStart Rebate							**$ 6,000**
							Total	**$ 224,134**

Matthew Jago Elementary School - Like in Kind Boiler Replacement

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	2,000 MBH Nat Gas Boiler	ea	3	19,756	59,268	6,010	18,030	77,298
2	Demo Existing Boilers	ls	2		-	2,776	5,552	5,552
3	Piping Modifications	ls	1	4,000	4,000	6,000	6,000	10,000
4		ls	1		-		-	-
	Other Estimated Implementation Costs							60,492
	TOTAL							**$ 153,340**
	SUB-TOTAL							92,850
	O&P						15%	13,927.50
	ASBESTOS ABATEMENT						0%	-
	DIRECT COST							106,778
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							106,778
	CONTINGENCY						10%	10,678
	ASBESTOS CONTINGENCY						10%	9,285.00
	SUB-TOTAL							126,740
	ASBESTOS DESIGN & AIR MONITORING, TESTING						15%	13,927.50
	IC FEE						10.0%	12,674
	SUB-TOTAL							153,342
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 153,342**
	Total SmartStart Rebate							
							Total	**$ 153,342**

Matthew Jago Elementary School - End of Useful Life Energy Star Window AC

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Energy Star Window AC over Conventional Unit		32	450	14,400	-	-	14,400
	Other Estimated Implementation Costs							-
	TOTAL							**$ 14,400**

Matthew Jago Elementary School - Winterize Window A/C Units

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Install Insulated Cover	each	32	50.00	1,600	28.00	896	2,496
	Other Estimated Implementation Costs							-
	TOTAL							**$ 2,496**

Matthew Jago Elementary School - Heating Hot Water Reset

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Heat Timer HWR Platinum	EA	1	2,500	2,500	200	200	2,700
2	Installation - Electrical	HRs	8	0	0	160	1,280	1,280
3	Installation - Mechanical/Plumbing	HRs	8	0	0	160	1,280	1,280
4	Calibration	HRs	8	0	0	160	1,280	1,280
	Other Estimated Implementation Costs							2,616
	TOTAL COST							**$ 9,156**
	SUB-TOTAL							6,540
	O&P						0%	-
	ASBESTOS ABATEMENT							-
	DIRECT COST							6,540
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							6,540
	CONTINGENCY						40%	2,616
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							9,156
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							9,156
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 9,156**

Matthew Jago Elementary School - UV Time of Day Optimization

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Occupancy Sensor	EA	29	400	11,600	200	5,800	17,400
	Other Estimated Implementation Costs							9,744
	TOTAL							**$ 27,144**
	SUB-TOTAL							17,400
	O&P						20%	3,480
	ASBESTOS ABATEMENT							-
	DIRECT COST							20,880
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							20,880
	CONTINGENCY						30%	6,264
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							27,144
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							27,144
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 27,144**

Matthew Jago Elementary School - Thermostatic Radiator Valve

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Radiator Control Valve (3/4")	EA	4	150	600	200	800	1,400
	Other Estimated Implementation Costs							784
	TOTAL							**$ 2,184**
	SUB-TOTAL							1,400
	O&P						20%	280
	ASBESTOS ABATEMENT							-
	DIRECT COST							1,680
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							1,680
	CONTINGENCY						30%	504
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							2,184
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							2,184
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 2,184**

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Matthew Jago Elementary School - Winterize Window AC Units

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.178
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.900

	Existing Condition	Proposed System	Savings
R-Value of Window A/C Uncovered and Covered	0.9	3.4	
Air Leakage of Window A/C Uncovered and Covered (CFM)	1,882.2	1,599.9	**282**
Annual heating loss, Therms	2,572	2,068	504
Annual Natural Gas Cost and Savings, $	$ 2,315	$ 1,861	$ 454
Annual Cost and Savings, $	$ 2,315	$ 1,861	**$ 454**

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Matthew Jago Elementary School - SAVINGS FROM REPLACING WINDOW AC UNITS

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.178
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.900

	Existing Condition	Proposed System	Savings
Total Number of Units	32	32	
Number of Inefficient Units	32	32	
Capacity per Unit, Tons	1.00	1.00	
Total Capacity, Tons	32.0	32.0	
Assumed Efficiency, EER	9.8	10.8	
Total Hours of Normal Operation, hrs	2,008	2,008	
Cooling Load Factor	25%	25%	
Annual Cooling Production, ton-hours	15,844	15,844	
Annual Cooling Load, kBTU	190,127	190,127	
Annual Peak Demand Reduction (kW)	2.8	2.6	0.26
Annual Electrical Consumption, kWh	19,401	17,604	1,796
Annual Cost and Savings, $	$ 3,453	$ 3,134	**$ 320**

1. Assume existing systems runs when outside air temperature (OAT) is above 70F during building occupied hours.
2. Both conditions are simulated with non-programmable thermostats.
3. Load factor calculation represents the percentage of time when the unit operates at full load.
4. Conventional units standard of 9.8 EER.
5. Assume the new units have an efficiency of 10.8 EER which meets Energy Star standard.
6. Coincidence Factor for peak kW reduction taken from Maryland Public Utility Commission: Appendix A Measure Analysis Spreadsheet

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Matthew Jago Elementary School - Vending Machine Power Management System

Price of #2 Fuel Oil, $/gal	
Price of City Water, $/1000 gallons	
Price of Electricity, $/kWh (blended rate)	$0.178
Price of the Demand of Electricity, $/kW/month	
Price of Natural Gas, $/therm	

	Existing Condition	Proposed System	Savings
Soda Machine Power Consumption	100%	56%	44%
Soda Machine Annual Op Cost	$ 1,029	$ 453	576
Run Hours	5,256	5,256	
Soda Annual Energy Consumption (kWh)	5,782	2,544	3,238
Snack Machine Power Consumption	100%	56%	44%
Annual Op Cost	$ 75	$ 33	42
Run Hours	5,256	5,256	
Annual Energy Consumption (kWh)	420	185	**235**
Total Annual Energy Consumption (kWh)	6,202	2,729	**3,473**
Annual Cost and Savings, $	$ 1,104	$ 486	**$ 618**

CALCULATIONS

Matthew Jago Elementary School - Increase insulation on HHW piping

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	x
3. Price of Electricity, $/kWh (blended rate)	$0.178
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.900

	Existing Condition	Proposed System	Savings
Number of Ft of underinsulated pipe	**12**	12	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	1,974,154	583,416	**1,390,738**
Annual Therms lost	20	6	**14**
Annual Cost and Savings, $	$ 18	$ 5	**$ 13**

1. Assumes DHW supply temp on 105 degrees F
2. Assumes 12 feet of 1.50 inch pipe.

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Matthew Jago Elementary School - Replace Boilers with Higher Efficiency Boilers

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.178
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.900

	Existing Condition	Proposed System	Savings
Heating Boiler Fuel Consumption, therms	19,974	18,421	1,554
Heating Boiler Fuel Cost	$ 17,977	$ 16,579	**$ 1,398**

CALCULATIONS

Matthew Jago Elementary School - Implement a HHW Temperature Setpoint Reset Program

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.150
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.880

	Existing Condition	Proposed System	Savings
HHW Setpoint at OAT = 0 degrees F	**180**	180	
HHW Setpoint at OAT = 40 degrees F	180	**140**	
Annual Btu losses	685,308,600	416,711,796	**268,596,804**
Energy Use (Therms)	6,853	4,167	**2,686**
Energy Use (kWh)	--	--	**-**
Annual Cost and Savings, $	$ 6,031	$ 3,667	**$ 2,364**

** Assumes 1" cellular glass fiber insulation with AP-T casing
** Assumes 75 degree ambient temperature

CALCULATIONS

Matthew Jago Elementary School - Integrate Occ. Sensor Control of UVs

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.178
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.900

	Existing Condition	Proposed System	Savings
Unit Ventilator Operating Condition	Zone Thermostat	Occupancy Override	
Annual Btu Required	1,741,694,389	1,129,652,505	**612,041,885**
Energy Use (Therms)	6,830	4,430	**2,400**
Energy Use (kWh)	--	--	**-**
Annual Operating Cost ($)	$ 6,147	$ 3,987	**$ 2,160**

Hours of Operation	*Hrs/Day*
Avg. Existing	5
Avg. Proposed	5

* Assumed Fans are equipped with Motors of HP listed in calculation table
* There is no demand reduction for this measure

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Matthew Jago Elementary School - Thermostatic Radiator Valves

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.178
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.900

	Existing Condition	Proposed System	Savings
Simultaneous Conditioning	**Overheating**	**Thermostatic Valves**	
Annual Btu Required	582,482,843	497,649,095	**84,833,747**
Energy Use (Therms)	3,437	3,104	**333**
Energy Use (kWh)	--	--	**-**
Annual Operating Cost ($)	$ 3,394	$ 3,095	**$ 299**

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

COST ESTIMATES

Avenel Middle School - Door Weatherization

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Door Weatherstripping	Ea	4	$ 22	$ 86	$ 57	$ 228	$ 314
	Other Estimated Implementation Costs							-
	TOTAL							**$ 314**
	SUB-TOTAL							**314**
	TOTAL							**$ 314**

Avenel Middle School - Walk-In Cooler Evap Fan Power Management - High School

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Walk In Cooler Power Management	EA	1	604	604	80	80	684
	Other Estimated Implementation Costs							-
	TOTAL							**$ 684**
							NJSS Rebate	**$ 75**
							TOTAL	**$ 609**

Avenel Middle School - DHW Pipe Insulation

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	1" Pipe Insulation	LF	100	2	179	4	432	611
	Other Estimated Implementation Costs							128
	TOTAL							**$ 739**
	SUB-TOTAL							611
	TOTAL							**$ 739**

Avenel Middle School - HHW Pipe Insulation

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	2" Pipe Insulation	LF	140	2	329	5	636	965
2	3/4" Pipe Insulation	LF	468	2	814	4	1,928	2,742
	Other Estimated Implementation Costs							778
	TOTAL							**$ 4,486**
	SUB-TOTAL							3,707
	TOTAL							**$ 4,486**

Avenel Middle School - Vending Meiser

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Soda Machine		3	179	537	500	1,500	2,037
2	Snack Machine		3	179	537	500	1,500	2,037
	Other Estimated Implementation Costs							-
	TOTAL							**$ 4,074**
	SUB-TOTAL							4,074
	TOTAL							**$ 4,074**

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

COST ESTIMATES

Avenel Middle School - Condensing Boiler

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	1,500 MBH Nat Gas Condensing Boiler	ea	5	37,000	185,000	10,000	50,000	235,000
2	Demo Existing Boilers	ls	2		-	2,776	5,552	5,552
3	Piping Modifications	ls	1	4,000	4,000	6,000	6,000	10,000
	Other Estimated Implementation Costs							117,816
	TOTAL							**$ 368,370**
	SUB-TOTAL							250,552
	O&P						15%	47.09
	ASBESTOS ABATEMENT						0%	-
	DIRECT COST							250,599
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							250,599
	CONTINGENCY						10%	25,060
	ASBESTOS CONTINGENCY						10%	25,055.20
	SUB-TOTAL							300,714
	ASBESTOS DESIGN & AIR MONITORING, TESTING						15%	37,582.80
	IC FEE						10.0%	30,071
	SUB-TOTAL							368,368
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 368,368**
	Total SmartStart Rebate							**$ 13,125**
							Total	**$ 355,243**

Avenel Middle School - Like in Kind Boiler Replacement

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	1,500 MBH Nat Gas Boiler	ea	5	16,833	84,165	5,024	25,120	109,285
2	Demo Existing Boilers	ls	2		-	2,776	5,552	5,552
3	Piping Modifications	ls	1	4,000	4,000	6,000	6,000	10,000
4		ls	1		-		-	-
	Other Estimated Implementation Costs							81,331
	TOTAL							**$ 206,170**
	SUB-TOTAL							124,837
	O&P						15%	18,725.55
	ASBESTOS ABATEMENT						0%	-
	DIRECT COST							143,563
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							143,563
	CONTINGENCY						10%	14,356
	ASBESTOS CONTINGENCY						10%	12,483.70
	SUB-TOTAL							170,403
	ASBESTOS DESIGN & AIR MONITORING, TESTING						15%	18,725.55
	IC FEE						10.0%	17,040
	SUB-TOTAL							206,168
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 206,168**
	Total SmartStart Rebate							
							Total	**$ 206,168**

Avenel Middle School - End of Useful Life Energy Star Window AC

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Energy Star Window AC over Conver	each	24	450	10,800	-	-	10,800
	Other Estimated Implementation Costs							-
	TOTAL							**$ 10,800**

Avenel Middle School - Winterize Window A/C Units

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Install Insulated Cover	each	19	50.00	960	28.00	538	1,498
2	Install Interior Insulated Cover	each	5.0	27.00	135	28.00	140	275
	Other Estimated Implementation Costs							-
	TOTAL							**$ 1,773**

Avenel Middle School - HHW Pump Controls

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Program Existing HW Reset Controls		1	100	100	1,000	1,000	1,100
	Other Estimated Implementation Costs							110
	TOTAL							**$ 1,210**

Avenel Middle School - UV Time of Day Optimization

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Occupancy Sensor	EA	41	400	16,400	200	8,200	24,600
	Other Estimated Implementation Costs							13,776
	TOTAL							**$ 38,376**
	SUB-TOTAL							24,600
	O&P						20%	4,920
	ASBESTOS ABATEMENT							-
	DIRECT COST							29,520
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							29,520
	CONTINGENCY						30%	8,856
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							38,376
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							38,376
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 38,376**

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Avenel Middle School - Walk-in Freezer & Cooler Evaporator Fan Control

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.144
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.876

	Existing Condition	Proposed System	Savings
Evaporator Fan Savings	100%	**35%**	
Compressor Operations Savings	100%	**80%**	
Cost to Remove Evap Fan Heat Load	$ 265	$ 212	
Annual Op Cost	$ 621	$ 217	
Run Hours	**8,760**	8,760	
Annual Energy Consumption (kWh)	4,313	1,332	2,981
Annual Cost and Savings, $	$ 886	$ 429	**$ 460**

1. Run hours based on fan motors being run 8,760 hrs

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Avenel Middle School - Winterize Window AC Units

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.144
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.876

	Existing Condition	Proposed System	Savings
R-Value of Window A/C Uncovered and Covered	0.9	3.4	
Air Leakage of Window A/C Uncovered and Covered (CFM)	1,411.6	1,199.9	**212**
Annual heating loss, Therms	1,982	1,593	389
Annual Natural Gas Cost and Savings, $	$ 1,736	$ 1,396	$ 340
Annual Cost and Savings, $	$ 1,736	$ 1,396	**$ 340**

Avenel Middle School - SAVINGS FROM REPLACING WINDOW AC UNITS

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.144
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.876

	Existing Condition	Proposed System	Savings
Total Number of Units	24	24	
Number of Inefficient Units	24	24	
Capacity per Unit, Tons	1.00	1.00	
Total Capacity, Tons	24.0	24.0	
Assumed Efficiency, EER	9.8	10.8	
Total Hours of Normal Operation, hrs	2,008	2,008	
Cooling Load Factor	25%	25%	
Annual Cooling Production, ton-hours	11,883	11,883	
Annual Cooling Load, kBTU	142,596	142,596	
Annual Peak Demand Reduction (kW)	2.1	1.9	0.20
Annual Electrical Consumption, kWh	14,551	13,203	1,347
Annual Cost and Savings, $	$ 2,095	$ 1,901	**$ 194**

1. Assume existing systems runs when outside air temperature (OAT) is above 70F during building occupied hours.
2. Both conditions are simulated with non-programmable thermostats.
3. Load factor calculation represents the percentage of time when the unit operates at full load.
4. Conventional units standard of 9.8 EER.
5. Assume the new units have an efficiency of 10.8 EER which meets Energy Star standard.
6. Coincidence Factor for peak kW reduction taken from Maryland Public Utility Commission: Appendix A Measure Analysis Spreadsheet

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Avenel Middle School - VENDING MACHINE POWER MANAGEMENT SYSTEM

Price of #2 Fuel Oil, $/gal	
Price of City Water, $/1000 gallons	
Price of Electricity, $/kWh (blended rate)	$0.144
Price of the Demand of Electricity, $/kW/month	
Price of Natural Gas, $/therm	

	Existing Condition	Proposed System	Savings
Soda Machine Power Consumption	100%	56%	44%
Soda Machine Annual Op Cost	$ 2,498	$ 1,598	899
Run Hours	5,256	5,256	
Soda Annual Energy Consumption (kWh)	17,345	11,101	6,244
Snack Machine Power Consumption	100%	56%	44%
Annual Op Cost	$ 182	$ 80	102
Run Hours	5,256	5,256	
Annual Energy Consumption (kWh)	1,261	555	**706**
Total Annual Energy Consumption (kWh)	18,606	11,656	**6,951**
Annual Cost and Savings, $	$ 2,679	$ 1,678	**$ 1,001**

CALCULATIONS

Avenel Middle School - Increase insulation on HHW piping

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.144
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.876

Total Savings			
	Existing Condition	**Proposed System**	**Savings**
Number of Ft of underinsulated pipe		0	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	122,493,770	29,972,831	**92,520,940**
Annual Therms lost	1,225	300	**925**
Annual Cost and Savings, $	$ 1,073	$ 263	**$ 810**

2" Pipe	**Existing Condition**	**Proposed System**	**Savings**
Number of Ft of underinsulated pipe	**140**	140	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	47,042,408	9,617,409	**37,424,999**
Annual Therms lost	470	96	**374**
Annual Cost and Savings, $	$ 412	$ 84	**$ 328**

1. Assumes DHW supply temp on 180 degrees F
2. Assumes 140 feet of 2.00 inch pipe.

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Avenel Middle School - Increase insulation on DHW piping

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.144
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.876

	Existing Condition	Proposed System	Savings
Number of Ft of underinsulated pipe	**100**	100	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	20,734,920	6,132,000	**14,602,920**
Annual Therms lost	207	61	**146**
Annual Cost and Savings, $	$ 182	$ 54	**$ 128**

1. Assumes DHW supply temp on 120 degrees F
2. Assumes 100 feet of 1.00 inch pipe.
3. Notes do not indicate recommended length or pipe width

Avenel Middle School - HHW Pump Controls

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.144
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.876

Savings

	Existing	Proposed	Savings
Pump kWh Consumption	170,210	41,933	128,278
Pump kWh Cost	$ 24,510	$ 6,038	$ 18,472

Exisitng Pumps

Pump	Equipment	Motor Mfg	Motor Model	Quantity	GPM	Head ft	HP	RPM	VFD?	Efficiency
1	Hot Water Pump	Marathon	B&G 1510 BF 8.625 4BC	1	480	65	15	1765	No	91%
	Hot Water Pump	Marathon	B&G 1510 BF 8.625 4BC	1	480	65	15	1765	No	91%
	Hot Water Pump		B&G U-12T	1	480	64	15	1725	No	60%
	Hot Water Pump	Emerson		1	26.5	5	1/6	1725	No	60%
	Hot Water Pump	Emerson		1	26.5	5	1/6	1725	No	60%
	Hot Water Pump	Emerson		1	26.5	5	1/6	1725	No	60%
	Hot Water Pump	B&G		1	4.2	4	0.0833	1725	No	60%
2	Hot Water Pump	B&G		1	4.2	4	0.0833	1725	No	60%
3	Hot Water Pump	Emerson		1	18.2	5	0.0833	1725	No	60%
4	Hot Water Pump	Emerson		1	18.2	5	0.0833	1725	No	60%

Pump	Qty	HP	kW	Existing Op Hrs	Proposed Op Hrs	Current kWh	Proposed kWh
1	1	15.00	11.19	3844	947	47269	11645
2	1	15.00	11.19	3844	947	47269	11645
3	1	15.00	11.19	3844	947	71691	17662
4	1	0.17	0.12	3844	947	797	196
5	1	0.17	0.12	3844	947	797	196
6	1	0.17	0.12	3844	947	797	196
7	1	0.08	0.06	3844	947	398	98
8	1	0.08	0.06	3844	947	398	98
9	1	0.08	0.06	3844	947	398	98
10	1	0.08	0.06	3844	947	398	98
					Total	**170210.47**	**41932.703**

1. Proposed pump controls would turn off pumps when OAT is above 35F.
2. Assuming heating season is when OAT goes below 65 F.

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Avenel Middle School - SAVINGS FROM WEATHERSTRIPPING DOORS

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.144
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.876

	Existing Condition	Proposed System	Savings
Number of Doors	4	4	
Estimated Infiltration Rate per Door, CFM	33	7	
Annual Cooling Infiltration Occupied Hours, OAT > 80F	814	814	
Annual Heating Infiltration Occupied Hours, OAT < 55F	1,731	1,731	
Annual Cooling Load, kBTU	3,054	602	
Annual Cooling Electrical Consumption, kWh	331	65	266
Annual Heating Load, kBTU	7,960	2,020	
Annual Heating Consumption, Therms	96	24.33	72
Annual Cost and Savings, $	$ 132	$ 31	**$ 101**

1. Infiltration rate was calculated according to ASHRAE Fundamentals 2005 Door Leakage Rate Equation F27.12

2. Estimated hours of infiltration was based on all hours below 55F and above 80F for the region.

3. It is assumed that each door has a leakage area of 4 square inches (7 linear feet by 0.05 in). Vestibule doors are not included. There is/are 4 door(s).

4. A 60% load factor was used when calculating the existing leakage rate.

5. Assume all AHUs have an supply air temperature of 55F in the summer and 80F in the winter.

6. The average outside air temperature above 80F during the year is 81F. The average outside air temperature below 55F is 42F.

7. Assume the cooling plant has an efficiency of 1.3 kw/ton and the heating plant has an efficiency of 83%.

8. New weatherstripping is assumed to reduce inflitration by 80%.

CALCULATIONS

Avenel Middle School - Replace Boilers with Higher Efficiency Boilers

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.144
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.876

	Existing Condition	Proposed System	Savings
Heating Boiler Fuel Consumption, therms	35,996	33,196	2,800
Heating Boiler Fuel Cost	$ 31,533	$ 29,080	**$ 2,453**

CALCULATIONS

Avenel Middle School - Integrate Occ. Sensor Control of UVs

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.144
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.876

	Existing Condition	Proposed System	Savings
Unit Ventilator Operating Condition	Zone Thermostat	Occupancy Override	
Annual Btu Required	0	0	-
Energy Use (Therms)	0	0	-
Energy Use (kWh)	--	--	-
Annual Operating Cost ($)	$ -	$ -	**$ -**

Hours of Operation	*Hrs/Day*
Avg. Existing	13
Avg. Proposed	13

* Assumed Fans are equipped with Motors of HP listed in calculation table
* There is no demand reduction for this measure

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

COST ESTIMATES

Colonia Middle School - Door Weatherization

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Door Weatherstripping	Ea	6	$ 22	$ 130	$ 57	$ 341	$ 471
	Other Estimated Implementation Costs							-
	TOTAL							**$ 471**
	SUB-TOTAL							**471**
	TOTAL							**$ 471**

Colonia Middle School - DHW Pipe Insulation

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	5" Pipe Insulation	LF	100	4	359	6	646	1,005
	Other Estimated Implementation Costs							211
	TOTAL							**$ 1,216**
	SUB-TOTAL							1,005
	TOTAL							**$ 1,216**

Colonia Middle School - HHW Pipe Insulation

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	3/4" Pipe Insulation	LF	568	2	988	4	2,340	3,328
2	4" Pipe Insulation		16	3	51	6	97	147
	Other Estimated Implementation Costs							730
	TOTAL							**$ 4,206**
	SUB-TOTAL							3,476
	TOTAL							**$ 4,206**

Colonia Middle School - Vending Meiser

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Soda Machine		3	179	537	500	1,500	2,037
2	Snack Machine		3	179	537	500	1,500	2,037
	Other Estimated Implementation Costs							-
	TOTAL							**$ 4,074**

Colonia Middle School - Condensing Boiler

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	1,500 MBH Nat Gas Condensing Boiler	ea	4	37,000	148,000	10,000	40,000	188,000
2	Demo Existing Boilers	ls	2		-	2,776	5,552	5,552
3	Piping Modifications	ls	1	4,000	4,000	6,000	6,000	10,000
	Other Estimated Implementation Costs							95,755
	TOTAL							**$ 299,310**
	SUB-TOTAL							203,552
	O&P						15%	70.64
	ASBESTOS ABATEMENT						0%	-
	DIRECT COST							203,623
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							203,623
	CONTINGENCY						10%	20,362
	ASBESTOS CONTINGENCY						10%	20,355.20
	SUB-TOTAL							244,340
	ASBESTOS DESIGN & AIR MONITORING, TESTING						15%	30,532.80
	IC FEE						10.0%	24,434
	SUB-TOTAL							299,307
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 299,307**
	Total SmartStart Rebate							**$ 10,500**
							Total	**$ 288,807**

COST ESTIMATES

Colonia Middle School - Like in Kind Boiler Replacement

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	1,500 MBH Nat Gas Boiler	ea	4	16,833	67,332	5,024	20,096	87,428
2	Demo Existing Boilers	ls	2		-	2,776	5,552	5,552
3	Piping Modifications	ls	1	4,000	4,000	6,000	6,000	10,000
4		ls	1		-		-	-
	Other Estimated Implementation Costs							48,486
	TOTAL							**$ 151,470**
	SUB-TOTAL							102,980
	O&P						15%	70.64
	ASBESTOS ABATEMENT						0%	-
	DIRECT COST							103,051
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							103,051
	CONTINGENCY						10%	10,305
	ASBESTOS CONTINGENCY						10%	10,298.00
	SUB-TOTAL							123,654
	ASBESTOS DESIGN & AIR MONITORING, TESTING						15%	15,447.00
	IC FEE						10.0%	12,365
	SUB-TOTAL							151,466
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 151,466**
	Total SmartStart Rebate							
							Total	**$ 151,466**

Colonia Middle School - End of Useful Life Energy Star Window AC

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Energy Star Window AC over Conventional Unit		30	450	13,500	-	-	13,500
	Other Estimated Implementation Costs							-
	TOTAL							**$ 13,500**

Winterize Window A/C Units

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Install Insulated Cover	each	25	50.00	1,250	28.00	700	1,950
2	Install Interior Insulated Cover	each	5.0	27.00	135	28.00	140	275
	Other Estimated Implementation Costs							-
	TOTAL							**$ 1,950**
	SUB-TOTAL							2,225
	O&P						0%	-
	ASBESTOS ABATEMENT							-
	DIRECT COST							2,225
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							2,225
	CONTINGENCY						0%	-
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							2,225
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							2,225
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 2,225**

Colonia Middle School - HHW Pump Controls

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Program Existing HW Reset Controls		1	100	100	1,000	1,000	1,100
	Other Estimated Implementation Costs							110
	TOTAL							**$ 1,210**

Colonia Middle School - Walk-In Cooler Evap Fan Power Management - High School

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Walk In Cooler Power Management	EA	1	604	604	80	80	684
	Other Estimated Implementation Costs							-
							NJSS Rebate	**$ 75**
							TOTAL	**$ 609**

Colonia Middle School - 3 Way to 2 Way Valve Conversion

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	3/4" 2-way valves	EA	53	345	18,285	16	848	19,133
2	Control Points	EA	3	850	2,550		-	2,550
3	Commissioning, vavles & VFD	EA	53		-	25	1,325	1,325
	Other Estimated Implementation Costs							7,363
	TOTAL							**$ 30,371**
	SUB-TOTAL							23,008
	O&P						20%	4,602
	ASBESTOS ABATEMENT							-
	DIRECT COST							27,610
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							27,610
	CONTINGENCY						10%	2,761
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							30,371
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							30,371
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 30,371**
							NJSS Rebate	**$ 2,400**
							TOTAL	**$ 27,971**

Colonia Middle School - Heating Hot Water Reset

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Heat Timer HWR Platinum	EA	1	2,500	2,500	200	200	2,700
2	Installation - Electrical	HRs	8	0	0	160	1,280	1,280
3	Installation - Mechanical/Plumbing	HRs	8	0	0	160	1,280	1,280
4	Calibration	HRs	8	0	0	160	1,280	1,280
	Other Estimated Implementation Costs							2,616
	TOTAL COST							**$ 9,156**
	SUB-TOTAL							6,540
	O&P						0%	-
	ASBESTOS ABATEMENT							-
	DIRECT COST							6,540
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							6,540
	CONTINGENCY						40%	2,616
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							9,156
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							9,156
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 9,156**

COST ESTIMATES

Colonia Middle School - UV Time of Day Optimization

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Occupancy Sensor	EA	85	400	34,000	200	17,000	51,000
	Other Estimated Implementation Costs							28,560
	TOTAL							**$ 79,560**
	SUB-TOTAL							51,000
	O&P						20%	10,200
	ASBESTOS ABATEMENT							-
	DIRECT COST							61,200
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							61,200
	CONTINGENCY						30%	18,360
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							79,560
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							79,560
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 79,560**

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Colonia Middle School - Walk-in Freezer & Cooler Evaporator Fan Control

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.173
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.877

	Existing Condition	Proposed System	Savings
Evaporator Fan Savings	100%	**35%**	
Compressor Operations Savings	100%	**80%**	
Cost to Remove Evap Fan Heat Load	$ 636	$ 509	
Annual Op Cost	$ 1,492	$ 522	
Run Hours	**8,760**	8,760	
Annual Energy Consumption (kWh)	8,626	2,664	5,962
Annual Cost and Savings, $	$ 2,129	$ 1,031	**$ 1,100**

1. Run hours based on fan motors being run 8,760 hrs

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Colonia Middle School - Winterize Window AC Units

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.173
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.877

	Existing Condition	Proposed System	Savings
R-Value of Window A/C Uncovered and Covered	0.9	3.4	
Air Leakage of Window A/C Uncovered and Covered (CFM)	1,764.6	1,499.9	**265**
Annual heating loss, Therms	2,475	1,990	485
Annual Natural Gas Cost and Savings, $	$ 2,170	$ 1,745	$ 425
Annual Cost and Savings, $	$ 2,170	$ 1,745	**$ 425**

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Colonia Middle School - Savings from Replacing Window AC Units

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.173
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.877

	Existing Condition	Proposed System	Savings
Total Number of Units	30	30	
Number of Inefficient Units	30	30	
Capacity per Unit, Tons	1.00	1.00	
Total Capacity, Tons	30.0	30.0	
Assumed Efficiency, EER	9.8	10.8	
Total Hours of Normal Operation, hrs	2,008	2,008	
Cooling Load Factor	25%	25%	
Annual Cooling Production, ton-hours	14,854	14,854	
Annual Cooling Load, kBTU	178,244	178,244	
Annual Peak Demand Reduction (kW)	2.6	2.4	0.24
Annual Electrical Consumption, kWh	18,188	16,504	1,684
Annual Cost and Savings, $	$ 3,147	$ 2,855	**$ 291**

1. Assume existing systems runs when outside air temperature (OAT) is above 70F during building occupied hours.
2. Both conditions are simulated with non-programmable thermostats.
3. Load factor calculation represents the percentage of time when the unit operates at full load.
4. Conventional units standard of 9.8 EER.
5. Assume the new units have an efficiency of 10.8 EER which meets Energy Star standard.
6. Coincidence Factor for peak kW reduction taken from Maryland Public Utility Commission: Appendix A Measure Analysis Spreadsheet

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Colonia Middle School - Vending Machine Power Management System

Price of #2 Fuel Oil, $/gal	
Price of City Water, $/1000 gallons	
Price of Electricity, $/kWh (blended rate)	$0.173
Price of the Demand of Electricity, $/kW/month	
Price of Natural Gas, $/therm	

	Existing Condition	Proposed System	Savings
Soda Machine Power Consumption	100%	56%	44%
Soda Machine Annual Op Cost	$ 3,001	$ 1,920	1,080
Run Hours	5,256	5,256	
Soda Annual Energy Consumption (kWh)	17,345	11,101	6,244
Snack Machine Power Consumption	100%	56%	44%
Annual Op Cost	$ 218	$ 96	122
Run Hours	5,256	5,256	
Annual Energy Consumption (kWh)	1,261	555	**706**
Total Annual Energy Consumption (kWh)	18,606	11,656	**6,951**
Annual Cost and Savings, $	$ 3,219	$ 2,016	**$ 1,202**

1. Run hours based on fan motors being run 8760 hrs

Utility Unit Costs

Electrical Unit Cost, $/kwh	**$0.173**

Soda Machine Count	3
Snack Machine Count	3
Annual Run-Time Factor	60%

VendMiser Installation Savings

Soda Machine Power Consumption, kw	1.10	0.396
Annual Savings %	36%	
Electrical Unit Cost, $ per kilowatt-hour	$0.173	
Annual Energy Savings	$1,080	

VendMiser Installation Savings

Snack Machine Power Consumption, kw	0.08
Annual Savings %	56%
Electrical Unit Cost, $ per kilowatt-hour	$0.173
Annual Energy Savings	$122

Economics Summary

kWh Savings	6,951
Estimated Annual Savings	$1,202
Vendmiser Unit Cost	$179
Total Installation Cost ($500/unit)	$3,000
Total Vendmiser Cost (ECM)	**$4,074**
Simple Payback, Years	3.39

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Colonia Middle School - Increase insulation on HHW piping

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	x
3. Price of Electricity, $/kWh (blended rate)	$0.148
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.911

Total Savings			
	Existing Condition	**Proposed System**	**Savings**
Number of Ft of underinsulated pipe		0	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	92,522,384	24,925,929	**67,596,455**
Annual Therms lost	925	249	**676**
Annual Cost and Savings, $	$ 843	$ 227	**$ 616**

3/4 Pipe	**Existing Condition**	**Proposed System**	**Savings**
Number of Ft of underinsulated pipe	**568**	568	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	91,573,448	24,704,870	**66,868,578**
Annual Therms lost	916	247	**669**
Annual Cost and Savings, $	$ 834	$ 225	**$ 609**

1. Assumes DHW supply temp on 180 degrees F
2. Assumes 568 feet of 0.75 inch pipe.

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Colonia Middle School - Increase insulation on DHW piping

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	x
3. Price of Electricity, $/kWh (blended rate)	$0.173
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.877

	Existing Condition	Proposed System	Savings
Number of Ft of underinsulated pipe	**100**	100	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	39,787,920	10,415,640	**29,372,280**
Annual Therms lost	398	104	**294**
Annual Cost and Savings, $	$ 349	$ 91	**$ 258**

1. Assumes DHW supply temp on 103 degrees F
2. Assumes 100 feet of 5.00 inch pipe.

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Colonia Middle School - HHW Pump Controls

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.173
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.877

Savings

	Existing	Proposed	Savings
Pump kWh Consumption	55,377	13,643	41,735
Pump kWh Cost	$ 9,580	$ 2,360	$ 7,220

Exisitng Pumps

Pump	Equipment	Motor Mfg	Motor Model	Quantity	GPM	Head ft	HP	RPM	VFD?	Efficiency
1	Hot Water Pump	Marathon	B&G 1510 BF 11 -4E	1	500	110	17 5/7	1765	peed 42.5 Hz	92%

Pump	Qty	HP	kW	Existing Op Hrs	Proposed Op Hrs	Current kWh	Proposed kWh
1	1	17.71	13.210417	3844	947	55377	13643
					Total	**55377.14**	**13642.6**

1. Proposed pump controls would turn off pumps when OAT is above 35F.
2. Assuming heating season is when OAT goes below 65 F.
3. This cacluslation is for the one of three pumps onsite that was operating during the site visit.
4. This calc is for savings disregarding a 3 way to 2 way valve conversion.

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Colonia Middle School - SAVINGS FROM WEATHERSTRIPPING DOORS

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.173
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.877

	Existing Condition	Proposed System	Savings
Number of Doors	6	6	
Estimated Infiltration Rate per Door, CFM	49	10	
Annual Cooling Infiltration Occupied Hours, OAT > 80F	814	814	
Annual Heating Infiltration Occupied Hours, OAT < 55F	1,731	1,731	
Annual Cooling Load, kBTU	6,872	1,355	
Annual Cooling Electrical Consumption, kWh	744	147	598
Annual Heating Load, kBTU	17,909	4,544	
Annual Heating Consumption, Therms	211	53.46	157
Annual Cost and Savings, $	$ 314	$ 72	**$ 241**

1. Infiltration rate was calculated according to ASHRAE Fundamentals 2005 Door Leakage Rate Equation F27.12

2. Estimated hours of infiltration was based on all hours below 55F and above 80F for the region.

3. It is assumed that each door has a leakage area of 4 square inches (7 linear feet by 0.05 in). Vestibule doors are not included. There is/are 6 door(s).

4. A 60% load factor was used when calculating the existing leakage rate.

5. Assume all AHUs have an supply air temperature of 55F in the summer and 80F in the winter.

6. The average outside air temperature above 80F during the year is 81F. The average outside air temperature below 55F is 42F.

7. Assume the cooling plant has an efficiency of 1.3 kw/ton and the heating plant has an efficiency of 85%.

8. New weatherstripping is assumed to reduce inflitration by 80%.

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Colonia Middle School - Replace Boilers with Higher Efficiency Boilers

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.173
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.877

	Existing Condition	Proposed System	Savings
Heating Boiler Fuel Consumption, therms	24,633	22,717	1,916
Heating Boiler Fuel Cost	$ 21,603	$ 19,923	**$ 1,680**

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Colonia Middle School - Exisitng Pump Power Consumption with VFD at 42.5 Hz

UTILITY PRICES

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.173
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/Therm	$0.877

	Existing Condition	Proposed System	Annual Savings
Annual Energy Consumption (kWh)	16,238	6,166	**10,071**
Run Hours	2,410	2,410	**-**

Annual Cost and Savings, $	$2,809	$1,067	**$1,742**

1. VFD power consumption based on assumed load profile and affinity laws
2. Assume chillers operate above 50˚F OAT
3. Assume both CW pumps run when chillers run
4. Pumps throttled at 75%. Assume max flow required is 75% of total flow, hence 65% power

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Colonia Middle School - Implement a HHW Temperature Setpoint Reset Program

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.150
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.877

	Existing Condition	Proposed System	Savings
HHW Setpoint at OAT = 0 degrees F	**180**	180	
HHW Setpoint at OAT = 40 degrees F	180	**140**	
Annual Btu losses	1,341,943,200	815,987,952	**525,955,248**
Energy Use (Therms)	13,419	8,160	**5,260**
Energy Use (kWh)	--	--	**-**
Annual Cost and Savings, $	$ 11,769	$ 7,156	**$ 4,613**

** Assumes 1" cellular glass fiber insulation with AP-T casing

** Assumes 75 degree ambient temperature

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Colonia Middle School - Integrate Occ. Sensor Control of UVs

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.173
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.877

	Existing Condition	Proposed System	Savings
Unit Ventilator Operating Condition	Zone Thermostat	Occupancy Override	
Annual Btu Required	7,672,527,190	4,976,354,985	**2,696,172,205**
Energy Use (Therms)	25,575	16,588	**8,987**
Energy Use (kWh)	--	--	**-**
Annual Operating Cost ($)	$ 26,387	$ 17,115	**$ 9,273**

Hours of Operation	*Hrs/Day*
Avg. Existing	13.7
Avg. Proposed	13.7

* Assumed Fans are equipped with Motors of HP listed in calculation table
* There is no demand reduction for this measure

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

COST ESTIMATES

Fords Middle School - CRT to Flatscreen

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	CRT to Flat Screen		7	75	525		-	525
	Other Estimated Implementation Costs							-
	TOTAL							**$ 525**
	SUB-TOTAL							525
	TOTAL							**$ 525**

Fords Middle School - Computer Power Management

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Computer Power Management		84	29	2,436		-	2,436
	Other Estimated Implementation Costs							-
	TOTAL							**$ 2,436**
	SUB-TOTAL							2,436
	TOTAL							**$ 2,436**

Fords Middle School - Vending Machine Power Management

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Soda Machine		4	179	716	500	2,000	2,716
2	Snack Machine		4	179	716	500	2,000	2,716
	Other Estimated Implementation Costs							-
	TOTAL							**$ 5,432**
	SUB-TOTAL							5,432
	TOTAL							**$ 5,432**

Fords Middle School - End of Useful Life Energy Star Window AC

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Energy Star Window AC over Con		6	450	2,700	-	-	2,700
	Other Estimated Implementation Costs							-
	TOTAL							**$ 2,700**

Fords Middle School - Winterize Window A/C Units

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Install Insulated Cover	each	6	50.00	300	28.00	168	468
	Other Estimated Implementation Costs							-
	TOTAL							**$ 468**

Fords Middle School - HHW Pump Controls

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Install Pump Controls		1	1,500	1,500	1,000	1,000	2,500
	Other Estimated Implementation Costs							250
	TOTAL							**$ 2,750**

Fords Middle School - Walk-In Cooler Evap Fan Power Management - High School

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Walk In Cooler Power M	EA	1	604	604	80	80	684
	Other Estimated Implementation Costs							-
							NJSS Rebate	**$ 75**
							TOTAL	**$ 609**

Fords Middle School - UV Time of Day Optimization

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Occupancy Sensor	EA	39	400	15,600	200	7,800	23,400
	Other Estimated Implementation Costs							10,296
	TOTAL							**$ 33,696**
	SUB-TOTAL							23,400
	O&P						20%	4,680
	ASBESTOS ABATEMENT							-
	DIRECT COST							28,080
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							28,080
	CONTINGENCY						20%	5,616
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							33,696
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							33,696
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 33,696**

Fords Middle School - Computer Time of Day Optimization

Summary

Electricity Savings (kWh/yr)	19,376
Natural Gas Savings (therms/yr)	0
Estimated Cost Savings ($/yr)	$3,158
Estimated Implementation Cost ($)	$2,415
Estimated Rebate ($)	$0
Estimated Implementation Cost after Rebate ($)	$2,415
Simple Payback (Years)	0.8

1. Assuming computers are completely powered down during summer vacation.
2. Computer and monitor power consumption values based on 2009 ASHRAE Fundamentals, Section 18.12, Table 8.
3. Savings assumes all computers go into standby/sleep mode during unoccupied building hours.

Fords Middle School - CRT to Flat Screen

Summary

Electricity Savings (kWh/yr)	703
Natural Gas Savings (therms/yr)	0
Estimated Cost Savings ($/yr)	$115
Estimated Implementation Cost ($)	$525
Estimated Rebate ($)	$0
Estimated Implementation Cost after Rebate ($)	$525
Simple Payback (Years)	4.6

1. Assuming computers are completely powered down during summer vacation.
2. Computer and monitor power consumption values based on 2009 ASHRAE Fundamentals, Section 18.12, Table 8.
3. Savings assumes all computers go into standby/sleep mode during unoccupied building hours.

CALCULATIONS

Fords Middle School - Winterize Window AC Units

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.163
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.973

	Existing Condition	Proposed System	Savings
R-Value of Window A/C Uncovered and Covered	0.9	3.4	
Air Leakage of Window A/C Uncovered and Covered (CFM)	352.9	300.0	**53**
Annual heating loss, Therms	446	359	87
Annual Natural Gas Cost and Savings, $	$ 434	$ 349	$ 85
Annual Cost and Savings, $	$ 434	$ 349	**$ 85**

Fords Middle School - SAVINGS FROM REPLACING WINDOW AC UNITS

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.163
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.973

	Existing Condition	Proposed System	Savings
Total Number of Units	6	6	
Number of Inefficient Units	6	6	
Capacity per Unit, Tons	1.00	1.00	
Total Capacity, Tons	6.0	6.0	
Assumed Efficiency, EER	9.8	10.8	
Total Hours of Normal Operation, hrs	2,008	2,008	
Cooling Load Factor	25%	25%	
Annual Cooling Production, ton-hours	2,971	2,971	
Annual Cooling Load, kBTU	35,649	35,649	
Annual Peak Demand Reduction (kW)	0.5	0.5	0.05
Annual Electrical Consumption, kWh	3,638	3,301	337
Annual Cost and Savings, $	$ 593	$ 538	**$ 55**

1. Assume existing systems runs when outside air temperature (OAT) is above 70F during building occupied hours.
2. Both conditions are simulated with non-programmable thermostats.
3. Load factor calculation represents the percentage of time when the unit operates at full load.
4. Conventional units standard of 9.8 EER.
5. Assume the new units have an efficiency of 10.8 EER which meets Energy Star standard.
6. Coincidence Factor for peak kW reduction taken from Maryland Public Utility Commission: Appendix A Measure Analysis Spreadsheet

CALCULATIONS

Fords Middle School - Vending Machine Power Management System

Price of #2 Fuel Oil, $/gal	
Price of City Water, $/1000 gallons	
Price of Electricity, $/kWh (blended rate)	$0.163
Price of the Demand of Electricity, $/kW/month	
Price of Natural Gas, $/therm	

	Existing Condition	Proposed System	Savings
Soda Machine Power Consumption	100%	56%	44%
Soda Machine Annual Op Cost	$ 3,770	$ 2,413	1,357
Run Hours	5,256	5,256	
Soda Annual Energy Consumption (kWh)	23,126	14,801	8,326
Snack Machine Power Consumption	100%	56%	44%
Annual Op Cost	$ 274	$ 121	154
Run Hours	5,256	5,256	
Annual Energy Consumption (kWh)	1,682	740	**942**
Total Annual Energy Consumption (kWh)	24,808	15,541	**9,267**
Annual Cost and Savings, $	$ 4,044	$ 2,533	**$ 1,511**

Fords Middle School - HHW Pump Controls

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.163
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.973

Savings

	Existing	Proposed	Savings
Pump kWh Consumption	131,966	32,511	99,455
Pump kWh Cost	$ 21,510	$ 5,299	$ 16,211

Exisitng Pumps

Pump	Equipment	Motor Mfg	Motor Model	Quantity	GPM	Head ft	HP	RPM	VFD?	Efficiency
1	HW Pumps	Marathon Electric	215TTDC6026AA	3	240	80	10	1765	No	91.7%
2	HW Pumps	Baldor	VEJMM3211T	4	40	70	3	1755	No	90.2%

Pump	Qty	HP	kW	Existing Op Hrs	Proposed Op Hrs	Current kWh	Proposed kWh
1	3	30.00	22.38	3844	947	93815	23112
2	4	12.00	8.952	3844	947	38150	9399
					Total	**131965.6**	**32510.78**

1. Proposed pump controls would turn off pumps when OAT is above 35F.
2. Assuming heating season is when OAT goes below 65 F.

CALCULATIONS

Fords Middle School - Walk-in Freezer & Cooler Evaporator Fan Control

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.163
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.973

	Existing Condition	Proposed System	Savings
Evaporator Fan Savings	100%	**35%**	
Compressor Operations Savings	100%	**80%**	
Cost to Remove Evap Fan Heat Load	$ 150	$ 120	
Annual Op Cost	$ 352	$ 123	
Run Hours	**8,760**	8,760	
Annual Energy Consumption (kWh)	2,157	666	1,491
Annual Cost and Savings, $	$ 501	$ 243	**$ 260**

1. Run hours based on fan motors being run 8,760 hrs

CALCULATIONS

Fords Middle School - Integrate Occ. Sensor Control of UVs

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.163
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.973

	Existing Condition	Proposed System	Savings
Unit Ventilator Operating Condition	Zone Thermostat	Occupancy Override	
Annual Btu Required	3,286,108,139	2,131,349,973	**1,154,758,166**
Energy Use (Therms)	12,887	8,358	**4,528**
Energy Use (kWh)	--	--	**-**
Annual Operating Cost ($)	$ 14,751	$ 9,568	**$ 5,184**

Hours of Operation	*Hrs/Day*
Avg. Existing	13.16667
Avg. Proposed	13.16667

* Assumed Fans are equipped with Motors of HP listed in calculation table
* There is no demand reduction for this measure

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

COST ESTIMATES

Iselin Middle School - DHW Pipe Insulation

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	1" Pipe Insulation	LF	75	2	134	4	324	458
	Other Estimated Implementation Costs							96
	TOTAL							**$ 554**
	SUB-TOTAL							458
	TOTAL							**$ 554**

Iselin Middle School - HHW Pipe Insulation

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	3/4" Pipe Insulation	LF	264	2	459	4	1,088	1,547
2	2" Pipe Insulation	LF	130	2	306	5	590	896
	Other Estimated Implementation Costs							513
	TOTAL							**$ 2,956**
	SUB-TOTAL							2,443
	TOTAL							**$ 2,956**

Iselin Middle School - Vending Meiser

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Soda Machine		2	179	358	500	1,000	1,358
2	Snack Machine		2	179	358	500	1,000	1,358
	Other Estimated Implementation Costs							-
	TOTAL							**$ 2,716**

Iselin Middle School - End of Useful Life Energy Star Window AC

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Energy Star Window AC over Conventional Unit		18	450	8,100	-	-	8,100
	Other Estimated Implementation Costs							-
	TOTAL							**$ 8,100**

Iselin Middle School - Winterize Window A/C Units

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Install Insulated Cover	each	18	50.00	900	28.00	504	1,404
	Other Estimated Implementation Costs							-
	TOTAL							**$ 1,404**

Iselin Middle School - HHW Pump Controls

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Install Pump Controls		1	1,500	1,500	1,000	1,000	2,500
	Other Estimated Implementation Costs							250
	TOTAL							**$ 2,750**

Iselin Middle School - Walk-In Cooler Evap Fan Power Management - High School

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Walk In Cooler Power Management	EA	1	604	604	80	80	684
	Other Estimated Implementation Costs							-
	TOTAL							**$ 684**
							NJSS Rebate	**$ 75**
							TOTAL	**$ 609**

Iselin Middle School - Heating Hot Water Reset

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Heat Timer Programming	EA	1	2,500	2,500	200	200	2,700
2	Installation - Electrical	HRs	8	0	0	160	1,280	1,280
3	Installation - Mechanical/Plumbing	HRs	8	0	0	160	1,280	1,280
4	Calibration	HRs	8	0	0	160	1,280	1,280
	Other Estimated Implementation Costs							2,616
	TOTAL COST							**$ 9,156**
	SUB-TOTAL							6,540
	O&P						0%	-
	ASBESTOS ABATEMENT							-
	DIRECT COST							6,540
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							6,540
	CONTINGENCY						40%	2,616
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							9,156
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							9,156
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 9,156**

Iselin Middle School - UV Time of Day Optimization

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Occupancy Sensor	EA	44	400	17,600	200	8,800	26,400
	Other Estimated Implementation Costs							14,784
	TOTAL							**$ 41,184**
	SUB-TOTAL							26,400
	O&P						20%	5,280
	ASBESTOS ABATEMENT							-
	DIRECT COST							31,680
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							31,680
	CONTINGENCY						30%	9,504
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							41,184
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							41,184
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 41,184**

Iselin Middle School - Walk-in Freezer & Cooler Evaporator Fan Control

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.163
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.875

	Existing Condition	Proposed System	Savings
Evaporator Fan Savings	100%	**35%**	
Compressor Operations Savings	100%	**80%**	
Cost to Remove Evap Fan Heat Load	$ 150	$ 120	
Annual Op Cost	$ 352	$ 123	
Run Hours	**8,760**	8,760	
Annual Energy Consumption (kWh)	2,157	666	1,491
Annual Cost and Savings, $	$ 501	$ 243	**$ 260**

1. Run hours based on fan motors being run 8,760 hrs

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Iselin Middle School - Winterize Window AC Units

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.163
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.875

	Existing Condition	Proposed System	Savings
R-Value of Window A/C Uncovered and Covered	0.9	3.4	
Air Leakage of Window A/C Uncovered and Covered (CFM)	1,058.7	899.9	**159**
Annual heating loss, Therms	1,486	1,196	290
Annual Natural Gas Cost and Savings, $	$ 1,300	$ 1,046	$ 254
Annual Cost and Savings, $	$ 1,300	$ 1,046	**$ 254**

Iselin Middle School - Savings from Replacing Window AC Units

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.163
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.875

	Existing Condition	Proposed System	Savings
Total Number of Units	18	18	
Number of Inefficient Units	18	18	
Capacity per Unit, Tons	1.00	1.00	
Total Capacity, Tons	18.0	18.0	
Assumed Efficiency, EER	9.8	10.8	
Total Hours of Normal Operation, hrs	2,008	2,008	
Cooling Load Factor	25%	25%	
Annual Cooling Production, ton-hours	8,912	8,912	
Annual Cooling Load, kBTU	106,947	106,947	
Annual Peak Demand Reduction (kW)	1.6	1.4	0.15
Annual Electrical Consumption, kWh	10,913	9,902	1,010
Annual Cost and Savings, $	$ 1,779	$ 1,614	**$ 165**

1. Assume existing systems runs when outside air temperature (OAT) is above 70F during building occupied hours.
2. Both conditions are simulated with non-programmable thermostats.
3. Load factor calculation represents the percentage of time when the unit operates at full load.
4. Conventional units standard of 9.8 EER.
5. Assume the new units have an efficiency of 10.8 EER which meets Energy Star standard.
6. Coincidence Factor for peak kW reduction taken from Maryland Public Utility Commission: Appendix A Measure Analysis Spreadsheet

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Iselin Middle School - Vending Machine Power Management System

Price of #2 Fuel Oil, $/gal	
Price of City Water, $/1000 gallons	
Price of Electricity, $/kWh (blended rate)	$0.163
Price of the Demand of Electricity, $/kW/month	
Price of Natural Gas, $/therm	

	Existing Condition	Proposed System	Savings
Soda Machine Power Consumption	100%	56%	44%
Soda Machine Annual Op Cost	$ 1,885	$ 1,206	679
Run Hours	5,256	5,256	
Soda Annual Energy Consumption (kWh)	11,563	7,400	4,163
Snack Machine Power Consumption	100%	56%	44%
Annual Op Cost	$ 137	$ 60	77
Run Hours	5,256	5,256	
Annual Energy Consumption (kWh)	841	370	**471**
Total Annual Energy Consumption (kWh)	12,404	7,770	**4,634**
Annual Cost and Savings, $	$ 2,022	$ 1,267	**$ 755**

1. Run hours based on fan motors being run 8760 hrs

Utility Unit Costs

Electrical Unit Cost, $/kwh	**$0.163**

Soda Machine Count	2
Snack Machine Count	2
Annual Run-Time Factor	60%

VendMiser Installation Savings

Soda Machine Power Consumption, kw	1.10	0.396
Annual Savings %	36%	
Electrical Unit Cost, $ per kilowatt-hour	$0.163	
Annual Energy Savings	$679	

VendMiser Installation Savings

Snack Machine Power Consumption, kw	0.08
Annual Savings %	56%
Electrical Unit Cost, $ per kilowatt-hour	$0.163
Annual Energy Savings	$77

Economics Summary

kWh Savings	4,634
Estimated Annual Savings	$755
Vendmiser Unit Cost	$179
Total Installation Cost ($500/unit)	$2,000
Total Vendmiser Cost (ECM)	**$2,716**
Simple Payback, Years	3.60

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Iselin Middle School - Increase insulation on HHW piping

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	x
3. Price of Electricity, $/kWh (blended rate)	$0.163
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.875

Total Savings

	Existing Condition	Proposed System	Savings
Number of Ft of underinsulated pipe		0	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	86,244,543	20,412,997	**65,831,546**
Annual Therms lost	862	204	**658**
Annual Cost and Savings, $	$ 755	$ 179	**$ 576**

	Existing Condition	Proposed System	Savings
Number of Ft of underinsulated pipe	**264**	264	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	42,562,307	11,482,545	**31,079,762**
Annual Therms lost	426	115	**311**
Annual Cost and Savings, $	$ 372	$ 100	**$ 272**

1. Assumes DHW supply temp on 180 degrees F
2. Assumes 264 feet of 0.75 inch pipe.

CALCULATIONS

Iselin Middle School - Increase insulation on DHW piping

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	x
3. Price of Electricity, $/kWh (blended rate)	$0.163
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.875

	Existing Condition	Proposed System	Savings
Number of Ft of underinsulated pipe	**75**	75	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	15,551,190	4,599,000	**10,952,190**
Annual Therms lost	156	46	**110**
Annual Cost and Savings, $	$ 136	$ 40	**$ 96**

1. Assumes DHW supply temp on 120 degrees F
2. Assumes 75 feet of 1.00 inch pipe.

Iselin Middle School - HHW Pump Controls

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.163
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.875

Savings

	Existing	Proposed	Savings
Pump kWh Consumption	118,434	29,177	89,257
Pump kWh Cost	$ 19,305	$ 4,756	$ 14,549

Exisitng Pumps

Pump	Equipment	Motor Mfg	Motor Model	Quantity	GPM	Head ft	HP	RPM	VFD?	Efficiency
1		Grundfos	UPS 80-80 F	5			1 1/2		no	90.0%
2	B&G 1510 BF 9.625	Marathon	EVE 254ttdx4028 8e l	2	340	80	15	1760	no	91%

Pump	Qty	HP	kW	Existing Op Hrs	Proposed Op Hrs	Current kWh	Proposed kWh
1	5	7.50	5.595	3844	947	23897	5887
2	2	30.00	22.38	3844	947	94537	23290
					Total	**118433.9**	**29177.13938**

1. Proposed pump controls would turn off pumps when OAT is above 35F.
2. Assuming heating season is when OAT goes below 65 F.

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Iselin Middle School - Implement a HHW Temperature Setpoint Reset Program

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.150
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.877

	Existing Condition	Proposed System	Savings
HHW Setpoint at OAT = 0 degrees F	**180**	180	
HHW Setpoint at OAT = 40 degrees F	180	**140**	
Annual Btu losses	1,645,529,175	1,000,587,791	**644,941,385**
Energy Use (Therms)	16,455	10,006	**6,449**
Energy Use (kWh)	--	--	**-**
Annual Cost and Savings, $	$ 14,431	$ 8,775	**$ 5,656**

** Assumes 1" cellular glass fiber insulation with AP-T casing

** Assumes 75 degree ambient temperature

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Iselin Middle School - Integrate Occ. Sensor Control of UVs

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.163
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.875

	Existing Condition	Proposed System	Savings
Unit Ventilator Operating Condition	Zone Thermostat	Occupancy Override	
Annual Btu Required	3,090,804,201	2,004,677,013	**1,086,127,188**
Energy Use (Therms)	12,121	7,861	**4,259**
Energy Use (kWh)	--	--	**-**
Annual Operating Cost ($)	$ 10,606	$ 6,879	**$ 3,727**

Hours of Operation	*Hrs/Day*
Avg. Existing	12.0
Avg. Proposed	12.0

* Assumed Fans are equipped with Motors of HP listed in calculation table
* There is no demand reduction for this measure

Woodbridge Middle School - Door Weatherization

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Door Weatherstripping	Ea	6	$ 22	$ 130	$ 57	$ 341	$ 471
	Other Estimated Implementation Costs							-
	TOTAL							**$ 471**
	SUB-TOTAL							**471**
	TOTAL							**$ 471**

Woodbridge Middle School - DHW Pipe Insulation

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	1" Pipe Insulation	LF	200	2	358	4	864	1,222
	Other Estimated Implementation Costs							257
	TOTAL							**$ 1,479**
	SUB-TOTAL							1,222
	TOTAL							**$ 1,479**

Woodbridge Middle School - HHW Pipe Insulation

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	3/4" Pipe Insulation	LF	110	2	197	4	475	672
2	2" Pipe Insulation	LF	40	2	94	5	182	276
	Other Estimated Implementation Costs							199
	TOTAL							**$ 1,147**
	SUB-TOTAL							948
	TOTAL							**$ 1,147**

Woodbridge Middle School - Vending Machine Power Management

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Soda Machine		2	179	358	500	1,000	1,358
2	Snack Machine		3	179	537	500	1,500	2,037
	Other Estimated Implementation Costs							-
	TOTAL							**$ 3,395**

Woodbridge Middle School - End of Useful Life Energy Star Window AC

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Energy Star Window AC over Conventional Unit		30	450	13,500	-	-	13,500
	Other Estimated Implementation Costs							-
	TOTAL							**$ 13,500**

Woodbridge Middle School - Winterize Window A/C Units

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Install Insulated Cover	each	15	40.37	606	28.00	420	1,026
2	Install Interior Insulated Cover	sq ft	15.0	27.00	405	28.00	420	825
	Other Estimated Implementation Costs							-
	TOTAL							**$ 1,851**

Woodbridge Middle School - Boiler Conversion from Steam to Condensing Hot Water

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	1,500 MBH Nat Gas Condensing Boiler	ea	4	37,000	148,000	10,000	40,000	188,000
2	Demo Existing Boilers	ls	2		-	2,776	5,552	5,552
3	Piping Modifications	ls	1	4,000	4,000	6,000	6,000	10,000
4	HHW piping	LF	300	13	3,825.00	21	6,225	10,050
5	radiator	ea	2	2,933	5866	2,840	5,680	11,546
	Other Estimated Implementation Costs							105,905
	TOTAL							**$ 331,050**
	SUB-TOTAL							225,148
	O&P						15%	70.64
	ASBESTOS ABATEMENT						0%	-
	DIRECT COST							225,219
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							225,219
	CONTINGENCY						10%	22,522
	ASBESTOS CONTINGENCY						10%	22,514.80
	SUB-TOTAL							270,255
	ASBESTOS DESIGN & AIR MONITORING, TESTING						15%	33,772.20
	IC FEE						10.0%	27,026
	SUB-TOTAL							331,053
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 331,053**
	Total SmartStart Rebate							**$ 10,500**
							Total	**$ 320,553**

Woodbridge Middle School - Like in Kind Boiler Replacement

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	1,500 MBH Nat Gas Boiler	ea	4	16,833	67,332	5,024	20,096	87,428
2	Demo Existing Boilers	ls	2		-	2,776	5,552	5,552
3	Piping Modifications	ls	1	4,000	4,000	6,000	6,000	10,000
4	HHW piping	LF	300	13	3,825.00	21	6,225	10,050
5	radiator	ea	2	2,933	5866	2,840	5,680	11,546
	Other Estimated Implementation Costs							58,636
	TOTAL							**$ 183,210**
	SUB-TOTAL							124,576
	O&P						15%	70.64
	ASBESTOS ABATEMENT						0%	-
	DIRECT COST							124,647
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							124,647
	CONTINGENCY						10%	12,465
	ASBESTOS CONTINGENCY						10%	12,457.60
	SUB-TOTAL							149,569
	ASBESTOS DESIGN & AIR MONITORING, TESTING						15%	18,686.40
	IC FEE						10.0%	14,957
	SUB-TOTAL							183,212
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 183,212**
	Total SmartStart Rebate							
							Total	**$ 183,212**

Woodbridge Middle School - HHW Pump Controls

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Install Pump Controls		1	1,500	1,500	1,000	1,000	2,500
	Other Estimated Implementation Costs							250
	TOTAL							**$ 2,750**

Woodbridge Middle School - Walk-In Cooler Evap Fan Power Management - High School

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Walk In Cooler Power Management	EA	1	604	604	80	80	684
	Other Estimated Implementation Costs							-
							NJSS Rebate	**$ 75**
							TOTAL	**$ 609**

Woodbridge Middle School - UV Time of Day Optimization

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Occupancy Sensor	EA	50	400	20,000	200	10,000	30,000
	Other Estimated Implementation Costs							16,800
	TOTAL							**$ 46,800**
	SUB-TOTAL							30,000
	O&P						20%	6,000
	ASBESTOS ABATEMENT							-
	DIRECT COST							36,000
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							36,000
	CONTINGENCY						30%	10,800
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							46,800
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							46,800
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 46,800**

Woodbridge Middle School - Heating Hot Water Reset

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Heat Timer HWR Platinum	EA	1	2,500	2,500	200	200	2,700
2	Installation - Electrical	HRs	8	0	0	160	1,280	1,280
3	Installation - Mechanical/Plumbing	HRs	8	0	0	160	1,280	1,280
4	Calibration	HRs	8	0	0	160	1,280	1,280
	Other Estimated Implementation Costs							2,616
	TOTAL COST							**$ 9,156**
	SUB-TOTAL							6,540
	O&P						0%	-
	ASBESTOS ABATEMENT							-
	DIRECT COST							6,540
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							6,540
	CONTINGENCY						40%	2,616
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							9,156
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							9,156
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 9,156**

CALCULATIONS

Woodbridge Middle School - Walk-in Freezer & Cooler Evaporator Fan Control

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.151
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.872

	Existing Condition	Proposed System	Savings
Evaporator Fan Savings	100%	**35%**	
Compressor Operations Savings	100%	**80%**	
Cost to Remove Evap Fan Heat Load	$ 139	$ 111	
Annual Op Cost	$ 326	$ 114	
Run Hours	**8,760**	8,760	
Annual Energy Consumption (kWh)	2,157	666	1,491
Annual Cost and Savings, $	$ 465	$ 225	**$ 240**

1. Run hours based on fan motors being run 8,760 hrs

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Woodbridge Middle School - Winterize Window AC Units

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.151
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.872

	Existing Condition	Proposed System	Savings
R-Value of Window A/C Uncovered and Covered	0.9	3.4	
Air Leakage of Window A/C Uncovered and Covered (CFM)	1,764.6	1,499.9	**265**
Annual heating loss, Therms	2,496	2,003	493
Annual Natural Gas Cost and Savings, $	$ 2,177	$ 1,746	$ 430
Annual Cost and Savings, $	$ 2,177	$ 1,746	**$ 430**

Woodbridge Middle School - SAVINGS FROM REPLACING WINDOW AC UNITS

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.151
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.872

	Existing Condition	Proposed System	Savings
Total Number of Units	30	30	
Number of Inefficient Units	30	30	
Capacity per Unit, Tons	1.00	1.00	
Total Capacity, Tons	30.0	30.0	
Assumed Efficiency, EER	9.8	10.8	
Total Hours of Normal Operation, hrs	2,008	2,008	
Cooling Load Factor	25%	25%	
Annual Cooling Production, ton-hours	14,854	14,854	
Annual Cooling Load, kBTU	178,244	178,244	
Annual Peak Demand Reduction (kW)	2.6	2.4	0.24
Annual Electrical Consumption, kWh	18,188	16,504	1,684
Annual Cost and Savings, $	$ 2,746	$ 2,492	**$ 254**

1. Assume existing systems runs when outside air temperature (OAT) is above 70F during building occupied hours.
2. Both conditions are simulated with non-programmable thermostats.
3. Load factor calculation represents the percentage of time when the unit operates at full load.
4. Conventional units standard of 9.8 EER.
5. Assume the new units have an efficiency of 10.8 EER which meets Energy Star standard.
6. Coincidence Factor for peak kW reduction taken from Maryland Public Utility Commission: Appendix A Measure Analysis Spreadsheet

Woodbridge Middle School - Vending Machine Power Management System

Price of #2 Fuel Oil, $/gal	
Price of City Water, $/1000 gallons	
Price of Electricity, $/kWh (blended rate)	$0.151
Price of the Demand of Electricity, $/kW/month	
Price of Natural Gas, $/therm	

	Existing Condition	Proposed System	Savings
Soda Machine Power Consumption	100%	56%	44%
Soda Machine Annual Op Cost	$ 1,746	$ 1,117	629
Run Hours	5,256	5,256	
Soda Annual Energy Consumption (kWh)	11,563	7,400	4,163
Snack Machine Power Consumption	100%	56%	44%
Annual Op Cost	$ 190	$ 84	107
Run Hours	5,256	5,256	
Annual Energy Consumption (kWh)	1,261	555	**706**
Total Annual Energy Consumption (kWh)	12,825	7,955	**4,869**
Annual Cost and Savings, $	$ 1,937	$ 1,201	**$ 735**

1. Run hours based on fan motors being run 8760 hrs

Utility Unit Costs

Electrical Unit Cost, $/kwh	**$0.151**

Soda Machine Count	2
Snack Machine Count	3
Annual Run-Time Factor	60%

VendMiser Installation Savings

Soda Machine Power Consumption, kw	1.10	0.396
Annual Savings %	36%	
Electrical Unit Cost, $ per kilowatt-hour	$0.151	
Annual Energy Savings	$629	

VendMiser Installation Savings

Snack Machine Power Consumption, kw	0.08
Annual Savings %	56%
Electrical Unit Cost, $ per kilowatt-hour	$0.151
Annual Energy Savings	$107

Economics Summary

kWh Savings	4,869
Estimated Annual Savings	$735
Vendmiser Unit Cost	$179
Total Installation Cost ($500/unit)	$2,500
Total Vendmiser Cost (ECM)	**$3,395**
Simple Payback, Years	4.62

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Woodbridge Middle School - Increase insulation on HHW piping

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	x
3. Price of Electricity, $/kWh (blended rate)	$0.151
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.872

Total Savings

	Existing Condition	Proposed System	Savings
Number of Ft of underinsulated pipe		0	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	33,641,676	7,240,256	**26,401,420**
Annual Therms lost	336	72	**264**
Annual Cost and Savings, $	$ 293	$ 63	**$ 230**

1" Pipe	Existing Condition	Proposed System	Savings
Number of Ft of underinsulated pipe	**110**	110	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	13,942,788	3,367,874	**10,574,914**
Annual Therms lost	139	34	**106**
Annual Cost and Savings, $	$ 122	$ 29	**$ 92**

1. Assumes DHW supply temp on 150 degrees F
2. Assumes 110 feet of 1.00 inch pipe.

CALCULATIONS

Woodbridge Middle School - Increase Insulation on HHW Piping

1. Price of #2 Fuel Oil, $/gal		
2. Price of City Water, $/1000 gallons		
3. Price of Electricity, $/kWh (blended rate)		$0.151
4. Price of the Demand of Electricity, $/kW/month		$0.000
5. Price of Natural Gas, $/therm		$0.872

	Existing Condition	Proposed System	Savings
Number of Ft of underinsulated pipe	**200**	200	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	47,233,920	12,264,000	**34,969,920**
Annual Therms lost	472	123	**350**
Annual Cost and Savings, $	$ 412	$ 107	**$ 305**

1. Assumes DHW supply temp on 120 degrees F
2. Assumes 200 feet of 1.00 inch pipe.

Woodbridge Middle School - HHW Pump Controls

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.151
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.872

Savings

	Existing	Proposed	Savings
Pump kWh Consumption	80,835	20,883	59,952
Pump kWh Cost	$ 12,206	$ 3,153	$ 9,053

Exisitng Pumps

Pump	Equipment	Motor Mfg	Motor Model	Quantity	GPM	Head ft	HP	RPM	VFD?	Efficiency
1	HW Pumps	Marathon	V184TTDB7	1			5	1745	no	86.5%
	HHW Pump	Armstrong	816027-007	2	40	40	1/3	1725	no	50.0%
	HHW Pump	US Motors	Armstrong 3	1			7 1/2	1765	no	88.5%
2	HHW Pump	Baldor		1			3	1750	no	87.5%

Pump	Qty	HP	kW	Existing Op Hrs	Proposed Op Hrs	Current kWh	Proposed kWh
1	1	5.00	3.73	5698	1472	24571	6347
	2	0.67	0.4973333	5698	1472	5668	1464
	1	7.50	5.595	5698	1472	36023	9306
	1	3.00	2.238	5698	1472	14574	3765
					Total	**80834.98**	**20882.61**

1. Proposed pump controls would turn off pumps when OAT is above 35F.
2. Assuming heating season is when OAT goes below 65 F.
3. Savings calcs for the pumps that were on at time of site visit.

Woodbridge Middle School - SAVINGS FROM WEATHERSTRIPPING DOORS

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.144
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.876

	Existing Condition	Proposed System	Savings
Number of Doors	6	6	
Estimated Infiltration Rate per Door, CFM	49	10	
Annual Cooling Infiltration Occupied Hours, OAT > 80F	814	814	
Annual Heating Infiltration Occupied Hours, OAT < 55F	1,731	1,731	
Annual Cooling Load, kBTU	6,872	1,355	
Annual Cooling Electrical Consumption, kWh	744	147	598
Annual Heating Load, kBTU	17,909	4,544	
Annual Heating Consumption, Therms	216	54.75	161
Annual Cost and Savings, $	$ 296	$ 69	**$ 227**

1. Infiltration rate was calculated according to ASHRAE Fundamentals 2005 Door Leakage Rate Equation F27.12

2. Estimated hours of infiltration was based on all hours below 55F and above 80F for the region.

3. It is assumed that each door has a leakage area of 4 square inches (7 linear feet by 0.05 in). Vestibule doors are not included. There is/are 6 door(s).

4. A 60% load factor was used when calculating the existing leakage rate.

5. Assume all AHUs have an supply air temperature of 55F in the summer and 80F in the winter.

6. The average outside air temperature above 80F during the year is 81F. The average outside air temperature below 55F is 42F.

7. Assume the cooling plant has an efficiency of 1.3 kw/ton and the heating plant has an efficiency of 83%.

8. New weatherstripping is assumed to reduce inflitration by 80%.

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Woodbridge Middle School - Replace Boilers with Higher Efficiency Boilers

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.137
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.887

	Existing Condition	Proposed System	Savings
Heating Boiler Fuel Consumption, therms	53,541	49,377	4,164
Heating Boiler Fuel Cost	$ 47,491	$ 43,797	**$ 3,694**

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Woodbridge Middle School - Implement a HHW Temperature Setpoint Reset Program

1. Price of #2 Fuel Oil, $/gal		$0.000
2. Price of City Water, $/1000 gallons		$0.000
3. Price of Electricity, $/kWh (blended rate)		$0.151
4. Price of the Demand of Electricity, $/kW/month		$0.000
5. Price of Natural Gas, $/therm		$0.872

	Existing Condition	Proposed System	Savings
HHW Setpoint at OAT = 0 degrees F	**180**	180	
HHW Setpoint at OAT = 40 degrees F	180	**140**	
Annual Btu losses	1,738,361,250	1,057,035,675	**681,325,575**
Energy Use (Therms)	17,384	10,570	**6,813**
Energy Use (kWh)	--	--	**-**
Annual Cost and Savings, $	$ 15,159	$ 9,217	**$ 5,941**

** Assumes 1" cellular glass fiber insulation with AP-T casing
** Assumes 75 degree ambient temperature

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Woodbridge Middle School - Integrate Occ. Sensor Control of UVs

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.151
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.872

	Existing Condition	Proposed System	Savings
Unit Ventilator Operating Condition	Zone Thermostat	Occupancy Override	
Annual Btu Required	3,912,667,016	2,537,732,292	**1,374,934,724**
Energy Use (Therms)	15,344	9,952	**5,392**
Energy Use (kWh)	--	--	**-**
Annual Operating Cost ($)	$ 13,380	$ 8,678	**$ 4,702**

Hours of Operation	*Hrs/Day*
Avg. Existing	12.7
Avg. Proposed	12.7

* There is no demand reduction for this measure

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

COST ESTIMATES

Woodbridge High School - CRT to Flatscreen

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	CRT to Flat Screen		32	75	2,400		-	2,400
	Other Estimated Implementation Costs							-
	TOTAL							**$ 2,400**
	SUB-TOTAL							2,400
	TOTAL							**$ 2,400**

Woodbridge High School - Computer Power Management

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Computer Power Management		240	29	6,960		-	6,960
	Other Estimated Implementation Costs							-
	TOTAL							**$ 6,960**
	SUB-TOTAL							6,960
	TOTAL							**$ 6,960**

Woodbridge High School - DHW Pipe Insulation

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	1" Pipe Insulation	LF	50	2	90	4	216	306
2	1.25" Pipe Insulation	LF	25	2	45	4	108	153
	Other Estimated Implementation Costs							96
	TOTAL							**$ 554**
	SUB-TOTAL							458
	TOTAL							**$ 554**

Woodbridge High School - HHW Pipe Insulation

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	1.5 " Pipe Insultiaon	LF	5	2	9	4	22	31
2	2" Pipe Insulation	LF	-	2	-	4	-	-
	Other Estimated Implementation Costs							6
	TOTAL							**$ 37**
	SUB-TOTAL							31
	TOTAL							**$ 37**

Woodbridge High School - Vending Meiser

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Soda Machine		6	179	1,074	500	3,000	4,074
2	Snack Machine		5	179	895	500	2,500	3,395
	Other Estimated Implementation Costs							-
	TOTAL							**$ 7,469**
	SUB-TOTAL							7,469
	TOTAL							**$ 7,469**

Woodbridge High School - End of Useful Life Energy Star Window AC

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Energy Star Window AC	each	49	450	22,050	-	-	22,050
	Other Estimated Implementation Costs							-
	TOTAL							**$ 22,050**

Woodbridge High School - Winterize Window A/C Units

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Install Insulated Cover	each	49	40.37	1,978	28.00	1,372	3,350
	Other Estimated Implementation Costs							-
	TOTAL							**$ 3,350**

Woodbridge High School - Walk-In Freezer Evap Fan Power Management - High School

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Walk In Cooler Power Management	EA	1	604	604	80	80	684
	Other Estimated Implementation Costs							-
							NJSS Rebate	**$ 75**
							TOTAL	**$ 609**

Woodbridge High School - Heating Hot Water Reset

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Heat Timer HWR Platinum	EA	1	2,500	2,500	200	200	2,700
2	Installation - Electrical	HRs	8	0	0	160	1,280	1,280
3	Installation - Mechanical/Plumbing	HRs	8	0	0	160	1,280	1,280
4	Calibration	HRs	8	0	0	160	1,280	1,280
	Other Estimated Implementation Costs							2,616
	TOTAL COST							**$ 9,156**
	SUB-TOTAL							6,540
	O&P						0%	-
	ASBESTOS ABATEMENT							-
	DIRECT COST							6,540
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							6,540
	CONTINGENCY						40%	2,616
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							9,156
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							9,156
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 9,156**

Woodbridge High School - UV Time of Day Optimization

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Occupancy Sensor	EA	85	400	34,000	200	17,000	51,000
2	1" Electrical Conduit	LF	-	5	-	4	-	-
3	Relay/Wiring	EA	-	425	-	250	-	-
4	10% Mics.		-		-		-	-
	Other Estimated Implementation Costs							15,300
	TOTAL							**$ 66,300**
	SUB-TOTAL							51,000
	O&P						0%	-
	ASBESTOS ABATEMENT							-
	DIRECT COST							51,000
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							51,000
	CONTINGENCY						30%	15,300
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							66,300
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							66,300
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 66,300**

Woodbridge High School - Add HV Demand Controls

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Sensor (CO_2 or Occ.)	EA	4	400	1,600	200	800	2,400
2	1" Electrical Conduit	LF	40	5	200	4	160	360
3	Relay/Wiring	EA	4	425	1,700	250	1,000	2,700
4	Pneumatic Converion to DDC	EA	1	1,000	1,000	200	200	1,200
5	Fan VFD	EA	4	2,000	8,000	1,000	4,000	12,000
6	DCV Sequence Prog.	EA	4	0	-	1,000	4,000	4,000
	Other Estimated Implementation Costs							4,532
	TOTAL							**$ 27,192**
	SUB-TOTAL							22,660
	O&P						0%	-
	ASBESTOS ABATEMENT							-
	DIRECT COST							22,660
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							22,660
	CONTINGENCY						20%	4,532
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							27,192
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							27,192
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 27,192**

CALCULATIONS

Woodbridge High School - Walk-in Freezer & Cooler Evaporator Fan Control

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.150
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.877

	Existing Condition	Proposed System	Savings
Evaporator Fan Savings	100%	**35%**	
Compressor Operations Savings	100%	**80%**	
Cost to Remove Evap Fan Heat Load	$ 138	$ 110	
Annual Op Cost	$ 323	$ 113	
Run Hours	**8,760**	8,760	
Annual Energy Consumption (kWh)	2,157	666	1,491
Annual Cost and Savings, $	$ 461	$ 224	**$ 240**

1. Run hours based on fan motors being run 8,760 hrs

Woodbridge High School - Computer Time of Day Optimization

Summary

Electricity Savings (kWh/yr)	57,093
Natural Gas Savings (therms/yr)	0
Estimated Cost Savings ($/yr)	$8,564
Estimated Implementation Cost ($)	$6,900
Estimated Rebate ($)	$0
Estimated Implementation Cost after Rebate ($)	$6,900
Simple Payback (Years)	0.8

1. Assuming computers are completely powered down during summer vacation.
2. Computer and monitor power consumption values based on 2009 ASHRAE Fundamentals, Section 18.12, Table 8.
3. Savings assumes all computers go into standby/sleep mode during unoccupied building hours.

Woodbridge High School - CRT to Flat Screen

Summary

Electricity Savings (kWh/yr)	3,212
Natural Gas Savings (therms/yr)	0
Estimated Cost Savings ($/yr)	$482
Estimated Implementation Cost ($)	$2,400
Estimated Rebate ($)	$0
Estimated Implementation Cost after Rebate ($)	$2,400
Simple Payback (Years)	5.0

1. Assuming computers are completely powered down during summer vacation.
2. Computer and monitor power consumption values based on 2009 ASHRAE Fundamentals, Section 18.12, Table 8.
3. Savings assumes all computers go into standby/sleep mode during unoccupied building hours.

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Woodbridge High School - Winterize Window AC Units

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.150
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.877

	Existing Condition	Proposed System	Savings
R-Value of Window A/C Uncovered and Covered	0.9	3.4	
Air Leakage of Window A/C Uncovered and Covered (CFM)	2,882.1	2,449.8	**432**
Annual heating loss, Therms	4,038	3,249	790
Annual Natural Gas Cost and Savings, $	$ 3,542	$ 2,849	$ 693
Annual Cost and Savings, $	$ 3,542	$ 2,849	**$ 693**

Woodbridge High School - Savings from Replacing Window AC Units

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.150
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.877

	Existing Condition	Proposed System	Savings
Total Number of Units	49	49	
Number of Inefficient Units	49	49	
Capacity per Unit, Tons	1.00	1.00	
Total Capacity, Tons	49.0	49.0	
Assumed Efficiency, EER	9.8	10.8	
Total Hours of Normal Operation, hrs	2,008	2,008	
Cooling Load Factor	25%	25%	
Annual Cooling Production, ton-hours	24,261	24,261	
Annual Cooling Load, kBTU	291,132	291,132	
Annual Peak Demand Reduction (kW)	4.3	3.9	0.40
Annual Electrical Consumption, kWh	29,707	26,957	2,751
Annual Cost and Savings, $	$ 4,456	$ 4,044	**$ 413**

1. Assume existing systems runs when outside air temperature (OAT) is above 70F during building occupied hours.
2. Both conditions are simulated with non-programmable thermostats.
3. Load factor calculation represents the percentage of time when the unit operates at full load.
4. Conventional units standard of 9.8 EER.
5. Assume the new units have an efficiency of 10.8 EER which meets Energy Star standard.
6. Coincidence Factor for peak kW reduction taken from Maryland Public Utility Commission: Appendix A Measure Analysis Spreadsheet

CALCULATIONS

Woodbridge High School - Vending Machine Power Management System

Price of #2 Fuel Oil, $/gal	
Price of City Water, $/1000 gallons	
Price of Electricity, $/kWh (blended rate)	$0.150
Price of the Demand of Electricity, $/kW/month	
Price of Natural Gas, $/therm	

	Existing Condition	Proposed System	Savings
Soda Machine Power Consumption	100%	56%	44%
Soda Machine Annual Op Cost	$ 5,203	$ 3,330	1,873
Run Hours	5,256	5,256	
Soda Annual Energy Consumption (kWh)	34,690	22,201	12,488
Snack Machine Power Consumption	100%	56%	44%
Annual Op Cost	$ 315	$ 139	177
Run Hours	5,256	5,256	
Annual Energy Consumption (kWh)	2,102	925	**1,177**
Total Annual Energy Consumption (kWh)	36,792	23,126	**13,666**
Annual Cost and Savings, $	$ 5,519	$ 3,469	**$ 2,050**

CALCULATIONS

Woodbridge High School - Increase insulation on HHW piping

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	x
3. Price of Electricity, $/kWh (blended rate)	$0.059
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.911

Total Savings

	Existing Condition	Proposed System	Savings
Number of Ft of underinsulated pipe		0	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	1,680,086	343,479	**1,336,607**
Annual Therms lost	17	3	**13**
Annual Cost and Savings, $	$ 15	$ 3	**$ 12**

2 Pipe	Existing Condition	Proposed System	Savings
Number of Ft of underinsulated pipe	**5**	5	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	1,680,086	343,479	**1,336,607**
Annual Therms lost	17	3	**13**
Annual Cost and Savings, $	$ 15	$ 3	**$ 12**

1. Assumes DHW supply temp on 180 degrees F
2. Assumes 5 feet of 1.50 inch pipe.

CALCULATIONS

Woodbridge High School - Increase insulation on DHW piping

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	x
3. Price of Electricity, $/kWh (blended rate)	$0.161
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.915

Total Savings			
	Existing Condition	**Proposed System**	**Savings**
Number of Ft of underinsulated pipe		0	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	7,408,770	2,435,280	**4,973,490**
Annual Therms lost	74	24	**50**
Annual Cost and Savings, $	$ 68	$ 22	**$ 46**

1" Pipe	**Existing Condition**	**Proposed System**	**Savings**
Number of Ft of underinsulated pipe	**50**	50	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	4,594,620	1,489,200	**3,105,420**
Annual Therms lost	46	15	**31**
Annual Cost and Savings, $	$ 42	$ 14	**$ 28**

1. Assumes DHW supply temp on 100 degrees F
2. Assumes 50 feet of 1.00 inch pipe.

CALCULATIONS

Woodbridge High School - Implement a HHW Temperature Setpoint Reset Program

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.150
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.877

	Existing Condition	Proposed System	Savings
HHW Setpoint at OAT = 0 degrees F	**180**	180	
HHW Setpoint at OAT = 40 degrees F	180	**140**	
Annual Btu losses	2,248,041,600	1,366,954,176	**881,087,424**
Energy Use (Therms)	22,480	13,670	**8,811**
Energy Use (kWh)	--	--	**-**
Annual Cost and Savings, $	$ 19,715	$ 11,988	**$ 7,727**

** Assumes 1" cellular glass fiber insulation with AP-T casing

** Assumes 75 degree ambient temperature

CALCULATIONS

Woodbridge High School - Integrate Occ. Sensor Control of UVs

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.150
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.877

	Existing Condition	Proposed System	Savings
Unit Ventilator Operating Condition	Zone Thermostat	Occupancy Override	
Annual Btu Required	7,672,527,190	4,976,354,985	**2,696,172,205**
Energy Use (Therms)	30,088	19,515	**10,573**
Energy Use (kWh)	--	--	**-**
Annual Operating Cost ($)	$ 26,387	$ 17,115	**$ 9,273**

Hours of Operation	*Hrs/Day*
Avg. Existing	13.7
Avg. Proposed	13.7

* Assumed Fans are equipped with Motors of HP listed in calculation table
* There is no demand reduction for this measure

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Woodbridge High School - Integrate Ventilation Control of HVs

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.150
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.877

	Existing Condition	Proposed System	Savings
Unit Ventilator Operating Condition	Zone Thermostat	Occupancy Override	
Annual Btu Required	1,647,749,198	1,321,846,092	**325,903,106**
Energy Use (Therms)	8,615	6,461	**2,154**
Energy Use (kWh)	--	--	**-**
Annual Operating Cost ($)	$ 8,889	$ 6,667	**$ 2,222**

Hours of Operation	*Hrs/Day*
Avg. Existing	5.7
Avg. Proposed	5.7

* Assumed Fans are equipped with Motors of HP listed in calculation table
* There is no demand reduction for this measure

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

COST ESTIMATES

JFK High School - CRT to Flatscreen

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	CRT to Flat Screen		6	75	450		-	450
	Other Estimated Implementation Costs							-
	TOTAL							**$ 450**
	SUB-TOTAL							450
	TOTAL							**$ 450**

JFK High School - Computer Power Management

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Computer Power Management	each	280	29	8,120		-	8,120
	Other Estimated Implementation Costs							-
	TOTAL							**$ 8,120**
	SUB-TOTAL							8,120
	TOTAL							**$ 8,120**

JFK High School - DHW Pipe Insulation

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	2" Pipe Insulation	LF	40	2	94	5	182	276
2	1.5" Pipe Insulation	LF	20	2	38	4	88	127
	Other Estimated Implementation Costs							85
	TOTAL							**$ 487**
	SUB-TOTAL							402
	TOTAL							**$ 487**

JFK High School - Vending Meiser

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Soda Machine		4	179	716	500	2,000	2,716
2	Snack Machine		6	179	1,074	500	3,000	4,074
	Other Estimated Implementation Costs							-
	TOTAL							**$ 6,790**
	TOTAL							**$ 6,790**

JFK High School - End of Useful Life Energy Star Window AC

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Energy Star Window AC over Convent	each	39	450	17,550	-	-	17,550
	Other Estimated Implementation Costs							-
	TOTAL							**$ 17,550**

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

COST ESTIMATES

JFK High School - Winterize Window A/C Units

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Install Insulated Cover	each	39	50.00	1,950	28.00	1,092	3,042
	Other Estimated Implementation Costs							-
	TOTAL							**$ 3,042**

JFK High School - Condensing Boiler

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	1,500 MBH Nat Gas Condensing Boiler	ea	6	37,000	222,000	10,000	60,000	282,000
2	Demo Existing Boilers	ls	2		-	2,776	5,552	5,552
3	Piping Modifications	ls	1	4,000	4,000	6,000	6,000	10,000
4	Replacement Valves	ls	6	2,000	12,000	500	3,000	15,000
	Other Estimated Implementation Costs							146,899
	TOTAL							**$ 459,450**
	SUB-TOTAL							312,552
	O&P						15%	-
	ASBESTOS ABATEMENT						0%	-
	DIRECT COST							312,552
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							312,552
	CONTINGENCY						10%	31,255
	ASBESTOS CONTINGENCY						10%	31,255.20
	SUB-TOTAL							375,062
	ASBESTOS DESIGN & AIR MONITORING, TESTING						15%	46,882.80
	IC FEE						10.0%	37,506
	SUB-TOTAL							459,451
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 459,451**
	Total SmartStart Rebate							**$ 15,750**
							Total	**$ 443,701**

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

COST ESTIMATES

JFK High School - Replace Boiler Like In Kind

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	1,500 MBH Nat Gas Boiler	ea	6	16,833	100,998	5,024	30,144	131,142
2	Demo Existing Boilers	ls	2		-	2,776	5,552	5,552
3	Piping Modifications	ls	1	4,000	4,000	6,000	6,000	10,000
4	Replacement Valves	ls	6	2,000	12,000	500	3,000	15,000
	Other Estimated Implementation Costs							75,996
	TOTAL							**$ 237,690**
	SUB-TOTAL							161,694
	O&P						15%	-
	ASBESTOS ABATEMENT						0%	-
	DIRECT COST							161,694
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							161,694
	CONTINGENCY						10%	16,169
	ASBESTOS CONTINGENCY						10%	16,169.40
	SUB-TOTAL							194,033
	ASBESTOS DESIGN & AIR MONITORING, TESTING						15%	24,254.10
	IC FEE						10.0%	19,403
	SUB-TOTAL							237,690
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 237,690**
	Total SmartStart Rebate							
							Total	**$ 237,690**

JFK High School - Walk-In Cooler and Freezer Evap Fan Power Management - High School

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Walk In Cooler Power Management	EA	2	604	1,208	80	160	1,368
	Other Estimated Implementation Costs							-
							NJSS Rebate	**$ 150**
							TOTAL	**$ 1,218**

JFK High School - UV Time of Day Optimization

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Occupancy Sensor	EA	59	400	23,600	200	11,800	35,400
2			-	-	-	-	-	-
	Other Estimated Implementation Costs							19,824
	TOTAL							**$ 55,224**
	SUB-TOTAL							35,400
	O&P						20%	7,080
	ASBESTOS ABATEMENT							-
	DIRECT COST							42,480
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							42,480
	CONTINGENCY						30%	12,744
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							55,224
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							55,224
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 55,224**

JFK High School - Walk-in Freezer & Cooler Evaporator Fan Control

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.135
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.875

	Existing Condition	Proposed System	Savings
Evaporator Fan Savings	100%	**35%**	
Compressor Operations Savings	100%	**80%**	
Cost to Remove Evap Fan Heat Load	$ 248	$ 199	
Annual Op Cost	$ 582	$ 204	
Run Hours	**8,760**	8,760	
Annual Energy Consumption (kWh)	4,313	1,332	2,981
Annual Cost and Savings, $	$ 831	$ 402	**$ 430**

1. Run hours based on fan motors being run 8,760 hrs

JFK High School - Computer Time of Day Optimization

Summary

Electricity Savings (kWh/yr)	64,587
Natural Gas Savings (therms/yr)	0
Estimated Cost Savings ($/yr)	$8,719
Estimated Implementation Cost ($)	$8,050
Estimated Rebate ($)	$0
Estimated Implementation Cost after Rebate ($)	$8,050
Simple Payback (Years)	0.9

1. Assuming computers are completely powered down during summer vacation.
2. Computer and monitor power consumption values based on 2009 ASHRAE Fundamentals, Section 18.12, Table 8.
3. Savings assumes all computers go into standby/sleep mode during unoccupied building hours.

JFK High School - CRT to Flat Screen

Summary

Electricity Savings (kWh/yr)	602
Natural Gas Savings (therms/yr)	0
Estimated Cost Savings ($/yr)	$81
Estimated Implementation Cost ($)	$450
Estimated Rebate ($)	$0
Estimated Implementation Cost after Rebate ($)	$450
Simple Payback (Years)	5.5

1. Assuming computers are completely powered down during summer vacation.
2. Computer and monitor power consumption values based on 2009 ASHRAE Fundamentals, Section 18.12, Table 8.
3. Savings assumes all computers go into standby/sleep mode during unoccupied building hours.

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

JFK High School - Winterize Window AC Units

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.135
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.875

	Existing Condition	Proposed System	Savings
R-Value of Window A/C Uncovered and Covered	0.9	3.4	
Air Leakage of Window A/C Uncovered and Covered (CFM)	2,293.9	1,949.8	**344**
Annual heating loss, Therms	3,224	2,592	632
Annual Natural Gas Cost and Savings, $	$ 2,821	$ 2,268	$ 553
Annual Cost and Savings, $	$ 2,821	$ 2,268	**$ 553**

JFK High School - SAVINGS FROM REPLACING WINDOW AC UNITS

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.135
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.875

	Existing Condition	Proposed System	Savings
Total Number of Units	39	39	
Number of Inefficient Units	39	39	
Capacity per Unit, Tons	1.00	1.00	
Total Capacity, Tons	39.0	39.0	
Assumed Efficiency, EER	9.8	10.8	
Total Hours of Normal Operation, hrs	2,008	2,008	
Cooling Load Factor	25%	25%	
Annual Cooling Production, ton-hours	19,310	19,310	
Annual Cooling Load, kBTU	231,718	231,718	
Annual Peak Demand Reduction (kW)	3.4	3.1	0.32
Annual Electrical Consumption, kWh	23,645	21,455	2,189
Annual Cost and Savings, $	$ 3,192	$ 2,896	**$ 296**

1. Assume existing systems runs when outside air temperature (OAT) is above 70F during building occupied hours.
2. Both conditions are simulated with non-programmable thermostats.
3. Load factor calculation represents the percentage of time when the unit operates at full load.
4. Conventional units standard of 9.8 EER.
5. Assume the new units have an efficiency of 10.8 EER which meets Energy Star standard.
6. Coincidence Factor for peak kW reduction taken from Maryland Public Utility Commission: Appendix A Measure Analysis Spreadsheet

CALCULATIONS

JFK High School - Vending Machine Power Management System

Price of #2 Fuel Oil, $/gal	
Price of City Water, $/1000 gallons	
Price of Electricity, $/kWh (blended rate)	$0.135
Price of the Demand of Electricity, $/kW/month	
Price of Natural Gas, $/therm	

	Existing Condition	Proposed System	Savings
Soda Machine Power Consumption	100%	56%	44%
Soda Machine Annual Op Cost	$ 3,122	$ 1,998	1,124
Run Hours	5,256	5,256	
Soda Annual Energy Consumption (kWh)	23,126	14,801	8,326
Snack Machine Power Consumption	100%	56%	44%
Annual Op Cost	$ 341	$ 150	191
Run Hours	5,256	5,256	
Annual Energy Consumption (kWh)	2,523	1,110	**1,413**
Total Annual Energy Consumption (kWh)	25,649	15,911	**9,738**
Annual Cost and Savings, $	$ 3,463	$ 2,148	**$ 1,315**

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

JFK High School - Increase insulation on DHW piping

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	x
3. Price of Electricity, $/kWh (blended rate)	$0.135
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.875

Total Savings

	Existing Condition	Proposed System	Savings
Number of Ft of underinsulated pipe		0	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	18,141,960	4,930,128	**13,211,832**
Annual Therms lost	181	49	**132**
Annual Cost and Savings, $	$ 159	$ 43	**$ 116**

2 Pipe	Existing Condition	Proposed System	Savings
1 Pipe	**40**	40	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	13,994,976	3,703,728	**10,291,248**
Annual Therms lost	140	37	**103**
Annual Cost and Savings, $	$ 122	$ 32	**$ 90**

1. Assumes DHW supply temp on 120 degrees F
2. Assumes 40 feet of 2.00 inch pipe.

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

JFK High School - Replace Boilers with Higher Efficiency Boilers

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.135
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.875

	Existing Condition	Proposed System	Savings
Heating Boiler Fuel Consumption, therms	110,266	101,690	8,576
Heating Boiler Fuel Cost	$ 96,483	$ 88,979	**$ 7,504**

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

JFK High School - Integrate Occ. Sensor Control of UVs

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.135
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.875

	Existing Condition	Proposed System	Savings
Unit Ventilator Operating Condition	Zone Thermostat	Occupancy Override	
Annual Btu Required	4,144,487,451	2,688,089,632	**1,456,397,820**
Energy Use (Therms)	16,253	10,542	**5,711**
Energy Use (kWh)	--	--	**-**
Annual Operating Cost ($)	$ 14,221	$ 9,224	**$ 4,997**

Hours of Operation	*Hrs/Day*
Avg. Existing	12.0
Avg. Proposed	12.0

* Assumed Fans are equipped with Motors of HP listed in calculation table
* There is no demand reduction for this measure

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

COST ESTIMATES

Colonia High School - CRT to Flatscreen

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	CRT to Flat Screen		11	75	825		-	825
	Other Estimated Implementation Costs							-
	TOTAL							**$ 825**
	SUB-TOTAL							825
	TOTAL							**$ 825**

Colonia High School - Computer Power Management

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Computer Power Management		187	29	5,423		-	5,423
	Other Estimated Implementation Costs							-
	TOTAL							**$ 5,423**
	SUB-TOTAL							5,423
	TOTAL							**$ 5,423**

Colonia High School - DHW Pipe Insulation

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	3" Pipe Insulation	LF	90	3	232	5	454	686
	Other Estimated Implementation Costs							144
	TOTAL							**$ 830**
	SUB-TOTAL							686
	TOTAL							**$ 830**

Colonia High School - Vending Meiser

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Soda Machine		5	179	895	500	2,500	3,395
2	Snack Machine		5	179	895	500	2,500	3,395
	Other Estimated Implementation Costs							-
	TOTAL							**$ 6,790**
	SUB-TOTAL							6,790
	TOTAL							**$ 6,790**

Colonia High School - End of Useful Life Energy Star Window AC

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Energy Star Window AC		46	450	20,700	-	-	20,700
	Other Estimated Implementation Costs							-
	TOTAL							**$ 20,700**

Colonia High School - Winterize Window A/C Units

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Install Insulated Cover	each	46	40.37	1,857	28.00	1,288	3,145
	Other Estimated Implementation Costs							-
	TOTAL							**$ 3,145**

Colonia High School - Replace / Upgrade Windows

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Demolition/removal old windo	ea	-		-	20	-	-
2	Install dbl glazed, alum dbl hu	ea	-	414	-	173	130	130
3	Install dbl glazed, alum dbl hu	ea	-	425	-	104	-	-
	Other Estimated Implementation Costs							92
	TOTAL							**$ 222**

	Std Amounts for larger projects	Enter appropriate amounts for this project	
SUB-TOTAL			130
O&P	20%	**20%**	26
ASBESTOS ABATEMENT			-
DIRECT COST			156
PAYMENT & PERFORMANCE BOND	2%	**2%**	3
SUB-TOTAL			159
CONTINGENCY	20%	**20%**	32
ASBESTOS CONTINGENCY	10%	**10%**	-
SUB-TOTAL			191
ASBESTOS DESIGN & AIR MONITORING, TESTING			-
IC FEE	12%	**12%**	23
SUB-TOTAL			213
INTEREST DURING CONSTRUCTION	4%	**4%**	9
TOTAL			**$ 222**
NJ SmartStart Rebate			**$ -**

Colonia High School - Condensing Boiler

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	1,500 MBH Nat Gas Condensing Boiler	ea	6	37,000	222,000	10,000	60,000	282,000
2	Demo Existing Boilers	ls	2		-	2,776	5,552	5,552
	Other Estimated Implementation Costs							139,849
	TOTAL							**$ 437,400**

SUB-TOTAL			297,552
O&P	15%		-
ASBESTOS ABATEMENT	0%		-
DIRECT COST			297,552
PAYMENT & PERFORMANCE BOND	0%		-
SUB-TOTAL			297,552
CONTINGENCY	10%		29,755
ASBESTOS CONTINGENCY	10%		29,755.20
SUB-TOTAL			357,062
ASBESTOS DESIGN & AIR MONITORING, TESTING	15%		44,632.80
IC FEE	10.0%		35,706
SUB-TOTAL			437,401
INTEREST DURING CONSTRUCTION	0%		-
TOTAL			**$ 437,401**
Total SmartStart Rebate			**$ 15,750**
	Total		**$ 421,651**

Colonia High School - Like In Kind Boiler

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	1,500 MBH Nat Gas Boiler	ea	6	16,833	100,998	5,024	30,144	131,142
2	Demo Existing Boilers	ls	2		-	2,776	5,552	5,552
3	Piping Modifications	ls	1	4,000	4,000	6,000	6,000	10,000
	Other Estimated Implementation Costs							68,946
	TOTAL							**$ 215,640**
	SUB-TOTAL							146,694
	O&P						15%	-
	ASBESTOS ABATEMENT						0%	-
	DIRECT COST							146,694
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							146,694
	CONTINGENCY						10%	14,669
	ASBESTOS CONTINGENCY						10%	14,669.40
	SUB-TOTAL							176,033
	ASBESTOS DESIGN & AIR MONITORING, TESTING						15%	22,004.10
	IC FEE						10.0%	17,603
	SUB-TOTAL							215,640
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 215,640**
	Total SmartStart Rebate							
							Total	**$ 215,640**

Colonia High School - HHW Pump Controls

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Install Pump Controls		1	1,500	1,500	1,000	1,000	2,500
2			-	0	-	-	-	-
	Other Estimated Implementation Costs							250
	TOTAL							**$ 2,750**
	SUB-TOTAL							2,500
	O&P						10%	250
	ASBESTOS ABATEMENT							-
	DIRECT COST							2,750
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							2,750
	CONTINGENCY						0%	-
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							2,750
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							2,750
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 2,750**

Colonia High School - Walk-In Cooler and Freezer Evap Fan Power Management - High School

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Walk In Cooler Power Manag	EA	3	604	1,813	80	240	2,053
	Other Estimated Implementation Costs							-
	TOTAL							**$ 2,053**
	SUB-TOTAL							2,053
	O&P						0%	-
	ASBESTOS ABATEMENT							-
	DIRECT COST							2,053
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							2,053
	CONTINGENCY						0%	-
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							2,053
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							2,053
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 2,053**
							NJSS Rebate	**$ 225**
							TOTAL	**$ 1,828**

Colonia High School - UV Time of Day Optimization

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Occupancy Sensor	EA	62	400	24,800	200	12,400	37,200
2	1" Electrical Conduit	LF	-	5	-	4	-	-
3	Relay/Wiring	EA	-	425	-	250	-	-
4	10% Mics.		-		-		-	-
	Other Estimated Implementation Costs							11,160
	TOTAL							**$ 48,360**
	SUB-TOTAL							37,200
	O&P						0%	-
	ASBESTOS ABATEMENT							-
	DIRECT COST							37,200
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							37,200
	CONTINGENCY						30%	11,160
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							48,360
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							48,360
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 48,360**

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Colonia High School - Window Upgrade / Replacement

1. Price of #2 Fuel Oil, $/gal		
2. Price of City Water, $/1000 gallons		
3. Price of Electricity, $/kWh (blended rate)		$0.158
4. Price of the Demand of Electricity, $/kW/month		
5. Price of Natural Gas, $/therm		$0.959

	Existing Condition	Proposed System	Savings
R-Value of Windows	0.9	2.6	
Annual heating loss, therms	760	247	513
Annual additional cooling, kWh	1,825	593	1,232
Annual Gas Cost and Savings, $	$ 729	$ 237	$ 492
Annual Electric Cost and Savings, $	$ 288	$ 94	$ 195
Annual Cost and Savings, $	$ 1,018	$ 331	**$ 687**

1. Old windows are single glased, no coating with storm window.
2. Assumes old windows experience 50% infiltration factor.
3. Assumes new windows are double glased with low E coating, no storm window.
2. Assumes new windows experience 14% infiltration factor.

CALCULATIONS

Colonia High School - Walk-in Freezer & Cooler Evaporator Fan Control

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.137
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.887

	Existing Condition	Proposed System	Savings
Evaporator Fan Savings	100%	**35%**	
Compressor Operations Savings	100%	**80%**	
Cost to Remove Evap Fan Heat Load	$ 378	$ 302	
Annual Op Cost	$ 886	$ 310	
Run Hours	**8,760**	8,760	
Annual Energy Consumption (kWh)	6,470	1,998	4,472
Annual Cost and Savings, $	$ 1,264	$ 613	**$ 650**

1. Run hours based on fan motors being run 8,760 hrs

Colonia High School - Computer Time of Day Optimization

Summary

Electricity Savings (kWh/yr)	43,135
Natural Gas Savings (therms/yr)	0
Estimated Cost Savings ($/yr)	$5,909
Estimated Implementation Cost ($)	$5,376
Estimated Rebate ($)	$0
Estimated Implementation Cost after Rebate ($)	$5,376
Simple Payback (Years)	0.9

1. Assuming computers are completely powered down during summer vacation.
2. Computer and monitor power consumption values based on 2009 ASHRAE Fundamentals, Section 18.12, Table 8.
3. Savings assumes all computers go into standby/sleep mode during unoccupied building hours.

Colonia High School - CRT to Flat Screen

Summary

Electricity Savings (kWh/yr)	1,104
Natural Gas Savings (therms/yr)	0
Estimated Cost Savings ($/yr)	$151
Estimated Implementation Cost ($)	$825
Estimated Rebate ($)	$0
Estimated Implementation Cost after Rebate ($)	$825
Simple Payback (Years)	5.5

1. Assuming computers are completely powered down during summer vacation.
2. Computer and monitor power consumption values based on 2009 ASHRAE Fundamentals, Section 18.12, Table 8.
3. Savings assumes all computers go into standby/sleep mode during unoccupied building hours.

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Colonia High School - Winterize Window AC Units

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.137
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.887

	Existing Condition	Proposed System	Savings
R-Value of Window A/C Uncovered and Covered	0.9	3.4	
Air Leakage of Window A/C Uncovered and Covered (CFM)	2,705.6	2,299.8	**406**
Annual heating loss, Therms	3,752	3,016	735
Annual Natural Gas Cost and Savings, $	$ 3,328	$ 2,675	$ 652
Annual Cost and Savings, $	$ 3,328	$ 2,675	**$ 652**

Colonia High School - Savings from Replacing Window AC Units

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.137
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.887

	Existing Condition	Proposed System	Savings
Total Number of Units	46	46	
Number of Inefficient Units	46	46	
Capacity per Unit, Tons	1.00	1.00	
Total Capacity, Tons	46.0	46.0	
Assumed Efficiency, EER	9.8	10.8	
Total Hours of Normal Operation, hrs	2,008	2,008	
Cooling Load Factor	25%	25%	
Annual Cooling Production, ton-hours	22,776	22,776	
Annual Cooling Load, kBTU	273,308	273,308	
Annual Peak Demand Reduction (kW)	4.1	3.7	0.38
Annual Electrical Consumption, kWh	27,889	25,306	2,582
Annual Cost and Savings, $	$ 3,821	$ 3,467	**$ 354**

1. Assume existing systems runs when outside air temperature (OAT) is above 70F during building occupied hours.
2. Both conditions are simulated with non-programmable thermostats.
3. Load factor calculation represents the percentage of time when the unit operates at full load.
4. Conventional units standard of 9.8 EER.
5. Assume the new units have an efficiency of 10.8 EER which meets Energy Star standard.
6. Coincidence Factor for peak kW reduction taken from Maryland Public Utility Commission: Appendix A Measure Analysis Spreadsheet

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Colonia High School - Vending Machine Power Management System

Price of #2 Fuel Oil, $/gal	
Price of City Water, $/1000 gallons	
Price of Electricity, $/kWh (blended rate)	$0.137
Price of the Demand of Electricity, $/kW/month	
Price of Natural Gas, $/therm	

	Existing Condition	Proposed System	Savings
Soda Machine Power Consumption	100%	56%	44%
Soda Machine Annual Op Cost	$ 3,960	$ 2,535	1,426
Run Hours	5,256	5,256	
Soda Annual Energy Consumption (kWh)	28,908	18,501	10,407
Snack Machine Power Consumption	100%	56%	44%
Annual Op Cost	$ 288	$ 127	161
Run Hours	5,256	5,256	
Annual Energy Consumption (kWh)	2,102	925	**1,177**
Total Annual Energy Consumption (kWh)	31,010	19,426	**11,584**
Annual Cost and Savings, $	$ 4,248	$ 2,661	**$ 1,587**

CALCULATIONS

Colonia High School - Increase insulation on DHW piping

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	x
3. Price of Electricity, $/kWh (blended rate)	$0.137
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.887

Total Savings

	Existing Condition	Proposed System	Savings
Number of Ft of underinsulated pipe		0	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	58,570,236	14,301,576	**44,268,660**
Annual Therms lost	586	143	**443**
Annual Cost and Savings, $	$ 520	$ 127	**$ 393**

3 Pipe	Existing Condition	Proposed System	Savings
Number of Ft of underinsulated pipe	**40**	40	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	26,031,216	6,356,256	**19,674,960**
Annual Therms lost	260	64	**197**
Annual Cost and Savings, $	$ 231	$ 56	**$ 175**

1. Assumes DHW supply temp on 130 degrees F
2. Assumes 40 feet of 3.00 inch pipe.

Colonia High School - HHW Pump Controls

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.137
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.887

Savings

	Existing	Proposed	Savings
Pump kWh Consumption	92,872	22,880	69,992
Pump kWh Cost	$ 12,723	$ 3,135	$ 9,589

Exisitng Pumps

Pump	Equipment	Motor Mfg	Motor Model	Quantity	GPM	Head ft	HP	RPM	VFD?	Efficiency
1	HW Pumps	GE	5K256	1	NA	NA	20	1760	No	0.88
2	HW Pumps	Marathon Electric	NA	1	NA	NA	7 1/2	NA	No	0.88
3	Inline Pump	Armstrong	NA	1	NA	NA	1/4	1725	No	0.88
4	Inline Pump	Armstrong	4VE56T17	1	NA	NA	3/4	1725	No	0.88

Pump	Qty	HP	kW	Existing Op Hrs	Proposed Op Hrs	Current kWh	Proposed kWh
1	1	20.00	14.92	3844	947	65173	16056
2	1	7.50	5.595	3844	947	24440	6021
3	1	0.25	0.1865	3844	947	815	201
4	1	0.75	0.5595	3844	947	2444	602
					Total	**92871.91**	**22879.74**

1. Proposed pump controls would turn off pumps when OAT is above 35F.
2. Assuming heating season is when OAT goes below 65 F.

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Colonia High School - Replace Boilers with Higher Efficiency Boilers

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.137
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.887

	Existing Condition	Proposed System	Savings
Heating Boiler Fuel Consumption, therms	42,040	38,770	3,270
Heating Boiler Fuel Cost	$ 37,289	$ 34,389	**$ 2,900**

CALCULATIONS

Colonia High School - Integrate Occ. Sensor Control of UVs

1. Price of #2 Fuel Oil, $/gal	$0.000
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.137
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.887

	Existing Condition	Proposed System	Savings
Unit Ventilator Operating Condition	Zone Thermostat	Occupancy Override	
Annual Btu Required	5,596,431,597	3,629,811,871	**1,966,619,726**
Energy Use (Therms)	21,947	14,235	**7,712**
Energy Use (kWh)	--	--	**-**
Annual Operating Cost ($)	$ 19,467	$ 12,626	**$ 6,841**

Hours of Operation	*Hrs/Day*
Avg. Existing	13.7
Avg. Proposed	13.7

* Assumed Fans are equipped with Motors of HP listed in calculation table
* There is no demand reduction for this measure

Woodbridge Admin Building - DHW Heater Fuel Switch

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	40 Gallon Tank		1	930	930	315	315	1,245
2	Gas line		30	5.00	150	10.00	300	450
3	Demolition		1		-	50	50	50
	Other Estimated Implementation Costs							573
	TOTAL							**$ 2,318**
	SUB-TOTAL							1,745
	O&P						15%	262
	ASBESTOS ABATEMENT							-
	DIRECT COST							2,007
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							2,007
	CONTINGENCY						10%	201
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							2,207
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						5.0%	110
	SUB-TOTAL							2,318
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 2,318**
							NJSS Rebate	**$ 50**
							Total	**$ 2,268**

Woodbridge Admin Building - DHW Pipe Insulation

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Pipe Insulation 1/2" Pipe	LF	40	2	67	4	158	224
	Other Estimated Implementation Costs							47
	TOTAL							**$ 272**
	SUB-TOTAL							224
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 272**

Woodbridge Admin Building - Vending Power Management System

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Soda Machine		1	179	179	500	500	679
2	Snack Machine		2	179	358	500	1,000	1,358
	Other Estimated Implementation Costs							-
	TOTAL							**$ 2,037**
	SUB-TOTAL							2,037
	TOTAL							**$ 2,037**

Woodbridge Admin Building - End of Useful Life Energy Star Window AC

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Energy Star Window AC		37	450	16,650	-	-	16,650
	Other Estimated Implementation Costs							-
	TOTAL							**$ 16,650**
	SUB-TOTAL							16,650
	O&P						0%	-
	ASBESTOS ABATEMENT							-
	DIRECT COST							16,650
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							16,650
	CONTINGENCY						0%	-
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							16,650
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							16,650
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 16,650**

Woodbridge Admin Building - Winterize Window A/C Units

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Install Insulated Cover	each	19	50.00	950	28.00	532	1,482
2	Install Interior Insulated Cover	each	18.0	27.00	486	28.00	504	990
	Other Estimated Implementation Costs							-
	TOTAL							**$ 2,472**

Window Weatherization

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Window Weatherstripping	Ea	41	$ 10	$ 410	$ 25	$ 1,025	$ 1,435
	Other Estimated Implementation Costs							-
	TOTAL							**$ 1,435**
	SUB-TOTAL							**1,435**
	O&P						0%	-
	ASBESTOS ABATEMENT					SF		-
	DIRECT COST							1,435
	PAYMENT & PERFORMANCE BOND						0%	-
	SUB-TOTAL							1,435
	CONTINGENCY						0%	-
	Engineering Fees						0%	-
	Architectural fees for Renovation						0%	-
	ASBESTOS CONTINGENCY						0%	-
	SUB-TOTAL							1,435
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						0.0%	-
	SUB-TOTAL							1,435
	INTEREST DURING CONSTRUCTION						0%	-
	TOTAL							**$ 1,435**

Woodbridge Admin Building - Steam Pipe Insulation

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	2" Pipe Insulation	LF	5	2	12	5	23	34
2	3" Pipe Insulation	LF	3	3	8	5	15	23
	Other Estimated Implementation Costs							12
	TOTAL							**$ 69**
	SUB-TOTAL							57
	TOTAL							**$ 69**

Woodbridge Admin Building - Replace / Upgrade windows

N/N	DESCRIPTION OF WORK	UNIT	QTY	MATERIAL		LABOR		TOTAL
				PER UNIT	TOTAL	PER UNIT	TOTAL	
1	Demolition/removal old windows	ea	95		-	20	1,900	1,900
2	Install dbl glazed, alum dbl hung windows 30x72	ea	78	414	32,292	173	130	32,422
3	Install dbl glazed, alum dbl hung windows 24x30	ea	17	425	7,225	104	1,768	8,993
	Other Estimated Implementation Costs							30,661
	TOTAL							**$ 73,976**
	SUB-TOTAL							43,315
	O&P						20%	8,663
	ASBESTOS ABATEMENT							-
	DIRECT COST							51,978
	PAYMENT & PERFORMANCE BOND						2%	1,040
	SUB-TOTAL							53,018
	CONTINGENCY						20%	10,604
	ASBESTOS CONTINGENCY						10%	-
	SUB-TOTAL							63,621
	ASBESTOS DESIGN & AIR MONITORING, TESTING							-
	IC FEE						12%	7,510
	SUB-TOTAL							71,131
	INTEREST DURING CONSTRUCTION						4%	2,845
	TOTAL							**$ 73,976**
	NJ SmartStart Rebate							**$ -**

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Woodbridge Admin Building - Window Upgrade / Replacement

1. Price of #2 Fuel Oil, $/gal		
2. Price of City Water, $/1000 gallons		
3. Price of Electricity, $/kWh (blended rate)		$0.158
4. Price of the Demand of Electricity, $/kW/month		
5. Price of Natural Gas, $/therm		$0.959

Town Hall			
	Existing Condition	**Proposed System**	**Savings**
R-Value of Windows	0.9	2.6	
Annual heating loss, therms	2,651	862	1,790
Annual additional cooling, kWh	6,361	2,067	4,294
Annual Gas Cost and Savings, $	$ 2,542	$ 826	$ 1,716
Annual Electric Cost and Savings, $	$ 1,005	$ 327	$ 678
Annual Cost and Savings, $	$ 3,548	$ 1,153	**$ 2,395**

1. Old windows are single glased, no coating with storm window.
2. Assumes old windows experience 50% infiltration factor.
3. Assumes new windows are double glased with low E coating, no storm window.
2. Assumes new windows experience 14% infiltration factor.

Woodbridge Admin Building - Savings from Weatherstripping Doors

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.158
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.959

	Existing Condition	Proposed System	Savings
Number of Windows	41	41	
Estimated Infiltration Rate per Door, CFM	121	24	
Annual Cooling Infiltration Total Hours, OAT > 80F	814	814	
Annual Heating Infiltration Total Hours, OAT < 65F	1,991	1,991	
Annual Cooling Load, kBTU	114,599	22,602	
Annual Cooling Electrical Consumption, kWh	12,415	2,449	9,966
Annual Heating Load, kBTU	313,860	87,154	
Annual Heating Consumption, Therms	3,781	1,050	2,731
Annual Cost and Savings, $	$ 5,588	$ 1,394	**$ 4,194**

1. Infiltration rate was calculated according to ASHRAE Fundamentals 2005 Door Leakage Rate Equation F27.12

2. Estimated hours of infiltration was based on all hours below 65F and above 80F for the region.

3. It is assumed that each window has a leakage area of 2 square inches (3 linear feet by 0.05 in). There is/are 41 window(s).

4. A 60% load factor was used when calculating the existing leakage rate.

5. Assume all AHUs have an supply air temperature of 55F in the summer and 80F in the winter.

6. The average outside air temperature above 80F during the year is 81F. The average outside air temperature below 65F is 44F.

7. Assume the cooling plant has an efficiency of 1.3 kw/ton and the heating plant has an efficiency of 83%.

8. New weatherstripping is assumed to reduce inflitration by 80%.

WOODBRIDGE TOWNSHIP SCHOOL DISTRICT

CALCULATIONS

Woodbridge Admin Building - Winterize Window AC Units

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	
3. Price of Electricity, $/kWh (blended rate)	$0.158
4. Price of the Demand of Electricity, $/kW/month	
5. Price of Natural Gas, $/therm	$0.959

	Existing Condition	Proposed System	Savings
R-Value of Window A/C Uncovered and Covered	0.9	3.4	
Air Leakage of Window A/C Uncovered and Covered (CFM	2,176.3	1,849.8	**326**
Annual heating loss, Therms	2,791	2,244	547
Annual Natural Gas Cost and Savings, $	$ 2,677	$ 2,152	$ 525
Annual Cost and Savings, $	$ 2,677	$ 2,152	**$ 525**

Woodbridge Admin Building - Savings from Replacing Window AC Units

1. Price of #2 Fuel Oil, $/gal	
2. Price of City Water, $/1000 gallons	$0.000
3. Price of Electricity, $/kWh (blended rate)	$0.158
4. Price of the Demand of Electricity, $/kW/month	$0.000
5. Price of Natural Gas, $/therm	$0.959

	Existing Condition	Proposed System	Savings
Total Number of Units	37	37	
Number of Inefficient Units	37	37	
Capacity per Unit, Tons	1.00	1.00	
Total Capacity, Tons	37.0	37.0	
Assumed Efficiency, EER	9.8	10.8	
Total Hours of Normal Operation, hrs	2,008	2,008	
Cooling Load Factor	47%	47%	
Annual Cooling Production, ton-hours	34,919	34,919	
Annual Cooling Load, kBTU	419,029	419,029	
Annual Peak Demand Reduction (kW)	6.2	5.6	0.58
Annual Electrical Consumption, kWh	42,758	38,799	3,959
Annual Cost and Savings, $	$ 6,756	$ 6,130	**$ 626**

1. Assume existing systems runs when outside air temperature (OAT) is above 70F during building occupied hours.

2. Both conditions are simulated with non-programmable thermostats.

3. Load factor calculation represents the percentage of time when the unit operates at full load.

4.Conventional units have 9.8 EER.

5. Assume the new units have an efficiency of 10.8 EER which meets Energy Star standard.

6. Coincidence Factor for peak kW reduction taken from Maryland Public Utility Commission: Appendix A Measure Analysis Spreadsheet

Woodbridge Admin Building - Increase insulation on DHW piping

1. Price of #2 Fuel Oil, $/gal			$0.000
2. Price of City Water, $/1000 gallons			x
3. Price of Electricity, $/kWh (blended rate)			$0.158
4. Price of the Demand of Electricity, $/kW/month			$0.000
5. Price of Natural Gas, $/therm			$0.959

	Existing Condition	Proposed System	Savings
Number of Ft of underinsulated pipe	**40**	40	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	5,781,600	1,965,744	**3,815,856**
Annual Therms lost	58	20	**38**
Annual Cost and Savings, $	$ 55	$ 19	**$ 37**

1. Assumes DHW supply temp on 120 degrees F
2. Assumes 40 feet of 0.50 inch pipe.

Woodbridge Admin Building - Increase Insulation on HHW Piping

1. Price of #2 Fuel Oil, $/gal			$0.000
2. Price of City Water, $/1000 gallons			x
3. Price of Electricity, $/kWh (blended rate)			$0.158
4. Price of the Demand of Electricity, $/kW/month			$0.000
5. Price of Natural Gas, $/therm			$0.959

Total Savings

	Existing Condition	Proposed System	Savings
Number of Ft of underinsulated pipe	**8**	8	
Inches of insulation	**0**	**1.0**	
Annual Btu losses	5,115,597	969,853	**4,145,745**
Annual Therms lost	51	10	**41**
Annual Cost and Savings, $	$ 49	$ 9	**$ 40**

2 Pipe	Existing Condition	Proposed System	Savings
Number of Ft of underinsulated pipe	**5**	5	
Inches of insulation	**0**	**2.0**	
Annual Btu losses	2,749,998	534,715	**2,215,282**
Annual Therms lost	27	5	**22**
Annual Cost and Savings, $	$ 26	$ 5	**$ 21**

1. Assumes steam supply temp of 227 degrees F
2. Assumes 5 feet of 2.00 inch pipe.

3 Pipe	Existing	Proposed	Savings
Number of Ft of underinsulated pipe	**3**	3	
Inches of insulation	**0**	**2.0**	
Annual Btu losses	2,365,600	435,137	**1,930,462**
Annual Therms lost	24	4	**19**
Annual Cost and Savings, $	$ 23	$ 4	**$ 19**

1. Assumes steam supply temp of 227 degrees F
2. Assumes 3 feet of 3.00 inch pipe.

Woodbridge Admin Building - Vending Machine Power Management System

Price of #2 Fuel Oil, $/gal	
Price of City Water, $/1000 gallons	$0.000
Price of Electricity, $/kWh (blended rate)	$0.158
Price of the Demand of Electricity, $/kW/month	$0.000
Price of Natural Gas, $/therm	$0.959

	Existing Condition	Proposed System	Savings
Soda Machine Power Consumption	100%	44%	56%
Soda Machine Annual Op Cost	$ 1,522	$ 670	853
Run Hours	8,760	8,760	
Soda Annual Energy Consumption (kWh)	9,636	4,240	5,396
Snack Machine Power Consumption	100%	56%	44%
Annual Op Cost	$ 221	$ 97	124
Run Hours	8,760	8,760	
Annual Energy Consumption (kWh)	1,402	617	**785**
Total Annual Energy Consumption (kWh)	11,038	4,857	**6,181**
Annual Cost and Savings, $	$ 1,744	$ 767	**$ 977**

Woodbridge Admin Building - Replace Electric Storage Type DHW Heater with Gas DHW Heater

UTILITY PRICES		
Electric - $/kWh		$0.158
Gas - $/therm		$0.959

		Existing Condition	Proposed System	Savings
Total Annual Gallons DHW		42,067	42,067	
DHW Heater Efficiency, %		100%	82%	
Annual DHW Energy, MBtu		21,050	25,671	
Annual Standby Losses, MBtu		1,286	805	480
Savings from Avoided Standby Losses:				
	Annual Standby Losses, kWh	377	8	**369**
	Cost of Annual Standby Losses, $	$60	$0	**$60**
Savings from Fuel Switch:				
	Electric / Gas Unit Cost ($/Mbtu)	$0.0463	$0.0096	
	Annual DHW Cost (w/o Stand-by losses)	$975	$246	**$729**
Total Savings:				
	Total DHW Heater Input (Energy+Losses), MBtu	22,336	26,477	
	Total DHW Heater Input, kWh	6,546	0	**6,546**
	Total DHW Heater Input, therms	0	257	**-257**
	Annual Total Cost and Total Savings, $	$1,034	$246	**$788**

1. Water usage estimates based on Federal Water Use Indices
2. Assumes 25% of water usage is hot water.
3. Assumes 67 occupants, 9 hours per day, 250 days per year.
4. Assumes existing heater experiences stand-by losses 8,760 hrs per year (i.e. not shut off during unoccupied hours)