

**LENAPE REGIONAL
HIGH SCHOOL DISTRICT**

SENECA HIGH SCHOOL

**110 CARRANZA ROAD
TABERNACLE, NJ 08088**

FACILITY ENERGY REPORT

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I. HISTORIC ENERGY CONSUMPTION/COST

The energy usage for the facility has been tabulated and plotted in graph form as depicted within this section. Each energy source has been identified and monthly consumption and cost noted per the information provided by the Owner.

Electric Utility Provider:	Atlantic City Electric
Electric Utility Rate Structure:	Annual General Service (AGS)
Third Party Supplier:	South Jersey Energy Company
Natural Gas Utility Provider:	South Jersey Natural Gas
Utility Rate Structure:	General Service Gas Large Volume (GSG-LV)
Third Party Supplier:	None

The electric usage profile represents the actual electrical usage for the facility. The electric utility measures consumption in kilowatt-hours (KWH) and maximum demand in kilowatts (KW). One KWH usage is equivalent to 1000 watts running for one hour. One KW of electric demand is equivalent to 1000 watts running at any given time. The basic usage charges are shown as generation service and delivery charges along with several non-utility generation charges. Rates used in this report reflect the historical data received for the facility.

The gas usage profile within each facility report shows the actual natural gas energy usage for the facility. The gas utility measures consumption in cubic feet x 100 (CCF), and converts the quantity into Therms of energy. One Therm is equivalent to 100,000 BTUs of energy.

Table 1
Electricity Billing Data

ELECTRIC USAGE SUMMARY			
Utility Provider: Atlantic City Electric Rate: Annual General Service Meter No: 83222040 Account # 6371599884 Third Party Utility Provider: SJ Energy Company TPS Meter / Acct No: 6371599827			
MONTH OF USE	CONSUMPTION KWH	DEMAND KW	TOTAL BILL
May-10	337,186	866.7	\$35,492
Jun-10	308,738	634.7	\$32,498
Jul-10	279,611	630.0	\$29,432
Aug-10	323,036	792.4	\$34,003
Sep-10	268,441	786.9	\$28,256
Oct-10	276,381	739.8	\$29,092
Nov-10	254,049	592.6	\$26,741
Dec-10	244,780	693.4	\$25,766
Jan-11	281,223	704.4	\$29,602
Feb-11	258,128	693.3	\$27,171
Mar-11	263,131	782.3	\$27,697
Apr-11	297,056	829.3	\$27,005
Totals	3,391,760	866.7 Max	\$352,754
AVERAGE DEMAND 728.8 KW average AVERAGE RATE \$0.104 \$/kWh			

Figure 1
Electricity Usage Profile

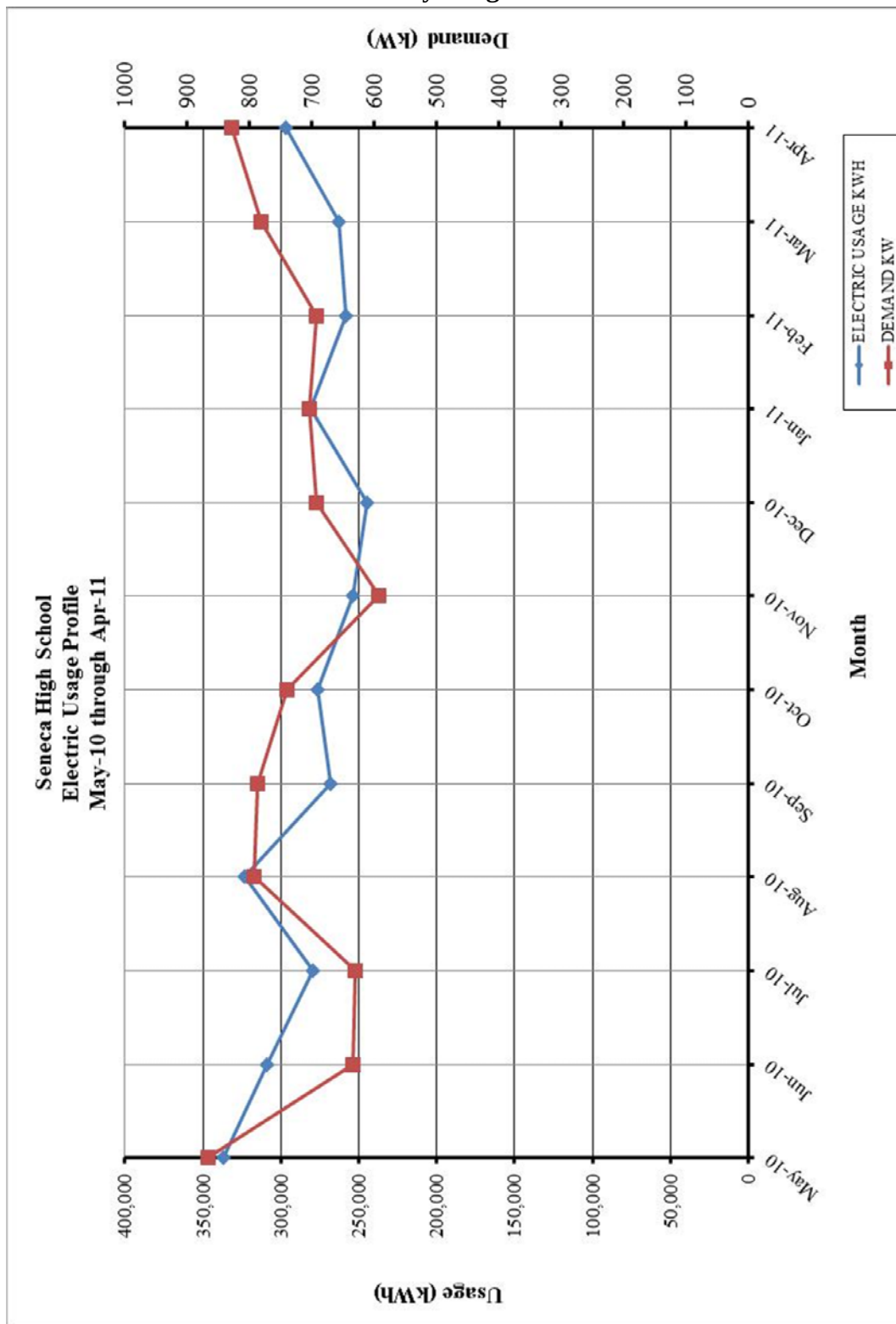
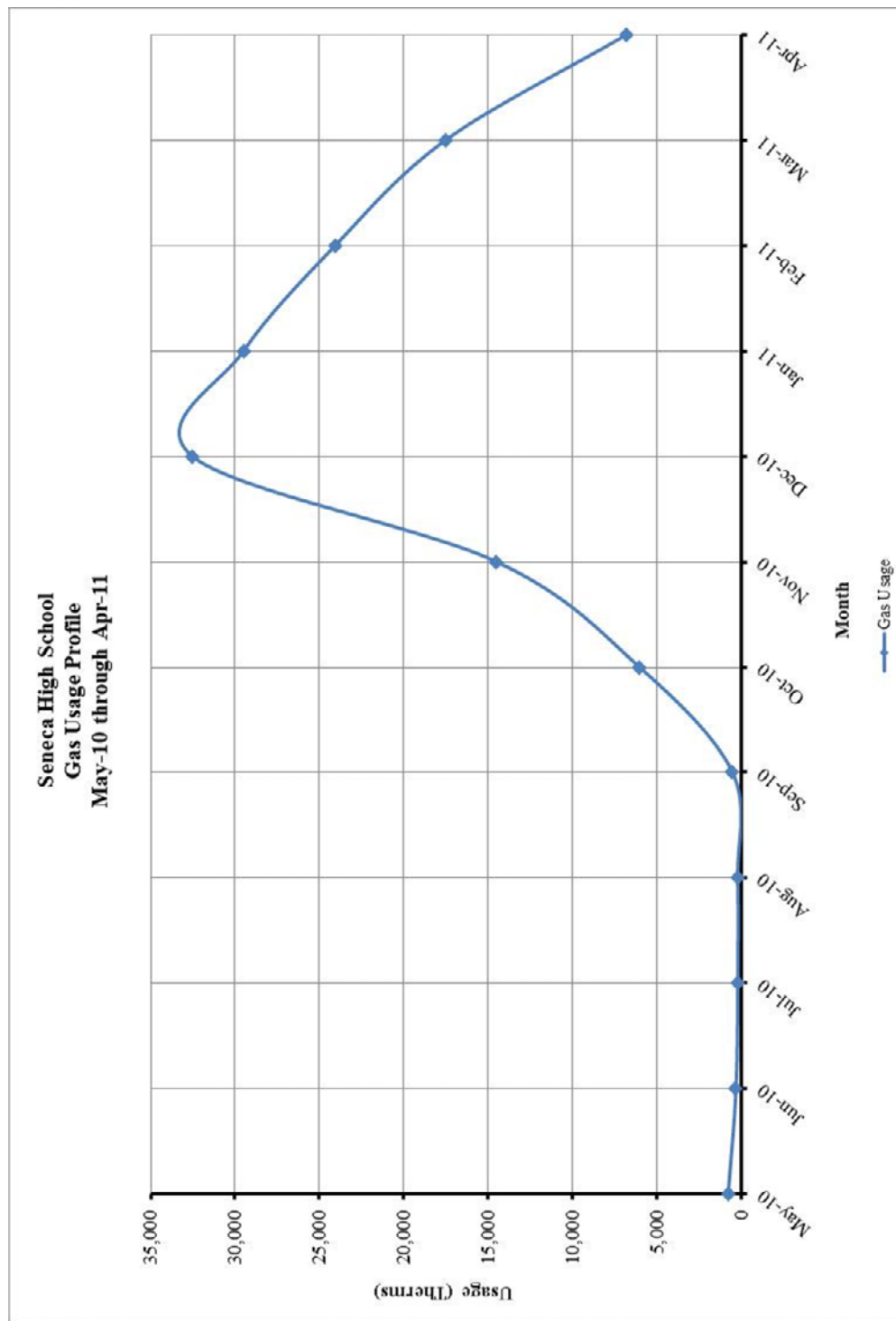


Table 4
Natural Gas Billing Data

NATURAL GAS USAGE SUMMARY		
Utility Provider: South Jersey Gas Rate: General Service Gas - LV Meter No: 431155 Point of Delivery ID: 20201694500 Third Party Utility Provider: N/A TPS Meter No: N/A		
MONTH OF USE	CONSUMPTION (THERMS)	TOTAL BILL
May-10	771.00	\$1,665.00
Jun-10	298.99	\$1,220.15
Jul-10	194.94	\$1,275.80
Aug-10	204.80	\$1,151.72
Sep-10	513.00	\$1,585.95
Oct-10	6,037.25	\$6,412.59
Nov-10	14,512.40	\$13,974.39
Dec-10	32,532.48	\$31,311.71
Jan-11	29,498.85	\$30,915.06
Feb-11	24,072.88	\$23,400.82
Mar-11	17,530.89	\$16,633.75
Apr-11	6,819.28	\$7,449.30
TOTALS	132,986.76	\$136,996.24
AVERAGE RATE:	\$1.03	\$/THERM

Figure 2
Natural Gas Usage Profile



II. FACILITY DESCRIPTION

The 255,700 SF Seneca High School is composed of sections that are mostly single-story buildings with the exception of the East classroom wing (A, B, C, and D sections) and the Main Offices/Media Center which are two-story. The school is comprised of classrooms, science labs, TV studio, music rooms, library/media center, administration offices, wood/auto shops, CADD room, cafeterias, kitchen, main gym, auxiliary gym, and auditorium. The original building construction was completed in 2003.

The building construction is CMU block with face brick. The flat, built-up roof has 4" rigid insulation and portions of the facility have standing seam sloped roofing. The building envelope has 2" of rigid insulation and a 1¾ inch air space between 4" brick and 12" CMU. The windows in most of the facility are in good condition and appeared to be maintained. The window type in this facility is double thermopane tinted glass with aluminum frames and the exterior doors have 1" insulated glass with aluminum frames. Most doorways in the school are double doors with weather stripping that appears to be in good condition. The high school is occupied by 1,459 employees and students during typical hours of operation during the school year (10 months).

HVAC System

The hot water heating for the facility is performed by two (2) Bryan Model RV700-W-FDGO dual-fuel, flexible water tube boilers located in the central boiler plant. These hot water boilers are rated at 7,000 MBH input and 5,600 MBH output for natural gas and have 5HP burner motors. Two (2) Flo-Pak Model HWP-VS-05-H hot water pumps each rated at 1,200 GPM @ 143' TDH and a 60HP motor deliver the hot water to various coils throughout the facility. A McQuay Model ALS295 air-cooled chiller on the roof is rated at 295-Tons and 700 GPM cooling capacity. Two (2) chilled water pumps each 50 HP pump the chilled water to various chilled water coils. The hot water/chilled water is pumped thru a 4-pipe system to various coils.

The major rooftop units include a 18-Ton McQuay packaged rooftop unit with DX cooling and a hot water coil that serves the Stage; two (2) 36-Ton McQuay packaged rooftop unit with DX cooling and hot water coils that serve the Auditorium with two (2) Venmar heat recovery units that feed these two packaged McQuay units; two (2) McQuay heating only units with hot water coils and built-in heat recovery wheels that serve Gym #1; a McQuay heating only unit with hot water coil that serves Gym #2; an 18-Ton McQuay packaged rooftop unit with DX cooling and a hot water coil that serves the Auxiliary Gym; two (2) 32-Ton McQuay units with hot water and chilled water coils serve the Cafeteria 1 and 2 spaces.

There are a number of smaller air handling units located in/above the ceilings that range in size from 11 MBH to 95 MBH hot water heating capacity with entering water temperature of 180°F and leaving hot water temperature of 160°F. There are two (2) horizontal make-up air units with hot water coils, one for the science lab and the other for the kitchen rated at 3,600 CFM and 1,800 CFM respectively.

Various DX split-systems, classroom hot water unit ventilators, small air handler terminal units, roof ventilators, cabinet unit heaters, and unit heaters complete the HVAC system.

Exhaust System

Air is exhausted from the toilet rooms, boys/girls lockers, storage rooms, science labs, corridors, kitchens, auto/wood shops, cafeterias and other common areas through typical centrifugal roof exhaust fans. These fans are manually controlled by local disconnect switches at the individual fans and are interlocked with the equipment that heats/cools or ventilates the space. The kitchen hood exhaust fan is also a typical centrifugal roof fan and controlled by a remote switch located in the kitchen area. The kitchen and kitchen exhaust hood fans include two (2) 3HP Greenheck Model Cube-300 and Cube-240 fans rated at 7,200 CFM and 6,000 CFM respectively; a 5HP and a 7.5 HP Greenheck Model GB-500-50 and GB-500-75 exhaust fan serve the A, B, and C Wings.

HVAC System Controls

All of the HVAC systems are controlled by a DDC Building Management System (BMS) manufactured by Invensys Building Systems.

Domestic Hot/Cold Water

Domestic hot water for the facility (except for the kitchen) is generated by an A. O. Smith Model BTP200 gas-fired hot water heater that is rated at 1,500 MBH with 200 gallon storage capacity and a recovery rate of 1,455 gallons/hour. The kitchen hot water is provided by an A. O. Smith Model BTP600 gas-fired hot water heater that is rated at 2,500 MBH with 600 gallon capacity and a recovery rate of 1,732 gallons per hour. The domestic cold water is provided by a booster station manufactured by Alyan Pump Model CPS12580-2-7.5 with two 7.5HP pump motors rated at 250 GPM at 158' TDH.

Lighting

Refer to the Investment Grade lighting Audit Appendix for a detailed list of the lighting throughout the facility and estimated operating hours per space.

III. MAJOR EQUIPMENT LIST

The equipment list contains major energy consuming equipment that through implementation of energy conservation measures could yield substantial energy savings. The list shows the major equipment in the facility and all pertinent information utilized in energy savings calculations. An approximate age was assigned to the equipment in some cases if a manufactures date was not shown on the equipment's nameplate. The ASHRAE service life for the equipment along with the remaining useful life is also shown in the Appendix.

Refer to the **Major Equipment List Appendix** for this facility.

IV. ENERGY CONSERVATION MEASURES

Energy Conservation Measures are developed specifically for this facility. The energy savings and calculations are highly dependent on the information received from the site survey and interviews with operations personnel. The assumptions and calculations should be reviewed by the owner to ensure accurate representation of this facility. The following ECMs were analyzed:

Table 1
ECM Financial Summary

ENERGY CONSERVATION MEASURES (ECM's)					
ECM NO.	DESCRIPTION	NET INSTALLATION COST ^A	ANNUAL SAVINGS ^B	SIMPLE PAYBACK (Yrs)	SIMPLE LIFETIME ROI
ECM #1	Lighting Upgrade - General	\$53,941	\$5,463	9.9	51.9%
ECM #2	Lighting Upgrade - Gym & Weight Room	\$14,035	\$2,078	6.8	122.1%
ECM #3	Lighting Controls Upgrade	\$32,605	\$7,054	4.6	224.5%
ECM #4	LED Lighting Option	\$352,288	\$18,308	19.2	-22.0%
ECM #5	Commercial Kitchen Hood Controls	\$12,852	\$1,374	9.4	60.4%
ECM #6	Condensing Boiler Installation	\$82,880	\$12,265	6.8	255.2%
ECM #7	Demand Control Ventilation on Cafeteria Units	\$33,232	\$576	57.7	-74.0%
ECM #8	Vending Miser Controls	\$1,158	\$1,263	0.9	990.7%
ECM #9	Walk in Freezer/Cooler Controls	\$648	\$75	8.7	15.5%
RENEWABLE ENERGY MEASURES (REM's)					
ECM NO.	DESCRIPTION	NET INSTALLATION COST	ANNUAL SAVINGS	SIMPLE PAYBACK (Yrs)	SIMPLE LIFETIME ROI
REM #1	1.34 MW PV System	\$7,732,559	\$465,464	16.6	-9.7%
Notes: A. Cost takes into consideration applicable NJ Smart Start TM incentives. B. Savings takes into consideration applicable maintenance savings.					

Table 2
ECM Energy Summary

ENERGY CONSERVATION MEASURES (ECM's)				
ECM NO.	DESCRIPTION	ANNUAL UTILITY REDUCTION		
		ELECTRIC DEMAND (KW)	ELECTRIC CONSUMPTION (KWH)	NATURAL GAS (THERMS)
ECM #1	Lighting Upgrade - General	19.5	52,531	0
ECM #2	Lighting Upgrade - Gym & Weight Room	8	19,984	0
ECM #3	Lighting Controls Upgrade	26	67,823	0
ECM #4	LED Lighting Option	66	176,043	0
ECM #5	Commercial Kitchen Hood Controls	0	3,223	1,009
ECM #6	Condensing Boiler Installation	0	0	11,908
ECM #7	Demand Control Ventilation on Cafeteria Units	0	2,272	329
ECM #8	Vending Miser Controls	0	10,917	0
ECM #9	Walk in Freezer/Cooler Controls	0	719	0
RENEWABLE ENERGY MEASURES (REM's)				
ECM NO.	DESCRIPTION	ANNUAL UTILITY REDUCTION		
		ELECTRIC DEMAND (KW)	ELECTRIC CONSUMPTION (KWH)	NATURAL GAS (THERMS)
REM #1	1.34 MW PV System	1346.3	1,577,392	0

Table 3
Facility Project Summary

ENERGY SAVINGS IMPROVEMENT PROGRAM - POTENTIAL PROJECT					
ENERGY CONSERVATION MEASURES	ANNUAL ENERGY SAVINGS (\$)	PROJECT COST (\$)	SMART START INCENTIVES	CUSTOMER COST	SIMPLE PAYBACK
Lighting Upgrade - General	\$5,463	\$53,941	\$0	\$53,941	9.9
Lighting Upgrade - Gym & Weight Room	\$2,078	\$21,140	\$7,105	\$14,035	6.8
Lighting Controls Upgrade	\$7,054	\$36,750	\$4,145	\$32,605	4.6
LED Lighting Option	\$18,308	\$450,438	\$98,150	\$352,288	19.2
Commercial Kitchen Hood Controls	\$1,374	\$12,852	\$0	\$12,852	9.4
Condensing Boiler Installation	\$12,265	\$88,130	\$5,250	\$82,880	6.8
Demand Control Ventilation on Cafeteria	\$576	\$33,232	\$0	\$33,232	57.7
Vending Miser Controls	\$1,263	\$1,158	\$0	\$1,158	0.9
Walk in Freezer/Cooler Controls	\$75	\$648	\$0	\$648	8.7
<i>Design / Construction Extras (20%)</i>	<i>\$0</i>	<i>\$42,924</i>	<i>\$0</i>	<i>\$42,924</i>	
Total Project	\$29,572	\$257,542	\$16,500	\$241,042	8.2

Design / Construction Extras is shown as an additional cost for the facility project summary. This cost is included to estimate the costs associated with construction management fees for a larger combined project.

ECM #1: Lighting Upgrade – General

Description:

The majority of the interior lighting throughout Seneca High School is provided with fluorescent fixtures with older generation, 700 series 32W T8 lamps and electronic ballasts. Although these T8 lamps are considered fairly efficient, further energy savings can be achieved by replacing the existing T8 lamps with new generation, 800 series 28W T8 lamps without compromising light output. Concord recommends, re-lamping all of the fixtures with 28W T8 lamps and in some cases removing a lamp from the fixture due to excessive foot candle levels in specific areas. In addition, the kitchen hood contains incandescent lamps which should be replaced. It is recommended to retrofit or replace all of the older fluorescent fixtures and the incandescent lights in these areas with newer fluorescent fixtures and compact fluorescent lamps.

This ECM includes re-lamping of the existing fluorescent fixtures with 800 series, 28W T8 lamps. The ECM also includes retrofit of all older fluorescent fixtures with T8 or T5 fluorescent fixtures with electronic ballasts in the building. The new, energy efficient T8 fixtures will provide adequate lighting and will save on electrical costs due to better performance of the lamp and ballasts.

Energy Savings Calculations:

The **Investment Grade Lighting Audit Appendix** outlines the hours of operation, proposed retrofits, costs, savings, and payback periods for each set of fixtures in the each building.

Energy Savings Summary:

ECM #1 - ENERGY SAVINGS SUMMARY	
Installation Cost (\$):	\$53,941
NJ Smart Start Equipment Incentive (\$):	\$0
Net Installation Cost (\$):	\$53,941
Maintenance Savings (\$/Yr):	\$0
Energy Savings (\$/Yr):	\$5,463
Total Yearly Savings (\$/Yr):	\$5,463
Estimated ECM Lifetime (Yr):	15
Simple Payback	9.9
Simple Lifetime ROI	51.9%
Simple Lifetime Maintenance Savings	\$0
Simple Lifetime Savings	\$81,949
Internal Rate of Return (IRR)	6%
Net Present Value (NPV)	\$11,278.86

ECM #2: Lighting Upgrade – Gymnasium and Weight Room

Description:

The main gymnasium, classroom F112 and the weight room at Seneca High School are currently lit via 175 watt and 400 watt Metal Halide HID fixtures. The space would be better served with a more efficient, fluorescent lighting system. Concord recommends upgrading the lighting to an energy-efficient T-5 lighting system for the 400 watt metal halides and a T-8 lo-bay solution for the 175 watt metal halides that includes new lighting fixtures with high efficiency, electronic ballasts.

This measure replaces all the HID, 175 W and 400 W HID MH fixtures with a well-designed T-9 and T-5 lighting system. T5HO high bay fixtures and T8 lo-bay fixtures with reflectors and high-efficiency, electronic ballasts will be required in order to meet the mandated 50 foot-candle average within the spaces.

Energy Savings Calculations:

A detailed Investment Grade Lighting Audit can be found in **Investment Grade Lighting Audit Appendix** that outlines the proposed retrofits, costs, savings, and payback periods.

From the **Smart Start Incentive Appendix**, the replacement of a 400 W HID fixture to a T-5 or T-8 fixture warrants a \$100 per fixture incentive. Also the replacement of a 175 W HID fixture to a T-5 or T-8 fixture warrants a \$43 per fixture incentive.

Energy Savings Summary:

ECM #2 - ENERGY SAVINGS SUMMARY	
Installation Cost (\$):	\$21,140
NJ Smart Start Equipment Incentive (\$):	\$7,105
Net Installation Cost (\$):	\$14,035
Maintenance Savings (\$/Yr):	\$0
Energy Savings (\$/Yr):	\$2,078
Total Yearly Savings (\$/Yr):	\$2,078
Estimated ECM Lifetime (Yr):	15
Simple Payback	6.8
Simple Lifetime ROI	122.1%
Simple Lifetime Maintenance Savings	\$0
Simple Lifetime Savings	\$31,174
Internal Rate of Return (IRR)	12%
Net Present Value (NPV)	\$10,775.54

ECM #3: Lighting Controls Upgrade – Occupancy Sensors

Description:

Some of the lights in the Seneca High School are left on unnecessarily. In many cases the lights are left on because of the inconvenience to manually switch lights off when a room is left or on when a room is first occupied. This is common in rooms that are occupied for only short periods and only a few times per day. In some instances lights are left on due to the misconception that it is better to keep the lights on rather than to continuously switch lights on and off. Although increased switching reduces lamp life, the energy savings outweigh the lamp replacement costs. The payback timeframe for when to turn the lights off is approximately two minutes. If the lights are expected to be off for at least a two minute interval, then it pays to shut them off.

Lighting controls come in many forms. Sometimes an additional switch is adequate to provide reduced lighting levels when full light output is not needed. Occupancy sensors detect motion and will switch the lights on when the room is occupied. Occupancy sensors can either be mounted in place of a current wall switch, or on the ceiling to cover large areas.

The U.S. Department of Energy sponsored a study to analyze energy savings achieved through various types of building system controls. The referenced savings is based on the “Advanced Sensors and Controls for Building Applications: Market Assessment and Potential R&D Pathways,” document posted for public use April 2005. The study has found that commercial buildings have the potential to achieve significant energy savings through the use of building controls. The average energy savings are as follows based on the report:

- Occupancy Sensors for Lighting Control 20% - 28% energy savings.

Savings resulting from the implementation of this ECM for energy management controls are estimated to be 20% of the total light energy controlled by occupancy sensors (The majority of the savings is expected to be after school hours when rooms are left with lights on)

This ECM includes installation of ceiling or switch mount sensors for individual offices, classrooms, large bathrooms, and Media Centers. Sensors shall be manufactured by SensorSwitch, Watt Stopper or equivalent. The **Investment Grade Lighting Audit Appendix** of this report includes the summary of lighting controls implemented in this ECM and outlines the proposed controls, costs, savings, and payback periods. The calculations adjust the lighting power usage by the applicable percent savings for each area that includes lighting controls.

Energy Savings Calculations:

$$\text{Energy Savings} = (\% \text{ Savings} \times \text{Controlled Light Energy (kWh/Yr)})$$

$$\text{Savings} = \text{Energy Savings (kWh)} \times \text{Ave Elec Cost} \left(\frac{\$}{\text{kWh}} \right)$$

Rebates and Incentives:

From the **NJ Smart Start[®] Program Incentives Appendix**, the installation of a lighting control device warrants the following incentive:

Smart Start Incentive

$$= (\# \text{ Wall mount sensors} \times \$20 \text{ per sensor}) \\ + (\# \text{ Ceiling mount sensors} \times \$35 \text{ per sensor})$$

Energy Savings Summary:

ECM #3 - ENERGY SAVINGS SUMMARY	
Installation Cost (\$):	\$36,750
NJ Smart Start Equipment Incentive (\$):	\$4,145
Net Installation Cost (\$):	\$32,605
Maintenance Savings (\$/Yr):	\$0
Energy Savings (\$/Yr):	\$7,054
Total Yearly Savings (\$/Yr):	\$7,054
Estimated ECM Lifetime (Yr):	15
Simple Payback	4.6
Simple Lifetime ROI	224.5%
Simple Lifetime Maintenance Savings	\$0
Simple Lifetime Savings	\$105,804
Internal Rate of Return (IRR)	20%
Net Present Value (NPV)	\$51,600.77

ECM #4: Lighting Upgrade – LED Option

Description:

The District is currently researching new light emitting diode (LED) technology replacements for its linear fluorescent tube fixtures. As such the district is currently conducting a mock up at one of its facilities to review the applicability of installing these lamps. As an additional lighting upgrade option Concord has reviewed the fixture being used in the mock up and performed an analysis on retrofitting the existing linear fluorescent fixtures to a new Finelite LED high performance recessed troffer. While in some instances the installation of these fixtures may not provide a reduced input wattage when compared to a high efficiency fluorescent, the fixtures do come with a ten year warranty on all components. The extended burn hour performance and warranty period will reduce maintenance costs for the district associated with re-lamping of the existing fluorescent fixtures.

Energy Savings Calculations:

The **Investment Grade Lighting Audit Appendix** outlines the hours of operation, proposed retrofits, costs, savings, and payback periods for each set of fixtures in the each building.

Energy Savings Summary:

ECM #4 - ENERGY SAVINGS SUMMARY	
Installation Cost (\$):	\$450,438
NJ Smart Start Equipment Incentive (\$):	\$98,150
Net Installation Cost (\$):	\$352,288
Maintenance Savings (\$/Yr):	\$0
Energy Savings (\$/Yr):	\$18,308
Total Yearly Savings (\$/Yr):	\$18,308
Estimated ECM Lifetime (Yr):	15
Simple Payback	19.2
Simple Lifetime ROI	-22.0%
Simple Lifetime Maintenance Savings	\$0
Simple Lifetime Savings	\$274,620
Internal Rate of Return (IRR)	-3%
Net Present Value (NPV)	(\$133,728.28)

ECM #5: Commercial Kitchen Exhaust Hood Controls

Description:

The main kitchen has a large commercial kitchen exhaust hood for the cooking equipment. The estimated total kitchen exhaust from the hood is 7,200 CFM powered by a total 3 HP of exhaust. The kitchen make-up air/main kitchen conditioning units provide heated and cooled air to replace all the air exhausted through the exhaust hood. The exhaust system operates based on manual switches located in the kitchen. Currently the facility provides 1 meal per day. The installation of kitchen exhaust controls would significantly reduce the total kitchen exhaust and make-up air quantity. The conditioned make up air and exhausted air savings are achieved by monitoring the exhaust hoods based on the actual use of the kitchen equipment. Temperature sensors and optical lasers monitor the heat and smoke production at each exhaust hood to reduce the exhaust and make-up airflow based on the need of the kitchen equipment.

This ECM includes installation of kitchen exhaust controls for the main kitchen exhaust hoods and VFD's for the constant volume exhaust fans. The hoods would be retrofitted with temperature and laser sensors to monitor the activity of each of all equipment installed below the hoods. The work involves installing a Melink Kitchen Hood Variable Air Volume Controller; variable frequency drive on the kitchen hood exhaust fan; and turn off all the kitchen hood exhaust systems when the kitchen is closed. When the cooking appliances are turned on, the hood exhaust fan speed will increase based on the hood exhaust temperature. During heavy cooking, the kitchen hood exhaust fan increases to 100% speed until the smoke/vapor is removed. Energy savings are also realized when the kitchen equipment is operating at less than full load due to minimal cooking operations. During these times the fan speed decreases, removing only the necessary amount of air, saving exhaust fan energy and make up air conditioning energy.

Energy Calculations Summary:

Detailed calculations for the proposed kitchen hood control system can be found in the **Kitchen Exhaust Calculations Appendix**. It is pertinent to note that the calculation assumes the exhaust fans and make-up air unit operate for approximately 10 hours per day, 5 days per week, and 42 weeks per year.

A summary of energy savings can be seen in the table below:

KITCHEN EXHAUST CONTROLS CALCULATION			
ECM INPUTS	EXISTING	PROPOSED	SAVINGS
ECM INPUTS	Manually Controlled Kitchen Exhaust	MELINK Kitchen Exhaust Controls	
Fan Energy Usage (kWh)	3,917	1,514	2,402
Heating Energy Usage (Therms)	2,726	1,717	1,009
Cooling Energy Usage (kWh)	2,218	1,397	
Average Gas Cost (\$/Therm)	1.03	1.03	
Electric Cost (\$/KWH)	0.104	0.104	
SAVINGS CALCULATIONS			
ECM RESULTS	EXISTING	PROPOSED	SAVINGS
Total Energy Usage (kWh)	6,134	2,911	3,223
Total Energy Usage (Therms)	2,726	1,717	1,009
Gas Energy Cost (\$)	\$2,807	\$1,769	\$1,039
Electric Energy Cost (\$)	\$638	\$303	\$335
Total Energy Cost (\$)	\$3,445	\$2,071	\$1,374
COMMENTS:	*ECM is based on calculations using spreadsheets provided by MELINK Intelli-hood controls manufacturer.		

Project Cost, Incentives and Maintenance Savings:

Installed cost for both kitchen hood control system is \$13,000. Currently, there aren't any incentives from the Smart Start program for motors smaller than 5 HP.

Energy Savings Summary:

ECM #5 - ENERGY SAVINGS SUMMARY	
Installation Cost (\$):	\$12,852
NJ Smart Start Equipment Incentive (\$):	\$0
Net Installation Cost (\$):	\$12,852
Maintenance Savings (\$/Yr):	\$0
Energy Savings (\$/Yr):	\$1,374
Total Yearly Savings (\$/Yr):	\$1,374
Estimated ECM Lifetime (Yr):	15
Simple Payback	9.4
Simple Lifetime ROI	60.4%
Simple Lifetime Maintenance Savings	\$0
Simple Lifetime Savings	\$20,610
Internal Rate of Return (IRR)	7%
Net Present Value (NPV)	\$3,550.72

ECM #6: Condensing Boiler Installation

Description:

The Bryan boilers are used as the primary source of heat for the building. The boilers are only ten years and in good operating condition, however are non-condensing type boilers. While these boilers are fairly efficient the installation of condensing boilers to operate during the non-peak heating season months would provide the facility with the ability to circulate a lower heating supply water temperature and allow the boiler to operate in condensing mode at a higher efficiency than a standard boiler.

This ECM would install a single AERCO Benchmark series 3,000 MBH boiler with controls to be tied into the existing hot water loop. The controls will need to be integrated with the existing Bryan boilers to operate the condensing boiler during non-peak heating times.

Energy Savings Calculations:

Existing Heating Natural Gas: 122,757 Therms

Non-peak Heating Season Gas: 64,441 Therms

$$\text{Bldg Heat Required} = \text{Existing Nat Gas (Therms)} \times \text{Heating Eff. (\%)} \times \text{Fuel Heat Value} \left(\frac{\text{BTU}}{\text{Therm}} \right)$$

$$\text{Proposed Heating Gas Usage} = \frac{\text{Bldg Heat Required (BTU)}}{\text{Heating Eff. (\%)} \times \text{Fuel Heat Value} \left(\frac{\text{BTU}}{\text{Therm}} \right)}$$

$$\text{Energy Cost} = \text{Heating Gas Usage (Therms)} \times \text{Ave Fuel Cost} \left(\frac{\$}{\text{Therm}} \right)$$

CONDENSING BOILER CALCULATIONS			
ECM INPUTS	EXISTING	PROPOSED	SAVINGS
ECM INPUTS	Existing Cast Iron Boilers	New Condensing Boilers	
Heating Nat Gas (Therms)	122,757		
Mar-May, Oct-Nov Heating (Therms)	64,441		
Boiler Efficiency (%)	75%	92%	17%
Nat Gas Heat Value (BTU/Therm)	100,000	100,000	
Equivalent Building Heat Usage (MMBTUs)	4,833	4,833	
Gas Cost (\$/Therm)	1.03	1.03	
ENERGY SAVINGS CALCULATIONS			
ECM RESULTS	EXISTING	PROPOSED	SAVINGS
Natural Gas Usage (Therms)	64,441	52,534	11,908
Energy Cost (\$)	\$66,375	\$54,110	\$12,265
COMMENTS:			

Installation cost of the one new 3000 MBH condensing boilers, demolition, flue piping, boiler water piping modifications, gas piping modifications, electric, etc. is estimated to be \$88,130.

From the **NJ Smart Start Appendix**, the installation of new condensing boilers warrants the following incentive: \$1.75 per MBH.

$$\text{Smart Start}^{\circledR} \text{ Incentive} = (\text{Boiler MBH} \times \$1.75) = (3000 \times \$1.75) = \$5,250$$

Energy Savings Summary:

ECM #6 - ENERGY SAVINGS SUMMARY	
Installation Cost (\$):	\$88,130
NJ Smart Start Equipment Incentive (\$):	\$5,250
Net Installation Cost (\$):	\$82,880
Maintenance Savings (\$/Yr):	\$0
Energy Savings (\$/Yr):	\$12,265
Total Yearly Savings (\$/Yr):	\$12,265
Estimated ECM Lifetime (Yr):	24
Simple Payback	6.8
Simple Lifetime ROI	255.2%
Simple Lifetime Maintenance Savings	0
Simple Lifetime Savings	\$294,360
Internal Rate of Return (IRR)	14%
Net Present Value (NPV)	\$124,834.74

ECM #7: Demand Controlled Ventilation

Demand Controlled Ventilation (DCV) is a means to provide active, zone level control of ventilation for spaces within a facility. The basic premise behind DCV is monitoring indoor CO₂ levels versus outdoor CO₂ levels in order to provide proper ventilation to the spaces within the facility as well as saving costly dollars treating unconditioned ventilation air. Carbon dioxide ventilation control or demand controlled ventilation (DCV) allows for the measurement and control of outside air ventilation levels to a target cfm/person ventilation rate in the space (i.e., 15 cfm/person) based on the number of people in the space. It is a direct measure of ventilation effectiveness and is a method whereby buildings can regain active and automatic zone level ventilation control, without having to open windows. The fixed ventilation approach depends on a set-it-and-forget-it methodology that is completely unresponsive to changes in the way spaces are utilized/occupied or how equipment is maintained. A DCV system utilizes various control algorithms to maintain a base ventilation rate. The system monitors space CO₂ levels and the algorithm automatically adjusts the outdoor and return air dampers to provide the quantity of outdoor air to maintain the required CO₂ level in the space. System designs are normally designed for maximum occupancy and the ventilation rates are designed for this (maximum) occupancy. In areas where occupancy swings are prevalent there is ample opportunity to reduce outdoor air quantity to satisfy the needs of the actual number of occupants present. By installing the DCV controls, energy savings are realized by the reduced quantities of outdoor air that do not require heating and cooling energy from the steam and chilled water plants.

Packaged rooftop units for the cafeteria provide heating and air conditioning to the entire cafeteria. When operating, these units provide minimum amount of outside air to the space. The outside air volume is typically based on the maximum occupancy of the space conditioned. When a given space is not fully occupied the outside air quantity delivered to the space is greater than the amount needed for adequate ventilation.

This ECM includes the installation of CO₂ sensors integrated into a demand control ventilation system, for the units mentioned above. This system allows the air handling unit to respond to changes in occupancy and therefore reduce the amount of outside air that has to be conditioned. Outside air accounts for a large portion of the energy consumption in the HVAC system, especially in high occupancy spaces. The U.S. Department of Energy sponsored a study to analyze energy savings achieved through various types of building system controls. The referenced savings is based on the “Advanced Sensors and Controls for Building Applications: Market Assessment and Potential R&D Pathways,” document posted for public use April 2005. The study has found that commercial buildings have the potential to achieve significant energy savings through the use of building controls. The average energy savings are as follows based on the report:

- Demand Control Ventilation - 10% - 15%.

Energy savings achieved through “Demand Control Ventilation” average 10%-15%. Savings resulting from the implementation of this ECM for energy management controls vary depending on the room type.

The components required for the demand control ventilation system installation include CO₂ sensors, control wiring, electrical wiring, and programming. Each occupied zone would require minimum one CO₂ sensor installed to monitor occupancy levels.

IMPLEMENTATION SUMMARY									
INPUTS	Service	Min # of CO ₂ SENSORS	HVAC Unit	Cooling Capacity, Tons	Cooling Efficiency, EER	Heating Capacity, MBH	Heating Efficiency, AFUE%	HX Effectiveness, Summer	HX Effectiveness, Winter
DCV-1	Cafeteria 1	4	McQuay	32.0	11.00	388	79.4%	75.9%	76.9%
DCV-2	Cafeteria 2	4	McQuay	32.0	11.00	380	79.4%	75.9%	76.9%
Total		8		64		769			

Energy Savings Calculations:

$$\text{Cooling Energy Usage} = \frac{\text{Cooling (Tons)} \times 12,000 \left(\frac{\text{Btu}}{\text{Ton hr}} \right) \times \text{Annual Full Load Cooling Hrs.}}{1000 \left(\frac{\text{Wh}}{\text{kWh}} \right) \times \text{EER} \left(\frac{\text{Btu}}{\text{Wh}} \right)}$$

$$\text{Energy Savings} = \text{Cooling Energy (kWh)} \times 15\%$$

$$\text{Cooling Cost} = \text{Energy Usage (kWh)} \times \text{Ave Electric Cost} \left(\frac{\$}{\text{kWh}} \right)$$

$$\text{Heating Energy (Therms)} = \frac{\text{Heating Capacity} \left(\frac{\text{Btu}}{\text{Hr.}} \right) \times \text{HDD (Day } ^\circ\text{F)} \times 12 \left(\frac{\text{Hr.}}{\text{Day}} \right)}{65(^{\circ}\text{F}) \times \text{Fuel Heat Value} \left(\frac{\text{Btu}}{\text{Therms}} \right) \times \text{Heating Efficiency (\%)}}$$

$$\text{Heating Cost} = \text{Heating Energy (Therms)} \times \text{Ave Fuel Cost} \left(\frac{\$}{\text{Therms}} \right)$$

The following tables represent the rooftop units which will be used to install demand control ventilation.

Energy Savings = 15%

DEMAND CONTROLLED VENTILATION	
ECM INPUTS	DCV
Equipment	Cafeteria Units
Total Cooling Capacity, Tons	64
Weighted Average Efficiency (EER)	11.00
Annual Full Load Cooling Hours	900
Total Heating Capacity, MBh	769
Weighted Average Heating Efficiency (Gas)	76.9%
Heating Degree Days (65°F)	4294
Energy Recovery Weighted Average Summer Effectiveness	0.759
Energy Recovery Weighted Average Winter Effectiveness	0.769
Energy Savings	15.0%
Elec Cost (\$/kWh)	\$0.104
Natural Gas Cost (\$/Therm)	\$1.03
ENERGY SAVINGS	
ECM RESULTS	DCV
Cooling Energy Consumption, kWh	15,144
Heating Energy (Therms)	2,196
Cooling Energy Savings kWh	2,272
Heating Energy Savings (Therms)	329
Electric Energy Cost Savings (\$)	\$236
Total Gas Cost Savings (\$)	\$339
Total Cost Savings (\$)	\$576
COMMENTS:	HDD estimated based on Mount Holly, NJ

Energy Savings Summary:

ECM #7 - ENERGY SAVINGS SUMMARY	
Installation Cost (\$):	\$33,232
NJ Smart Start Equipment Incentive (\$):	\$0
Net Installation Cost (\$):	\$33,232
Maintenance Savings (\$/Yr):	\$0
Energy Savings (\$/Yr):	\$576
Total Yearly Savings (\$/Yr):	\$576
Estimated ECM Lifetime (Yr):	15
Simple Payback	57.7
Simple Lifetime ROI	-74.0%
Simple Lifetime Maintenance Savings	\$0
Simple Lifetime Savings	\$8,640
Internal Rate of Return (IRR)	-13%
Net Present Value (NPV)	(\$26,355.75)

ECM #8: Vending Miser Controls

Description:

The Seneca High School currently utilizes vending machines in select areas within the building. Vending machines are common within cafeterias, faculty rooms, and gymnasium lobbies which can be in use for a limited time during the day. The installation of the Vending Miser system will help reduce the operating hours of vending machines.

Cold beverage machines regularly operate inefficiently trying to maintain a constant cool temperature within the machine and snack machines with no cooling usually have lights that operate 24/7. The VendingMiser® system incorporates innovative energy-saving technology into a small plug-and-play device that in conjunction with a passive infrared sensor regulate the operation of the cold beverage and snack machines based on occupancy and room temperature. This ECM approximates the installation of seven (7) of these control systems, two (2) for the snack machine and five (5) for the cold beverage machine.

Energy Savings Calculations:

VENDING MISER ENERGY SAVINGS SUMMARY			
ECM INPUT	EXISTING	PROPOSED	SAVINGS
Quantity Snack	2	2	
Quantity Drink	5	5	
Facility Occupied Hrs/Week	50	50	
Avg. Snack Machine (W)	100	100	
Avg. Drink Machine (W)	427	427	
Snack Machine Usage (kWh)	1,747	520	1,227
Drink Machine Usage (kWh)	18,715	7,798	10,917
Electric Cost (\$/kWh)	\$0.104	\$0.104	
Energy Cost	\$2,128	\$865	\$1,263
COMMENTS:	Savings Based on Manufacturers Calculation		

Calculations are based off the manufacturer's calculation spreadsheet

Project Cost, Incentives and Maintenance Savings:

There is no expected maintenance cost impact for this measure.

PROJECT COST ESTIMATE	
DESCRIPTION	VALUE (\$)
Estimated Construction Cost	\$1,158
Less NJOCE Incentives	\$0
Net Construction Cost	\$1,158

Energy Savings Summary:

ECM #8 - ENERGY SAVINGS SUMMARY	
Installation Cost (\$):	\$1,158
NJ Smart Start Equipment Incentive (\$):	\$0
Net Installation Cost (\$):	\$1,158
Maintenance Savings (\$/Yr):	\$0
Energy Savings (\$/Yr):	\$1,263
Total Yearly Savings (\$/Yr):	\$1,263
Estimated ECM Lifetime (Yr):	10
Simple Payback	0.9
Simple Lifetime ROI	990.7%
Simple Lifetime Maintenance Savings	\$0
Simple Lifetime Savings	\$12,630
Internal Rate of Return (IRR)	109%
Net Present Value (NPV)	\$9,615.65

ECM #9: Walk-in Cooler/Freezer Controls**Description:**

The single refrigerated walk-in cooler/freezer has a bank of evaporator fans that circulate the cold air over and under the food. These banks of evaporator fans (1/20 HP motors) run continuously and give off heat that must be removed by the refrigeration.

This measure would install an evaporator fan controller that features two-speed operation of the evaporator fans – high speed during cooling, and low speed when not cooling manufactured by Frigitek or equivalent. The estimated energy savings assumes that the cooler is not opened for 10 hours per day.

Energy Savings Calculations:

Installing controllers on each of the three evaporator fan motors in the one walk-in cooler/freezers would save approximately 60 kWh/month x 12 months = 719.4 kWh/Year.

Annual Energy Cost Savings = 719.4 kWh x \$0.104/kWh = \$74.82/Year

Energy Savings Summary:

ECM #9 - ENERGY SAVINGS SUMMARY	
Installation Cost (\$):	\$648
NJ Smart Start Equipment Incentive (\$):	\$0
Net Installation Cost (\$):	\$648
Maintenance Savings (\$/Yr):	\$0
Energy Savings (\$/Yr):	\$75
Total Yearly Savings (\$/Yr):	\$75
Estimated ECM Lifetime (Yr):	10
Simple Payback	8.7
Simple Lifetime ROI	15.5%
Simple Lifetime Maintenance Savings	\$0
Simple Lifetime Savings	\$748
Internal Rate of Return (IRR)	3%
Net Present Value (NPV)	(\$9.32)

REM #1: 1.34 MW Solar PV**Description:**

The Seneca High School has available roof space, parking lot, and ground area that would be ideal for the installation of solar panels to generate electricity. Based on our review and assuming the roof areas selected can accommodate the additional panel weight loading a total system size of 1,346 kWDC could be installed. The system would generate an estimated 1,577,392 kilowatt-hours annually reducing the overall electric consumption of the facility by 47%.

Energy Savings Calculations:

See **Renewable / Distributed Energy Measures Calculations Appendix** for detailed financial summary and proposed solar layout areas.

Energy Savings Summary:

REM #1 - ENERGY SAVINGS SUMMARY	
System Size (KW_{DC}):	1,346.32
Electric Generation (KWH/Yr):	1,577,392
Installation Cost (\$):	\$7,732,559
SREC Revenue (\$/Yr):	\$301,415
Energy Savings (\$/Yr):	\$164,049
Total Yearly Savings (\$/Yr):	\$465,464
ECM Analysis Period (Yr):	15
Simple Payback (Yrs):	16.6
Analysis Period Electric Savings (\$):	\$3,051,129
Analysis Period SREC Revenue (\$):	\$4,366,364
Net Present Value (NPV)	(\$2,199,023.05)

V. ADDITIONAL RECOMMENDATIONS

The following recommendations include no cost/low cost measures, Operation & Maintenance (O&M) items, and water conservation measures with attractive paybacks. These measures are not eligible for the Smart Start Buildings incentives from the office of Clean Energy but save energy none the less.

- A. Chemically clean the condenser and evaporator coils periodically to optimize efficiency. Poorly maintained heat transfer surfaces can reduce efficiency 5-10%.
- B. Maintain all weather stripping on windows and doors.
- C. Clean all light fixtures to maximize light output.
- D. Provide more frequent air filter changes to decrease overall system power usage and maintain better IAQ.
- E. Turn off computers when not in use. Ensure computers are not running in screen saver mode which saves the monitor screen not energy.
- F. Ensure outside air dampers are functioning properly and only open during occupied mode.

APPENDIX A

ECM COST & SAVINGS BREAKDOWN
CONCORD ENGINEERING GROUP

LRIHSD - Seneca High School

ECM ENERGY AND FINANCIAL COSTS AND SAVINGS SUMMARY															
ECM NO.	DESCRIPTION	INSTALLATION COST				YEARLY SAVINGS			ECM LIFETIME	LIFETIME ENERGY SAVINGS	LIFETIME MAINTENANCE SAVINGS	LIFETIME ROI	SIMPLE PAYBACK	INTERNAL RATE OF RETURN	NET PRESENT VALUE (NPV)
		MATERIAL	LABOR	REBATES, INCENTIVES	NET INSTALLATION COST	ENERGY	MAINT. / SREC	TOTAL		(Yearly Saving * ECM Lifetime)	(Yearly Maint Scaling * ECM Lifetime)	(Lifetime Savings - Net Cost) / (Net Cost)	(Net cost / Yearly Savings)	$\sum_{n=0}^N \frac{C_n}{(1+IRR)^n}$	$\sum_{n=0}^N \frac{C_n}{(1+DR)^n}$
		(\$)	(\$)	(\$)	(\$)	(\$/Yr)	(\$/Yr)	(\$/Yr)		(\$)	(\$)	(%)	(Yr)	(\$)	(\$)
ECM #1	Lighting Upgrade - General	\$53,941	\$0	\$0	\$53,941	\$5,463	\$0	\$5,463	15	\$81,949	\$0	51.9%	9.9	5.75%	\$11,278.86
ECM #2	Lighting Upgrade - Gym & Weight Room	\$21,140	\$0	\$7,105	\$14,035	\$2,078	\$0	\$2,078	15	\$31,174	\$0	122.1%	6.8	12.16%	\$10,775.54
ECM #3	Lighting Controls Upgrade	\$36,750	\$0	\$4,145	\$32,605	\$7,054	\$0	\$7,054	15	\$105,804	\$0	224.5%	4.6	20.28%	\$51,600.77
ECM #4	LED Lighting Option	\$450,438	\$0	\$98,150	\$352,288	\$18,308	\$0	\$18,308	15	\$274,620	\$0	-22.0%	19.2	-2.96%	(\$133,728.28)
ECM #5	Commercial Kitchen Hood Controls	\$4,284	\$8,568	\$0	\$12,852	\$1,374	\$0	\$1,374	15	\$20,610	\$0	60.4%	9.4	6.58%	\$3,550.72
ECM #6	Condensing Boiler Installation	\$55,005	\$33,125	\$5,250	\$82,880	\$12,265	\$0	\$12,265	24	\$294,360	\$0	255.2%	6.8	14.19%	\$124,834.74
ECM #7	Demand Control Ventilation on Cafeteria Units	\$33,232	\$0	\$0	\$33,232	\$576	\$0	\$576	15	\$8,640	\$0	-74.0%	57.7	-13.48%	(\$26,355.75)
ECM #8	Vending Miser Controls	\$1,158	\$0	\$0	\$1,158	\$1,263	\$0	\$1,263	10	\$12,630	\$0	990.7%	0.9	109.00%	\$9,615.65
ECM #9	Walk in Freezer/Cooler Controls	\$648	\$0	\$0	\$648	\$75	\$0	\$75	10	\$748	\$0	15.5%	8.7	2.72%	(\$9.32)
REM RENEWABLE ENERGY AND FINANCIAL COSTS AND SAVINGS SUMMARY															
REM #1	1.34 MW PV System	\$4,639,535	\$3,093,023	\$0	\$7,732,559	\$164,049	\$301,415	\$465,464	15	\$6,981,960	\$4,521,229	-9.7%	16.6	-1.25%	(\$2,175,879.29)

Notes: 1) The variable Cn in the formulas for Internal Rate of Return and Net Present Value stands for the cash flow during each period.
2) The variable DR in the NPV equation stands for Discount Rate
3) For NPV and IRR calculations: From n=0 to N periods where N is the *lifetime of ECM* and Cn is the *cash flow during each period* .

APPENDIX B

Concord Engineering Group, Inc.

520 BURNT MILL ROAD
VOORHEES, NEW JERSEY 08043
PHONE: (856) 427-0200
FAX: (856) 427-6508



SmartStart Building Incentives

The NJ SmartStart Buildings Program offers financial incentives on a wide variety of building system equipment. The incentives were developed to help offset the initial cost of energy-efficient equipment. The following tables show the current available incentives as of February 15, 2011:

Electric Chillers

Water-Cooled Chillers	\$12 - \$170 per ton
Air-Cooled Chillers	\$8 - \$52 per ton

Energy Efficiency must comply with ASHRAE 90.1-2007

Gas Cooling

Gas Absorption Chillers	\$185 - \$400 per ton
Gas Engine-Driven Chillers	Calculated through custom measure path)

Desiccant Systems

\$1.00 per cfm – gas or electric

Electric Unitary HVAC

Unitary AC and Split Systems	\$73 - \$92 per ton
Air-to-Air Heat Pumps	\$73 - \$92 per ton
Water-Source Heat Pumps	\$81 per ton
Packaged Terminal AC & HP	\$65 per ton
Central DX AC Systems	\$40- \$72 per ton
Dual Enthalpy Economizer Controls	\$250
Occupancy Controlled Thermostat (Hospitality & Institutional Facility)	\$75 per thermostat

Energy Efficiency must comply with ASHRAE 90.1-2007

Gas Heating

Gas Fired Boilers < 300 MBH	\$300 per unit
Gas Fired Boilers ≥ 300 - 1500 MBH	\$1.75 per MBH
Gas Fired Boilers ≥1500 - ≤ 4000 MBH	\$1.00 per MBH
Gas Fired Boilers > 4000 MBH	(Calculated through Custom Measure Path)
Gas Furnaces	\$300 - \$400 per unit, AFUE ≥ 92%

Ground Source Heat Pumps

Closed Loop	\$450 per ton, EER $\geq$ 16 \$600 per ton, EER $\geq$ 18 \$750 per ton, EER $\geq$ 20
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Energy Efficiency must comply with ASHRAE 90.1-2007

Variable Frequency Drives

Variable Air Volume	\$65 - \$155 per hp
Chilled-Water Pumps	\$60 per VFD rated hp
Compressors	\$5,250 to \$12,500 per drive
Cooling Towers $\geq$ 10 hp	\$60 per VFD rated hp

Natural Gas Water Heating

Gas Water Heaters $\leq$ 50 gallons, 0.67 energy factor or better	\$50 per unit
Gas-Fired Water Heaters $>$ 50 gallons	\$1.00 - \$2.00 per MBH
Gas-Fired Booster Water Heaters	\$17 - \$35 per MBH
Gas Fired Tankless Water Heaters	\$300 per unit

Prescriptive Lighting

Retro fit of T12 to T-5 or T-8 Lamps w/Electronic Ballast in Existing Facilities	\$10 per fixture (1-4 lamps)
Replacement of T12 with new T-5 or T-8 Lamps w/Electronic Ballast in Existing Facilities	\$25 per fixture (1-4 lamps)
Replacement of incandescent with screw-in PAR 38 or PAR 30 (CFL) bulb	\$7 per bulb
T-8 reduced Wattage (28w/25w 4', 1-4 lamps) Lamp & ballast replacement	\$10 per fixture
Hard-Wired Compact Fluorescent	\$25 - \$30 per fixture
Metal Halide w/Pulse Start Including Parking Lot	\$25 per fixture
T-5 and T-8 High Bay Fixtures	\$16 - \$200 per fixture
HID $\geq$ 100w Retrofit with induction lamp, power coupler and generator (must be 30% less watts/fixture than HID system)	\$50 per fixture
HID $\geq$ 100w Replacement with new HID $\geq$ 100w	\$70 per fixture

Prescriptive Lighting - LED

LED New Exit Sign Fixture Existing Facility < 75 kw Existing Facility > 75 kw	\$20 per fixture \$10 per fixture
LED Display Case Lighting	\$30 per display case
LED Shelf-Mtd. Display & Task Lights	\$15 per linear foot
LED Portable Desk Lamp	\$20 per fixture
LED Wall-wash Lights	\$30 per fixture
LED Recessed Down Lights	\$35 per fixture
LED Outdoor Pole/Arm-Mounted Area and Roadway Luminaries	\$175 per fixture
LED Outdoor Pole/Arm-Mounted Decorative Luminaries	\$175 per fixture
LED Outdoor Wall-Mounted Area Luminaries	\$100 per fixture
LED Parking Garage Luminaries	\$100 per fixture
LED Track or Mono-Point Directional Lighting Fixtures	\$50 per fixture
LED High-Bay and Low-Bay Fixtures for Commercial & Industrial Bldgs.	\$150 per fixture
LED High-Bay-Aisle Lighting	\$150 per fixture
LED Bollard Fixtures	\$50 per fixture
LED Linear Panels (2x2 Troffers only)	\$100 per fixture
LED Fuel Pump Canopy	\$100 per fixture
LED Refrigerator/Freezer case lighting replacement of fluorescent in medium and low temperature display case	\$42 per 5 foot \$65 per 6 foot

Lighting Controls – Occupancy Sensors

Wall Mounted	\$20 per control
Remote Mounted	\$35 per control
Daylight Dimmers	\$25 per fixture
Occupancy Controlled hi-low Fluorescent Controls	\$25 per fixture controlled

Lighting Controls – HID or Fluorescent Hi-Bay Controls

Occupancy hi-low	\$75 per fixture controlled
Daylight Dimming	\$75 per fixture controlled
Daylight Dimming - office	\$50 per fixture controlled

Premium Motors

Three-Phase Motors	\$45 - \$700 per motor
Fractional HP Motors Electronic Communicated Motors (replacing shaded pole motors in refrigerator/freezer cases)	\$40 per electronic communicated motor

Other Equipment Incentives

Performance Lighting	\$1.00 per watt per SF below program incentive threshold, currently 5% more energy efficient than ASHRAE 90.1- 2007 for New Construction and Complete Renovation
Custom Electric and Gas Equipment Incentives	not prescriptive
Custom Measures	\$0.16 KWh and \$1.60/Therm of 1st year savings, or a buy down to a 1 year payback on estimated savings. Minimum required savings of 75,000 KWh or 1,500 Therms and a IRR of at least 10%.
Multi Measures Bonus	15%

APPENDIX C



STATEMENT OF ENERGY PERFORMANCE

4 - LRHSD - Seneca High School

Building ID: 2997841

For 12-month Period Ending: May 31, 2011¹

Date SEP becomes ineligible: N/A

Date SEP Generated: March 06, 2012

Facility

4 - LRHSD - Seneca High School
110 Carranza Road
Tabernacle, NJ 08088

Facility Owner

Lenape Regional High School District
93 Willow Grove Road
Shamong, NJ 08088

Primary Contact for this Facility

James Hager
93 Willow Grove Road
Shamong, NJ 08088

Year Built: 2003

Gross Floor Area (ft²): 255,736Energy Performance Rating² (1-100) 25**Site Energy Use Summary³**

Electricity - Grid Purchase(kBtu)	11,572,685
Natural Gas (kBtu) ⁴	13,298,676
Total Energy (kBtu)	24,871,361

Energy Intensity⁴

Site (kBtu/ft ² /yr)	97
Source (kBtu/ft ² /yr)	206

Emissions (based on site energy use)

Greenhouse Gas Emissions (MtCO ₂ e/year)	2,346
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Electric Distribution Utility

Atlantic City Electric Co [Pepco Holdings Inc]

National Median Comparison

National Median Site EUI	77
National Median Source EUI	164
% Difference from National Median Source EUI	26%
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.

Meets Industry Standards⁵ for Indoor Environmental Conditions:

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

Certifying Professional

Michael Fischette
520 South Burnt Mill Road
Voorhees, NJ 08043

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.

ENERGY STAR® Data Checklist for Commercial Buildings

In order for a building to qualify for the ENERGY STAR, a Professional Engineer (PE) or a Registered Architect (RA) must validate the accuracy of the data underlying the building's energy performance rating. This checklist is designed to provide an at-a-glance summary of a property's physical and operating characteristics, as well as its total energy consumption, to assist the PE or RA in double-checking the information that the building owner or operator has entered into Portfolio Manager.

Please complete and sign this checklist and include it with the stamped, signed Statement of Energy Performance.

NOTE: You must check each box to indicate that each value is correct, OR include a note.

CRITERION	VALUE AS ENTERED IN PORTFOLIO MANAGER	VERIFICATION QUESTIONS	NOTES	☒
Building Name	4 - LRHSD - Seneca High School	Is this the official building name to be displayed in the ENERGY STAR Registry of Labeled Buildings?		☐
Type	K-12 School	Is this an accurate description of the space in question?		☐
Location	110 Carranza Road, Tabernacle, NJ 08088	Is this address accurate and complete? Correct weather normalization requires an accurate zip code.		☐
Single Structure	Single Facility	Does this SEP represent a single structure? SEPs cannot be submitted for multiple-building campuses (with the exception of a hospital, k-12 school, hotel and senior care facility) nor can they be submitted as representing only a portion of a building.		☐
LRHSD - Seneca High School (K-12 School)				
CRITERION	VALUE AS ENTERED IN PORTFOLIO MANAGER	VERIFICATION QUESTIONS	NOTES	☒
Gross Floor Area	255,736 Sq. Ft.	Does this square footage include all supporting functions such as kitchens and break rooms used by staff, storage areas, administrative areas, elevators, stairwells, atria, vent shafts, etc. Also note that existing atriums should only include the base floor area that it occupies. Interstitial (plenum) space between floors should not be included in the total. Finally gross floor area is not the same as leasable space. Leasable space is a subset of gross floor area.		☐
Open Weekends?	No	Is this building normally open at all on the weekends? This includes activities beyond the work conducted by maintenance, cleaning, and security personnel. Weekend activity could include any time when the space is used for classes, performances or other school or community activities. If the building is open on the weekend as part of the standard schedule during one or more seasons, the building should select ?yes? for open weekends. The ?yes? response should apply whether the building is open for one or both of the weekend days.		☐
Number of PCs	745	Is this the number of personal computers in the K12 School?		☐
Number of walk-in refrigeration/freezer units	1	Is this the total number of commercial walk-in type freezers and coolers? These units are typically found in storage and receiving areas.		☐
Presence of cooking facilities	Yes	Does this school have a dedicated space in which food is prepared and served to students? If the school has space in which food for students is only kept warm and/or served to students, or has only a galley that is used by teachers and staff then the answer is "no".		☐
Percent Cooled	70 %	Is this the percentage of the total floor space within the facility that is served by mechanical cooling equipment?		☐
Percent Heated	100 %	Is this the percentage of the total floor space within the facility that is served by mechanical heating equipment?		☐
Months	10(Optional)	Is this school in operation for at least 8 months of the year?		☐

High School?	Yes	Is this building a high school (teaching grades 10, 11, and/or 12)? If the building teaches to high school students at all, the user should check 'yes' to 'high school'. For example, if the school teaches to grades K-12 (elementary/middle and high school), the user should check 'yes' to 'high school'.	☐
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ENERGY STAR® Data Checklist for Commercial Buildings

Energy Consumption

Power Generation Plant or Distribution Utility: Atlantic City Electric Co [Pepco Holdings Inc]

Fuel Type: Electricity		
Meter: Electric (kWh (thousand Watt-hours)) Space(s): Entire Facility Generation Method: Grid Purchase		
Start Date	End Date	Energy Use (kWh (thousand Watt-hours))
05/01/2011	05/31/2011	297,056.00
04/01/2011	04/30/2011	263,131.00
03/01/2011	03/31/2011	258,128.00
02/01/2011	02/28/2011	281,223.00
01/01/2011	01/31/2011	244,780.00
12/01/2010	12/31/2010	254,049.00
11/01/2010	11/30/2010	276,381.00
10/01/2010	10/31/2010	268,441.00
09/01/2010	09/30/2010	323,036.00
08/01/2010	08/31/2010	279,611.00
07/01/2010	07/31/2010	308,738.00
06/01/2010	06/30/2010	337,186.00
Electric Consumption (kWh (thousand Watt-hours))		3,391,760.00
Electric Consumption (kBtu (thousand Btu))		11,572,685.12
Total Electricity (Grid Purchase) Consumption (kBtu (thousand Btu))		11,572,685.12
Is this the total Electricity (Grid Purchase) consumption at this building including all Electricity meters?		☐
Fuel Type: Natural Gas		
Meter: Gas (therms) Space(s): Entire Facility		
Start Date	End Date	Energy Use (therms)
05/01/2011	05/31/2011	6,819.28
04/01/2011	04/30/2011	17,530.89
03/01/2011	03/31/2011	24,072.88
02/01/2011	02/28/2011	29,498.85
01/01/2011	01/31/2011	32,532.48
12/01/2010	12/31/2010	14,512.40
11/01/2010	11/30/2010	6,037.25
10/01/2010	10/31/2010	513.00
09/01/2010	09/30/2010	204.80
08/01/2010	08/31/2010	194.94

07/01/2010	07/31/2010	298.99
06/01/2010	06/30/2010	771.00
Gas Consumption (therms)		132,986.76
Gas Consumption (kBtu (thousand Btu))		13,298,676.00
Total Natural Gas Consumption (kBtu (thousand Btu))		13,298,676.00
Is this the total Natural Gas consumption at this building including all Natural Gas meters?		☐

Additional Fuels

Do the fuel consumption totals shown above represent the total energy use of this building?
Please confirm there are no additional fuels (district energy, generator fuel oil) used in this facility.

☐

On-Site Solar and Wind Energy

Do the fuel consumption totals shown above include all on-site solar and/or wind power located at your facility? Please confirm that no on-site solar or wind installations have been omitted from this list. All on-site systems must be reported.

☐

Certifying Professional

(When applying for the ENERGY STAR, the Certifying Professional must be the same PE or RA that signed and stamped the SEP.)

Name: _____ Date: _____

Signature: _____

Signature is required when applying for the ENERGY STAR.

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

4 - LRHSD - Seneca High School
110 Carranza Road
Tabernacle, NJ 08088

Facility Owner

Lenape Regional High School District
93 Willow Grove Road
Shamong, NJ 08088

Primary Contact for this Facility

James Hager
93 Willow Grove Road
Shamong, NJ 08088

General Information

4 - LRHSD - Seneca High School	
Gross Floor Area Excluding Parking: (ft ²)	255,736
Year Built	2003
For 12-month Evaluation Period Ending Date:	May 31, 2011

Facility Space Use Summary

LRHSD - Seneca High School	
Space Type	K-12 School
Gross Floor Area (ft ²)	255,736
Open Weekends?	No
Number of PCs	745
Number of walk-in refrigeration/freezer units	1
Presence of cooking facilities	Yes
Percent Cooled	70
Percent Heated	100
Months °	10
High School?	Yes
School District °	Lenape

Energy Performance Comparison

Performance Metrics	Evaluation Periods		Comparisons		
	Current (Ending Date 05/31/2011)	Baseline (Ending Date 05/31/2011)	Rating of 75	Target	National Median
Energy Performance Rating	25	25	75	N/A	50
Energy Intensity					
Site (kBtu/ft ²)	97	97	61	N/A	77
Source (kBtu/ft ²)	206	206	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 ₂ e/year	2,346	2,346	1,462	N/A	1,869
kgCO ₂ e/ft ² /year	9	9	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.

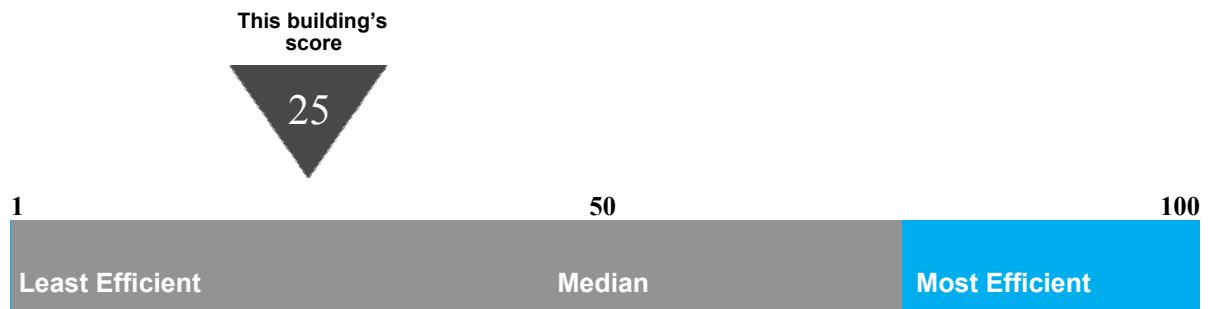
Statement of Energy Performance

2011

4 - LRHSD - Seneca High School
110 Carranza Road
Tabernacle, NJ 08088

Portfolio Manager Building ID: 2997841

The energy use of this building has been measured and compared to other similar buildings using the Environmental Protection Agency's (EPA's) Energy Performance Scale of 1–100, with 1 being the least energy efficient and 100 the most energy efficient. For more information, visit energystar.gov/benchmark.



This building uses 206 kBtu per square foot per year.*

*Based on source energy intensity for the 12 month period ending May 2011

Buildings with a score of 75 or higher may qualify for EPA's ENERGY STAR.

I certify that the information contained within this statement is accurate and in accordance with U.S. Environmental Protection Agency's measurement standards, found at energystar.gov

Date of certification



APPENDIX D

MAJOR EQUIPMENT LIST

Concord Engineering Group

AC Units

Tag	CU-1		
Unit Type	Mini Split		
Qty	1		
Location	Roof		
Area Served	Office?		
Manufacturer	EMI		
Model #	SCC36DF0000AA0B		
Serial #	1-04-M-5642		
Cooling Type	DX		
Cooling Capacity (Tons)	3		
Cooling Efficiency (SEER/EER)	10 EER		
Heating Type	N/A		
Heating Input (MBH)	N/A		
Efficiency	N/A		
Fuel	N/A		
Approx Age	8		
ASHRAE Service Life	15		
Remaining Life	7		
Comments	R-22, 208/230V 1Ph		

Note:

"N/A" = Not Applicable.

"-" = Info Not Available

MAJOR EQUIPMENT LIST

Concord Engineering Group

AHUs

Tag	RTU-10	RTU-11	RTU-2/8
Unit Type	Rooftop	Rooftop	Rooftop
Qty	1	1	1
Location	Above Caf -2	Caf-1	E-Wing Roof
Area Served	Caf-2	Caf-1	Auditorium
Manufacturer	McQuay	McQuay	McQuay
Model #	RDS802CLW	RDS802CLW	RPR030CLW
Serial #	FB0U02040025700	FB0U02040026100	FB0U02040028000
Cooling Type	CHW	CHW	DX
Cooling Capacity (Tons)	32	32	36
Cooling Efficiency (SEER/EER)	N/A	N/A	7.5 EER
Heating Type	HW	HW	HW
Heating Input (MBH)	388.3	380.2	425.3
Efficiency	N/A	N/A	N/A
Fuel	N/A	N/A	N/A
Approx Age	10	10	10
ASHRAE Service Life	15	15	15
Remaining Life	5	5	5
Comments	460V / 3 Ph, Econ Mode?	460V / 3 Ph, 7.5 HP SF	2 Comp - 6.7 HP, 1 Comp - 15 HP, 3 Cond Fan - 1 HP, SF-15 HP, RF-5HP, ER-.75 HP, 460V / 3Ph, Econ Mode, ERU is Off

Note:

"N/A" = Not Applicable.

"-" = Info Not Available

AHUs

Tag	RTU-1	RTU-6&7	RTU-4
Unit Type	Rooftop	Rooftop	Rooftop
Qty	1	2	1
Location	Stage Roof	Abv Gym	Gym Room
Area Served	Stage	Gym	Aux Gym
Manufacturer	McQuay	Venmar	McQuay
Model #	RPS018CSW	9325	RP5018CSW
Serial #	FB0U02040025100	493251026 & 49351027	FB0U02040027100
Cooling Type	DX	N/A	CHW
Cooling Capacity (Tons)	19	N/A	18
Cooling Efficiency (SEER/EER)	8 EER	N/A	N/A
Heating Type	HW	HW	HW
Heating Input (MBH)	233	811.3	219.7
Efficiency	N/A	N/A	N/A
Fuel	N/A	N/A	N/A
Approx Age	10	10	10
ASHRAE Service Life	15	15	15
Remaining Life	5	5	5
Comments	1 Comp - 6.7HP, 1 Comp. - 10HP, 2 Cond. 1HP, SF-5HP, RF-1HP, 460V / 3Ph, Econ, Baldor Standard E Motor	SF-20HP 20000CFM ESP-.73", EF - 15HP .5"ESP 20000CFM. .5hp ERU Wheel Motor, Std Eff Lesson Motor.	1 - 10 HP Comp, 1 - 6.7 HP Comp, 2 - 1 HP Cond, 5 HP Sup, 1 HP Ret, R-22

Note:

"N/A" = Not Applicable.

"-" = Info Not Available

AHUs

Tag	RTU-5	RTU-3/9	
Unit Type	Rooftop	Rooftop	
Qty	1	1	
Location	Gym Room	D-Wing Roof	
Area Served	Gym #2	Auditorium	
Manufacturer	McQuay	McQuay	
Model #	RDS8000YW	RPR030CLW	
Serial #	FB0U02040025200	FB0U02040024100	
Cooling Type	N/A	DX	
Cooling Capacity (Tons)	N/A	36	
Cooling Efficiency (SEER/EER)	N/A	7.5 EER	
Heating Type	HW	HW	
Heating Input (MBH)	408.3	425.3	
Efficiency	N/A	N/A	
Fuel	N/A	N/A	
Approx Age	10	10	
ASHRAE Service Life	15	15	
Remaining Life	5	5	
Comments	7.5HP SF, 5 HP RF, 460V	2 - 6.7HP Comp, 1 - 15HP Comp, 3 - 1HP Cond, 15HP SF, 5HP RF, .75HP ERU Motor, 460V / 3Ph / 60Hz	

Note:

"N/A" = Not Applicable.

"-" = Info Not Available

MAJOR EQUIPMENT LIST

Concord Engineering Group

Boilers

Tag	B1&B2		
Unit Type	Flexible Water Tube		
Qty	2		
Location	Boiler Room		
Area Served	Building HW		
Manufacturer	Bryan		
Model #	RV700-W-FDG0		
Serial #	88506 & 88494		
Input Capacity (MBH)	7000 / 3500		
Rated Output Capacity (MBH)	5,600		
Approx. Efficiency %	80.0%		
Fuel	Gas/Oil		
Approx Age	10		
ASHRAE Service Life	25		
Remaining Life	15		
Comments	Baldor 5 HP 230/460V 3450RPM 81% EFF blower motor		

Note:

"N/A" = Not Applicable.

"-" = Info Not Available

MAJOR EQUIPMENT LIST

Concord Engineering Group

Chiller

Tag	CH-1		
Unit Type	Air Cooled Chiller		
Qty	1		
Location	Roof above Boiler room		
Area Served	CHW		
Manufacturer	McQuay		
Model #	ALS295C27ER11		
Serial #	STNU020300251		
Refrigerant	R-22		
Cooling Capacity (Tons)	295		
Cooling Efficiency (KW/Ton)	1.14		
Volts / Phase / Hz	460 / 3 / 60		
Fuel	Electric		
Chilled Water GPM / ΔT	700 GPM / 10F		
Condenser Water GPM / ΔT	N/A		
Approx Age	10		
ASHRAE Service Life	20		
Remaining Life	10		
Comments	3 Comp., 18 Cond Fan motors 1.5 HP each, 23995 total run hours, 14117 total comp starts, leaving evap stnt 48.5 deg		

Note:

"N/A" = Not Applicable.

"-" = Info Not Available

MAJOR EQUIPMENT LIST

Concord Engineering Group

Domestic Water Heaters

Tag	DH-1	DH-2	
Unit Type	Domestic Boiler	Domestic Boiler	
Qty	1	1	
Location	Boiler Room	Boiler Room	
Area Served	Kitchen	Whole Building	
Manufacturer	AO Smith	AO Smith	
Model #	BTP200-1500000	BTP600-2500000	
Serial #	SC02-9462643	SC029428843	
Size (Gallons)	200	600	
Input Capacity (MBH/KW)	1500 MBH	2500 MBH	
Recovery (Gal/Hr)	1455	1732	
Efficiency %	80%	80%	
Fuel	Natural Gas	Natural Gas	
Approx Age	10	10	
ASHRAE Service Life	20	20	
Remaining Life	10	10	
Comments			

Note:

"N/A" = Not Applicable.

"-" = Info Not Available

MAJOR EQUIPMENT LIST

Concord Engineering Group

Pumps

Tag	DWP-1	P-3&4	P-1&2
Unit Type	DWC Pumps	CHW pump	HW
Qty	2	2	2
Location	Boiler Room	Boiler Room	Boiler Room
Area Served	DWC	CHW	HW
Manufacturer	Alyan Pump	Flo-Pak	Flo-Pak
Model #	CPS12580-2-7.5	CWP-VS-02-H	HWP-VS-05-H
Serial #	33521-6-02	01-2251	01 - 2252
Horse Power	7.5	50	60
Flow	250 GPM / 158 Ft Hd	700 GPM / 160 Ft Hd	1200GPM / 143Ft Hd
Motor Info	WEG 7.5 HP	Baldor Super-E 50HP	Baldor 60 HP
Electrical Power	230/460V / 3 Ph	230/460V / 3 Ph	230/460V 3 Ph
RPM	3490	1775	1775
Motor Efficiency %	86.5%	94.5%	95
Approx Age	10	10	10
ASHRAE Service Life	20	20	20
Remaining Life	10	10	10
Comments	184JM	326T	364T

Note:

"N/A" = Not Applicable.

"-" = Info Not Available

MAJOR EQUIPMENT LIST

Concord Engineering Group

Exhaust Fans

Tag	EF-15	EF-14	EF-20
Unit Type	Exhaust Fan	Exhaust Fan	Exhaust Fan
Qty	1	1	1
Location	Abv Kitchen	Abv Kitchen	Auto Shop
Area Served	Kit-Hood	Kitchen	Auto Shop
Manufacturer	GH	GH	GH
Model #	CUBE-300-30-6	CUBE-240HP-30-6	SWV-210-5-GW-TH
Serial #	02F22184	02F22175	02N06987
Horsepower	3	3	0.5
Exhaust Airflow (CFM)	7,200	6,000	1,800
Approx Age	10	10	10
ASHRAE Service Life	20	20	20
Remaining Life	10	10	10
Comments	7200CFM		

Note:

"N/A" = Not Applicable.

"-" = Info Not Available

Exhaust Fans

Tag	EF-14 M1-4	EF-14 M1-2
Unit Type	Exhaust Fan	Exhaust Fan
Qty	1	1
Location	Roof	Roof
Area Served	C/B Wing	A/C Wing
Manufacturer	GH	GH
Model #	GB-500-50	GB-500-75
Serial #	02A20667	02A20668
Horsepower	5	7.5
Exhaust Airflow (CFM)	22,000	30,000
Approx Age	10	10
ASHRAE Service Life	20	20
Remaining Life	10	10
Comments		

Note:

"N/A" = Not Applicable.

"-" = Info Not Available

APPENDIX E

Investment Grade Lighting Audit

APPENDIX E1 of 54

CEG Job #: 9C11059

Project: Lenape Reginal High School District

110 Carranza Road

Tabernacle, NJ 08088

Bldg. Sq. Ft. 255,736

Seneca High School

KWH COST: \$0.104

ECM #1 &2: Lighting Upgrade - General

EXISTING LIGHTING										PROPOSED LIGHTING										SAVINGS					
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Lamps	Retro-Unit Description	Watts Used	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback			
242.21	Kitchen	2600	19	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	2.03	5,285.8	\$549.72	19	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	1.86	4841.2	\$503.48	\$28.00	\$532.00	0.17	444.6	\$46.24	11.51			
227.21	Kitchen	2600	12	2	2x2, 2 Lamp, 32w 700 series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	65	0.78	2,028.0	\$210.91	12	2	Sylvania Lamp FBO30/841XP/6//SS/ECO	49	0.59	1528.8	\$159.00	\$24.00	\$288.00	0.19	499.2	\$51.92	5.55			
242.21	Kitchen Office	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.10	254.8	\$26.50	\$28.00	\$28.00	0.01	23.4	\$2.43	11.51			
242.21	Kitchen Laundry	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.10	254.8	\$26.50	\$28.00	\$28.00	0.01	23.4	\$2.43	11.51			
242.21	Kitchen Locker	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.20	509.6	\$53.00	\$28.00	\$56.00	0.02	46.8	\$4.87	11.51			
221.11	Kitchen Toilet	2600	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.05	130	\$13.52	\$14.00	\$14.00	0.01	31.2	\$3.24	4.31			
221.33	Classroom F114	2600	32	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Direct/ Indirect	58	1.86	4,825.6	\$501.86	32	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	1.60	4160	\$432.64	\$14.00	\$448.00	0.26	665.6	\$69.22	6.47			
221.33	Classroom F113	2600	9	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Direct/ Indirect	58	0.52	1,357.2	\$141.15	9	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.45	1170	\$121.68	\$14.00	\$126.00	0.07	187.2	\$19.47	6.47			
221.31	Classroom F112	2600	4	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	62	0.25	644.8	\$67.06	4	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.20	520	\$54.08	\$14.00	\$56.00	0.05	124.8	\$12.98	4.31			
736	Classroom F112	2600	20	1	175w MH, Pendant Mnt., Prismatic Lens	210	4.20	10,920.0	\$1,135.68	20	6	2x4, 6 Lamp, 32w T8, Elect. Ballast, w/Wire Guard - Lo Bay	168	3.36	8736	\$908.54	\$220.00	\$4,400.00	0.84	2184	\$227.14	19.37			
200	Classroom F112 Closet	1000	1	1	1x2, 1 Lamp, 17w T8, Elect. Ballast, Surface Mnt., No Lens	17	0.02	17.0	\$1.77	1	0	No Change	0	0.00	0	\$0.00	\$0.00	\$0.00	0.00	0	\$0.00	0.00			
221.31	Classroom F112 Toilet	2600	4	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	62	0.25	644.8	\$67.06	4	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.20	520	\$54.08	\$14.00	\$56.00	0.05	124.8	\$12.98	4.31			
242.21	F112-T	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.10	254.8	\$26.50	\$28.00	\$28.00	0.01	23.4	\$2.43	11.51			
241.34	Classroom F110	2600	32	4	1x4, 4 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	104	3.33	8,652.8	\$899.89	32	0	No Change	0	0.00	0	\$0.00	\$0.00	\$0.00	0.00	0	\$0.00	0.00			
241.34	Classroom F110 Storage	1000	3	4	1x4, 4 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	104	0.31	312.0	\$32.45	3	0	No Change	0	0.00	0	\$0.00	\$0.00	\$0.00	0.00	0	\$0.00	0.00			
242.21	Classroom F110 Office	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1,112.8	\$115.73	4	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.39	1019.2	\$106.00	\$28.00	\$112.00	0.04	93.6	\$9.73	11.51			
242.21	Classroom F110 Finishing	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1,112.8	\$115.73	4	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.39	1019.2	\$106.00	\$28.00	\$112.00	0.04	93.6	\$9.73	11.51			

Investment Grade Lighting Audit

APPENDIX E2 of 54

ECM #1 &2: Lighting Upgrade - General

EXISTING LIGHTING										PROPOSED LIGHTING										SAVINGS					
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Lamps	Retro-Unit Description	Watts Used	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback			
221.31	Classroom F110 Finishing	2600	4	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	62	0.25	644.8	\$67.06	4	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.20	520	\$54.08	\$14.00	\$56.00	0.05	124.8	\$12.98	4.31			
242.21	Wood Shop Corridor	4000	5	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.54	2,140.0	\$222.56	5	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.49	1960	\$203.84	\$28.00	\$140.00	0.05	180	\$18.72	7.48			
242.21	Café Corridor	4000	17	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.82	7,276.0	\$756.70	17	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	1.67	6664	\$693.06	\$28.00	\$476.00	0.15	612	\$63.65	7.48			
242.21	Classroom F108	2600	3	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.32	834.6	\$86.80	3	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.29	764.4	\$79.50	\$28.00	\$84.00	0.03	70.2	\$7.30	11.51			
221.33	Classroom F108	2600	30	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Direct/ Indirect	58	1.74	4,524.0	\$470.50	30	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	1.50	3900	\$405.60	\$14.00	\$420.00	0.24	624	\$64.90	6.47			
221.31	Classroom F106	2600	20	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	62	1.24	3,224.0	\$335.30	20	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	1.00	2600	\$270.40	\$14.00	\$280.00	0.24	624	\$64.90	4.31			
30	Classroom F106 Control Room	2600	9	2	Recessed Down Light, (2) 26w PL Lamp	54	0.49	1,263.6	\$131.41	9	0	No Change	0	0.00	0	\$0.00	\$0.00	\$0.00	0.00	0	\$0.00	0.00			
30	Classroom F106 Control Room	2600	9	2	Recessed Down Light, (2) 26w PL Lamp	54	0.49	1,263.6	\$131.41	9	0	No Change	0	0.00	0	\$0.00	\$0.00	\$0.00	0.00	0	\$0.00	0.00			
221.33	Classroom F104	2600	36	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Direct/ Indirect	58	2.09	5,428.8	\$564.60	36	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	1.80	4680	\$486.72	\$14.00	\$504.00	0.29	748.8	\$77.88	6.47			
242.21	Classroom F104 Storage	1000	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	214.0	\$22.26	2	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.20	196	\$20.38	\$28.00	\$56.00	0.02	18	\$1.87	29.91			
242.21	F104 Corridor	4000	5	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.54	2,140.0	\$222.56	5	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.49	1960	\$203.84	\$28.00	\$140.00	0.05	180	\$18.72	7.48			
221.11	Boiler Room	2600	27	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	1.67	4,352.4	\$452.65	27	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	1.35	3510	\$365.04	\$14.00	\$378.00	0.32	842.4	\$87.61	4.31			
221.33	Classroom E108	2600	14	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Direct/ Indirect	58	0.81	2,111.2	\$219.56	14	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.70	1820	\$189.28	\$14.00	\$196.00	0.11	291.2	\$30.28	6.47			
221.33	Classroom E106	2600	46	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Direct/ Indirect	58	2.67	6,936.8	\$721.43	46	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	2.30	5980	\$621.92	\$14.00	\$644.00	0.37	956.8	\$99.51	6.47			
242.21	Classroom E106 Storage	1000	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	214.0	\$22.26	2	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.20	196	\$20.38	\$28.00	\$56.00	0.02	18	\$1.87	29.91			
242.21	Classroom E106 Office	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.20	509.6	\$53.00	\$28.00	\$56.00	0.02	46.8	\$4.87	11.51			
242.21	Classroom E106 Office #2	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1,112.8	\$115.73	4	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.39	1019.2	\$106.00	\$28.00	\$112.00	0.04	93.6	\$9.73	11.51			
227.21	Classroom E105	2600	2	2	2x2, 2 Lamp, 32w 700 series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	65	0.13	338.0	\$35.15	2	2	Sylvania Lamp FBO30/841XP/6/SS/ECO	49	0.10	254.8	\$26.50	\$24.00	\$48.00	0.03	83.2	\$8.65	5.55			
242.21	Classroom E105 Practice Room	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.20	509.6	\$53.00	\$28.00	\$56.00	0.02	46.8	\$4.87	11.51			

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ECM #1 &2: Lighting Upgrade - General

EXISTING LIGHTING										PROPOSED LIGHTING										SAVINGS					
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Lamps	Retro-Unit Description	Watts Used	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback			
242.21	Classroom E105 Practice Room	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1,112.8	\$115.73	4	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.39	1019.2	\$106.00	\$28.00	\$112.00	0.04	93.6	\$9.73	11.51			
242.21	Classroom E105 Practice Room	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1,112.8	\$115.73	4	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.39	1019.2	\$106.00	\$28.00	\$112.00	0.04	93.6	\$9.73	11.51			
221.33	Classroom E105	2600	54	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Direct/ Indirect	58	3.13	8,143.2	\$846.89	54	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	2.70	7020	\$730.08	\$14.00	\$756.00	0.43	1123.2	\$116.81	6.47			
242.21	Classroom E105 Practice Room	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.20	509.6	\$53.00	\$28.00	\$56.00	0.02	46.8	\$4.87	11.51			
242.21	Classroom E105 Storage	1000	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	214.0	\$22.26	2	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.20	196	\$20.38	\$28.00	\$56.00	0.02	18	\$1.87	29.91			
242.21	Classrtroom E105 Storage	1000	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	214.0	\$22.26	2	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.20	196	\$20.38	\$28.00	\$56.00	0.02	18	\$1.87	29.91			
242.21	Classroom E105 Equipment	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.20	509.6	\$53.00	\$28.00	\$56.00	0.02	46.8	\$4.87	11.51			
242.21	Classroom F105	2600	11	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.18	3,060.2	\$318.26	11	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	1.08	2802.8	\$291.49	\$28.00	\$308.00	0.10	257.4	\$26.77	11.51			
242.21	Classroom F105 Storage	1000	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	107.0	\$11.13	1	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.10	98	\$10.19	\$28.00	\$28.00	0.01	9	\$0.94	29.91			
242.21	Classroom F105 Back	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1,112.8	\$115.73	4	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.39	1019.2	\$106.00	\$28.00	\$112.00	0.04	93.6	\$9.73	11.51			
242.21	E101 Utility	1000	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	107.0	\$11.13	1	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.10	98	\$10.19	\$28.00	\$28.00	0.01	9	\$0.94	29.91			
242.21	Classroom F103	2600	8	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.86	2,225.6	\$231.46	8	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.78	2038.4	\$211.99	\$28.00	\$224.00	0.07	187.2	\$19.47	11.51			
242.21	Classroom F103 Back	2600	5	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.54	1,391.0	\$144.66	5	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.49	1274	\$132.50	\$28.00	\$140.00	0.05	117	\$12.17	11.51			
242.21	Classroom F101	2600	16	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.71	4,451.2	\$462.92	16	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	1.57	4076.8	\$423.99	\$28.00	\$448.00	0.14	374.4	\$38.94	11.51			
242.21	E102 Utility	1000	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	107.0	\$11.13	1	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.10	98	\$10.19	\$28.00	\$28.00	0.01	9	\$0.94	29.91			
242.21	E102 Ticket Booth	2600	5	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.54	1,391.0	\$144.66	5	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.49	1274	\$132.50	\$28.00	\$140.00	0.05	117	\$12.17	11.51			
242.21	Boy's Room	2600	3	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.32	834.6	\$86.80	3	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.29	764.4	\$79.50	\$28.00	\$84.00	0.03	70.2	\$7.30	11.51			
227.21	Boy's Room	2600	1	2	2x2, 2 Lamp, 32w 700 series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	65	0.07	169.0	\$17.58	1	2	Sylvania Lamp FBO30/841XP/6/SS/ECO	49	0.05	127.4	\$13.25	\$24.00	\$24.00	0.02	41.6	\$4.33	5.55			
221.11	Boy's Room	2600	2	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.12	322.4	\$33.53	2	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.10	260	\$27.04	\$14.00	\$28.00	0.02	62.4	\$6.49	4.31			

Investment Grade Lighting Audit

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ECM #1 &2: Lighting Upgrade - General

EXISTING LIGHTING										PROPOSED LIGHTING										SAVINGS					
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Lamps	Retro-Unit Description	Watts Used	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback			
242.21	Girl's Room	2600	3	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.32	834.6	\$86.80	3	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.29	764.4	\$79.50	\$28.00	\$84.00	0.03	70.2	\$7.30	11.51			
227.21	Girl's Room	2600	1	2	2x2, 2 Lamp, 32w 700 series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	65	0.07	169.0	\$17.58	1	2	Sylvania Lamp FBO30/841XP/6//SS/ECO	49	0.05	127.4	\$13.25	\$24.00	\$24.00	0.02	41.6	\$4.33	5.55			
221.11	Girl's Room	2600	2	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.12	322.4	\$33.53	2	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.10	260	\$27.04	\$14.00	\$28.00	0.02	62.4	\$6.49	4.31			
242.21	Janitor's Closet	1000	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	214.0	\$22.26	2	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.20	196	\$20.38	\$28.00	\$56.00	0.02	18	\$1.87	29.91			
736	G108 Weight Room	2600	15	1	175w MH, Pendant Mnt., Prismatic Lens	210	3.15	8,190.0	\$851.76	15	6	2x4, 6 Lamp, 32w T8, Elect. Ballast, w/Wire Guard - Lo Bay	168	2.52	6552	\$681.41	\$220.00	\$3,300.00	0.63	1638	\$170.35	19.37			
242.21	Janitor's Closet	1000	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	214.0	\$22.26	2	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.20	196	\$20.38	\$28.00	\$56.00	0.02	18	\$1.87	29.91			
242.21	Boy's Room	2600	5	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.54	1,391.0	\$144.66	5	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.49	1274	\$132.50	\$28.00	\$140.00	0.05	117	\$12.17	11.51			
221.11	Boy's Room	2600	4	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.25	644.8	\$67.06	4	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.20	520	\$54.08	\$14.00	\$56.00	0.05	124.8	\$12.98	4.31			
242.21	Girl's Room	2600	5	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.54	1,391.0	\$144.66	5	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.49	1274	\$132.50	\$28.00	\$140.00	0.05	117	\$12.17	11.51			
221.11	Girl's Room	2600	4	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.25	644.8	\$67.06	4	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.20	520	\$54.08	\$14.00	\$56.00	0.05	124.8	\$12.98	4.31			
242.21	Boy's Locker	2600	16	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.71	4,451.2	\$462.92	16	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	1.57	4076.8	\$423.99	\$28.00	\$448.00	0.14	374.4	\$38.94	11.51			
221.11	Boy's Locker Toilet	2600	4	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.25	644.8	\$67.06	4	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.20	520	\$54.08	\$14.00	\$56.00	0.05	124.8	\$12.98	4.31			
221.11	Boy's Locker Toilet	2600	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.05	130	\$13.52	\$14.00	\$14.00	0.01	31.2	\$3.24	4.31			
242.21	Gym Corridor	4000	11	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.18	4,708.0	\$489.63	11	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	1.08	4312	\$448.45	\$28.00	\$308.00	0.10	396	\$41.18	7.48			
242.21	Gym Exit	4000	3	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.32	1,284.0	\$133.54	3	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.29	1176	\$122.30	\$28.00	\$84.00	0.03	108	\$11.23	7.48			
222.21	G105 Locker	2600	13	2	2x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	62	0.81	2,095.6	\$217.94	13	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.65	1690	\$175.76	\$14.00	\$182.00	0.16	405.6	\$42.18	4.31			
242.21	Physical Education Office	2600	3	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.32	834.6	\$86.80	3	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.29	764.4	\$79.50	\$28.00	\$84.00	0.03	70.2	\$7.30	11.51			
221.11	G105 Toilet	2600	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.05	130	\$13.52	\$14.00	\$14.00	0.01	31.2	\$3.24	4.31			
242.21	G107 Locker	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.20	509.6	\$53.00	\$28.00	\$56.00	0.02	46.8	\$4.87	11.51			

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ECM #1 &2: Lighting Upgrade - General

EXISTING LIGHTING										PROPOSED LIGHTING										SAVINGS					
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Lamps	Retro-Unit Description	Watts Used	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback			
221.11	G107 Toilet	2600	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.05	130	\$13.52	\$14.00	\$14.00	0.01	31.2	\$3.24	4.31			
242.21	G109 Boy's Locker	2600	14	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.50	3,894.8	\$405.06	14	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	1.37	3567.2	\$370.99	\$28.00	\$392.00	0.13	327.6	\$34.07	11.51			
221.11	G109 Toilet	2600	4	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.25	644.8	\$67.06	4	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.20	520	\$54.08	\$14.00	\$56.00	0.05	124.8	\$12.98	4.31			
242.21	Girl's Locker	2600	16	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.71	4,451.2	\$462.92	16	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	1.57	4076.8	\$423.99	\$28.00	\$448.00	0.14	374.4	\$38.94	11.51			
221.11	Girl's Locker Toilet	2600	4	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.25	644.8	\$67.06	4	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.20	520	\$54.08	\$14.00	\$56.00	0.05	124.8	\$12.98	4.31			
221.11	Girls's Locker Toilet	2600	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.05	130	\$13.52	\$14.00	\$14.00	0.01	31.2	\$3.24	4.31			
242.21	Gym Corridor	4000	11	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.18	4,708.0	\$489.63	11	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	1.08	4312	\$448.45	\$28.00	\$308.00	0.10	396	\$41.18	7.48			
242.21	Gym Exit	4000	3	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.32	1,284.0	\$133.54	3	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.29	1176	\$122.30	\$28.00	\$84.00	0.03	108	\$11.23	7.48			
222.21	Girl's Locker	2600	13	2	2x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	62	0.81	2,095.6	\$217.94	13	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.65	1690	\$175.76	\$14.00	\$182.00	0.16	405.6	\$42.18	4.31			
242.21	Physical Education Office	2600	3	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.32	834.6	\$86.80	3	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.29	764.4	\$79.50	\$28.00	\$84.00	0.03	70.2	\$7.30	11.51			
221.11	G113 Toilet	2600	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.05	130	\$13.52	\$14.00	\$14.00	0.01	31.2	\$3.24	4.31			
242.21	G113 Locker	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.20	509.6	\$53.00	\$28.00	\$56.00	0.02	46.8	\$4.87	11.51			
221.11	G113 Toilet	2600	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.05	130	\$13.52	\$14.00	\$14.00	0.01	31.2	\$3.24	4.31			
242.21	D103 Nurse's	2600	11	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.18	3,060.2	\$318.26	11	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	1.08	2802.8	\$291.49	\$28.00	\$308.00	0.10	257.4	\$26.77	11.51			
242.21	D103 Break Room	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.10	254.8	\$26.50	\$28.00	\$28.00	0.01	23.4	\$2.43	11.51			
221.11	D103 Toilet	2600	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.05	130	\$13.52	\$14.00	\$14.00	0.01	31.2	\$3.24	4.31			
242.21	D103 Office	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.20	509.6	\$53.00	\$28.00	\$56.00	0.02	46.8	\$4.87	11.51			
242.21	D103 Break Room	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.10	254.8	\$26.50	\$28.00	\$28.00	0.01	23.4	\$2.43	11.51			
221.11	D103 Toilet	2600	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.05	130	\$13.52	\$14.00	\$14.00	0.01	31.2	\$3.24	4.31			

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ECM #1 &2: Lighting Upgrade - General

EXISTING LIGHTING										PROPOSED LIGHTING										SAVINGS					
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Lamps	Retro-Unit Description	Watts Used	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback			
242.21	G121 Trainer's	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.59	1528.8	\$159.00	\$28.00	\$168.00	0.05	140.4	\$14.60	11.51			
232.21	G121 Weight Room	2600	23	3	2x4, 3 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	86	1.98	5,142.8	\$534.85	23	3	Relamp - Sylvania Lamp FO28/841/SS/ECO	72	1.66	4305.6	\$447.78	\$21.00	\$483.00	0.32	837.2	\$87.07	5.55			
242.21	G121 Corridor	4000	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	856.0	\$89.02	2	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.20	784	\$81.54	\$28.00	\$56.00	0.02	72	\$7.49	7.48			
227.21	Main Office Corridor	4000	6	2	2x2, 2 Lamp, 32w 700 series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	65	0.39	1,560.0	\$162.24	6	2	Sylvania Lamp FBO30/841XP/6/SS/ECO	49	0.29	1176	\$122.30	\$24.00	\$144.00	0.10	384	\$39.94	3.61			
242.21	Café #1	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1,112.8	\$115.73	4	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.39	1019.2	\$106.00	\$28.00	\$112.00	0.04	93.6	\$9.73	11.51			
227.21	Café #1	2600	6	2	2x2, 2 Lamp, 32w 700 series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	65	0.39	1,014.0	\$105.46	6	2	Sylvania Lamp FBO30/841XP/6/SS/ECO	49	0.29	764.4	\$79.50	\$24.00	\$144.00	0.10	249.6	\$25.96	5.55			
30	Café #1	2600	16	2	Recessed Down Light, (2) 26w PL Lamp	54	0.86	2,246.4	\$233.63	16	0	No Change	0	0.00	0	\$0.00	\$0.00	\$0.00	0.00	0	\$0.00	0.00			
31	Café #1	2600	8	4	Pendant Light, (4) 26w PL Lamp	104	0.83	2,163.2	\$224.97	8	0	No Change	0	0.00	0	\$0.00	\$0.00	\$0.00	0.00	0	\$0.00	0.00			
242.21	Café #2	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1,112.8	\$115.73	4	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.39	1019.2	\$106.00	\$28.00	\$112.00	0.04	93.6	\$9.73	11.51			
227.21	Café #2	2600	6	2	2x2, 2 Lamp, 32w 700 series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	65	0.39	1,014.0	\$105.46	6	2	Sylvania Lamp FBO30/841XP/6/SS/ECO	49	0.29	764.4	\$79.50	\$24.00	\$144.00	0.10	249.6	\$25.96	5.55			
30	Café #2	2600	16	2	Recessed Down Light, (2) 26w PL Lamp	54	0.86	2,246.4	\$233.63	16	0	No Change	0	0.00	0	\$0.00	\$0.00	\$0.00	0.00	0	\$0.00	0.00			
31	Café #2	2600	8	4	Pendant Light, (4) 26w PL Lamp	104	0.83	2,163.2	\$224.97	8	0	No Change	0	0.00	0	\$0.00	\$0.00	\$0.00	0.00	0	\$0.00	0.00			
242.21	Café #1 Storage	1000	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	214.0	\$22.26	2	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.20	196	\$20.38	\$28.00	\$56.00	0.02	18	\$1.87	29.91			
221.11	Janitor's Closet	1000	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	62.0	\$6.45	1	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.05	50	\$5.20	\$14.00	\$14.00	0.01	12	\$1.25	11.22			
242.21	Auditorium Corridor	4000	8	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.86	3,424.0	\$356.10	8	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.78	3136	\$326.14	\$28.00	\$224.00	0.07	288	\$29.95	7.48			
227.21	Auditorium Corridor	4000	6	2	2x2, 2 Lamp, 32w 700 series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	65	0.39	1,560.0	\$162.24	6	2	Sylvania Lamp FBO30/841XP/6/SS/ECO	49	0.29	1176	\$122.30	\$24.00	\$144.00	0.10	384	\$39.94	3.61			
30	Auditorium Corridor	4000	15	2	Recessed Down Light, (2) 26w PL Lamp	54	0.81	3,240.0	\$336.96	15	0	No Change	0	0.00	0	\$0.00	\$0.00	\$0.00	0.00	0	\$0.00	0.00			
211.44	Display Case	4000	1	1	1x4, 1 Lamp, 32w T8, Elect. Ballast, Wall MNT., No Lens	32	0.03	128.0	\$13.31	1	1	Relamp - Sylvania Lamp FO28/841/SS/ECO	25	0.03	100	\$10.40	\$7.00	\$7.00	0.01	28	\$2.91	2.40			
211.44	Display Case	4000	1	1	1x4, 1 Lamp, 32w T8, Elect. Ballast, Wall MNT., No Lens	32	0.03	128.0	\$13.31	1	1	Relamp - Sylvania Lamp FO28/841/SS/ECO	25	0.03	100	\$10.40	\$7.00	\$7.00	0.01	28	\$2.91	2.40			

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ECM #1 &2: Lighting Upgrade - General

EXISTING LIGHTING										PROPOSED LIGHTING										SAVINGS					
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Lamps	Retro-Unit Description	Watts Used	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback			
227.21	Mail Room	2600	2	2	2x2, 2 Lamp, 32w 700 series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	65	0.13	338.0	\$35.15	2	2	Sylvania Lamp FBO30/841XP/6/SS/ECO	49	0.10	254.8	\$26.50	\$24.00	\$48.00	0.03	83.2	\$8.65	5.55			
242.21	Classroom D101	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.59	1528.8	\$159.00	\$28.00	\$168.00	0.05	140.4	\$14.60	11.51			
242.21	D101-1 Asst. Principal	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.20	509.6	\$53.00	\$28.00	\$56.00	0.02	46.8	\$4.87	11.51			
242.21	Classroom D106	2600	8	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.86	2,225.6	\$231.46	8	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.78	2038.4	\$211.99	\$28.00	\$224.00	0.07	187.2	\$19.47	11.51			
14	Gym #2	2600	20	1	400w MH Truss Light, SPI Lighting Inc. #2603	460	9.20	23,920.0	\$2,487.68	20	0	No Change	0	0.00	0	\$0.00	\$0.00	\$0.00	0.00	0	\$0.00	0.00			
15	Gym #2	2600	16	2	400w MH - 250w Quartz Combo - SPI Lighting Inc. #2603/2743	710	11.36	29,536.0	\$3,071.74	16	0	No Change	0	0.00	0	\$0.00	\$0.00	\$0.00	0.00	0	\$0.00	0.00			
15	Gym #1	2600	10	2	400w MH - 250w Quartz Combo - SPI Lighting Inc. #2603/2743	710	7.10	18,460.0	\$1,919.84	10	0	No Change	0	0.00	0	\$0.00	\$0.00	\$0.00	0.00	0	\$0.00	0.00			
14	Gym #1	2600	37	1	400w MH Truss Light, SPI Lighting Inc. #2603	460	17.02	44,252.0	\$4,602.21	37	0	No Change	0	0.00	0	\$0.00	\$0.00	\$0.00	0.00	0	\$0.00	0.00			
769	Gym #1	2600	56	1	400w MH, Clear Lens	465	26.04	67,704.0	\$7,041.22	56	6	2x4 54w T5HO 6 Lamp w/Prismatic Lens	354	19.82	51542.4	\$5,360.41	\$240.00	\$13,440.00	6.22	16161.6	\$1,680.81	8.00			
221.31	Gym #2 Storage	1000	2	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	62	0.12	124.0	\$12.90	2	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.10	100	\$10.40	\$14.00	\$28.00	0.02	24	\$2.50	11.22			
242.21	G100 Lobby	4000	7	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.75	2,996.0	\$311.58	7	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.69	2744	\$285.38	\$28.00	\$196.00	0.06	252	\$26.21	7.48			
242.21	Café #1 Boy's Room	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.10	254.8	\$26.50	\$28.00	\$28.00	0.01	23.4	\$2.43	11.51			
221.11	Café #1 Boy's Room	2600	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.05	130	\$13.52	\$14.00	\$14.00	0.01	31.2	\$3.24	4.31			
242.21	Café #1 Girl's Room	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.10	254.8	\$26.50	\$28.00	\$28.00	0.01	23.4	\$2.43	11.51			
221.11	Café #1 Girl's Room	2600	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.05	130	\$13.52	\$14.00	\$14.00	0.01	31.2	\$3.24	4.31			
242.21	Café #2 Boy's Room	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.10	254.8	\$26.50	\$28.00	\$28.00	0.01	23.4	\$2.43	11.51			
221.11	Café #2 Boy's Room	2600	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.05	130	\$13.52	\$14.00	\$14.00	0.01	31.2	\$3.24	4.31			
242.21	Café #2 Girl's Room	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.10	254.8	\$26.50	\$28.00	\$28.00	0.01	23.4	\$2.43	11.51			
221.11	Café #2 Girl's Room	2600	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.05	130	\$13.52	\$14.00	\$14.00	0.01	31.2	\$3.24	4.31			

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ECM #1 &2: Lighting Upgrade - General

EXISTING LIGHTING										PROPOSED LIGHTING										SAVINGS					
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Lamps	Retro-Unit Description	Watts Used	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback			
221.11	Tool/Mech Room	2600	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.05	130	\$13.52	\$14.00	\$14.00	0.01	31.2	\$3.24	4.31			
242.21	D202 FP	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.59	1528.8	\$159.00	\$28.00	\$168.00	0.05	140.4	\$14.60	11.51			
222.21	Restroom	2600	1	2	2x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.05	130	\$13.52	\$14.00	\$14.00	0.01	31.2	\$3.24	4.31			
242.21	Elec. Closet	1200	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	128.4	\$13.35	1	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.10	117.6	\$12.23	\$28.00	\$28.00	0.01	10.8	\$1.12	24.93			
242.21	Classroom C201	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.88	2293.2	\$238.49	\$28.00	\$252.00	0.08	210.6	\$21.90	11.51			
242.21	Classroom C202	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.88	2293.2	\$238.49	\$28.00	\$252.00	0.08	210.6	\$21.90	11.51			
242.21	Classroom C203	2600	10	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.07	2,782.0	\$289.33	10	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.98	2548	\$264.99	\$28.00	\$280.00	0.09	234	\$24.34	11.51			
242.21	Classroom C204	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3,338.4	\$347.19	12	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	1.18	3057.6	\$317.99	\$28.00	\$336.00	0.11	280.8	\$29.20	11.51			
242.21	Classroom C205	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3,338.4	\$347.19	12	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	1.18	3057.6	\$317.99	\$28.00	\$336.00	0.11	280.8	\$29.20	11.51			
242.21	Classroom C206	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.88	2293.2	\$238.49	\$28.00	\$252.00	0.08	210.6	\$21.90	11.51			
242.21	C202F FP	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.59	1528.8	\$159.00	\$28.00	\$168.00	0.05	140.4	\$14.60	11.51			
242.21	Stairways S1-4	3000	3	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.32	963.0	\$100.15	3	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.29	882	\$91.73	\$28.00	\$84.00	0.03	81	\$8.42	9.97			
242.21	Utility Closet	1200	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	256.8	\$26.71	2	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.20	235.2	\$24.46	\$28.00	\$56.00	0.02	21.6	\$2.25	24.93			
242.21	205 Prep	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.20	509.6	\$53.00	\$28.00	\$56.00	0.02	46.8	\$4.87	11.51			
242.21	Men's Room	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.20	509.6	\$53.00	\$28.00	\$56.00	0.02	46.8	\$4.87	11.51			
221.41		2600	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.12	301.6	\$31.37	2	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.10	260	\$27.04	\$14.00	\$28.00	0.02	41.6	\$4.33	6.47			
242.21	Women's Room	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.20	509.6	\$53.00	\$28.00	\$56.00	0.02	46.8	\$4.87	11.51			
221.41		2600	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.12	301.6	\$31.37	2	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.10	260	\$27.04	\$14.00	\$28.00	0.02	41.6	\$4.33	6.47			
221.41	Custodial Closet	1200	1	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.06	69.6	\$7.24	1	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.05	60	\$6.24	\$14.00	\$14.00	0.01	9.6	\$1.00	14.02			

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ECM #1 &2: Lighting Upgrade - General

EXISTING LIGHTING										PROPOSED LIGHTING										SAVINGS					
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Lamps	Retro-Unit Description	Watts Used	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback			
242.21	Classroom A 201	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3,338.4	\$347.19	12	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	1.18	3057.6	\$317.99	\$28.00	\$336.00	0.11	280.8	\$29.20	11.51			
242.21	Classroom A 202	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.88	2293.2	\$238.49	\$28.00	\$252.00	0.08	210.6	\$21.90	11.51			
242.21	Classroom A 203	2600	10	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.07	2,782.0	\$289.33	10	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.98	2548	\$264.99	\$28.00	\$280.00	0.09	234	\$24.34	11.51			
242.21	Classroom A 204	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.88	2293.2	\$238.49	\$28.00	\$252.00	0.08	210.6	\$21.90	11.51			
242.21	Classroom A 205	2600	10	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.07	2,782.0	\$289.33	10	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.98	2548	\$264.99	\$28.00	\$280.00	0.09	234	\$24.34	11.51			
242.21	Classroom A 206	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.88	2293.2	\$238.49	\$28.00	\$252.00	0.08	210.6	\$21.90	11.51			
242.21	Classroom C 207	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3,338.4	\$347.19	12	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	1.18	3057.6	\$317.99	\$28.00	\$336.00	0.11	280.8	\$29.20	11.51			
242.21	Classroom A 208	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.59	1528.8	\$159.00	\$28.00	\$168.00	0.05	140.4	\$14.60	11.51			
242.21	Classroom C 209	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3,338.4	\$347.19	12	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	1.18	3057.6	\$317.99	\$28.00	\$336.00	0.11	280.8	\$29.20	11.51			
242.21	Classroom C 211	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3,338.4	\$347.19	12	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	1.18	3057.6	\$317.99	\$28.00	\$336.00	0.11	280.8	\$29.20	11.51			
242.21	Utility Closet	1200	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	128.4	\$13.35	1	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.10	117.6	\$12.23	\$28.00	\$28.00	0.01	10.8	\$1.12	24.93			
242.21	A202F FC	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.59	1528.8	\$159.00	\$28.00	\$168.00	0.05	140.4	\$14.60	11.51			
242.21	Storage	1200	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	128.4	\$13.35	1	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.10	117.6	\$12.23	\$28.00	\$28.00	0.01	10.8	\$1.12	24.93			
242.21	Women's Room	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.10	254.8	\$26.50	\$28.00	\$28.00	0.01	23.4	\$2.43	11.51			
242.21	211 Prep	2600	3	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.32	834.6	\$86.80	3	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.29	764.4	\$79.50	\$28.00	\$84.00	0.03	70.2	\$7.30	11.51			
242.21	Classroom B 201	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.88	2293.2	\$238.49	\$28.00	\$252.00	0.08	210.6	\$21.90	11.51			
242.21	Classroom B 202	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3,338.4	\$347.19	12	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	1.18	3057.6	\$317.99	\$28.00	\$336.00	0.11	280.8	\$29.20	11.51			
242.21	Classroom B 203	2600	10	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.07	2,782.0	\$289.33	10	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.98	2548	\$264.99	\$28.00	\$280.00	0.09	234	\$24.34	11.51			
242.21	Classroom B 204	2600	10	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.07	2,782.0	\$289.33	10	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.98	2548	\$264.99	\$28.00	\$280.00	0.09	234	\$24.34	11.51			

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ECM #1 &2: Lighting Upgrade - General

EXISTING LIGHTING										PROPOSED LIGHTING										SAVINGS					
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Lamps	Retro-Unit Description	Watts Used	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback			
242.21	Classroom B 205	2600	10	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.07	2,782.0	\$289.33	10	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.98	2548	\$264.99	\$28.00	\$280.00	0.09	234	\$24.34	11.51			
242.21	Classroom B 206	2600	10	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.07	2,782.0	\$289.33	10	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.98	2548	\$264.99	\$28.00	\$280.00	0.09	234	\$24.34	11.51			
242.21	Utility Closet	1200	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	128.4	\$13.35	1	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.10	117.6	\$12.23	\$28.00	\$28.00	0.01	10.8	\$1.12	24.93			
242.21	B206F FP	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.59	1528.8	\$159.00	\$28.00	\$168.00	0.05	140.4	\$14.60	11.51			
242.21	Men's Room	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.20	509.6	\$53.00	\$28.00	\$56.00	0.02	46.8	\$4.87	11.51			
221.41		2600	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.12	301.6	\$31.37	2	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.10	260	\$27.04	\$14.00	\$28.00	0.02	41.6	\$4.33	6.47			
242.21	Women's Room	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.20	509.6	\$53.00	\$28.00	\$56.00	0.02	46.8	\$4.87	11.51			
221.41		2600	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.12	301.6	\$31.37	2	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.10	260	\$27.04	\$14.00	\$28.00	0.02	41.6	\$4.33	6.47			
221.41	Custodial Closet	2600	1	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.06	150.8	\$15.68	1	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.05	130	\$13.52	\$14.00	\$14.00	0.01	20.8	\$2.16	6.47			
242.21	213 Prep	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.20	509.6	\$53.00	\$28.00	\$56.00	0.02	46.8	\$4.87	11.51			
242.21	Classroom C 215	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.59	1528.8	\$159.00	\$28.00	\$168.00	0.05	140.4	\$14.60	11.51			
242.21	Classroom C 216	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.59	1528.8	\$159.00	\$28.00	\$168.00	0.05	140.4	\$14.60	11.51			
242.21	Classroom C 217	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.59	1528.8	\$159.00	\$28.00	\$168.00	0.05	140.4	\$14.60	11.51			
242.21	Classroom C 218	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.88	2293.2	\$238.49	\$28.00	\$252.00	0.08	210.6	\$21.90	11.51			
242.21	Classroom C 219	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.59	1528.8	\$159.00	\$28.00	\$168.00	0.05	140.4	\$14.60	11.51			
242.21	Classroom C 220	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.88	2293.2	\$238.49	\$28.00	\$252.00	0.08	210.6	\$21.90	11.51			
242.21	Classroom C 213	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3,338.4	\$347.19	12	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	1.18	3057.6	\$317.99	\$28.00	\$336.00	0.11	280.8	\$29.20	11.51			
242.21	Classroom C 222	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3,338.4	\$347.19	12	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	1.18	3057.6	\$317.99	\$28.00	\$336.00	0.11	280.8	\$29.20	11.51			
242.21	Utility Closet	1200	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	128.4	\$13.35	1	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.10	117.6	\$12.23	\$28.00	\$28.00	0.01	10.8	\$1.12	24.93			

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ECM #1 &2: Lighting Upgrade - General

EXISTING LIGHTING										PROPOSED LIGHTING										SAVINGS					
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Lamps	Retro-Unit Description	Watts Used	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback			
242.21	Storage	1200	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	128.4	\$13.35	1	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.10	117.6	\$12.23	\$28.00	\$28.00	0.01	10.8	\$1.12	24.93			
242.21	P202 FP	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.59	1528.8	\$159.00	\$28.00	\$168.00	0.05	140.4	\$14.60	11.51			
242.21	Stairways S5-S6	3000	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	321.0	\$33.38	1	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.10	294	\$30.58	\$28.00	\$28.00	0.01	27	\$2.81	9.97			
227.21		3000	1	2	2x2, 2 Lamp, 32w 700 series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	65	0.07	195.0	\$20.28	1	2	Sylvania Lamp FBO30/841XP/6/SS/ECO	49	0.05	147	\$15.29	\$24.00	\$24.00	0.02	48	\$4.99	4.81			
242.21	Classroom D 203	2600	8	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.86	2,225.6	\$231.46	8	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.78	2038.4	\$211.99	\$28.00	\$224.00	0.07	187.2	\$19.47	11.51			
242.21	Classroom D 205	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1,112.8	\$115.73	4	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.39	1019.2	\$106.00	\$28.00	\$112.00	0.04	93.6	\$9.73	11.51			
242.21	Classroom D 207	2600	8	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.86	2,225.6	\$231.46	8	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.78	2038.4	\$211.99	\$28.00	\$224.00	0.07	187.2	\$19.47	11.51			
242.21	Classroom D 209	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1,112.8	\$115.73	4	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.39	1019.2	\$106.00	\$28.00	\$112.00	0.04	93.6	\$9.73	11.51			
242.21	Classroom C 208	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3,338.4	\$347.19	12	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	1.18	3057.6	\$317.99	\$28.00	\$336.00	0.11	280.8	\$29.20	11.51			
242.21	Classroom C 212	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.88	2293.2	\$238.49	\$28.00	\$252.00	0.08	210.6	\$21.90	11.51			
242.21	Classroom C 210	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.59	1528.8	\$159.00	\$28.00	\$168.00	0.05	140.4	\$14.60	11.51			
242.21	Classroom C 214	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3,338.4	\$347.19	12	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	1.18	3057.6	\$317.99	\$28.00	\$336.00	0.11	280.8	\$29.20	11.51			
327.23	Media Center	2600	140	2	2x2 2 Lamp, 14w T5, Recessed Mnt., Direct/Indirect	31	4.34	11,284.0	\$1,173.54	140	0	No Change	0	0.00	0	\$0.00	\$0.00	\$0.00	0.00	0	\$0.00	0.00			
242.21	Men's Room	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.20	509.6	\$53.00	\$28.00	\$56.00	0.02	46.8	\$4.87	11.51			
221.41		2600	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.12	301.6	\$31.37	2	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.10	260	\$27.04	\$14.00	\$28.00	0.02	41.6	\$4.33	6.47			
242.21	Women's Room	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.20	509.6	\$53.00	\$28.00	\$56.00	0.02	46.8	\$4.87	11.51			
221.41		2600	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.12	301.6	\$31.37	2	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.10	260	\$27.04	\$14.00	\$28.00	0.02	41.6	\$4.33	6.47			
221.41	Custodial Closet	1200	1	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.06	69.6	\$7.24	1	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.05	60	\$6.24	\$14.00	\$14.00	0.01	9.6	\$1.00	14.02			
242.21	D201-9 Office	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1,112.8	\$115.73	4	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.39	1019.2	\$106.00	\$28.00	\$112.00	0.04	93.6	\$9.73	11.51			

Investment Grade Lighting Audit

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ECM #1 &2: Lighting Upgrade - General

EXISTING LIGHTING										PROPOSED LIGHTING										SAVINGS					
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Lamps	Retro-Unit Description	Watts Used	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback			
242.21	Teacher's Lounge	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1,112.8	\$115.73	4	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.39	1019.2	\$106.00	\$28.00	\$112.00	0.04	93.6	\$9.73	11.51			
242.21	Computer Room	2600	8	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.86	2,225.6	\$231.46	8	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.78	2038.4	\$211.99	\$28.00	\$224.00	0.07	187.2	\$19.47	11.51			
242.21	Computer Room	2600	14	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.50	3,894.8	\$405.06	14	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	1.37	3567.2	\$370.99	\$28.00	\$392.00	0.13	327.6	\$34.07	11.51			
242.21	Control Booth	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.59	1528.8	\$159.00	\$28.00	\$168.00	0.05	140.4	\$14.60	11.51			
221.41	Control Booth Stairs	2600	4	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.23	603.2	\$62.73	4	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.20	520	\$54.08	\$14.00	\$56.00	0.03	83.2	\$8.65	6.47			
242.21	D201-3 Storage	1200	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	513.6	\$53.41	4	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.39	470.4	\$48.92	\$28.00	\$112.00	0.04	43.2	\$4.49	24.93			
242.21	Newspaper	2600	8	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.86	2,225.6	\$231.46	8	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.78	2038.4	\$211.99	\$28.00	\$224.00	0.07	187.2	\$19.47	11.51			
242.21	D 102 FP	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.59	1528.8	\$159.00	\$28.00	\$168.00	0.05	140.4	\$14.60	11.51			
242.21	Elec. Closet	1200	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	128.4	\$13.35	1	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.10	117.6	\$12.23	\$28.00	\$28.00	0.01	10.8	\$1.12	24.93			
221.11	Machine Room	1200	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	74.4	\$7.74	1	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.05	60	\$6.24	\$14.00	\$14.00	0.01	14.4	\$1.50	9.35			
242.21	Classroom C 101	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.59	1528.8	\$159.00	\$28.00	\$168.00	0.05	140.4	\$14.60	11.51			
242.21	Classroom C 102	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.59	1528.8	\$159.00	\$28.00	\$168.00	0.05	140.4	\$14.60	11.51			
242.21	Classroom C 103	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.59	1528.8	\$159.00	\$28.00	\$168.00	0.05	140.4	\$14.60	11.51			
242.21	Classroom C 104	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.88	2293.2	\$238.49	\$28.00	\$252.00	0.08	210.6	\$21.90	11.51			
242.21	Classroom C 105	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.88	2293.2	\$238.49	\$28.00	\$252.00	0.08	210.6	\$21.90	11.51			
242.21	Classroom C 106	2600	8	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.86	2,225.6	\$231.46	8	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.78	2038.4	\$211.99	\$28.00	\$224.00	0.07	187.2	\$19.47	11.51			
227.21		2600	8	2	2x2, 2 Lamp, 32w 700 series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	65	0.52	1,352.0	\$140.61	8	2	Sylvania Lamp FBO30/841XP/6/SS/ECO	49	0.39	1019.2	\$106.00	\$24.00	\$192.00	0.13	332.8	\$34.61	5.55			
242.21	Classroom C 107	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3,338.4	\$347.19	12	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	1.18	3057.6	\$317.99	\$28.00	\$336.00	0.11	280.8	\$29.20	11.51			
242.21	Classroom C 108	2600	7	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.75	1,947.4	\$202.53	7	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.69	1783.6	\$185.49	\$28.00	\$196.00	0.06	163.8	\$17.04	11.51			

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ECM #1 &2: Lighting Upgrade - General

EXISTING LIGHTING										PROPOSED LIGHTING										SAVINGS					
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Lamps	Retro-Unit Description	Watts Used	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback			
242.21	107 Prep	2600	3	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.32	834.6	\$86.80	3	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.29	764.4	\$79.50	\$28.00	\$84.00	0.03	70.2	\$7.30	11.51			
242.21	Men's Room	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.20	509.6	\$53.00	\$28.00	\$56.00	0.02	46.8	\$4.87	11.51			
221.41		2600	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.12	301.6	\$31.37	2	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.10	260	\$27.04	\$14.00	\$28.00	0.02	41.6	\$4.33	6.47			
242.21	Women's Room	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.20	509.6	\$53.00	\$28.00	\$56.00	0.02	46.8	\$4.87	11.51			
221.41		2600	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.12	301.6	\$31.37	2	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.10	260	\$27.04	\$14.00	\$28.00	0.02	41.6	\$4.33	6.47			
242.21	Classroom A 101	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3,338.4	\$347.19	12	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	1.18	3057.6	\$317.99	\$28.00	\$336.00	0.11	280.8	\$29.20	11.51			
242.21	Classroom A 102	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.59	1528.8	\$159.00	\$28.00	\$168.00	0.05	140.4	\$14.60	11.51			
242.21	Classroom A 103	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.88	2293.2	\$238.49	\$28.00	\$252.00	0.08	210.6	\$21.90	11.51			
242.21	Classroom A 104	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.88	2293.2	\$238.49	\$28.00	\$252.00	0.08	210.6	\$21.90	11.51			
242.21	Classroom A 105	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.88	2293.2	\$238.49	\$28.00	\$252.00	0.08	210.6	\$21.90	11.51			
242.21	Classroom A 106	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.88	2293.2	\$238.49	\$28.00	\$252.00	0.08	210.6	\$21.90	11.51			
242.21	Classroom A 108	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.59	1528.8	\$159.00	\$28.00	\$168.00	0.05	140.4	\$14.60	11.51			
242.21	A102F FP	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.59	1528.8	\$159.00	\$28.00	\$168.00	0.05	140.4	\$14.60	11.51			
221.33	Classroom C 109	2600	20	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Direct/ Indirect	58	1.16	3,016.0	\$313.66	20	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	1.00	2600	\$270.40	\$14.00	\$280.00	0.16	416	\$43.26	6.47			
30		2600	4	2	Recessed Down Light, (2) 26w PL Lamp	54	0.22	561.6	\$58.41	4	0	No Change	0	0.00	0	\$0.00	\$0.00	\$0.00	0.00	0	\$0.00	0.00			
221.33	Classroom C 111	2600	30	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Direct/ Indirect	58	1.74	4,524.0	\$470.50	30	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	1.50	3900	\$405.60	\$14.00	\$420.00	0.24	624	\$64.90	6.47			
30		2600	5	2	Recessed Down Light, (2) 26w PL Lamp	54	0.27	702.0	\$73.01	5	0	No Change	0	0.00	0	\$0.00	\$0.00	\$0.00	0.00	0	\$0.00	0.00			
221.33	Classroom C 113	2600	36	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Direct/ Indirect	58	2.09	5,428.8	\$564.60	36	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	1.80	4680	\$486.72	\$14.00	\$504.00	0.29	748.8	\$77.88	6.47			
242.21	Classroom B 101	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3,338.4	\$347.19	12	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	1.18	3057.6	\$317.99	\$28.00	\$336.00	0.11	280.8	\$29.20	11.51			

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ECM #1 &2: Lighting Upgrade - General

EXISTING LIGHTING										PROPOSED LIGHTING										SAVINGS					
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Lamps	Retro-Unit Description	Watts Used	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback			
242.21	101 Prep	2600	3	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.32	834.6	\$86.80	3	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.29	764.4	\$79.50	\$28.00	\$84.00	0.03	70.2	\$7.30	11.51			
242.21	Classroom B 103	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.88	2293.2	\$238.49	\$28.00	\$252.00	0.08	210.6	\$21.90	11.51			
242.21	Classroom B 104	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.88	2293.2	\$238.49	\$28.00	\$252.00	0.08	210.6	\$21.90	11.51			
242.21	Classroom B 105	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.88	2293.2	\$238.49	\$28.00	\$252.00	0.08	210.6	\$21.90	11.51			
242.21	Classroom B 106	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.88	2293.2	\$238.49	\$28.00	\$252.00	0.08	210.6	\$21.90	11.51			
242.21	Classroom B 102	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3,338.4	\$347.19	12	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	1.18	3057.6	\$317.99	\$28.00	\$336.00	0.11	280.8	\$29.20	11.51			
242.21	Classroom B 108	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.88	2293.2	\$238.49	\$28.00	\$252.00	0.08	210.6	\$21.90	11.51			
242.21	B105F FP	2600	3	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.32	834.6	\$86.80	3	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.29	764.4	\$79.50	\$28.00	\$84.00	0.03	70.2	\$7.30	11.51			
242.21	Men's Room	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.20	509.6	\$53.00	\$28.00	\$56.00	0.02	46.8	\$4.87	11.51			
221.41		2600	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.12	301.6	\$31.37	2	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.10	260	\$27.04	\$14.00	\$28.00	0.02	41.6	\$4.33	6.47			
242.21	Women's Room	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.20	509.6	\$53.00	\$28.00	\$56.00	0.02	46.8	\$4.87	11.51			
221.41		2600	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.12	301.6	\$31.37	2	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.10	260	\$27.04	\$14.00	\$28.00	0.02	41.6	\$4.33	6.47			
242.21	115 Prep	2600	3	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.32	834.6	\$86.80	3	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.29	764.4	\$79.50	\$28.00	\$84.00	0.03	70.2	\$7.30	11.51			
242.21	Classroom C 115	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3,338.4	\$347.19	12	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	1.18	3057.6	\$317.99	\$28.00	\$336.00	0.11	280.8	\$29.20	11.51			
242.21	Classroom C 116	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.88	2293.2	\$238.49	\$28.00	\$252.00	0.08	210.6	\$21.90	11.51			
242.21	Classroom C 117	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.59	1528.8	\$159.00	\$28.00	\$168.00	0.05	140.4	\$14.60	11.51			
221.33	Classroom C 118	2600	18	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Direct/ Indirect	58	1.04	2,714.4	\$282.30	18	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.90	2340	\$243.36	\$14.00	\$252.00	0.14	374.4	\$38.94	6.47			
242.21	Classroom C 119	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.88	2293.2	\$238.49	\$28.00	\$252.00	0.08	210.6	\$21.90	11.51			
242.21	Classroom C 114	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.88	2293.2	\$238.49	\$28.00	\$252.00	0.08	210.6	\$21.90	11.51			

Investment Grade Lighting Audit

APPENDIX E15 of 54

ECM #1 &2: Lighting Upgrade - General

EXISTING LIGHTING										PROPOSED LIGHTING										SAVINGS			
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Lamps	Retro-Unit Description	Watts Used	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback	
242.21	Classroom C 112	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.59	1528.8	\$159.00	\$28.00	\$168.00	0.05	140.4	\$14.60	11.51	
242.21	Classroom C 121	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.88	2293.2	\$238.49	\$28.00	\$252.00	0.08	210.6	\$21.90	11.51	
242.21	Utility Closet	1200	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	128.4	\$13.35	1	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.10	117.6	\$12.23	\$28.00	\$28.00	0.01	10.8	\$1.12	24.93	
242.21	Storage	1200	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	128.4	\$13.35	1	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.10	117.6	\$12.23	\$28.00	\$28.00	0.01	10.8	\$1.12	24.93	
242.21	Utility Closet	1200	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	128.4	\$13.35	1	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.10	117.6	\$12.23	\$28.00	\$28.00	0.01	10.8	\$1.12	24.93	
242.21	Machine Room	1200	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	128.4	\$13.35	1	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.10	117.6	\$12.23	\$28.00	\$28.00	0.01	10.8	\$1.12	24.93	
242.21	D 112 FP	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.59	1528.8	\$159.00	\$28.00	\$168.00	0.05	140.4	\$14.60	11.51	
242.21	Classroom D 110	2600	10	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.07	2,782.0	\$289.33	10	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.98	2548	\$264.99	\$28.00	\$280.00	0.09	234	\$24.34	11.51	
242.21	Classroom D 108	2600	8	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.86	2,225.6	\$231.46	8	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.78	2038.4	\$211.99	\$28.00	\$224.00	0.07	187.2	\$19.47	11.51	
242.21	Main Office	2600	22	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	2.35	6,120.4	\$636.52	22	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	2.16	5605.6	\$582.98	\$28.00	\$616.00	0.20	514.8	\$53.54	11.51	
242.21	Mail Room	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.20	509.6	\$53.00	\$28.00	\$56.00	0.02	46.8	\$4.87	11.51	
242.21	AP Office	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.20	509.6	\$53.00	\$28.00	\$56.00	0.02	46.8	\$4.87	11.51	
242.21	Copy Room	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1,112.8	\$115.73	4	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.39	1019.2	\$106.00	\$28.00	\$112.00	0.04	93.6	\$9.73	11.51	
242.21	AP Office	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.20	509.6	\$53.00	\$28.00	\$56.00	0.02	46.8	\$4.87	11.51	
242.21	AP Office	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.20	509.6	\$53.00	\$28.00	\$56.00	0.02	46.8	\$4.87	11.51	
242.21	AP Office	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.20	509.6	\$53.00	\$28.00	\$56.00	0.02	46.8	\$4.87	11.51	
242.21	AP Office	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.20	509.6	\$53.00	\$28.00	\$56.00	0.02	46.8	\$4.87	11.51	
242.21	Principal's Office	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.20	509.6	\$53.00	\$28.00	\$56.00	0.02	46.8	\$4.87	11.51	
242.21	Utility Closet	1200	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	128.4	\$13.35	1	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.10	117.6	\$12.23	\$28.00	\$28.00	0.01	10.8	\$1.12	24.93	

Investment Grade Lighting Audit

APPENDIX E16 of 54

ECM #1 &2: Lighting Upgrade - General

EXISTING LIGHTING										PROPOSED LIGHTING										SAVINGS			
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Lamps	Retro-Unit Description	Watts Used	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback	
221.41	Women's Room	2600	1	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.06	150.8	\$15.68	1	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.05	130	\$13.52	\$14.00	\$14.00	0.01	20.8	\$2.16	6.47	
221.41	Men's Room	2600	1	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.06	150.8	\$15.68	1	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.05	130	\$13.52	\$14.00	\$14.00	0.01	20.8	\$2.16	6.47	
242.21	Office Hall	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1,112.8	\$115.73	4	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.39	1019.2	\$106.00	\$28.00	\$112.00	0.04	93.6	\$9.73	11.51	
242.21	D 101-18	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.20	509.6	\$53.00	\$28.00	\$56.00	0.02	46.8	\$4.87	11.51	
242.21	Custodial Closet	1200	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	128.4	\$13.35	1	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.10	117.6	\$12.23	\$28.00	\$28.00	0.01	10.8	\$1.12	24.93	
221.41	Women's Room	2600	1	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.06	150.8	\$15.68	1	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.05	130	\$13.52	\$14.00	\$14.00	0.01	20.8	\$2.16	6.47	
221.41	Men's Room	2600	1	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.06	150.8	\$15.68	1	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.05	130	\$13.52	\$14.00	\$14.00	0.01	20.8	\$2.16	6.47	
242.21	C 110-9 CC	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.59	1528.8	\$159.00	\$28.00	\$168.00	0.05	140.4	\$14.60	11.51	
242.21	C 110-10	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.10	254.8	\$26.50	\$28.00	\$28.00	0.01	23.4	\$2.43	11.51	
242.21	Conf. Room	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1,112.8	\$115.73	4	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.39	1019.2	\$106.00	\$28.00	\$112.00	0.04	93.6	\$9.73	11.51	
242.21	Copy Room	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.10	254.8	\$26.50	\$28.00	\$28.00	0.01	23.4	\$2.43	11.51	
242.21	Guidance	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3,338.4	\$347.19	12	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	1.18	3057.6	\$317.99	\$28.00	\$336.00	0.11	280.8	\$29.20	11.51	
242.21	Side Offices (5)	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.20	509.6	\$53.00	\$28.00	\$56.00	0.02	46.8	\$4.87	11.51	
242.21	Conf. Room	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1,112.8	\$115.73	4	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.39	1019.2	\$106.00	\$28.00	\$112.00	0.04	93.6	\$9.73	11.51	
242.21	Copy 101-1	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.10	254.8	\$26.50	\$28.00	\$28.00	0.01	23.4	\$2.43	11.51	
221.41	Women's Room	2600	1	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.06	150.8	\$15.68	1	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.05	130	\$13.52	\$14.00	\$14.00	0.01	20.8	\$2.16	6.47	
221.41	Men's Room	2600	1	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.06	150.8	\$15.68	1	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.05	130	\$13.52	\$14.00	\$14.00	0.01	20.8	\$2.16	6.47	
242.21	CST	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.10	254.8	\$26.50	\$28.00	\$28.00	0.01	23.4	\$2.43	11.51	
242.21	CST	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.20	509.6	\$53.00	\$28.00	\$56.00	0.02	46.8	\$4.87	11.51	

Investment Grade Lighting Audit

APPENDIX E17 of 54

ECM #1 &2: Lighting Upgrade - General

EXISTING LIGHTING										PROPOSED LIGHTING										SAVINGS			
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Lamps	Retro-Unit Description	Watts Used	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback	
242.21	CST	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.10	254.8	\$26.50	\$28.00	\$28.00	0.01	23.4	\$2.43	11.51	
242.21	CST Hall	2600	3	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.32	834.6	\$86.80	3	4	Relamp - Sylvania Lamp FO28/841/SS/ECO	98	0.29	764.4	\$79.50	\$28.00	\$84.00	0.03	70.2	\$7.30	11.51	
221.41	Women's Room	2600	1	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.06	150.8	\$15.68	1	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.05	130	\$13.52	\$14.00	\$14.00	0.01	20.8	\$2.16	6.47	
221.41	Men's Room	2600	1	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.06	150.8	\$15.68	1	2	Relamp - Sylvania Lamp FO28/841/SS/ECO	50	0.05	130	\$13.52	\$14.00	\$14.00	0.01	20.8	\$2.16	6.47	
242.211	Corridor 200	3000	50	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	104	5.20	15,600.0	\$1,622.40	50	3	Remove 1 Lamp; Relamp w/Sylvania Lamp FO28/841/SS/ECO; 95% Alum. Reflector; No Ballast Change Required	86	4.30	12900	\$1,341.60	\$80.00	\$4,000.00	0.90	2700	\$280.80	14.25	
227.21		3000	16	2	2x2, 2 Lamp, 32w 700 series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	65	1.04	3,120.0	\$324.48	16	2	Sylvania Lamp FBO30/841XP/6//SS/ECO	49	0.78	2352	\$244.61	\$24.00	\$384.00	0.26	768	\$79.87	4.81	
242.211	Corridor 100 A-D	3000	92	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	104	9.57	28,704.0	\$2,985.22	92	3	Remove 1 Lamp; Relamp w/Sylvania Lamp FO28/841/SS/ECO; 95% Alum. Reflector; No Ballast Change Required	86	7.91	23736	\$2,468.54	\$80.00	\$7,360.00	1.66	4968	\$516.67	14.25	
227.21		3000	31	2	2x2, 2 Lamp, 32w 700 series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	65	2.02	6,045.0	\$628.68	31	2	Sylvania Lamp FBO30/841XP/6//SS/ECO	49	1.52	4557	\$473.93	\$24.00	\$744.00	0.50	1488	\$154.75	4.81	
Totals			2,368	1039				714,163	\$74,273	2,368	1013			184.0	489,364	\$50,894		\$75,081	27.1	72,515	\$7,542	9.96	

CEG Job #: 9C11059

Project: Lenape Reginal High School District

Address: 110 Carranza Road

Tabernacle, NJ 08088

Building SF: 255,736

Seneca High School

KWH COST: \$0.104

ECM #3: Lighting Controls

EXISTING LIGHTING										PROPOSED LIGHTING CONTROLS										SAVINGS					
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Cont.	Controls Description	Watts Used	Total kW	Reduction (%)	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback		
242.21	Kitchen	2600	19	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	2.03	5285.8	\$549.72	19	0	No Change	107	2.03	0%	5285.8	\$549.72	\$0.00	\$0.00	0.00	0	\$0.00	0.00		
227.21	Kitchen	2600	12	2	2x2, 2 Lamp, 32w 700 series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	65	0.78	2028	\$210.91	12	0	No Change	65	0.78	0%	2028	\$210.91	\$0.00	\$0.00	0.00	0	\$0.00	0.00		
242.21	Kitchen Office	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.09	20%	222.56	\$23.15	\$150.00	\$150.00	0.02	55.64	\$5.79	25.92		
242.21	Kitchen Laundry	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.09	20%	222.56	\$23.15	\$150.00	\$150.00	0.02	55.64	\$5.79	25.92		
242.21	Kitchen Locker	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.17	20%	445.12	\$46.29	\$150.00	\$150.00	0.04	111.28	\$11.57	12.96		
221.11	Kitchen Toilet	2600	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	1	Dual Technology Occupancy Sensor - Switch Mnt.	62	0.05	20%	128.96	\$13.41	\$150.00	\$150.00	0.01	32.24	\$3.35	44.74		
221.33	Classroom F114	2600	32	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Direct/ Indirect	58	1.86	4825.6	\$501.86	32	1	Dual Technology Occupancy Sensor - Remote Mnt.	58	1.48	20%	3860.48	\$401.49	\$300.00	\$300.00	0.37	965.12	\$100.37	2.99		
221.33	Classroom F113	2600	9	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Direct/ Indirect	58	0.52	1357.2	\$141.15	9	1	Dual Technology Occupancy Sensor - Remote Mnt.	58	0.42	20%	1085.76	\$112.92	\$300.00	\$300.00	0.10	271.44	\$28.23	10.63		
221.31	Classroom F112	2600	4	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	62	0.25	644.8	\$67.06	4	1	Dual Technology Occupancy Sensor - Switch Mnt.	62	0.20	20%	515.84	\$53.65	\$150.00	\$150.00	0.05	128.96	\$13.41	11.18		
736	Classroom F112	2600	20	1	175w MH, Pendant Mnt., Prismatic Lens	210	4.20	10920	\$1,135.68	20	0	No Change	210	4.20	0%	10920	\$1,135.68	\$0.00	\$0.00	0.00	0	\$0.00	0.00		
200	Classroom F112 Closet	1000	1	1	1x2, 1 Lamp, 17w T8, Elect. Ballast, Surface Mnt., No Lens	17	0.02	17	\$1.77	1	0	No Change	17	0.02	0%	17	\$1.77	\$0.00	\$0.00	0.00	0	\$0.00	0.00		
221.31	Classroom F112 Toilet	2600	4	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	62	0.25	644.8	\$67.06	4	1	Dual Technology Occupancy Sensor - Switch Mnt.	62	0.20	20%	515.84	\$53.65	\$150.00	\$150.00	0.05	128.96	\$13.41	11.18		
242.21	F112-T	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	0	No Change	107	0.11	0%	278.2	\$28.93	\$0.00	\$0.00	0.00	0	\$0.00	0.00		
241.34	Classroom F110	2600	32	4	1x4, 4 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	104	3.33	8652.8	\$899.89	32	1	Dual Technology Occupancy Sensor - Remote Mnt.	104	2.66	20%	6922.24	\$719.91	\$300.00	\$300.00	0.67	1730.56	\$179.98	1.67		
241.34	Classroom F110 Storage	1000	3	4	1x4, 4 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	104	0.31	312	\$32.45	3	0	No Change	104	0.31	0%	312	\$32.45	\$0.00	\$0.00	0.00	0	\$0.00	0.00		

ECM #3: Lighting Controls

EXISTING LIGHTING										PROPOSED LIGHTING CONTROLS											SAVINGS			
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Cont.	Controls Description	Watts Used	Total kW	Reduction (%)	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback	
242.21	Classroom F110 Office	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1112.8	\$115.73	4	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.34	20%	890.24	\$92.58	\$150.00	\$150.00	0.09	222.56	\$23.15	6.48	
242.21	Classroom F110 Finishing	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1112.8	\$115.73	4	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.34	20%	890.24	\$92.58	\$150.00	\$150.00	0.09	222.56	\$23.15	6.48	
221.31	Classroom F110 Finishing	2600	4	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	62	0.25	644.8	\$67.06	4	1	Dual Technology Occupancy Sensor - Switch Mnt.	62	0.20	20%	515.84	\$53.65	\$150.00	\$150.00	0.05	128.96	\$13.41	11.18	
242.21	Wood Shop Corridor	4000	5	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.54	2140	\$222.56	5	0	No Change	107	0.54	0%	2140	\$222.56	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
242.21	Café Corridor	4000	17	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.82	7276	\$756.70	17	0	No Change	107	1.82	0%	7276	\$756.70	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
242.21	Classroom F108	2600	3	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.32	834.6	\$86.80	3	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.26	20%	667.68	\$69.44	\$300.00	\$300.00	0.06	166.92	\$17.36	17.28	
221.33	Classroom F108	2600	30	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Direct/ Indirect	58	1.74	4524	\$470.50	30	0	No Change	58	1.74	0%	4524	\$470.50	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
221.31	Classroom F106	2600	20	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	62	1.24	3224	\$335.30	20	1	Dual Technology Occupancy Sensor - Remote Mnt.	62	0.99	20%	2579.2	\$268.24	\$300.00	\$300.00	0.25	644.8	\$67.06	4.47	
30	Classroom F106 Control Room	2600	9	2	Recessed Down Light, (2) 26w PL Lamp	54	0.49	1263.6	\$131.41	9	1	Dual Technology Occupancy Sensor - Switch Mnt.	54	0.39	20%	1010.88	\$105.13	\$150.00	\$150.00	0.10	252.72	\$26.28	5.71	
30	Classroom F106 Control Room	2600	9	2	Recessed Down Light, (2) 26w PL Lamp	54	0.49	1263.6	\$131.41	9	1	Dual Technology Occupancy Sensor - Switch Mnt.	54	0.39	20%	1010.88	\$105.13	\$150.00	\$150.00	0.10	252.72	\$26.28	5.71	
221.33	Classroom F104	2600	36	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Direct/ Indirect	58	2.09	5428.8	\$564.60	36	1	Dual Technology Occupancy Sensor - Remote Mnt.	58	1.67	20%	4343.04	\$451.68	\$300.00	\$300.00	0.42	1085.76	\$112.92	2.66	
242.21	Classroom F104 Storage	1000	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	214	\$22.26	2	0	No Change	107	0.21	0%	214	\$22.26	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
242.21	F104 Corridor	4000	5	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.54	2140	\$222.56	5	0	No Change	107	0.54	0%	2140	\$222.56	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
221.11	Boiler Room	2600	27	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	1.67	4352.4	\$452.65	27	0	No Change	62	1.67	0%	4352.4	\$452.65	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
221.33	Classroom E108	2600	14	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Direct/ Indirect	58	0.81	2111.2	\$219.56	14	1	Dual Technology Occupancy Sensor - Remote Mnt.	58	0.65	20%	1688.96	\$175.65	\$300.00	\$300.00	0.16	422.24	\$43.91	6.83	
221.33	Classroom E106	2600	46	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Direct/ Indirect	58	2.67	6936.8	\$721.43	46	1	Dual Technology Occupancy Sensor - Remote Mnt.	58	2.13	20%	5549.44	\$577.14	\$300.00	\$300.00	0.53	1387.36	\$144.29	2.08	

ECM #3: Lighting Controls

EXISTING LIGHTING										PROPOSED LIGHTING CONTROLS										SAVINGS			
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Cont.	Controls Description	Watts Used	Total kW	Reduction (%)	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback
242.21	Classroom E106 Storage	1000	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	214	\$22.26	2	0	No Change	107	0.21	0%	214	\$22.26	\$0.00	\$0.00	0.00	0	\$0.00	0.00
242.21	Classroom E106 Office	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.17	20%	445.12	\$46.29	\$150.00	\$150.00	0.04	111.28	\$11.57	12.96
242.21	Classroom E106 Office #2	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1112.8	\$115.73	4	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.34	20%	890.24	\$92.58	\$150.00	\$150.00	0.09	222.56	\$23.15	6.48
227.21	Classroom E105	2600	2	2	2x2, 2 Lamp, 32w 700 series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	65	0.13	338	\$35.15	2	0	No Change	65	0.13	0%	338	\$35.15	\$0.00	\$0.00	0.00	0	\$0.00	0.00
242.21	Classroom E105 Practice Room	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.17	20%	445.12	\$46.29	\$150.00	\$150.00	0.04	111.28	\$11.57	12.96
242.21	Classroom E105 Practice Room	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1112.8	\$115.73	4	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.34	20%	890.24	\$92.58	\$150.00	\$150.00	0.09	222.56	\$23.15	6.48
242.21	Classroom E105 Practice Room	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1112.8	\$115.73	4	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.34	20%	890.24	\$92.58	\$150.00	\$150.00	0.09	222.56	\$23.15	6.48
221.33	Classroom E105	2600	54	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Direct/ Indirect	58	3.13	8143.2	\$846.89	54	1	Dual Technology Occupancy Sensor - Remote Mnt.	58	2.51	20%	6514.56	\$677.51	\$300.00	\$300.00	0.63	1628.64	\$169.38	1.77
242.21	Classroom E105 Practice Room	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.17	20%	445.12	\$46.29	\$150.00	\$150.00	0.04	111.28	\$11.57	12.96
242.21	Classroom E105 Storage	1000	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	214	\$22.26	2	0	No Change	107	0.21	0%	214	\$22.26	\$0.00	\$0.00	0.00	0	\$0.00	0.00
242.21	Classroom E105 Storage	1000	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	214	\$22.26	2	0	No Change	107	0.21	0%	214	\$22.26	\$0.00	\$0.00	0.00	0	\$0.00	0.00
242.21	Classroom E105 Equipment	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	0	No Change	107	0.21	0%	556.4	\$57.87	\$0.00	\$0.00	0.00	0	\$0.00	0.00
242.21	Classroom F105	2600	11	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.18	3060.2	\$318.26	11	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.94	20%	2448.16	\$254.61	\$300.00	\$300.00	0.24	612.04	\$63.65	4.71
242.21	Classroom F105 Storage	1000	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	107	\$11.13	1	0	No Change	107	0.11	0%	107	\$11.13	\$0.00	\$0.00	0.00	0	\$0.00	0.00
242.21	Classroom F105 Back	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1112.8	\$115.73	4	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.34	20%	890.24	\$92.58	\$300.00	\$300.00	0.09	222.56	\$23.15	12.96
242.21	E101 Utility	1000	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	107	\$11.13	1	0	No Change	107	0.11	0%	107	\$11.13	\$0.00	\$0.00	0.00	0	\$0.00	0.00

ECM #3: Lighting Controls

EXISTING LIGHTING					PROPOSED LIGHTING CONTROLS										SAVINGS								SAVINGS		SAVINGS	
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Cont.	Controls Description	Watts Used	Total kW	Reduction (%)	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback			
242.21	Classroom F103	2600	8	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.86	2225.6	\$231.46	8	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.68	20%	1780.48	\$185.17	\$300.00	\$300.00	0.17	445.12	\$46.29	6.48			
242.21	Classroom F103 Back	2600	5	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.54	1391	\$144.66	5	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.43	20%	1112.8	\$115.73	\$300.00	\$300.00	0.11	278.2	\$28.93	10.37			
242.21	Classroom F101	2600	16	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.71	4451.2	\$462.92	16	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	1.37	20%	3560.96	\$370.34	\$300.00	\$300.00	0.34	890.24	\$92.58	3.24			
242.21	E102 Utility	1000	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	107	\$11.13	1	0	No Change	107	0.11	0%	107	\$11.13	\$0.00	\$0.00	0.00	0	\$0.00	0.00			
242.21	E102 Ticket Booth	2600	5	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.54	1391	\$144.66	5	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.43	20%	1112.8	\$115.73	\$150.00	\$150.00	0.11	278.2	\$28.93	5.18			
242.21	Boy's Room	2600	3	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.32	834.6	\$86.80	3	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.26	20%	667.68	\$69.44	\$150.00	\$150.00	0.06	166.92	\$17.36	8.64			
227.21	Boy's Room	2600	1	2	2x2, 2 Lamp, 32w 700 series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	65	0.07	169	\$17.58	1	0	No Change	65	0.07	0%	169	\$17.58	\$0.00	\$0.00	0.00	0	\$0.00	0.00			
221.11	Boy's Room	2600	2	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.12	322.4	\$33.53	2	0	No Change	62	0.12	0%	322.4	\$33.53	\$0.00	\$0.00	0.00	0	\$0.00	0.00			
242.21	Girl's Room	2600	3	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.32	834.6	\$86.80	3	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.26	20%	667.68	\$69.44	\$150.00	\$150.00	0.06	166.92	\$17.36	8.64			
227.21	Girl's Room	2600	1	2	2x2, 2 Lamp, 32w 700 series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	65	0.07	169	\$17.58	1	0	No Change	65	0.07	0%	169	\$17.58	\$0.00	\$0.00	0.00	0	\$0.00	0.00			
221.11	Girl's Room	2600	2	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.12	322.4	\$33.53	2	0	No Change	62	0.12	0%	322.4	\$33.53	\$0.00	\$0.00	0.00	0	\$0.00	0.00			
242.21	Janitor's Closet	1000	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	214	\$22.26	2	0	No Change	107	0.21	0%	214	\$22.26	\$0.00	\$0.00	0.00	0	\$0.00	0.00			
736	G108 Weight Room	2600	15	1	175w MH, Pendant Mnt., Prismatic Lens	210	3.15	8190	\$851.76	15	0	No Change	210	3.15	0%	8190	\$851.76	\$0.00	\$0.00	0.00	0	\$0.00	0.00			
242.21	Janitor's Closet	1000	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	214	\$22.26	2	0	No Change	107	0.21	0%	214	\$22.26	\$0.00	\$0.00	0.00	0	\$0.00	0.00			
242.21	Boy's Room	2600	5	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.54	1391	\$144.66	5	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.43	20%	1112.8	\$115.73	\$150.00	\$150.00	0.11	278.2	\$28.93	5.18			
221.11	Boy's Room	2600	4	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.25	644.8	\$67.06	4	0	No Change	62	0.25	0%	644.8	\$67.06	\$0.00	\$0.00	0.00	0	\$0.00	0.00			

ECM #3: Lighting Controls

EXISTING LIGHTING										PROPOSED LIGHTING CONTROLS											SAVINGS			
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Cont.	Controls Description	Watts Used	Total kW	Reduction (%)	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback	
242.21	Girl's Room	2600	5	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.54	1391	\$144.66	5	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.43	20%	1112.8	\$115.73	\$150.00	\$150.00	0.11	278.2	\$28.93	5.18	
221.11	Girl's Room	2600	4	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.25	644.8	\$67.06	4	0	No Change	62	0.25	0%	644.8	\$67.06	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
242.21	Boy's Locker	2600	16	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.71	4451.2	\$462.92	16	0	No Change	107	1.71	0%	4451.2	\$462.92	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
221.11	Boy's Locker Toilet	2600	4	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.25	644.8	\$67.06	4	0	No Change	62	0.25	0%	644.8	\$67.06	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
221.11	Boy's Locker Toilet	2600	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	0	No Change	62	0.06	0%	161.2	\$16.76	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
242.21	Gym Corridor	4000	11	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.18	4708	\$489.63	11	0	No Change	107	1.18	0%	4708	\$489.63	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
242.21	Gym Exit	4000	3	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.32	1284	\$133.54	3	0	No Change	107	0.32	0%	1284	\$133.54	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
222.21	G105 Locker	2600	13	2	2x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	62	0.81	2095.6	\$217.94	13	0	No Change	62	0.81	0%	2095.6	\$217.94	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
242.21	Physical Education Office	2600	3	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.32	834.6	\$86.80	3	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.26	20%	667.68	\$69.44	\$150.00	\$150.00	0.06	166.92	\$17.36	8.64	
221.11	G105 Toilet	2600	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	0	No Change	62	0.06	0%	161.2	\$16.76	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
242.21	G107 Locker	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	0	No Change	107	0.21	0%	556.4	\$57.87	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
221.11	G107 Toilet	2600	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	0	No Change	62	0.06	0%	161.2	\$16.76	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
242.21	G109 Boy's Locker	2600	14	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.50	3894.8	\$405.06	14	0	No Change	107	1.50	0%	3894.8	\$405.06	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
221.11	G109 Toilet	2600	4	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.25	644.8	\$67.06	4	0	No Change	62	0.25	0%	644.8	\$67.06	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
242.21	Girl's Locker	2600	16	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.71	4451.2	\$462.92	16	0	No Change	107	1.71	0%	4451.2	\$462.92	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
221.11	Girl's Locker Toilet	2600	4	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.25	644.8	\$67.06	4	0	No Change	62	0.25	0%	644.8	\$67.06	\$0.00	\$0.00	0.00	0	\$0.00	0.00	

ECM #3: Lighting Controls

EXISTING LIGHTING										PROPOSED LIGHTING CONTROLS											SAVINGS			
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Cont.	Controls Description	Watts Used	Total kW	Reduction (%)	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback	
221.11	Girls's Locker Toilet	2600	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	0	No Change	62	0.06	0%	161.2	\$16.76	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
242.21	Gym Corridor	4000	11	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.18	4708	\$489.63	11	0	No Change	107	1.18	0%	4708	\$489.63	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
242.21	Gym Exit	4000	3	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.32	1284	\$133.54	3	0	No Change	107	0.32	0%	1284	\$133.54	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
222.21	Girl's Locker	2600	13	2	2x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	62	0.81	2095.6	\$217.94	13	0	No Change	62	0.81	0%	2095.6	\$217.94	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
242.21	Physical Education Office	2600	3	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.32	834.6	\$86.80	3	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.26	20%	667.68	\$69.44	\$150.00	\$150.00	0.06	166.92	\$17.36	8.64	
221.11	G113 Toilet	2600	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	0	No Change	62	0.06	0%	161.2	\$16.76	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
242.21	G113 Locker	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	0	No Change	107	0.21	0%	556.4	\$57.87	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
221.11	G113 Toilet	2600	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	0	No Change	62	0.06	0%	161.2	\$16.76	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
242.21	D103 Nurse's	2600	11	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.18	3060.2	\$318.26	11	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.94	20%	2448.16	\$254.61	\$300.00	\$300.00	0.24	612.04	\$63.65	4.71	
242.21	D103 Break Room	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	0	No Change	107	0.11	0%	278.2	\$28.93	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
221.11	D103 Toilet	2600	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	0	No Change	62	0.06	0%	161.2	\$16.76	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
242.21	D103 Office	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.17	20%	445.12	\$46.29	\$150.00	\$150.00	0.04	111.28	\$11.57	12.96	
242.21	D103 Break Room	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	0	No Change	107	0.11	0%	278.2	\$28.93	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
221.11	D103 Toilet	2600	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	0	No Change	62	0.06	0%	161.2	\$16.76	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
242.21	G121 Trainer's	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1669.2	\$173.60	6	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.51	20%	1335.36	\$138.88	\$150.00	\$150.00	0.13	333.84	\$34.72	4.32	
232.21	G121 Weight Room	2600	23	3	2x4, 3 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	86	1.98	5142.8	\$534.85	23	1	Dual Technology Occupancy Sensor - Remote Mnt.	86	1.58	20%	4114.24	\$427.88	\$300.00	\$300.00	0.40	1028.56	\$106.97	2.80	

ECM #3: Lighting Controls

EXISTING LIGHTING										PROPOSED LIGHTING CONTROLS										SAVINGS					
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Cont.	Controls Description	Watts Used	Total kW	Reduction (%)	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback		
242.21	G121 Corridor	4000	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	856	\$89.02	2	0	No Change	107	0.21	0%	856	\$89.02	\$0.00	\$0.00	0.00	0	\$0.00	0.00		
227.21	Main Office Corridor	4000	6	2	2x2, 2 Lamp, 32w 700 series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	65	0.39	1560	\$162.24	6	0	No Change	65	0.39	0%	1560	\$162.24	\$0.00	\$0.00	0.00	0	\$0.00	0.00		
242.21	Café #1	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1112.8	\$115.73	4	0	No Change	107	0.43	0%	1112.8	\$115.73	\$0.00	\$0.00	0.00	0	\$0.00	0.00		
227.21	Café #1	2600	6	2	2x2, 2 Lamp, 32w 700 series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	65	0.39	1014	\$105.46	6	0	No Change	65	0.39	0%	1014	\$105.46	\$0.00	\$0.00	0.00	0	\$0.00	0.00		
30	Café #1	2600	16	2	Recessed Down Light, (2) 26w PL Lamp	54	0.86	2246.4	\$233.63	16	0	No Change	54	0.86	0%	2246.4	\$233.63	\$0.00	\$0.00	0.00	0	\$0.00	0.00		
31	Café #1	2600	8	4	Pendant Light, (4) 26w PL Lamp	104	0.83	2163.2	\$224.97	8	0	No Change	104	0.83	0%	2163.2	\$224.97	\$0.00	\$0.00	0.00	0	\$0.00	0.00		
242.21	Café #2	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1112.8	\$115.73	4	0	No Change	107	0.43	0%	1112.8	\$115.73	\$0.00	\$0.00	0.00	0	\$0.00	0.00		
227.21	Café #2	2600	6	2	2x2, 2 Lamp, 32w 700 series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	65	0.39	1014	\$105.46	6	0	No Change	65	0.39	0%	1014	\$105.46	\$0.00	\$0.00	0.00	0	\$0.00	0.00		
30	Café #2	2600	16	2	Recessed Down Light, (2) 26w PL Lamp	54	0.86	2246.4	\$233.63	16	0	No Change	54	0.86	0%	2246.4	\$233.63	\$0.00	\$0.00	0.00	0	\$0.00	0.00		
31	Café #2	2600	8	4	Pendant Light, (4) 26w PL Lamp	104	0.83	2163.2	\$224.97	8	0	No Change	104	0.83	0%	2163.2	\$224.97	\$0.00	\$0.00	0.00	0	\$0.00	0.00		
242.21	Café #1 Storage	1000	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	214	\$22.26	2	0	No Change	107	0.21	0%	214	\$22.26	\$0.00	\$0.00	0.00	0	\$0.00	0.00		
221.11	Janitor's Closet	1000	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	62	\$6.45	1	0	No Change	62	0.06	0%	62	\$6.45	\$0.00	\$0.00	0.00	0	\$0.00	0.00		
242.21	Auditorium Corridor	4000	8	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.86	3424	\$356.10	8	0	No Change	107	0.86	0%	3424	\$356.10	\$0.00	\$0.00	0.00	0	\$0.00	0.00		
227.21	Auditorium Corridor	4000	6	2	2x2, 2 Lamp, 32w 700 series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	65	0.39	1560	\$162.24	6	0	No Change	65	0.39	0%	1560	\$162.24	\$0.00	\$0.00	0.00	0	\$0.00	0.00		
30	Auditorium Corridor	4000	15	2	Recessed Down Light, (2) 26w PL Lamp	54	0.81	3240	\$336.96	15	0	No Change	54	0.81	0%	3240	\$336.96	\$0.00	\$0.00	0.00	0	\$0.00	0.00		
211.44	Display Case	4000	1	1	1x4, 1 Lamp, 32w T8, Elect. Ballast, Wall Mnt., No Lens	32	0.03	128	\$13.31	1	0	No Change	32	0.03	0%	128	\$13.31	\$0.00	\$0.00	0.00	0	\$0.00	0.00		

ECM #3: Lighting Controls

EXISTING LIGHTING					PROPOSED LIGHTING CONTROLS																SAVINGS			
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Cont.	Controls Description	Watts Used	Total kW	Reduction (%)	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback	
211.44	Display Case	4000	1	1	1x4, 1 Lamp, 32w T8, Elect. Ballast, Wall Mnt., No Lens	32	0.03	128	\$13.31	1	0	No Change	32	0.03	0%	128	\$13.31	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
227.21	Mail Room	2600	2	2	2x2, 2 Lamp, 32w 700 series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	65	0.13	338	\$35.15	2	0	No Change	65	0.13	0%	338	\$35.15	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
242.21	Classroom D101	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1669.2	\$173.60	6	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.51	20%	1335.36	\$138.88	\$300.00	\$300.00	0.13	333.84	\$34.72	8.64	
242.21	D101-1 Asst. Principal	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.17	20%	445.12	\$46.29	\$150.00	\$150.00	0.04	111.28	\$11.57	12.96	
242.21	Classroom D106	2600	8	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.86	2225.6	\$231.46	8	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.68	20%	1780.48	\$185.17	\$300.00	\$300.00	0.17	445.12	\$46.29	6.48	
14	Gym #2	2600	20	1	400w MH Truss Light, SPI Lighting Inc. #2603	460	9.20	23920	\$2,487.68	20	0	No Change	460	9.20	0%	23920	\$2,487.68	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
15	Gym #2	2600	16	2	400w MH - 250w Quartz Combo - SPI Lighting Inc. #2603/2743	710	11.36	29536	\$3,071.74	16	0	No Change	710	11.36	0%	29536	\$3,071.74	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
15	Gym #1	2600	10	2	400w MH - 250w Quartz Combo - SPI Lighting Inc. #2603/2743	710	7.10	18460	\$1,919.84	10	0	No Change	710	7.10	0%	18460	\$1,919.84	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
14	Gym #1	2600	37	1	400w MH Truss Light, SPI Lighting Inc. #2603	460	17.02	44252	\$4,602.21	37	0	No Change	460	17.02	0%	44252	\$4,602.21	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
769	Gym #1	2600	56	1	400w MH, Clear Lens	465	26.04	67704	\$7,041.22	56	0	No Change	465	26.04	0%	67704	\$7,041.22	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
221.31	Gym #2 Storage	1000	2	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	62	0.12	124	\$12.90	2	0	No Change	62	0.12	0%	124	\$12.90	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
242.21	G100 Lobby	4000	7	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.75	2996	\$311.58	7	0	No Change	107	0.75	0%	2996	\$311.58	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
242.21	Café #1 Boy's Room	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	0	No Change	107	0.11	0%	278.2	\$28.93	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
221.11	Café #1 Boy's Room	2600	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	0	No Change	62	0.06	0%	161.2	\$16.76	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
242.21	Café #1 Girl's Room	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	0	No Change	107	0.11	0%	278.2	\$28.93	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
221.11	Café #1 Girl's Room	2600	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	0	No Change	62	0.06	0%	161.2	\$16.76	\$0.00	\$0.00	0.00	0	\$0.00	0.00	

ECM #3: Lighting Controls

EXISTING LIGHTING										PROPOSED LIGHTING CONTROLS										SAVINGS			
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Cont.	Controls Description	Watts Used	Total kW	Reduction (%)	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback
242.21	Café #2 Boy's Room	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	0	No Change	107	0.11	0%	278.2	\$28.93	\$0.00	\$0.00	0.00	0	\$0.00	0.00
221.11	Café #2 Boy's Room	2600	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	0	No Change	62	0.06	0%	161.2	\$16.76	\$0.00	\$0.00	0.00	0	\$0.00	0.00
242.21	Café #2 Girl's Room	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	0	No Change	107	0.11	0%	278.2	\$28.93	\$0.00	\$0.00	0.00	0	\$0.00	0.00
221.11	Café #2 Girl's Room	2600	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	0	No Change	62	0.06	0%	161.2	\$16.76	\$0.00	\$0.00	0.00	0	\$0.00	0.00
221.11	Tool/Mech Room	2600	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	0	No Change	62	0.06	0%	161.2	\$16.76	\$0.00	\$0.00	0.00	0	\$0.00	0.00
242.21	D202 FP	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1669.2	\$173.60	6	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.51	20%	1335.36	\$138.88	\$150.00	\$150.00	0.13	333.84	\$34.72	4.32
222.21	Restroom	2600	1	2	2x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	0	No Change	62	0.06	0%	161.2	\$16.76	\$0.00	\$0.00	0.00	0	\$0.00	0.00
242.21	Elec. Closet	1200	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	128.4	\$13.35	1	0	No Change	107	0.11	0%	128.4	\$13.35	\$0.00	\$0.00	0.00	0	\$0.00	0.00
242.21	Classroom C201	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2503.8	\$260.40	9	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.77	20%	2003.04	\$208.32	\$300.00	\$300.00	0.19	500.76	\$52.08	5.76
242.21	Classroom C202	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2503.8	\$260.40	9	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.77	20%	2003.04	\$208.32	\$300.00	\$300.00	0.19	500.76	\$52.08	5.76
242.21	Classroom C203	2600	10	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.07	2782	\$289.33	10	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.86	20%	2225.6	\$231.46	\$300.00	\$300.00	0.21	556.4	\$57.87	5.18
242.21	Classroom C204	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3338.4	\$347.19	12	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	1.03	20%	2670.72	\$277.75	\$300.00	\$300.00	0.26	667.68	\$69.44	4.32
242.21	Classroom C205	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3338.4	\$347.19	12	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	1.03	20%	2670.72	\$277.75	\$300.00	\$300.00	0.26	667.68	\$69.44	4.32
242.21	Classroom C206	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2503.8	\$260.40	9	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.77	20%	2003.04	\$208.32	\$300.00	\$300.00	0.19	500.76	\$52.08	5.76
242.21	C202F FP	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1669.2	\$173.60	6	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.51	20%	1335.36	\$138.88	\$150.00	\$150.00	0.13	333.84	\$34.72	4.32
242.21	Stairways S1-4	3000	3	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.32	963	\$100.15	3	0	No Change	107	0.32	0%	963	\$100.15	\$0.00	\$0.00	0.00	0	\$0.00	0.00

ECM #3: Lighting Controls

EXISTING LIGHTING										PROPOSED LIGHTING CONTROLS										SAVINGS			
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Cont.	Controls Description	Watts Used	Total kW	Reduction (%)	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback
242.21	Utility Closet	1200	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	256.8	\$26.71	2	0	No Change	107	0.21	0%	256.8	\$26.71	\$0.00	\$0.00	0.00	0	\$0.00	0.00
242.21	205 Prep	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.17	20%	445.12	\$46.29	\$150.00	\$150.00	0.04	111.28	\$11.57	12.96
242.21	Men's Room	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	0	No Change	107	0.21	0%	556.4	\$57.87	\$0.00	\$0.00	0.00	0	\$0.00	0.00
221.41		2600	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.12	301.6	\$31.37	2	0	No Change	58	0.12	0%	301.6	\$31.37	\$0.00	\$0.00	0.00	0	\$0.00	0.00
242.21	Women's Room	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	0	No Change	107	0.21	0%	556.4	\$57.87	\$0.00	\$0.00	0.00	0	\$0.00	0.00
221.41		2600	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.12	301.6	\$31.37	2	0	No Change	58	0.12	0%	301.6	\$31.37	\$0.00	\$0.00	0.00	0	\$0.00	0.00
221.41	Custodial Closet	1200	1	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.06	69.6	\$7.24	1	0	No Change	58	0.06	0%	69.6	\$7.24	\$0.00	\$0.00	0.00	0	\$0.00	0.00
242.21	Classroom A 201	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3338.4	\$347.19	12	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	1.03	20%	2670.72	\$277.75	\$300.00	\$300.00	0.26	667.68	\$69.44	4.32
242.21	Classroom A 202	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2503.8	\$260.40	9	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.77	20%	2003.04	\$208.32	\$300.00	\$300.00	0.19	500.76	\$52.08	5.76
242.21	Classroom A 203	2600	10	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.07	2782	\$289.33	10	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.86	20%	2225.6	\$231.46	\$300.00	\$300.00	0.21	556.4	\$57.87	5.18
242.21	Classroom A 204	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2503.8	\$260.40	9	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.77	20%	2003.04	\$208.32	\$300.00	\$300.00	0.19	500.76	\$52.08	5.76
242.21	Classroom A 205	2600	10	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.07	2782	\$289.33	10	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.86	20%	2225.6	\$231.46	\$300.00	\$300.00	0.21	556.4	\$57.87	5.18
242.21	Classroom A 206	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2503.8	\$260.40	9	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.77	20%	2003.04	\$208.32	\$300.00	\$300.00	0.19	500.76	\$52.08	5.76
242.21	Classroom C 207	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3338.4	\$347.19	12	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	1.03	20%	2670.72	\$277.75	\$300.00	\$300.00	0.26	667.68	\$69.44	4.32
242.21	Classroom A 208	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1669.2	\$173.60	6	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.51	20%	1335.36	\$138.88	\$150.00	\$150.00	0.13	333.84	\$34.72	4.32
242.21	Classroom C 209	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3338.4	\$347.19	12	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	1.03	20%	2670.72	\$277.75	\$300.00	\$300.00	0.26	667.68	\$69.44	4.32

ECM #3: Lighting Controls

EXISTING LIGHTING										PROPOSED LIGHTING CONTROLS										SAVINGS					
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Cont.	Controls Description	Watts Used	Total kW	Reduction (%)	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback		
242.21	Classroom C 211	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3338.4	\$347.19	12	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	1.03	20%	2670.72	\$277.75	\$300.00	\$300.00	0.26	667.68	\$69.44	4.32		
242.21	Utility Closet	1200	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	128.4	\$13.35	1	0	No Change	107	0.11	0%	128.4	\$13.35	\$0.00	\$0.00	0.00	0	\$0.00	0.00		
242.21	A202F FC	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1669.2	\$173.60	6	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.51	20%	1335.36	\$138.88	\$150.00	\$150.00	0.13	333.84	\$34.72	4.32		
242.21	Storage	1200	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	128.4	\$13.35	1	0	No Change	107	0.11	0%	128.4	\$13.35	\$0.00	\$0.00	0.00	0	\$0.00	0.00		
242.21	Women's Room	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	0	No Change	107	0.11	0%	278.2	\$28.93	\$0.00	\$0.00	0.00	0	\$0.00	0.00		
242.21	211 Prep	2600	3	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.32	834.6	\$86.80	3	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.26	20%	667.68	\$69.44	\$150.00	\$150.00	0.06	166.92	\$17.36	8.64		
242.21	Classroom B 201	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2503.8	\$260.40	9	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.77	20%	2003.04	\$208.32	\$300.00	\$300.00	0.19	500.76	\$52.08	5.76		
242.21	Classroom B 202	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3338.4	\$347.19	12	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	1.03	20%	2670.72	\$277.75	\$300.00	\$300.00	0.26	667.68	\$69.44	4.32		
242.21	Classroom B 203	2600	10	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.07	2782	\$289.33	10	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.86	20%	2225.6	\$231.46	\$300.00	\$300.00	0.21	556.4	\$57.87	5.18		
242.21	Classroom B 204	2600	10	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.07	2782	\$289.33	10	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.86	20%	2225.6	\$231.46	\$300.00	\$300.00	0.21	556.4	\$57.87	5.18		
242.21	Classroom B 205	2600	10	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.07	2782	\$289.33	10	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.86	20%	2225.6	\$231.46	\$300.00	\$300.00	0.21	556.4	\$57.87	5.18		
242.21	Classroom B 206	2600	10	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.07	2782	\$289.33	10	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.86	20%	2225.6	\$231.46	\$300.00	\$300.00	0.21	556.4	\$57.87	5.18		
242.21	Utility Closet	1200	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	128.4	\$13.35	1	0	No Change	107	0.11	0%	128.4	\$13.35	\$0.00	\$0.00	0.00	0	\$0.00	0.00		
242.21	B206F FP	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1669.2	\$173.60	6	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.51	20%	1335.36	\$138.88	\$150.00	\$150.00	0.13	333.84	\$34.72	4.32		
242.21	Men's Room	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	0	No Change	107	0.21	0%	556.4	\$57.87	\$0.00	\$0.00	0.00	0	\$0.00	0.00		
221.41		2600	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.12	301.6	\$31.37	2	0	No Change	58	0.12	0%	301.6	\$31.37	\$0.00	\$0.00	0.00	0	\$0.00	0.00		

ECM #3: Lighting Controls

EXISTING LIGHTING					PROPOSED LIGHTING CONTROLS														SAVINGS				Yearly	Yearly Simple
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Cont.	Controls Description	Watts Used	Total kW	Reduction (%)	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	\$ Savings	Payback	
242.21	Women's Room	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	0	No Change	107	0.21	0%	556.4	\$57.87	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
221.41		2600	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.12	301.6	\$31.37	2	0	No Change	58	0.12	0%	301.6	\$31.37	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
221.41	Custodial Closet	2600	1	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.06	150.8	\$15.68	1	0	No Change	58	0.06	0%	150.8	\$15.68	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
242.21	213 Prep	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.17	20%	445.12	\$46.29	\$150.00	\$150.00	0.04	111.28	\$11.57	12.96	
242.21	Classroom C 215	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1669.2	\$173.60	6	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.51	20%	1335.36	\$138.88	\$150.00	\$150.00	0.13	333.84	\$34.72	4.32	
242.21	Classroom C 216	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1669.2	\$173.60	6	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.51	20%	1335.36	\$138.88	\$150.00	\$150.00	0.13	333.84	\$34.72	4.32	
242.21	Classroom C 217	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1669.2	\$173.60	6	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.51	20%	1335.36	\$138.88	\$150.00	\$150.00	0.13	333.84	\$34.72	4.32	
242.21	Classroom C 218	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2503.8	\$260.40	9	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.77	20%	2003.04	\$208.32	\$300.00	\$300.00	0.19	500.76	\$52.08	5.76	
242.21	Classroom C 219	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1669.2	\$173.60	6	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.51	20%	1335.36	\$138.88	\$150.00	\$150.00	0.13	333.84	\$34.72	4.32	
242.21	Classroom C 220	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2503.8	\$260.40	9	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.77	20%	2003.04	\$208.32	\$300.00	\$300.00	0.19	500.76	\$52.08	5.76	
242.21	Classroom C 213	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3338.4	\$347.19	12	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	1.03	20%	2670.72	\$277.75	\$300.00	\$300.00	0.26	667.68	\$69.44	4.32	
242.21	Classroom C 222	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3338.4	\$347.19	12	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	1.03	20%	2670.72	\$277.75	\$300.00	\$300.00	0.26	667.68	\$69.44	4.32	
242.21	Utility Closet	1200	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	128.4	\$13.35	1	0	No Change	107	0.11	0%	128.4	\$13.35	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
242.21	Storage	1200	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	128.4	\$13.35	1	0	No Change	107	0.11	0%	128.4	\$13.35	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
242.21	P202 FP	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1669.2	\$173.60	6	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.51	20%	1335.36	\$138.88	\$150.00	\$150.00	0.13	333.84	\$34.72	4.32	
242.21	Science SE 56	3000	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	321	\$33.38	1	0	No Change	107	0.11	0%	321	\$33.38	\$0.00	\$0.00	0.00	0	\$0.00	0.00	

ECM #3: Lighting Controls

EXISTING LIGHTING										PROPOSED LIGHTING CONTROLS										SAVINGS			
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Cont.	Controls Description	Watts Used	Total kW	Reduction (%)	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback
227.21	Stairways 227-230	3000	1	2	2x2, 2 Lamp, 32w 700 series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	65	0.07	195	\$20.28	1	0	No Change	65	0.07	0%	195	\$20.28	\$0.00	\$0.00	0.00	0	\$0.00	0.00
242.21	Classroom D 203	2600	8	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.86	2225.6	\$231.46	8	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.68	20%	1780.48	\$185.17	\$300.00	\$300.00	0.17	445.12	\$46.29	6.48
242.21	Classroom D 205	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1112.8	\$115.73	4	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.34	20%	890.24	\$92.58	\$150.00	\$150.00	0.09	222.56	\$23.15	6.48
242.21	Classroom D 207	2600	8	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.86	2225.6	\$231.46	8	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.68	20%	1780.48	\$185.17	\$300.00	\$300.00	0.17	445.12	\$46.29	6.48
242.21	Classroom D 209	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1112.8	\$115.73	4	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.34	20%	890.24	\$92.58	\$150.00	\$150.00	0.09	222.56	\$23.15	6.48
242.21	Classroom C 208	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3338.4	\$347.19	12	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	1.03	20%	2670.72	\$277.75	\$300.00	\$300.00	0.26	667.68	\$69.44	4.32
242.21	Classroom C 212	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2503.8	\$260.40	9	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.77	20%	2003.04	\$208.32	\$300.00	\$300.00	0.19	500.76	\$52.08	5.76
242.21	Classroom C 210	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1669.2	\$173.60	6	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.51	20%	1335.36	\$138.88	\$150.00	\$150.00	0.13	333.84	\$34.72	4.32
242.21	Classroom C 214	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3338.4	\$347.19	12	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	1.03	20%	2670.72	\$277.75	\$300.00	\$300.00	0.26	667.68	\$69.44	4.32
327.23	Media Center	2600	140	2	2x2 2 Lamp, 14w T5, Recessed Mnt., Direct/Indirect	31	4.34	11284	\$1,173.54	140	3	Dual Tech. Occupancy Sensor w/2 Pole Powerpack - Remote Mnt.	31	3.47	20%	9027.2	\$938.83	\$450.00	\$1,350.00	0.87	2256.8	\$234.71	5.75
242.21	Men's Room	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	0	No Change	107	0.21	0%	556.4	\$57.87	\$0.00	\$0.00	0.00	0	\$0.00	0.00
221.41		2600	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.12	301.6	\$31.37	2	0	No Change	58	0.12	0%	301.6	\$31.37	\$0.00	\$0.00	0.00	0	\$0.00	0.00
242.21	Women's Room	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	0	No Change	107	0.21	0%	556.4	\$57.87	\$0.00	\$0.00	0.00	0	\$0.00	0.00
221.41		2600	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.12	301.6	\$31.37	2	0	No Change	58	0.12	0%	301.6	\$31.37	\$0.00	\$0.00	0.00	0	\$0.00	0.00
221.41	Custodial Closet	1200	1	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.06	69.6	\$7.24	1	0	No Change	58	0.06	0%	69.6	\$7.24	\$0.00	\$0.00	0.00	0	\$0.00	0.00
242.21	D201-9 Office	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1112.8	\$115.73	4	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.34	20%	890.24	\$92.58	\$150.00	\$150.00	0.09	222.56	\$23.15	6.48

ECM #3: Lighting Controls

EXISTING LIGHTING										PROPOSED LIGHTING CONTROLS										SAVINGS			
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Cont.	Controls Description	Watts Used	Total kW	Reduction (%)	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback
242.21	Teacher's Lounge	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1112.8	\$115.73	4	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.34	20%	890.24	\$92.58	\$150.00	\$150.00	0.09	222.56	\$23.15	6.48
242.21	Computer Room	2600	8	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.86	2225.6	\$231.46	8	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.68	20%	1780.48	\$185.17	\$150.00	\$150.00	0.17	445.12	\$46.29	3.24
242.21	Computer Room	2600	14	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.50	3894.8	\$405.06	14	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	1.20	20%	3115.84	\$324.05	\$150.00	\$150.00	0.30	778.96	\$81.01	1.85
242.21	Control Booth	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1669.2	\$173.60	6	0	No Change	107	0.64	0%	1669.2	\$173.60	\$0.00	\$0.00	0.00	0	\$0.00	0.00
221.41	Control Booth Stairs	2600	4	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.23	603.2	\$62.73	4	0	No Change	58	0.23	0%	603.2	\$62.73	\$0.00	\$0.00	0.00	0	\$0.00	0.00
242.21	D201-3 Storage	1200	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	513.6	\$53.41	4	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.34	20%	410.88	\$42.73	\$150.00	\$150.00	0.09	102.72	\$10.68	14.04
242.21	Newspaper	2600	8	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.86	2225.6	\$231.46	8	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.68	20%	1780.48	\$185.17	\$150.00	\$150.00	0.17	445.12	\$46.29	3.24
242.21	D 102 FP	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1669.2	\$173.60	6	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.51	20%	1335.36	\$138.88	\$150.00	\$150.00	0.13	333.84	\$34.72	4.32
242.21	Elec. Closet	1200	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	128.4	\$13.35	1	0	No Change	107	0.11	0%	128.4	\$13.35	\$0.00	\$0.00	0.00	0	\$0.00	0.00
221.11	Machine Room	1200	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	74.4	\$7.74	1	0	No Change	62	0.06	0%	74.4	\$7.74	\$0.00	\$0.00	0.00	0	\$0.00	0.00
242.21	Classroom C 101	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1669.2	\$173.60	6	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.51	20%	1335.36	\$138.88	\$150.00	\$150.00	0.13	333.84	\$34.72	4.32
242.21	Classroom C 102	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1669.2	\$173.60	6	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.51	20%	1335.36	\$138.88	\$150.00	\$150.00	0.13	333.84	\$34.72	4.32
242.21	Classroom C 103	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1669.2	\$173.60	6	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.51	20%	1335.36	\$138.88	\$150.00	\$150.00	0.13	333.84	\$34.72	4.32
242.21	Classroom C 104	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2503.8	\$260.40	9	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.77	20%	2003.04	\$208.32	\$300.00	\$300.00	0.19	500.76	\$52.08	5.76
242.21	Classroom C 105	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2503.8	\$260.40	9	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.77	20%	2003.04	\$208.32	\$300.00	\$300.00	0.19	500.76	\$52.08	5.76
242.21	Classroom C 106	2600	8	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.86	2225.6	\$231.46	8	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.68	20%	1780.48	\$185.17	\$300.00	\$300.00	0.17	445.12	\$46.29	6.48

ECM #3: Lighting Controls

EXISTING LIGHTING										PROPOSED LIGHTING CONTROLS										SAVINGS					
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Cont.	Controls Description	Watts Used	Total kW	Reduction (%)	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback		
227.21	Classroom C 100	2600	8	2	2x2, 2 Lamp, 32w 700 series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	65	0.52	1352	\$140.61	8	1	Dual Technology Occupancy Sensor - Remote Mnt.	65	0.42	20%	1081.6	\$112.49	\$300.00	\$300.00	0.10	270.4	\$28.12	10.67		
242.21	Classroom C 107	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3338.4	\$347.19	12	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	1.03	20%	2670.72	\$277.75	\$300.00	\$300.00	0.26	667.68	\$69.44	4.32		
242.21	Classroom C 108	2600	7	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.75	1947.4	\$202.53	7	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.60	20%	1557.92	\$162.02	\$300.00	\$300.00	0.15	389.48	\$40.51	7.41		
242.21	107 Prep	2600	3	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.32	834.6	\$86.80	3	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.26	20%	667.68	\$69.44	\$150.00	\$150.00	0.06	166.92	\$17.36	8.64		
242.21	Men's Room	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	0	No Change	107	0.21	0%	556.4	\$57.87	\$0.00	\$0.00	0.00	0	\$0.00	0.00		
221.41		2600	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.12	301.6	\$31.37	2	0	No Change	58	0.12	0%	301.6	\$31.37	\$0.00	\$0.00	0.00	0	\$0.00	0.00		
242.21	Women's Room	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	0	No Change	107	0.21	0%	556.4	\$57.87	\$0.00	\$0.00	0.00	0	\$0.00	0.00		
221.41		2600	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.12	301.6	\$31.37	2	0	No Change	58	0.12	0%	301.6	\$31.37	\$0.00	\$0.00	0.00	0	\$0.00	0.00		
242.21	Classroom A 101	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3338.4	\$347.19	12	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	1.03	20%	2670.72	\$277.75	\$300.00	\$300.00	0.26	667.68	\$69.44	4.32		
242.21	Classroom A 102	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1669.2	\$173.60	6	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.51	20%	1335.36	\$138.88	\$150.00	\$150.00	0.13	333.84	\$34.72	4.32		
242.21	Classroom A 103	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2503.8	\$260.40	9	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.77	20%	2003.04	\$208.32	\$300.00	\$300.00	0.19	500.76	\$52.08	5.76		
242.21	Classroom A 104	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2503.8	\$260.40	9	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.77	20%	2003.04	\$208.32	\$300.00	\$300.00	0.19	500.76	\$52.08	5.76		
242.21	Classroom A 105	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2503.8	\$260.40	9	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.77	20%	2003.04	\$208.32	\$300.00	\$300.00	0.19	500.76	\$52.08	5.76		
242.21	Classroom A 106	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2503.8	\$260.40	9	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.77	20%	2003.04	\$208.32	\$300.00	\$300.00	0.19	500.76	\$52.08	5.76		
242.21	Classroom A 108	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1669.2	\$173.60	6	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.51	20%	1335.36	\$138.88	\$150.00	\$150.00	0.13	333.84	\$34.72	4.32		
242.21	A102F FP	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1669.2	\$173.60	6	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.51	20%	1335.36	\$138.88	\$150.00	\$150.00	0.13	333.84	\$34.72	4.32		

ECM #3: Lighting Controls

EXISTING LIGHTING										PROPOSED LIGHTING CONTROLS										SAVINGS					
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Cont.	Controls Description	Watts Used	Total kW	Reduction (%)	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback		
221.33	Classroom C 109	2600	20	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Direct/ Indirect	58	1.16	3016	\$313.66	20	1	Dual Tech. Occupancy Sensor w/2 Pole Powerpack - Remote Mnt.	58	0.93	20%	2412.8	\$250.93	\$450.00	\$450.00	0.23	603.2	\$62.73	7.17		
30		2600	4	2	Recessed Down Light, (2) 26w PL Lamp	54	0.22	561.6	\$58.41	4	0	No Change	54	0.22	0%	561.6	\$58.41	\$0.00	\$0.00	0.00	0	\$0.00	0.00		
221.33	Classroom C 111	2600	30	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Direct/ Indirect	58	1.74	4524	\$470.50	30	1	Dual Tech. Occupancy Sensor w/2 Pole Powerpack - Remote Mnt.	58	1.39	20%	3619.2	\$376.40	\$450.00	\$450.00	0.35	904.8	\$94.10	4.78		
30		2600	5	2	Recessed Down Light, (2) 26w PL Lamp	54	0.27	702	\$73.01	5	0	No Change	54	0.27	0%	702	\$73.01	\$0.00	\$0.00	0.00	0	\$0.00	0.00		
221.33	Classroom C 113	2600	36	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Direct/ Indirect	58	2.09	5428.8	\$564.60	36	1	Dual Tech. Occupancy Sensor w/2 Pole Powerpack - Remote Mnt.	58	1.67	20%	4343.04	\$451.68	\$450.00	\$450.00	0.42	1085.76	\$112.92	3.99		
242.21	Classroom B 101	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3338.4	\$347.19	12	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	1.03	20%	2670.72	\$277.75	\$300.00	\$300.00	0.26	667.68	\$69.44	4.32		
242.21	101 Prep	2600	3	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.32	834.6	\$86.80	3	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.26	20%	667.68	\$69.44	\$150.00	\$150.00	0.06	166.92	\$17.36	8.64		
242.21	Classroom B 103	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2503.8	\$260.40	9	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.77	20%	2003.04	\$208.32	\$300.00	\$300.00	0.19	500.76	\$52.08	5.76		
242.21	Classroom B 104	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2503.8	\$260.40	9	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.77	20%	2003.04	\$208.32	\$300.00	\$300.00	0.19	500.76	\$52.08	5.76		
242.21	Classroom B 105	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2503.8	\$260.40	9	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.77	20%	2003.04	\$208.32	\$300.00	\$300.00	0.19	500.76	\$52.08	5.76		
242.21	Classroom B 106	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2503.8	\$260.40	9	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.77	20%	2003.04	\$208.32	\$300.00	\$300.00	0.19	500.76	\$52.08	5.76		
242.21	Classroom B 102	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3338.4	\$347.19	12	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	1.03	20%	2670.72	\$277.75	\$300.00	\$300.00	0.26	667.68	\$69.44	4.32		
242.21	Classroom B 108	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2503.8	\$260.40	9	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.77	20%	2003.04	\$208.32	\$300.00	\$300.00	0.19	500.76	\$52.08	5.76		
242.21	B105F FP	2600	3	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.32	834.6	\$86.80	3	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.26	20%	667.68	\$69.44	\$150.00	\$150.00	0.06	166.92	\$17.36	8.64		
242.21	Men's Room	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	0	No Change	107	0.21	0%	556.4	\$57.87	\$0.00	\$0.00	0.00	0	\$0.00	0.00		
221.41		2600	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.12	301.6	\$31.37	2	0	No Change	58	0.12	0%	301.6	\$31.37	\$0.00	\$0.00	0.00	0	\$0.00	0.00		

ECM #3: Lighting Controls

EXISTING LIGHTING										PROPOSED LIGHTING CONTROLS										SAVINGS		Yearly	Yearly Simple
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Cont.	Controls Description	Watts Used	Total kW	Reduction (%)	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback
242.21	Women's Room	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	0	No Change	107	0.21	0%	556.4	\$57.87	\$0.00	\$0.00	0.00	0	\$0.00	0.00
221.41		2600	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.12	301.6	\$31.37	2	0	No Change	58	0.12	0%	301.6	\$31.37	\$0.00	\$0.00	0.00	0	\$0.00	0.00
242.21	115 Prep	2600	3	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.32	834.6	\$86.80	3	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.26	20%	667.68	\$69.44	\$150.00	\$150.00	0.06	166.92	\$17.36	8.64
242.21	Classroom C 115	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3338.4	\$347.19	12	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	1.03	20%	2670.72	\$277.75	\$300.00	\$300.00	0.26	667.68	\$69.44	4.32
242.21	Classroom C 116	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2503.8	\$260.40	9	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.77	20%	2003.04	\$208.32	\$300.00	\$300.00	0.19	500.76	\$52.08	5.76
242.21	Classroom C 117	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1669.2	\$173.60	6	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.51	20%	1335.36	\$138.88	\$150.00	\$150.00	0.13	333.84	\$34.72	4.32
221.33	Classroom C 118	2600	18	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Direct/ Indirect	58	1.04	2714.4	\$282.30	18	1	Dual Technology Occupancy Sensor - Remote Mnt.	58	0.84	20%	2171.52	\$225.84	\$300.00	\$300.00	0.21	542.88	\$56.46	5.31
242.21	Classroom C 119	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2503.8	\$260.40	9	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.77	20%	2003.04	\$208.32	\$300.00	\$300.00	0.19	500.76	\$52.08	5.76
242.21	Classroom C 114	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2503.8	\$260.40	9	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.77	20%	2003.04	\$208.32	\$300.00	\$300.00	0.19	500.76	\$52.08	5.76
242.21	Classroom C 112	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1669.2	\$173.60	6	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.51	20%	1335.36	\$138.88	\$150.00	\$150.00	0.13	333.84	\$34.72	4.32
242.21	Classroom C 121	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2503.8	\$260.40	9	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.77	20%	2003.04	\$208.32	\$300.00	\$300.00	0.19	500.76	\$52.08	5.76
242.21	Utility Closet	1200	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	128.4	\$13.35	1	0	No Change	107	0.11	0%	128.4	\$13.35	\$0.00	\$0.00	0.00	0	\$0.00	0.00
242.21	Storage	1200	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	128.4	\$13.35	1	0	No Change	107	0.11	0%	128.4	\$13.35	\$0.00	\$0.00	0.00	0	\$0.00	0.00
242.21	Utility Closet	1200	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	128.4	\$13.35	1	0	No Change	107	0.11	0%	128.4	\$13.35	\$0.00	\$0.00	0.00	0	\$0.00	0.00
242.21	Machine Room	1200	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	128.4	\$13.35	1	0	No Change	107	0.11	0%	128.4	\$13.35	\$0.00	\$0.00	0.00	0	\$0.00	0.00
242.21	D 112 FP	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1669.2	\$173.60	6	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.51	20%	1335.36	\$138.88	\$150.00	\$150.00	0.13	333.84	\$34.72	4.32

ECM #3: Lighting Controls

EXISTING LIGHTING										PROPOSED LIGHTING CONTROLS										SAVINGS					
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Cont.	Controls Description	Watts Used	Total kW	Reduction (%)	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback		
242.21	Classroom D 110	2600	10	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.07	2782	\$289.33	10	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.86	20%	2225.6	\$231.46	\$300.00	\$300.00	0.21	556.4	\$57.87	5.18		
242.21	Classroom D 108	2600	8	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.86	2225.6	\$231.46	8	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	0.68	20%	1780.48	\$185.17	\$300.00	\$300.00	0.17	445.12	\$46.29	6.48		
242.21	Main Office	2600	22	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	2.35	6120.4	\$636.52	22	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	1.88	20%	4896.32	\$509.22	\$300.00	\$300.00	0.47	1224.08	\$127.30	2.36		
242.21	Mail Room	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.17	20%	445.12	\$46.29	\$150.00	\$150.00	0.04	111.28	\$11.57	12.96		
242.21	AP Office	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.17	20%	445.12	\$46.29	\$150.00	\$150.00	0.04	111.28	\$11.57	12.96		
242.21	Copy Room	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1112.8	\$115.73	4	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.34	20%	890.24	\$92.58	\$150.00	\$150.00	0.09	222.56	\$23.15	6.48		
242.21	AP Office	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.17	20%	445.12	\$46.29	\$150.00	\$150.00	0.04	111.28	\$11.57	12.96		
242.21	AP Office	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.17	20%	445.12	\$46.29	\$150.00	\$150.00	0.04	111.28	\$11.57	12.96		
242.21	AP Office	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.17	20%	445.12	\$46.29	\$150.00	\$150.00	0.04	111.28	\$11.57	12.96		
242.21	AP Office	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.17	20%	445.12	\$46.29	\$150.00	\$150.00	0.04	111.28	\$11.57	12.96		
242.21	Principal's Office	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.17	20%	445.12	\$46.29	\$150.00	\$150.00	0.04	111.28	\$11.57	12.96		
242.21	Utility Closet	1200	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	128.4	\$13.35	1	0	No Change	107	0.11	0%	128.4	\$13.35	\$0.00	\$0.00	0.00	0	\$0.00	0.00		
221.41	Women's Room	2600	1	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.06	150.8	\$15.68	1	0	No Change	58	0.06	0%	150.8	\$15.68	\$0.00	\$0.00	0.00	0	\$0.00	0.00		
221.41	Men's Room	2600	1	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.06	150.8	\$15.68	1	0	No Change	58	0.06	0%	150.8	\$15.68	\$0.00	\$0.00	0.00	0	\$0.00	0.00		
242.21	Office Hall	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1112.8	\$115.73	4	0	No Change	107	0.43	0%	1112.8	\$115.73	\$0.00	\$0.00	0.00	0	\$0.00	0.00		
242.21	D 101-18	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.17	20%	445.12	\$46.29	\$150.00	\$150.00	0.04	111.28	\$11.57	12.96		

ECM #3: Lighting Controls

EXISTING LIGHTING										PROPOSED LIGHTING CONTROLS											SAVINGS			
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Cont.	Controls Description	Watts Used	Total kW	Reduction (%)	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback	
242.21	Custodial Closet	1200	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	128.4	\$13.35	1	0	No Change	107	0.11	0%	128.4	\$13.35	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
221.41	Women's Room	2600	1	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.06	150.8	\$15.68	1	0	No Change	58	0.06	0%	150.8	\$15.68	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
221.41	Men's Room	2600	1	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.06	150.8	\$15.68	1	0	No Change	58	0.06	0%	150.8	\$15.68	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
242.21	C 110-9 CC	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1669.2	\$173.60	6	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.51	20%	1335.36	\$138.88	\$150.00	\$150.00	0.13	333.84	\$34.72	4.32	
242.21	C 110-10	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	0	No Change	107	0.11	0%	278.2	\$28.93	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
242.21	Conf. Room	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1112.8	\$115.73	4	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.34	20%	890.24	\$92.58	\$150.00	\$150.00	0.09	222.56	\$23.15	6.48	
242.21	Copy Room	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	0	No Change	107	0.11	0%	278.2	\$28.93	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
242.21	Guidance	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3338.4	\$347.19	12	1	Dual Technology Occupancy Sensor - Remote Mnt.	107	1.03	20%	2670.72	\$277.75	\$300.00	\$300.00	0.26	667.68	\$69.44	4.32	
242.21	Side Offices (5)	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	0	No Change	107	0.21	0%	556.4	\$57.87	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
242.21	Conf. Room	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1112.8	\$115.73	4	1	Dual Technology Occupancy Sensor - Switch Mnt.	107	0.34	20%	890.24	\$92.58	\$150.00	\$150.00	0.09	222.56	\$23.15	6.48	
242.21	Copy 101-1	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	0	No Change	107	0.11	0%	278.2	\$28.93	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
221.41	Women's Room	2600	1	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.06	150.8	\$15.68	1	0	No Change	58	0.06	0%	150.8	\$15.68	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
221.41	Men's Room	2600	1	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.06	150.8	\$15.68	1	0	No Change	58	0.06	0%	150.8	\$15.68	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
242.21	CST	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	0	No Change	107	0.11	0%	278.2	\$28.93	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
242.21	CST	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	0	No Change	107	0.21	0%	556.4	\$57.87	\$0.00	\$0.00	0.00	0	\$0.00	0.00	
242.21	CST	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	0	No Change	107	0.11	0%	278.2	\$28.93	\$0.00	\$0.00	0.00	0	\$0.00	0.00	

ECM #3: Lighting Controls

EXISTING LIGHTING					PROPOSED LIGHTING CONTROLS													SAVINGS					
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Cont.	Controls Description	Watts Used	Total kW	Reduction (%)	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback
242.21	CST Hall	2600	3	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.32	834.6	\$86.80	3	0	No Change	107	0.32	0%	834.6	\$86.80	\$0.00	\$0.00	0.00	0	\$0.00	0.00
221.41	Women's Room	2600	1	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.06	150.8	\$15.68	1	0	No Change	58	0.06	0%	150.8	\$15.68	\$0.00	\$0.00	0.00	0	\$0.00	0.00
221.41	Men's Room	2600	1	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.06	150.8	\$15.68	1	0	No Change	58	0.06	0%	150.8	\$15.68	\$0.00	\$0.00	0.00	0	\$0.00	0.00
242.211	Corridor 200	3000	50	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	104	5.20	15600	\$1,622.40	50	0	No Change	104	5.20	0%	15600	\$1,622.40	\$0.00	\$0.00	0.00	0	\$0.00	0.00
227.21		3000	16	2	2x2, 2 Lamp, 32w 700 series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	65	1.04	3120	\$324.48	16	0	No Change	65	1.04	0%	3120	\$324.48	\$0.00	\$0.00	0.00	0	\$0.00	0.00
242.211	Corridor 100 A-D	3000	92	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	104	9.57	28704	\$2,985.22	92	0	No Change	104	9.57	0%	28704	\$2,985.22	\$0.00	\$0.00	0.00	0	\$0.00	0.00
227.21		3000	31	2	2x2, 2 Lamp, 32w 700 series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	65	2.02	6045	\$628.68	31	0	No Change	65	2.02	0%	6045	\$628.68	\$0.00	\$0.00	0.00	0	\$0.00	0.00
Totals			2,368	1039			269.4	714,162.6	\$74,273	2,368	157			243.3		646,339.2	\$67,219.28		\$36,750	26.13	67,823	\$7,054	5.21

Investment Grade Lighting Audit

APPENDIX E38 of 54

CEG Job #: 9C11059

Project: Lenape Reginal High School District

110 Carranza Road

Tabernacle, NJ 08088

Bldg. Sq. Ft. 255,736

Seneca High School

KWH COST: **\$0.104**

ECM #4: Lighting Upgrade - LED Option

EXISTING LIGHTING										PROPOSED LIGHTING										SAVINGS					
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Lamps	Retro-Unit Description	Watts Used	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback			
242.21	Kitchen	2600	19	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	2.03	5,285.8	\$549.72	19	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	1.31	3408.6	\$354.49	\$232.50	\$4,417.50	0.72	1877.2	\$195.23	22.63			
227.21	Kitchen	2600	12	2	2x2, 2 Lamp, 32w 700 series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	65	0.78	2,028.0	\$210.91	12	1	Finelite HPR-LED-A DCO-4000 (2x2)	34	0.41	1060.8	\$110.32	\$222.50	\$2,670.00	0.37	967.2	\$100.59	26.54			
242.21	Kitchen Office	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.07	179.4	\$18.66	\$232.50	\$232.50	0.04	98.8	\$10.28	22.63			
242.21	Kitchen Laundry	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.07	179.4	\$18.66	\$232.50	\$232.50	0.04	98.8	\$10.28	22.63			
242.21	Kitchen Locker	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.14	358.8	\$37.32	\$232.50	\$465.00	0.08	197.6	\$20.55	22.63			
221.11	Kitchen Toilet	2600	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.04	96.2	\$10.00	\$222.50	\$222.50	0.03	65	\$6.76	32.91			
221.33	Classroom F114	2600	32	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Direct/ Indirect	58	1.86	4,825.6	\$501.86	32	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	1.18	3078.4	\$320.15	\$222.50	\$7,120.00	0.67	1747.2	\$181.71	39.18			
221.33	Classroom F113	2600	9	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Direct/ Indirect	58	0.52	1,357.2	\$141.15	9	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.33	865.8	\$90.04	\$222.50	\$2,002.50	0.19	491.4	\$51.11	39.18			
221.31	Classroom F112	2600	4	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	62	0.25	644.8	\$67.06	4	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.15	384.8	\$40.02	\$222.50	\$890.00	0.10	260	\$27.04	32.91			
736	Classroom F112	2600	20	1	175w MH, Pendant Mnt., Prismatic Lens	210	4.20	10,920.0	\$1,135.68	20	6	2x4, 6 Lamp, 32w T8, Elect. Ballast, w/Wire Guard - Lo Bay	168	3.36	8736	\$908.54	\$220.00	\$4,400.00	0.84	2184	\$227.14	19.37			
200	Classroom F112 Closet	1000	1	1	1x2, 1 Lamp, 17w T8, Elect. Ballast, Surface Mnt., No Lens	17	0.02	17.0	\$1.77	1	0	No Change	0	0.00	0	\$0.00	\$0.00	\$0.00	0.00	0	\$0.00	0.00			
221.31	Classroom F112 Toilet	2600	4	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	62	0.25	644.8	\$67.06	4	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.15	384.8	\$40.02	\$222.50	\$890.00	0.10	260	\$27.04	32.91			
242.21	F112-T	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.07	179.4	\$18.66	\$232.50	\$232.50	0.04	98.8	\$10.28	22.63			
241.34	Classroom F110	2600	32	4	1x4, 4 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	104	3.33	8,652.8	\$899.89	32	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	1.18	3078.4	\$320.15	\$222.50	\$7,120.00	2.14	5574.4	\$579.74	12.28			
241.34	Classroom F110 Storage	1000	3	4	1x4, 4 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	104	0.31	312.0	\$32.45	3	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.11	111	\$11.54	\$222.50	\$667.50	0.20	201	\$20.90	31.93			
242.21	Classroom F110 Office	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1,112.8	\$115.73	4	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.28	717.6	\$74.63	\$232.50	\$930.00	0.15	395.2	\$41.10	22.63			
242.21	Classroom F110 Finishing	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1,112.8	\$115.73	4	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.28	717.6	\$74.63	\$232.50	\$930.00	0.15	395.2	\$41.10	22.63			

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ECM #4: Lighting Upgrade - LED Option

EXISTING LIGHTING										PROPOSED LIGHTING										SAVINGS					
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Lamps	Retro-Unit Description	Watts Used	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback			
221.31	Classroom F110 Finishing	2600	4	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	62	0.25	644.8	\$67.06	4	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.15	384.8	\$40.02	\$222.50	\$890.00	0.10	260	\$27.04	32.91			
242.21	Wood Shop Corridor	4000	5	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.54	2,140.0	\$222.56	5	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.35	1380	\$143.52	\$232.50	\$1,162.50	0.19	760	\$79.04	14.71			
242.21	Café Corridor	4000	17	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.82	7,276.0	\$756.70	17	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	1.17	4692	\$487.97	\$232.50	\$3,952.50	0.65	2584	\$268.74	14.71			
242.21	Classroom F108	2600	3	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.32	834.6	\$86.80	3	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.21	538.2	\$55.97	\$232.50	\$697.50	0.11	296.4	\$30.83	22.63			
221.33	Classroom F108	2600	30	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Direct/ Indirect	58	1.74	4,524.0	\$470.50	30	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	1.11	2886	\$300.14	\$222.50	\$6,675.00	0.63	1638	\$170.35	39.18			
221.31	Classroom F106	2600	20	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	62	1.24	3,224.0	\$335.30	20	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.74	1924	\$200.10	\$222.50	\$4,450.00	0.50	1300	\$135.20	32.91			
30	Classroom F106 Control Room	2600	9	2	Recessed Down Light, (2) 26w PL Lamp	54	0.49	1,263.6	\$131.41	9	0	No Change	0	0.00	0	\$0.00	\$0.00	\$0.00	0.00	0	\$0.00	0.00			
30	Classroom F106 Control Room	2600	9	2	Recessed Down Light, (2) 26w PL Lamp	54	0.49	1,263.6	\$131.41	9	0	No Change	0	0.00	0	\$0.00	\$0.00	\$0.00	0.00	0	\$0.00	0.00			
221.33	Classroom F104	2600	36	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Direct/ Indirect	58	2.09	5,428.8	\$564.60	36	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	1.33	3463.2	\$360.17	\$222.50	\$8,010.00	0.76	1965.6	\$204.42	39.18			
242.21	Classroom F104 Storage	1000	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	214.0	\$22.26	2	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.14	138	\$14.35	\$232.50	\$465.00	0.08	76	\$7.90	58.83			
242.21	F104 Corridor	4000	5	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.54	2,140.0	\$222.56	5	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.35	1380	\$143.52	\$232.50	\$1,162.50	0.19	760	\$79.04	14.71			
221.11	Boiler Room	2600	27	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	1.67	4,352.4	\$452.65	27	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	1.00	2597.4	\$270.13	\$222.50	\$6,007.50	0.68	1755	\$182.52	32.91			
221.33	Classroom E108	2600	14	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Direct/ Indirect	58	0.81	2,111.2	\$219.56	14	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.52	1346.8	\$140.07	\$222.50	\$3,115.00	0.29	764.4	\$79.50	39.18			
221.33	Classroom E106	2600	46	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Direct/ Indirect	58	2.67	6,936.8	\$721.43	46	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	1.70	4425.2	\$460.22	\$222.50	\$10,235.00	0.97	2511.6	\$261.21	39.18			
242.21	Classroom E106 Storage	1000	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	214.0	\$22.26	2	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.14	138	\$14.35	\$232.50	\$465.00	0.08	76	\$7.90	58.83			
242.21	Classroom E106 Office	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.14	358.8	\$37.32	\$232.50	\$465.00	0.08	197.6	\$20.55	22.63			
242.21	Classroom E106 Office #2	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1,112.8	\$115.73	4	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.28	717.6	\$74.63	\$232.50	\$930.00	0.15	395.2	\$41.10	22.63			
227.21	Classroom E105	2600	2	2	2x2, 2 Lamp, 32w 700 series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	65	0.13	338.0	\$35.15	2	1	Finelite HPR-LED-A DCO-4000 (2x2)	34	0.07	176.8	\$18.39	\$222.50	\$445.00	0.06	161.2	\$16.76	26.54			
242.21	Classroom E105 Practice Room	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.14	358.8	\$37.32	\$232.50	\$465.00	0.08	197.6	\$20.55	22.63			

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ECM #4: Lighting Upgrade - LED Option

EXISTING LIGHTING										PROPOSED LIGHTING							SAVINGS					
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Lamps	Retro-Unit Description	Watts Used	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback
242.21	Classroom E105 Practice Room	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1,112.8	\$115.73	4	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.28	717.6	\$74.63	\$232.50	\$930.00	0.15	395.2	\$41.10	22.63
242.21	Classroom E105 Practice Room	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1,112.8	\$115.73	4	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.28	717.6	\$74.63	\$232.50	\$930.00	0.15	395.2	\$41.10	22.63
221.33	Classroom E105	2600	54	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Direct/ Indirect	58	3.13	8,143.2	\$846.89	54	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	2.00	5194.8	\$540.26	\$222.50	\$12,015.00	1.13	2948.4	\$306.63	39.18
242.21	Classroom E105 Practice Room	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.14	358.8	\$37.32	\$232.50	\$465.00	0.08	197.6	\$20.55	22.63
242.21	Classroom E105 Storage	1000	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	214.0	\$22.26	2	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.14	138	\$14.35	\$232.50	\$465.00	0.08	76	\$7.90	58.83
242.21	Classroom E105 Storage	1000	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	214.0	\$22.26	2	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.14	138	\$14.35	\$232.50	\$465.00	0.08	76	\$7.90	58.83
242.21	Classroom E105 Equipment	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.14	358.8	\$37.32	\$232.50	\$465.00	0.08	197.6	\$20.55	22.63
242.21	Classroom F105	2600	11	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.18	3,060.2	\$318.26	11	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.76	1973.4	\$205.23	\$232.50	\$2,557.50	0.42	1086.8	\$113.03	22.63
242.21	Classroom F105 Storage	1000	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	107.0	\$11.13	1	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.07	69	\$7.18	\$232.50	\$232.50	0.04	38	\$3.95	58.83
242.21	Classroom F105 Back	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1,112.8	\$115.73	4	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.28	717.6	\$74.63	\$232.50	\$930.00	0.15	395.2	\$41.10	22.63
242.21	E101 Utility	1000	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	107.0	\$11.13	1	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.07	69	\$7.18	\$232.50	\$232.50	0.04	38	\$3.95	58.83
242.21	Classroom F103	2600	8	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.86	2,225.6	\$231.46	8	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.55	1435.2	\$149.26	\$232.50	\$1,860.00	0.30	790.4	\$82.20	22.63
242.21	Classroom F103 Back	2600	5	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.54	1,391.0	\$144.66	5	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.35	897	\$93.29	\$232.50	\$1,162.50	0.19	494	\$51.38	22.63
242.21	Classroom F101	2600	16	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.71	4,451.2	\$462.92	16	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	1.10	2870.4	\$298.52	\$232.50	\$3,720.00	0.61	1580.8	\$164.40	22.63
242.21	E102 Utility	1000	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	107.0	\$11.13	1	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.07	69	\$7.18	\$232.50	\$232.50	0.04	38	\$3.95	58.83
242.21	E102 Ticket Booth	2600	5	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.54	1,391.0	\$144.66	5	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.35	897	\$93.29	\$232.50	\$1,162.50	0.19	494	\$51.38	22.63
242.21	Boy's Room	2600	3	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.32	834.6	\$86.80	3	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.21	538.2	\$55.97	\$232.50	\$697.50	0.11	296.4	\$30.83	22.63
227.21	Boy's Room	2600	1	2	2x2, 2 Lamp, 32w 700 series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	65	0.07	169.0	\$17.58	1	1	Finelite HPR-LED-A DCO-4000 (2x2)	34	0.03	88.4	\$9.19	\$222.50	\$222.50	0.03	80.6	\$8.38	26.54
221.11	Boy's Room	2600	2	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.12	322.4	\$33.53	2	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.07	192.4	\$20.01	\$222.50	\$445.00	0.05	130	\$13.52	32.91

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ECM #4: Lighting Upgrade - LED Option

EXISTING LIGHTING										PROPOSED LIGHTING							SAVINGS					
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Lamps	Retro-Unit Description	Watts Used	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback
242.21	Girl's Room	2600	3	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.32	834.6	\$86.80	3	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.21	538.2	\$55.97	\$232.50	\$697.50	0.11	296.4	\$30.83	22.63
227.21	Girl's Room	2600	1	2	2x2, 2 Lamp, 32w 700 series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	65	0.07	169.0	\$17.58	1	1	Finelite HPR-LED-A DCO-4000 (2x2)	34	0.03	88.4	\$9.19	\$222.50	\$222.50	0.03	80.6	\$8.38	26.54
221.11	Girl's Room	2600	2	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.12	322.4	\$33.53	2	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.07	192.4	\$20.01	\$222.50	\$445.00	0.05	130	\$13.52	32.91
242.21	Janitor's Closet	1000	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	214.0	\$22.26	2	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.14	138	\$14.35	\$232.50	\$465.00	0.08	76	\$7.90	58.83
736	G108 Weight Room	2600	15	1	175w MH, Pendant Mnt., Prismatic Lens	210	3.15	8,190.0	\$851.76	15	6	2x4, 6 Lamp, 32w T8, Elect. Ballast, w/Wire Guard - Lo Bay	168	2.52	6552	\$681.41	\$220.00	\$3,300.00	0.63	1638	\$170.35	19.37
242.21	Janitor's Closet	1000	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	214.0	\$22.26	2	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.14	138	\$14.35	\$232.50	\$465.00	0.08	76	\$7.90	58.83
242.21	Boy's Room	2600	5	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.54	1,391.0	\$144.66	5	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.35	897	\$93.29	\$232.50	\$1,162.50	0.19	494	\$51.38	22.63
221.11	Boy's Room	2600	4	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.25	644.8	\$67.06	4	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.15	384.8	\$40.02	\$222.50	\$890.00	0.10	260	\$27.04	32.91
242.21	Girl's Room	2600	5	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.54	1,391.0	\$144.66	5	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.35	897	\$93.29	\$232.50	\$1,162.50	0.19	494	\$51.38	22.63
221.11	Girl's Room	2600	4	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.25	644.8	\$67.06	4	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.15	384.8	\$40.02	\$222.50	\$890.00	0.10	260	\$27.04	32.91
242.21	Boy's Locker	2600	16	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.71	4,451.2	\$462.92	16	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	1.10	2870.4	\$298.52	\$232.50	\$3,720.00	0.61	1580.8	\$164.40	22.63
221.11	Boy's Locker Toilet	2600	4	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.25	644.8	\$67.06	4	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.15	384.8	\$40.02	\$222.50	\$890.00	0.10	260	\$27.04	32.91
221.11	Boy's Locker Toilet	2600	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.04	96.2	\$10.00	\$222.50	\$222.50	0.03	65	\$6.76	32.91
242.21	Gym Corridor	4000	11	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.18	4,708.0	\$489.63	11	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.76	3036	\$315.74	\$232.50	\$2,557.50	0.42	1672	\$173.89	14.71
242.21	Gym Exit	4000	3	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.32	1,284.0	\$133.54	3	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.21	828	\$86.11	\$232.50	\$697.50	0.11	456	\$47.42	14.71
222.21	G105 Locker	2600	13	2	2x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	62	0.81	2,095.6	\$217.94	13	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.90	2332.2	\$242.55	\$232.50	\$3,022.50	-0.09	-236.6	-\$24.61	-122.83
242.21	Physical Education Office	2600	3	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.32	834.6	\$86.80	3	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.21	538.2	\$55.97	\$232.50	\$697.50	0.11	296.4	\$30.83	22.63
221.11	G105 Toilet	2600	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.04	96.2	\$10.00	\$222.50	\$222.50	0.03	65	\$6.76	32.91
242.21	G107 Locker	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.14	358.8	\$37.32	\$232.50	\$465.00	0.08	197.6	\$20.55	22.63

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ECM #4: Lighting Upgrade - LED Option

EXISTING LIGHTING										PROPOSED LIGHTING										SAVINGS			
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Lamps	Retro-Unit Description	Watts Used	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback	
221.11	G107 Toilet	2600	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.04	96.2	\$10.00	\$222.50	\$222.50	0.03	65	\$6.76	32.91	
242.21	G109 Boy's Locker	2600	14	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.50	3,894.8	\$405.06	14	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.97	2511.6	\$261.21	\$232.50	\$3,255.00	0.53	1383.2	\$143.85	22.63	
221.11	G109 Toilet	2600	4	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.25	644.8	\$67.06	4	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.15	384.8	\$40.02	\$222.50	\$890.00	0.10	260	\$27.04	32.91	
242.21	Girl's Locker	2600	16	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.71	4,451.2	\$462.92	16	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	1.10	2870.4	\$298.52	\$232.50	\$3,720.00	0.61	1580.8	\$164.40	22.63	
221.11	Girl's Locker Toilet	2600	4	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.25	644.8	\$67.06	4	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.15	384.8	\$40.02	\$222.50	\$890.00	0.10	260	\$27.04	32.91	
221.11	Girls's Locker Toilet	2600	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.04	96.2	\$10.00	\$222.50	\$222.50	0.03	65	\$6.76	32.91	
242.21	Gym Corridor	4000	11	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.18	4,708.0	\$489.63	11	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.76	3036	\$315.74	\$232.50	\$2,557.50	0.42	1672	\$173.89	14.71	
242.21	Gym Exit	4000	3	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.32	1,284.0	\$133.54	3	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.21	828	\$86.11	\$232.50	\$697.50	0.11	456	\$47.42	14.71	
222.21	Girl's Locker	2600	13	2	2x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	62	0.81	2,095.6	\$217.94	13	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.90	2332.2	\$242.55	\$232.50	\$3,022.50	-0.09	-236.6	-\$24.61	-122.83	
242.21	Physical Education Office	2600	3	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.32	834.6	\$86.80	3	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.21	538.2	\$55.97	\$232.50	\$697.50	0.11	296.4	\$30.83	22.63	
221.11	G113 Toilet	2600	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.04	96.2	\$10.00	\$222.50	\$222.50	0.03	65	\$6.76	32.91	
242.21	G113 Locker	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.14	358.8	\$37.32	\$232.50	\$465.00	0.08	197.6	\$20.55	22.63	
221.11	G113 Toilet	2600	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.04	96.2	\$10.00	\$222.50	\$222.50	0.03	65	\$6.76	32.91	
242.21	D103 Nurse's	2600	11	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.18	3,060.2	\$318.26	11	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.76	1973.4	\$205.23	\$232.50	\$2,557.50	0.42	1086.8	\$113.03	22.63	
242.21	D103 Break Room	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.07	179.4	\$18.66	\$232.50	\$232.50	0.04	98.8	\$10.28	22.63	
221.11	D103 Toilet	2600	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.04	96.2	\$10.00	\$222.50	\$222.50	0.03	65	\$6.76	32.91	
242.21	D103 Office	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.14	358.8	\$37.32	\$232.50	\$465.00	0.08	197.6	\$20.55	22.63	
242.21	D103 Break Room	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.07	179.4	\$18.66	\$232.50	\$232.50	0.04	98.8	\$10.28	22.63	
221.11	D103 Toilet	2600	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.04	96.2	\$10.00	\$222.50	\$222.50	0.03	65	\$6.76	32.91	

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ECM #4: Lighting Upgrade - LED Option

EXISTING LIGHTING										PROPOSED LIGHTING										SAVINGS					
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Lamps	Retro-Unit Description	Watts Used	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback			
242.21	G121 Trainer's	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.41	1076.4	\$111.95	\$232.50	\$1,395.00	0.23	592.8	\$61.65	22.63			
232.21	G121 Weight Room	2600	23	3	2x4, 3 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	86	1.98	5,142.8	\$534.85	23	1	Finelite HPR-LED-A DCO-4000 (2x4)	37	0.85	2212.6	\$230.11	\$232.50	\$5,347.50	1.13	2930.2	\$304.74	17.55			
242.21	G121 Corridor	4000	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	856.0	\$89.02	2	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.14	552	\$57.41	\$232.50	\$465.00	0.08	304	\$31.62	14.71			
227.21	Main Office Corridor	4000	6	2	2x2, 2 Lamp, 32w 700 series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	65	0.39	1,560.0	\$162.24	6	1	Finelite HPR-LED-A DCO-4000 (2x2)	34	0.20	816	\$84.86	\$222.50	\$1,335.00	0.19	744	\$77.38	17.25			
242.21	Café #1	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1,112.8	\$115.73	4	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.28	717.6	\$74.63	\$232.50	\$930.00	0.15	395.2	\$41.10	22.63			
227.21	Café #1	2600	6	2	2x2, 2 Lamp, 32w 700 series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	65	0.39	1,014.0	\$105.46	6	1	Finelite HPR-LED-A DCO-4000 (2x2)	34	0.20	530.4	\$55.16	\$222.50	\$1,335.00	0.19	483.6	\$50.29	26.54			
30	Café #1	2600	16	2	Recessed Down Light, (2) 26w PL Lamp	54	0.86	2,246.4	\$233.63	16	0	No Change	0	0.00	0	\$0.00	\$0.00	\$0.00	0.00	0	\$0.00	0.00			
31	Café #1	2600	8	4	Pendant Light, (4) 26w PL Lamp	104	0.83	2,163.2	\$224.97	8	0	No Change	0	0.00	0	\$0.00	\$0.00	\$0.00	0.00	0	\$0.00	0.00			
242.21	Café #2	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1,112.8	\$115.73	4	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.28	717.6	\$74.63	\$232.50	\$930.00	0.15	395.2	\$41.10	22.63			
227.21	Café #2	2600	6	2	2x2, 2 Lamp, 32w 700 series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	65	0.39	1,014.0	\$105.46	6	1	Finelite HPR-LED-A DCO-4000 (2x2)	34	0.20	530.4	\$55.16	\$222.50	\$1,335.00	0.19	483.6	\$50.29	26.54			
30	Café #2	2600	16	2	Recessed Down Light, (2) 26w PL Lamp	54	0.86	2,246.4	\$233.63	16	0	No Change	0	0.00	0	\$0.00	\$0.00	\$0.00	0.00	0	\$0.00	0.00			
31	Café #2	2600	8	4	Pendant Light, (4) 26w PL Lamp	104	0.83	2,163.2	\$224.97	8	0	No Change	0	0.00	0	\$0.00	\$0.00	\$0.00	0.00	0	\$0.00	0.00			
242.21	Café #1 Storage	1000	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	214.0	\$22.26	2	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.14	138	\$14.35	\$232.50	\$465.00	0.08	76	\$7.90	58.83			
221.11	Janitor's Closet	1000	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	62.0	\$6.45	1	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.04	37	\$3.85	\$222.50	\$222.50	0.03	25	\$2.60	85.58			
242.21	Auditorium Corridor	4000	8	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.86	3,424.0	\$356.10	8	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.55	2208	\$229.63	\$232.50	\$1,860.00	0.30	1216	\$126.46	14.71			
227.21	Auditorium Corridor	4000	6	2	2x2, 2 Lamp, 32w 700 series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	65	0.39	1,560.0	\$162.24	6	1	Finelite HPR-LED-A DCO-4000 (2x2)	34	0.20	816	\$84.86	\$222.50	\$1,335.00	0.19	744	\$77.38	17.25			
30	Auditorium Corridor	4000	15	2	Recessed Down Light, (2) 26w PL Lamp	54	0.81	3,240.0	\$336.96	15	0	No Change	0	0.00	0	\$0.00	\$0.00	\$0.00	0.00	0	\$0.00	0.00			
211.44	Display Case	4000	1	1	1x4, 1 Lamp, 32w T8, Elect. Ballast, Wall MNT., No Lens	32	0.03	128.0	\$13.31	1	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.04	148	\$15.39	\$222.50	\$222.50	-0.01	-20	-\$2.08	-106.97			
211.44	Display Case	4000	1	1	1x4, 1 Lamp, 32w T8, Elect. Ballast, Wall MNT., No Lens	32	0.03	128.0	\$13.31	1	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.04	148	\$15.39	\$222.50	\$222.50	-0.01	-20	-\$2.08	-106.97			

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ECM #4: Lighting Upgrade - LED Option

EXISTING LIGHTING										PROPOSED LIGHTING							SAVINGS					
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Lamps	Retro-Unit Description	Watts Used	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback
227.21	Mail Room	2600	2	2	2x2, 2 Lamp, 32w 700 series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	65	0.13	338.0	\$35.15	2	1	Finelite HPR-LED-A DCO-4000 (2x2)	34	0.07	176.8	\$18.39	\$222.50	\$445.00	0.06	161.2	\$16.76	26.54
242.21	Classroom D101	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.41	1076.4	\$111.95	\$232.50	\$1,395.00	0.23	592.8	\$61.65	22.63
242.21	D101-1 Asst. Principal	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.14	358.8	\$37.32	\$232.50	\$465.00	0.08	197.6	\$20.55	22.63
242.21	Classroom D106	2600	8	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.86	2,225.6	\$231.46	8	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.55	1435.2	\$149.26	\$232.50	\$1,860.00	0.30	790.4	\$82.20	22.63
14	Gym #2	2600	20	1	400w MH Truss Light, SPI Lighting Inc. #2603	460	9.20	23,920.0	\$2,487.68	20	0	No Change	0	0.00	0	\$0.00	\$0.00	\$0.00	0.00	0	\$0.00	0.00
15	Gym #2	2600	16	2	400w MH - 250w Quartz Combo - SPI Lighting Inc. #2603/2743	710	11.36	29,536.0	\$3,071.74	16	0	No Change	0	0.00	0	\$0.00	\$0.00	\$0.00	0.00	0	\$0.00	0.00
15	Gym #1	2600	10	2	400w MH - 250w Quartz Combo - SPI Lighting Inc. #2603/2743	710	7.10	18,460.0	\$1,919.84	10	0	No Change	0	0.00	0	\$0.00	\$0.00	\$0.00	0.00	0	\$0.00	0.00
14	Gym #1	2600	37	1	400w MH Truss Light, SPI Lighting Inc. #2603	460	17.02	44,252.0	\$4,602.21	37	0	No Change	0	0.00	0	\$0.00	\$0.00	\$0.00	0.00	0	\$0.00	0.00
769	Gym #1	2600	56	1	400w MH, Clear Lens	465	26.04	67,704.0	\$7,041.22	56	6	2x4 54w T5HO 6 Lamp w/Prismatic Lens	354	19.82	51542.4	\$5,360.41	\$240.00	\$13,440.00	6.22	16161.6	\$1,680.81	8.00
221.31	Gym #2 Storage	1000	2	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	62	0.12	124.0	\$12.90	2	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.07	74	\$7.70	\$222.50	\$445.00	0.05	50	\$5.20	85.58
242.21	G100 Lobby	4000	7	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.75	2,996.0	\$311.58	7	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.48	1932	\$200.93	\$232.50	\$1,627.50	0.27	1064	\$110.66	14.71
242.21	Café #1 Boy's Room	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.07	179.4	\$18.66	\$232.50	\$232.50	0.04	98.8	\$10.28	22.63
221.11	Café #1 Boy's Room	2600	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.04	96.2	\$10.00	\$222.50	\$222.50	0.03	65	\$6.76	32.91
242.21	Café #1 Girl's Room	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.07	179.4	\$18.66	\$232.50	\$232.50	0.04	98.8	\$10.28	22.63
221.11	Café #1 Girl's Room	2600	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.04	96.2	\$10.00	\$222.50	\$222.50	0.03	65	\$6.76	32.91
242.21	Café #2 Boy's Room	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.07	179.4	\$18.66	\$232.50	\$232.50	0.04	98.8	\$10.28	22.63
221.11	Café #2 Boy's Room	2600	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.04	96.2	\$10.00	\$222.50	\$222.50	0.03	65	\$6.76	32.91
242.21	Café #2 Girl's Room	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.07	179.4	\$18.66	\$232.50	\$232.50	0.04	98.8	\$10.28	22.63
221.11	Café #2 Girl's Room	2600	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.04	96.2	\$10.00	\$222.50	\$222.50	0.03	65	\$6.76	32.91

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ECM #4: Lighting Upgrade - LED Option

EXISTING LIGHTING										PROPOSED LIGHTING										SAVINGS					
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Lamps	Retro-Unit Description	Watts Used	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback			
221.11	Tool/Mech Room	2600	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.04	96.2	\$10.00	\$222.50	\$222.50	0.03	65	\$6.76	32.91			
242.21	D202 FP	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.41	1076.4	\$111.95	\$232.50	\$1,395.00	0.23	592.8	\$61.65	22.63			
222.21	Restroom	2600	1	2	2x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	62	0.06	161.2	\$16.76	1	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.07	179.4	\$18.66	\$232.50	\$232.50	-0.01	-18.2	-\$1.89	-122.83			
242.21	Elec. Closet	1200	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	128.4	\$13.35	1	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.07	82.8	\$8.61	\$232.50	\$232.50	0.04	45.6	\$4.74	49.03			
242.21	Classroom C201	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.62	1614.6	\$167.92	\$232.50	\$2,092.50	0.34	889.2	\$92.48	22.63			
242.21	Classroom C202	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.62	1614.6	\$167.92	\$232.50	\$2,092.50	0.34	889.2	\$92.48	22.63			
242.21	Classroom C203	2600	10	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.07	2,782.0	\$289.33	10	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.69	1794	\$186.58	\$232.50	\$2,325.00	0.38	988	\$102.75	22.63			
242.21	Classroom C204	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3,338.4	\$347.19	12	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.83	2152.8	\$223.89	\$232.50	\$2,790.00	0.46	1185.6	\$123.30	22.63			
242.21	Classroom C205	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3,338.4	\$347.19	12	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.83	2152.8	\$223.89	\$232.50	\$2,790.00	0.46	1185.6	\$123.30	22.63			
242.21	Classroom C206	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.62	1614.6	\$167.92	\$232.50	\$2,092.50	0.34	889.2	\$92.48	22.63			
242.21	C202F FP	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.41	1076.4	\$111.95	\$232.50	\$1,395.00	0.23	592.8	\$61.65	22.63			
242.21	Stairways S1-4	3000	3	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.32	963.0	\$100.15	3	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.21	621	\$64.58	\$232.50	\$697.50	0.11	342	\$35.57	19.61			
242.21	Utility Closet	1200	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	256.8	\$26.71	2	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.14	165.6	\$17.22	\$232.50	\$465.00	0.08	91.2	\$9.48	49.03			
242.21	205 Prep	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.14	358.8	\$37.32	\$232.50	\$465.00	0.08	197.6	\$20.55	22.63			
242.21	Men's Room	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.14	358.8	\$37.32	\$232.50	\$465.00	0.08	197.6	\$20.55	22.63			
221.41		2600	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.12	301.6	\$31.37	2	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.07	192.4	\$20.01	\$222.50	\$445.00	0.04	109.2	\$11.36	39.18			
242.21	Women's Room	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.14	358.8	\$37.32	\$232.50	\$465.00	0.08	197.6	\$20.55	22.63			
221.41		2600	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.12	301.6	\$31.37	2	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.07	192.4	\$20.01	\$222.50	\$445.00	0.04	109.2	\$11.36	39.18			
221.41	Custodial Closet	1200	1	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.06	69.6	\$7.24	1	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.04	44.4	\$4.62	\$222.50	\$222.50	0.02	25.2	\$2.62	84.90			

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ECM #4: Lighting Upgrade - LED Option

EXISTING LIGHTING					PROPOSED LIGHTING								SAVINGS									
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Lamps	Retro-Unit Description	Watts Used	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	(Unit Cost (INSTALLED))	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback
242.21	Classroom A 201	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3,338.4	\$347.19	12	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.83	2152.8	\$223.89	\$232.50	\$2,790.00	0.46	1185.6	\$123.30	22.63
242.21	Classroom A 202	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.62	1614.6	\$167.92	\$232.50	\$2,092.50	0.34	889.2	\$92.48	22.63
242.21	Classroom A 203	2600	10	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.07	2,782.0	\$289.33	10	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.69	1794	\$186.58	\$232.50	\$2,325.00	0.38	988	\$102.75	22.63
242.21	Classroom A 204	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.62	1614.6	\$167.92	\$232.50	\$2,092.50	0.34	889.2	\$92.48	22.63
242.21	Classroom A 205	2600	10	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.07	2,782.0	\$289.33	10	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.69	1794	\$186.58	\$232.50	\$2,325.00	0.38	988	\$102.75	22.63
242.21	Classroom A 206	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.62	1614.6	\$167.92	\$232.50	\$2,092.50	0.34	889.2	\$92.48	22.63
242.21	Classroom C 207	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3,338.4	\$347.19	12	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.83	2152.8	\$223.89	\$232.50	\$2,790.00	0.46	1185.6	\$123.30	22.63
242.21	Classroom A 208	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.41	1076.4	\$111.95	\$232.50	\$1,395.00	0.23	592.8	\$61.65	22.63
242.21	Classroom C 209	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3,338.4	\$347.19	12	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.83	2152.8	\$223.89	\$232.50	\$2,790.00	0.46	1185.6	\$123.30	22.63
242.21	Classroom C 211	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3,338.4	\$347.19	12	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.83	2152.8	\$223.89	\$232.50	\$2,790.00	0.46	1185.6	\$123.30	22.63
242.21	Utility Closet	1200	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	128.4	\$13.35	1	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.07	82.8	\$8.61	\$232.50	\$232.50	0.04	45.6	\$4.74	49.03
242.21	A202F FC	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.41	1076.4	\$111.95	\$232.50	\$1,395.00	0.23	592.8	\$61.65	22.63
242.21	Storage	1200	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	128.4	\$13.35	1	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.07	82.8	\$8.61	\$232.50	\$232.50	0.04	45.6	\$4.74	49.03
242.21	Women's Room	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.07	179.4	\$18.66	\$232.50	\$232.50	0.04	98.8	\$10.28	22.63
242.21	211 Prep	2600	3	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.32	834.6	\$86.80	3	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.21	538.2	\$55.97	\$232.50	\$697.50	0.11	296.4	\$30.83	22.63
242.21	Classroom B 201	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.62	1614.6	\$167.92	\$232.50	\$2,092.50	0.34	889.2	\$92.48	22.63
242.21	Classroom B 202	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3,338.4	\$347.19	12	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.83	2152.8	\$223.89	\$232.50	\$2,790.00	0.46	1185.6	\$123.30	22.63
242.21	Classroom B 203	2600	10	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.07	2,782.0	\$289.33	10	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.69	1794	\$186.58	\$232.50	\$2,325.00	0.38	988	\$102.75	22.63
242.21	Classroom B 204	2600	10	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.07	2,782.0	\$289.33	10	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.69	1794	\$186.58	\$232.50	\$2,325.00	0.38	988	\$102.75	22.63

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ECM #4: Lighting Upgrade - LED Option

EXISTING LIGHTING										PROPOSED LIGHTING										SAVINGS			
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Lamps	Retro-Unit Description	Watts Used	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback	
242.21	Classroom B 205	2600	10	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.07	2,782.0	\$289.33	10	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.69	1794	\$186.58	\$232.50	\$2,325.00	0.38	988	\$102.75	22.63	
242.21	Classroom B 206	2600	10	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.07	2,782.0	\$289.33	10	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.69	1794	\$186.58	\$232.50	\$2,325.00	0.38	988	\$102.75	22.63	
242.21	Utility Closet	1200	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	128.4	\$13.35	1	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.07	82.8	\$8.61	\$232.50	\$232.50	0.04	45.6	\$4.74	49.03	
242.21	B206F FP	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.41	1076.4	\$111.95	\$232.50	\$1,395.00	0.23	592.8	\$61.65	22.63	
242.21	Men's Room	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.14	358.8	\$37.32	\$232.50	\$465.00	0.08	197.6	\$20.55	22.63	
221.41		2600	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.12	301.6	\$31.37	2	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.07	192.4	\$20.01	\$222.50	\$445.00	0.04	109.2	\$11.36	39.18	
242.21	Women's Room	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.14	358.8	\$37.32	\$232.50	\$465.00	0.08	197.6	\$20.55	22.63	
221.41		2600	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.12	301.6	\$31.37	2	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.07	192.4	\$20.01	\$222.50	\$445.00	0.04	109.2	\$11.36	39.18	
221.41	Custodial Closet	2600	1	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.06	150.8	\$15.68	1	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.04	96.2	\$10.00	\$222.50	\$222.50	0.02	54.6	\$5.68	39.18	
242.21	213 Prep	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.14	358.8	\$37.32	\$232.50	\$465.00	0.08	197.6	\$20.55	22.63	
242.21	Classroom C 215	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.41	1076.4	\$111.95	\$232.50	\$1,395.00	0.23	592.8	\$61.65	22.63	
242.21	Classroom C 216	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.41	1076.4	\$111.95	\$232.50	\$1,395.00	0.23	592.8	\$61.65	22.63	
242.21	Classroom C 217	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.41	1076.4	\$111.95	\$232.50	\$1,395.00	0.23	592.8	\$61.65	22.63	
242.21	Classroom C 218	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.62	1614.6	\$167.92	\$232.50	\$2,092.50	0.34	889.2	\$92.48	22.63	
242.21	Classroom C 219	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.41	1076.4	\$111.95	\$232.50	\$1,395.00	0.23	592.8	\$61.65	22.63	
242.21	Classroom C 220	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.62	1614.6	\$167.92	\$232.50	\$2,092.50	0.34	889.2	\$92.48	22.63	
242.21	Classroom C 213	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3,338.4	\$347.19	12	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.83	2152.8	\$223.89	\$232.50	\$2,790.00	0.46	1185.6	\$123.30	22.63	
242.21	Classroom C 222	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3,338.4	\$347.19	12	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.83	2152.8	\$223.89	\$232.50	\$2,790.00	0.46	1185.6	\$123.30	22.63	
242.21	Utility Closet	1200	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	128.4	\$13.35	1	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.07	82.8	\$8.61	\$232.50	\$232.50	0.04	45.6	\$4.74	49.03	

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ECM #4: Lighting Upgrade - LED Option

EXISTING LIGHTING										PROPOSED LIGHTING							SAVINGS					
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Lamps	Retro-Unit Description	Watts Used	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback
242.21	Storage	1200	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	128.4	\$13.35	1	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.07	82.8	\$8.61	\$232.50	\$232.50	0.04	45.6	\$4.74	49.03
242.21	P202 FP	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.41	1076.4	\$111.95	\$232.50	\$1,395.00	0.23	592.8	\$61.65	22.63
242.21	Stairways S5-S6	3000	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	321.0	\$33.38	1	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.07	207	\$21.53	\$232.50	\$232.50	0.04	114	\$11.86	19.61
227.21		3000	1	2	2x2, 2 Lamp, 32w 700 series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	65	0.07	195.0	\$20.28	1	1	Finelite HPR-LED-A DCO-4000 (2x2)	34	0.03	102	\$10.61	\$222.50	\$222.50	0.03	93	\$9.67	23.00
242.21	Classroom D 203	2600	8	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.86	2,225.6	\$231.46	8	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.55	1435.2	\$149.26	\$232.50	\$1,860.00	0.30	790.4	\$82.20	22.63
242.21	Classroom D 205	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1,112.8	\$115.73	4	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.28	717.6	\$74.63	\$232.50	\$930.00	0.15	395.2	\$41.10	22.63
242.21	Classroom D 207	2600	8	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.86	2,225.6	\$231.46	8	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.55	1435.2	\$149.26	\$232.50	\$1,860.00	0.30	790.4	\$82.20	22.63
242.21	Classroom D 209	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1,112.8	\$115.73	4	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.28	717.6	\$74.63	\$232.50	\$930.00	0.15	395.2	\$41.10	22.63
242.21	Classroom C 208	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3,338.4	\$347.19	12	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.83	2152.8	\$223.89	\$232.50	\$2,790.00	0.46	1185.6	\$123.30	22.63
242.21	Classroom C 212	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.62	1614.6	\$167.92	\$232.50	\$2,092.50	0.34	889.2	\$92.48	22.63
242.21	Classroom C 210	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.41	1076.4	\$111.95	\$232.50	\$1,395.00	0.23	592.8	\$61.65	22.63
242.21	Classroom C 214	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3,338.4	\$347.19	12	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.83	2152.8	\$223.89	\$232.50	\$2,790.00	0.46	1185.6	\$123.30	22.63
327.23	Media Center	2600	140	2	2x2 2 Lamp, 14w T5, Recessed Mnt., Direct/Indirect	31	4.34	11,284.0	\$1,173.54	140	0	No Change	0	0.00	0	\$0.00	\$0.00	\$0.00	0.00	0	\$0.00	0.00
242.21	Men's Room	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.14	358.8	\$37.32	\$232.50	\$465.00	0.08	197.6	\$20.55	22.63
221.41		2600	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.12	301.6	\$31.37	2	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.07	192.4	\$20.01	\$222.50	\$445.00	0.04	109.2	\$11.36	39.18
242.21	Women's Room	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.14	358.8	\$37.32	\$232.50	\$465.00	0.08	197.6	\$20.55	22.63
221.41		2600	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.12	301.6	\$31.37	2	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.07	192.4	\$20.01	\$222.50	\$445.00	0.04	109.2	\$11.36	39.18
221.41	Custodial Closet	1200	1	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.06	69.6	\$7.24	1	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.04	44.4	\$4.62	\$222.50	\$222.50	0.02	25.2	\$2.62	84.90
242.21	D201-9 Office	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1,112.8	\$115.73	4	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.28	717.6	\$74.63	\$232.50	\$930.00	0.15	395.2	\$41.10	22.63

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ECM #4: Lighting Upgrade - LED Option

EXISTING LIGHTING										PROPOSED LIGHTING							SAVINGS					
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Lamps	Retro-Unit Description	Watts Used	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback
242.21	Teacher's Lounge	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1,112.8	\$115.73	4	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.28	717.6	\$74.63	\$232.50	\$930.00	0.15	395.2	\$41.10	22.63
242.21	Computer Room	2600	8	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.86	2,225.6	\$231.46	8	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.55	1435.2	\$149.26	\$232.50	\$1,860.00	0.30	790.4	\$82.20	22.63
242.21	Computer Room	2600	14	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.50	3,894.8	\$405.06	14	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.97	2511.6	\$261.21	\$232.50	\$3,255.00	0.53	1383.2	\$143.85	22.63
242.21	Control Booth	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.41	1076.4	\$111.95	\$232.50	\$1,395.00	0.23	592.8	\$61.65	22.63
221.41	Control Booth Stairs	2600	4	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.23	603.2	\$62.73	4	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.15	384.8	\$40.02	\$222.50	\$890.00	0.08	218.4	\$22.71	39.18
242.21	D201-3 Storage	1200	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	513.6	\$53.41	4	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.28	331.2	\$34.44	\$232.50	\$930.00	0.15	182.4	\$18.97	49.03
242.21	Newspaper	2600	8	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.86	2,225.6	\$231.46	8	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.55	1435.2	\$149.26	\$232.50	\$1,860.00	0.30	790.4	\$82.20	22.63
242.21	D 102 FP	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.41	1076.4	\$111.95	\$232.50	\$1,395.00	0.23	592.8	\$61.65	22.63
242.21	Elec. Closet	1200	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	128.4	\$13.35	1	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.07	82.8	\$8.61	\$232.50	\$232.50	0.04	45.6	\$4.74	49.03
221.11	Machine Room	1200	1	2	1x4, 2 Lamp, 32w 700 Series T8, Elect. Ballast, Surface Mnt., Prismatic Lens	62	0.06	74.4	\$7.74	1	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.04	44.4	\$4.62	\$222.50	\$222.50	0.03	30	\$3.12	71.31
242.21	Classroom C 101	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.41	1076.4	\$111.95	\$232.50	\$1,395.00	0.23	592.8	\$61.65	22.63
242.21	Classroom C 102	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.41	1076.4	\$111.95	\$232.50	\$1,395.00	0.23	592.8	\$61.65	22.63
242.21	Classroom C 103	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.41	1076.4	\$111.95	\$232.50	\$1,395.00	0.23	592.8	\$61.65	22.63
242.21	Classroom C 104	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.62	1614.6	\$167.92	\$232.50	\$2,092.50	0.34	889.2	\$92.48	22.63
242.21	Classroom C 105	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.62	1614.6	\$167.92	\$232.50	\$2,092.50	0.34	889.2	\$92.48	22.63
242.21	Classroom C 106	2600	8	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.86	2,225.6	\$231.46	8	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.55	1435.2	\$149.26	\$232.50	\$1,860.00	0.30	790.4	\$82.20	22.63
227.21		2600	8	2	2x2, 2 Lamp, 32w 700 series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	65	0.52	1,352.0	\$140.61	8	1	Finelite HPR-LED-A DCO-4000 (2x2)	34	0.27	707.2	\$73.55	\$222.50	\$1,780.00	0.25	644.8	\$67.06	26.54
242.21	Classroom C 107	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3,338.4	\$347.19	12	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.83	2152.8	\$223.89	\$232.50	\$2,790.00	0.46	1185.6	\$123.30	22.63
242.21	Classroom C 108	2600	7	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.75	1,947.4	\$202.53	7	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.48	1255.8	\$130.60	\$232.50	\$1,627.50	0.27	691.6	\$71.93	22.63

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ECM #4: Lighting Upgrade - LED Option

EXISTING LIGHTING										PROPOSED LIGHTING							SAVINGS					
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Lamps	Retro-Unit Description	Watts Used	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback
242.21	107 Prep	2600	3	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.32	834.6	\$86.80	3	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.21	538.2	\$55.97	\$232.50	\$697.50	0.11	296.4	\$30.83	22.63
242.21	Men's Room	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.14	358.8	\$37.32	\$232.50	\$465.00	0.08	197.6	\$20.55	22.63
221.41		2600	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.12	301.6	\$31.37	2	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.07	192.4	\$20.01	\$222.50	\$445.00	0.04	109.2	\$11.36	39.18
242.21	Women's Room	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.14	358.8	\$37.32	\$232.50	\$465.00	0.08	197.6	\$20.55	22.63
221.41		2600	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.12	301.6	\$31.37	2	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.07	192.4	\$20.01	\$222.50	\$445.00	0.04	109.2	\$11.36	39.18
242.21	Classroom A 101	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3,338.4	\$347.19	12	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.83	2152.8	\$223.89	\$232.50	\$2,790.00	0.46	1185.6	\$123.30	22.63
242.21	Classroom A 102	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.41	1076.4	\$111.95	\$232.50	\$1,395.00	0.23	592.8	\$61.65	22.63
242.21	Classroom A 103	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.62	1614.6	\$167.92	\$232.50	\$2,092.50	0.34	889.2	\$92.48	22.63
242.21	Classroom A 104	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.62	1614.6	\$167.92	\$232.50	\$2,092.50	0.34	889.2	\$92.48	22.63
242.21	Classroom A 105	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.62	1614.6	\$167.92	\$232.50	\$2,092.50	0.34	889.2	\$92.48	22.63
242.21	Classroom A 106	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.62	1614.6	\$167.92	\$232.50	\$2,092.50	0.34	889.2	\$92.48	22.63
242.21	Classroom A 108	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.41	1076.4	\$111.95	\$232.50	\$1,395.00	0.23	592.8	\$61.65	22.63
242.21	A102F FP	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.41	1076.4	\$111.95	\$232.50	\$1,395.00	0.23	592.8	\$61.65	22.63
221.33	Classroom C 109	2600	20	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Direct/ Indirect	58	1.16	3,016.0	\$313.66	20	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.74	1924	\$200.10	\$222.50	\$4,450.00	0.42	1092	\$113.57	39.18
30		2600	4	2	Recessed Down Light, (2) 26w PL Lamp	54	0.22	561.6	\$58.41	4	0	No Change	0	0.00	0	\$0.00	\$0.00	\$0.00	0.00	0	\$0.00	0.00
221.33	Classroom C 111	2600	30	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Direct/ Indirect	58	1.74	4,524.0	\$470.50	30	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	1.11	2886	\$300.14	\$222.50	\$6,675.00	0.63	1638	\$170.35	39.18
30		2600	5	2	Recessed Down Light, (2) 26w PL Lamp	54	0.27	702.0	\$73.01	5	0	No Change	0	0.00	0	\$0.00	\$0.00	\$0.00	0.00	0	\$0.00	0.00
221.33	Classroom C 113	2600	36	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Direct/ Indirect	58	2.09	5,428.8	\$564.60	36	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	1.33	3463.2	\$360.17	\$222.50	\$8,010.00	0.76	1965.6	\$204.42	39.18
242.21	Classroom B 101	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3,338.4	\$347.19	12	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.83	2152.8	\$223.89	\$232.50	\$2,790.00	0.46	1185.6	\$123.30	22.63

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ECM #4: Lighting Upgrade - LED Option

EXISTING LIGHTING										PROPOSED LIGHTING							SAVINGS					
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Lamps	Retro-Unit Description	Watts Used	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback
242.21	101 Prep	2600	3	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.32	834.6	\$86.80	3	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.21	538.2	\$55.97	\$232.50	\$697.50	0.11	296.4	\$30.83	22.63
242.21	Classroom B 103	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.62	1614.6	\$167.92	\$232.50	\$2,092.50	0.34	889.2	\$92.48	22.63
242.21	Classroom B 104	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.62	1614.6	\$167.92	\$232.50	\$2,092.50	0.34	889.2	\$92.48	22.63
242.21	Classroom B 105	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.62	1614.6	\$167.92	\$232.50	\$2,092.50	0.34	889.2	\$92.48	22.63
242.21	Classroom B 106	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.62	1614.6	\$167.92	\$232.50	\$2,092.50	0.34	889.2	\$92.48	22.63
242.21	Classroom B 102	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3,338.4	\$347.19	12	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.83	2152.8	\$223.89	\$232.50	\$2,790.00	0.46	1185.6	\$123.30	22.63
242.21	Classroom B 108	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.62	1614.6	\$167.92	\$232.50	\$2,092.50	0.34	889.2	\$92.48	22.63
242.21	B105F FP	2600	3	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.32	834.6	\$86.80	3	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.21	538.2	\$55.97	\$232.50	\$697.50	0.11	296.4	\$30.83	22.63
242.21	Men's Room	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.14	358.8	\$37.32	\$232.50	\$465.00	0.08	197.6	\$20.55	22.63
221.41		2600	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.12	301.6	\$31.37	2	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.07	192.4	\$20.01	\$222.50	\$445.00	0.04	109.2	\$11.36	39.18
242.21	Women's Room	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.14	358.8	\$37.32	\$232.50	\$465.00	0.08	197.6	\$20.55	22.63
221.41		2600	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.12	301.6	\$31.37	2	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.07	192.4	\$20.01	\$222.50	\$445.00	0.04	109.2	\$11.36	39.18
242.21	115 Prep	2600	3	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.32	834.6	\$86.80	3	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.21	538.2	\$55.97	\$232.50	\$697.50	0.11	296.4	\$30.83	22.63
242.21	Classroom C 115	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3,338.4	\$347.19	12	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.83	2152.8	\$223.89	\$232.50	\$2,790.00	0.46	1185.6	\$123.30	22.63
242.21	Classroom C 116	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.62	1614.6	\$167.92	\$232.50	\$2,092.50	0.34	889.2	\$92.48	22.63
242.21	Classroom C 117	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.41	1076.4	\$111.95	\$232.50	\$1,395.00	0.23	592.8	\$61.65	22.63
221.33	Classroom C 118	2600	18	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Direct/ Indirect	58	1.04	2,714.4	\$282.30	18	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.67	1731.6	\$180.09	\$222.50	\$4,005.00	0.38	982.8	\$102.21	39.18
242.21	Classroom C 119	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.62	1614.6	\$167.92	\$232.50	\$2,092.50	0.34	889.2	\$92.48	22.63
242.21	Classroom C 114	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.62	1614.6	\$167.92	\$232.50	\$2,092.50	0.34	889.2	\$92.48	22.63

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ECM #4: Lighting Upgrade - LED Option

EXISTING LIGHTING										PROPOSED LIGHTING										SAVINGS			
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Lamps	Retro-Unit Description	Watts Used	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback	
242.21	Classroom C 112	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.41	1076.4	\$111.95	\$232.50	\$1,395.00	0.23	592.8	\$61.65	22.63	
242.21	Classroom C 121	2600	9	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.96	2,503.8	\$260.40	9	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.62	1614.6	\$167.92	\$232.50	\$2,092.50	0.34	889.2	\$92.48	22.63	
242.21	Utility Closet	1200	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	128.4	\$13.35	1	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.07	82.8	\$8.61	\$232.50	\$232.50	0.04	45.6	\$4.74	49.03	
242.21	Storage	1200	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	128.4	\$13.35	1	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.07	82.8	\$8.61	\$232.50	\$232.50	0.04	45.6	\$4.74	49.03	
242.21	Utility Closet	1200	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	128.4	\$13.35	1	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.07	82.8	\$8.61	\$232.50	\$232.50	0.04	45.6	\$4.74	49.03	
242.21	Machine Room	1200	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	128.4	\$13.35	1	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.07	82.8	\$8.61	\$232.50	\$232.50	0.04	45.6	\$4.74	49.03	
242.21	D 112 FP	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.41	1076.4	\$111.95	\$232.50	\$1,395.00	0.23	592.8	\$61.65	22.63	
242.21	Classroom D 110	2600	10	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.07	2,782.0	\$289.33	10	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.69	1794	\$186.58	\$232.50	\$2,325.00	0.38	988	\$102.75	22.63	
242.21	Classroom D 108	2600	8	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.86	2,225.6	\$231.46	8	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.55	1435.2	\$149.26	\$232.50	\$1,860.00	0.30	790.4	\$82.20	22.63	
242.21	Main Office	2600	22	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	2.35	6,120.4	\$636.52	22	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	1.52	3946.8	\$410.47	\$232.50	\$5,115.00	0.84	2173.6	\$226.05	22.63	
242.21	Mail Room	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.14	358.8	\$37.32	\$232.50	\$465.00	0.08	197.6	\$20.55	22.63	
242.21	AP Office	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.14	358.8	\$37.32	\$232.50	\$465.00	0.08	197.6	\$20.55	22.63	
242.21	Copy Room	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1,112.8	\$115.73	4	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.28	717.6	\$74.63	\$232.50	\$930.00	0.15	395.2	\$41.10	22.63	
242.21	AP Office	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.14	358.8	\$37.32	\$232.50	\$465.00	0.08	197.6	\$20.55	22.63	
242.21	AP Office	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.14	358.8	\$37.32	\$232.50	\$465.00	0.08	197.6	\$20.55	22.63	
242.21	AP Office	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.14	358.8	\$37.32	\$232.50	\$465.00	0.08	197.6	\$20.55	22.63	
242.21	AP Office	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.14	358.8	\$37.32	\$232.50	\$465.00	0.08	197.6	\$20.55	22.63	
242.21	Principal's Office	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.14	358.8	\$37.32	\$232.50	\$465.00	0.08	197.6	\$20.55	22.63	
242.21	Utility Closet	1200	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	128.4	\$13.35	1	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.07	82.8	\$8.61	\$232.50	\$232.50	0.04	45.6	\$4.74	49.03	

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ECM #4: Lighting Upgrade - LED Option

EXISTING LIGHTING										PROPOSED LIGHTING							SAVINGS					
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Lamps	Retro-Unit Description	Watts Used	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback
221.41	Women's Room	2600	1	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.06	150.8	\$15.68	1	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.04	96.2	\$10.00	\$222.50	\$222.50	0.02	54.6	\$5.68	39.18
221.41	Men's Room	2600	1	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.06	150.8	\$15.68	1	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.04	96.2	\$10.00	\$222.50	\$222.50	0.02	54.6	\$5.68	39.18
242.21	Office Hall	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1,112.8	\$115.73	4	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.28	717.6	\$74.63	\$232.50	\$930.00	0.15	395.2	\$41.10	22.63
242.21	D 101-18	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.14	358.8	\$37.32	\$232.50	\$465.00	0.08	197.6	\$20.55	22.63
242.21	Custodial Closet	1200	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	128.4	\$13.35	1	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.07	82.8	\$8.61	\$232.50	\$232.50	0.04	45.6	\$4.74	49.03
221.41	Women's Room	2600	1	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.06	150.8	\$15.68	1	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.04	96.2	\$10.00	\$222.50	\$222.50	0.02	54.6	\$5.68	39.18
221.41	Men's Room	2600	1	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.06	150.8	\$15.68	1	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.04	96.2	\$10.00	\$222.50	\$222.50	0.02	54.6	\$5.68	39.18
242.21	C 110-9 CC	2600	6	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.64	1,669.2	\$173.60	6	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.41	1076.4	\$111.95	\$232.50	\$1,395.00	0.23	592.8	\$61.65	22.63
242.21	C 110-10	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.07	179.4	\$18.66	\$232.50	\$232.50	0.04	98.8	\$10.28	22.63
242.21	Conf. Room	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1,112.8	\$115.73	4	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.28	717.6	\$74.63	\$232.50	\$930.00	0.15	395.2	\$41.10	22.63
242.21	Copy Room	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.07	179.4	\$18.66	\$232.50	\$232.50	0.04	98.8	\$10.28	22.63
242.21	Guidance	2600	12	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	1.28	3,338.4	\$347.19	12	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.83	2152.8	\$223.89	\$232.50	\$2,790.00	0.46	1185.6	\$123.30	22.63
242.21	Side Offices (5)	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.14	358.8	\$37.32	\$232.50	\$465.00	0.08	197.6	\$20.55	22.63
242.21	Conf. Room	2600	4	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.43	1,112.8	\$115.73	4	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.28	717.6	\$74.63	\$232.50	\$930.00	0.15	395.2	\$41.10	22.63
242.21	Copy 101-1	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.07	179.4	\$18.66	\$232.50	\$232.50	0.04	98.8	\$10.28	22.63
221.41	Women's Room	2600	1	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.06	150.8	\$15.68	1	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.04	96.2	\$10.00	\$222.50	\$222.50	0.02	54.6	\$5.68	39.18
221.41	Men's Room	2600	1	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.06	150.8	\$15.68	1	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.04	96.2	\$10.00	\$222.50	\$222.50	0.02	54.6	\$5.68	39.18
242.21	CST	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.07	179.4	\$18.66	\$232.50	\$232.50	0.04	98.8	\$10.28	22.63
242.21	CST	2600	2	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.21	556.4	\$57.87	2	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.14	358.8	\$37.32	\$232.50	\$465.00	0.08	197.6	\$20.55	22.63

Investment Grade Lighting Audit

APPENDIX E54 of 54

ECM #4: Lighting Upgrade - LED Option

EXISTING LIGHTING										PROPOSED LIGHTING										SAVINGS					
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	No. Fixts	No. Lamps	Retro-Unit Description	Watts Used	Total kW	kWh/Yr Fixtures	Yearly \$ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly \$ Savings	Yearly Simple Payback			
242.21	CST	2600	1	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.11	278.2	\$28.93	1	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.07	179.4	\$18.66	\$232.50	\$232.50	0.04	98.8	\$10.28	22.63			
242.21	CST Hall	2600	3	4	2x4, 4 Lamp, 32w 700 Series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	107	0.32	834.6	\$86.80	3	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	0.21	538.2	\$55.97	\$232.50	\$697.50	0.11	296.4	\$30.83	22.63			
221.41	Women's Room	2600	1	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.06	150.8	\$15.68	1	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.04	96.2	\$10.00	\$222.50	\$222.50	0.02	54.6	\$5.68	39.18			
221.41	Men's Room	2600	1	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic	58	0.06	150.8	\$15.68	1	1	Finelite HPR-LED-F DCO-4000 (1x4)	37	0.04	96.2	\$10.00	\$222.50	\$222.50	0.02	54.6	\$5.68	39.18			
242.211	Corridor 200	3000	50	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	104	5.20	15,600.0	\$1,622.40	50	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	3.45	10350	\$1,076.40	\$232.50	\$11,625.00	1.75	5250	\$546.00	21.29			
227.21		3000	16	2	2x2, 2 Lamp, 32w 700 series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	65	1.04	3,120.0	\$324.48	16	1	Finelite HPR-LED-A DCO-4000 (2x2)	34	0.54	1632	\$169.73	\$222.50	\$3,560.00	0.50	1488	\$154.75	23.00			
242.211	Corridor 100 A-D	3000	92	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	104	9.57	28,704.0	\$2,985.22	92	1	Finelite HPR-LED-A DCO-4000 (2x4)	69	6.35	19044	\$1,980.58	\$232.50	\$21,390.00	3.22	9660	\$1,004.64	21.29			
227.21		3000	31	2	2x2, 2 Lamp, 32w 700 series T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	65	2.02	6,045.0	\$628.68	31	1	Finelite HPR-LED-A DCO-4000 (2x2)	34	1.05	3162	\$328.85	\$222.50	\$6,897.50	0.96	2883	\$299.83	23.00			
Totals			2,368	1039				714,163	\$74,273	2,368	310			141.0	374,817	\$38,981		\$471,578	73.7	196,027	\$20,387	23.13			

APPENDIX F

Location Description	Area (Sq FT)	Panel	Qty	Panel Sq Ft	Panel Total Sq Ft	Total KW _{DC}	Total Annual kWh	Total KW _{AC}	Panel Weight (41.9 lbs)	W/SQFT
Seneca High School	139925	SHARP NU-U235F2	5729	17.5	100,491	1,346.32	1,577,392	1,193.0	240,045	13.40



= Proposed Roof PV Layout

= Proposed Ground PV Layout

= Proposed Parking PV Layout

Notes:

1. Estimated kWh based on the National Renewable Energy Laboratory PVWatts Version 1 Calculator Program.

Project Name: LGEA Solar PV Project - Seneca HS										
Location: Tabernacle, NJ										
Description: Photovoltaic System 100% Financing - 15 year										
Simple Payback Analysis										
		Photovoltaic System 100% Financing - 15 year								
Total Construction Cost		\$7,732,559								
Annual kWh Production		1,577,392								
Annual Energy Cost Reduction		\$164,049								
Average Annual SREC Revenue		\$301,415								
Simple Payback:		16.61						Years		
Life Cycle Cost Analysis										
Analysis Period (years):		15						Financing %:		100%
Discount Rate:		3%						Maintenance Escalation Rate:		3.0%
Average Energy Cost (\$/kWh)		\$0.104						Energy Cost Escalation Rate:		3.0%
Financing Rate:		4.00%						Average SREC Value (\$/kWh)		\$0.191
Period	Additional Cash Outlay	Energy kWh Production	Energy Cost Savings	Additional Maint Costs	SREC Revenue	Interest Expense	Loan Principal	Net Cash Flow	Cumulative Cash Flow	
0	\$0	0	0	0	\$0	0	0	0	0	
1	\$0	1,577,392	\$164,049	\$0	\$394,348	\$302,312	\$384,049	(\$127,965)	(\$127,965)	
2	\$0	1,569,505	\$168,970	\$0	\$392,376	\$286,665	\$399,696	(\$125,015)	(\$252,980)	
3	\$0	1,561,658	\$174,039	\$0	\$390,414	\$270,381	\$415,980	(\$121,908)	(\$374,888)	
4	\$0	1,553,849	\$179,261	\$0	\$388,462	\$253,434	\$432,928	(\$118,639)	(\$493,527)	
5	\$0	1,546,080	\$184,638	\$15,925	\$386,520	\$235,795	\$450,566	(\$131,128)	(\$624,655)	
6	\$0	1,538,350	\$190,177	\$15,845	\$307,670	\$217,439	\$468,923	(\$204,359)	(\$829,014)	
7	\$0	1,530,658	\$195,883	\$15,766	\$306,132	\$198,334	\$488,028	(\$200,113)	(\$1,029,127)	
8	\$0	1,523,005	\$201,759	\$15,687	\$304,601	\$178,451	\$507,911	(\$195,688)	(\$1,224,815)	
9	\$0	1,515,390	\$207,812	\$15,609	\$303,078	\$157,758	\$528,604	(\$191,080)	(\$1,415,895)	
10	\$0	1,507,813	\$214,046	\$15,530	\$226,172	\$136,222	\$550,140	(\$261,674)	(\$1,677,569)	
11	\$0	1,500,274	\$220,468	\$15,453	\$225,041	\$113,808	\$572,553	(\$256,306)	(\$1,933,875)	
12	\$0	1,492,772	\$227,082	\$15,376	\$223,916	\$90,481	\$595,880	(\$250,740)	(\$2,184,614)	
13	\$0	1,485,308	\$233,894	\$15,299	\$222,796	\$66,204	\$620,157	(\$244,970)	(\$2,429,584)	
14	\$0	1,477,882	\$240,911	\$15,222	\$147,788	\$40,938	\$645,423	(\$312,884)	(\$2,742,469)	
15	\$0	1,470,492	\$248,138	\$15,146	\$147,049	\$14,643	\$671,719	(\$306,320)	(\$3,048,789)	
Totals:		22,850,426	\$3,051,129	\$170,857	\$4,366,364	\$2,562,866	\$7,732,559	(\$3,048,789)	(\$20,389,765)	
Net Present Value (NPV)							(\$2,199,023)			