TOMS RIVER REGIONAL SCHOOL DISTRICT

HIGH SCHOOL NORTH

1245 Old Freehold Road, Toms River, NJ 08753

LOCAL GOVERNMENT ENERGY AUDIT PROGRAM FOR NEW JERSEY BOARD OF PUBLIC UTILITIES

July 2014

Prepared by:



6 Campus Drive Parsippany, NJ 07054 (973) 538-2120

CHA PROJECT NO. 28485

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REPORT DISCLAIMER

This audit was conducted in accordance with the standards developed by the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) for a Level II audit. Cost and savings calculations for a given measure were estimated to within ±20%, and are based on data obtained from the owner, data obtained during site observations, professional experience, historical data, and standard engineering practice. Cost data does not include soft costs such as engineering fees, legal fees, project management fees, financing, etc.

A thorough walkthrough of the building was performed, which included gathering nameplate information and operating parameters for all accessible equipment and lighting systems. Unless otherwise stated, model, efficiency, and capacity information included in this report were collected directly from equipment nameplates and /or from documentation provided by the owner during the site visit. Typical operation and scheduling information was obtained from interviewing staff and spot measurements taken in the field.

List of Common Energy Audit Abbreviations

- A/C Air Conditioning
- AHS Air Handling Unit
- BMS Building Management System
- Btu British thermal unit
- CDW Condenser Water
- CFM Cubic feet per minute
- CHW Chilled Water
- DCV Demand Control Ventilation
- DDC Direct Digital Control
- DHW Domestic Hot Water
- DX Direct Expansion
- EER Energy Efficiency Ratio
- EF Exhaust Fan
- EUI Energy Use Intensity
- Gal Gallon
- GPD Gallons per day
- GPF Gallons Per Flush
- GPH Gallons per hour
- GPM Gallons per minute
- GPS Gallons per second
- HHW Heating Hot Water
- HID High Intensity Discharge
- HP Horsepower
- HRU Heat Recovery Unit
- HVAC Heating, Ventilation, Air Conditioning
- HX Heat Exchanger
- kbtu/mbtu One thousand (1,000) Btu
- kW Kilowatt (1,000 watts)
- kWh Kilowatt-hours
- LED Light Emitting Diode
- mbh Thousand Btu per hour
- mmbtu One million (1,000,000) Btu
- OCC Occupancy Sensor
- PSI Pounds per square inch
- RTU Rooftop Unit
- SBC System Benefits Charge
- SF Square foot
- UH Unit Heater
- V − Volts
- VAV Variable Air Volume
- VSD Variable Speed Drive
- W Watt

1.0 EXECUTIVE SUMMARY

This report summarizes the energy audit performed by CHA for Toms River Regional School District (TRS), in connection with the New Jersey Board of Public Utilities (NJBPU) Local Government Energy Audit (LGEA) Program. The purpose of this report is to identify energy savings opportunities associated with major energy consumers and inefficient practices. Low-cost and no-cost are also identified during the study. This report details the results of the energy audit conducted for the building listed below:

Building Name	Address	Square Feet	Construction Date
High School North	1245 Old Freehold Road, Toms River, NJ 08753	310,000	1969

The potential total annual energy and cost savings for the recommended energy conservation measures (ECM) identified in the survey are shown below:

Building Name	Electric Savings (kWh)	NG Savings (therms)	Water Savings (kGal)	Total Savings (\$)	Payback (years)
High School North	1,414,626	(14,529)	2,275	180,908	8.8

Each individual measure's annual savings are dependent on that measure alone, there are no interactive effects calculated. There are three options shown for Lighting ECM savings; only one option can be chosen. Incentives shown (if any) are based only on the SmartStart Incentive Program. Other NJBPU or local utility incentives may also be available/ applicable and are discussed in Section 6.0.

CHA typically recommends ECMs that have an individual payback of 15 years or less, however if a particular piece of equipment or system is in poor condition or beyond its useful life, we will recommend that ECM as well regardless of simple payback. If the owner chooses to pursue an Energy Savings Improvement Plan (ESIP), high payback measures could be bundled with lower payback measures which ultimately can result in a payback which is favorable for an ESIP project to proceed.

The following table provides a detailed summary of each ECM for the building surveyed, including costs, savings, SmartStart incentives and payback.

Summary of Energy Conservation Measures

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ECM #	Energy Conservation Measure	Est. Costs (\$)	Est. Savings (\$/year)	Payback w/o Incentive	Potential Incentive (\$)*	Payback w/ Incentive	Recommended
1	Replace Electric EDPAC w/ Heat Pumps	\$641,800	\$7,606	84.4	\$3,588	83.9	N
2	Replace Electric Rooftop Equipment with Natural Gas RTUs	\$294,900	\$43,133	6.8	\$1,200	6.8	Υ
3	Replace DX / RTU Equipment w/ Higher Efficiency Equipment	\$703,600	\$9,089	77.4	\$13,320	75.9	N
4	Install VFDs & Premium Efficiency Motors on AHUs	\$42,209	\$4,528	9.3	\$11,675	6.7	Υ
5	Install Window A/C Controllers	\$1,900	\$810	2.3	\$0	2.3	Υ
6	Extend Energy Management System	\$132,388	\$1,195	110.9	\$0	110.8	N
7	Retro-Commission Controls and Equipment	\$42,980	\$13,730	3.1	\$0	3.1	Υ
8	Replace DHW Boiler with a High Efficiency Water Heater	\$22,413	\$776	28.9	\$1,340	27.1	Υ
9	Install Kitchen Hood Controller	\$31,555	\$5,634	5.6	\$1,000	5.4	Υ
10	Install Walk-In Controls	\$20,625	\$1,274	16.2	\$175	16.1	Υ
11	Replace Electric Booster Heater w/ Natural Gas Fired Unit	\$14,800	\$2,354	6.3	\$2,635	5.2	Υ
12	Install Vending Machine Controls	\$5,602	\$5,813	1.0	\$0	1.0	Υ
13	Replace CRT Monitors w/ LCD	\$20,814	\$1,239	16.8	\$0	16.8	Υ
14	Install Low Flow Plumbing Fixtures	\$260,678	\$23,237	11.2	\$0	11.2	Υ
L1**	Lighting Replacements / Upgrades	\$741,366	\$69,225	10.7	\$15,400	10.5	N
L2**	Install Lighting Controls (Add Occupancy Sensors)	\$81,000	\$17,235	4.7	\$10,500	4.1	N
L3	Lighting Replacements with Controls (Occupancy Sensors)	\$822,366	\$77,299	10.6	\$25,900	10.3	Υ
	Total**	\$3,058,629	\$197,718	15.5	\$60,833	15.2	
	Total (Recommended)	\$1,580,842	\$179,827	8.8	\$43,925	8.5	
	,						

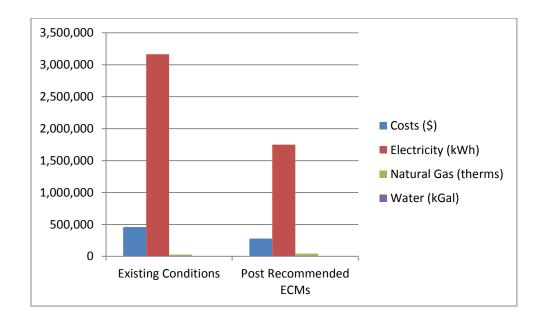
^{*} Incentive shown is per the New Jersey SmartStart Program.

** Does not include alternate ECMs.

There are no renewable energy ECMs recommended for further study because the school already has a large solar photovoltaic array which generates electricity and is not a good candidate for other renewable energy technologies such as wind generation.

If TRS implements the recommended ECMs, energy savings would be as follows:

	Existing Conditions	Post Recommended ECMs	Percent Savings
Costs (\$)	458,615	277,923	39%
Electricity (kWh)	3,164,313	1,749,687	45%
Natural Gas (therms)	31,321	45,834	-46%
Water (kGal)	3,178	903	72%
Site EUI (kbtu/SF/Yr)	44.3	34.0	



2.0 BUILDING INFORMATION AND EXISTING CONDITIONS

The following is a summary of building information related to building envelope, HVAC, controls, domestic hot water systems, kitchen equipment, plumbing, plug load and lighting as observed during CHAs site visit. See appendix B for detailed information on mechanical equipment, including capacities, model numbers and age.

Building Name: Toms River High School North

Address: 1245 Old Freehold Road, Toms River, NJ 08753

Gross Floor Area: 310,000 Square Feet

Number of Floors: 2 Year Built: 1969

Additions: 1972, 1978, 1987, 1992, 2001



Description of Spaces: Classrooms, offices, cafeteria (including stage), kitchen, gymnasium, two (2) auxiliary gymnasiums, media center, computer labs, support services, restrooms and mechanical rooms.

Description of Occupancy: The school serves 2,315 students from 9th to 12th grade. There are 170 school faculty and staff members.

Number of Computers: The school has approximately 250 desktop and laptop computers. There were 100 CRT computer monitors and televisions counted while onsite which could be replaced with more energy efficient LCD flat screens.

Building Usage: Hours of operation are 7:45 AM – 1:40 PM Monday through Friday, with various after-school activities until 6:00 PM. Custodians are in the building until 11:00 each night. As the hours vary from day to day, 70 hours per week, 10 months per year is considered the typical for this report.

Additional Buildings: In addition to the main building, there is also a field house, two concession stands, a grounds shed, a security house and several sports fields on the grounds.

The field house is located on the Southern portion of the property adjacent to the security building and contains varsity locker rooms, restrooms and a coach's room. The equipment includes Energy Star window air conditioners, an electric domestic hot water (DHW) heater, electric unit heaters (UH) and an ice machine. The football concession's stand is located

adjacent to the football bleachers and contains a residential electric range/oven, a residential refrigerator/freezer and a small electric DHW heater. The baseball concessions stand is located on the North East corner of the main building near the varsity baseball field. The building contains a residential refrigerator/freezer, an electric range/oven and a microwave. The ground's shed is located next to the football concessions stand and contains grounds maintenance equipment. The security house is located next to the field house and serves as the office and break room for security personnel. The building equipment includes a split system air conditioner with electric heating coil, residential refrigerator/freezer and a microwave.

There are no ECMs associated with any of the additional buildings besides for lighting upgrades as the hours of operation each year are relatively small.

Building Envelope

Construction Materials: The building is constructed of brick and concrete masonry units (CMU) with steel framing. Insulation is assumed to be minimal based on building age. The interior walls are a mixture of brick, CMU, concrete and sheetrock.

Façade: Red brick

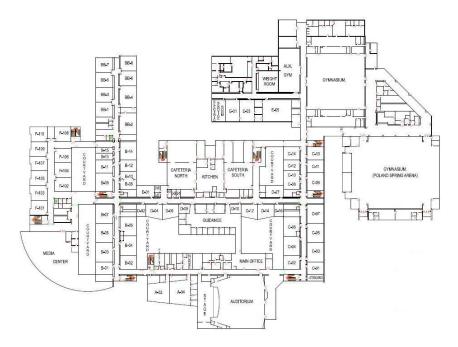
Roof: The roof is flat with two different roofing systems on different vintages. The roofing systems consists of built up roof atop steel decking with either rubber membrane / tar covered in ballast stones or rolled asphalt sheets. The roof appeared to be in good condition and was covered in solar panel arrays. It is assumed that the roofs have minimal insulation. There are no ECMs associated with either replacing the roof or adding insulation because there is a large array of solar panels.

Windows: Windows throughout the school are either single or double pane, operable windows, some of which had an exterior film applied. More the most part, the seals around windows appeared to be in good condition. There are no ECMs associated with the windows.

Exterior Doors: Exterior doors are FRP with double pane glass where applicable. The door seals appeared to be in good condition. There are no ECMs associated with the exterior doors.

Heating Ventilation & Air Conditioning (HVAC) Systems

Heating: There is no central source of heating in this building. Each wing (vintage) has a different type of heating system. The majority of the heating is provided by electric resistance heat from unit ventilators (UV) in classrooms; cabinet unit heaters (CUH) in corridors, storage rooms, auxiliary gymnasium and stage; heating and ventilation (HV) units in the gymnasium and kitchen; unit heaters (UH) in storage areas and mechanical rooms; and controlled radiators in various other rooms. A floor plan (1st floor) has been included below for reference.



Heating in the F-wing is provided by two (2) natural gas fired Lochinvar hot water boilers which were installed in 2002. The units have a rated output of 440 MBH each and can operate as high as 88% efficiency. Heating hot water (HHW) is circulated throughout the wing by two (2) 3 HP pumps which operate in lead/lag to variable air volume (VAV) reheat boxes located in each classroom.

Heating in the Pine Belt Arena is also provided by two (2) natural gas fired Lochinvar hot water boilers installed in 2002 but have rated outputs of 1,720 MBH each and operate at a maximum efficiency of 86%. HHW is circulated by two (2) 3 HP pumps which operate in lead/lag and provide hot water to air handling units (AHU) located on the roof of the arena.

There are also several rooftop units (RTU) which either have natural gas fired furnaces or electric resistance heat. There are approximately 19 total RTUs which provide either primary or secondary heating for the Auditorium, F-Wing, Cafeteria North/South Annexes, Guidance, Media Center and BB-Wing. The RTUs which support the Cafeteria North Annex and Cafeteria South Annex are equipped with heat recovery wheels which allow them to recover some energy from the exhaust air to pre-condition the supply air. There units likely supply a large percentage of OA, if not 100%.

The guidance wing also utilizes several packaged terminal air conditioning units (PTAC) for supplemental heating and cooling in office spaces. Some classrooms, for instance those in the A wing and BB wing have heating and cooling supplied by packaged heating and cooling units manufactured by EDPAC. The building has approximately 21 EDPAC units.

There are two ECMs included in this report which evaluate energy savings associated with the heating system. The first ECM assesses the replacement of the electric EDPAC units by installing more efficient heat pumps. The second ECM assesses the replacement of electrically heating RTUs with equivalently sized natural gas fired RTUs.

Cooling: There is no central cooling in this building. Each wing has a separate system and there are several different types. Cooling in the older parts of the building is either supplied by packaged RTUs which have direct expansion DX systems (19 RTUs have both heating and cooling) or by split systems having condensing units located either outside on the ground or on the roof. In the newer portions of the building, Auditorium and the Pine Belt Area, cooling is supplied by chilled glycol/chilled water (CHW) which is generated by air cooled chillers located on the roofs of those sections. The Auditorium chiller condenser is remote mounted on the ground next to the building. The CHW is circulated to AHUs which contain both CHW and HHW coils (electric heat in the Auditorium). There are two (2) 10 HP pumps which serve the Auditorium system; while two (2) 25 HP pumps serve the Pine Belt Arena system.

In addition there are 10 classrooms / offices which have window air conditioner units.

Specific information relative to each unit for both heating and cooling equipment including capacity and efficiency are listed in Appendix B.

There are three ECMs associated with the cooling systems. The first ECM assesses replacing the existing DX equipment with higher efficiency DX equipment. The second evaluates the replacement of AHU motors with premium efficiency motors and installing VFDs. The last ECM calculates the savings associated with installing plug-in air conditioner controllers which will automatically controls window A/Cs based on occupancy.

Ventilation: Ventilation throughout the building is either supplied by RTUs, AHUs, HV units, UVs or by PTACs. There is one (1) make-up air (MUA) unit which serves the kitchen with 8,000 CFM of 100% OA. This unit operates only when the exhaust fan for the kitchen is operated by kitchen staff. The exact CFMs of all equipment listed above are not known.

There are two ECMs associated with ventilation in the building. The first has been introduced above which addresses installing premium efficiency motors with VFDs to replace existing standard/energy efficient motors with operate at constant speed in AHUs. The second ECM is to install a kitchen hood controller and is explained in more detail in the Kitchen section below.

Exhaust: There are a number of fractional horsepower exhaust fans throughout the building located on the roof which provide general purpose exhaust for corridors, restrooms, storage rooms, mechanical rooms, gymnasium and auditorium. There is one kitchen exhaust fan which is controlled by staff in the kitchen when excess heat is being generated by cooking which is estimated to be roughly 5 HP. Kitchen staff indicated that the fan is used consistently between 6am – 1pm while cooking is occurring.

An ECM has been included to evaluate exhaust fan energy savings, but is described in more detail in the Kitchen section below.

Controls Systems

The controls in this building include both stand-alone and systems which are tied into the districts Energy Management System (EMS). The areas which have equipment controlled by the EMS include the Pine Belt Arena, F-Wing, Guidance, Cafeteria North Annex, Cafeteria South Annex, E-01 and E-03 (computer rooms), Nurse's Office, Administrative offices and Auditorium/Stage. According to the EMS, the heating and cooling set points on average are roughly 70F and 70-74F respectively. The remaining RTUs and split systems in the building

have their own stand-alone controls via both programmable and non-programmable thermostats programmable depending on the space.

There are two ECMs associated with the controls system. The first evaluates extending the existing EMS system to include equipment which is presently controlled by stand-alone controls. The second ECM evaluates re-commissioning the building controls to ensure all EMS controlled equipment and controls are operating as intended.

Domestic Hot Water Systems

Domestic hot water (DHW) is generated in three (3) different locations within the building. DHW is generated for the majority of the building in an electrical room located in the E-Wing by an AO Smith natural gas fired DHW heater which circulates water through a large 750 gallon storage tank. This unit is estimated to have 80% efficiency and was installed in 2004. An additional AO Smith Cyclone DHW heater is located in the F-Wing, has a rated input of 120,000 btu/h and is capable of efficiencies up to 96%. This unit was installed in 2002 and has a storage capacity of 60 gallons. The Pine Belt Arena also has an AO Smith Cyclone 120,000 btu/h DHW heater and also appears to have been installed in 2002.

DHW is supplied to restroom faucets, custodial mop sinks and kitchen scullery sinks. It is not believed that the showers in the building are used very often, if at all.

An ECM has been included which looks at replacing the existing lower efficiency DHW heater connected to the 750 gallon tank with a higher efficiency unit connected to a smaller capacity tank.

Kitchen Equipment

The kitchen in this building is used for cooking food as well as reheating frozen food. The cooking equipment is primarily natural gas fired and includes:

- Three (3) [single door] convection ovens
- One (1) [double door] convection oven
- One (1) range with an oven below
- One (1) vegetable steamer
- Two (2) [double door] reach-in cooler
- Four (4) reach-in beverage coolers
- One (1) walk-in freezer
- One (1) walk-in cooler

The units listed above appeared to be in good condition and therefore there are no ECMs associated with replacing them. An O&M is included which suggests the equipment should be replaced with Energy Star equivalents when they fail.

The walk-in units were not seen during the facility visit but are estimated to be 8' x 10' each. There is additionally one (1) dishwasher with a 45 kW electric booster heater. The dishwasher is used varyingly between 6am – 1pm each school day.

Three ECMs have been proposed which will save energy in the kitchen area if implemented. The first ECM is to install a kitchen hood controller which will automatically control the kitchen hood exhaust fan based on how much cooking is taking place. The second ECM analyzes the

installation of a walk-in cooler/freezer controller which will optimize evaporator run-time and will sequence defrost and door heater cycles. The final ECM takes advantage of the lower cost of natural gas compared to electricity and evaluates the replacement of the existing electric booster heater versus an equivalent capacity natural gas fired unit.

Plug Load

This school has computers, copiers, residential appliances (microwave, refrigerator), printers and portable electric heaters (personal) and vending machines which contribute to the plug load in the building. The installation of vending machine occupancy sensors has been evaluated in an effort to reduce the plug load in the building. In addition, an ECM is included which recommends the replacement of all CRT monitors with more energy efficient LCD monitors.

Plumbing Systems

Plumbing fixtures in the toilet rooms seem to consist mostly of high flow urinals and toilets and metering type faucets. Depending on the age and style of the actual plumbing fixtures, occasionally flush valves can be retro-fitted with low flow flush valve technology, although other times the entire fixture will require replacement. Metering type faucets on the other hand offer low-usage times regardless of the flow rate of the individual faucet.

An ECM is included to evaluate the water savings potential of replacing existing fixtures with low- flow toilets and urinals which use sensor technology.

Lighting Systems

The lighting system consists of mostly 4' 4-lamp T8 recessed mounted troffer fluorescent fixtures with a handful of other fluorescent fixtures of different arrangements including but not limited to 4', 3-, 2- and 1-lamp; 2' 2-lamp; 2' U-shaped 2-lamp; that are either ceiling (flush), pendant (hanging), or recessed fixtures. The lamps in the school are both T8 and less efficient T12 lamps. In addition, both the main gymnasium and Pine Belt Arena are illuminated with 400W metal halide (MH) high bay fixtures.

Exterior lighting consists of 70W and 400W MH wall packs which provide area lighting. It is likely the exterior lighting is controlled by photocell mounted on the light fixture.

Three lighting ECMs have been included which include adding occupancy sensors to the existing lighting, replacement of the T-8 lighting with LED lighting and a third ECM that evaluates the effect of occupancy sensors used with the LED lighting upgrades.

3.0 UTILITIES

Utilities used by the building are delivered and supplied by the following utility companies:

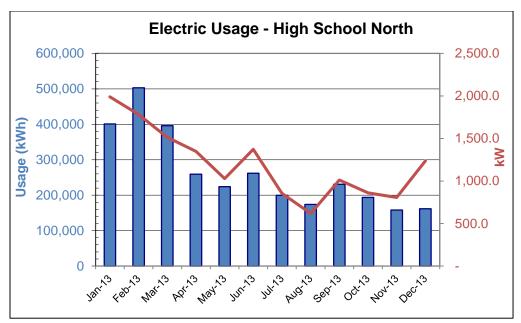
	Electric	
Deliverer	JCP&L	NJ Natural Gas
Supplier	Direct Energy LLC	NJ Natural Gas

This school district owns a large solar panel array which is located on the roof. The array generates some electricity for use in the building. JCP&L *banks* electricity for any months where the electricity generated is greater than the amount used by the school and uses the *banked* kWh for the rest of the months until it runs out; when it runs out the building pays for electricity as normal. This reduced usage is reflected in the monthly utility bills. For the 12-month period ending in December 2013, the utilities usages and costs for the building were as follows:

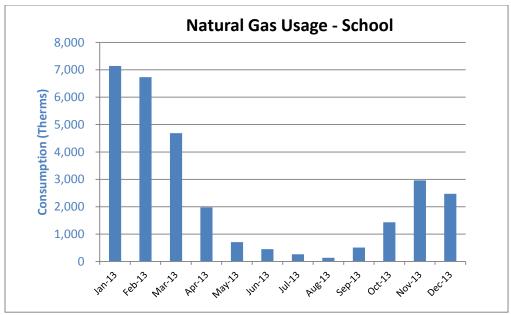
Electric						
Annual Consumption	3,164,313	kWh				
Annual Cost	\$391,989	\$				
Blended Unit Rate	\$0.124	\$/kWh				
Supply Rate	\$0.093	\$/kWh				
Demand Rate	\$6.75	\$/kW				
Peak Demand	1,416.0	kW				
Natu	ıral Gas					
Annual Consumption	31,321	Therms				
Annual Cost	\$38,644	\$				
Unit Rate	\$1.23	\$/therm				
Water						
Annual Usage	3,178	kGal				
Annual Cost	\$32,466	\$				
Unit Rate	\$10.21	\$/kGal				

Blended Rate: Average rate charged determined by the annual cost / annual usage
Supply Rate: Actual rate charged for electricity usage in kWh (based on most recent electric bill)
Demand Rate: Rate charged for actual electrical demand in kW (based on most recent electric bill)

Domestic water and sewer services are provided by the City of Toms River.



The electric usage at this school appears to be trending downward. District personnel indicated that there have been several personnel education programs implemented in an attempt to save energy; which could account for the reduction in energy consumption seen on this chart. The demand and usage peak in June is likely attributed to cooling equipment in use; and drops off in the summer months when students are out for summer vacation.



It can be seen from the natural gas profile above that natural gas is primarily used for space heating, which in the case of this building is supplied by both RTUs and hot water boilers. The baseline usage in the summer months is attributed to HW reheat in F-wing, DHW production and some kitchen equipment usage. This is a fairly typical profile for school usage.

See Appendix A for a utility analysis.

Under New Jersey's energy deregulation law, the supply portion of the electric (or natural gas) bill is separated from the delivery portion. The supply portion is open to competition, and customers can shop around for the best price for their energy suppliers. The electric and natural gas distribution utilities will still deliver the gas/ electric supplies through their wires and pipes – and respond to emergencies, should they arise – regardless of where those supplies are purchased. Purchasing the energy supplies from a company other than your electric or gas utility is purely an economic decision; it has no impact on the reliability or safety of the service.

Com	Comparison of Utility Rates to NJ State Average Rates*							
Utility	Shop for Third							
			· ·	Party Supplier?				
Electricity	\$/kWh	\$0.093	\$0.125	N				
Natural Gas	\$/Therm	\$1.159	\$0.955	Y				

^{*} Per U.S. Energy Information Administration (2013 data - Electricity and Natural Gas, 2012 data - Fuel Oil)

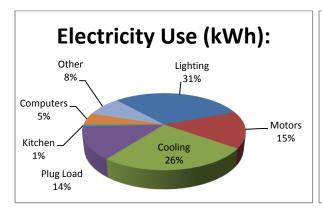
Additional information on selecting a third party energy supplier is available here:

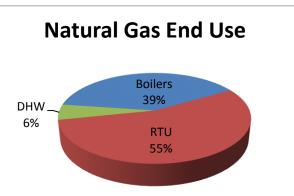
http://www.state.nj.us/bpu/commercial/shopping.html.

See Appendix A for a list of third-party energy suppliers licensed by the Board of Public Utilities to sell within the building's service area.

The charts below represent estimated utility end-use utility profiles for the building. The values used within the charts were estimated from a review of the utility analysis and the energy savings calculations.

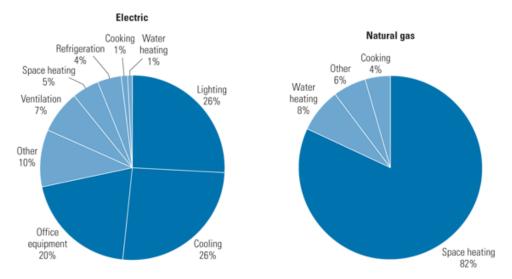
Site End-Use Utility Profile





Most of the electricity consumed by educational facilities is used to for lighting, cooling, and plug loads such as computers and copiers; most of the natural gas is used for space heating. Each school's energy profile is different, and the following charts represent typical utility profiles for K-12 schools per U.S. Department of Energy.

Typical End-Use Utility Profile for Educational Facilities



Courtesy: E SOURCE; from Commercial Building Energy Consumption Survey, 1999 data

4.0 BENCHMARKING

The EPA Portfolio Manager benchmarking tool provides a site and source Energy Use Intensity (EUI), as well as an Energy Star performance rating for qualifying building types. The EUIs are provided in kBtu/ft²/year, and the performance rating represents how energy efficient a building is on a scale of 1 to 100, with 100 being the most efficient. In order for a building to receive and Energy Star label, the energy benchmark rating must be at least 75. As energy use decreases from implementation of the proposed measures, the Energy Star rating will increase.

The site EUI is the amount of heat and electricity consumed by a building as reflected in utility bills. Site energy may be delivered to a facility in the form of primary energy, which is raw fuel burned to create heat or electricity, such as natural gas or oil; or as secondary energy, which is the product created from a raw fuel such as electricity or district steam. To provide an equitable comparison for different buildings with varying proportions of primary and secondary energy consumption, Portfolio Manager uses the convention of source EUIs. The source energy also accounts for losses incurred in production, storage, transmission, and delivery of energy to the site, which provide an equivalent measure for various types of buildings with differing energy sources. The results of the benchmarking are contained in the table below.

Site EUI kBtu/ft²/yr	Source EUI (kBtu/ft²/yr)	Energy Star Rating (1-100)
44.3	113.2	94

The school has an above average Energy Star Rating Score (50 being the median score), and is considered an energy efficient building.

Copies of the benchmarking report are available in Appendix F.

5.0 ENERGY CONSERVATION MEASURES

The following types of energy savings opportunities are identified in this section of the report:

- Energy conservation measures (ECMs) are energy savings recommendations that typically require a financial investment. For these areas of opportunity, CHA prepared detailed calculations, as summarized in this section and in Appendix C. In general, additional savings may exist from reductions in maintenance activities associated with new equipment or better controls; however for conservatism, maintenance savings are not accounted for in this report; instead the only savings which are reported are those derived directly from reductions in energy which can be tracked by the utility bills.
- Operational and Maintenance measures (O&M) consist of low- or no-cost operational opportunities, which if implemented would have positive impacts on overall building operation, comfort levels, and/or energy usage. There are no estimated savings, costs or paybacks associated with the O&M measures included as part of this study.

Energy savings were quantified in the form of:

- electrical usage (kWh=Kilowatt-hour),
- electrical demand (kW=kilowatts),
- natural gas (therms=100,000 Btu),
- propane gas (gallons=91,650 Btu),
- fuel oil (gallons =138,700 Btu), and
- water (kgal=1,000 gallons).

These recommendations are influenced by the time period that it takes for a proposed project to "break even" referred to as "Simple Payback". Simple payback is calculated by dividing the estimated cost of implementing the ECM by the energy cost savings (in dollars) of that ECM.

Another financial indicator of the performance of a particular ECM is the Return on Investment or ROI, which represents the benefit (annual savings over the life of a project) of an investment divided by the cost of the investment. The result is expressed as a percentage or ratio.

Two other financial analyses included in this report are Internal Rate of Return (IRR) and Net Present Value (NPV). Internal Rate of Return is the discount rate at which the present value of a project costs equals the present value of the project savings. Net Present Value is the difference between present value of an investment's future net cash flows and the initial investment. If the NPV equals "0", the project would equate to investing the same amount of dollars at the desired rate. NPV is sometimes referred to as Net Present Worth. These values are provided in the Summary Tab in Appendix C.

5.1 ECM-1 Replace Electric EDPAC with Heat Pumps

Classrooms in the A Wing and BB wing have heating and air conditioning supplied by a total of 21 EDPAC packaged terminal units which utilize electric resistance heating and DX A/C. Six of the 21 units are already heat pumps, leaving 13 that can be upgraded. For units which supply both heating and cooling, it is often more efficient to use packaged heat pump units which operate similarly DX refrigeration systems, except in the winter time have the ability to also produce heat through reversing the cycle (the compressor acts as the evaporator and evaporator acts as the compressor, i.e. heat is rejected to the room rather than outdoors). Therefore electrical savings will be seen in the winter from a higher COP and in the summer from a higher EER.

The implementation cost and savings related to this ECM are presented in Appendix C and summarized below:

ECM-1 Replace Electric EDPAC with Heat Pumps

Budgetary Cost		Annua	l Utility Savings		ROI	Potential Incentive*	Payback (without	Payback (with
	EI	ectricity	Natural Gas	Total		incentive	incentive)	incentive)
\$	kW	kWh	Therms	\$		\$	Years	Years
641,800	38	48,847	=	7,606	(0.8)	3,588	84.4	83.9

^{*} Incentive shown is per the New Jersey SmartStart Program. See section 6.0 for other incentive opportunities.

This measure is not recommended due to the high capital cost and long payback period. As some of the EDPAC units are beyond their service life (1984), it is recommended that they be replaced with packaged heat pumps as the fail.

5.2 ECM-2 Replace Electric Rooftop Equipment with Natural Gas RTUs

The three (3) RTUs which serve the auditorium are 26 ton units with 3 stages of electric resistance heating (110 kW max). Electric resistance heating is a more expensive way to heat than natural gas. This ECM evaluates the replacement of the existing RTUs with equivalently sized units that contain more efficient DX systems as well as indirect natural gas fired furnaces.

The implementation cost and savings related to this ECM are presented in Appendix C and summarized below:

ECM-2 Replace Electric Rooftop Equipment with Natural Gas RTUs

Budgetary Cost		Annua	l Utility Savings		ROI	Potential Incentive*	Payback (without	Payback (with
	Ele	ctricity	Natural Gas	Total		IIICEIIIIVE	incentive)	incentive)
\$	kW	kWh	Therms	\$		\$	Years	Years
294,900	221	545,083	(20,687)	43,133	4.1	1,200	6.8	6.8

^{*} Incentive shown is per the New Jersey SmartStart Program. See section 6.0 for other incentive opportunities.

This measure is recommended.

5.3 ECM-3 Replace DX / RTU Equipment with Higher Efficiency Equipment

The school has several split system air conditioning units as well as packaged RTUs with DX cooling and natural gas fired furnaces. As most of the equipment was installed in 2002 and is approaching its useful service life (20 years), this ECM evaluates replacement with more efficient technology. The calculation methodology estimates the average existing EER (10.3) for cooling compared to what is currently available (14.0). The units which have natural gas fired furnaces will not see any efficiency increase as condensing natural gas furnaces are not readily available; therefore no natural gas savings are included below.

The assumption of this calculation is that the operating hours and capacity remain the same. The energy savings is the result of operating a higher efficiency unit.

ECM-3 Replace DX / RTU Equipment with Higher Efficiency Equipment

Budgetary Cost		Annua	l Utility Savings		ROI	Potential Incentive*	Payback (without	Payback (with	
Cost	Electricity		Natural Gas	Total		incentive	incentive)	incentive)	
\$	kW	kWh	Therms	\$		\$	Years	Years	
703,600	38	64,425	-	9,089	(0.7)	13,320	77.4	75.9	

^{*} Incentive shown is per the New Jersey SmartStart Program. See section 6.0 for other incentive opportunities.

This measure is not recommended due to the high capital cost and long associated payback period.

5.4 ECM-4 Install VFDs & Premium Efficiency Motors

Presently the air handling unit return and supply fans for the units which supply the Pine Belt Arena were observed to not utilize variable frequency drives (VFD) on the fan motors. Furthermore the fan motors were estimated to be standard efficiency based on the model numbers. Installing premium efficiency motors driven by VFDs will save energy when full capacity operation is not required. As the heating or cooling load is reduced and the VFD will slow the motor down to maintain the required space temperature and the energy consumption of the fan motors will be reduced.

The savings of this measure are calculated from the motor efficiency improvement and the motor speed reduction the results when the air handling system is operating at partial capacity.

The implementation cost and savings related to this ECM are presented in Appendix C and summarized below:

ECM-4 Install VFDs & Premium Efficiency Motors

Budgetary Cost		Annua	l Utility Savings		ROI	Potential Incentive*	Payback (without	Payback (with
Cost	EI	ectricity	Natural Gas Total		incentive	incentive)	incentive)	
\$	kW	kWh	Therms	\$		\$	Years	Years
42,209	36	16,915	-	4,528	0.8	11,675	9.3	6.7

^{*} Incentive shown is per the New Jersey SmartStart Program. See section 6.0 for other incentive opportunities.

This measure is recommended.

5.5 ECM-5 Install Window A/C Controller

There are ten (10) rooms in the building which are cooled by window a/c units that can be occasionally left on by occupants when they leave the room.

This ECM evaluates the installation of programmable "smart" timers that interrupt the electrical supply to the window air conditioners when cooling is not needed due to the room being unoccupied. The timers are configurable to operate as a standalone timer or they can be wirelessly interconnected to provide remote temperature control using software.

The implementation cost and savings related to this ECM are presented in Appendix C and summarized below:

ECM-5 Install Window A/C Controller

Budgetary Cost		Annua	l Utility Savings		ROI	Potential Incentive*	Payback (without	Payback (with	
Cost	Electricity		Natural Gas	Total		incentive	incentive)	incentive)	
\$	kW	kWh	Therms	\$		\$	Years	Years	
1,900	-	6,536	-	810	5.4	=	2.3	2.3	

^{*} Does not qualify for Incentive from the New Jersey SmartStart Program. See section 6.0 for other incentive opportunities

This measure is recommended.

5.6 ECM-6 Extend HVAC Controls System

Approximately 20% of the building currently has HVAC equipment that is controlled by the Energy Management control system; 5% of the building has stand-alone controls. This ECM evaluates the savings associated with extending the Energy Management System to incorporate the equipment still on stand-alone controls.

Energy savings is estimated at 10% overall energy reduction based on past experience with similar sized school buildings having fully functioning digital controls.

The implementation cost and savings related to this ECM are presented in Appendix C and summarized below:

ECM-6 Extend HVAC Controls System

Budgetary Cost		Annua	l Utility Savings		ROI	Potential Incentive*	Payback (without	Payback (with	
Cost	El	ectricity	Natural Gas	Total		incentive	incentive)	incentive)	
\$	kW	kWh	Therms	\$		\$	Years	Years	
132,388	-	9,493	16	1,195	(0.9)	-	110.8	110.8	

^{*} Does not qualify for Incentive from the New Jersey SmartStart Program. See section 6.0 for other incentive opportunities.

This measure is not recommended due to the long payback period.

5.7 ECM-7 Re-Commission Controls and Equipment

The building is equipped with an Energy Management controls system which is supported by a Tracer Summit front end. As observed during the site visit, however, the integration and functionality of the system with respect to building systems could be improved.

Commissioning is the process of verifying that systems are designed, installed, functionally tested, and capable of being operated and maintained according to the owner's operational needs. Retro-commissioning is the same systematic process applied to existing buildings.

Both controls and components of the heating and cooling systems present saving opportunities during the retro-commissioning process. The DDC system and controls within a building play a crucial role in providing a comfortable building environment. Over time, temperature sensors or thermostats may drift out of synch. Poorly calibrated sensors can increase heating and cooling loads and lead to occupant discomfort. The following procedure is recommended:

- Calibrate the indoor and outdoor building sensors. Calibration of room thermostats, duct thermostats, humidistats, and pressure and temperature sensors should be in accordance with the original design specifications.
 Calibrating these controls may require specialized skills or equipment and may require outside expertise.
- Inspect damper and valve controls to verify proper functioning. Dampers should also be examined for proper opening and closing. Stiff dampers can cause improper modulation of the amount of outside air being used in the supply airstream. In some cases, dampers may be wired in a single position or disconnected, violating minimum outside air requirements.
- Review building operating schedules. HVAC controls must be adjusted to heat
 and cool the building properly during occupied hours. Occupancy schedules can
 change frequently over the life of a building, and control schedules should be
 adjusted accordingly. When the building is unoccupied, the temperature should
 be set back to save heating or cooling energy; however, minimal heating and
 cooling may be required when the building is unoccupied. In cold climates, for
 example, heating may be needed to keep water pipes from freezing.

The implementation cost and savings related to this ECM are presented in Appendix C and summarized below:

ECM-7 Re-Commission Controls and Equipment

Budgetary Cost		Annua	l Utility Savings		ROI	Potential Incentive*	Payback (without	Payback (with	
Cost	EI	ectricity	Natural Gas	Total		incentive	incentive)	incentive)	
\$	kW	kWh	Therms	\$		\$	Years	Years	
42,980	-	81,263	2,970	13,730	3.8	-	3.1	3.1	

^{*} Does not qualify for Incentive from the New Jersey SmartStart Program. See section 6.0 for other incentive opportunities.

This measure is recommended.

5.8 ECM-8 Replace DHW Heater with a High Efficiency Water Heater

The existing domestic hot water heating system consists of one (1) natural gas fired DHW heater connected to one (1) 750 gallons of storage tank. The DHW heater has a thermal efficiency of 80%. There are additionally two (2) 60 gallon AO Smith Cyclone DHW heaters which are not being recommended for replacement at this time.

Implementation of this ECM will entail replacing the existing DHW heater with a high efficiency condensing water heater. The proposed DHW heater will operate at 96% efficiency and be connected to a new to a 500 gallon storage tank.

The implementation cost and savings related to this ECM are presented in Appendix C and summarized below:

ECM-8 Replace DHW Heater with a High Efficiency Water Heater

Budgetary Cost		Annua	l Utility Savings		ROI	Potential Incentive*	Payback (without	Payback (with	
Cost	Electricity		Natural Gas	Total		incentive	incentive)	incentive)	
\$	kW	kWh	Therms	\$		\$	Years	Years	
22,413	-	1	629	729	(0.1)	1,340	28.9	27.1	

^{*} Incentive shown is per the New Jersey SmartStart Program. See section 6.0 for other incentive opportunities.

This measure is recommended, as inclusion of this measure allows for a total project payback of under 15 years.

5.9 ECM-9 Install Kitchen Hood Controller

Installing a variable air volume hood control system is evaluated. Upon activation of the system, the hood lights will turn on and the fans reach a preset minimum speed of 10 and 50 percent. When cooking appliances are turned on, the fan speed will increase based on temperature sensed in the exhaust duct. During actual cooking, an optical sensor will sense particulates entering the hood and the speed will increase to 100 percent until smoke and heat are removed.

Energy saving is calculated from reduction of exhaust fan speed and the amount of heated air supplied by the kitchen's make-up air unit (MUA).

The implementation cost and savings related to this ECM are presented in Appendix C and summarized as follows:

ECM-9 Install Kitchen Hood Controller

Budgetary Cost		Annua	l Utility Savings		ROI	Potential Incentive*	Payback (without	Payback (with	
Cost	El	ectricity	Natural Gas	Total		incentive	incentive)	incentive)	
\$	kW	kWh	Therms	\$		\$	Years	Years	
31,555	-	4,556	4,109	5,634	1.7	1,000	5.6	5.4	

^{*} Incentive shown is per the New Jersey SmartStart Program. See section 6.0 for other incentive opportunities.

This measure is recommended.

5.10 ECM-10 Install Walk-in Cooler / Freezer Controls

Presently there is one (1) walk-in cooler and one (1) walk-in freezer in this building.

Installing a walk-in cooler/ freezer control system was assessed. The system will monitor both dry and wet bulb temperature within the walk-in unit and allow evaporators and compressors to modulate up and down based on enthalpy set points rather than by dry bulb temperature alone. Savings is a result of reduced run time of evaporator fans, compressors and door heaters. Implementation will include the installation of one (1) walk-in control system which can control multiple different units.

The implementation cost and savings related to this ECM are presented in Appendix C and summarized as follows:

ECM-10 Install Walk-in Cooler / Freezer Controls

Budgetary Cost		Annua	l Utility Savings		ROI	Potential Incentive*	Payback (without	Payback (with	
Cost	EI	ectricity	Natural Gas	Total		incentive	incentive)	incentive)	
\$	kW	kWh	Therms	\$		\$	Years	Years	
20,625	-	10,285	-	1,274	(0.1)	175	16.2	16.1	

^{*} Incentive shown is per the New Jersey SmartStart Program. See section 6.0 for other incentive opportunities.

This measure is recommended.

5.11 ECM-11 Replace Electric Booster Heater with a Natural Gas Fired Unit

The school's kitchen uses an electric dishwasher booster heater to increase the temperature of the incoming hot water from 140 degrees to 180 degrees. The kitchen typically uses these heaters for 1,000 hours per year. Natural gas is available in the kitchen and could be used instead of electricity as a means of boosting DHW temperature. Implementation would require a new DHW booster heater and venting.

Energy cost savings would be achieved through the lower cost of natural gas versus the higher cost of electricity.

The calculation uses estimated electrical consumption and cost for the unit as the baseline, which was converted to natural gas for the proposed case. The difference between the two values is the energy savings.

The implementation cost and savings related to this ECM are presented in Appendix C and summarized below:

ECM-11 Replace Electric Booster Heater with a Natural Gas Fired Unit

Budgetary Cost		Annua	l Utility Savings		ROI	Potential Incentive*	Payback (without	Payback (with	
Cost	Electricity		Natural Gas	Total		incentive	incentive)	incentive)	
\$	kW	kWh	Therms	\$		\$	Years	Years	
14,800	11	36,342	(1,550)	2,354	4.9	2,635	6.3	5.2	

^{*} Incentive shown is per the New Jersey SmartStart Program. See section 6.0 for other incentive opportunities.

This measure is recommended.

5.12 ECM-12 Install Vending Machine Controls

The building presently has 12 cold beverage and eight (8) snack-type vending machines.

These vending machines operate continuously 24 hours per day, seven (7) days a week. Installing controls such as timers or occupancy sensors allow the machines to turn on only when a customer is present or when the compressor must run to maintain the product at the desired temperature. By implementing this measure electrical energy savings could be realized.

The calculation uses electrical consumption and annual electrical cost as the baseline, vs. the reduced electrical consumption and cost for the proposed case. The difference between the two values is the energy savings.

The implementation cost and savings related to this ECM are presented in Appendix C and summarized below:

ECM-12 Install Vending Machine Controls

	<u> </u>											
Budgetary Cost		Annua	l Utility Savings		ROI	Potential Incentive*	Payback (without	Payback (with				
Cost	E	lectricity	Natural Gas	Total		incentive	incentive)	incentive)				
\$	kW	kWh	Therms	\$		\$	Years	Years				
5,602	-	46,929	=	5,813	14.6	=	1.0	1.0				

^{*} Does not qualify for Incentive from the New Jersey SmartStart Program. See section 6.0 for other incentive opportunities

This measure is recommended.

5.13 ECM-13 Replace CRT Monitors with LCD

While onsite it was observed that there are approximately 100 CRT computer monitors in the building. According to the EPA, LCD monitors offer a variety of benefits over equivalently sized CRT monitors including: smaller size, less eyestrain, lower power consumption, less heat generation, lighter weight and better image contrast. The EPA estimates that LCDs on average consume roughly 100 kWh less annually when compared to CRT monitors.

The implementation cost and savings related to this ECM are presented in Appendix C and summarized below:

ECM-13 Replace CRT Monitors with LCD

Budgetary Cost		Annua	Utility Savings		ROI	Potential Incentive*	Payback (without	Payback (with	
Cost	EI	ectricity	Natural Gas	Total		incentive	incentive)	incentive)	
\$	kW	kWh	Therms	\$		\$	Years	Years	
20,814	-	10,000	-	1,239	(0.4)	=	16.8	16.8	

^{*} Does not qualify for Incentive from the New Jersey SmartStart Program. See section 6.0 for other incentive opportunities

This measure is recommended.

5.14 ECM-14 Install Low Flow Plumbing Fixtures

The plumbing fixtures in this building are older high flow fixtures. The water savings associated from replacing existing high flow fixtures with low-flow fixtures was calculated by taking the difference of the annual water usage for the proposed and base case. The basis of this calculation is the estimate usage of each fixture, gallons per use, and number of fixtures. Replacing the existing fixtures in the restrooms with 1.28 Gals/flush toilets and 1.0 gal/flush urinals will conserve water which will result in lower annual water and sewer charges. Metering type faucets were not considered for replacement.

The implementation cost and savings related to this ECM are presented in Appendix C and summarized below:

ECM-14 Install Low Flow Plumbing Fixtures

Budgetary Cost			Annual l	Jtility Savin	gs	ROI	Potential Incentive*	Payback (without	Payback (with	
Cost	Ele	ctricity	Natural Gas	Water	Total		incentive	incentive)	incentive)	
\$	kW	kWh	Therms	kGal	\$		\$	Years	Years	
260,678	0	0	0	2,275	23,237	1.7	-	11.2	11.2	

^{*} Does not qualify for Incentive from the New Jersey SmartStart Program. See section 6.0 for other incentive opportunities

This measure is recommended.

5.15.1 ECM-L1 Lighting Replacement / Upgrades

The existing lighting system consists of mostly of linear fluorescent T8 with some T12 lamps still in use. Exterior lighting includes 70W and 400W wall mounted area light

fixtures. Recent technological improvements in light emitting diode (LED) technologies have driven down the initial costs making it a viable option for installation.

Overall energy consumption can be reduced by replacing inefficient bulbs and linear fluorescent bulbs with more efficient LED technology. To compute the annual savings for this ECM, the energy consumption of the current lighting fixtures was established and compared to the proposed fixture power requirement with the same annual hours of operation. The difference between the existing and proposed annual energy consumption was the energy savings. These calculations are based on 1 to 1 replacements of the fixtures, and do not take into account lumen output requirements for a given space. A more comprehensive engineering study should be performed to determine correct lighting levels.

Supporting calculations, including assumptions for lighting hours and annual energy usage for each fixture, are provided in Appendix C and summarized below:

ECM-L1 Lighting Replacement / Upgrades

Budgetary Cost		Annua	l Utility Savings		ROI	Potential Incentive*	Payback (without incentive)	Payback (with incentive)	
	Ele	ctricity	Natural Gas	Total					
\$	kW	kWh	Therms	\$		\$	Years	Years	
741,366	199	569,994	-	69,225	0.8	15,400	10.7	10.5	

^{*} LED retrofits must go through the "custom" measures incentive option under New Jersey SmartStart Program. There are no "prescriptive" incentives for LED retrofits. Projects must achieve a minimum of 75,000 kWh annual savings to qualify for "custom" incentives. See section 6.0 for other incentive opportunities

This measure is not recommended in lieu of ECM L3.

5.15.2 ECM-L2 Install Lighting Controls (Occupancy Sensors)

Presently, all interior lighting fixtures are controlled my wall mounted switches. Review of the comprehensive lighting survey determined that lighting in some areas could benefit from installation of occupancy sensors to turn off lights when they are unoccupied.

This measure recommends installing occupancy sensors for the current lighting system. Using a process similar to that utilized in Section 5.15.1, the energy savings for this measure was calculated by applying the known fixture wattages in the space to the estimated existing and proposed times of operation for each fixture.

The implementation cost and savings related to this ECM are presented in Appendix C and summarized below:

ECM-L2 Install Lighting Controls (Occupancy Sensors)

Budgetary Cost		Annua	Utility Savings		ROI	Potential Incentive*	Payback (without incentive)	Payback (with incentive)
	El	ectricity	Natural Gas	Total				
\$	kW	kWh	Therms	\$		\$	Years	Years
81,000	0	185,129	-	17,235	3.2	10,500	4.7	4.1

^{*} Incentive shown is per the New Jersey SmartStart Program. See section 6.0 for other incentive opportunities.

This measure is not recommended in lieu of ECM L3.

5.15.3 ECM-L3 Lighting Replacements with Controls (Occupancy Sensors)

This measure is a combination of ECM-L1 and ECM-L2; recommending replace/upgrade the current lighting fixtures to more efficient ones and installing occupancy sensors on the new lights. Interactive effects of the higher efficiency lights and occupancy sensors lead the energy and cost savings for this measure to not be cumulative or equivalent to the sum of replacing the lighting fixtures alone and installing occupancy sensors without the lighting upgrade. The implementation cost and savings related to this ECM are presented in Appendix C and summarized below:

ECM-L3 Lighting Replacements with Controls (Occupancy Sensors)

Budgetary Cost	Annual Utility Savings				ROI	Potential Incentive*	Payback (without	Payback (with
	Ele	ctricity	Natural Gas	Total		incentive	incentive)	incentive)
\$	kW	kWh	Therms	\$		\$	Years	Years
822,366	199	656,718	-	77,299	0.8	25,900	10.6	10.3

^{*} LED retrofits must go through the "custom" measures incentive option under New Jersey SmartStart Program. There are no "prescriptive" incentives for LED retrofits. Projects must achieve a minimum of 75,000 kWh annual savings to qualify for "custom" incentives. See section 6.0 for other incentive opportunities

This measure is recommended.

5.16 Additional O&M Opportunities

This list of operations and maintenance (O&M) - type measures represent low-cost or no-cost opportunities, which if implemented will have a positive impact on the overall building operations, comfort and/or energy consumption. The recommended O&M measures for this building are as follows:

- Install Covers on Window Air Conditioners
- Clean Window AC filters before each season
- Replace Unit Ventilator filters at least twice a year
- Clear surface above unit ventilators of materials, plants, or books
- Set computers monitors to turn off and computers to sleep mode when not in use
- Look for the ENERGY STAR® label when purchasing Window AC units or Kitchen Appliances
- Disconnect unnecessary or unused small appliances and electronics when not in use to reduce phantom loads

6.0 PROJECT INCENTIVES

6.1 Incentives Overview

The following sections give detailed information on available incentive programs including New Jersey Smart Start, Direct Install, New Jersey Pay for Performance (P4P) and Energy Savings Improvement Plan (ESIP). If the School District wishes to and is eligible to participate in the Energy Savings Improvement Plan (ESIP) program and/or the Pay for Performance Incentive Program (P4P), it cannot participate in either the Smart Start or Direct Install Programs. Refer to Appendix D for more information on the Smart Start program.

6.1.1 New Jersey Smart Start Program

For this energy audit, The New Jersey Smart Start Incentives are used in the energy savings calculations, where applicable. This program is intended for medium and large energy users and provides incentives for:

- Electric Chillers
- Gas Chillers
- Gas Heating
- Unitary HVAC
- Ground Source Heat Pumps
- Variable frequency Drives/ motors
- Refrigeration
- Prescriptive and performance lighting and lighting controls

The equipment is procured using a typical bid-build method, installed and paid for and then the incentives are reimbursed to the owner.

Refer to Appendix D for more information on the Smart Start program.

6.1.2 Direct Install Program

The Direct Install Program applies to smaller facilities that have a peak electrical demand of 200 kW or less in any of the previous 12 months. Buildings must be located in New Jersey and served by one of the state's public, regulated electric utility companies.

Direct Install is funded through New Jersey's Clean Energy Program and is designed to provide capital for building energy upgrade projects to fast track implementation. The program will pay up to 70% of the costs for lighting, HVAC, motors, refrigeration, and other equipment upgrades with higher efficiency alternatives. If a building is eligible for this funding, the Direct Install Program can reduce the implementation cost of energy conservation projects.

The Direct Install program has specific HVAC equipment and lighting requirements and is generally applicable only to smaller package HVAC units, small boilers and lighting retrofits.

The program pays a maximum amount of \$75,000 per building, and up to \$250,000 per customer per year. Installations must be completed by an approved Direct Install participating contractor, a list of which can be found on the New Jersey Clean Energy Website. Contractors will coordinate with the applicant to arrange installation of recommended measures identified in a previous energy assessment, such as this energy audit. The incentive is reimbursed to the Owner upon successful replacement and payment of the equipment.

The building does not qualify for this program because its electrical demand is more than the maximum peak electrical demand of 200 kW for the last 12 month period.

Refer to Appendix D for more information on this program.

6.1.3 New Jersey Pay For Performance Program (P4P)

This building may be eligible for incentives from the New Jersey Office of Clean Energy. The most significant incentives are available from the New Jersey Pay for Performance (P4P) Program. The P4P program is designed to offset the cost of energy conservation projects for facilities that pay the Societal Benefits Charge (SBC) and whose demand (kW) in any of the preceding 12 months exceeds 100 kW. This demand minimum has been waived for buildings owned by local governments or municipalities and non-profit organizations and *is not applicable to public schools*. Facilities that meet this criterion must also achieve a minimum performance target of 15% energy reduction by using the EPA Portfolio Manager benchmarking tool before and after implementation of the measure(s). Additionally, the overall return on investment (ROI) must exceed 10%. If the participant is a municipal electric company customer, and a customer of a regulated gas New Jersey Utility, only gas measures will be eligible under the Program. Available incentives are as follows:

Incentive #1: Energy Reduction Plan – This incentive is designed to offset the cost of services associated with the development of the Energy Reduction Plan (ERP). The ERP must include a detailed energy audit of the desired ECMs, energy savings calculations (using building modeling software) and inputting of all utility bills into the EPA Portfolio Manager website.

Incentive Amount: \$0.10/SFMinimum incentive: \$5,000

Maximum Incentive: \$50,000 or 50% of Facility annual energy cost

The standard incentive pays \$0.10 per square foot, up to a maximum of \$50,000, not to exceed 50% of facility annual energy cost, paid after approval of application. For building audits funded by the New Jersey Board of Public Utilities, which receive an initial 75% incentive toward performance of the energy audit, facilities are only eligible for an additional \$0.05 per square foot, up to a maximum of \$25,000, rather than the standard incentive noted above. The ERP must be completed by a Certified Energy Manager (CEM) and submitted along with the project application.

Incentive #2: Installation of Recommended Measures – This incentive is based on projected energy savings as determined in Incentive #1 (Minimum 15% savings must be achieved), and is paid upon successful installation of recommended measures.

<u>Electric</u>

- Base incentive based on 15% savings: \$0.09/ per projected kWh saved.
- For each % over 15% add: \$0.005 per projected kWh saved.
- Maximum incentive: \$0.11/kWh per projected kWh saved.

<u>Gas</u>

- Base incentive based on 15% savings: \$0.90/ per projected Therm saved.
- For each % over 15% add: \$0.05 per projected Therm saved.
- Maximum incentive: \$1.25 per projected Therm saved.

Incentive cap: 25% of total project cost

Incentive #3: Post-Construction Benchmarking Report – This incentive is paid after acceptance of a report proving energy savings over one year utilizing the Environmental Protection Agency (EPA) Portfolio Manager benchmarking tool.

Electric

- Base incentive based on 15% savings: \$0.09/ per projected kWh saved.
- For each % over 15% add: \$0.005 per projected kWh saved.
- Maximum incentive: \$0.11/kWh per projected kWh saved.

Gas

- Base incentive based on 15% savings: \$0.90/ per projected Therm saved.
- For each % over 15% add: \$0.05 per projected Therm saved.
- Maximum incentive: \$1.25 per projected Therm saved.

Combining Incentives #2 and #3 will provide a total of \$0.18/kWh and \$1.8/therm not to exceed 50% of total project cost. Additional Incentives for #2 and #3 are increased by \$0.005/kWh and \$0.05/therm for each percentage increase above the 15% minimum target to 20%, calculated with the EPA Portfolio Manager benchmarking tool, not to exceed 50% of total project cost.

For the purpose of demonstrating the eligibility of the ECM's to meet the minimum savings requirement of 15% annual savings and 10% IRR for the Pay for Performance Program, all recommended ECM's identified in this report have been included in the incentive calculations.

The recommended savings presented in this report reduce energy consumption by an estimated 24.4%, however their combined IRR is roughly 9.4%. Based on this, the recommended measures would not be eligible to receive P4P incentives. There may exist other combinations of ECMs which meet both requirements of eligibility, but all combinations were not evaluated as part of this assessment.

The results for the building are shown in Appendix C, with more detailed program information in Appendix D.

6.1.4 Energy Savings Improvement Plan

The Energy Savings Improvement Program (ESIP) allows government agencies to make energy related improvements to their facilities and pay for the costs using the value of energy savings that result from the improvements. Under the recently enacted Chapter 4

of the Laws of 2009 (the law), the ESIP provides all government agencies in New Jersey with a flexible tool to improve and reduce energy usage with minimal expenditure of new financial resources.

ESIP allows local units to use "energy savings obligations" (ESO) to pay for the capital costs of energy improvements to their facilities. ESIP loans have a maximum loan term of 15 year. ESOs are not considered "new general obligation debt" of a local unit and do not count against debt limits or require voter approval. They may be issued as refunding bonds or leases. Savings generated from the installation of energy conservation measures pay the principal of and interest on the bonds; for that reason, the debt service created by the ESOs is not paid from the debt service fund, but is paid from the general fund.

For local governments interested in pursuing an ESIP, the first step is to perform an energy audit. Pursuing a Local Government Energy Audit through New Jersey's Clean Energy Program is a valuable first step to the ESIP approach. The "Local Finance Notice" outlines how local governments can develop and implement an ESIP for their facilities. The ESIP can be prepared internally if the entity has qualified staff. If not, the ESIP must be implemented by an independent contractor and not by the energy savings company producing the Energy Reduction Plan.

The ESIP approach may not be appropriate for all energy conservation and energy efficiency improvements. Local units should carefully consider all alternatives to develop an approach that best meets their needs. Refer to Appendix D for more information on this program.

6.1.5 Renewable Energy Incentive Program

The Renewable Energy Incentive Program (REIP) is part of New Jersey's efforts to reach its Energy Master Plan goals of striving to use 30 percent of electricity from renewable sources by 2020.

Incentives for sustainable bio-power projects and for energy storage projects are currently under development, with competitive solicitations for each of those technologies expected to begin in the first quarter of 2014. The wind program is currently on hold.

New solar projects are no longer eligible for REIP incentives, but can register for Solar Renewable Energy Certificates (SRECs) through the SREC Registration Program (SRP).

7.0 ALTERNATIVE ENERGY SCREENING EVALUATION

7.1 Solar

7.1.1 Photovoltaic Rooftop Solar Power Generation

This building currently has a large solar array installed on the roof which is owned by the school district. The size of the solar array is 485 kW which generates an estimated 472,000 kWh per year which represents 8% of the electricity used by the building. All solar electricity which is generated is used in the building. It is not recommended that any additional photovoltaic panels be added to the building at this time.

7.1.2 Solar Thermal Hot Water Generation

Active solar thermal systems use solar collectors to gather the sun's energy to heat a fluid. An absorber in the collector (usually black colored piping) converts the sun's energy into heat. The heat is transferred to circulating water, antifreeze, or air for immediate use or is storage for later utilization. Applications for active solar thermal energy include supplementing domestic hot water, heating swimming pools, space heating or preheating air in residential and commercial buildings.

A standard solar hot water system is typically composed of solar collectors, heat storage vessel, piping, circulators, and controls. Systems are typically integrated to work alongside a conventional heating system that provides heat when solar resources are not sufficient. The solar collectors are usually placed on the roof of the building, oriented south, and tilted at the same angle as the site's latitude, to maximize the amount of solar radiation collected on a yearly basis.

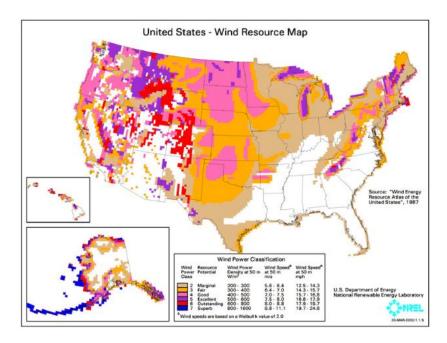
Several options exist for using active solar thermal systems for space heating. The most common method is called a passive solar hot water system involves using glazed collectors to heat a liquid held in a storage tank (similar to an active solar hot water system described above which requires pumping). The most practical system would transfer the heat from the panels to thermal storage tanks and then use the pre-heated water for domestic hot water production. DHW is presently produced by natural gas fired water heaters and, therefore, this measure would offer natural gas utility savings. Unfortunately, the amount of domestic hot water that is currently used by this school is very small.

This measure is not recommended because the existing PV array takes up much of the available roof area; and there are no suitable areas on the ground to put thermal hot water generation panels.

7.2 Wind Powered Turbines

Wind power is the conversion of kinetic energy from wind into mechanical power that is used to drive a generator which creates electricity by means of a wind turbine. A wind turbine consists of rotor and blades connected to a gearbox and generator that are mounted onto a tower. Newer wind turbines also use advanced technology to generate electricity at a variety of frequencies depending on the wind speed, convert it to DC and then back to AC before sending it to the grid. Wind turbines range from 50 – 750 kW for

utility scale turbines down to below 50 kW for residential use. On a scale of 1 (the lowest) to 7 (the highest), Class 3 and above (wind speeds of 13 mph or greater) are generally considered "good wind resource" according to the Wind Energy Development Programmatic EIS Information Center hosted by the Bureau of Land Management. According to the map below, published by NREL, Toms River, NJ is classified as Class 1 at 50m, meaning the city would not be a good candidate for wind power.



This measure is not recommended due to the location of the school.

7.3 Combined Heat and Power Plant

Combined heat and power (CHP), cogeneration, is self-production of electricity on-site with beneficial recovery of the heat byproduct from the electrical generator. Common CHP equipment includes reciprocating engine-driven, micro turbines, steam turbines, and fuel cells. Typical CHP customers include industrial, commercial, institutional, educational institutions, and multifamily residential facilities. CHP systems that are commercially viable at the present time are sized approximately 50 kW and above, with numerous options in blocks grouped around 300 kW, 800 kW, 1,200 kW and larger. Typically, CHP systems are used to produce a portion of the electricity needed by a facility some or all of the time, with the balance of electric needs satisfied by purchase from the grid.

Any proposed CHP project will need to consider many factors, such as existing system load, use of thermal energy produced, system size, natural gas fuel availability, and proposed plant location. The building has sufficient need for electrical generation and the ability to use most of the thermal byproduct during the winter; however thermal usage during the summer months does not exist. Thermal energy produced by the CHP plant in the warmer months will be wasted. An absorption chiller could be installed to utilize the heat to produce chilled water; however, there is limited building usage during the summer months.

This measure is not recommended due to the absence of year-round thermal loads which are needed for efficiency CHP operation.

7.4 Demand Response Curtailment

Presently, electricity is delivered by PSE&G, which receives the electricity from regional power grid RFC. PSE&G is the regional transmission organization (RTO) that coordinates the movement of wholesale electricity in all or parts of 13 states and the District of Columbia including the State of New Jersey.

Utility Curtailment is an agreement with the utility provider's regional transmission organization and an approved Curtailment Service Provider (CSP) to shed electrical load by either turning major equipment off or energizing all or part of a facility utilizing an emergency generator; therefore, reducing the electrical demand on the utility grid. This program is to benefit the utility company during high demand periods and utility provider offers incentives to the CSP to participate in this program. Enrolling in the program will require program participants to drop electrical load or turn on emergency generators during high electrical demand conditions or during emergencies. Part of the program also will require that program participants reduce their required load or run emergency generators with notice to test the system.

A pre-approved CSP will require a minimum of 100 kW of load reduction to participate in any curtailment program. From January 2013 through December 2013 the following table summarizes the electricity load profile for the building.

Building Electric Load Profile

			Onsite	-
Peak Demand	Min Demand	Avg Demand	Generation	Eligible?
kW	kW	kW	Y/N	Ý/N
1,416	1,071	1,273	Υ	Υ

This measure although eligible; is not recommended because the amount of on-site generation at the school is not enough to cover the minimum 100 kW reduction required for demand curtailment and it is not advised that the school shut down equipment while students are present.

8.0 CONCLUSIONS & RECOMMENDATIONS

The following section summarizes the LGEA energy audit conducted by CHA for High School North

The following projects should be considered for implementation:

- ECM-2 Replace Electric Rooftop Equipment for with Natural Gas RTUs
- ECM-4 Install VFDs & Premium Efficiency Motors on AHUs
- ECM-5 Install Window A/C Controllers
- ECM-7 Retro-Commission Controls and Equipment
- ECM-8 Replace DHW Boiler with a High Efficiency Water Heater
- ECM-9 Install Kitchen Hood Controller
- ECM-10 Install Walk-in Controls
- ECM-11 Replace Electric Booster Heater with a Natural Gas Fired Unit
- ECM-12 Install Vending Machine Controls
- ECM-13 Replace CRT Monitors with LCD
- ECM-14 Install Low Flow Plumbing Fixtures
- ECM-L3 Lighting Replacements with Controls (Occupancy Sensors)

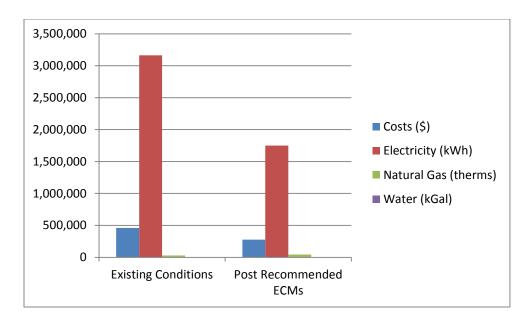
The potential annual energy and cost savings for the recommended ECMs are shown in the following table.

Electric Savings (kWh)	Natural Gas Savings (therms)	Water Savings (kGal)	Total Savings (\$)	Payback (years)
1,414,626	(14,529)	2,275	180,692	8.8

There are no renewable energy ECMs recommended for further study because the school already has a large solar photovoltaic array which generates electricity and is not a good candidate for other renewable energy technologies such as wind generation.

If NPS implements the recommended ECMs, energy savings would be as follows:

	Existing Conditions	Post Recommended ECMs	Percent Savings
Costs (\$)	458,615	277,923	39%
Electricity (kWh)	3,164,313	1,749,687	45%
Natural Gas (therms)	31,321	45,834	-46%
Water (kGal)	3,178	903	72%
Site EUI (kbtu/SF/Yr)	44.3	34.0	



Next Steps: This energy audit has identified several areas of potential energy savings. Toms River Schools can use this information to pursue incentives offered by the NJBPU's NJ Clean Energy Program.



Annual Utilities

12-month Summary

Electric				
Annual Usage	3,164,313	kWh/yr		
Annual Cost	391,989	\$		
Blended Rate	0.124	\$/kWh		
Consumption Rate	0.093	\$/kWh		
Demand Rate	6.75	\$/kW		
Peak Demand	1,416.0	kW		
Min. Demand	1,071.0	kW		
Avg. Demand	1,273.3	kW		
	Natural Gas			
Annual Usage	31,321	therms/yr		
Annual Cost	38,644	\$		
Rate	1.234	\$/therm		
	Water			
Annual Usage	3,178	gallons (1000)/yr		
Annual Cost	32,466	\$		
Rate	10.215	\$/kgal		

For Service at: Toms River High School North

1245 Old Freehold Road, Toms River, NJ 08753

100 106 100 587 **Account No.:**

Meter No.: G28819244, G28819206, L013870883, L013670884

Electric Service

Jersey Central Power & Lighting Delivery -

Direct Energy LLC Supplier -**Building owns solar panels**

						Provider Charge	S		Usage (kWh) vs. D	emand (kW) Charges	U	nit Costs	
	Delivery	Generated	Consumption	Demand	Delivery	Supplier		Total	Consumption	Demand	Blended Rate	Consumption	Demand
Month	(kWh)	(kWh)	(kWh)	(kW)	(\$)	(\$)		(\$)	(\$)	(\$)	(\$/kWh)	(\$/kWh)	(\$/kW)
January-13	401,163		401,163	1,989.9	\$ 50,330	\$ 31,479	\$	50,330	\$ 36,898	\$ 13,432	0.13	0.09	6.75
February-13	503,155		503,155	1,783.3	\$ 58,201	\$ 39,483	\$	58,201	\$ 46,163	\$ 12,037	0.12	0.09	6.75
March-13	396,267		396,267	1,514.2	\$ 46,585	\$ 31,095	\$	46,585	\$ 36,364	\$ 10,221	0.12	0.09	6.75
April-13	259,108		259,108	1,347.7	\$ 32,887	\$ 20,332	\$	32,887	\$ 23,790	\$ 9,097	0.13	0.09	6.75
May-13	183,258	40,965	224,223	1,029.0	\$ 23,782	\$ 17,595	\$	41,376	\$ 34,431	\$ 6,946	0.18	0.15	6.75
June-13	221,304	40,809	262,113	1,372.0	\$ 13,462	\$ 17,366	\$	30,828	\$ 21,567	\$ 9,261	0.12	0.08	6.75
July-13	167,996	31,871	199,867	855.0	\$ 9,744	\$ 13,183	\$	22,926	\$ 17,155	\$ 5,771	0.11	0.09	6.75
August-13	142,560	31,219	173,779	619.0	\$ 8,268	\$ 11,187	\$	19,455	\$ 15,277	\$ 4,178	0.11	0.09	6.75
September-13	209,361	21,345	230,706	1,012.0	\$ 12,143	\$ 16,449	\$	28,592	\$ 21,761	\$ 6,831	0.12	0.09	6.75
October-13	157,860	36,009	193,869	862.0	\$ 8,376	\$ 12,387	\$	20,763	\$ 14,944	\$ 5,819	0.11	0.08	6.75
November-13	130,887	27,296	158,183	806.0	\$ 7,574	\$ 10,271	\$	17,845	\$ 12,403	\$ 5,442	0.11	0.08	6.75
December-13	129,162	32,718	161,880	1,238.0	\$ 12,065	\$ 10,135	\$	22,201	\$ 13,843	\$ 8,358	0.14	0.09	6.75
January-14	128,746	33,039	161,785	1,416.0	\$ 13,202		\$	23,305		\$ 9,561	0.14	0.08	
February-14	167,654	45,299	212,953	1,335.0	\$ 13,867	\$ 13,156	\$	27,023	\$ 18,012	\$ 9,011	0.13	0.08	6.75
March-14	151,663	60,874	212,537	1,271.0	\$ 12,874	\$ 11,901	\$	24,775	\$ 16,196	\$ 8,579	0.12	0.08	6.75
April-14	185,275	70,880	256,155	1,071.0	\$ 10,049	\$ 14,539	\$	24,588	\$ 17,356	\$ 7,232	0.10	0.07	6.75
Total (All)	3,535,419	472,324	4,007,743	1,989.9	\$ 333,409	\$ 280,661	\$	491,680	\$ 359,904	\$ 131,776	\$ 0.123	\$ 0.090	\$ 6.75
Total (2013)	2,902,081	262,232	3,164,313	1,989.9	\$ 283,416	\$ 230,962	\$	391,989	\$ 294,596	\$ 97,393	\$ 0.124	\$ 0.093	\$ 6.75
Notes			1	2	3	4		5	6	7	8	9	10

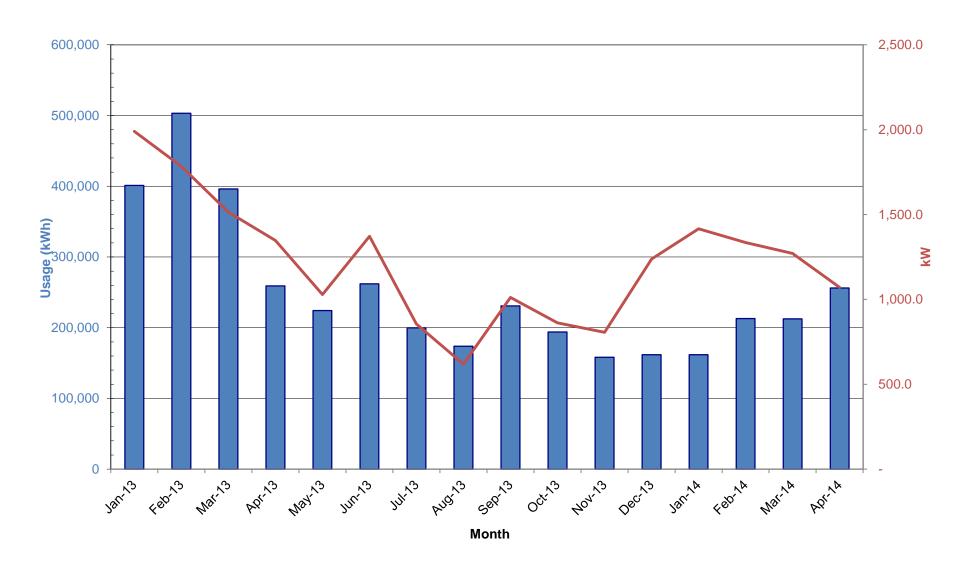
1.) Number of kWh of electric energy used per month

- 2.) Number of kW of power measured

- 3.) Electric charges from Delivery provider
 4.) Electric charges from Supply provider
 5.) Total charges (Delivery + Supplier)
 6.) Charges based on the number of kWh of electric energy used
- 7.) Charges based on the number of kW of power measured
- 8.) Total Charges (\$) / Consumption (kWh)
- 9.) Consumption Charges (\$) / Consumption (kWh)10.) Demand Charges (\$) / Demand (kW)

No data provided, most recent rate used No data provided, interpolated value Months taking from banked kWh
Calculated using supplier rate of 0.07847

Electric Usage - School



For Service at: Toms River High School North

1245 Old Freehold Road, Toms River, NJ 08753

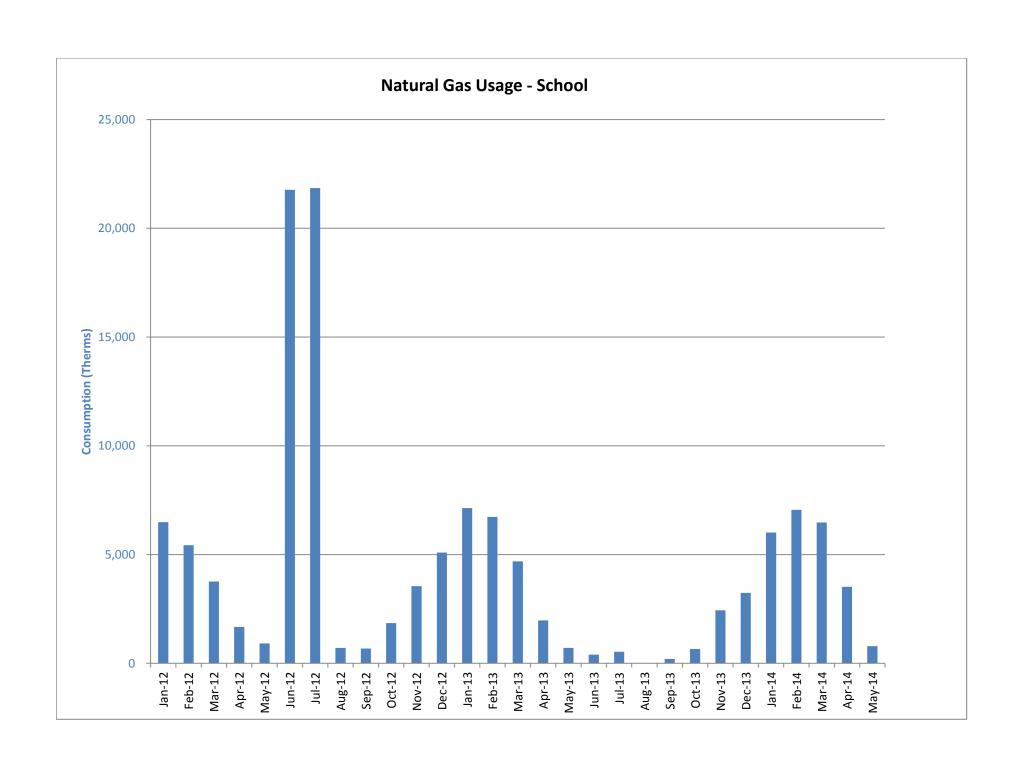
Account No.: 164573147024, 220007980486

Meter No:

Natural Gas Service Delivery - New Jersey Natural Gas

Supplier - New Jersey Natural Gas

		Charges				Unit Costs						
Month	Consumption (Therms)	ľ	Delivery (\$)		Supply (\$)	Total (\$)		Delivery 5/Therm)		Supply /Therm)		Total Therm)
January-12	6,491	\$	-	\$	-	\$ 9,129	\$	-	\$	-	\$	1.41
February-12	5,428	\$	-	\$	-	\$ 7,637	\$	-	\$	-	\$	1.41
March-12	3,765	\$	-	\$	-	\$ 5,491	\$	-	\$	-	\$	1.46
April-12	1,672	\$	-	\$	-	\$ 2,726	\$	-	\$	-	\$	1.63
May-12	913	\$	-	\$	-	\$ 1,729	\$	-	\$	-	\$	1.89
June-12	21,771	\$	-	\$	-	\$ 29,023	\$	-	\$	-	\$	1.33
July-12	21,847	\$	-	\$	-	\$ 29,310	\$	-	\$	-	\$	1.34
August-12	710	\$	-	\$	-	\$ 1,455	\$	-	\$	-	\$	2.05
September-12	681	\$	-	\$	-	\$ 1,109	\$	-	\$	-	\$	1.63
October-12	1,851	\$	-	\$	-	\$ 2,201	\$	-	\$	-	\$	1.19
November-12	3,549	\$	-	\$	-	\$ 3,833	\$	-	\$	-	\$	1.08
December-12	5,093	\$	-	\$	-	\$ 5,339	\$	-	\$	-	\$	1.05
January-13	7,139	\$	-	\$	-	\$ 7,151	\$	-	\$	-	\$	1.00
February-13	6,733	\$	-	\$	-	\$ 6,766	\$	-	\$	-	\$	1.00
March-13	4,687	\$	-	\$	-	\$ 4,972	\$	-	\$	-	\$	1.06
April-13	1,973	\$	-	\$	-	\$ 2,420	\$	-	\$	-	\$	1.23
May-13	708	\$	-	\$	-	\$ 1,259	\$	-	\$	-	\$	1.78
June-13	404	\$	730.80	\$	214.67	\$ 945	\$	1.808	\$	0.531	\$	2.34
July-13	530	\$	800.01	\$	268.50	\$ 1,069	\$	1.509	\$	0.506	\$	2.02
August-13	8	\$	302.93	\$	242.73	\$ 546	\$	39.755	\$	31.854	\$	71.61
September-13	201	\$	639.07	\$	92.73	\$ 732	\$	3.179	\$	0.461	\$	3.64
October-13	661	\$	953.76	\$	307.78	\$ 1,262	\$	1.444	\$	0.466	\$	1.91
November-13	2,435	\$	1,762.57	\$	1,123.00	\$ 2,886	\$	0.724	\$	0.461	\$	1.18
December-13	3,237	\$	2,090.24	\$	1,521.67	\$ 3,612	\$	0.646	\$	0.470	\$	1.12
January-14	6,009	\$	3,557.11	\$	3,098.30	\$ 6,655	\$	0.592	\$	0.516	\$	1.11
February-14	7,054	\$	4,065.38	\$	3,824.26	\$ 7,890	\$	0.576	\$	0.542	\$	1.12
March-14	6,475	\$	3,773.00	\$	3,665.31	\$ 7,438	\$	0.583	\$	0.566	\$	1.15
April-14	3,518	\$	2,197.67	\$	1,978.22	\$ 4,176	\$	0.625	\$	0.562	\$	1.19
May-14	790	\$	965.87	\$	468.61	\$ 1,434	\$	1.223	\$	0.593	\$	1.82
Total (all)	126,333		21,838.40		16,805.77	\$ 160,194	\$	0.17	\$	0.13	\$	1.27
Total (last 12 months)	31,321	\$ 2	21,838.40	\$	16,805.77	\$ 38,644	\$	0.70	\$	0.54	\$	1.23

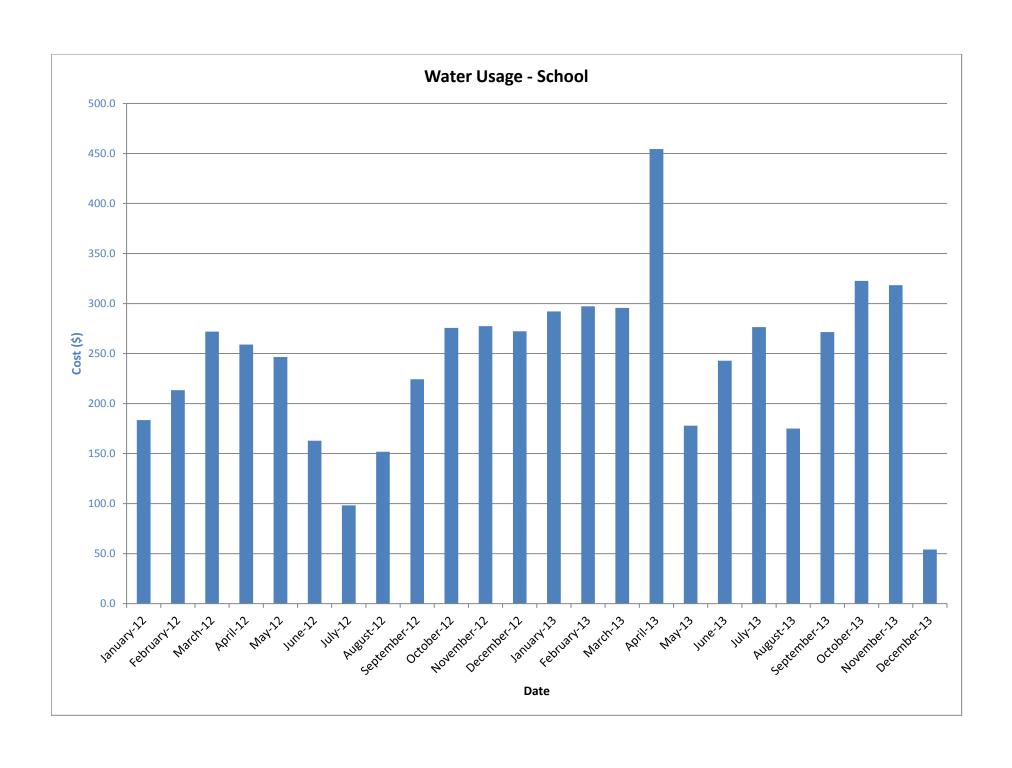


For Service at: Toms River High School North

1245 Old Freehold Road, Toms River, NJ 08753

Account No.: Meter No.: Water Service

Month		Total (\$)	Gallons (1000)		\$/kGal
January-12	\$	2,315	183.6	\$	12.61
February-12	\$	2,365	213.4	\$	11.09
March-12	\$	2,866	271.9	\$	10.54
April-12	\$	3,041	258.9	\$	11.74
May-12	\$	2,670	246.5	\$	10.83
June-12	\$	1,995	162.9	\$	12.25
July-12	\$	1,688	98.3	\$	17.18
August-12	\$	1,893	151.9	\$	12.47
September-12	\$	2,395	224.3	\$	10.68
October-12	\$	2,677	275.7	\$	9.71
November-12	\$	2,646	277.4	\$	9.54
December-12	\$	2,686	272.3	\$	9.87
January-13	\$	2,888	292.2	\$	9.88
February-13	\$	2,872	297.2	\$	9.66
March-13	\$	2,872	295.6	\$	9.72
April-13	\$	3,090	454.4	\$	6.80
May-13	\$	1,714	177.9	\$	9.64
June-13	\$	2,705	242.9		11.14
July-13	\$	2,977	276.4	\$	10.77
August-13	\$	2,358	175.1	\$	13.47
September-13	\$	3,059	271.5	\$	11.27
October-13	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	3,346	322.7	\$	10.37
November-13	\$	3,313	318.4	-	10.40
December-13	\$	1,271	54.1	\$	23.47
Total all)	\$	61,704	5,815	\$	10.61
Total (last 12 months)	\$	32,466	3,178	\$	10.21



JCP&L SERVICE TERRITORY Last Updated: 10/24/12

$*\underline{\text{CUSTOMER CLASS}} \cdot R - RESIDENTIAL \ C - COMMERCIAL \ I - INDUSTRIAL$

Supplier	Telephone	*Customer
• •	& Web Site	Class
AEP Energy, Inc. 309 Fellowship Road, Fl.2	(866) 258-3782	C/I
Mount Laurel, NJ 08054	www.aepenergy.com	ACTIVE
Alpha Gas and Electric, LLC 641 5 th Street	(855) 553-6374	R/C
Lakewood, NJ 08701	www.alphagasandelectric.com	ACTIVE
Ambit Northeast, LLC 103 Carnegie Center	(877) 30-AMBIT (877) 302-6248	R/C
Suite 300 Princeton, NJ 08540	www.ambitenergy.com	ACTIVE
AP Gas & Electric, LLC 10 North Park Place, Suite 420	(855) 544-4895	R/C/I
Morristown, NJ 07960	www.apge.com	ACTIVE
Astral Energy LLC 16 Tyson Place	(201) 384-5552	R/C/I
Bergenfield, NJ 07621	www.astralenergyllc.com	ACTIVE
BBPC, LLC d/b/a Great Eastern Energy	(888) 651-4121	C/I
116 Village Blvd. Suite 200 Princeton, NJ 08540	www.greateasternenergy.com	ACTIVE
Champion Energy Services, LLC	(877) 653-5090	R/C/I
72 Avenue L Newark, NJ 07105	www.championenergyservices.com	ACTIVE
Choice Energy, LLC 4257 US Highway 9, Suite 6C	888-565-4490	R/C
Freehold, NJ 07728	www.4choiceenergy.com	ACTIVE
Clearview Electric, Inc. 505 Park Drive	(888) CLR-VIEW (800) 746-4702	R/C/I
Woodbury, NJ 08096	www.clearviewenergy.com	ACTIVE
Commerce Energy, Inc. 7 Cedar Terrace	1-866-587-8674	R
Ramsey, NJ 07446	www.commerceenergy.com	ACTIVE

Charge Tree Corporate Contag	(888) 665-0955	C/I
Cherry Tree Corporate Center 535 State Highway Suite 180	www.conedsolutions.com	ACTIVE
Cherry Hill, NJ 08002		
Constellation NewEnergy, Inc. 900A Lake Street, Suite 2	(866) 237-7693	R/C/I
Ramsey, NJ 07446	www.constellation.com	ACTIVE
Constellation Energy	(877) 997-9995	R
900A Lake Street, Suite 2 Ramsey, NJ 07446	www.constellation.com	ACTIVE
Direct Energy Business, LLC 120 Wood Avenue Suite 611	(888) 925-9115	C/I
Iselin, NJ 08830	www.directenergybusiness.com	ACTIVE
Direct Energy Services, LLC 120 Wood Avenue Suite 611	(866) 547-2722	C/I
Iselin, NJ 08830	www.directenergy.com	ACTIVE
Discount Energy Group, LLC	(800) 282-3331	R/C
811 Church Road, Suite 149 Cherry Hill, NJ 08002	www.discountenergygroup.com	ACTIVE
Dominion Retail, Inc.	(866) 275-4240	R/C
d/b/a Dominion Energy Solutions 395 Route 70 West, Suite 125 Lakewood, NJ 08701	www.dom.com/products	ACTIVE
DTE Energy Supply, Inc.	(877) 332-2450	C/I
One Gateway Center, Suite 2600 Newark, NJ 07102	www.dtesupply.com	ACTIVE
Energy Plus Holdings LLC 309 Fellowship Road East Gate Center, Suite 200	(877) 866-9193	R/C
Mt. Laurel, NJ 08054	www.energypluscompany.com	ACTIVE
Energy.me Midwest LLC	(855) 243-7270	R/C/I
90 Washington Blvd Bedminster, NJ 07921	www.energy.me	ACTIVE

Ethical Electric Benefit Co.	(888) 444-9452	R/C
d/b/a Ethical Electric		
100 Overlook Center, 2 nd Fl.	www.ethicalelectric.com	ACTIVE
Princeton, NJ 08540		
FirstEnergy Solutions Corp.	(800) 977-0500	C/I
300 Madison Avenue		
Morristown, NJ 07962		
	www.fes.com	ACTIVE
Gateway Energy Services	(800) 805-8586	R/C/I
Corp.		
44 Whispering Pines Lane		
Lakewood, NJ 08701	www.gesc.com	ACTIVE
GDF SUEZ Energy Resources	(866) 999-8374	C/I
NA, Inc.		
333 Thornall Street		
Sixth Floor		
Edison, NJ 08819	www.gdfsuezenergyresources.com	ACTIVE
Glacial Energy of New Jersey,	(888) 452-2425	C/I
Inc.		
75 Route 15 Building E		
Lafayette, NJ 07848	www.glacialenergy.com	ACTIVE
		~~
Green Mountain Energy	(866) 767-5818	C/I
Company		
211 Carnegie Center Drive Princeton, NJ 08540	vyvvv araanmavatain aam/aammaraial	ACTIVE
Finiceton, NJ 08340	www.greenmountain.com/commercial- home	ACTIVE
II C		C/T
Hess Corporation 1 Hess Plaza	(800) 437-7872	C/I
Woodbridge, NJ 07095	www.hess.com	ACTIVE
HIKO Energy, LLC	(888) 264-4908	R/C
655 Suffern Road Teaneck, NJ 07666	www.hikoenergy.com	ACTIVE
<u>'</u>		
HOP Energy, LLC d/b/a	(877) 390-7155	R/C/I
Metro Energy, HOP Fleet		
Fueling, HOP Energy Fleet Fueling	www.hopenergy.com	ACTIVE
1011 Hudson Avenue	www.nopenergy.com	ACIIVE
Ridgefield, NJ 07657		
Tragoliola, 110 07007		
IDT Energy, Inc.	(973) 438-4380	R/C
550 Broad Street		
Newark, NJ 07102	www.idtenergy.com	ACTIVE
	(973) 438-4380 <u>www.idtenergy.com</u>	R/C ACTIVE

Independence Energy Group,	(877) 235-6708	R/C
LLC 211 Carnegie Center Princeton, NJ 08540	www.chooseindependence.com	ACTIVE
Integrys Energy Services, Inc. 99 Wood Ave, South, Suite 802 Iselin, NJ 08830	(877) 763-9977	C/I
150111, 143 00030	www.integrysenergy.com	ACTIVE
Liberty Power Delaware, LLC	(866) 769-3799	R/C/I
3000 Atrium Way Suite 273 Mt. Laurel, NJ 08054	www.libertypowercorp.com	ACTIVE
Liberty Power Holdings, LLC	(866) 769-3799	R/C/I
3000 Atrium Way Suite 273 Mt. Laurel, NJ 08054	www.libertypowercorp.com	ACTIVE
Linde Energy Services	(800) 247-2644	C/I
575 Mountain Avenue Murray Hill, NJ 07974	(800) 247-2044	
	www.linde.com	ACTIVE
Marathon Power LLC	(888) 779-7255	R/C/I
302 Main Street Paterson, NJ 07505	www.mecny.com	ACTIVE
NATGASCO, Inc.	(973) 678-1800 x. 251	R/C
532 Freeman St.		
Orange, NJ 07050	www.supremeenergyinc.com	ACTIVE
NextEra Energy Services New Jersey, LLC 651 Jernee Mill Road	(877) 528-2890 Commercial (800) 882-1276 Residential	R/C/I
Sayreville, NJ 08872	www.nexteraenergyservices.com	ACTIVE
NJ Gas & Electric 1 Bridge Plaza fl.2	(866) 568-0290	R/C/I
Fort Lee, NJ 07024	www.NJGandE.com	ACTIVE
Noble Americas Energy Solutions The Mac-Cali Building 581 Main Street, 8th Floor	(877) 273-6772 www.noblesolutions.com	C/I ACTIVE
Woodbridge, NJ 07095		
North American Power and Gas, LLC	(888) 313-9086	R/C/I
222 Ridgedale Ave. Cedar Knolls, NJ 07927	www.napower.com	ACTIVE

Palmco Power NJ, LLC	(877) 726-5862	R/C/I
One Greentree Centre		
10,000 Lincoln Drive East,		
Suite 201 Marlton, NJ 08053	www.PalmcoEnergy.com	ACTIVE
Pepco Energy Services, Inc.	(800) ENERGY-9 (363-7499)	R/C
112 Main St.	(000) 21 (2101) (000 / 155)	
Lebanon, NJ 08833		
	www.pepco-services.com	ACTIVE
Plymouth Rock Energy, LLC	(855) 32-POWER (76937)	R/C/I
338 Maitland Avenue		
Teaneck, NJ 07666	www.plymouthenergy.com	ACTIVE
DDI E DI LI C	(900) 291 2000	СЛ
PPL EnergyPlus, LLC 811 Church Road	(800) 281-2000	C/I
Cherry Hill, NJ 08002		ACTIVE
, , , , , , , , , , , , , , , , , , , ,	www.pplenergyplus.com	
Public Power & Utility of New	(888) 354-4415	R/C/I
Jersey, LLC		
39 Old Ridgebury Rd. Suite 14		
Danbury, CT 06810	www.ppandu.com	ACTIVE
Reliant Energy	(877) 297-3795	R/C/I
211 Carnegie Center Princeton, NJ 08540	(877) 297-3780 www.reliant.com/pjm	ACTIVE
ResCom Energy LLC	(888) 238-4041	R/C/I
18C Wave Crest Ave.	(888) 238-4041	K/C/I
Winfield Park, NJ 07036	http://rescomenergy.com	ACTIVE
Respond Power LLC	(877) 973-7763	R/C/I
10 Regency CT		
Lakewood, NJ 08701	www.respondpower.com	ACTIVE
South Jersey Energy	(800) 800-266-6020	C/I
Company		
1 South Jersey Plaza Route 54		
Folsom, NJ 08037	www.southjerseyenergy.com	ACTIVE
Sperian Energy Corp.	(888) 682-8082	R/C/I
1200 Route 22 East, Suite 2000	(000) 002 0002	1001
Bridgewater, NJ 08807		ACTIVE
Starion Energy PA Inc.	(800) 600-3040	R/C/I
101 Warburton Avenue		
Hawthorne, NJ 07506	www.starionenergy.com	ACTIVE

Stream Energy	(877) 369-8150	R
309 Fellowship Road		
Suite 200		
Mt. Laurel, NJ 08054	www.streamenergy.net	ACTIVE
UGI Energy Services, Inc.	(856) 273-9995	C/I
d/b/a GASMARK		
224 Strawbridge Drive		
Suite 107		
Moorestown, NJ 08057	<u>www.ugienergyservices.com</u>	ACTIVE
Verde Energy USA, Inc.	(800) 388-3862	R/C/I
50 East Palisades Avenue		
Englewood, NJ 07631	www.lowcostpower.com	ACTIVE
Viridian Energy	(866) 663-2508	R/C/I
2001 Route 46		
Waterview Plaza		
Suite 310		
Parsippany, NJ 07054	www.viridian.com	ACTIVE
Xoom Energy New Jersey,	(888)997-8979	R/C/I
LLC		
744 Broad Street		
Newark, NJ 07102	www.xoomenergy.com	ACTIVE
YEP Energy	(855) 363-7736	R/C/I
89 Headquarters Plaza North		
#1463	www.yepenergyNJ.com	ACTIVE
Morristown, NJ 07960		
Your Energy Holdings, LLC	(855) 732-2493	R/C/I
One International Boulevard		
Suite 400	www.thisisyourenergy.com	ACTIVE
Mahwah, NJ 07495-0400		

NJ NATURAL GAS CO. SERVICE TERRITORY Last Updated: 10/24/12

$*\underline{CUSTOMER\ CLASS} - R - RESIDENTIAL\ C - COMMERCIAL\ I - INDUSTRIAL$

Supplier	Telephone	*Customer
11	& Web Site	Class
Alpha Gas and Electric, LLC	855-553-6374	R/C
641 5 th Street		
Lakewood, NJ 08701	www.alphagasandelectric.com	ACTIVE
Astral Energy LLC	201-384-5552	R/C/I
16 Tyson Place		
Bergenfield, NJ 07621	www.astralenergyllc.com	ACTIVE
BBPC, LLC d/b/a Great Eastern	888-651-4121	C/I
Energy		
116 Village Blvd. Suite 200		
Princeton, NJ 08540	www.greateasternenergy.com	ACTIVE
Clearview Electric Inc.	800-746-4720	R/C
d/b/a Clearview Gas		
1744 Lexington Ave.	1	A COUNTY
Pennsauken, New Jersey 08110	www.clearviewenergy.com	ACTIVE
Colonial Energy, Inc.	845-429-3229	C/I
83 Harding Road		
Wyckoff, NJ 07481	www.colonialgroupinc.com	ACTIVE
Commonos Emonos, Inc		
Commerce Energy, Inc. 7 Cedar Terrace	(888) 817-8572	R
Ramsey, NJ 07746	www.commerceenergy.com	ACTIVE
Compass Energy Services, Inc.	866-867-8328	C/I
1085 Morris Avenue, Suite 150	908-638-6605	
Union, NJ 07083	www.compassenergy.net	ACTIVE
ConocoPhillips Company	800-646-4427	C/I
224 Strawbridge Drive, Suite 107	000 010 1127	
Moorestown, NJ 08057	www.conocophillips.com	ACTIVE
Constellation NewEnergy-Gas	800-900-1982	C/I
Division, LLC	000 300 1302	
900A lake Street, Suite 2		
Ramsey, NJ 07466	www.constellation.com	ACTIVE
Consolidated Edison Solutions,	888-665-0955	C/I
Inc.		
Cherry Tree Corporate Center		
535 State Highway 38,		
Suite 140		
Cherry Hill, NJ 08002	www.conedsolutions.com	ACTIVE

Como Enomary Inc	877-329-3495	R/C
Core Energy Inc. 37 West 55 th Street Suite 200	611-329-3493	R/C
Ocean City, NJ 08226	www.core-energy.net	ACTIVE
Direct Energy Business, LLC	888-925-9115	C/I
120 Wood Avenue, Suite 611	000 723 7113	C/1
Iselin, NJ 08830	www.directenergy.com	ACTIVE
Direct Energy Services, LLP	866-547-2722	R/C/I
120 Wood Avenue, Suite 611	000 3 17 2722	1001
Iselin, NJ 08830	www.directenergy.com	INACTIVE
Dominion Retail, Inc.	866-645-9802	R/C
d/b/a Dominion Energy	000 013 3002	IV.C
Solutions		
395 Route #70 West, Suite 125		
Lakewood, NJ 08701	www.dom.com/products	ACTIVE
Energy Plus Natural Gas LP	877-866-9193	R/I
309 Fellowship Road, East Gate	377 888 3138	
Center, Suite 200		
Mt. Laurel, NJ 08054	www.energypluscompany.com	ACTIVE
Gateway Energy Services Corp.	800-805-8586	R/C/I
44 Whispering Pines Lane		
Lakewood, NJ 08701	www.gesc.com	ACTIVE
Global Energy Marketing LLC	800-542-0778	C/I
129 Wentz Avenue	333 5 12 37.13	3,1
Springfield, NJ 07081	www.globalp.com	ACTIVE
Greenlight Energy	718-204-7467	С
330 Hudson Street, Suite 4		
Hoboken, NJ 07030	www.greenlightenergy.us	ACTIVE
HIKO Energy, LLC	(888) 264-4908	R/C
655 Suffern Road	` ,	
Teaneck, NJ 07666	www.hikoenergy.com	ACTIVE
UGI Energy Services, Inc.	856-273-9995	C/I
d/b/a/ GASMARK		
224 Strawbridge Drive, Suite 107		
Moorestown, NJ 08057	www.ugienergyservices.com	ACTIVE
Hess Energy, Inc.	800-437-7872	C/I
One Hess Plaza		
Woodbridge, NJ 07095	www.hess.com	ACTIVE
Hess Small Business Services,	888-494-4377	C/I
LLC		
One Hess Plaza		
Woodbridge, NJ 07095	www.hessenergy.com	ACTIVE
IDT Energy, Inc.	973-438-4380	R/C
550 Broad Street		
Newark, New Jersey 07102	www.idtenergy.com	ACTIVE

Integrys Energy Services-	(800) 536-0151	C/I
Natural Gas, LLC 99 Wood Avenue South Suite #802 Iselin, NJ 08830	www.integrysenergy.com	ACTIVE
Intelligent Energy	800-927-9794	R/C/I
2050 Center Avenue, Suite 500	vyvyvy intolli contonogovy ogo	ACTIVE
Fort Lee, NJ 07024	www.intelligentenergy.org	
Keil & Sons, Inc. d/b/a Systrum Energy 1 Bergen Blvd.	1-877-797-8786	R/C/I
Fairview, NJ 07022	www.systrumenergy.com	ACTIVE
Marathon Power LLC	888-779-7255	R/C/I
302 Main Street Paterson, NJ 07505	www.mecny.com	ACTIVE
Metromedia Energy, Inc.	800-828-9427	С
6 Industrial Way Eatontown, NJ 07724	www.metromediaenergy.com	ACTIVE
MxEnergy, Inc.	800-785-4374	R/C/I
900 Lake Street		
Ramsey, NJ 07446	www.mxenergy.com	ACTIVE
NATGASCO (Mitchell	800-840-4GAS	С
Supreme)		
532 Freeman Street Orange, NJ 07050	www.natgasco.com	ACTIVE
New Energy Services LLC	<u>www.natgasco.com</u> 800-660-3643	R/C/I
101 Neptune Avenue	800-000-3043	K/C/I
Deal, NJ 07723	www.newenergyservicesllc.com	ACTIVE
New Jersey Gas & Electric	866-568-0290	R/C
1 Bridge Plaza, Fl. 2		
Fort Lee, NJ 07024	www.NJGandE.com	ACTIVE
N. d. A B C.		
North American Power & Gas, LLC d/b/a North American	(888) 313-9086	R/C/I
Power		
197 Route 18 South Ste. 3000		
East Brunswick, NJ 08816	www.napower.com	ACTIVE
Palmco Energy NJ, LLC	877-726-5862	R/C/I
One Greentree Centre		
10,000 Lincoln Drive East		
Suite 201 Marlton, NJ 08053	www.PalmcoEnergy.com	ACTIVE

Pepco Energy Services, Inc.	800-363-7499	C/I
112 Main Street	000 303 7 133	0,1
Lebanon, NJ 08833	www.pepco-services.com	ACTIVE
PPL EnergyPlus, LLC	800-281-2000	C/I
811 Church Road - Office 105		
Cherry Hill, NJ 08002	www.pplenergyplus.com	ACTIVE
Respond Power LLC	877-973-7763	R/C/I
10 Recency CT		
Lakewood, NJ 08701	www.respondpower.com	ACTIVE
South Jersey Energy Company	800-266-6020	C/I
1 South Jersey Plaza, Route 54		
Folsom, NJ 08037	www.southjerseyenergy.com	ACTIVE
Sprague Energy Corp.	855-466-2842	C/I
12 Ridge Road		
Chatham Township, NJ 07928	www.spragueenergy.com	ACTIVE
Systrum Energy	877-797-8786	R/C/I
1 Bergen Blvd.		
Fairview, NJ 07022	www.systrumenergy.com	ACTIVE
Stream Energy New Jersey, LLC	(973) 494-8097	R/C
309 Fellowship Road		
Suite 200		
Mt. Laurel, NJ 08054	<u>www.streamenergy.net</u>	ACTIVE
Verde Energy USA, Inc.	800-388-3862	R
50 East Palisades Avenue		A COTTANT
Englewood, NJ 07631	www.lowcostpower.com	ACTIVE
Woodruff Energy	800-557-1121	R/C/I
73 Water Street		
Bridgeton, NJ 08302	www.woodruffenergy.com	ACTIVE
Woodruff Energy US LLC	856-455-1111 800-557-1121	C/I
73 Water Street, P.O. Box 777		ACTIVE
Bridgeton, NJ 08302	www.woodruffenergy.com	
Xoom Energy New Jersey, LLC 744 Broad Street	888-997-8979	R/C/I
Newark, NJ 07102	www.xoomenergy.com	ACTIVE
Your Energy Holdings, LLC	(855) 732-2493	R/C/I
One International Boulevard	(033) 132-2473	N/C/I
Suite 400		
Mahwah, NJ 07495-0400	www.thisisyourenergy.com	ACTIVE

For Service at: Toms River High School North

1245 Old Freehold Road, Toms River, NJ 08753

Account No.: 100 106 100 587

Meter No.: G28819244, G28819206, L013870883, L013670884 **Electric Service**

Delivery -Jersey Central Power & Lighting Supplier -Direct Energy LLC

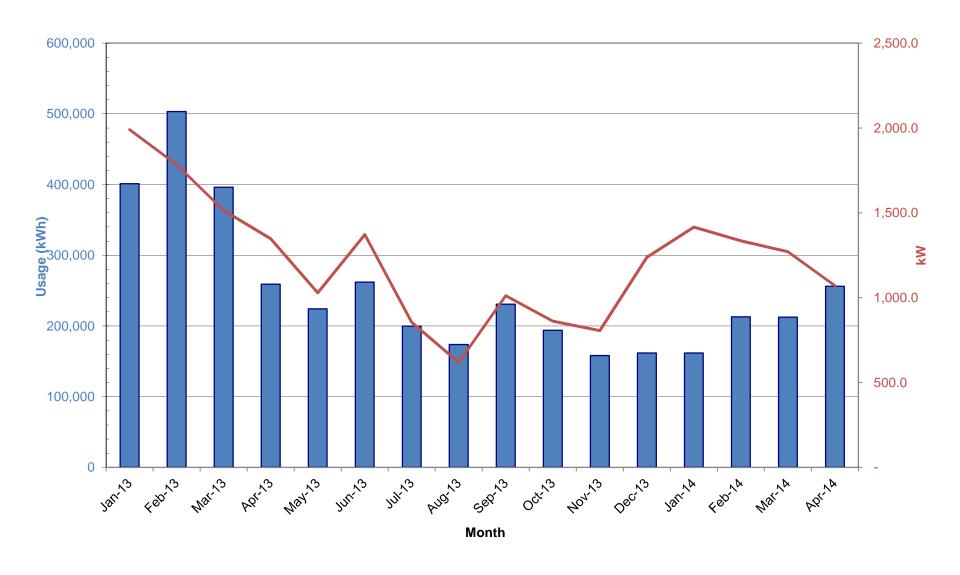
Building owns solar panels

					Provider Charges					Usage (kWh) vs. Demand (kW) Charges				Unit Costs				
	Delivery	Generated	Consumption	Demand	Delivery		Supplier		Total		Consumption		Demand	Blende	d Rate	Consumption	Der	mand
Month	(kWh)	(kWh)	(kWh)	(kW)	(\$)		(\$)		(\$)		(\$)		(\$)	(\$/k\	Vh)	(\$/kWh)	(\$/	kW)
January-13	401,163		401,163	1,989.9	\$ 50,33	0 \$	31,479	\$	50,330	\$	36,898	\$	13,432		0.13	0.09	,	6.75
February-13	503,155		503,155	1,783.3	\$ 58,20	1 \$	39,483	\$	58,201	\$	46,163	\$	12,037		0.12	0.09	j	6.75
March-13	396,267		396,267	1,514.2	\$ 46,58	5 \$	31,095	\$	46,585	\$	36,364	\$	10,221		0.12	0.09	j	6.75
April-13	259,108		259,108	1,347.7	\$ 32,88	7 \$	20,332	\$	32,887	\$	23,790	\$	9,097		0.13	0.09	j	6.75
May-13	183,258	40,965	224,223	1,029.0	\$ 23,78	2 \$	17,595	\$	41,376	\$	34,431	\$	6,946		0.18	0.15	j	6.75
June-13	221,304	40,809	262,113	1,372.0	\$ 13,46	2 \$	17,366	\$	30,828	\$	21,567	\$	9,261		0.12	0.08	ś	6.75
July-13	167,996	31,871	199,867	855.0	\$ 9,74	4 \$	13,183	\$	22,926	\$	17,155	\$	5,771		0.11	0.09	j	6.75
August-13	142,560	31,219	173,779	619.0	\$ 8,26	в \$	11,187	\$	19,455	\$	15,277	\$	4,178		0.11	0.09	j	6.75
September-13	209,361	21,345	230,706	1,012.0	\$ 12,14	3 \$	16,449	\$	28,592	\$	21,761	\$	6,831		0.12	0.09	j	6.75
October-13	157,860	36,009	193,869	862.0	\$ 8,37	6 \$	12,387	\$	20,763	\$	14,944	\$	5,819		0.11	0.08	š	6.75
November-13	130,887	27,296	158,183	806.0	\$ 7,57	4 \$	10,271	\$	17,845	\$	12,403	\$	5,442		0.11	0.08	ś	6.75
December-13	129,162	32,718	161,880	1,238.0	\$ 12,06	5 \$	10,135	\$	22,201	\$	13,843	\$	8,358		0.14	0.09	j	6.75
January-14	128,746	33,039	161,785	1,416.0	\$ 13,20	2 \$	10,103	\$	23,305	\$	13,744	\$	9,561		0.14	0.08	}	6.75
February-14	167,654	45,299	212,953	1,335.0	\$ 13,86	7 \$	13,156	\$	27,023	\$	18,012	\$	9,011		0.13	0.08	š	6.75
March-14	151,663	60,874	212,537	1,271.0	\$ 12,87	4 \$	11,901	\$	24,775	\$	16,196	\$	8,579		0.12	0.08	š	6.75
April-14	185,275	70,880	256,155	1,071.0	\$ 10,04	9 \$	14,539	\$	24,588	\$	17,356	\$	7,232		0.10	0.07	,	6.75
Total (All)	3,535,419	472,324	4,007,743	1,989.9	\$ 333,40	9 \$	280,661	\$	491,680	\$	359,904	\$	131,776	\$	0.123	\$ 0.090	\$	6.75
Total (2013)	2,902,081	262,232	3,164,313	1,989.9	\$ 283,41	6 \$	230,962	\$	391,989	\$	294,596	\$	97,393	\$	0.124	\$ 0.093	\$	6.75
Notes			1	2	3		4		5		6		7	8		9	T	10

Notes 1.) Number of kWh of electric energy used per month 2.) Number of kWh of power measured 3.) Electric charges from Delivery provider 4.) Electric charges from Delivery provider 5.) Total charges (Delivery + Supplier) 6.) Charges based on the number of kWh of electric energy used 7.) Charges based on the number of kWh of power measured 8.) Total Charges (S) / Consumption (kWh) 9.) Consumption Charges (S) / Consumption (kWh) 10.) Demand Charges (S) / Demand (kW)

No data provided, most recent rate used No data provided, interpolated value Months taking from banked kWh Calculated using supplier rate of 0.07847

Electric Usage - School



For Service at: Toms River High School North

1245 Old Freehold Road, Toms River, NJ 08753

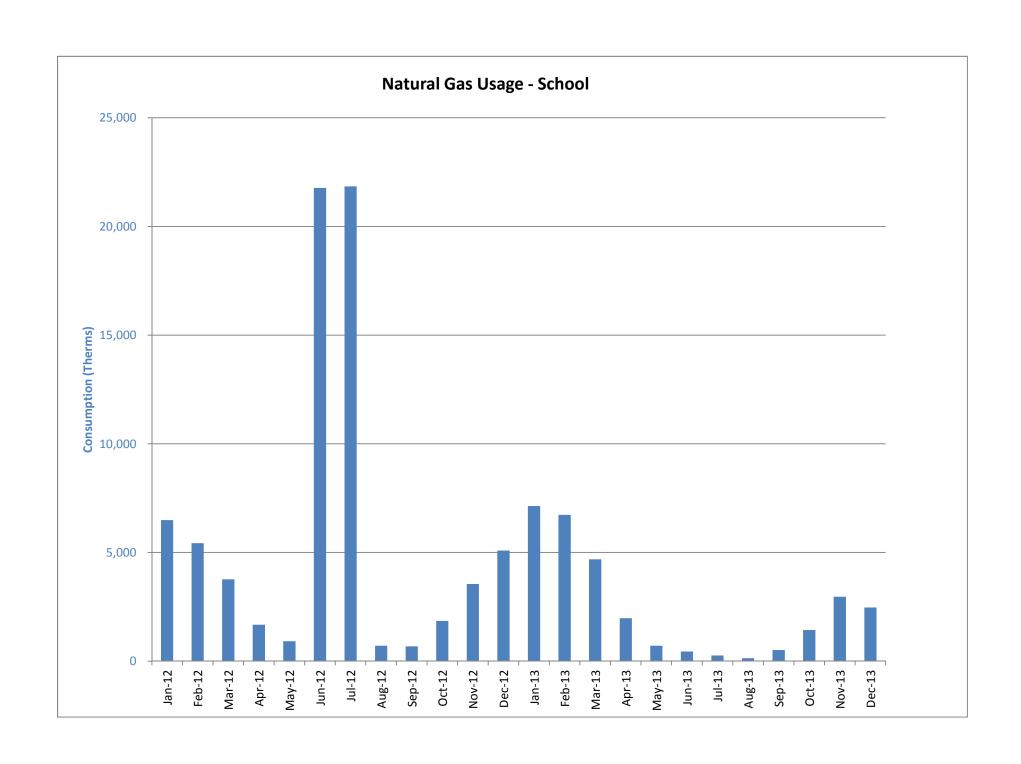
Account No.: 164573147024

Meter No:

Natural Gas Service Delivery - New Jersey Natural Gas

Supplier - New Jersey Natural Gas

		Charges Unit Costs									
Month	Consumption (Therms)	Delivery (\$)	Supply (\$)		Total (\$)		Delivery / I herm)		Supply Therm)		otal I herm)
January-12	6,491			\$	9,129	\$	-	\$	-	\$	1.41
February-12	5,428			\$	7,637	\$	-	\$	-	\$	1.41
March-12	3,765			\$	5,491	\$	-	\$	-	\$	1.46
April-12	1,672			\$	2,726	\$	-	\$	-	\$	1.63
May-12	913			\$	1,729	\$	-	\$	-	\$	1.89
June-12	21,771			\$	29,023	\$	-	\$	-	\$	1.33
July-12	21,847			\$	29,310	\$	-	\$	-	\$	1.34
August-12	710			\$	1,455	\$	-	\$	-	\$	2.05
September-12	681			\$	1,109	\$	-	\$	-	\$	1.63
October-12	1,851			\$	2,201	\$	-	\$	-	\$	1.19
November-12	3,549			\$	3,833	\$	-	\$	-	\$	1.08
December-12	5,093			\$	5,339	\$	-	\$	-	\$	1.05
January-13	7,139			\$	7,151	\$	-	\$	-	\$	1.00
February-13	6,733			\$	6,766	\$	-	\$	-	\$	1.00
March-13	4,687			\$	4,972	\$	-	\$	-	\$	1.06
April-13	1,973			\$	2,420	\$	-	\$	-	\$	1.23
May-13	708			\$	1,259	\$	-	\$	-	\$	1.78
June-13	448			\$	960	\$	-	\$	-	\$	2.14
July-13	262			\$	821	\$	-	\$	-	\$	3.14
August-13	136			\$	722	\$	-	\$	-	\$	5.33
September-13	510			\$	1,065	\$	-	\$	-	\$	2.09
October-13	1,434			\$	1,914	\$	-	\$	-	\$	1.33
November-13	2,965			\$	3,367	\$	-	\$	-	\$	1.14
December-13	2,469			\$	2,744	\$	-	\$	-	\$	1.11
Total (all)	103,235	\$ -	\$ -	\$	133,143	\$	-	\$	-	\$	1.29
Total (last 12 months)	29,463	\$ -	\$ -	\$	34,161	\$	-	\$	-	\$	1.16

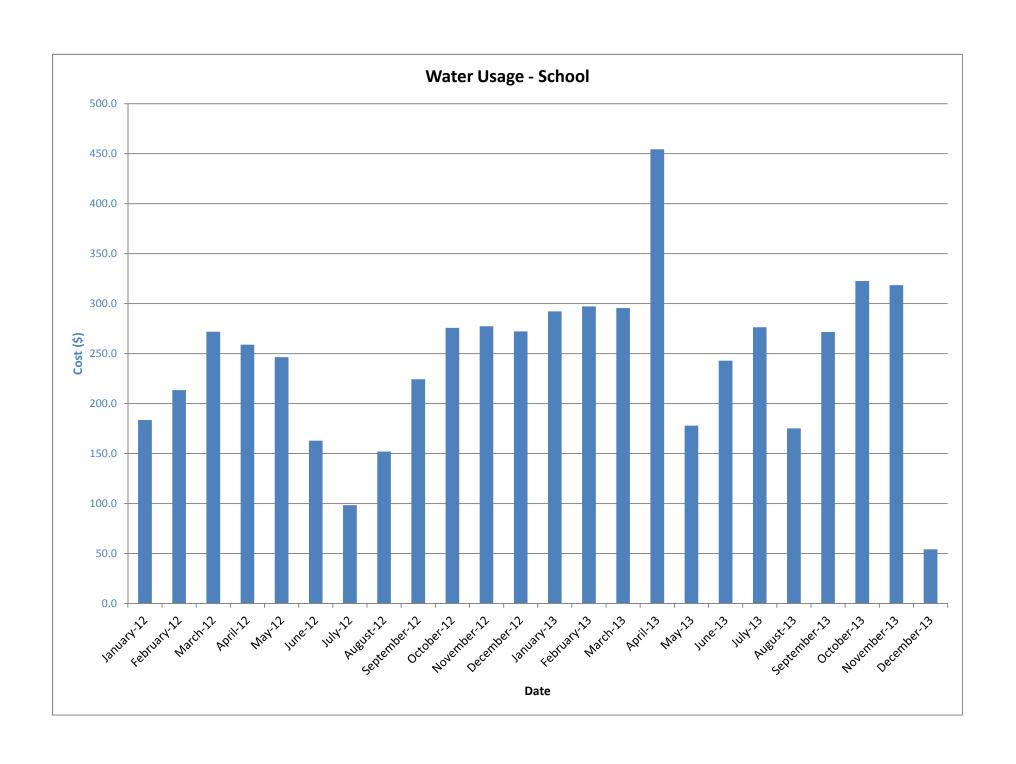


For Service at: Toms River High School North

1245 Old Freehold Road, Toms River, NJ 08753

Account No.: Meter No.: Water Service

Month		Total (\$)	Gallons (1000)	\$/kGal
January-12	\$	2,315	183.6	\$ 12.61
February-12	\$	2,365	213.4	\$ 11.09
March-12	\$	2,866	271.9	\$ 10.54
April-12	\$	3,041	258.9	\$ 11.74
May-12	\$	2,670	246.5	\$ 10.83
June-12	\$	1,995	162.9	\$ 12.25
July-12	\$	1,688	98.3	\$ 17.18
August-12	\$	1,893	151.9	12.47
September-12	\$	2,395	224.3	\$ 10.68
October-12	\$	2,677	275.7	\$ 9.71
November-12	\$	2,646	277.4	\$ 9.54
December-12	\$	2,686	272.3	9.87
January-13	\$	2,888	292.2	\$ 9.88
February-13	\$	2,872	297.2	\$ 9.66
March-13	\$	2,872	295.6	9.72
April-13	\$	3,090	454.4	\$ 6.80
May-13	\$	1,714	177.9	9.64
June-13	\$	2,705	242.9	11.14
July-13	\$	2,977	276.4	\$ 10.77
August-13	\$	2,358	175.1	\$ 13.47
September-13	\$	3,059	271.5	\$ 11.27
October-13	$\bullet \bullet $	3,346	322.7	\$ 10.37
November-13	\$	3,313	318.4	\$ 10.40
December-13	\$	1,271	54.1	\$ 23.47
Total all)	\$	61,704	5,815	\$ 10.61
Total (last 12 months)	\$	32,466	3,178	\$ 10.21





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Description	QTY	Manufacturer Name	Model No.	Serial No.	Equipment Type /	Capacity/Size	Efficiency	Location	Areas/Equipment Served	Date Installed	Remaining Useful Life (years)	Other Info.
ACC-1	1	Trane	RTAC 2504 UDON UAFN N1NY 1DDC NN0E N10K N0EX N	U02003760	Air Cooled Helical Rotary Screw Chiller w/ Glycol	233.8 Tons	1.25 kW/Ton	Pine Belt Roof	Pine Belt Chilled Gylcol System	2002	8	EM Controlled, 30% Glycol Solution
AHU- AHU- AHU-	3	Trane	WEHB26D4QKE6A3AD 1DD0AEYRT8	J96H72641	Packaged AHU with Remote Mounted Glycol Chiller and Electric Heat	Cooling: 26 Ton Heat: 110 kW	N/A	Roof Above Auditorium	Auditorium	1996	-3	EM Controlled: Economizer, CO2 Controls
AHU-PE-1	1	Trane	TSCX - SIZE 30	Unknown	Air Handling Unit, HHW / CHW	16,725 CFM (50% OA) CLG: 954 MBH HTG: 726 MBH (SF/RF) 20 / 15 HP	N/A	Pine Belt Roof	Gymnasium	2002	13	EM Controlled: Economizer, CO2 Controls; 16,725 CFM (50% OA)
AHU-PE-2	1	Trane	TSCX - SIZE 30	Unknown	Air Handling Unit, HHW / CHW	15,000 CFM (50% OA) CLG: 856 MBH HTG: 651 MBH (SF/RF) 15 / 15 HP	N/A	Pine Belt Roof	Gymnasium	2002	13	EM Controlled: Economizer, CO2 Controls; 15,000 CFM (50% OA)
AHU-PE-3	1	Trane	TSCX - SIZE 30	Unknown	Air Handling Unit, HHW / CHW	13,900 CFM (50% OA) CLG: 793 MBH HTG: 603 MBH (SF/RF) 15 / 10 HP	N/A	Pine Belt Roof	Gymnasium	2002	13	EM Controlled: Economizer, CO2 Controls; 13,900 CFM (50% OA)
AHU-PE-4	1	Trane	TSCX - SIZE 25	Unknown	Air Handling Unit, HHW / CHW	10,700 CFM (33% OA) CLG: 542 MBH (SF/RF) 10 / 5 HP	N/A	Pine Belt Roof	Hall of Fame	2002	13	EM Controlled; 10,170 CFM (33% OA)
Air Cooled Chiller	1	Trane	RTAA1004XH01A1D0B DF	U96L08032	Air Cooled Rotary Chiller w/ Glycol	100 Ton	~1.2 kW/Ton	Ground outside Auditorium	RTUs above Auditorium	1996	2	EM Controlled
B-1 B-2	2	Lochinvar	PBN0500	A021218 A021219	Hot Water Boiler / Natural Gas	Input: 500 MBH Output: 440 MBH,	88%	F-Wing Boiler Room	F-Wing	2002	13	EM Controlled
B-1 B-2	2	Lochinvar	PBN2000	Unknown	Hot Water Boiler / Natural Gas	Input: 2000 MBH Output: 1740 MBH	88%	Pine Belt Arena Boiler Room	Pine Belt Hot Water Heating System	2002	13	EM Controlled, 30% Glycol Solution
Backup Generator	1	Kohler	Unknown	Unknown	Backup Generator	100 kW	N/A	Ground outside Arena	Pine Belt Arena	2010	16	
Backup Generator	1	Baldor	TS130	Unknown	Backup Generator	130 kW	N/A	Ground outside Arena	Pine Belt Arena	2010	16	
BCP-1 BCP-2	2	Unknown	Series 60 2x2x5-1/4	Unknown	Boiler Primarly Circulating Pumps	1.5 HP	N/A	Pine Belt Arena Boiler Room	B-1 B-2	2002	6	EM Controlled
Condensing Unit	1	International Comfort Products	CAE120HAA	G044310054	Split System Condensing Unit	10 Ton	10.3 EER	Roof Above Main Office	Nurses / Main Office	2004	10	
Condensing Unit	1	Trane	TTP018C100A3	2043P5C3F	Split System Condensing Unit	1.5 Ton	12.0 EER	B-Wing Courtyard	B-Wing Classroom	2002	8	
Condensing Unit	1	Thermal Zone	MSC424A13230CA	N/A	Mini Split Air Conditioning Unit	24,000 btu/h	13 SEER	Roof (Near Cafe South)	Office	2000	6	
Condensing Unit	1	Unknown	Unknown	Unknown	Split System Condensing Unit	Unknown	N/A	BB Wing	BB Wing	1992	-2	
Condensing Unit	1	International Comfort Products	CBA090HA3	L991245906	Split System Condensing Unit	7.5 Ton	10.3 EER	Roof Above Weight Room	Weight Room	1999	5	
Condensing Unit	1	International Comfort Products	ACC060LA	E031492902	Split System Condensing Unit	4 Ton	10.7 EER	Ground near Exit 22	Athletic Trainers Office (?)	2003	9	
Condensing Unit	1	AAON	CA0152	200506-CCCE04972	Split System Condensing Unit	1.5 Ton	Unknown	Ground Outside E-01	E-01	2005	11	EM Controlled
Condensing Unit	1	AAON	CA0499	200506-CCCF04973	Split System Condensing Unit	4 Ton	Unknown	Ground Outside E-01	E-01	2005	11	EM Controlled
Condensing Unit	1	International Comfort Products	CBA0120FA3	L9920 85802	Split System Condensing Unit	10 Ton	8.6 EER	Ground Outside E-03	E-03	1999	5	EM Controlled
DHW	1	AO Smith	BTH 120 966	ML01 1276833-966	Domestic Hot Water Heater / Natural Gas	Input: 125,000 btu/h Recovery: 142 gal/hr Capacity: 60 gal	80%	F-Wing Boiler Room	F-Wing	2002	13	EM Controlled
DHW	1	AO Smith	DSE-30-6	SF93 48703 Y3	Domestic Hot Water Heater / Electric	6 kW	N/A	Custodial Closet BB Wing	Custodial Closet BB Wing	1993	4	EM Controlled
DHW	1	AO Smith	HW 670 932	L 04 05545	Domestic Hot Water Boiler / Natural Gas	670,000 btu/h	80%	E Wing Electrical Room	Main DHW System	2004	15	EM Controlled
DHW	1	AO Smith	BTH 120 966	MM01-1353202-966	Domestic Hot Water Heater / Natural Gas	Input: 125,000 btu/h Recovery: 142 gal/hr Capacity: 60 gal	80%	Pine Belt Arena Boiler Room	Pine Belt Arena Domestic Hot Water System	2002	13	EM Controlled
DHW Storage Tank	1	Unknown	N/A	N/A	DHW Storage Tank	Estimated 750 gallons	N/A	E Wing Electrical Room	Main DHW System	2004	20	EM Controlled

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Description	QTY	Manufacturer Name	Model No.	Serial No.	Equipment Type / Utility	Capacity/Size	Efficiency	Location	Areas/Equipment Served	Date Installed	Remaining Useful Life (years)	Other Info.
Dishwasher Booster Heater	1	Hatco	C-45	2821941246	Dishwasher Booster Heater / Electric	45 kW	N/A	Kitchen	Kitchen	2000	1	
EDPAC	13	EDPAC	SEHA-04	Unknown	Packaged DX Cooling Unit w/ Electric Heat	Reheat #1: 4.9 kW Reheat #2: 9.8 kW	N/A	A-Wing Classrooms	A-Wing Classrooms	1984	-15	
EDPAC	8	Compu-Aire	CASH334	SA92-009-4394	Special Purpose Air Conditioner (Heat Pump)	Reheat: 15 kW (2 Stage)	N/A	BB-Wing Classrooms	BB-Wing Classrooms	1993	-6	
Gylcol Pump-1 Glycol Pump-2	2	Baldor	VJMM3714T	N/A	Gylcol Pump Motor / Electric	10 HP	89.5% @ 1800 RPM	Ground outside Auditorium	Chilled Glycol System	2002	6	EM Controlled
Heat Wheel-CF-1 Heat Wheel-CF-2	2	Semco	SP700T-2RT4AA	27954/MO10734-000-01 27954/MO10734-000-02	Heat Recovery Wheel	CLG: 30,070 btu/h HTG: 55,780 btu/h	N/A	Roof Above Cafe North Annex	Cafeteria North Annex	2002	3	EM Controlled
Heat Wheel-CF-3 Heat Wheel-CF-4	2	Semco	SP2200T-6RT4AA	27954/MO10735-000-01 27954/MO10735-000-02	Heat Recovery Wheel	CLG: 333,270 btu/h HTG: 61,720 btu/h	N/A	Roof Above Cafe South Annex	Cafeteria South Annex	2002	3	EM Controlled
Hot Water Pump-1 Hot Water Pump-2	2	Baldor	M6211T	N/A	Hot Water Pump Motor / Electric	3 HP	86.5% @ 1800 rpm	F-Wing Boiler Room	F-Wing	2002	6	EM Controlled
HV Unit	1	Hastings	SBEV-115-4-33	49143-2	Heating & Ventilation Unit	Unknown	Unknown	Boys Cross Country / Track Locker Room	Boys Cross Country / Track Locker Room	1999	10	
HV Unit	1	Trane	Unknown	Unknown	Heating & Ventilation Unit	Unknown	Unknown	Boys Cross Country / Track Locker Room	Boys Cross Country / Track Locker Room	1999	10	
Kitchen Hood	2	Unknown	Unknown	Unknown	Kitchen Exhaust Hood	4' x 20'	N/A	Kitchen	Kitchen	1995	1	
MUA-1	1	Trane	GRAA12PFYDON6JU30 2A0CLP	Unknown	Indirect Gas Fired Makeup Air Unit	8000 CFM (100% OA), Input: 1200 MBH Output: 960 MBH 15 HP	80%	Roof Above Kitchen	Kitchen	2002	6	EM Controlled, Electronic Modulating Furnace (40-100%)
P-1 P-1S	2	Unknown	1510 2-1/2AB	Unknown	Main Hot Water Pumps	3 HP	86.5% @ 1800 rpm	Pine Belt Arena Boiler Room	Pine Belt Hot Water Heating System	2002	6	EM Controlled
P-2 P-	2	Unknown	1510 4E	Unknown	Main Chilled Water Pumps	25 HP	93.6% @ 1800 RPM	Pine Belt Arena Boiler Room	Pine Belt Chilled Gylcol System	2002	6	EM Controlled
Primary Pump-1 Primary Pump-2	2	Baldor	VL1201	N/A	Hot Water Pump Motor / Electric	1/3 HP	60% eff @ 1800 RPM	F-Wing Boiler Room	F-Wing	2002	6	EM Controlled
PTAC	1		PTHC0702EA	N/A	Packaged Terminal Heat Pump / Electric	CLG: 7.1 MBH (11.5 EER) HTG: 2.5 kW	N/A	Guidance Offices	Guidance Offices	2002	3	
RTU	1	Unknown	Unknown	Unknown	Packaged RTU	Unknown	Unknown	BB Wing	BB Wing	1992	-4	
RTU- RTU- RTU- RTU-	4	Trane	WCD048C400BC	L40102677D	Packaged Electric Heat Pump	4 Ton Heating: 45 kW 1 HP	9.6 EER 3.3 COP	Roof Above Cafe North	Cafeteria North	1996	-3	Not Working or Not Controllable
RTU- RTU- RTU- RTU-	4	Trane	WCD048C4D0BC	K40103257D K34101768D K19102062D K37101769D	Packaged Electric Heat Pump	4 Ton Heating: 45 kW 1 HP	9.6 EER 3.3 COP	Roof Above Cafe South	Cafeteria South	1995	-4	Not Working or Not Controllable
RTU-AC-1 RTU-AC-2	2	Trane	YCD420A4LJ0B6DA5AB 000F0HJ0000	C02A00491 C02A00492	Packaged RTU w/ DX and Low/High Natural Gas Fired Heat (VAV)	35 Ton Input: 350 MBH Output: 283 MBH AC-1: 7.5 HP AC-2: 10 HP	9.7 EER 81%	F-Wing Roof	F-Wing 1st Floor F Wing 2nd Floor	2002	6	Fan Controlled by VFD, supplies VAV boxes w/ HW reheat
RTU-AC-3	1	Trane	YSC060A4RHA0HH000 C2010300	207100575L	Packaged RTU w/ DX and Natural Gas Fired Heat (VAV)	5 Ton Input: 130 MBH Output: 108 MBH 1.5 HP	10.2 EER 83%	F-Wing Roof	2nd Floor B Wing Biology 2	2002	6	EM Controlled; 10,000 CFM (46% OA)
RTU-CF-1 RTU-CF-2	2	Trane	YSC060A4RMA0J0000C 2010300	210101376L 21010316L	Packaged RTU w/ DX and NG Heat	5 Ton Input: 90 MBH Output: 73 MBH 1.5 HP	10.2 EER 81%	Roof Above Cafe North Annex	Cafeteria North Annex	2002	6	EM Controlled; 11,000 CFM (40% OA)
RTU-CF-3 RTU-CF-4	2	Trane	YSC072A4RMA0E0000 C20000300	210101258L 210101365L	Packaged RTU w/ DX and NG Heat	6.25 Ton Input: 120 MBH Output: 97 MBH 1.5 HP	11.2 EER 81%	Roof Above Cafe South Annex	Cafeteria South Annex	2002	6	EM Controlled; 1,600 CFM (39% OA)
RTU-CF-5 RTU-CF-6	2	Trane	YHC036A4RMA0DH000 C2010300	210101174L 210101323L	Packaged RTU w/ DX and NG Heat	3 Ton Input: 80 MBH Output: 65 MBH 1 HP	10.3 EER 81%	Roof Above Cafe North Annex	2nd Floor Corridor	2002	6	EM Controlled

Toms River Regional School District CHA Project# 28485 Toms River High School North

EM - Energy Management

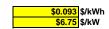
Description	QTY	Manufacturer Name	Model No.	Serial No.	Equipment Type /	Capacity/Size	Efficiency	Location	Areas/Equipment Served	Date Installed	Remaining Useful Life (years)	Other Info.
RTU-GU-1	1	Trane	YHC120A4RLA0GH000 C2010300	210101242L	Packaged RTU w/ DX and High/Low NG Heat	3 HP	11.7 EER 80%	Roof Above Guidance	Guidance	2002	6	EM Controlled; 3,000 CFM (22% OA)
RTU-GU-2	1	Trane	YHC036A4RMA0DH000 C200300	210101175L	Packaged RTU w/ DX and NG Heat	3 Ton Input: 80 MBH Output: 64 MBH 1/3 HP	11.1 EER 80%	Roof Above Guidance	Guidance	2002	6	EM Controlled; 925 CFN (35% OA)
RTU-MC-1 RTU-MC-2 RTU-MC-3 RTU-MC-4	4	Trane	YHC092A4RLA0EH0000 C2010300	207100581L 207100455L 207100657L 207100635L	Packaged RTU w/ DX and Natural Gas Fired Heat	7 Ton Input: 120 MBH Output: 97 MBH 1.5 HP	8.9 SEER 81%	Media Center Roof	Media Center	2002	6	EM Controlled, Economizer Controls; 2,350 CFM (15% OA)
Walk-In Cooler	1	Unknown	Unknown	Unknown	Commercial Walk-In Cooler	8' x 10'	N/A	Kitchen	Kitchen	2000	6	EM Monitored
Walk-In Freezer	1	Unknown	Unknown	Unknown	Commercial Walk-In Freezer	8' x 10'	N/A	Kitchen	Kitchen	2000	6	EM Monitored
Window A/C	10	Various	Various	Various	Window Air Conditioner	8,000 - 24,000 btu/h	10.7 EER	Classrooms and Offices	Classrooms and Offices	2008	4	
Reach-in Cooler	2	Manitowoc Koolaire	Unknown	Unknown	2-Door Reach-In Commercial Cooler	Unknown Capacity ft ³	N/A	Kitchen	Kitchen	2008	4	
Range/Oven	1	Kenmore	Unknown	Unknown	Residential Range/Oven, Electric	Unknown Wattage	N/A	Football Concessions	Football Concessions	2000	-4	
DHW Heater	1	AO Smith	ELJF 15 917	GF00-5504966-917	Residential DHW Heater, Electric	15 Gal, 1500 W	N/A	Football Concessions	Football Concessions	2000	1	
Refrigerator/Freezer	1	General Electric	TBX21IABRRWW	SV557695	Residential Refrigerator/Freezer	Unknown Capacity ft ³	N/A	Football Concessions	Football Concessions	2000	-4	
Refrigerator/Freezer	1	General Electric	HTS18GBSFRWW	GT737656	Residential Refrigerator/Freezer	Unknown Capacity ft ³	N/A	Baseball Concessions	Baseball Concessions	2002	-2	
Range/Oven	1	Tappan	Unknown	Unknown	Residential Range/Oven, Electric	Unknown Wattage	N/A	Baseball Concessions	Baseball Concessions	2005	1	
Microwave	1	Kenmore	721.66227700	912TA03246	Residential Microwave Oven	900 W	N/A	Baseball Concessions	Baseball Concessions	2008	4	
Window A/C	2	LG	LWHD1500ER	Unknown	Window Air Conditioner	15,000 btu/h	10.8 EER	Field House	Field House	2008	4	Energy Star
Split System Evaporator	1	Sanyo	No Tag	Unknown	Split System Evaporator	Unknown btu/h	Unknown EER	Field House	Field House	2002	3	Condensing Unit not Accessible
Ice Machine	1	Scotsman	B330P	08021320012561	Commercial Ice Machine	344 lb Capacity	Unknown	Field House	Field House	2008	4	
			1									

Cost of Electricity:

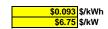
\$0.093 \$6.75 \$/kW

Field Code 15LED 115 6LED 115 6LED 18LED 18LED 18LED 133 18LED 133 18LED 18LED 18LED 18LED 115 46LED 18LED	Area Description Inique description of the location - Room number/Room name: Floor number (if applicable) Boiler Room Main Office Main Office Main Office C-25 C-20 Prep Room Women's Faculty Lavatory C-22 C-27 C-24 Men's Restroom C-29 Boys' Restroom Custodial Girls' Restroom C-26 C-28 C-21 C-23 C-21 C-21 C-21 C-25 C-26 C-28 C-31 C-31 C-31 C-31 C-31 C-33 C-30 C-30 C-32 C-32	Usage Describe Usage Type using Operating Hours Mechanical Room Office Office Office Classroom	No. of Fixtures No. of fixtures No. of fixtures before the retrofit 10 3 15 5 12 12 12 14 8 1 15 6 1 6 8 8 8	Standard Fixture Code Lighting Fixture Code S 32 C F 2 (ELE) W 20 C F 2 T 34 R F 4 (MAG) T 32 R F 4 (ELE) W 32 C F 2 (ELE) I 75 W 32 C F 2 (ELE) T 32 R F 4 (ELE)	Fixture Code Code from Table of Standard Fixture Wattages F42LL F22SS F44EE F44ILL F44ILL F44ILL F44ILL F44ILL F44ILL F44ILL F44ILL F544ILL	Watts per Fixture Value from Table of Standard Fixture Wattages 60 56 144 112 112 112 112 112 27 112 112 112 112	kW/Space (Watts/Fixt) * (Fixt No.) 0.60 0.17 2.16 0.56 1.34 1.34 0.36 0.03 1.34 1.57 0.90 0.03 1.68 0.36	Exist Control Pre-inst. control device SW	Annual Hours Estimated annual hours for the usage group 2080 2600 2600 2600 2600 2600 2600 2600 2600 2600 3120 2600 2600 2600 2600 2600	Annual kWh (kW/space) * (Annual Hours) 1,248 437 5,616 1,456 3,494 3,494 562 84 4,077 2,330 84 4,368	Retrofit Control Retrofit control device NONE C-0CC	Notes
15LED	Boiler Room Main Office Main Office Main Office Main Office C-25 C-20 Prep Room Women's Faculty Lavatory C-22 C-27 C-24 Men's Restroom C-29 Boys' Restroom Custodial Girls' Restroom C-26 C-28 C-27 C-29 C-31 C-31 C-31 C-31 C-30 C-30 C-32	Describe Usage Type using Operating Hours Mechanical Room Office Office Office Office Classroom Classroom Storage Area Restroom Classroom	No. of fixtures before the retrofit 10 3 15 5 12 12 12 12 14 8 1 15 6 1 6 8 8	S 32 C F 2 (ELE) W 20 C F 2 T 34 R F 4 (MAG) T 32 R F 4 (ELE) W 32 C F 2 (ELE)	Code from Table of Standard Fixture Wattages F42LL F22SS F44EE F44ILL F44ILL F44ILL F42EE CFQ26/1-L F44ILL F44ILL F44ILL F544ILL	Value from Table of Standard Fixture Wattages 60 56 144 112 112 72 27 112 112 112 112 112 112 1	(Watts/Fixt) * (Fixt No.) 0.60 0.17 2.16 0.56 1.34 1.34 0.36 0.03 1.34 1.57 0.90 0.03 1.68	Pre-inst. control device SW	Estimated annual hours for the usage group 2080 2600 2600 2600 2600 2600 2600 260	(kW/space) * (Annual Hours) 1,248 437 5,616 1,456 3,494 3,494 562 84 3,494 4,077 2,330 84	NONE	Notes
15LED	Boiler Room Main Office Main Office Main Office Main Office C-25 C-20 Prep Room Women's Faculty Lavatory C-22 C-27 C-24 Men's Restroom C-29 Boys' Restroom Custodial Girls' Restroom C-26 C-28 C-31 C-31 C-31 C-31 C-31 C-30 C-30 C-32	Mechanical Room Office Office Office Office Classroom	fixtures before the retrofit 10 3 15 5 12 12 12 12 14 8 1 15 6 1 1 6 8 8	S 32 C F 2 (ELE) W 20 C F 2 T 34 R F 4 (MAG) T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE) W 34 C F 2 (MAG) CF 26 T 32 R F 4 (ELE) US 2 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE) W 32 C F 2 (ELE)	Fixture Wattages F42LL F22SS F44EE F44ILL F44ILL F44ILL F44ILL F42EE CFQ26/1-L F44ILL F44ILL F44ILL F44ILL F44ILL F44ILL F544ILL	Table of Standard Fixture Wattaces 60 56 144 112 112 112 72 27 112 112 27 112 112 11	0.60 0.17 2.16 0.56 1.34 1.34 0.36 0.03 1.34 1.57 0.90 0.03	SW S	annual hours for the usage group 2080 2600 2600 2600 2600 2600 1560 3120 2600 2600 2600 2600 3120 2600 3120 2600	1,248 437 5,616 1,456 3,494 3,494 562 84 3,494 4,077 2,330 84	NONE C-0CC	Notes
15LED 115 6LED 18LED 18LED 133 18LED 133 18LED 18LED 18LED 131 18LED 146LED 193 46LED 18LED 115 4LED 115 4LED 18LED	Boiler Room	Mechanical Room Office Office Office Office Office Classroom Classroom Storage Area Restroom Classroom Classroom Classroom Restroom Classroom	before the retrofit 10 3 15 5 12 12 5 11 12 5 11 15 6 1 6 8 8	W 20 C F 2 T 34 R F 4 (MAG) T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE) W 34 C F 2 (MAG) CF 26 T 32 R F 4 (ELE) W 32 C F 2 (ELE) U 32 C F 2 (ELE) W 32 C F 2 (ELE)	F42LL F22SS F44EE F44ILL F44ILL F44ILL F44ILL F42EE CFQ26/1-L F44ILL F44ILL F44ILL F44ILL F44ILL F544ILL	Standard Fixture Wattages 60 56 144 112 112 112 72 27 112 112 112 27 112 60	0.60 0.17 2.16 0.56 1.34 1.34 0.36 0.03 1.34 1.57 0.90 0.03 1.68	SW SW SW SW SW SW SW SW SW SW SW SW	for the usage group 2080 2600 2600 2600 2600 2600 1560 3120 2600 2600 2600 3120 2600 2600 2600	1,248 437 5,616 1,456 3,494 3,494 562 84 3,494 4,077 2,330 84	NONE	
115 6LED 18LED 18LED 18LED 18LED 133 18LED	Main Office Main Office Main Office C-25 C-20 Prep Room Women's Faculty Lavatory C-22 C-27 C-24 Men's Restroom C-29 Boys' Restroom Custodial Girls' Restroom C-26 C-28 C-31 C-31 C-31 C-33 C-30 C-32	Office Office Office Office Office Classroom Classroom Storage Area Restroom Classroom Classroom Classroom Restroom Classroom	retrofit 10 3 15 5 12 12 12 12 14 8 1 15 6 1 6 8 8	W 20 C F 2 T 34 R F 4 (MAG) T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE) W 34 C F 2 (MAG) CF 26 T 32 R F 4 (ELE) W 32 C F 2 (ELE) U 32 C F 2 (ELE) W 32 C F 2 (ELE)	F22SS F44EE F44ILL F44ILL F44ILL F44ILL F42EE CFQ26/1-L F44ILL F44ILL CFQ26/1-L F44ILL F44ILL CFQ26/1-L F44ILL F44ILL F44ILL F475/1	Wattages 60 56 144 112 112 112 27 112 112 112 27 112 112 1	0.17 2.16 0.56 1.34 1.34 0.36 0.03 1.34 1.57 0.90 0.03 1.68	SW S	2080 2600 2600 2600 2600 2600 2600 1560 3120 2600 2600 2600 2600 3120 2600	437 5,616 1,456 3,494 3,494 562 84 3,494 4,077 2,330 84	C-OCC C-OCC C-OCC C-OCC C-OCC C-OCC C-OCC C-OCC C-OCC C-OCC	
115 6LED 18LED 18LED 18LED 18LED 133 18LED	Main Office Main Office Main Office C-25 C-20 Prep Room Women's Faculty Lavatory C-22 C-27 C-24 Men's Restroom C-29 Boys' Restroom Custodial Girls' Restroom C-26 C-28 C-31 C-31 C-31 C-33 C-30 C-32	Office Office Office Office Office Classroom Classroom Storage Area Restroom Classroom Classroom Classroom Restroom Classroom	3 15 5 12 12 5 1 1 12 14 8 1 15 6 6	W 20 C F 2 T 34 R F 4 (MAG) T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE) W 34 C F 2 (MAG) CF 26 T 32 R F 4 (ELE) W 32 C F 2 (ELE) U 32 C F 2 (ELE) W 32 C F 2 (ELE)	F22SS F44EE F44ILL F44ILL F44ILL F44ILL F42EE CFQ26/1-L F44ILL F44ILL CFQ26/1-L F44ILL F44ILL CFQ26/1-L F44ILL F44ILL F44ILL F475/1	60 56 144 112 112 112 72 27 112 112 112	0.17 2.16 0.56 1.34 1.34 0.36 0.03 1.34 1.57 0.90 0.03 1.68	SW S	2600 2600 2600 2600 2600 1560 3120 2600 2600 2600 3120 2600	437 5,616 1,456 3,494 3,494 562 84 3,494 4,077 2,330 84	C-OCC C-OCC C-OCC C-OCC C-OCC C-OCC C-OCC C-OCC C-OCC C-OCC	
115 6LED 18LED 18LED 18LED 18LED 133 18LED	Main Office Main Office Main Office C-25 C-20 Prep Room Women's Faculty Lavatory C-22 C-27 C-24 Men's Restroom C-29 Boys' Restroom Custodial Girls' Restroom C-26 C-28 C-31 C-31 C-31 C-33 C-30 C-32	Office Office Office Office Office Classroom Classroom Storage Area Restroom Classroom Classroom Classroom Restroom Classroom	3 15 5 12 12 5 1 1 12 14 8 1 15 6 6	W 20 C F 2 T 34 R F 4 (MAG) T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE) W 34 C F 2 (MAG) CF 26 T 32 R F 4 (ELE) W 32 C F 2 (ELE) U 32 C F 2 (ELE) W 32 C F 2 (ELE)	F22SS F44EE F44ILL F44ILL F44ILL F44ILL F42EE CFQ26/1-L F44ILL F44ILL CFQ26/1-L F44ILL F44ILL CFQ26/1-L F44ILL F44ILL F44ILL F475/1	56 144 112 112 112 72 27 112 112 112 27 112 60	0.17 2.16 0.56 1.34 1.34 0.36 0.03 1.34 1.57 0.90 0.03 1.68	SW S	2600 2600 2600 2600 2600 1560 3120 2600 2600 2600 3120 2600	437 5,616 1,456 3,494 3,494 562 84 3,494 4,077 2,330 84	C-OCC C-OCC C-OCC C-OCC C-OCC C-OCC C-OCC C-OCC C-OCC C-OCC	
6LED 18LED 18LED 18LED 18LED 133 18LED	Main Office	Office Office Office Classroom Classroom Storage Area Restroom Classroom Classroom Classroom Classroom Restroom Classroom	5 12 12 5 1 1 12 14 8 1 1 15 6 1 6 8 8	T 34 R F 4 (MAG) T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE) W 34 C F 2 (MAG) CF 26 T 32 R F 4 (ELE) W 32 C F 2 (ELE) UW 32 C F 2 (ELE) W 32 C F 2 (ELE)	F44EE F44ILL F44ILL F44ILL F44ILL F44EE CFQ26/1-L F44ILL	144 112 112 112 72 27 112 112 112 112 27 112 60	2.16 0.56 1.34 1.34 0.36 0.03 1.34 1.57 0.90 0.03 1.68	SW SW SW SW SW SW SW SW SW SW	2600 2600 2600 2600 1560 3120 2600 2600 2600 3120 2600	5,616 1,456 3,494 3,494 562 84 3,494 4,077 2,330 84	C-OCC C-OCC C-OCC C-OCC C-OCC C-OCC C-OCC C-OCC C-OCC	
18LED 18LED 18LED 133 18LED 18	C-25	Classroom Classroom Storage Area Restroom Classroom Classroom Classroom Restroom Classroom Restroom Classroom Restroom Classroom	12 12 5 1 12 12 14 8 1 15 6 8 8	T 32 R F 4 (ELE) T 32 R F 4 (ELE) W 34 C F 2 (MAG) CF 26 T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE) CF 26 T 32 R F 4 (ELE) W 32 C F 2 (ELE) I 75 W 32 C F 2 (ELE)	F44ILL F44ILL F42EE CFQ26/1-L F44ILL F44ILL F44ILL CFQ26/1-L F44ILL CFQ26/1-L F44ILL F42LL F42LL	112 112 72 27 112 112 112 27 112 60	1.34 1.34 0.36 0.03 1.34 1.57 0.90 0.03 1.68	SW SW SW SW SW SW SW SW SW	2600 2600 1560 3120 2600 2600 2600 3120 2600	3,494 3,494 562 84 3,494 4,077 2,330 84	C-OCC C-OCC C-OCC C-OCC C-OCC C-OCC C-OCC	
18LED 52LED 133 18LED	C-20 Prep Room Women's Faculty Lavatory C-22 C-27 C-24 Men's Restroom C-29 Boys' Restroom Custodial Girls' Restroom C-26 C-28 C-31 C-31 C-31 C-31 C-33 C-33 C-33 C-33	Classroom Storage Area Restroom Classroom Classroom Classroom Restroom Classroom Restroom Classroom Restroom Classroom	12 5 1 12 14 8 1 15 6 1 6 8 8	T 32 R F 4 (ELE) W 34 C F 2 (MAG) CF 26 T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE) CF 26 T 32 R F 4 (ELE) W 32 C F 2 (ELE) I 75 W 32 C F 2 (ELE)	F44ILL F42EE CFQ26/1-L F44ILL F44ILL F44ILL CFQ26/1-L F44ILL F44ILL 175/1	112 72 27 112 112 112 27 112 60	1.34 0.36 0.03 1.34 1.57 0.90 0.03 1.68	SW SW SW SW SW SW SW SW	2600 1560 3120 2600 2600 2600 3120 2600	3,494 562 84 3,494 4,077 2,330 84	C-OCC C-OCC C-OCC C-OCC C-OCC C-OCC	
52LED 133 18LED 18LED 18LED 133 18LED 46LED 93 46LED 18LED	Prep Room Women's Faculty Lavatory C-22 C-27 C-24 Men's Restroom C-29 Boys' Restroom Custodial Girls' Restroom C-26 C-28 C-31 C-31 C-31 C-31 C-31 C-33 C-33 C-30 C-32	Storage Area Restroom Classroom Classroom Classroom Restroom Classroom Restroom Classroom Restroom Classroom Restroom Classroom	5 1 12 14 8 1 15 6 1 6 8 8	W 34 C F 2 (MAG) CF 26 T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE) CF 26 T 32 R F 4 (ELE) W 32 C F 2 (ELE) W 32 C F 2 (ELE) W 32 C F 2 (ELE)	F42EE CFQ26/1-L F44 L F44 L F44 L CFQ26/1-L F44 L F42 L F75/1	72 27 112 112 112 27 112 60	0.36 0.03 1.34 1.57 0.90 0.03 1.68	SW SW SW SW SW SW SW	1560 3120 2600 2600 2600 2600 3120 2600	562 84 3,494 4,077 2,330 84	C-OCC C-OCC C-OCC C-OCC C-OCC	
133 18LED 18LED 18LED 133 18LED 46LED 93 46LED 18LED 18LED 18LED 18LED 18LED 115 4LED 18LED 18LED 18LED	Women's Faculty Lavatory C-22 C-27 C-24 Men's Restroom C-29 Boys' Restroom Custodial Girls' Restroom C-26 C-28 C-31 C-31 C-31 C-31 C-33 C-30 C-32	Restroom Classroom Classroom Classroom Restroom Classroom Restroom Linen/Utility/Wet/Janitor/Electrical Restroom Classroom Classroom Classroom Classroom Classroom Classroom Classroom Classroom Classroom	14 8 1 15 6 1 6 8 8	CF 26 T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE) CF 26 T 32 R F 4 (ELE) W 32 C F 2 (ELE) I 75 W 32 C F 2 (ELE)	CFQ26/1-L F44ILL F44ILL F44ILC CFQ26/1-L F44ILL F42LL I75/1	27 112 112 112 112 27 112 60	0.03 1.34 1.57 0.90 0.03 1.68	SW SW SW SW SW SW	3120 2600 2600 2600 2600 3120 2600	84 3,494 4,077 2,330 84	C-OCC C-OCC C-OCC C-OCC	
18LED 18LED 133 18LED 46LED 93 46LED 18LED 18LED 115 4LED 18LED	C-27	Classroom Classroom Restroom Classroom Restroom Restroom Linen/Utility/Wet/Janitor/Electrical Restroom Classroom Classroom Classroom Classroom Classroom Classroom Classroom	14 8 1 15 6 1 6 8 8	T 32 R F 4 (ELE) T 32 R F 4 (ELE) CF 26 T 32 R F 4 (ELE) W 32 C F 2 (ELE) I 75 W 32 C F 2 (ELE)	F44ILL F44ILL CFQ26/1-L F44ILL F42LL I75/1	112 112 27 112 60	1.57 0.90 0.03 1.68	SW SW SW SW	2600 2600 3120 2600	4,077 2,330 84	C-OCC C-OCC	
18LED 133 18LED 46LED 93 46LED 18LED 18LED 115 4LED 18LED 18LED 18LED 18LED 18LED	C-24 Men's Restroom C-29 Boys' Restroom Custodial Girls' Restroom C-26 C-28 C-31 C-31 C-31 C-31 C-31 C-31 C-33 C-30 C-32	Classroom Restroom Classroom Restroom Linen/Utility/Wet/Janitor/Electrical Restroom Classroom Classroom Classroom Classroom Classroom Classroom Classroom Classroom	8 1 1 15 6 1 1 6 8 8 8	T 32 R F 4 (ELE) CF 26 T 32 R F 4 (ELE) W 32 C F 2 (ELE) I 75 W 32 C F 2 (ELE)	F44ILL CFQ26/1-L F44ILL F42LL 175/1	112 27 112 60	0.90 0.03 1.68	SW SW SW	2600 3120 2600	2,330 84	C-OCC	
133 18LED 46LED 93 46LED 18LED 18LED 115 4LED 18LED 18LED 18LED 18LED 18LED	Men's Restroom C-29 Boys' Restroom Custodial Girls' Restroom C-26 C-28 C-31 C-31 C-31 C-31 C-33 C-30 C-32	Restroom Classroom Restroom Linen/Utility/Wet/Janitor/Electrical Restroom Classroom Classroom Classroom Classroom Classroom Classroom Classroom	15 6 1 6 8 8	CF 26 T 32 R F 4 (ELE) W 32 C F 2 (ELE) I 75 W 32 C F 2 (ELE)	CFQ26/1-L F44ILL F42LL I75/1	27 112 60	0.03 1.68	SW SW	3120 2600	84	C-OCC	
18LED 46LED 93 46LED 18LED 115 4LED 18LED	C-29 Boys' Restroom Custodial Girls' Restroom C-26 C-28 C-31 C-31 C-31 C-31 C-31 C-30 C-30 C-32	Classroom Restroom Linen/Utility/Wet/Janitor/Electrical Restroom Classroom Classroom Classroom Classroom Classroom Classroom Classroom	6 1 6 8	T 32 R F 4 (ELE) W 32 C F 2 (ELE) I 75 W 32 C F 2 (ELE)	F44ILL F42LL I75/1	112 60	1.68	SW	2600			1
93 46LED 18LED 18LED 115 4LED 18LED 18LED 18LED 18LED 18LED	Custodial Girls' Restroom C-26 C-28 C-31 C-31 C-31 C-31 C-31 C-31 C-32	Linen/Utility/Wet/Janitor/Electrical Restroom Classroom Classroom Classroom Classroom Classroom Classroom	8 8	I 75 W 32 C F 2 (ELE)	175/1		0.36	CIVI				
46LED 18LED 18LED 115 4LED 18LED 18LED 18LED 18LED 18LED	Girls' Restroom C-26 C-28 C-31 C-31 C-31 C-33 C-30 C-32	Restroom Classroom Classroom Classroom Classroom Classroom Classroom	8 8	W 32 C F 2 (ELE)		75		_	3120	1,123	C-OCC	
18LED 18LED 18LED 115 4LED 18LED 18LED 18LED 18LED 18LED	C-26 C-28 C-31 C-31 C-31 C-33 C-30 C-32	Classroom Classroom Classroom Classroom Classroom Classroom	8 8	/	FA:71 1		0.08	SW	1560	117	NONE	
18LED 18LED 115 4LED 18LED 18LED 18LED 18LED 18LED	C-28 C-31 C-31 C-31 C-31 C-33 C-30 C-32	Classroom Classroom Classroom Classroom	8		F42LL F44ILL	60 112	0.36 0.90	SW SW	3120 2600	1,123 2,330	C-OCC	
115 4LED 18LED 18LED 18LED 18LED	C-31 C-31 C-33 C-30 C-32	Classroom Classroom	8	T 32 R F 4 (ELE)	F44ILL	112	0.90	SW	2600	2,330	C-OCC	
4LED 18LED 18LED 18LED 18LED	C-31 C-33 C-30 C-32	Classroom		T 32 R F 4 (ELE)	F44ILL	112	0.90	SW	2600	2,330	C-OCC	
18LED 18LED 18LED 18LED	C-33 C-30 C-32		2	W 20 C F 2	F22SS	56	0.11	SW	2600	291	C-OCC	
18LED 18LED 18LED	C-30 C-32	Classroom	9	2B 34 R F 2 (u) (MAG) T 32 R F 4 (ELE)	FU2EE F44ILL	72 112	0.07 1.01	SW SW	2600 2600	187 2,621	C-OCC	
18LED 18LED		Classroom	8	T 32 R F 4 (ELE)	F44ILL	112	0.90	SW	2600	2,330	C-OCC	
	C 25	Classroom	8	T 32 R F 4 (ELE)	F44ILL	112	0.90	SW	2600	2,330	C-OCC	
18LED		Classroom	9	T 32 R F 4 (ELE)	F44ILL	112	1.01	SW	2600	2,621	C-OCC	
35LED	C-34 Walkway	Classroom Hallway	32	T 32 R F 4 (ELE) T 32 R F 3 (ELE)	F44ILL F43ILL/2	112 90	0.45 2.88	SW SW	2600 3640	1,165 10,483	C-OCC	
18LED	Walkway	Hallway	1	T 32 R F 4 (ELE)	F44ILL	112	0.11	SW	3640	408	C-OCC	
46LED	Elevator 1	Hallway	2	W 32 C F 2 (ELE)	F42LL	60	0.12	SW	3640	437	C-OCC	
35LED	F Corridor	Hallway	26	T 32 R F 3 (ELE)	F43ILL/2	90	2.34	SW	3640	8,518	C-OCC	
115 18LED	F-208 F-208	Classroom Classroom	3	W 20 C F 2 T 32 R F 4 (ELE)	F22SS F44ILL	56 112	0.17 1.01	SW SW	2600 2600	437 2,621	C-OCC	
18LED	Teachers Lounge	Staff Lounge	3	T 32 R F 4 (ELE)	F44ILL	112	0.34	SW	2600	874	C-OCC	
18LED	F-210	Classroom	8	T 32 R F 4 (ELE)	F44ILL	112	0.90	SW	2600	2,330	C-OCC	
115	F-210	Classroom	4	W 20 C F 2	F22SS	56	0.22	SW	2600	582	C-OCC	
18LED 115	F-206 (locked - no entry) F-206 (locked - no entry)	Classroom Classroom	9	T 32 R F 4 (ELE) W 20 C F 2	F44ILL F22SS	112 56	1.01 0.11	SW SW	2600 2600	2,621 291	C-OCC	
18LED	F-209 (locked - no entry)	Classroom	8	T 32 R F 4 (ELE)	F44ILL	112	0.90	SW	2600	2,330	C-OCC	
115	F-209 (locked - no entry)	Classroom	4	W 20 C F 2	F22SS	56	0.22	SW	2600	582	C-OCC	
18LED	F-207	Classroom	9	T 32 R F 4 (ELE)	F44ILL	112	1.01	SW	2600	2,621	C-OCC	
115 18LED	F-207 F-204	Classroom Classroom	9	W 20 C F 2 T 32 R F 4 (ELE)	F22SS F44ILL	56 112	0.17 1.01	SW SW	2600 2600	437 2,621	C-OCC	
115	F-204	Classroom	2	W 20 C F 2	F22SS	56	0.11	SW	2600	2,021	C-OCC	
18LED	F-202	Classroom	9	T 32 R F 4 (ELE)	F44ILL	112	1.01	SW	2600	2,621	C-OCC	
115	F-202	Classroom	2	W 20 C F 2	F22SS	56	0.11	SW	2600	291	C-OCC	
18LED 115	F-205 (locked - no entry) F-205 (locked - no entry)	Classroom Classroom	9 2	T 32 R F 4 (ELE) W 20 C F 2	F44ILL F22SS	112 56	1.01 0.11	SW SW	2600 2600	2,621 291	C-OCC	
18LED	F-203 (locked - no entry)	Classroom	9	T 32 R F 4 (ELE)	F2233 F44ILL	112	1.01	SW	2600	2,621	C-OCC	
115	F-203 (locked - no entry)	Classroom	2	W 20 C F 2	F22SS	56	0.11	SW	2600	291	C-OCC	
18LED	F-201 (locked - no entry)	Classroom	8	T 32 R F 4 (ELE)	F44ILL	112	0.90	SW	2600	2,330	C-OCC	
115 18LED	F-201 (locked - no entry) Men's Restroom (locked - no entry)	Classroom Restroom	3	W 20 C F 2 T 32 R F 4 (ELE)	F22SS F44ILL	56 112	0.22 0.34	SW SW	2600 3120	582 1,048	C-OCC	
18LED	Women's Restroom (locked - no entry)	Restroom	3	T 32 R F 4 (ELE)	F44ILL	112	0.34	SW	3120	1,048	C-OCC	
18LED	F-212	Classroom	5	T 32 R F 4 (ELE)	F44ILL	112	0.56	SW	2600	1,456	C-OCC	
115	F-212	Classroom	1	W 20 C F 2	F22SS	56	0.06	SW	2600	146	C-OCC	
18LED	Men's Staff Restroom (locked - no entry) Women's Staff Restroom (locked - no entry)	Restroom Restroom	3	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	0.34 0.34	SW SW	3120 3120	1,048 1,048	C-OCC	
35LED	Corridor Outside F-212	Hallway	11	T 32 R F 3 (ELE)	F44ILL F43ILL/2	90	0.99	SW	3640	3,604	C-OCC	
35LED	Corridor to B	Hallway	3	T 32 R F 3 (ELE)	F43ILL/2	90	0.27	SW	3640	983	C-OCC	
18LED	Corridor B	Hallway	20	T 32 R F 4 (ELE)	F44ILL	112	2.24	SW	3640	8,154	C-OCC	
18LED	B-19 (locked - no entry) B-21	Classroom Classroom	12	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	1.34 1.34	SW SW	2600 2600	3,494 3,494	C-OCC	
18LED	B-23 (locked - no entry)	Classroom	12	T 32 R F 4 (ELE)	F44ILL F44ILL	112	1.34	SW	2600	3,494	C-OCC	
18LED	B-25 (locked - no entry)	Classroom	12	T 32 R F 4 (ELE)	F44ILL	112	1.34	SW	2600	3,494	C-OCC	
18LED	B-20	Classroom	12	T 32 R F 4 (ELE)	F44ILL	112	1.34	SW	2600	3,494	C-OCC	
133	Women's Staff Restroom (locked - no entry)	Restroom	1	CF 26	CFQ26/1-L	27	0.03	SW	3120	84	C-OCC	
18LED	B-22 B-27	Classroom Classroom	12	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	1.34 1.34	SW SW	2600 2600	3,494 3,494	C-OCC	

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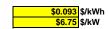


			EXISTING CONDITIONS								
			No. of			Watts per					Retrofit Control
Field U	Area Description nique description of the location - Room number/Room	Usage Describe Usage Type	Fixtures No. of	Standard Fixture Code Lighting Fixture Code	Fixture Code Code from Table of Standard	Fixture Value from	kW/Space (Watts/Fixt) * (Fixt	Exist Control Pre-inst. control	Annual Hours Estimated	Annual kWh (kW/space) *	Retrofit control Notes
Code	name: Floor number (if applicable)	using Operating Hours	fixtures	Lighting Fixture Code	Fixture Wattages	Table of	No.)	device	annual hours	(Annual Hours)	device
			before the			Standard			for the usage		
			retrofit			Fixture			group		
4LED	B-27	Classroom	2	2B 34 R F 2 (u) (MAG)	FU2EE	Wattages 72	0.14	SW	2600	374	C-OCC
52LED	Prep Room	Storage Area	5	W 34 C F 2 (MAG)	F42EE	72	0.36	SW	1560	562	C-OCC
133	Men's Staff Restroom	Restroom	1	CF 26	CFQ26/1-L	27	0.03	SW	3120	84	C-OCC
46LED 18LED	Men's Restroom B-29	Restroom Classroom	<u>6</u> 8	W 32 C F 2 (ELE) T 32 R F 4 (ELE)	F42LL F44ILL	60 112	0.36 0.90	SW SW	3120 2600	1,123 2,330	C-OCC C-OCC
X5	Custodial Room	Linen/Utility/Wet/Janitor/Electrical	1	CF42/1	CF42/1-I	48	0.05	SW	1560	75	NONE
46LED	Girls' Restroom	Restroom	6	W 32 C F 2 (ELE)	F42LL	60	0.36	SW	3120	1,123	C-OCC
18LED	B-26 B-28	Classroom	16	T 32 R F 4 (ELE)	F44ILL F44ILL	112	1.79	SW	2600	4,659	C-0CC
18LED 18LED	B-30	Classroom Classroom	16 8	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	1.79 0.90	SW SW	2600 2600	4,659 2,330	C-OCC C-OCC
18LED	B-31	Classroom	8	T 32 R F 4 (ELE)	F44ILL	112	0.90	SW	2600	2,330	C-OCC
115	B-31	Classroom	4	W 20 C F 2	F22SS	56	0.22	SW	2600	582	C-OCC
18LED	B-33	Classroom	8	T 32 R F 4 (ELE)	F44ILL	112	0.90	SW	2600	2,330	C-0CC
18LED	B-32 B-35	Classroom Classroom	8	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	0.90 0.90	SW SW	2600 2600	2,330 2,330	C-OCC C-OCC
18LED	B-34	Classroom	4	T 32 R F 4 (ELE)	F44ILL	112	0.45	SW	2600	1,165	C-OCC
18LED	A Corridor	Hallway	23	T 32 R F 4 (ELE)	F44ILL	112	2.58	SW	3640	9,377	C-OCC
18LED 18LED	A-24 A-25	Classroom Classroom	12 12	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	1.34 1.34	SW SW	2600 2600	3,494 3,494	C-OCC C-OCC
18LED	A-25 A-26	Classroom	10	T 32 R F 4 (ELE)	F44ILL	112	1.12	SW	2600	2,912	C-OCC
15LED	Electrical Room (locked - no entry)	Mechanical Room	8	S 32 C F 2 (ELE)	F42LL	60	0.48	SW	2080	998	NONE
18LED	A-27	Classroom	11	T 32 R F 4 (ELE)	F44ILL	112	1.23	SW	2600	3,203	C-OCC
18LED	A-28 A-29	Classroom	12	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	1.34 1.34	SW SW	2600 2600	3,494 3,494	C-OCC C-OCC
18LED	B Stairway	Classroom Hallway	12 4	T 32 R F 4 (ELE)	F44ILL	112	0.45	SW	3640	1,631	C-OCC
52LED	B Stairway	Hallway	3	W 34 C F 2 (MAG)	F42EE	72	0.22	SW	3640	786	C-OCC
18LED	C Wing Corridor	Hallway	25	T 32 R F 4 (ELE)	F44ILL	112	2.80	SW	3640	10,192	C-OCC
217LED 18LED	C Wing Corridor Attenance Office	Hallway Office	4	2B 17 R F 4 (ELE) T 32 R F 4 (ELE)	F24ILL F44ILL	61 112	0.06 0.45	SW SW	3640 2600	222 1,165	C-OCC C-OCC
18LED	C-01	Classroom	11	T 32 R F 4 (ELE)	F44ILL	112	1.23	SW	2600	3,203	C-OCC
18LED	C-02	Classroom	12	T 32 R F 4 (ELE)	F44ILL	112	1.34	SW	2600	3,494	C-OCC
18LED	C-03	Classroom	16	T 32 R F 4 (ELE)	F44ILL	112	1.79	SW	2600	4,659	C-OCC
18LED	C-04 C-06	Classroom Classroom	16 15	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	1.79 1.68	SW SW	2600 2600	4,659 4,368	C-OCC C-OCC
18LED	C-06 Closet	Linen/Utility/Wet/Janitor/Electrical	1	T 32 R F 4 (ELE)	F44ILL	112	0.11	SW	1560	175	NONE
18LED	C-05	Classroom	16	T 32 R F 4 (ELE)	F44ILL	112	1.79	SW	2600	4,659	C-OCC
18LED	Boys' Restroom Girls' Restroom	Restroom	3	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	0.34 0.34	SW SW	3120 3120	1,048 1,048	C-OCC C-OCC
18LED	C-07	Restroom Classroom	15	T 32 R F 4 (ELE)	F44ILL	112	1.68	SW	2600	4,368	C-OCC
133	Women's Staff Restroom	Restroom	1	CF 26	CFQ26/1-L	27	0.03	SW	3120	84	C-OCC
35LED	D Corridor	Hallway	28	T 32 R F 3 (ELE)	F43ILL/2	90	2.52	SW	3640	9,173	C-OCC
35LED 18LED	F Wing Corridor F-108	Hallway Classroom	40 9	T 32 R F 3 (ELE) T 32 R F 4 (ELE)	F43ILL/2 F44ILL	90	3.60 1.01	SW SW	3640 2600	13,104 2,621	C-OCC C-OCC
115	F-108	Classroom	2	W 20 C F 2	F22SS	56	0.11	SW	2600	291	C-OCC
18LED	F-111	Classroom	4	T 32 R F 4 (ELE)	F44ILL	112	0.45	SW	2600	1,165	C-OCC
18LED	F-110	Classroom	9	T 32 R F 4 (ELE)	F44ILL	112	1.01	SW	2600	2,621	C-OCC
115 18LED	F-110 F-106	Classroom Classroom	9	W 20 C F 2 T 32 R F 4 (ELE)	F22SS F44ILL	56 112	0.17 1.01	SW SW	2600 2600	437 2,621	C-OCC C-OCC
115	F-106	Classroom	3	W 20 C F 2	F22SS	56	0.17	SW	2600	437	C-OCC
18LED	F-109	Classroom	9	T 32 R F 4 (ELE)	F44ILL	112	1.01	SW	2600	2,621	C-OCC
115 18LED	F-109 F-107	Classroom Classroom	1	W 20 C F 2 T 32 R F 4 (ELE)	F22SS F44ILL	56 112	0.06 1.01	SW SW	2600 2600	146 2,621	C-OCC C-OCC
18LED	F-107 F-107	Classroom	3	W 20 C F 2	F22SS	112 56	0.17	SW	2600	437	C-OCC C-OCC
18LED	F-104	Classroom	9	T 32 R F 4 (ELE)	F44ILL	112	1.01	SW	2600	2,621	C-OCC
115	F-104	Classroom	3	W 20 C F 2	F22SS	56	0.17	SW	2600	437	C-OCC
18LED 115	F-102 F-102	Classroom Classroom	9	T 32 R F 4 (ELE) W 20 C F 2	F44ILL F22SS	112 56	1.01 0.17	SW SW	2600 2600	2,621 437	C-OCC C-OCC
18LED	F-102 F-105	Classroom	9	T 32 R F 4 (ELE)	F22SS F44ILL	112	1.01	SW	2600	2,621	C-OCC
115	F-105	Classroom	3	W 20 C F 2	F22SS	56	0.17	SW	2600	437	C-OCC
18LED	F-103	Classroom	9	T 32 R F 4 (ELE)	F44ILL	112	1.01	SW	2600	2,621	C-OCC
115 18LED	F-103 Men's Staff Restroom (locked - no entry)	Classroom Restroom	3	W 20 C F 2 T 32 R F 4 (ELE)	F22SS F44ILL	56 112	0.17 0.34	SW SW	2600 3120	437 1,048	C-OCC C-OCC
18LED	Women's Staff Restroom (locked - no entry)	Restroom	3	T 32 R F 4 (ELE)	F44ILL	112	0.34	SW	3120	1,048	C-OCC
15LED	Electrical Room (locked - no entry)	Mechanical Room	8	S 32 C F 2 (ELE)	F42LL	60	0.48	SW	2080	998	NONE
133	Janitor (locked - no entry)	Linen/Utility/Wet/Janitor/Electrical		CF 26	CFQ26/1-L	27	0.03	SW	1560	42	NONE
18LED 115	F-101 F-101	Classroom Classroom	9	T 32 R F 4 (ELE) W 20 C F 2	F44ILL F22SS	112 56	1.01 0.17	SW SW	2600 2600	2,621 437	C-OCC C-OCC
18LED	F-Stairway	Hallway	6	T 32 R F 4 (ELE)	F44ILL	112	0.67	SW	3640	2,446	C-OCC
				\ /						_,	



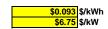
					EXISTIN					-	1	
			No. of			Watts per					Retrofit Control	
	Area Description	Usage	Fixtures	Standard Fixture Code	Fixture Code	Fixture	kW/Space	Exist Control	Annual Hours	Annual kWh		N
Field Code	Unique description of the location - Room number/Room name: Floor number (if applicable)	Describe Usage Type using Operating Hours	No. of fixtures	Lighting Fixture Code	Code from Table of Standard Fixture Wattages	Value from Table of	(Watts/Fixt) * (Fixt No.)	Pre-inst. control device	Estimated annual hours	(kW/space) * (Annual Hours)	Retrofit contro device	I Notes
Oodo	manie: riodi namber (n'apphoable)	doing operating floars	before the		Tixture Truttages	Standard	110.)	dovido	for the usage	(Filliadi Filodi 5)	device	
			retrofit			Fixture			group			
201 ED	F. Consider	Helboon	50	0.00 0.54 (51.5)	E4411	Wattages	4.00	CVA	2040	5.004	0.000	
20LED 20LED	F Corridor F Corridor	Hallway Hallway	50 26	S 32 C F 1 (ELE) S 32 C F 1 (ELE)	F41LL F41LL	32 32	1.60 0.83	SW SW	3640 3640	5,824 3,028	C-OCC	-
18LED	Boys' Restroom	Restroom	2	T 32 R F 4 (ELE)	F44ILL	112	0.22	SW	3120	699	C-OCC	
18LED	Girls' Restroom	Restroom	2	T 32 R F 4 (ELE)	F44ILL	112	0.22	SW	3120	699	C-OCC	
46LED	BB Corridor	Hallway	18	W 32 C F 2 (ELE)	F42LL	60	1.08	SW	3640	3,931	C-OCC	
18LED 18LED	BB-8 BB-6	Classroom Classroom	12 12	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	1.34 1.34	SW SW	2600 2600	3,494 3,494	C-OCC	-
18LED	BB-7	Classroom	12	T 32 R F 4 (ELE)	F44ILL	112	1.34	SW	2600	3,494	C-OCC	
18LED	BB-5	Classroom	12	T 32 R F 4 (ELE)	F44ILL	112	1.34	SW	2600	3,494	C-OCC	
18LED 18LED	BB-4 BB-3	Classroom Classroom	20 12	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	2.24 1.34	SW SW	2600 2600	5,824 3,494	C-OCC	
18LED	BB-1	Classroom	12	T 32 R F 4 (ELE)	F44ILL F44ILL	112	1.34	SW	2600	3,494	C-OCC	
18LED	BB-2	Classroom	20	T 32 R F 4 (ELE)	F44ILL	112	2.24	SW	2600	5,824	C-OCC	
46LED	Women's Staff Restroom	Restroom	4	W 32 C F 2 (ELE)	F42LL	60	0.24	SW	3120	749	C-OCC	
52LED 46LED	Custodial Room Men's Staff Restroom	Linen/Utility/Wet/Janitor/Electrical Restroom	4	W 34 C F 2 (MAG) W 32 C F 2 (ELE)	F42EE F42LL	72 60	0.07 0.24	SW SW	1560 3120	112 749	NONE C-OCC	4
18LED	Storage Room (locked - no entry)	Storage Area	2	T 32 R F 4 (ELE)	F42LL F44ILL	112	0.24	SW	1560	349	C-OCC	1
15LED	Elevator Equipment (locked - no entry)	Linen/Utility/Wet/Janitor/Electrical	1	S 32 C F 2 (ELE)	F42LL	60	0.06	SW	1560	94	NONE	
15LED	Storage Room (locked - no entry)	Storage Area	2	S 32 C F 2 (ELE)	F42LL	60	0.12	SW	1560	187	C-OCC	
18LED 217LED	B Corridor 1 B Corridor 1	Hallway Hallway	21	T 32 R F 4 (ELE) 2B 17 R F 4 (ELE)	F44ILL F24ILL	112 61	2.35 0.06	SW SW	3640 3640	8,561 222	C-OCC	
18LED	B-14	Classroom	16	T 32 R F 4 (ELE)	F24ILL F44ILL	112	1.79	SW	2600	4,659	C-0CC	
18LED	B-15	Classroom	4	T 32 R F 4 (ELE)	F44ILL	112	0.45	SW	2600	1,165	C-OCC	
18LED	B-13	Classroom	4	T 32 R F 4 (ELE)	F44ILL	112	0.45	SW	2600	1,165	C-OCC	
18LED 18LED	B-11 B-12	Classroom Classroom	12	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	1.34 0.90	SW SW	2600 2600	3,494 2,330	C-OCC	
18LED	B-09	Classroom	12	T 32 R F 4 (ELE)	F44ILL	112	1.34	SW	2600	3,494	C-OCC	
115	B-09	Classroom	3	W 20 C F 2	F22SS	56	0.17	SW	2600	437	C-OCC	
18LED	B-10	Classroom	8	T 32 R F 4 (ELE)	F44ILL	112	0.90	SW	2600	2,330	C-OCC	
18LED 115	B-08 B-08	Classroom Classroom	5 3	T 32 R F 4 (ELE) W 20 C F 2	F44ILL F22SS	112 56	0.56 0.17	SW SW	2600 2600	1,456 437	C-OCC	
133	Custodial Room (locked - no entry)	Linen/Utility/Wet/Janitor/Electrical	1	CF 26	CFQ26/1-L	27	0.03	SW	1560	42	NONE	
4LED	Men's Staff Restroom	Restroom	1	2B 34 R F 2 (u) (MAG)	FU2EE	72	0.07	SW	3120	225	C-OCC	
133	Storage	Storage Area	1	CF 26	CFQ26/1-L	27	0.03	SW	1560	42	C-OCC	
18LED 104LED	Girls' Restroom Girls' Restroom	Restroom Restroom	2	T 32 R F 4 (ELE) S 32 PC F 1	F44ILL F41LL	112 32	0.22 0.03	SW SW	3120 3120	699 100	C-OCC	-
4LED	Women's Staff Restroom	Restroom	1	2B 34 R F 2 (u) (MAG)	FU2EE	72	0.07	SW	3120	225	C-OCC	
18LED	Boys' Restroom	Restroom	2	T 32 R F 4 (ELE)	F44ILL	112	0.22	SW	3120	699	C-OCC	
104LED 18LED	Boys' Restroom	Restroom Classroom	1 15	S 32 PC F 1 T 32 R F 4 (ELE)	F41LL F44ILL	32	0.03 1.68	SW SW	3120 2600	100 4,368	C-OCC	
115	B-07 B-07	Classroom	3	W 20 C F 2	F22SS	112 56	0.17	SW	2600	4,366	C-OCC	
18LED	B-06	Classroom	12	T 32 R F 4 (ELE)	F44ILL	112	1.34	SW	2600	3,494	C-OCC	
18LED	B-05	Classroom	15	T 32 R F 4 (ELE)	F44ILL	112	1.68	SW	2600	4,368	C-OCC	
18LED 18LED	B-04 Teacher's Lounge B-03	Staff Lounge Classroom	13 16	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	1.46 1.79	SW SW	2600 2600	3,786 4,659	C-OCC	
18LED	B-03	Classroom	10	T 32 R F 4 (ELE)	F44ILL F44ILL	112	1.12	SW	2600	2,912	C-OCC	1
18LED	B-02	Classroom	11	T 32 R F 4 (ELE)	F44ILL	112	1.23	SW	2600	3,203	C-OCC	
18LED	Lower A Classroom	Classroom	3	T 32 R F 4 (ELE)	F44ILL	112	0.34	SW	2600	874	C-OCC	
18LED 46LED	Lower A Stairs Lower A Stairs	Hallway Hallway	3	T 32 R F 4 (ELE) W 32 C F 2 (ELE)	F44ILL F42LL	112 60	0.22 0.18	SW SW	3640 3640	815 655	C-OCC	+
18LED	A Wing Corridor	Hallway	27	T 32 R F 4 (ELE)	F42LL F44ILL	112	3.02	SW	3640	11,007	C-OCC	
52LED	Storage (locked - no entry)	Storage Área	2	W 34 C F 2 (MAG)	F42EE	72	0.14	SW	1560	225	C-OCC	
133	Men's Staff Restroom	Restroom	1	CF 26	CFQ26/1-L	27	0.03	SW	3120	84		
18LED 133	A-01 Women's Staff Restroom	Classroom Restroom	1	T 32 R F 4 (ELE) CF 26	F44ILL CFQ26/1-L	112 27	0.78 0.03	SW SW	2600 3120	2,038 84	C-OCC	+
18LED	A-02	Classroom	7	T 32 R F 4 (ELE)	F44ILL	112	0.78	SW	2600	2,038	C-OCC	
18LED	Boys' Restroom	Restroom	2	T 32 R F 4 (ELE)	F44ILL	112	0.22	SW	3120	699	C-OCC	
133	Custodial	Linen/Utility/Wet/Janitor/Electrical	1	CF 26	CFQ26/1-L	27	0.03	SW	1560	42	NONE	
93 18LED	Custodial Girls' Restroom	Linen/Utility/Wet/Janitor/Electrical Restroom	2	I 75 T 32 R F 4 (ELE)	175/1 F44ILL	75 112	0.08 0.22	SW SW	1560 3120	117 699	NONE C-OCC	
52LED	A-04 Music Room	Classroom	50	W 34 C F 2 (MAG)	F44ILL F42EE	72	3.60	SW	2600	9,360	C-OCC	1
52LED	A-04 Storage	Storage Area	2	W 34 C F 2 (MAG)	F42EE	72	0.14	SW	1560	225	C-OCC	
52LED	A-04 Instruments	Storage Area	2	W 34 C F 2 (MAG)	F42EE	72	0.14	SW	1560	225	C-OCC	
52LED	A-04 Storage	Storage Area	3	W 34 C F 2 (MAG)	F42EE F42EE	72	0.14	SW SW	1560 1560	225 337	C-0CC	4
52LED 52LED	A-04 Sheet Music Storage A-04 Office	Storage Area Storage Area	2	W 34 C F 2 (MAG) W 34 C F 2 (MAG)	F42EE F42EE	72 72	0.22 0.14	SW	1560	225	C-OCC	+
93	A-04 Instruments	Storage Area	3	I 75	175/1	75	0.23	SW	1560	351	C-OCC	
52LED	A-02 (locked - no entry)	Classroom	40	W 34 C F 2 (MAG)	F42EE	72	2.88	SW	2600	7,488	C-OCC	

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					EXISTIN	IG CONDITIONS						1
			No. of			Watts per					Retrofit Control	
Field	Area Description	Usage	Fixtures	Standard Fixture Code	Fixture Code	Fixture	kW/Space	Exist Control	Annual Hours	Annual kWh		Nata
Field Code	Unique description of the location - Room number/Room name: Floor number (if applicable)	Describe Usage Type using Operating Hours	No. of fixtures	Lighting Fixture Code	Code from Table of Standard Fixture Wattages	Value from Table of	(Watts/Fixt) * (Fixt No.)	Pre-inst. control device	Estimated annual hours	(kW/space) * (Annual Hours)	Retrofit control device	Notes
Oodo	name: Floor names (ii applicable)	doing operating from 5	before the		Tixture Truttages	Standard	110.)	device	for the usage	(Amidai riodio)	devide	
			retrofit			Fixture			group			
141LED	Auditorium	Auditorium	12	HPS 250	HPS250/1	Wattages 295	3.54	SW	3120	11.045	NONE	
93	Backstage Right	Auditorium	3	175	I75/1	75	0.23	SW	3120	702	NONE	
93	Stage	Auditorium	2	l 75	175/1	75	0.15	SW	3120	468	NONE	
20LED	Backstage Left	Auditorium	1	S 32 C F 1 (ELE)	F41LL	32	0.03	SW	3120	100	NONE	
52LED 18LED	Storage Auditorium Corridor	Storage Area Hallway	3 20	W 34 C F 2 (MAG) T 32 R F 4 (ELE)	F42EE F44ILL	72 112	0.22 2.24	SW SW	1560 3640	337 8,154	C-OCC	
18LED	D-27	Classroom	12	T 32 R F 4 (ELE)	F44ILL	112	1.34	SW	2600	3,494	C-OCC	
18LED	D-16	Classroom	6	T 32 R F 4 (ELE)	F44ILL	112	0.67	SW	2600	1,747	C-OCC	
18LED	D-14 (locked - no entry)	Classroom	12	T 32 R F 4 (ELE)	F44ILL	112	1.34	SW	2600	3,494	C-OCC	
18LED 61	D-12 Office	Classroom Office	11	T 32 R F 4 (ELE) T 34 R F 3 (MAG)	F44ILL F43EE	112 115	1.23 0.23	SW SW	2600 2600	3,203 598	C-OCC	+
61	Office	Office	2	T 34 R F 3 (MAG)	F43EE	115	0.23	SW	2600	598	C-OCC	
18LED	D-21 (locked - no entry)	Classroom	12	T 32 R F 4 (ELE)	F44ILL	112	1.34	SW	2600	3,494	C-OCC	
18LED	Gold Cafeteria	Cafeteria	38	T 32 R F 4 (ELE)	F44ILL F44ILL	112	4.26	SW	2600	11,066	C-OCC	
18LED 52LED	Classroom in Cafeteria Kitchen Storage	Classroom Storage Area	12 6	T 32 R F 4 (ELE) W 34 C F 2 (MAG)	F44ILL F42EE	112 72	1.34 0.43	SW SW	2600 1560	3,494 674	C-OCC	
133	Custodial	Linen/Utility/Wet/Janitor/Electrical	1	CF 26	CFQ26/1-L	27	0.03	SW	1560	42	NONE	
52LED	Storage (locked - no entry)	Storage Area	2	W 34 C F 2 (MAG)	F42EE	72	0.14	SW	1560	225	C-OCC	
18LED 18LED	Serving Line Cafeteria	Cafeteria Cafeteria	8 54	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	0.90 6.05	SW SW	2600 2600	2,330 15,725	C-OCC	
18LED	D-19 (locked - no entry)	Office	2	T 32 R F 4 (ELE)	F44ILL F44ILL	112	0.22	SW	2600	15,725	C-OCC	
18LED	D-17 (locked - no entry)	Office	2	T 32 R F 4 (ELE)	F44ILL	112	0.22	SW	2600	582	C-OCC	
18LED	D-10 Teacher's Lounge	Staff Lounge	6	T 32 R F 4 (ELE)	F44ILL	112	0.67	SW	2600	1,747	C-OCC	
35LED 35LED	Child Study Team Office Conference Room	Office Conference	39 4	T 32 R F 3 (ELE) T 32 R F 3 (ELE)	F43ILL/2 F43ILL/2	90	3.51 0.36	SW SW	2600 1560	9,126 562	C-OCC NONE	
18LED	Main Office Corridor	Hallway	3	T 32 R F 4 (ELE)	F43ILL/2	112	0.34	SW	3640	1,223	C-OCC	
18LED	Main Office 9th (locked - no entry)	Office	12	T 32 R F 4 (ELE)	F44ILL	112	1.34	SW	2600	3,494	C-OCC	
133	Main Office Restroom	Restroom	1	CF 26	CFQ26/1-L	27	0.03	SW	3120	84	C-OCC	
18LED 18LED	Main Office 11th (locked - no entry) Main Office 12th (locked - no entry)	Office Office	12 12	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	1.34 1.34	SW SW	2600 2600	3,494 3,494	C-OCC	
18LED	Main Office 10th	Office	5	T 32 R F 4 (ELE)	F44ILL	112	0.56	SW	2600	1,456	C-OCC	
18LED	Guidance Office 1	Office	2	T 32 R F 4 (ELE)	F44ILL	112	0.22	SW	2600	582	C-OCC	
18LED	Guidance Office 2	Office	2	T 32 R F 4 (ELE)	F44ILL	112	0.22	SW	2600	582	C-OCC	4
18LED 18LED	Guidance Office 3 Guidance Office 4	Office Office	2	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	0.22 0.22	SW SW	2600 2600	582 582	C-OCC	_
18LED	Guidance Office 5	Office	2	T 32 R F 4 (ELE)	F44ILL	112	0.22	SW	2600	582	C-OCC	
18LED	Guidance Office 6	Office	2	T 32 R F 4 (ELE)	F44ILL	112	0.22	SW	2600	582	C-OCC	
18LED 18LED	Guidance Office 7 Guidance Office 8	Office Office	2	T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	0.22 0.22	SW SW	2600 2600	582 582	C-OCC	
18LED	Guidance Office 9	Office	2	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112	0.22	SW	2600	582	C-OCC	
18LED	Guidance Office 10	Office	2	T 32 R F 4 (ELE)	F44ILL	112	0.22	SW	2600	582	C-OCC	
18LED	Guidance Office 11	Office	2	T 32 R F 4 (ELE)	F44ILL	112	0.22	SW	2600	582	C-OCC	
35LED 52LED	Break Room Break Room Storage (locked - no entry)	Staff Lounge Storage Area	2	T 32 R F 3 (ELE) W 34 C F 2 (MAG)	F43ILL/2 F42EE	90 72	0.36 0.14	SW SW	2600 1560	936 225	C-OCC	
52LED 52LED	Break Room Storage (locked - no entry) Break Room Storage (locked - no entry)	Storage Area	2	W 34 C F 2 (MAG)	F42EE F42EE	72	0.14	SW	1560	225	C-OCC	
18LED	D-15 Break Room	Staff Lounge	6	T 32 R F 4 (ELE)	F44ILL	112	0.67	SW	2600	1,747	C-OCC	
20LED	Women's Staff Restroom	Restroom	2	S 32 C F 1 (ELE)	F41LL	32	0.06	SW	3120	200		
20LED 15LED	Men's Staff Restroom Electrical Room (locked - no entry)	Restroom Mechanical Room	8	S 32 C F 1 (ELE) S 32 C F 2 (ELE)	F41LL F42LL	32 60	0.06 0.48	SW SW	3120 2080	200 998	C-OCC NONE	
18LED	D-13(locked - no entry)	Classroom	12	T 32 R F 4 (ELE)	F44ILL	112	1.34	SW	2600	3,494	C-OCC	
18LED	D-08 (locked - no entry)	Classroom	12	T 32 R F 4 (ELE)	F44ILL	112	1.34	SW	2600	3,494	C-OCC	
18LED	D-11(locked - no entry)	Classroom Classroom	12	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112	1.34 1.34	SW SW	2600 2600	3,494 3,494	C-OCC	
18LED 18LED	D-09 (locked - no entry) D-06	Classroom	12 11	T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	1.34	SW	2600	3,494	C-OCC	
18LED	D-07 (locked - no entry)	Classroom	12	T 32 R F 4 (ELE)	F44ILL	112	1.34	SW	2600	3,494	C-OCC	
61	D-05 (locked - no entry)	Classroom	2	T 34 R F 3 (MAG)	F43EE	115	0.23	SW	2600	598	C-OCC	
61 18LED	D-03 (locked - no entry) D-04	Classroom Classroom	2 11	T 34 R F 3 (MAG) T 32 R F 4 (ELE)	F43EE F44ILL	115 112	0.23 1.23	SW SW	2600 2600	598 3,203	C-OCC	
18LED	D-04 D-01 (locked - no entry)	Classroom	12	T 32 R F 4 (ELE)	F44ILL F44ILL	112	1.23	SW	2600	3,203	C-OCC	
18LED	D-02	Classroom	6	T 32 R F 4 (ELE)	F44ILL	112	0.67	SW	2600	1,747	C-OCC	
133	Custodial (C-Wing) (locked - no entry)	Linen/Utility/Wet/Janitor/Electrical	1	CF 26	CFQ26/1-L	27	0.03	SW	1560	42	NONE	
133	Men's Staff Restroom (locked - no entry) Custodial Storage (locked - no entry)	Restroom	1	CF 26	CFQ26/1-L	27	0.03 0.03	SW SW	3120	84	C-OCC NONE	
133 18LED	Custodial Storage (locked - no entry) C-08	Linen/Utility/Wet/Janitor/Electrical Classroom	6	CF 26 T 32 R F 4 (ELE)	CFQ26/1-L F44ILL	27 112	0.03	SW	1560 2600	1.747	C-OCC	
18LED	C-09	Classroom	16	T 32 R F 4 (ELE)	F44ILL	112	1.79	SW	2600	4,659	C-OCC	
18LED	FDD	Office	6	T 32 R F 4 (ELE)	F44ILL	112	0.67	SW	2600	1,747	C-OCC	
18LED	C-12 C-11	Classroom	6	T 32 R F 4 (ELE)	F44ILL F44ILL	112	0.67	SW	2600	1,747	C-OCC	
18LED	U-11	Classroom	12	T 32 R F 4 (ELE)	F44ILL	112	1.34	SW	2600	3,494	C-OCC	<u>l</u>

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			EXISTING CONDITIONS								1	
			No. of			Watts per					Retrofit Control	
F1.11	Area Description	Usage	Fixtures	Standard Fixture Code	Fixture Code	Fixture	kW/Space	Exist Control	Annual Hours	Annual kWh		
Field Code	Unique description of the location - Room number/Room name: Floor number (if applicable)	Describe Usage Type using Operating Hours	No. of fixtures	Lighting Fixture Code	Code from Table of Standard Fixture Wattages	Value from Table of	(Watts/Fixt) * (Fixt No.)	Pre-inst. control device	Estimated annual hours	(kW/space) * (Annual Hours)	Retrofit control device	l Notes
Oout	name: Floor number (ii applicable)	using operating riours	before the		Tixture Wattages	Standard	140.)	device	for the usage	(Allital Hours)	device	
			retrofit			Fixture			group			
401.50	C-13	Classes	7	T 20 D E 4 (ELE)	F44ILL	Wattages	0.70	CVA	0000	0.000	C-OCC	
18LED 18LED	C-13 C-14	Classroom Classroom	7	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	0.78 1.01	SW SW	2600 2600	2,038 2,621	C-OCC	
18LED	Loop Corridor	Hallway	9	T 32 R F 4 (ELE)	F44ILL	112	1.01	SW	3640	3,669	C-OCC	
35LED	Loop Corridor	Hallway	7	T 32 R F 3 (ELE)	F43ILL/2	90	0.63	SW	3640	2,293	C-OCC	
18LED	C Corridor Stairs	Hallway	3	T 32 R F 4 (ELE)	F44ILL	112	0.34	SW	3640	1,223	C-OCC	1
46LED 18LED	C Corridor Stairs Gym Wing Corridor	Hallway Hallway	24	W 32 C F 2 (ELE) T 32 R F 4 (ELE)	F42LL F44ILL	60 112	0.18 2.69	SW SW	3640 3640	655 9,784	C-OCC	
18LED	Athletic Trainer	Office	4	T 32 R F 4 (ELE)	F44ILL	112	0.45	SW	2600	1,165	C-OCC	
18LED	Office next to Trainer (locked - no entry)	Office	4	T 32 R F 4 (ELE)	F44ILL	112	0.45	SW	2600	1,165	C-OCC	
146LED	Gymnasium	Gymnasium	64	High Bay MH 400	MH400/1	458	29.31	SW	3120	91,453	NONE	4
11LED 18LED	Auxilary Gymnasium Boys' Restroom	Gymnasium Restroom	54	S 34 P F 2 (MAG) T 32 R F 4 (ELE)	F42EE F44ILL	72 112	3.89 0.22	SW SW	3120 3120	12,131 699	NONE C-OCC	
18LED	Girls' Restroom	Restroom	2	T 32 R F 4 (ELE)	F44ILL	112	0.22	SW	3120	699	C-OCC	
46LED	Boys' Locker Room	Locker Room	22	W 32 C F 2 (ELÉ)	F42LL	60	1.32	SW	3120	4,118	C-OCC	
46LED	Boy's Locker Room Restroom	Restroom	1	W 32 C F 2 (ELE)	F42LL	60	0.06	SW	3120	187	C-OCC	
52LED 46LED	Boys' Locker Room Exit Boys' Locker Room Office (locked - no entry)	Locker Room Office	1 2	W 34 C F 2 (MAG) W 32 C F 2 (ELE)	F42EE F42LL	72 60	0.07 0.12	SW SW	3120 2600	225 312	C-OCC	-
46LED	Girls' Locker Room	Locker Room	22	W 32 C F 2 (ELE)	F42LL F42LL	60	1.32	SW	3120	4,118	C-OCC	
46LED	Girls' Locker Room Restroom	Restroom	1	W 32 C F 2 (ELE)	F42LL	60	0.06	SW	3120	187	C-OCC	
52LED	Girls' Locker Room Exit	Locker Room	1	W 34 C F 2 (MAG)	F42EE	72	0.07	SW	3120	225	C-OCC	
46LED 18LED	Girls' Locker Room Office (locked - no entry) Custodial	Office Linen/Utility/Wet/Janitor/Electrical	2	W 32 C F 2 (ELE) T 32 R F 4 (ELE)	F42LL F44ILL	60 112	0.12 0.11	SW SW	2600 1560	312 175	C-OCC NONE	
18LED	E Corridor	Hallway	14	T 32 R F 4 (ELE)	F44ILL F44ILL	112	1.57	SW	3640	5,708	C-OCC	
35LED	E-05	Classroom	38	T 32 R F 3 (ELE)	F43ILL/2	90	3.42	SW	2600	8,892	C-OCC	
18LED	E-Wing Weight Room Corridor	Hallway	5	T 32 R F 4 (ELE)	F44ILL	112	0.56	SW	3640	2,038	C-OCC	
141LED	Weight Room (locked - no entry)	Gymnasium	9	HPS 250	HPS250/1 F44ILL	295	2.66	SW	3120 2600	8,284	NONE C-OCC	
18LED 18LED	Community Office Room (locked - no entry) Athletic Office	Office Office	5	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	0.45 0.56	SW SW	2600	1,165 1,456	C-OCC	
18LED	Athletic Office	Office	3	T 32 R F 4 (ELE)	F44ILL	112	0.34	SW	2600	874	C-OCC	
18LED	Team Rooms	Conference	4	T 32 R F 4 (ELE)	F44ILL	112	0.45	SW	1560	699	NONE	
18LED	Viewing Room (locked - no entry)	Office	4	T 32 R F 4 (ELE)	F44ILL F44ILL	112	0.45	SW	2600	1,165	C-OCC	
18LED 18LED	Cross Country/Track Locker Room Track Coaches Office	Locker Room Office	4	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	0.78 0.45	SW SW	3120 2600	2,446 1,165	C-OCC	
18LED	Locker Room Exit	Hallway	1	T 32 R F 4 (ELE)	F44ILL	112	0.11	SW	3640	408	C-OCC	
18LED	Locker Room Restroom	Restroom	4	T 32 R F 4 (ELE)	F44ILL	112	0.45	SW	3120	1,398	C-OCC	
18LED	Team Room #2 (locked - no entry) E-01	Locker Room Classroom	16	T 32 R F 4 (ELE)	F44ILL F41LL	112	0.90 0.51	SW	3120 2600	2,796 1.331	C-OCC	
105LED 6LED	Main Electrician	Mechanical Room	58	1T 32 RF 1 - P T 34 R F 4 (MAG)	F41LL F44EE	32 144	8.35	SW SW	2080	17,372	NONE	
32LED	Media Center	Media Center	123	1T 32 R F 2 (ELE)	F42LL	60	7.38	SW	3120	23,026	C-OCC	
181	Media Center	Media Center	90	D 13 C CF 2	CFQ13/2-L	28	2.52	SW	3120	7,862	C-OCC	
18LED 18LED	Media Center Office Media Center Video Storage	Media Center	2	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	0.22 0.22	SW SW	3120 1560	699 349	C-OCC	4
18LED	Media Center Video Storage Media Center Break Room	Storage Area Staff Lounge	2	T 32 R F 4 (ELE)	F44ILL	112	0.22	SW	2600	582	C-OCC	
35LED	Corridor - Pine Belt	Hallway	15	T 32 R F 3 (ELE)	F43ILL/2	90	1.35	SW	3640	4,914	C-OCC	
181	Corridor - Pine Belt	Hallway	134	D 13 C CF 2	CFQ13/2-L	28	3.75	SW	3640	13,657	C-OCC	
181 20LED	Corridor Display Corridor	Display Hallway	70	D 13 C CF 2 S 32 C F 1 (ELE)	CFQ13/2-L F41LL	28 32	0.34 2.24	SW SW	2080 3640	699 8.154	C-OCC	4
175	Display	Display	16	S 25 C F 1 (ELE)	F41LL F31EE	32	0.61	SW	2080	1,265	C-OCC	
146LED	Pine Belt Gym	Gymnasium	44	High Bay MH 400	MH400/1	458	20.15	SW	3120	62,874	NONE	
24LED	Corridor	Hallway	30	1B 32 P F 2 (ELE)	F42LL	60	1.80	SW	3640	6,552	C-OCC	
133 18LED	Storage (locked - no entry) Nurse's Office (locked - no entry)	Storage Area Office	1	CF 26 T 32 R F 4 (ELE)	CFQ26/1-L F44ILL	27 112	0.03 0.67	SW SW	1560 2600	1,747	C-OCC	
46LED	Men's Restroom	Restroom	14	W 32 C F 2 (ELE)	F44ILL F42LL	60	0.84	SW	3120	2,621	C-OCC	<u> </u>
18LED	Men's Restroom	Restroom	1	T 32 R F 4 (ELE)	F44ILL	112	0.11	SW	3120	349	C-OCC	
46LED	Women's Restroom	Restroom	14	W 32 C F 2 (ELE)	F42LL	60	0.84	SW	3120	2,621	C-OCC	
18LED 33	Women's Restroom Concession Stand	Restroom Concessions	1	T 32 R F 4 (ELE) 13 W CF 1	F44ILL CFQ13/1-L	112 15	0.11 0.09	SW SW	3120 1040	349 94	C-OCC NONE	
15LED	Grounds Shed	Grounds Shed	4	S 32 C F 2 (ELE)	F42LL	60	0.09	SW	1560	374	NONE	
18LED	Grounds Shed	Grounds Shed	2	T 32 R F 4 (ELE)	F44ILL	112	0.22	SW	1560	349	NONE	
18LED	Grounds Shed - Backroom	Grounds Shed	2	T 32 R F 4 (ELE)	F44ILL	112	0.22	SW	1560	349	NONE	
15LED 15LED	Small Snack Shack	Concessions Field House	20	S 32 C F 2 (ELE) S 32 C F 2 (ELE)	F42LL F42LL	60 60	0.12 1.20	SW SW	1040 1560	125 1,872	NONE NONE	
15LED 15LED	Field House Field House - Sink Room	Field House Field House	1	S 32 C F 2 (ELE)	F42LL F42LL	60	0.06	SW	1560	1,872	NONE	<u> </u>
15LED	Field House - Towel Room	Field House	2	S 32 C F 2 (ELE)	F42LL	60	0.12	SW	1560	187	NONE	
15LED	Field House - Shower Room	Field House	6	S 32 C F 2 (ELE)	F42LL	60	0.36	SW	1560	562	NONE	
15LED	Field House - Ice Room	Field House	1	S 32 C F 2 (ELE)	F42LL	60	0.06	SW	1560	94	NONE	1
40LED 40LED	Field House - Locker Room Field House - Varsity Locker	Field House Field House	18	T 32 R F 2 (ELE) T 32 R F 2 (ELE)	F42LL F42LL	60 60	1.08 0.54	SW SW	1560 1560	1,685 842	NONE NONE	
4VLED	Field House - Varsity Locker	rieiu nouse	9	I JAN FA (ELE)	F4ZLL	UØ	0.54	SVV	10001	842	INUINE	4

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Cost of Electricity:

\$0.093 \$/kWh \$6.75 \$/kW

					EXISTIN	G CONDITIONS					Retrofit	
	Area Description	Usage	No. of Fixtures	Standard Fixture Code	Fixture Code	Watts per Fixture	kW/Space	Exist Control	Annual Hours	Annual kWh	Control	
Field Code	Unique description of the location - Room number/Room name: Floor number (if applicable)	Describe Usage Type using Operating Hours	No. of fixtures before the retrofit	Lighting Fixture Code	Code from Table of Standard Fixture Wattages	Value from Table of Standard Fixture Wattages	(Watts/Fixt) * (Fixt No.)	Pre-inst. control device		(kW/space) * (Annual Hours)	Retrofit control device	Notes
15LED	Field House - Back Hall	Field House	2	S 32 C F 2 (ELE)	F42LL	60	0.12	SW	1560	187	NONE	
15LED	Field House - Women's Restroom	Field House	3	S 32 C F 2 (ELE)	F42LL	60	0.18	SW	1560	281	NONE	
40LED	Field House - Storage	Field House	4	T 32 R F 2 (ELE)	F42LL	60	0.24	SW	1560	374	NONE	
15LED	Field House - Men's Restroom	Field House	3	S 32 C F 2 (ELE)	F42LL	60	0.18	SW	1560	281	NONE	
40LED	Field House - Water Fountain	Field House	1	T 32 R F 2 (ELE)	F42LL	60	0.06	SW	1560	94	NONE	
40LED	Field House - Coaches Room	Field House	8	T 32 R F 2 (ELE)	F42LL	60	0.48	SW	1560	749	NONE	
15LED	Field House - Coaches Room - Rest Room	Field House	1	S 32 C F 2 (ELE)	F42LL	60	0.06	SW	1560	94	.,	
40LED	Security - Front Room	Security	3	T 32 R F 2 (ELE)	F42LL	60	0.18	SW	2600	468	NONE	
40LED	Security - Director (Locked - No Entry)	Security	3	T 32 R F 2 (ELE)	F42LL	60	0.18	SW	2600	468	NONE	
33	Security - Restroom	Security	1	13 W CF 1	CFQ13/1-L	15	0.02	SW	2600	39	NONE	
15LED	Security - Main Room	Security		S 32 C F 2 (ELE)	F42LL	60	0.24	SW	2600	624	NONE	
15LED	Security - Storage	Security	4	S 32 C F 2 (ELE)	F42LL	60	0.24	SW	2600	624	NONE	
33	Security - Restroom	Security		13 W CF 1	CFQ13/1-L	15	0.02	SW	2600	39	NONE	
7LED	Security - Breakroom	Security		2T 32 R F 2 (u) (ELE) Thin Tube	FU2LL	60	0.06	SW	2600	156		<u>-</u>
231LED	Exterior Building Lighting	Outdoor Lighting		WP400MH1	MH400/1	458	6.87	SW	3120	21,434	NONE	<u> </u>
133	Exterior Building Lighting	Outdoor Lighting		CF 26	CFQ26/1-L	27	0.19	SW	3120	590		<u>-</u>
227LED	Exterior Building Lighting	Outdoor Lighting		70 W MH Wall Pack	MH70/1	95	0.95	SW	3120	2,964	NONE	
s	Total		3,329	_			344.11			977,344		<u>- </u>

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	Utility	y Costs	Yearly Usage	Metric Ton Carbon Dioxide Equivalent	Building Area	А	nnua	I Utility Cost	t	
\$	0.124	\$/kWh blended		0.000420205	310,000	Electric	Na	tural Gas		Water
\$	0.093	\$/kWh supply	3,164,313	0.000420205		\$ 391,989	\$	38,644	\$	32,466
\$	6.75	\$/kW	1,416.0	0						_
\$	1.23	\$/Therm	31,321	0.00533471						
2	10 21	\$/kgale	3 178	0						

		Ioms	River H	<mark>ligh Sch</mark>	OOI NO	rth																
commend?)	Item			Savings			Cost	Simple	Life	Equivalent CO ₂	NJ Smart Start	Direct Install	Payback w/		Simple Pro	jected Lifetime	Savings		ROI	NPV	IRF
Y or N			kW	kWh	therms	Water kgal	\$		Payback	Expectancy	(Metric tons)	Incentives	Eligible (Y/N)	Incentives	kW	kWh	therms	kgal/yr	\$			<u> </u>
N	ECM-1	Replace Electric EDPAC w/ Heat Pumps	37.8	48,847	0	0	\$ 7,606	\$ 641,800	84.4	15	20.5	\$ 3,588	N	83.9	566.3	732,699	0	0	\$ 136,639	(8.0)	(\$547,414)	-16.4
Υ	ECM-2	Replace Electric Rooftop Equipment w/ Natural Gas	221.1	545,083	(20,687)	0	\$ 43,133	\$ 294,900	6.8	25	118.7	\$ 1,200	Y	6.8	5,527.5	13,627,070	(517,176)	0	\$ 1,497,746	4.1	\$457,381	14.
N	ECM-3	Replace DX / RTU Equipment w/ Higher Efficiency Equipment	38.2	64,425	0	0	\$ 9,089	\$ 703,600	77.4	20	27.1	\$ 13,320	Y	75.9	763.3	1,288,493	0	0	\$ 221,445	(0.7)	(\$555,053)	-10
Υ	ECM-4	Install VFDs & Premium Efficiency Motors on AHUs	36.5	16,915	0	0	\$ 4,528	\$ 42,209	9.3	15	7.1	\$ 11,675	Y	6.7	546.8	253,721	0	0	\$ 75,722	0.8	\$23,515	12.
Υ	ECM-5	Install Window A/C Controllers	0.0	6,536	0	0	\$ 810	\$ 1,900	2.3	15	2.7	\$ -	N	2.3	0.0	98,045	0	0	\$ 12,146	5.4	\$7,766	42.
N	ECM-6	Extend Energy Management System	0.0	9,493	16	0	\$ 1,195	\$ 132,388	110.8	15	4.1	\$ -	N	110.8	0.0	142,394	235	0	\$ 17,929	(0.9)	(\$118,118)	-18
Υ	ECM-7	Retro-Commission Controls and Equipment	0.0	81,263	2,970	0	\$ 13,730	\$ 42,980	3.1	15	50.0	\$ -	N	3.1	0.0	1,218,942	44,543	0	\$ 205,957	3.8	\$120,934	31.
Υ	ECM-8	Replace DHW Boiler with a High Efficiency Water Heater	0.0	0	629	0	\$ 776	\$ 22,413	28.9	25	3.4	\$ 1,340	Y	27.1	0.0	0	15,729	0	\$ 19,407	(0.1)	(\$7,555)	-0
Υ	ECM-9	Install Kitchen Hood Controller	0.0	4,556	4,109	0	\$ 5,634	\$ 31,555	5.6	15	23.8	\$ 1,000	N	5.4	0.0	68,334	61,635	0	\$ 84,511	1.7	\$36,704	16
Υ	ECM-10	Install Walk-In Controls	0.0	10,285	0	0	\$ 1,274		16.2	15	4.3	\$ 175	N	16.1	0.0	154,271	0	0	\$ 19,111	(0.1)	(\$5,240)	-0
Υ	ECM-11	Replace Electric Booster Heater w/ Natural Gas Fired Unit	10.9	36,342	(1,550)	0	\$ 2,354	\$ 14,800	6.3	25	7.0	\$ 2,635	N	5.2	272.6	908,558	(38,750)	0	\$ 86,819	4.9	\$28,829	19
Υ	ECM-12	Install Vending Machine Controls	0.0	46,929	0	0	\$ 5,813	\$ 5,602	1.0	15	19.7	\$ -	N	1.0	0.0	703,935	0	0	\$ 87,202	14.6	\$63,799	10:
Υ	ECM-13	Replace CRT Monitors w/ LCD	0.0	10,000	0	0	\$ 1,239	\$ 20,814	16.8	10	4.2	\$ -	N	16.8	0.0	100,000	0	0	\$ 12,388	(0.4)	(\$10,247)	-8
Υ	ECM-14	Install Low Flow Plumbing Fixtures	0.0	0	0	2,275	\$ 23,237	\$ 260,678	11.2	30	0.0	\$ -	N	11.2	0.0	0	0	68,246	\$ 697,117	1.7	\$194,782	8.
N	ECM-L1	Lighting Replacements / Upgrades	199.5	569,994	0	0	\$ 69,225	\$ 741,366	10.7	15	239.5	\$ 15,400	Y	10.5	2,992.2	8,549,908	0	0	\$ 1,301,523	0.8	\$100,433	4.
N	ECM-L2	Install Lighting Controls (Add Occupancy Sensors)	0.0	185,129	0	0	\$ 17,235	\$ 81,000	4.7	15	77.8	\$ 10,500	Y	4.1	0.0	2,776,934	0	0	\$ 344,001	3.2	\$135,255	23
Υ	ECM-L3	Lighting Replacements with Controls (Occupancy Sensors)	199.5	656,718	0	0	\$ 77,299	\$ 822,366	10.6	15	276.0	\$ 25,900	Y	10.3	2,992.2	9,850,772	0	0	\$ 1,462,672	0.8	\$126,320	5
		Total (Not Including [B] Option ECMs or L1, L2)	543.9	1,537,391	(14,514)	2,275	\$ 197,718	\$ 3,058,629	15.5	18.0	569			15.2	10,669	29,147,233	(433,784)	68,246		0.5	(\$278,482)	1
		Recommended Measures (highlighted green above)	467.9	1,414,626	(14,529)	2,275	\$ 179,827			18.3	517		0	8.5	9,339	26,983,648	(434,018)		\$ 4,260,797		\$936,341	9
		% of Existing	33%	45%	-46%	72%	, ,		0.0	ı	1		<u> </u>		<u> </u>	, ,		<u> </u>		1	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	

		City:	Atlantic	City, NJ			
	Occupied F	lours/Week	70	70	70	70	70
			Building	Auditorium	Gymnasium	Library	Classrooms
	Enthalpy		Operating	Occupied	Occupied	Occupied	Occupied
Temp	h (Btu/lb)	Bin Hours	Hours	Hours	Hours	Hours	Hours
102.5							
97.5	38.6	17	7	7	7	7	7
92.5	38.5	61	25	25	25	25	25
87.5	37.5	132	55	55	55	55	55
82.5	34.8	344	143	143	143	143	143
77.5	32.4	566	236	236	236	236	236
72.5	31.3	755	315	315	315	315	315
67.5	27.8	780	325	325	325	325	325
62.5	24.7	889	370	370	370	370	370
57.5	21.8	742	309	309	309	309	309
52.5	19.0	710	296	296	296	296	296
47.5	17.0	642	268	268	268	268	268
42.5	15.0	795	331	331	331	331	331
37.5	12.8	784	327	327	327	327	327
32.5	10.7	682	284	284	284	284	284
27.5	8.7	345	144	144	144	144	144
22.5	7.1	229	95	95	95	95	95
17.5	5.4	189	79	79	79	79	79
12.5	4.1	70	29	29	29	29	29
7.5	2.5	22	9	9	9	9	9
2.5	1.3	6	3	3	3	3	3
-2.5							
-7.5							

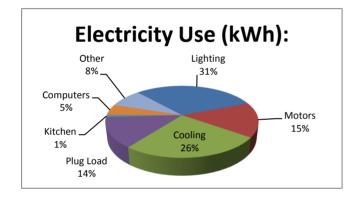
Multipliers	
Material:	1.027
Labor:	1.246
Equipment:	1.124

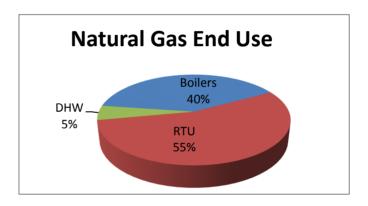
Heating System Efficiency	80%
Cooling Eff (kW/ton)	1.2

He		
Hours	4,427	Hrs
Weighted Avg	40	F
Avg	28	F
Со	oling	
Hours	4,333	Hrs
Weighted Avg	68	F
Δ	70	_

	Utility End Use Analysis							
Electric	ity Use (kWh):	Notes/Comments:						
3,164,313	Total	Based on utility analysis						
977,344	Lighting	From Lighting Calculations						
492,205	Motors	Estimated						
812,628	Cooling	Estimated						
434,000	Plug Load	Estimated						
28,223	Kitchen	Estimated						
155,000	Computers	Estimated						
264,914	Other	Remaining						
	•							
Natural Ga	s Use (Therms):	Notes/Comments:						
31,321	Total	Based on utility analysis						
12,469	Boilers	Based on utility analysis						
17,227	RTU	Estimated						
1,626	DHW	Based on utility analysis						

31% 16% 26% 14% 1% 5% 8%
40% 55% 5%





ECM-1: Replace Electric EDPAC with Heat Pumps

EQUIPMENT	AREA SERVED	DX COOLING CAPACITY (MBH)	ELECTRIC HEATING CAPACITY (MBH)	QTY.	TOTAL COOLING MBH	TOTAL HEATING MBH
EDPAC	A-Wing Classrooms	36.0	25.1	13	902.8	326

ECM Description Summary

This ECM recommends the repalcement of existing EDPAC (packaged terminal heating and a/c units) units with equivalent capacity split system heat pumps. Heat pumps consume far less electricity than electric resistance heating coils. The calculation methodolgy compares the existing unit electricity consumption for heating to the proposed equipment at a higher heating efficiency.

ASSUMPTIONS			Comments
Electric Supply Cost	\$0.093	/ kWh	
Electric Demant Cost	\$6.750	/ kW	
Average run hours per Week	70	Hours	
Space Balance Point	55	F	
Space Temperature Setpoint	70	deg F	Heating Setpoint.
Cooling BTU/Hr Rating of existing DX equipment	36,000	Btu / Hr	
Heating BTU/Hr Rating of existing DX equipment	25,078	Btu / Hr	BTU/hr of electric heating equipment to be replaced.
EER (cooling)	9.0		Average energy efficiency ratio (EER) of existing equipment
Cooling Demand (kW)	4.0	kW	
Heating Coil (kW)	7.4	kW	Heating Coil Rating / Unit
Heating Efficiency	98%		Average Electric Heating Efficiency
Existing Heating Electric Usage	4,401	kWh	
Existing Cooling Electric Usage	2,706	kWh	
<u>Item</u>	<u>Value</u>	<u>Units</u>	Comments
Proposed Average EER	11.5		Estimated EER for new heat pump
Proposed Average COP	3.5		Estimated COP for new heat pump
Cooling Demand (kW)	3.1	kW	
Heating Demand (kW)		kW	
Proposed Heating Electric Usage	1,232	kWh	
Proposed Cooling Electric Usage	2,118	kWh	Unit will cycle on w/ temp of room. Possible operating time shown below

ANNUAL SAVINGS per Unit							
Annual Electrical Demand Savings	2.9	kW					
Annual Electrical Usage Savings	3,757	kWh					
Annual Cost Savings	\$350						

TOTAL ANNUAL SAVINGS					
Annual Electrical Demand Savings	37.8	kW			
Annual Electrical Usage Savings	48,847	kWh			
Annual Cost Savings	\$7,606				

OAT - DB		Cooling Hrs	Assumed %	Assumed	Heating Hrs	Assumed % of	Assumed
Bin	Annual	at Temp Above	of Time of	Cooling Hrs of	at Temp Below		Heating Hrs of
Temp F	Hours	Balance Point	Operation	Operation	Balance Point	Operation	Operation
102.5	0	0	0%	0	0	0%	0
97.5	17	7	100%	7	0	0%	0
92.5	61	25	100%	25	0	0%	0
87.5	132	55	87%	48	0	0%	0
82.5	344	143	73%	105	0	0%	0
77.5	566	236	60%	142	0	0%	0
72.5	755	315	47%	147	0	0%	0
67.5	780	325	33%	108	0	0%	0
62.5	889	370	20%	74	0	0%	0
57.5	742	309	7%	21	0	0%	0
52.5	710	0	0%	0	296	5%	14
47.5	642	0	0%	0	268	14%	38
42.5	795	0	0%	0	331	24%	79
37.5	784	0	0%	0	327	33%	109
32.5	682	0	0%	0	284	43%	122
27.5	345	0	0%	0	144	52%	75
22.5	229	0	0%	0	95	62%	59
17.5	189	0	0%	0	79	71%	56
12.5	70	0	0%	0	29	81%	24
7.5	22	0	0%	0	9	90%	8
2.5	6	0	0%	0	3	100%	3
-2.5	0	0	0%	0	0	0%	0
-7.5	0	0	0%	0	0	0%	0
Т	otal 8,760	1,786	38%	677	1,864	31%	587

ECM-1: Replace Electric EDPAC with Heat Pumps - Cost

Multipliers	
Material:	1.03
Labor:	1.25
Equipment:	1.12

EA	MAT. \$ 100	LABOR \$ 250	EQUIP.	MAT.	LABOR \$ -	EQUIP.	COST -	REMARKS
EA	\$ 100	\$ 250		\$ -	\$ -	\$ -	\$ -	
EA	\$ 100	\$ 250		A				
	II +	μ 2 30		\$ 1,335	\$ 4,050	\$ -	\$ 5,385	RS Means 2012
EA	\$ 3,150	\$ 1,000		\$ 42,056	\$ 16,198	\$ -	\$ 58,254	RS Means 2012
EA	\$ 75	\$ 300		\$ 1,001	\$ 4,859	\$ -	\$ 5,861	RS Means 2012
LS	\$ 1,000	\$ 5,000		\$ 13,351	\$ 80,990	\$ -	\$ 94,341	RS Means 2012
LS	\$ 8,926	\$ 14,225		\$119,166	\$ 230,410	\$ -	\$ 349,576	RS Means 2012
	EA LS	EA \$ 75 LS \$ 1,000	EA \$ 75 \$ 300 LS \$ 1,000 \$ 5,000	EA \$ 75 \$ 300 LS \$ 1,000 \$ 5,000	EA \$ 75 \$ 300 \$ 1,001 LS \$ 1,000 \$ 5,000 \$ 13,351	EA \$ 75 \$ 300 \$ 1,001 \$ 4,859 LS \$ 1,000 \$ 5,000 \$ 13,351 \$ 80,990	EA \$ 75 \$ 300 \$ 1,001 \$ 4,859 \$ - LS \$ 1,000 \$ 5,000 \$ 13,351 \$ 80,990 \$ -	EA \$ 75 \$ 300 \$ 1,001 \$ 4,859 \$ - \$ 5,861 LS \$ 1,000 \$ 5,000 \$ 13,351 \$ 80,990 \$ - \$ 94,341

**Cost Estimates are for Energy Savings calculations only, do not use for procurement

\$ 513,416	Subtotal
\$ 128,354	25% Contingency
\$ 641,800	Total

ECM-2: Replace Electric Rooftop Equipment w/ Natural Gas Fired Equipment

Description

This ECM evaluates the replacement of electrically heated packaged rooftop units with natural gas fired equipment that has more efficient cooling equipment. In the existing case, the 4-stage heating system is assumed to operate in different stages based on outdoor air temperature with no regard to indoor heat load conditions. In the proposed scenario, the natural gas fired furnace operates with 80% efficiency at all bin temperatures. This calculation is evaluated for three identical air handlers. The calulcation below shows results for only one unit individually.

Total CFM	10,400
OA CFM	3,120
Estimated OA Frac.	30%

						Savings	
	Cooling	Heating	CFM	Location	Heating (kWH)	Heating (Therms)	Cooling
AHU	26 Ton	3 Stage - 110 kW	10,400	Auditorium	161,681	(6,896)	20,014
AHU	26 Ton	3 Stage - 110 kW	10,400	Auditorium	161,681	(6,896)	20,014
AHU	26 Ton	3 Stage - 110 kW	10,400	Auditorium	161,681	(6,896)	20,014
			Total		485,042	(20,687)	60,041

Summer RAT [F]	78
Summer SAT [F]	58

Winter RAT [F]	80
Winter SAT [F]	95

Heating "On"	55

					Heatin	g							Cooling				
Avg. Temp DB (deg F)		Est. % Cycle Time	LCVCIE HOURS	Existing Electric Heat [kW]		Proposed NG Efficiency	Proposed NG Heat [Therms]	_	Proposed Cooling Load [Tons]	Baseline EER	Proposed EER	Baseline kW/Ton	Proposed kW/Ton	Baseline kW	Proposed kW	Baseline kWh	Proposed kWh
97.5	17.0	2007	17.0)				26.0	26.0	8.9	11.1	1.35	1.08	35.06	28.08	596	
92.5	61.0		57.7	7				26.0	26.0	8.9	11.1	1.35	1.08	35.06	28.08	2,024	
87.5	132.0		117.1	L				26.0	26.0	8.9	11.1	1.35	1.08	35.06	28.08	4,104	3,287
82.5	344.0		284.6	5				26.0		8.9	11.1	1.35	1.08	35.06		9,978	
77.5	566.0		434.6	5				26.0		8.9	11.1	1.35	1.08	35.06	28.08	15,236	, -
72.5	755.0							26.0		8.9						18,748	-,-
67.5	780.0							26.0		8.9						17,741	
62.5	889.0							26.0		8.9						18,365	· ·
57.5	742.0							26.0	26.0	8.9	11.1	1.35	1.08	35.06	28.08	13,780	11,038
52.5	710.0	0070				80%	(586.0)										
47.5	642.0				· · · · · ·	80%	(,										
42.5	795.0				· · · · · · · · · · · · · · · · · · ·	80%	, ,										
37.5	784.0					80%	, ,										
32.5	682.0				· · · · · ·	80%	(,										
27.5	345.0				· · · · · ·	80%	(,										
22.5	229.0				· · · · · ·	80%	(====,										
17.5	189.0				· · · · · ·	80%	(541.9)										
12.5	70.0	5170				80%	` ,										
7.5	22.0				,	80%	(,										
2.5	6.0	100%			660	80%	(28.1)										
				Total	161,681		(6,896)								Total	100,571	80,557
					Savings	161,681]							Savings	20,014	kWh
					Cavings	(6,896)	Therms										

ECM-2: Replace Electric Rooftop Equipment w/ Natural Gas Fired Equipment - Cost

Multipliers	
Material:	1.03
Labor:	1.25
Equipment:	1.12

Description	QTY	UNIT	l	JNIT COST	S	SL	JBTOTAL CO	OSTS	TOTAL	REMARKS	
			MAT.	MAT. LABOR		MAT.	LABOR	EQUIP.	COST	KEWAKKS	
						\$ -	\$ -	\$ -	\$ -		
RTU & CU demolition	3	EA	\$ 100	\$ 250		\$ 308	\$ 935	\$ -	\$ 1,243	RS Means 2012	
High Efficiency Packaged RTU - 26 Ton	3	EA	\$ 32,313	\$ 8,387		\$ 99,557	\$ 31,349	\$ -	\$ 130,907	RS Means 2012	
- Reprogram DDC system	3	EA	\$ 75	\$ 300		\$ 231	\$ 1,121	\$ -	\$ 1,352	RS Means 2012	
Electrical - misc.	3	LS	\$ 1,000	\$ 5,000		\$ 3,081	\$ 18,690	\$ -	\$ 21,771	RS Means 2012	
Gas Piping and Connections	3	LS	\$ 8,926	\$ 14,225		\$ 27,500	\$ 53,172	\$ -	\$ 80,671		

**Cost Estimates are for Energy Savings calculations only	, do not use for procurement
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\$ 235,944	Subtotal
\$ 58,986	25% Contingency
\$ 294,900	Total

ECM-3: Replace Unitary HVAC Equipment With More Efficient Unitary Equipment

Description: This ECM evaluates the energy savings associated with replacing older less efficient heating and cooling equipment with modern high efficiency unitary equipment havings the same capacity. Some equipment listed below have natural gas fired furnaces, however there is no savings associated with replacing an 80% efficient furnace for an equivalently sized 80% efficient furnace. Only savings associated with cooling equipment is includes

Equipment	Equipment			
Tag	Description	General Type	Cooling Capacity (Btu/h)	Heating Capacity (Btu/h)
CU	Split System	HVAC	120,000	
CU	Split System	HVAC	18,000	
CU	Split System	HVAC	24,000	
CU	Split System	HVAC	90,000	
CU	Split System	HVAC	48,000	
CU	Split System	HVAC	18,000	
CU	Split System	HVAC	48,000	
CU	Split System	HVAC	120,000	
RTU-AC-1	Packaged RTU	HVAC	420,000	283,000
RTU-AC-2	Packaged RTU	HVAC	420,000	283,000
RTU-AC-3	Packaged RTU	HVAC	60,000	108,000
RTU-CF-1	Packaged RTU	HVAC	60,000	73,000
RTU-CF-2	Packaged RTU	HVAC	60,000	73,000
RTU-CF-3	Packaged RTU	HVAC	75,000	97,000
RTU-CF-4	Packaged RTU	HVAC	75,000	97,000
RTU-CF-5	Packaged RTU	HVAC	36,000	65,000
RTU-CF-6	Packaged RTU	HVAC	36,000	65,000
RTU-GU-1	Packaged RTU	HVAC	120,000	120,000
RTU-GU-2	Packaged RTU	HVAC	36,000	64,000
RTU-MC-1	Packaged RTU	HVAC	84,000	97,000
RTU-MC-2	Packaged RTU	HVAC	84,000	97,000
RTU-MC-3	Packaged RTU	HVAC	84,000	
RTU-MC-4	Packaged RTU	HVAC	84,000	

<u>Item</u>	<u>\</u>	/alue	<u>Units</u>	Formula/Comments	
Demand Rate	\$	6.75	/ kW		
Electricity Rate	\$	0.09	/kWh		
			FORM	IULA CONSTANTS	
Coincidence Factor		0.67		NJ Protocols	
Conversion		3.412	btu/kW		
			CC	OOLING - HVAC	
Cooling Capacity	2	2,220,000	btu/hr		btuh
Baseline EER		10.3		See Table Below	EERb
Proposed EER		14.0		Based on AAON Equivalent sized units	EERq
Equivalent Full Load Hours		1,131	hrs	NJ Protocols	
Demand Savings		38.16	kW		
Energy Savings		64,425	kWh		
				SAVINGS	
Demand Savings		38.16	kW		
Energy Savings		64,425	kWh		
Cost Savings	\$	9,089			

Savings calculation formulas are taken from NJ Protocols document for Electric HVAC Equipment

ECM-3: Replace Unitary HVAC Equipment With More Efficient Unitary Equipment - Cost

Multipliers	
Material:	1.03
Labor:	1.25
Equipment:	1.12

Description	QTY	UNIT				SI	UBTOTAL CO	DSTS	TOTAL	REMARKS	
			MAT. LABOR EQUIP.		EQUIP.	MAT.	LABOR	EQUIP. COST		REWARKS	
						\$ -	\$ -	\$ -	\$ -		
RTU & CU demolition	23	EA	\$ 100	\$ 250		\$ 2,362	\$ 7,165	\$ -	\$ 9,527	RS Means 2012	
High Efficiency Condensing Unit - 10 Ton	2	EA	\$ 5,950	\$ 1,600		\$ 12,221	\$ 3,987	\$ -	\$ 16,209	RS Means 2012	
High Efficiency Condensing Unit - 7.5 Ton	1	EA	\$ 4,700	\$ 1,450		\$ 4,827	\$ 1,807	\$ -	\$ 6,634	RS Means 2012	
High Efficiency Condensing Unit - 4 Ton	2	EA	\$ 2,875	\$ 890		\$ 5,905	\$ 2,218	\$ -	\$ 8,123	RS Means 2012	
High Efficiency Condensing Unit - 2 Ton	1	EA	\$ 2,350	\$ 380		\$ 2,413	\$ 473	\$ -	\$ 2,887	RS Means 2012	
High Efficiency Condensing Unit - 1.5 Ton	2	EA	\$ 2,125	\$ 320		\$ 4,365	\$ 797	\$ -	\$ 5,162	RS Means 2012	
High Efficiency Packaged RTU - 35 Ton	2	EA	\$ 37,833	\$ 10,067		\$ 77,710	\$ 25,087	\$ -	\$ 102,797	RS Means 2012	
High Efficiency Packaged RTU - 10 Ton	1	EA	\$ 15,700	\$ 6,288		\$ 16,124	\$ 7,834	\$ -	\$ 23,958	RS Means 2012	
High Efficiency Packaged RTU - 7 Ton	4	EA	\$ 11,905	\$ 5,950		\$ 48,906	\$ 29,655	\$ -	\$ 78,561	RS Means 2012	
High Efficiency Packaged RTU - 6.25 Ton	2	EA	\$ 11,013	\$ 5,875		\$ 22,620	\$ 14,641	\$ -	\$ 37,260	RS Means 2012	
High Efficiency Packaged RTU - 5 Ton	3	EA	\$ 9,525	\$ 5,750		\$ 29,347	\$ 21,494	\$ -	\$ 50,840	RS Means 2012	
High Efficiency Packaged RTU - 3 Ton	3	EA	\$ 7,969	\$ 5,113		\$ 24,552	\$ 19,112	\$ -	\$ 43,665	RS Means 2012	
- Reprogram DDC system	23	EA	\$ 75	\$ 300		\$ 1,772	\$ 8,597	\$ -	\$ 10,369	RS Means 2012	
Electrical - misc.	23	LS	\$ 1,000	\$ 5,000		\$ 23,621	\$ 143,290	\$ -	\$ 166,911	RS Means 2012	

**Cost Estimates are for Energy Savings calculations only, do not use for procure	ement
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\$ 562,901	Subtotal
\$ 140,725	25% Contingency
\$ 703,600	Total

ECM-4: Upgrade to Premium Efficiency Motors and Install Variable Speed Drives

Description: This ECM evaluates the energy (electrical) savings associated with replacing existing motors with high efficiency motors (based on ASHRAE 2010 NEMA ratings) and adding variable frequency drives to control motor speed based on actual load verses constant volume / constant flow.

Variable Inputs
Electric Rate \$0.09 \$/kWh \$6.75 **\$/kW Demand Rate**

			MO.	TOR SCHE	DULE					Savings F	actor	Existing Motor Energy		Proposed Motor Energy		Energ	Energy Savings	
										Energy	Demand	Electrical	Demand	Electrical				
					Upgrade		Existing	New Motor	Annual	Demand	Savings	Energy	Energy	Energy	Energy	Peak Deman	d Annual Energy	
Motor ID	Motor Type	Qty	HP	Total HP	Motor	Load Factor	Motor Eff.	Eff.	Hours	Savings Factor	Factor	(kW)	(kWh)	(kW)	(kWh)	Savings (kW) Savings (kWh	
AHU-PE-1 SF	AF/BI	1	20.0	20.0	Υ	0.75	91.0%	93.0%	3,391	0.448	0.475	12.3	41,693	5.4	38,477	6.9	3,216	
AHU-PE-1 RF	AF/BI	1	15.0	15.0	Υ	0.75	91.0%	93.0%	3,391	0.448	0.475	9.2	31,269	4.0	28,858	5.2	2,412	
AHU-PE-2 SF	AF/BI	1	15.0	15.0	Υ	0.75	91.0%	93.0%	3,391	0.448	0.475	9.2	31,269	4.0	28,858	5.2	2,412	
AHU-PE-2 RF	AF/BI	1	15.0	15.0	Υ	0.75	91.0%	93.0%	3,391	0.448	0.475	9.2	31,269	4.0	28,858	5.2	2,412	
AHU-PE-3 SF	AF/BI	1	15.0	15.0	Υ	0.75	91.0%	93.0%	3,391	0.448	0.475	9.2	31,269	4.0	28,858	5.2	2,412	
AHU-PE-3 RF	AF/BI	1	10.0	10.0	Υ	0.75	89.5%	91.7%	3,391	0.448	0.475	6.3	21,196	2.7	19,511	3.5	1,684	
AHU-PE-4 SF	AF/BI	1	10.0	10.0	Υ	0.75	89.5%	91.7%	3,391	0.448	0.475	6.3	21,196	2.7	19,511	3.5	1,684	
AHU-PE-4 RF	AF/BI	1	5.0	5.0	Υ	0.75	87.5%	89.5%	2,745	0.448	0.475	3.2	8,775	1.4	8,091	1.8	684	
	_									_		_			Total:	36.5	16,91	
																\$ 2,953	\$ 1,57	
																-	\$ 4.528	

Savings calculation formulas are taken from NJ Protocols document for VFDs

Multipliers	
Material:	1.03
Labor:	1.25
Equipment:	1.00

ECM-4: Upgrade to Premium Efficiency Motors and Install Variable Speed Drives - Cost

Description	QTY	UNIT	UNIT COSTS			SUBTOTAL COSTS			TOTAL	REMARKS
Description	QII	UNIT	MAT.	LABOR	EQUIP.	MAT.	LABOR	EQUIP.	COST	REWARKS
						\$ -	\$ -	\$ -	\$ -	
5 HP Motor	1	ea	\$ 373	\$ 79		\$ 383	\$ 98	\$ -	\$ 481	RS Means 2012
VFD for 5 HP Motor	1	ea	\$ 1,706	\$ 431		\$ 1,752	\$ 536	\$ -	\$ 2,289	RS Means 2012
10 HP Motor	2	ea	\$ 646	\$ 88		\$ 1,326	\$ 220	\$ -	\$ 1,546	RS Means 2012
VFD for 10 HP Motor	2	ea	\$ 2,021	\$ 509		\$ 4,152	\$ 1,269	\$ -	\$ 5,421	RS Means 2012
15 HP Motor	4	ea	\$ 861	\$ 110		\$ 3,537	\$ 549	\$ -	\$ 4,086	RS Means 2012
VFD for 15 HP Motor	4	ea	\$ 2,336	\$ 772		\$ 9,597	\$ 3,846	\$ -	\$ 13,444	RS Means 2012
20 HP Motor	1	ea	\$ 1,050	\$ 135		\$ 1,078	\$ 169	\$ -	\$ 1,247	RS Means 2012
VFD for 20 HP Motor	1	ea	\$ 3,465	\$ 772		\$ 3,559	\$ 962	\$ -	\$ 4,520	RS Means 2012
Electrical - misc.	8	ls	\$ 15	\$ 5		\$ 123	\$ 50	\$ -	\$ 173	RS Means 2012
Sheetmetal modification (per box)	8	ea	\$ 50	\$ 15		\$ 411	\$ 150	\$ -	\$ 560	RS Means 2012
						\$ -	\$ -	\$ -	\$ -	

^{**}Cost Estimates are for Energy Savings calculations only, do not use for procurement

\$ 33,767	Subtotal
\$ 8,442	25% Contingency
\$ 42,209	Total

Capacity	Quantity	AREA/EQUIPMENT SERVED	COOLING CAPACITY (btu/h)
8,000) 2	Window A/C	16,000
12,000) 2	Window A/C	24,000
18,000) 2	Window A/C	36,000
24,000) 4	Window A/C	96,000

Total btu/h of all window A/C Units: 172,000 btu/h

ECM-5: Window A/C Controller

ECM Description: Window A/C units are currently controlled manually by the occupants and are not turned off when the room is unoccupied. This ECM evaluates implementation of a digital timer device that will automatically turn the window A/C unit off at a preset time.

ASSUMPTIO	NS	Comments		
Electric Cost	\$0.124	/ kWh		
Average run hours per Week	70	Hours		
Space Balance Point	55	F		
Space Temperature Setpoint	70	deg F	Cooling Setpoint.	
BTU/Hr Rating of existing DX equipment	172,000	Btu / Hr	Total BTU/hr of DX cooling equipment to be replaced.	
Average EER	10.7		Estimated average EER of window A/C units	
Existing Annual Electric Usage	12,558	kWh		

<u>Item</u>	<u>Value</u>	<u>Units</u>	<u>Comments</u>
Proposed Annual Electric Usage	6,022	kWh	Unit will cycle on w/ temp of room. Possible operating time shown below

ANNUAL SA	VINGS	
Annual Electrical Usage Savings	6,536	kWh
Annual Cost Savings	\$810	
Total Project Cost	\$1,900	
Simple Payback	2.3	years

OAT - DB		Existing		Proposed
Bin	Annual	Hours of	Proposed % of	hrs of
Temp F	Hours	Operation	time of operation	Operation
102.5	0	0	100%	0
97.5	17	7	89%	6
92.5	61	25	79%	20
87.5	132	55	68%	38
82.5	344	143	58%	83
77.5	566	236	47%	112
72.5	755	315	37%	116
67.5	780	0	0%	0
62.5	889	0	0%	0
57.5	742	0	0%	0
52.5	710	0	0%	0
47.5	642	0	0%	0
42.5	795	0	0%	0
37.5	784	0	0%	0
32.5	682	0	0%	0
27.5	345	0	0%	0
22.5	229	0	0%	0
17.5	189	0	0%	0
12.5	70	0	0%	0
7.5	22	0	0%	0
2.5	6	0	0%	0
-2.5	0	0	0%	0
-7.5	0	0	0%	0
Total	8,760	781	48%	375

ECM-5: Window A/C Controller - Cost

Multipliers	
Material:	1.03
Labor:	1.25
Equipment:	1.12

Description	QTY	UNIT	Į	JNIT COST	S	SL	JBTOTAL C	OSTS	TOTAL	REMARKS
			MAT.	LABOR	EQUIP.	MAT.	LABOR	EQUIP.	COST	REWARKS
						0	\$ -	\$ -	\$ -	
Window AC Controller	10	EA	\$ 150	\$ -	\$ -	1541	\$ -	\$ -	\$ 1,541	Estimated
						\$ -	\$ -	\$ -	\$ -	

^{**}Cost Estimates are for Energy Savings calculations only, do not use for procurement

\$ 1,541	Subtotal
\$ 385	25% Contingency
\$ 1,900	Total

ECM-6: Extend Energy Management System

Description: This ECM evaluates the energy savings associated extending the existing control system to 5% of the building that is currently not DDC controlled. This will provide for remote automatic control, monitoring and alarming. Specific energy savings sequences would include optium Start/Stop, night setback, temporary occupied set back, economizer control of UVs and AHU's. This energy savings percentage is based on past performance of similar buildings which have a fully functioning DDC control system.

Note: It is estimated that approximately 5% of the building square footage is not controlled by the current Building Management System

Building Information:								
Building SF		310,000						
Extend EM		15,500	ft ²					
	Υ		Cooling					
	Υ		Heating					



FULL DDC - ADDITIONAL CONTROLS SAVINGS CALCULATION

TOLE DDC - ADDITIONAL CONTROLS SAVINGS CALCULATION							
EXISTING CONDITIONS							
Existing non-EM Total Electric usage	158,216	kWh					
Existing non-EM Total Gas usage	1,566	Therms					
Existing non-EM Cooling Electric usage	94,929	kWh ¹					
Existing non-EM Heating Natural Gas usage	157	Therms ²					
PROPOSED CONDI	TIONS						
Proposed Facility Cooling Electric Savings	9,493	kWh					
Proposed Facility Natural Gas Savings	16	Therms					
SAVINGS							
Electric Savings	9,493	kWh					
Natural Gas Savings	16	Therms					

Assumptions

- 60% of Non-EMS Area electricity dedicated to Cooling
- 2 10% of Non-EMS Area natural gas dedicated to Heating;
- 3 10% Typical Savings associated with installation of DDC controls

COMBINED SAVINGS							
Natural Gas Savings		16	Therms				
Cooling Electricity Savings		9,493	kWh				
Total Cost Savings	\$	1,195					
Estimated Total Project Cost	\$	132,388					
Simple Payback		110.8	Yrs				

Multipliers	
Material:	1.03
Labor:	1.25
Equipment:	1.12

ECM-6: Extend Energy Management System - Cost

Description	QTY	UNIT	UNIT COSTS			SUB	STOTAL COS	STS	TOTAL	REMARKS
Description	QII	OINIT	MAT.	LABOR	EQUIP.	MAT.	LABOR	EQUIP.	COST	REWARKS
						\$ -	\$ -	\$ -	\$ -	
AHU Controls	4	ea		\$ 5,000		\$ -	\$ 24,920	\$ -	\$ 24,920	Vendor Quote
Exhaust Fan Control (Group of 4)	10	ea		\$ 3,300		\$ -	\$ 41,118	\$ -	\$ 41,118	Vendor Quote
Head End Controller & Programming	1	ls		\$ 32,000		\$ -	\$ 39,872	\$ -	\$ 39,872	Vendor Quote
						\$ -	\$ -	\$ -	\$ -	

^{**}Cost Estimates are for Energy Savings calculations only, do not use for procurement

\$ 105,910	Subtotal
\$ 26,478	25% Contingency
\$ 132,388	Total

ECM-7: Re-Commission Building Controls System

Summary:

Presently the building has an Energy Management (EM) system which controls roughly 40% of the total building by square footage. The remainder of the building is controlled by dedicated thermostats. The portion of the building controlled by EM is recommended to be re-commissioned to ensure that the systems are operating at optimal efficiency.

Building Information:

124,000 Sq Footage \$0.12 \$/kWh Blended \$1.23 \$/Therm

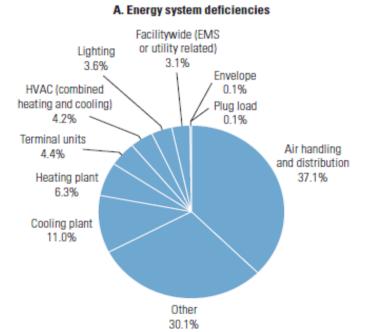
EXISTING CONDITIONS		
Existing Facility Total Electric usage	3,164,313	kWh
Existing Facility Total Gas usage	31,321	Therms
Existing Facility Cooling Electric usage	812,628	kWh ¹
Existing Facility Heating Natural Gas usage	29695	Therms ²
PROPOSED CONDITIONS		
Proposed Facility Cooling Electric Savings	81,263	kWh
Proposed Facility Natural Gas Savings	2,970	Therms
SAVINGS		
Retro-Commissioning Electric Savings	81,263	kWh
Retro-Commissioning Natural Gas Savings	2,970	Therms
Total cost savings	\$ 13,730	

Assumptions

- 26% of facility total electricity dedicated to Cooling based on Building Utility Analysis
- 2 95% of facility total natural gas dedicated to Heating based on Building Utility Analysis
- 3 10% Typical Savings associated with Retro-Commissioning of controls based on EPA Energy Star Report (CH 5 Retrocommissioning)

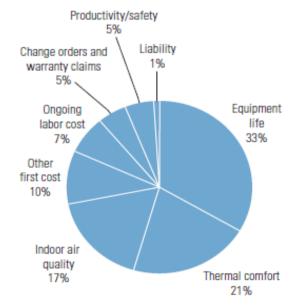
Figure 5.2: Retrocommissioning results

Building energy system deficiencies: A recent study of retrocommissioning revealed a wide variety of problems—those related to the overall HVAC system were the most common type (A). Energy and non-energy benefits: Retrocommissioning provided both energy and non-energy benefits—the most common of these, noted in one-third of the buildings surveyed, was the extension of equipment life (B).



Note: EMS = energy management system.

B. Energy and non-energy benefits



Courtesy: E SOURCE; data from Lawrence Berkeley National Laboratory, Portland Energy Conservation Inc., and Energy Systems Laboratory, Texas A&M University

Multipliers	
Material:	1.03
Labor:	1.25
Equipment:	1.12

ECM-7: Re-Commission Building Controls System - Cost

Description QTY		UNIT	UNIT COSTS		SUBTOTAL COSTS			TOTAL	TOTAL REMARKS	
Description	QTT	ONIT	MAT.	LABOR	EQUIP.	MAT.	LABOR	EQUIP.	COST	KLIVIAKKS
									\$ -	
Controls and Sensors Retro-Commissioning	124,000	SF	\$ 0.27	INC	INC	\$ 34,384	INC	INC	\$ 34,384	EPA Estimate
						\$ -	\$ -	\$ -	\$ -	

^{**}Cost Estimates are for Energy Savings calculations only, do not use for procurement

\$ 34,384	Subtotal
\$ 8,596	25% Contingency
\$ 42,980	Total

ECM-8: Replace Gas-Fired DHW Heater w/ a High Efficiency Gas-Fired DHW Heater

Description: This ECM evaluates the energy savings associated with replacing one gas fired DHW heater with equivalent capacity high effiency water heater and reduced capacity storage tank.

<u>Item</u>	<u>Value</u>	<u>Units</u>	Formula/Comments
Avg. Monthly Utility Demand by Water Heater	136	Therms/month	Calculated from utility bill
Total Annual Utility Demand by Water Heater	163,200	MBTU/yr	1therm = 100 MBTU
Existing DHW Heater Efficiency	78%		Per manufacturer nameplate
Total Annual Hot Water Demand (w/ standby losses)	127,296	MBTU/yr	
Existing Tank Size	750	Gallons	Per manufacturer nameplate
Hot Water Piping System Capacity	200	Gallons	Estimated Per existing system (includes HWR piping)
Hot Water Temperature	140	°F	Per building personnel
Room Temperature	72	°F	
Standby Losses (% by Volume)	2.5%		(2.5% of stored capacity per hour, per U.S. Department of Energy)
Standby Losses (Heat Loss)	13.5	MBH	
Annual Standby Hot Water Load	117,895	MBTU/yr	
New Tank Size	500	Gallons	
Hot Water Piping System Capacity	200	Gallons	Estimated Per existing system (includes HWR piping)
Hot Water Temperature	140	°F	
Room Temperature	72	°F	
Standby Losses (% by Volume)	2.5%		(2.5% of stored capacity per hour, per U.S. Department of Energy)
Standby Losses (Heat Loss)	9.9	MBH	
Annual Standby Hot Water Load	86,870	MBTU/yr	
Total Annual Hot Water Demand	96,271	MBTU/yr	
Proposed Avg. Hot water heater efficiency	96%		Based on AO Smith Cyclone
Proposed Fuel Use	1,003	Therns	Standby Losses and inefficient DHW heater eliminated
Utility Cost	\$1.23	\$/Therm	
Existing Operating Cost of DHW	\$2,014	\$/yr	
Proposed Operating Cost of DHW	\$1,237	\$/yr	

Savings Summary:

Utility Energy Cost Savings Savings	Therms/yr	629	\$776
	Utility	Savings	Cost Savings

Multipliers	
Material:	1.03
Labor:	1.25
Equipment:	1.12

ECM-8: Replace Gas-Fired DHW Heater w/ a High Efficiency Gas-Fired DHW Heater - Cost

Description	QTY	UNIT	Ų	JNIT COST	S	SUE	STOTAL CO	STS	TOTAL	REMARKS
Description	QII	UNIT	MAT.	LABOR	EQUIP.	MAT.	LABOR	EQUIP.	COST	REWARKS
Gas-Fired DHW Heater Removal	1	LS		\$ 50		\$	\$ 62	\$ -	\$ 62	RS Means 2012
High Efficiency Gas-Fired DHW Heater	1	EA	\$ 7,500	\$ 1,500		\$ 7,703	\$ 1,869	\$	\$ 9,572	RS Means 2012
Storage tank	1	EA	\$ 2,500	\$ 1,500		\$ 2,568	\$ 1,869	\$	\$ 4,437	RS Means 2012
Electrical	1	LS	\$ 500	\$ 1,500		\$ 514	\$ 1,869	\$ -	\$ 2,383	RS Means 2012
Venting Kit	1	EA	\$ 450	\$ 650		\$ 462	\$ 810	\$ -	\$ 1,272	RS Means 2012
Miscellaneous Piping and Valves	1	LS	\$ 200			\$ 205	\$ -	\$ -	\$ 205	RS Means 2012

^{**}Cost Estimates are for Energy Savings calculations only, do not use for procurement

\$ 17,930	Subtotal
\$ 4,483	25% Contingency
\$ 22,413	Total

ECM-9: Kitchen Hood Control

Description: This ECM evaluates the thermal and electrical energy savings associated with the implementation of a variable flow controlled exhaust hood (Fan) and make-up air unit. The Hood controller uses infrared heat sensors to detect the level of smoke produced by the cooking operations and automatically adjustes the exhaust fan and make-up air fan to provide the proper amount of air flow needed to remove the particulate from the hood. The system uses a default minimum air flow value to ensure that smoke particulate is removed at all times during cooking operations.

<u>Item</u>	<u>Value</u>	<u>Units</u>	Formula/Comments	
Fuel Cost	\$ 1.23	/ Therm		
Electricity Cost	\$ 0.12	/kWh		
		FORMULA CONSTANTS	8	
Conversion	0.746	HP/kW		
Constant		hrs/day		
Constant	1.08	(btu/hr)/CFM·F		
Conversion	3,412	btu/kWh		
		ELECTRIC FAN SAVING	S	
Facility Type	School			
Quantity of Kitchen Hood Fan Motors	1			Q
Kitchen Hood Fan Motor HP	5.0	HP		HP
Motor Load Factor	0.90		NJ Protocols	LF
Efficiency of Fan Motor(s)	89.5%			FEFF
Kitchen Hood Fan Run Hours	2,080			RH
Fan Motor Power Reduction (From VFD)	0.584			PR
Fan Electricity Savings	4,556	kWh		
, ,	ŕ	HEATING SAVINGS		
Kitchen is Heated?	Υ			
Square Footage of Kitchen	1,500	ft ²	Estimated	SF
Code Required Ventilation Rate		CFM/ft ²	NJ Protocols	CFM/SF
Ventilation Oversize Factor	1.40		NJ Protocols	OF
Flow Reductuion (from VFD/Control)	0.310			FR
Heating Degree Day	2,783		NJ Protocols Table	HDD
Heating System Efficiency	80%		AFUE (%)	HEFF
Heating Savings	411	MMbtu		
Heating Savings		Therms		
Treating Savings	4,109	COOLING SAVINGS		
Kitchen is Cooled?	N	COCEING GAVINGS		
Cooling Degree Day	-		NJ Protocols Table	CDD
Cooling System Efficiency	_		COP	CEFF
Cooming Cyclom Emolericy				
Cooling Savings	-	kWh		
		TOTAL SAVINGS		
Electricity Savings	4,556			
Fuel Savings	4,109	Therms		
Cost Savings	\$ 5,634			
	- 0,001			

Savings calculation formulas are taken from NJ Protocols document for Kitchen Hood

Multipliers	
Material:	1.03
Labor:	1.25
Equipment:	1.12

ECM-9: Kitchen Hood Control - Cost

Description	QTY	LINIT	UNIT UNIT COSTS			SUE	STOTAL CC	STS	TOTAL	REMARKS
Description	QII	UNIT	MAT.	LABOR	EQUIP.	MAT.	LABOR	EQUIP.	COST	REWARKS
Me-Link Kitchen Hood Control System	1	ea	\$ 15,000	\$ 5,000		\$ 15,405	\$ 6,230	\$ -	\$ 21,635	Vendor Estimation
5.0 HP VFDs (1-exhaust fan)	1	ea	\$ 1,485	\$ 490		\$ 1,525	\$ 611	\$ -	\$ 2,136	RS Means 2012
5.0 HP Motor	1	ea	\$ 525	\$ 85		\$ 539	\$ 106	\$ -	\$ 645	RS Means 2012
Electrical - misc.	1	ls	\$ 200	\$ 500		\$ 205	\$ 623	\$ -	\$ 828	RS Means 2012
_						\$ -	\$ -	\$ -	\$ -	

^{**}Cost Estimates are for Energy Savings calculations only, do not use for procurement

\$ 25,244	Subtotal
\$ 6,311	25% Contingency
\$ 31,555	Total

ECM-10: Walk-in Cooler & Freezer EC Motor Retrofits

ECM Description:

For kitchens that contain walk-in coolers and freezers, CoolTrol is a controller that reduces energy consumption by controlling off of dewpoint temperature. Compressor cycling is reduced and the evaporator fans run 25% to 80% less. Door and frame heaters are also installed and controlled by store dew point temperature; this can reduce run time by up to 95% in coolers and 60% in freezers. The evaporator fan motors are also replaced with hi-efficiency fan motors saving 40% to 70% in energy. The proposed system comprises of an anti-sweat door controller, evaporator fan motor replacement and CoolTrol Cooler Control System.

Utility Cost

\$0.12 \$/kWh Blended

EXISTING CONDITIONS		
Walk-In Freezer(s)		
Existing Freezer Controls?	N	
Quantity of Walk-In Freezers	1	
Nameplate Amps of Freezer Evaporator Fan	4.5	AmpsEF
Nameplate Volts of Freezer Evaporator Fan	280	VoltsEF
Phase of Evaporator Fan	1	PhaseEF
Power Factor of Evaporator Fan	0.55	PFEF
Operating Hours	8,760 hrs	
Load Reduction	65%	LR
Electricity Savings (Evaporator Fan)	3,946 kWh	kWhEF
Electricity Savings (Evaporator Fan Reduced Heat)	1,768 kWh	kWhRH
Total Walk-In Freezer(s) Electricity Savings	5,714 kWh	
Walk-In Cooler(s)	,	
Existing Cooler Controls?	N	
Quantity of Walk-In Coolers	1	
Nameplate Amps of Cooler Evaporator Fan	3.6	
Nameplate Volts of Cooler Evaporator Fan	280	
Phase of Evaporator Fan	1	
Power Factor of Evaporator Fan	0.55	
Operating Hours	8,760 hrs	
Load Reduction	65%	
Electricity Savings (Evaporator Fan)	3,157 kWh	
Electricity Savings (Evaporator Fan Reduced Heat)	1,414 kWh	
Total Walk-In Cooler(s) Electricity Savings	4,571 kWh	
SAVINGS		
Total Electricity Savings	10,285 kWh	
Total Cost Savings	\$ 1,274	
Estimated Cost	\$ 20,625	
Simple Payback	16.2 years	

Savings calculation formulas are taken from NJ Protocols document for Walk-in Controller

^{**}Cost Estimates are for Energy Savings calculations only, do not use for procurement

Multipliers	
Material:	1.03
Labor:	1.25
Equipment:	1.12

ECM-10: Walk-in Cooler & Freezer EC Motor Retrofits - Cost

Description	QTY	UNIT	UNIT COSTS			SUBTOTAL COSTS			TOTAL	REMARKS
Description	QII	ONT	MAT.	LABOR	EQUIP.	MAT.	LABOR	EQUIP.	COST	REWARKS
									\$ -	
Turnkey Walk-In Controller & Equipment	1	EA	\$ 10,000	\$ 5,000	\$ -	\$ 10,270	\$ 6,230	\$ -	\$ 16,500	Vendor Estimate
						\$ -	\$ -	\$ -	\$ -	

^{**}Cost Estimates are for Energy Savings calculations only, do not use for procurement

\$ 16,500	Subtotal
\$ 4,125	25% Contingency
\$ 20,625	Total

ECM-11: Dishwasher Booster Heater Conversion

Description: This ECM evaluates the energy savings associated with replacing an electrically powered dishwasher booster heater with and equivalently sized natural gas booster heater

<u>Item</u>	<u>Value</u>	<u>Units</u>	Formula/Comments
Baseline Fuel Cost	\$ 1.23	/ Therm	
Electricity Cost	\$ 0.09	\$/kWh	
Demand Cost	\$ 6.75	\$/kWh	
	F	ORMULA (CONSTANTS
CF	0.3		Coincidence Factor (NJ Protocols)
EFLH	1,000		Equivalent Full Load Hours (NJ Protocols)
	PF	ROPOSED	EQUIPMENT
Input Rating	155,000	btu/hr	
Efficiency	80%		
		SAV	INGS
Electricity Savings	36,342	kWh	
Demand Savings	11	kW	
Fuel Usage	(1,550)	Therms	
Fuel Cost Savings	\$ 2,354		

Savings calculation formulas are taken from NJ Protocols document for Booster Heater

ECM-11: Dishwasher Booster Heater Conversion - Cost

Multipliers	
Material:	1.03
Labor:	1.25
Equipment:	1.12

Description	QTY	UNIT	UNIT COSTS		SUBTOTAL COSTS			TOTAL	REMARKS	
			MAT.	LABOR	EQUIP.	MAT.	LABOR	EQUIP.	COST	REIVIARRS
Natural Gas Fired Booster Heater	1	EA	\$ 5,000	\$ 2,500		\$ 5,135	\$ 3,115	\$ -	\$ 8,250	RS Means 2012
Venting	1	LS	\$ 500	\$ 1,000		\$ 514	\$ 1,246	\$ -	\$ 1,760	RS Means 2012
Electrical	1	LS	\$ 300	\$ 500		\$ 308	\$ 623	\$ -	\$ 931	RS Means 2012
Piping	1	LS	\$ 300	\$ 500		\$ 308	\$ 623	- \$	\$ 931	RS Means 2012

	\$ 11,872	Subtotal
	\$ 2,968	25% Contingency
ost Estimates are for Energy Savings calculations only, do not use for procurement	\$ 14,800	Total

^{**}Cost

ECM-12: Install Vending Machine Controls

Description: Vending machines generally operate 24/7 regardless of the actual usage. This measure proposes installing vending machine controls to reduce the total run time of these units. Cold beverage machines will cycle on for 15 minutes every two hours in order to keep beverages at a desired temperature. The result is a reduction in total electrical energy usage.

Unit Cost: \$0.124 \$/kWh blended

Energy Savings Calculations:

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Cold Beverage Vending Machine Electric usage

Snack Vending Machine Electric usage

Dual Vending Machine Electric Usage

Total Vending Machine Electric Usage

42,048 kWh^{1,4,7}
kWh^{2,5,7}
kWh^{3,6,7}
kWh

Proposed

Cold Beverage Vending Machine Electric usage Snack Vending Machine Electric usage Dual Vending Machine Electric Usage Total Vending Machine Electric Usage

Vending Machine Controls Usage Savings Total cost savings Estimated Total Project Cost Simple Payback

9,135	kWh
46,929	kWh
\$ 5,813	
\$ 5,602	9
1	years

6,615 kWh⁸

2,520 kWh 0 kWh

Assumptions

- 1 12 Number of cold beverage vending machines
- 2 8 Number of snack vending machines
- 3 Number of dual snack/beverage vending machines
- 4 400 Average wattage, typical of cold beverage machines based on prior project experience
- 5 Average wattage, typical of snack machines based on prior project experience
- 6 300 Average wattage, typical of dual snack/beverage machines based on prior project experience
- 7 8760 Hours per year vending machine plugged in
- 8 3150 Building Occupied Hours
- 9 0.50 Vending Machine Traffic Factor (0.75 for High Traffic, 0.5 for Medium, 0.25 for low)

Multipliers	
Material:	1.03
Labor:	1.25
Equipment:	1.12

ECM-12: Install Vending Machine Controls - Cost

Description	QTY	LINIT	UNIT UNIT COSTS		SUBTOTAL COSTS			TOTAL	REMARKS	
Description	QTT	OINII	MAT.	LABOR	EQUIP.	MAT.	LABOR	EQUIP.	COST	KLIVIAKKS
									\$ -	
Vending Miser	20	EA	\$ 200	\$ 15	\$ -	\$ 4,108	\$ 374	\$ -	\$ 4,482	Vendor Estimation
						\$ -	\$ -	\$ -	\$ -	

^{**}Cost Estimates are for Energy Savings calculations only, do not use for procurement

\$ 4,482	Subtotal
\$ 1,120	25% Contingency
\$ 5,602	Total

ECM-13: Replace CRT Monitors with LCD

Description: CRT monitors typically use more electricity than equivalently sized liquid crystal display (LCD) monitors for computers and televisions. This ECM evaluates replacing CRT monitors ith LCDs in order to save energy. The basis of this savings is justified by an EPA Energy Star study which found that a typical LCD monitor can save 100 kWh annually (for an 8 hour work day)

\$0.124 \$/kWh blended

Energy Savings Calculations:

Existing

Quantity of CRT Monitors 100

Proposed

Quanitity of be Replaced by LCD 100

Usage Savings 10,000 kWh **Total cost savings** 1,239 **\$ 20,814** 9 **Estimated Total Project Cost** Simple Payback **16.8** years

Assumptions

Unit Cost:

100 kWh savings per monitor per year Source: http://www.eu-energystar.org/en/en_023.shtml

Multipliers	
Material:	1.03
Labor:	1.25
Equipment:	1.12

ECM-13: Replace CRT Monitors with LCD - Cost

Description	QTY	UNIT UNIT COSTS SUBTOTAL COS		STS	TOTAL	REMARKS				
Description	QII	OIVII	MAT.	LABOR	EQUIP.	MAT.	LABOR	EQUIP.	COST	KLIVIAKKO
									\$ -	
LCD Computer Monitor	100	EA	\$ 150	\$ 10	\$ -	\$ 15,405	\$ 1,246	\$ -	\$ 16,651	Vendor Estimation
						\$ -	\$ -	\$ -	\$ -	

^{**}Cost Estimates are for Energy Savings calculations only, do not use for procurement

\$ 16,651	Subtotal
\$ 4,163	25% Contingency
\$ 20,814	Total

ECM-14: Replace urinals and flush valves with low flow

Description: This ECM evaluates the water savings associated with replacing/ upgrading urinals with 0.125 GPF urinals and or flush valves.

EXISTING CO	NDITIO	NS
Cost of Water / 1000 Gallons	\$10.21	\$ / kGal
Urinals in Building to be replaced	30	
Average Flushes / Urinal (per Day)	30	Based on # of occupants
Average Gallons / Flush	1.5	Gal

PROPOSED	CONDITIONS	
Proposed Urinals to be Replaced	30	
Proposed Gallons / Flush	0.125 Gal	

SAVINGS					
Current Urinal Water Use	493	kGal / year			
Proposed Urinal Water Use	41	kGal / year			
Water Savings	452	kGal / year			
Cost Savings	\$4,614	/ year			

^{**}Cost Estimates are for Energy Savings calculations only, do not use for procurement

ECM-14: Replace toilets and flush valves with low flow

Description: This ECM evaluates the water savings associated with repalcing/ upgrading toilets to 1.28 GPF fixtures and/or flush valves.

EXISTING	COND	NOITIC	S
Cost of Water / 1000 Gallons		\$10.21	\$ / kGal
Toilets in Building		50	
Average Flushes / Toilet (per Day)		45	Based on # of occupants
Average Gallons / Flush		3.5	Gal

PROPOSED	CON	DITIONS	
Proposed Toilets to be Replaced		50	
Proposed Gallons / Flush		1.28	Sal

SAVINGS					
Current Toilet Water Use	2,874 kGal / year				
Proposed Toilet Water Use	1,051 kGal / year				
Water Savings	1,823 kGal / year				
Cost Savings	18,623 / year				

ECM-14: Install Low Flow Plumbing Fixtures - Cost

Multipliers	
Material:	1.03
Labor:	1.25
Equipment:	1.12

Description	QTY	UNIT	l	INIT COST	S	SUB	TOTAL COS	STS	TOTAL	REMARKS
Description	QII	ONIT	MAT.	LABOR	EQUIP.	MAT.	LABOR	EQUIP.	COST	KLIVIAKKS
									\$ -	
Low-Flow Urinal	30	EA	\$ 1,200	\$ 1,000	\$ -	\$ 36,972	\$ 37,380	\$ -	\$ 74,352	Vendor Estimate
Low-Flow Toilet	50	EA	\$ 1,400	\$ 1,000	\$ -	\$ 71,890	\$ 62,300	\$ -	\$ 134,190	Vendor Estimate
						\$ -	\$ -	\$ -	\$ -	

^{**}Cost Estimates are for Energy Savings calculations only, do not use for procurement

\$ 208,542	Subtotal
\$ 52,136	25% Contingency
\$ 260,678	Total

New Jersey Pay For Performance Incentive Program

Note: The following calculation is based on the New Jersey Pay For Performance Incentive Program per April, 2012. Building must have a minimum average electric demand of 100 kW. This minimum is waived for buildings owned by local governments or non-profit organizations.

At a minimum, all recommended measures were used for this calculation. To qualify for P4P incentives, the following P4P requirements must be met:

- At least 15% source energy savings
- No more than 50% savings from lighting measures
- Scope includes more than one measure
- Project has at least a 10% internal rate of return
- At least 50% of the source energy savings must come from investor-owned electricity and/or natural gas (note: exemption for fuel conversions)

Total Building Area (Square Feet)	310,000
Is this audit funded by NJ BPU (Y/N)	Yes

Incentive #1					
Audit is funded by NJ BPU	\$0.05	\$/sqft			

to time addant rainada by the Bi
Decard of Dublic Hilliam (DDH)
Board of Public Utilites (BPU)

	Annual Utilities			
	kWh	Therms		
Existing Cost (from utility)	\$310,000	\$391,989		
Existing Usage (from utility)	3,164,313	31,321		
Proposed Savings	1,414,626	-14,529		
Existing Total MMBtus	13,932			
Proposed Savings MMBtus	3,3	375		
% Energy Reduction	24.2%			
Proposed Annual Savings	\$179,827			

	Min (Savir	ıgs = 15%)	Increase (Sa	vings > 15%)	Max Inc	entive	Achieved Incentive			
Incentive #2	\$0.09	\$0.90	\$0.005	\$0.05	\$0.11	\$1.25	\$0.11	\$1.25		
Incentive #3	\$0.09	\$0.90	\$0.005	\$0.05	\$0.11	\$1.25	\$0.11	\$1.25		

		Incentives	\$				
	Elec	Elec Gas Total \$0 \$0 \$15,500 55,609 -\$18,162 \$137,447					
Incentive #1	\$0	\$0	\$15,500				
Incentive #2	\$155,609	-\$18,162	\$137,447				
Incentive #3	\$155,609	-\$18,162	\$137,447				
Total All Incentives	\$311,218	-\$36,323	\$290,394				

Total Project Cost	\$1,580,842
--------------------	-------------

	Allowable			
	Incentive			
2.2%	\$15,500			
8.7%	\$137,447			
8.7%	\$137,447			
\$290,394				
\$1,290,447				
	8.7% 8.7% \$29 0			

Project Payback (years)									
w/o Incentives	w/ Incentives								
8.8	7.2								

^{*} Maximum allowable incentive is 50% of annual utility cost if not funded by NJ BPU, and %25 if it is.

Maximum allowable amount of Incentive #3 is 25% of total project cost.

Maximum allowable amount of Incentive #2 & #3 is \$1 million per gas account and \$1 million per electric account; maximum 2 million per project

^{**} Maximum allowable amount of Incentive #2 is 25% of total project cost.

 $^{^{\}star\star\star}$ Maximum allowable amount of Incentive #1 is \$50,000 if not funded by NJ BPU, and \$25,000 if it is.

_			EXISTING CONDITIONS							RETROFIT C	ONDITIONS					COST & S			AVINGS ANALYSIS I Simple Payback			
	Area Description	No. of Fixtures	Standard Fixture Code	Fixture Code	Watts per Fixture	kW/Space Exist Contro	I Annual Hours Annual kWh	Number of Fixtures	Standard Fixture Code	Fixture Code	Watts per Fixture	kW/Space	Retrofit Control	Annual Ho	urs Annual kWh	Annual kWh Saved	Annual kW Saved	Annual \$ Saved	Retrofit Cost	NJ Smart Start Lighting Incentive	With Out Incentive	Simple Paybaci
ield Code l	Unique description of the location - Room number/Room name: Floor number (if applicable)	No. of fixtures before the retrof	it 40 R F(U) = 2'x2' Troff 40 w Recess. Floor 2	Code from Table of Standard Fixture Wattages	Table of	(Watts/Fixt) * (Fixt Pre-inst. No.) Control device	Estimated daily hours for the (kW/space) * (Annual Hours)		"Lighting Fixture Code" Example 2T 40 R F(U) = 2'x2' Troff 40 w	Code from Table of Standard Fixture	Value from Table of	(Watts/Fixt) * (Number of	Retrofit contro device	ol Estimated annual hour		kWh) - (Retrofit	kW) - (Retrofit (kWh Saved) * \$/kWh)	Cost for renovations to	Prescriptive Lighting	Length of time for renovations	Length of time for renovations cost
			lamps U shape		Standard Fixture Wattages		usage group		Recess. Floor 2 lamps U shape	Wattages	Standard Fixture Wattages	Fixtures)		for the usag group	e Hours)	Annual kWh)	Annual kW)		lighting system	Measures	cost to be recovered	be recovered
15LED 115 6LED	Boiler Room Main Office	10 3	S 32 C F 2 (ELE) W 20 C F 2	F42LL F22SS F44EE	60 56	0.6 SW 0.2 SW	2600 4	10 137 3	T 38 R LED W 17 W C 2	RTLED38 F22ILL	38 33	0.4 0.1	SW SW	2,080 2,600	790 257	179	0.1	\$ 22.29	\$ 2,362.50 \$ 324.00	\$0	39.1 14.5	39.1 14.5
18LED 18LED	Main Office Main Office Cs25	15 5	T 34 R F 4 (MAG) T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44EE F44ILL F44ILL	144 112	2.2 SW 0.6 SW 1.3 SW		16 15 56 5 194 12	T 50 R LED T 50 R LED	RTLED50 RTLED50 RTLED50	50 50	0.8 0.3 0.6	SW SW	2,600 2,600 2,600	1,950 650 1,560	806	0.3	\$ 455.52 \$ 100.15 \$ 240.36		5 \$0	7.8 11.8	7.8 11.8 11.8
18LED 52LED	C-25 C-20 Prep Room	12	T 32 R F 4 (ELE) W 34 C F 2 (MAG)	F44ILL F42EE	112 112 72	1.3 SW 0.4 SW	2600 3,4 1560 5	94 12 662 5	T 50 R LED T 50 R LED 4 ft LED Tube	RTLED50 200732x2	50 30	0.6 0.2	SW SW SW	2,600 1,560	1,560 234	1,934 328	0.2	\$ 240.36 \$ 47.51	\$ 2,835.00	\$0	11.8 11.8 17.2	11.8 17.2
133 18LED 18LED	Women's Faculty Lavaton C-22 C-27	1 12 14	CF 26 T 32 R F 4 (ELE) T 32 R F 4 (ELE)	CFQ26/1-L F44ILL F44ILL	27 112 112	0.0 SW 1.3 SW 1.6 SW		84 1	CF 26 T 50 R LED T 50 R LED	CFQ26/1-L RTLED50 RTLED50	27 50	0.0 0.6 0.7	SW SW	3,120 2,600 2,600	1,560 1,820	1,934	0.0	\$ - \$ 240.36 \$ 280.42	\$ 2,835.00	\$0 0 \$0	11.8 11.8	#DIV/0! 11.8 11.8
18LED 133	C-24 Men's Restroom	8 1	T 32 R F 4 (ELE) CF 26	F44ILL CFQ26/1-L	112 112 27	0.9 SW 0.0 SW		30 8 84 1	T 50 R LED CF 26	RTLED50 RTLED50 CFQ26/1-L	50 50 27	0.7 0.4 0.0	SW SW	2,600 2,600 3,120	1,040	1,290	0.5 0.0	\$ 280.42 \$ 160.24			11.8	11.8 #DIV/0!
18LED 46LED	C-29 Boys' Restroom	15	T 32 R F 4 (ELE) W 32 C F 2 (ELE)	F44ILL F42LL	112 60	1.7 SW 0.4 SW	2600 4,3 3120 1,1		T 50 R LED 4 ft LED Tube	RTLED50 200732x2	50 30	0.8 0.2	SW SW SW	2,600 3,120	1,950 562	2,418 562		\$ 300.45 \$ 66.87	\$ 980.10	\$0	11.8 14.7	11.8 14.7
93 46LED 18LED	Custodial Girls' Restroom C-26	6 8	W 32 C F 2 (ELE) T 32 R F 4 (ELE)	175/1 F42LL F44ILL	60 112	0.1 SW 0.4 SW 0.9 SW	1560 1 3120 1,1 2600 2,3	23 6	CF 26 4 ft LED Tube T 50 R LED	CFQ26/1-L 200732x2 RTLED50	30 50	0.0 0.2 0.4	SW SW	1,560 3,120 2,600	562 1,040	562 1,290	0.0 0.2 0.5	\$ 10.86 \$ 66.87 \$ 160.24	\$ 980.10	\$0	0.5 14.7 11.8	0.5 14.7 11.8
18LED 18LED	C-28 C-31 C-31	8 8	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	0.9 SW 0.9 SW	2600 2,3 2600 2,3	130 8 130 8	T 50 R LED T 50 R LED	RTLED50 RTLED50	50 50	0.4 0.4	SW SW	2,600 2,600	1,040 1,040	1,290 1,290	0.5	\$ 160.24 \$ 160.24	\$ 1,890.00 \$ 1,890.00	\$0	11.8 11.8	11.8 11.8
115 4LED 18LED	C-31 C-33	1 9	W 20 C F 2 2B 34 R F 2 (u) (MAG) T 32 R F 4 (ELE)	F22SS FU2EE F44ILL	72 112	0.1 SW 0.1 SW 1.0 SW	2600 2 2600 1 2600 2,6	87 1 121 9	W 17 W C 2 2T 25 R LED T 50 R LED	F22ILL 2RTLED RTLED50	25 50	0.1 0.0 0.5	SW SW SW	2,600 2,600 2,600	65 1,170	120 122 1,451	0.0	\$ 14.86 \$ 15.18 \$ 180.27		\$0	14.5 13.3 11.8	14.5 13.3 11.8
18LED 18LED	C-30 C-32 C-35	8	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	0.9 SW 0.9 SW	2600 2,3 2600 2,3	30 8 30 8	T 50 R LED T 50 R LED	RTLED50 RTLED50	50 50	0.4 0.4	SW SW	2,600 2,600	1,040 1,040		0.5	\$ 160.24 \$ 160.24	\$ 1,890.00	\$0	11.8 11.8	11.8 11.8
18LED 18LED 35LED	C-35 C-34 Walkway	9 4 32	T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 3 (ELE)	F44ILL F44ILL F43ILL/2	112 112 90	1.0 SW 0.4 SW 2.9 SW	2600 2,6 2600 1,1 3640 10,4	65 4	T 50 R LED T 50 R LED T 38 R LED	RTLED50 RTLED50 RTLED38	50 50 38	0.5 0.2 1.2	SW SW	2,600 2,600 3,640	1,170 520 4,426		0.2	\$ 180.27 \$ 80.12 \$ 698.69		\$0	11.8 11.8 10.8	11.8 11.8 10.8
18LED 46LED	Walkway Elevator 1	1 2	T 32 R F 4 (ELE) W 32 C F 2 (ELE)	F44ILL F42LL	112 60	0.1 SW 0.1 SW	3640 4 3640 4	108 1 137 2	T 50 R LED 4 ft LED Tube	RTLED50 200732x2	50 30	0.1 0.1	SW SW	3,640 3,640	182 218	226 218	0.1	\$ 26.03 \$ 25.19	\$ 236.25 \$ 326.70	5 \$0 0 \$0	9.1 13.0	9.1 13.0
35LED 115 18LED	F Corridor F-208 F-208	26 3	T 32 R F 3 (ELE) W 20 C F 2 T 32 R F 4 (ELE)	F43ILL/2 F22SS F44ILL	90 56 112	2.3 SW 0.2 SW 1.0 SW	2600 4	i18 26 i37 3 i21 9	T 38 R LED W 17 W C 2 T 50 R LED	RTLED38 F22ILL RTLED50	33	1.0 0.1 0.5	SW SW SW	3,640 2,600 2,600	3,596 257 1,170	179	0.1	\$ 567.68 \$ 22.29 \$ 180.27	\$ 324.00	\$0	10.8 14.5 11.8	10.8 14.5 11.8
18LED 18LED	Teachers Lounge F-210	3 8	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	0.3 SW 0.9 SW	2600 8 2600 2,3	74 3 30 8	T 50 R LED T 50 R LED	RTLED50 RTLED50	50 50	0.2 0.4	SW	2,600 2,600	390 1,040	484 1,290	0.2	\$ 180.27 \$ 60.09 \$ 160.24	\$ 708.75 \$ 1,890.00	5 \$0 0 \$0	11.8 11.8	11.8 11.8
115 18LED 115	F-210 F-206 (locked - no entry F-206 (locked - no entry	9 2	W 20 C F 2 T 32 R F 4 (ELE) W 20 C F 2	F22SS F44ILL F22SS	56 112 56	0.2 SW 1.0 SW 0.1 SW	2600 5	i82 4 i21 9	W 17 W C 2 T 50 R LED W 17 W C 2	F22ILL RTLED50 F22ILL	33 50	0.1 0.5 0.1	SW SW SW	2,600 2,600 2,600	343 1,170 172	239	0.1	\$ 29.72 \$ 180.27 \$ 14.86	\$ 432.00 \$ 2,126.25	\$0 5 \$0	14.5 11.8 14.5	14.5 11.8 14.5
18LED 115	F-206 (locked - no entry F-209 (locked - no entry F-209 (locked - no entry	8 4	T 32 R F 4 (ELE) W 20 C F 2	F44ILL F22SS	112 56	0.1 SW 0.9 SW 0.2 SW	2600 2,3 2600 5	i82 4	T 50 R LED W 17 W C 2	RTLED50 F22ILL	50	0.1 0.4 0.1	SW SW	2,600 2,600	1,040 343	1,290 239	0.5	\$ 160.24 \$ 29.72	\$ 1,890.00 \$ 432.00	\$0 \$0	11.8 14.5	11.8 14.5
18LED 115 18LED	F-207 F-207 F-204	3	T 32 R F 4 (ELE) W 20 C F 2 T 32 R F 4 (ELE)	F44ILL F22SS F44ILL	112 56 112	1.0 SW 0.2 SW 1.0 SW	2600 2,6 2600 4	9 37 31 31 31 31 31	T 50 R LED W 17 W C 2 T 50 R LED	RTLED50 F22ILL RTLED50	50 33	0.5 0.1 0.5	SW SW SW	2,600 2,600 2,600	1,170 257 1,170	1,451 179	0.6	\$ 180.27 \$ 22.29 \$ 180.27	\$ 2,126.25 \$ 324.00 \$ 2,126.25	5 \$0 0 \$0	11.8 14.5 11.8	11.8 14.5 11.8
115 18LED	F-204 F-202	2 9	W 20 C F 2 T 32 R F 4 (ELE)	F22SS F44ILL	56 112	0.1 SW 1.0 SW	2600 2,6 2600 2,6 2600 2,6	191 2	W 17 W C 2 T 50 R LED	F22ILL RTLED50	33 50	0.5 0.1 0.5	SW SW	2,600 2,600	1,170	120 1,451	0.0	\$ 14.86 \$ 180.27	\$ 2,126.25 \$ 216.00 \$ 2,126.25	\$0	14.5 11.8	14.5 11.8
115 18LED 115	F-202 F-205 (locked - no entry	9	W 20 C F 2 T 32 R F 4 (ELE)	F22SS F44ILL F22SS	56 112	0.1 SW 1.0 SW	2600 2 2600 2,6		W 17 W C 2 T 50 R LED W 17 W C 2	F22ILL RTLED50	33 50	0.1 0.5 0.1	SW SW	2,600 2,600	172 1,170	120 1,451 120	0.6	\$ 14.86 \$ 180.27 \$ 14.86		5 \$0	14.5 11.8	14.5 11.8 14.5
115 18LED 115	F-205 (locked - no entry F-203 (locked - no entry F-203 (locked - no entry	9 2	W 20 C F 2 T 32 R F 4 (ELE) W 20 C F 2	F22SS F44ILL F22SS	56 112 56	0.1 SW 1.0 SW 0.1 SW	2600 2,6	9 91 2	T 50 R LED W 17 W C 2	F22ILL RTLED50 F22ILL	50	0.1 0.5 0.1	SW SW SW	2,600 2,600 2,600	1,170 1,170		0.6	\$ 180.27 \$ 14.86	\$ 2,126.25	5 \$0	14.5 11.8 14.5	11.8 11.5
18LED 115	F-201 (locked - no entry F-201 (locked - no entry	8 4	T 32 R F 4 (ELE) W 20 C F 2	F44ILL F22SS	112 56	0.9 SW 0.2 SW	2600 2,3 2600 5	30 8 82 4	T 50 R LED W 17 W C 2	RTLED50 F22ILL	50 33	0.4 0.1	SW SW	2,600 2,600	1,040 343	1,290 239	0.5	\$ 160.24 \$ 29.72	\$ 1,890.00 \$ 432.00	\$0 \$0 \$0	11.8 14.5	11.8 14.5
18LED 18LED 18LED	Men's Restroom (locked - no entry Women's Restroom (locked - no entry F-212	3 3 5	T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112 112	0.3 SW 0.3 SW 0.6 SW	3120 1,0 3120 1,0 2600 1,4		T 50 R LED T 50 R LED T 50 R LED	RTLED50 RTLED50 RTLED50	50 50 50	0.2 0.2 0.3	SW SW SW	3,120 3,120 2,600	468 468 650	580	0.2	\$ 69.09 \$ 69.09 \$ 100.15	\$ 708.75	5 \$0	10.3 10.3 11.8	10.3 10.3 11.8
115 18LED	F-212 Men's Staff Restroom (locked - no entry	1 3	W 20 C F 2 T 32 R F 4 (ELE)	F22SS F44ILL	56 112	0.1 SW 0.3 SW	2600 1 3120 1,0	46 1 148 3	W 17 W C 2 T 50 R LED	F22ILL RTLED50	33 50	0.0 0.2	SW SW	2,600 3,120	86 468	60 580	0.0	\$ 7.43 \$ 69.09	\$ 108.00 \$ 708.75	\$0 5 \$0	14.5 10.3	14.5 10.3
18LED 35LED 35LED	Women's Staff Restroom (locked - no entry Corridor Outside F-212 Corridor to B	3 11 3	T 32 R F 4 (ELE) T 32 R F 3 (ELE) T 32 R F 3 (ELE)	F44ILL F43ILL/2 F43ILL/2	112 90	0.3 SW 1.0 SW 0.3 SW	3640 3,6	148 3 104 11 183 3	T 50 R LED T 38 R LED T 38 R LED	RTLED50 RTLED38 RTLED38	38 38	0.2 0.4 0.1	SW SW SW	3,120 3,640 3,640	468 1,522 415		0.6	\$ 69.09 \$ 240.17 \$ 65.50	\$ 2,598.75	5 \$0	10.3 10.8 10.8	10.3 10.8 10.8
18LED 18LED	Corridor B B-19 (locked - no entry	20 12	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	2.2 SW 1.3 SW	3640 8,1 2600 3,4	54 20 194 12	T 50 R LED T 50 R LED	RTLED50 RTLED50	50 50	1.0	SW	3,640 2,600	3,640 1,560	4,514 1,934	0.7	\$ 520.66 \$ 240.36	\$ 4,725.00 \$ 2,835.00	\$0 \$0 \$0	9.1 11.8	9.1 11.8
18LED 18LED 18LED	B-21 B-23 (locked - no entry B-25 (locked - no entry	12 12	T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112 112	1.3 SW 1.3 SW 1.3 SW		94 12 94 12 94 12	T 50 R LED T 50 R LED T 50 R LED	RTLED50 RTLED50 RTLED50	50 50	0.6 0.6	SW SW SW	2,600 2,600 2,600	1,560 1,560 1,560	1,934 1,934 1,934	0.7	\$ 240.36 \$ 240.36 \$ 240.36	\$ 2,835.00	\$0	11.8 11.8 11.8	11.8 11.8 11.8
18LED 133 18LED	B-20 Women's Staff Restroom (locked - no entry	12	T 32 R F 4 (ELE) CF 26 T 32 R F 4 (ELE)	F44ILL CFQ26/1-L	112 27 112	1.3 SW 0.0 SW	2600 3,4 3120	94 12	T 50 R LED CF 26 T 50 R LED	RTLED50 CFQ26/1-L	50 27	0.6 0.0	SW SW SW	2,600 3,120	1,560 84	1,934	0.7	\$ 240.36	\$ 2,835.00	\$0	11.8	11.8 #DIV/0!
I8LED I8LED 4LED	B-22 B-27 B-27	12 12	T 32 R F 4 (ELE) T 32 R F 4 (ELE) 2B 34 R F 2 (u) (MAG)	F44ILL F44ILL FU2EE	112 112	1.3 SW 1.3 SW 0.1 SW	2600 3,4	194 12 194 12 174 2	T 50 R LED T 50 R LED 2T 25 R LED	RTLED50 RTLED50 2RTLED	50 50	0.6 0.6	SW SW	2,600 2,600 2,600	1,560 1,560	1,934	0.7	\$ 240.36 \$ 240.36 \$ 30.37	\$ 2,835.00 \$ 2,835.00 \$ 405.00	\$0	11.8 11.8 13.3	11.8 11.8 13.3
133	Prep Room Men's Staff Restroom	5 1	W 34 C F 2 (MAG) CF 26	F42EE CFQ26/1-L	72 27	0.4 SW 0.0 SW	1560 5 3120	62 5 84 1	4 ft LED Tube CF 26	200732x2 CFQ26/1-L	30 27	0.2	SW SW	1,560 3,120	234 84	328	0.2	\$ 47.51	\$ 816.75 \$ -	5 \$0 \$0	17.2	17.2 #DIV/0!
6LED 8LED X5	Men's Restroom B-29 Custodial Room	6 8	W 32 C F 2 (ELE) T 32 R F 4 (ELE) CF42/1	F42LL F44ILL CF42/1-I	60 112 48	0.4 SW 0.9 SW 0.0 SW	3120 1,1 2600 2,3 1560	23 6 30 8	4 ft LED Tube T 50 R LED CF42/1	200732x2 RTLED50 CF42/1-I	30 50	0.2 0.4 0.0	SW SW SW	3,120 2,600 1,560	562 1,040			\$ 66.87 \$ 160.24	\$ 980.10 \$ 1,890.00		14.7 11.8	14.7 11.8 #DIV/0!
6LED 8LED	Girls' Restroom B-26	6 16	W 32 C F 2 (ELE) T 32 R F 4 (ELE)	F42LL F44ILL	60 112	0.4 SW 1.8 SW	3120 1,1 2600 4,6	23 6 59 16	4 ft LED Tube T 50 R LED	200732x2 RTLED50	30	0.2 0.8	SW SW	3,120 2,600	562 2,080	562 2,579	0.2	\$ 66.87 \$ 320.48	\$ 980.10 \$ 3,780.00	\$0	14.7 11.8	14.7
8LED 8LED 8LED	B-28 B-30 B-31	16 8	T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112 112	1.8 SW 0.9 SW 0.9 SW	2600 4,6 2600 2,3 2600 2,3		T 50 R LED T 50 R LED T 50 R LED	RTLED50 RTLED50 RTLED50	50 50	0.8 0.4 0.4	SW SW SW	2,600 2,600 2,600	2,080 1,040 1,040	2,579 1,290 1,290	1.0 0.5	\$ 320.48 \$ 160.24 \$ 160.24	\$ 1,890.00	\$0	11.8 11.8 11.8	11.8 11.8
115 8LED	B-31 B-33	4 8	W 20 C F 2 T 32 R F 4 (ELE)	F22SS F44ILL	56 112	0.9 SW 0.2 SW 0.9 SW	2600 2,3	82 4 130 8	W 17 W C 2 T 50 R LED	F22ILL RTLED50	33 50	0.1 0.4	SW SW	2,600 2,600	343 1,040	1,290	0.5	\$ 29.72 \$ 160.24	\$ 432.00 \$ 1,890.00	\$0 0 \$0	14.5 11.8	11.8 14.5 11.8
I8LED I8LED	B-32 B-35 B-34	8 8 4	T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112 112	0.9 SW 0.9 SW 0.4 SW	2600 2,3 2600 2,3 2600 1,1		T 50 R LED T 50 R LED T 50 R LED	RTLED50 RTLED50 RTLED50	50 50	0.4 0.4	SW SW SW	2,600 2,600 2,600	1,040 1,040 520		0.5	\$ 160.24 \$ 160.24 \$ 80.12	\$ 1,890.00	\$0	11.8 11.8 11.8	11.8 11.8 11.8
8LED 8LED	A Corridor A-24	23 12	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	2.6 SW 1.3 SW	3640 9,3 2600 3,4	77 23 194 12	T 50 R LED T 50 R LED	RTLED50 RTLED50	50 50	1.2 0.6	SW	3,640 2,600	4,186 1,560	5,191 1,934	0.7	\$ 598.76 \$ 240.36	\$ 5,433.75 \$ 2,835.00	5 \$0 0 \$0	9.1 11.8	9.1 11.8
8LED 8LED 5LED	A-25 A-26 Electrical Room (locked - no entry	12 10 8	T 32 R F 4 (ELE) T 32 R F 4 (ELE) S 32 C F 2 (ELE)	F44ILL F44ILL F42LL	112 112 60	1.3 SW 1.1 SW 0.5 SW	2600 3,4 2600 2,9	112 10	T 50 R LED T 50 R LED T 38 R LED	RTLED50 RTLED50 RTLED38	50 50 38	0.6 0.5 0.3	SW SW SW	2,600 2,600 2,080	1,560 1,300 632		0.6	\$ 240.36 \$ 200.30 \$ 48.34	\$ 2,835.00 \$ 2,362.50	\$0	11.8 11.8 39.1	11.8 11.8 39.1
BLED	A-27 A-28	11 12	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112 112	1.2 SW 1.3 SW	2600 3,4	194 12	T 38 R LED T 50 R LED T 50 R LED	RTLED50 RTLED50	50 50	0.6 0.6	SW SW SW	2,600 2,600	1,430 1,560	1,773 1,934	0.7	\$ 220.33 \$ 240.36	\$ 2,598.75 \$ 2,835.00	5 \$0 0 \$0	39.1 11.8 11.8 11.8	11.8 11.8
BLED BLED 2LED	A-29 B Stairway B Stairway	12 4 3	T 32 R F 4 (ELE) T 32 R F 4 (ELE) W 34 C F 2 (MAG)	F44ILL F44ILL F42EE	112 112 72	1.3 SW 0.4 SW 0.2 SW	2600 3,4 3640 1,6	194 12	T 50 R LED T 50 R LED 4 ft LED Tube	RTLED50 RTLED50 200732x2	50 50 30	0.6 0.2 0.1	SW SW SW	2,600 3,640 3,640	1,560 728 328	1,934 903	0.7	\$ 240.36 \$ 104.13 \$ 52.91	\$ 2,835.00 \$ 945.00	\$0 \$0	11.8 9.1 9.3	9.1 9.3
BLED 7LED	C Wing Corridor C Wing Corridor	25 1	T 32 R F 4 (ELE) 2B 17 R F 4 (ELE)	F44ILL F24ILL	112 61	2.8 SW 0.1 SW	3640 10,1 3640 2	92 25 22 1	T 50 R LED 2T 25 R LED	RTLED50 2RTLED	50 25	1.3 0.0	SW SW	3,640 3,640	4,550 91	5,642 131	1.6 0.0	\$ 650.82 \$ 15.12	\$ 5,906.25 \$ 202.50	5 \$0	9.1 13.4	9.1 13.4
8LED 8LED	Attenance Office C-01	4 11 12	T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112 112	0.4 SW 1.2 SW 1.3 SW	2600 1,1 2600 3,2 2600 3,4	65 4 203 11 194 12	T 50 R LED T 50 R LED T 50 R LED	RTLED50 RTLED50 RTLED50	50 50	0.2 0.6 0.6	SW SW SW	2,600 2,600 2,600	520 1,430 1,560	645 1,773 1,934	0.7	\$ 80.12 \$ 220.33 \$ 240.36		5 \$0	11.8 11.8 11.8	11.8 11.8 11.8
8LED 8LED	C-02 C-03 C-04 C-06	16 16	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112 112	1.3 SW 1.8 SW 1.8 SW	2600 4,6 2600 4,6	59 16 59 16	T 50 R LED T 50 R LED	RTLED50 RTLED50	50	0.8 0.8	SW SW	2,600 2,600	2,080 2,080	2,579 2,579	1.0	\$ 320.48 \$ 320.48	\$ 3,780.00 \$ 3,780.00	\$0 \$0	11.8 11.8	11.8 11.8 11.8
8LED 8LED 8LED	C-06 C-06 Closet C-05	15 1	T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112 112	1.7 SW 0.1 SW 1.8 SW	2600 4,3 1560 1	168 15 75 1	T 50 R LED T 50 R LED T 50 R LED	RTLED50 RTLED50 RTLED50	50 50	0.8 0.1 0.8	SW SW SW	2,600 1,560 2,600	1,950 78 2,080	2,418 97	0.9	\$ 300.45 \$ 14.03 \$ 320.48	\$ 3,543.75 \$ 236.25	5 \$0	11.8 16.8 11.8	11.8 16.8 11.8
8LED 8LED	Boys' Restroom Girls' Restroom	3 3	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	0.3 SW 0.3 SW	3120 1,0 3120 1,0	148 3 148 3	T 50 R LED T 50 R LED	RTLED50 RTLED50	50	0.2 0.2	SW SW	3,120 3,120	468 468	580 580	0.2	\$ 69.09 \$ 69.09	\$ 708.75 \$ 708.75	5 \$0 5 \$0	10.3 10.3	10.3 10.3
8LED 133	C-07 Women's Staff Restroom D Corridor	15	T 32 R F 4 (ELE) CF 26	F44ILL CFQ26/1-L	112 27	1.7 SW 0.0 SW	2600 4,3 3120	168 15 84 1	T 50 R LED CF 26	RTLED50 CFQ26/1-L	50 27	0.8	SW SW	2,600 3,120	1,950 84	2,418	0.9	\$ 300.45 \$ -	\$ 3,543.75 \$ -	\$0	11.8	11.8 #DIV/0
5LED 5LED 8LED	F Wing Corridor F-108	28 40 9	T 32 R F 3 (ELE) T 32 R F 3 (ELE) T 32 R F 4 (ELE)	F43ILL/2 F43ILL/2 F44ILL	90 90 112	2.5 SW 3.6 SW 1.0 SW	3640 13,1		T 38 R LED T 38 R LED T 50 R LED	RTLED38 RTLED38 RTLED50	38 50	1.1 1.5 0.5	SW SW SW	3,640 3,640 2,600	3,873 5,533 1,170	7,571 1,451	0.6	\$ 611.35 \$ 873.36 \$ 180.27	\$ 9,450.00	\$0	10.8 10.8 11.8	10.8 10.8 11.8
115 8LED	F-108 F-111	2 4	W 20 C F 2 T 32 R F 4 (ELE)	F22SS F44ILL	56 112	0.1 SW 0.4 SW	2600 2 2600 1,1	91 2 65 4	W 17 W C 2 T 50 R LED	F22ILL RTLED50	33 50	0.1 0.2	SW	2,600 2,600	172 520 1.170	120 645	0.0	\$ 14.86 \$ 80.12	\$ 216.00 \$ 945.00	\$0 \$0	14.5 11.8	14.5 11.8
115 ISLED	F-110 F-110 F-106	3 9	T 32 R F 4 (ELE) W 20 C F 2 T 32 R F 4 (ELE)	F44ILL F22SS F44ILL	112 56 112	1.0 SW 0.2 SW 1.0 SW	2600 4 2600 2,6	37 9 37 3 31 9	T 50 R LED W 17 W C 2 T 50 R LED	RTLED50 F22ILL RTLED50	33 50	0.5 0.1 0.5	SW SW	2,600 2,600 2,600	1,170 257 1,170	179	0.1	\$ 180.27 \$ 22.29 \$ 180.27	\$ 324.00	\$0	11.8 14.5 11.8	11.8 14.5 11.8
18LED 115 18LED 115	F-106 F-109	3	T 32 R F 4 (ELE) W 20 C F 2 T 32 R F 4 (ELE)	F44ILL F22SS F44ILL F22SS	56 112	0.2 SW 1.0 SW	2600 4 2600 2,6	37 3 31 9	W 17 W C 2 T 50 R LED	F22ILL RTLED50 F22ILL	33 50	0.1 0.5	SW SW SW	2,600 2,600	257 1,170	179 1,451		\$ 22.29 \$ 180.27 \$ 7.43	\$ 324.00	5 \$0 5 \$0	11.8 14.5 11.8 14.5	14.5 11.8
18LED 115	F-109 F-107 F-107	9 3	W 20 C F 2 T 32 R F 4 (ELE) W 20 C F 2	F22SS F44ILL F22SS	56 112 56	0.1 SW 1.0 SW 0.2 SW	2600 1	46 1 321 9 37 3	W 17 W C 2 T 50 R LED W 17 W C 2	RTLED50 F22ILL	33 50 33	0.0 0.5 0.1	SW SW SW	2,600 2,600 2,600	1,170 257	1,451 179	0.6	\$ 7.43 \$ 180.27 \$ 22.29 \$ 180.27		5 \$0	14.5 11.8 14.5	14.5 11.8 14.5
18LED	F-107	9	T 32 R F 4 (ELE)	F2233 F44ILL	112	1.0 SW	2600 2,6	121 9	T 50 R LED	RTLED50	50	0.5	SW	2,600	1,170	1,451	0.6	\$ 180.27	\$ 2,126.25	\$0	11.8	11.8

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					West								144		D-4fla		A		NI Course Co	ayback
	Area Description	No. of Fixtures	Standard Fixture Code	Fixture Code	Watts per Fixture			Annual Hours Annual kWh	Number of Fixtures	Standard Fix		Fixture Code	Watts per Fixture	kW/Space	Retrofit Control Annual Hours		Annual kWh Saved Annual kW Saved		NJ Smart Start With O Lighting Incentive Incentive	tive Simple
	escription of the location - Room number/Room name: Floor number (if applicable)	No. of fixtures before the retrofit	"Lighting Fixture Code" Example 2T 40 R F(U) = 2'x2' Troff 40 w Recess. Floor 2 lamps U shape	Code from Table of Standard Fixture Wattages	Value from Table of Standard	(Watts/Fixt) * (Fixt No.)	Pre-inst. control device	Estimated daily (kW/space) * hours for the usage group		"Lighting Fixture Cod 2T 40 R F(U) = 2 Recess. Floor 2 lamps	'x2' Troff 40 w	Code from Table of Standard Fixture Wattages	Value from Table of Standard	(Watts/Fixt) * (Number of Fixtures)	Retrofit control Estimated device annual hours for the usage	(kW/space) * (Annual Hours)	(Original Annual kWh) - (Retrofit Annual kWh) Annual kW)	(kWh Saved) * Cost for (\$/kWh) renovations to lighting system	Prescriptive Length of to Lighting for renovate m Measures cost to be	ations renovation
			iamps o snape		Fixture Wattages			usage group		recess. Floor 2 lamps	o Snape	wattages	Fixture Wattages	rixtures	group	nours)	Allitual KWI)	lighting system	recovered	
	F-104 F-102	3	W 20 C F 2 T 32 R F 4 (ELE)	F22SS F44ILL	56 112	0.2 1.0	SW SW	2600 43 2600 2,62		W 17 W C 2 T 50 R LED		F22ILL RTLED50	33	0.1 0.5	SW 2,600 SW 2,600	257 1.170		\$ 22.29 \$ 324.00 \$ 180.27 \$ 2,126.25		
	F-102 F-105	3 9	W 20 C F 2 T 32 R F 4 (ELE)	F22SS F44ILL	56 112	0.2	SW	2600 43 2600 2,62	7 3	W 17 W C 2 T 50 R LED		F22ILL RTLED50	33 50	0.1	SW 2,600 SW 2,600	257 1,170	179 0.1 1,451 0.6	\$ 22.29 \$ 324.00 \$ 180.27 \$ 2,126.25	0 \$0 14.5	.5 1
	F-105 F-103	3 9	W 20 C F 2 T 32 R F 4 (ELE)	F22SS F44ILL	56 112	0.2 1.0	SW SW	2600 43 2600 2,62	7 3 1 9	W 17 W C 2 T 50 R LED		F22ILL RTLED50	33 50	0.1 0.5	SW 2,600 SW 2,600	257 1,170	179 0.1 1,451 0.6	\$ 22.29 \$ 324.00 \$ 180.27 \$ 2,126.25		5 1
ı	F-103 Men's Staff Restroom (locked - no entry	3	W 20 C F 2 T 32 R F 4 (ELE)	F22SS F44ILL	56 112	0.2 0.3	SW SW	2600 43 3120 1,04	8 3	W 17 W C 2 T 50 R LED		F22ILL RTLED50	33 50	0.1 0.2	SW 2,600 SW 3,120	257 468		\$ 22.29 \$ 324.00 \$ 69.09 \$ 708.75	5 \$0 10.3	.3
We	fomen's Staff Restroom (locked - no entry Electrical Room (locked - no entry	3 8	T 32 R F 4 (ELE) S 32 C F 2 (ELE)	F44ILL F42LL	112 60	0.3 0.5	SW	3120 1,04 2080 99		T 50 R LED T 38 R LED		RTLED50 RTLED38	50 38	0.2	SW 3,120 SW 2,080	468 632		\$ 69.09 \$ 708.75 \$ 48.34 \$ 1,890.00		.1
	Janitor (locked - no entry F-101	9	CF 26 T 32 R F 4 (ELE)	CFQ26/1-L F44ILL	27 112	0.0 1.0	SW	1560 4 2600 2,62	2 1 1 9	CF 26 T 50 R LED		CFQ26/1-L RTLED50	27 50	0.0	SW 1,560 SW 2,600	42 1,170		\$ - \$ - \$ 180.27 \$ 2,126.25 \$ 22.29 \$ 324.00	\$0 5 \$0 11.8	.8
	F-101 F-Stairway F Corridor	6	W 20 C F 2 T 32 R F 4 (ELE) S 32 C F 1 (ELE)	F22SS F44ILL	56 112	0.2	SW SW	2600 43 3640 2,44	6 6	W 17 W C 2 T 50 R LED		F22ILL RTLED50 200732x1	50	0.1	SW 2,600 SW 3,640	1,092	179 0.1 1,354 0.4	\$ 156.20 \$ 1,417.50	0 \$0 9.1	1
	F Corridor F Corridor Boys' Restroom	50 26	S 32 C F 1 (ELE) S 32 C F 1 (ELE) T 32 R F 4 (ELE)	F41LL F41LL F44ILL	32 32 112	1.6 0.8 0.2	SW SW SW	3640 5,82 3640 3,02 3120 69	8 26	4 ft LED Tube 4 ft LED Tube T 50 R LED		200732x1 200732x1 RTLED50	15	0.8 0.4 0.1	SW 3,640 SW 3,640 SW 3,120	2,730 1,420	1,609 0.4	\$ 356.90 \$ 4,083.75 \$ 185.59 \$ 2,123.55 \$ 46.06 \$ 472.50	5 \$0 11.4	4
	Girls' Restroom BB Corridor	2 18	T 32 R F 4 (ELE) W 32 C F 2 (ELE)	F44ILL F44ILL F42LL	112	0.2 0.2 1.1	SW SW	3120 69 3120 69 3640 3,93	9 2	T 50 R LED 4 ft LED Tube		RTLED50 200732x2	50	0.1 0.5	SW 3,120 SW 3,120 SW 3,640	312 312 1,966	387 0.1	\$ 46.06 \$ 472.50 \$ 226.74 \$ 2,940.30	0 \$0 10.3	.3
	BB-8	12	T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	1.3	SW SW	2600 3,49 2600 3,49	4 12	T 50 R LED		RTLED50 RTLED50	50	0.6 0.6	SW 2,600 SW 2,600	1,560	1,934 0.7	\$ 240.36 \$ 2,835.00 \$ 240.36 \$ 2,835.00	0 \$0 11.8	8
	BB-6 BB-7 BB-5	12	T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112	1.3	SW	2600 3,49 2600 3,49	4 12	T 50 R LED		RTLED50 RTLED50	50	0.6	SW 2,600 SW 2,600	1,560	1,934 0.7	\$ 240.36 \$ 2,835.00 \$ 240.36 \$ 2,835.00	0 \$0 11.8	.8
	BB-4 BB-3	20	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112	2.2	SW	2600 5,82 2600 3,49	4 20	T 50 R LED		RTLED50 RTLED50	50	1.0	SW 2,600 SW 2,600	2,600 1,560	3,224 1.2	\$ 400.60 \$ 4,725.00 \$ 240.36 \$ 2,835.00	0 \$0 11.8	.8
	BB-1 BB-2	12 20	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	1.3 2.2	SW SW SW	2600 3,49 2600 5,82		T 50 R LED T 50 R LED T 50 R LED		RTLED50 RTLED50	50 50	0.6 1.0	SW 2,600 SW 2,600	1,560 2,600	1,000.	\$ 240.36 \$ 2,835.00 \$ 400.60 \$ 4,725.00	0 \$0 11.8	.8
	Women's Staff Restroom Custodial Room	4 1	W 32 C F 2 (ELE) W 34 C F 2 (MAG)	F42LL F42EE	60 72	0.2 0.1	SW SW	3120 74 1560 11	9 4 2 1	4 ft LED Tube 4 ft LED Tube		200732x2 200732x2	30 30	0.1 0.0	SW 3,120 SW 1,560	374 47	66 0.0	\$ 44.58 \$ 653.40 \$ 9.50 \$ 163.35	5 \$0 17.2	.2
	Men's Staff Restroom Storage Room (locked - no entry	4 2	W 32 C F 2 (ELE) T 32 R F 4 (ELE)	F42LL F44ILL	60 112	0.2	SW	3120 74 1560 34	9 4 9 2	ft LED Tube T 50 R LED		200732x2 RTLED50	30 50	0.1 0.1	SW 3,120 SW 1,560	374 156		\$ 44.58 \$ 653.40 \$ 28.05 \$ 472.50	0 \$0 16.8	.8
	Elevator Equipment (locked - no entry Storage Room (locked - no entry	1 2	S 32 C F 2 (ELE) S 32 C F 2 (ELE)	F42LL F42LL	60 60	0.1 0.1	SW	1560 9 1560 18		T 38 R LED T 38 R LED		RTLED38 RTLED38	38 38	0.0	SW 1,560 SW 1,560	59 119		\$ 4.98 \$ 236.25 \$ 9.95 \$ 472.50	0 \$0 47.5	.5
	B Corridor 1 B Corridor 1	21	T 32 R F 4 (ELE) 2B 17 R F 4 (ELE)	F44ILL F24ILL	112 61	2.4 0.1	SW SW	3640 8,56 3640 22	2 1	T 50 R LED 2T 25 R LED		RTLED50 2RTLED	50 25	1.1 0.0	SW 3,640 SW 3,640	3,822 91	4,739 1.3 131 0.0	\$ 546.69 \$ 4,961.25 \$ 15.12 \$ 202.50	0 \$0 13.4	.4
	B-14 B-15 B-13	16 4	T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (FLE) T 32 R F 4 (FLE)	F44ILL F44ILL F44II I	112 112	1.8 0.4	SW SW SW	2600 4,65 2600 1,16 2600 1.16	5 4	T 50 R LED T 50 R LED T 50 R LED		RTLED50 RTLED50 RTLED50	50	0.8 0.2	SW 2,600 SW 2,600 SW 2,600	2,080 520	645 0.2	\$ 320.48 \$ 3,780.00 \$ 80.12 \$ 945.00 \$ 80.12 \$ 945.00	0 \$0 11.8	.8
	B-13 B-11 B-12	12	T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112 112	0.4 1.3 0.9	SW SW SW	2600 1,16 2600 3,49 2600 2,33	4 12	T 50 R LED T 50 R LED		RTLED50 RTLED50 RTLED50	50	0.2 0.6 0.4	SW 2,600 SW 2,600 SW 2,600	520 1,560 1,040	1,934 0.7	\$ 80.12 \$ 945.00 \$ 240.36 \$ 2,835.00 \$ 160.24 \$ 1,890.00	0 \$0 11.8	.8
	B-09 B-09	12	T 32 R F 4 (ELE) W 20 C F 2	F44ILL F44ILL F22SS	112	1.3 0.2	SW SW	2600 2,33 2600 3,49 2600 43	4 12	T 50 R LED W 17 W C 2		RTLED50 RTLED50 F22ILL	50	0.4 0.6 0.1	SW 2,600 SW 2,600 SW 2,600	1,560		\$ 240.36 \$ 2,835.00 \$ 22.29 \$ 324.00	0 \$0 11.8	.8
	B-10 B-08	8	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44II I	112 112	0.9	SW SW	2600 2,33 2600 1.45	0 8	T 50 R LED		RTLED50 RTLED50	50	0.4 0.3	SW 2,600 SW 2,600	1,040	1,290 0.5	\$ 160.24 \$ 1,890.00 \$ 100.15 \$ 1,181.25	0 \$0 11.8	.8
	B-08 Custodial Room (locked - no entry		W 20 C F 2 CF 26	F22SS CFQ26/1-L	56 27	0.2	SW SW	2600 43 1560 4	7 3	W 17 W C 2		F22ILL CFQ26/1-L	33	0.1	SW 2,600 SW 1,560	257	179 0.1	\$ 22.29 \$ 324.00		
	Men's Staff Restroom Storage	1	2B 34 R F 2 (u) (MAG)	FU2EE CFQ26/1-L	72	0.1	SW	3120 22 1560 4	5 1	OF 26 2T 25 R LED OF 26		2RTLED CFQ26/1-L	25	0.0	SW 3,120 SW 1,560	78 42	147 0.0	\$ 17.46 \$ 202.50	0 \$0 11.6	.6
	Girls' Restroom Girls' Restroom	2	T 32 R F 4 (ELE) S 32 PC F 1	F44ILL F41LL	112	0.2	SW	3120 69 3120 10		T 50 R LED 4 ft LED Tube		RTLED50 200732x1	50	0.1	SW 3,120 SW 3,120	312	387 0.1	\$ 46.06 \$ 472.50 \$ 6.32 \$ 81.68		
	Women's Staff Restroom Boys' Restroom	1 2	2B 34 R F 2 (u) (MAG) T 32 R F 4 (ELE)	FU2EE F44ILL	72 112	0.1	SW	3120 22 3120 69	5 1 9 2	4 ft LED Tube 2T 25 R LED T 50 R LED		2RTLED RTLED50	25 50	0.0	SW 3,120 SW 3,120	78 312	53 0.0 147 0.0 387 0.1	\$ 17.46 \$ 202.50 \$ 46.06 \$ 472.50	0 \$0 11.6	.6
	Boys' Restroom B-07	1 15	S 32 PC F 1 T 32 R F 4 (ELE)	F41LL F44ILL	32 112	0.0 1.7	SW SW	3120 10 2600 4,36	0 1 8 15	ft LED Tube T 50 R LED		200732x1 RTLED50	15 50	0.0 0.8	SW 3,120 SW 2,600	47 1,950	53 0.0	\$ 6.32 \$ 81.68 \$ 300.45 \$ 3,543.75	8 \$0 12.9	.9
	B-07 B-06	3 12	W 20 C F 2 T 32 R F 4 (ELE)	F22SS F44ILL	56 112	0.2 1.3	SW	2600 43 2600 3,49	7 3 4 12	W 17 W C 2 T 50 R LED		F22ILL RTLED50	33 50	0.1 0.6	SW 2,600 SW 2,600	257 1,560	179 0.1 1,934 0.7	\$ 22.29 \$ 324.00 \$ 240.36 \$ 2,835.00		
	B-05 B-04 Teacher's Lounge	15 13	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	1.7 1.5	SW SW	2600 4,36 2600 3,78	6 13	T 50 R LED T 50 R LED		RTLED50 RTLED50	50 50	0.8 0.7	SW 2,600 SW 2,600	1,950 1,690	2,096 0.8	\$ 300.45 \$ 3,543.75 \$ 260.39 \$ 3,071.25	5 \$0 11.8	.8
	B-03 B-01	16 10	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	1.8 1.1	SW SW	2600 4,65 2600 2,91	2 10	T 50 R LED T 50 R LED		RTLED50 RTLED50	50 50	0.8 0.5	SW 2,600 SW 2,600	2,080 1,300	1,612 0.6	\$ 320.48 \$ 3,780.00 \$ 200.30 \$ 2,362.50	0 \$0 11.8	.8
	B-02 Lower A Classroom Lower A Stairs	3	T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL F44II I	112 112 112	1.2 0.3	SW SW SW	2600 3,20 2600 87 3640 81	4 3	T 50 R LED T 50 R LED T 50 R LED		RTLED50 RTLED50 RTLED50	50	0.6 0.2 0.1	SW 2,600 SW 2,600 SW 3,640	1,430 390 364		\$ 220.33 \$ 2,598.75 \$ 60.09 \$ 708.75 \$ 52.07 \$ 472.50	5 \$0 11.8	.8
	Lower A Stairs Lower A Stairs A Wing Corridor	3	T 32 R F 4 (ELE) W 32 C F 2 (ELE) T 32 R F 4 (ELE)	F44ILL F42LL F44ILL	60	0.2 0.2 3.0	SW SW	3640 81 3640 65 3640 11,00		4 ft LED Tube		200732x2 RTLED50	30	0.1 0.1 1.4	SW 3,640 SW 3,640	328 4,914		\$ 37.79 \$ 490.05 \$ 702.89 \$ 6,378.75	5 \$0 13.0	.0
	Storage (locked - no entry Men's Staff Restroom	2	W 34 C F 2 (MAG)	F42EE CFQ26/1-L	72	0.1	SW	1560 22 3120 8	5 2	4 ft LED Tube CF 26		200732x2 CFQ26/1-L	30	0.1	SW 1,560 SW 3,120	94	131 0.1	\$ 19.00 \$ 326.70		
	A-01 Women's Staff Restroom	7	T 32 R F 4 (ELE) CF 26	F44ILL CFQ26/1-L	112	0.0	SW SW	2600 2,03 3120 8	8 7	T 50 R LED CF 26		RTLED50 CFQ26/1-L	50	0.4	SW 2,600 SW 3,120	910	1,128 0.4	\$ 140.21 \$ 1,653.75	5 \$0 11.8	.8
	A-02 Boys' Restroom	7	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44II I	112	0.8	SW	2600 2,03 3120 69	8 7	T 50 R LED		RTLED50	50	0.4	SW 2,600 SW 3,120	910	1,128 0.4 387 0.1	\$ 140.21 \$ 1,653.75 \$ 46.06 \$ 472.50		
	Custodial Custodial	1 1	CF 26	CFQ26/1-L 175/1	27	0.0	SW	1560 4 1560 11	2 1	CF 26 CF 26		CFQ26/1-L CFQ26/1-L	27	0.0	SW 1,560 SW 1,560	42		\$ - \$ -	\$0	
	Girls' Restroom A-04 Music Room	2 50	T 32 R F 4 (ELE) W 34 C F 2 (MAG)	F44ILL F42EE	112 72	0.2	SW	3120 69 2600 9,36	9 2	T 50 R LED 4 ft LED Tube		RTLED50 200732x2	50	0.1	SW 3,120 SW 2,600	312 3,900	387 0.1	\$ 46.06 \$ 472.50 \$ 678.43 \$ 8,167.50	0 \$0 10.3 0 \$0 12.0	0
	A-04 Storage A-04 Instruments	2 2	W 34 C F 2 (MAG) W 34 C F 2 (MAG)	F42EE F42EE	72 72	0.1 0.1	SW SW	1560 22 1560 22	5 2 5 2	4 ft LED Tube 4 ft LED Tube		200732x2 200732x2	30 30	0.1 0.1	SW 1,560 SW 1,560	94 94	131 0.1 131 0.1	\$ 19.00 \$ 326.70 \$ 19.00 \$ 326.70	0 \$0 17.2 0 \$0 17.2	2
	A-04 Storage A-04 Sheet Music Storage	3	W 34 C F 2 (MAG) W 34 C F 2 (MAG)	F42EE F42EE	72 72	0.1 0.2	SW SW	1560 33	5 2 7 3	4 ft LED Tube 4 ft LED Tube		200732x2 200732x2	30 30	0.1 0.1	SW 1,560 SW 1,560	94 140	131 0.1 197 0.1	\$ 19.00 \$ 326.70 \$ 28.51 \$ 490.05	5 \$0 17.2	.2
	A-04 Office A-04 Instruments	3	W 34 C F 2 (MAG) I 75	F42EE I75/1	72 75	0.1 0.2	SW SW	1560 35	1 3	4 ft LED Tube CF 26		200732x2 CFQ26/1-L	30 27	0.1 0.1	SW 1,560 SW 1,560	94 126	225 0.1	\$ 19.00 \$ 326.70 \$ 32.58 \$ 16.20		5
	A-02 (locked - no entry Auditorium	12	W 34 C F 2 (MAG) HPS 250	F42EE HPS250/1	72 295	2.9 3.5	SW SW	2600 7,48 3120 11,04	8 40 5 12	ft LED Tube FXLED78		200732x2 FXLED78/1	30 78	1.2 0.9	SW 2,600 SW 3,120	3,120 2,920	8,124 2.6	\$ 542.74 \$ 6,534.00 \$ 967.32 \$ 10,130.35	5 \$1,200 10.5	
	Backstage Right Stage Rockstage Left	2	75 75	175/1 175/1	75 75	0.2	SW SW	3120 70 3120 46	2 3 8 2	CF 26 CF 26		CFQ26/1-L CFQ26/1-L	27	0.1 0.1	SW 3,120 SW 3,120	253 168		\$ 53.49 \$ 16.20 \$ 35.66 \$ 10.80		3
	Backstage Left Storage Auditorium Corrido	3 20	S 32 C F 1 (ELE) W 34 C F 2 (MAG) T 32 R F 4 (ELE)	F41LL F42EE F44II I	32 72 112	0.0 0.2	SW SW SW	3120 10 1560 33 3640 8,15	7 3	4 ft LED Tube 4 ft LED Tube T 50 R LED		200732x1 200732x2 RTLED50	30	0.0 0.1 1.0	SW 3,120 SW 1,560 SW 3,640	47 140 3.640	197 0.1	\$ 6.32 \$ 81.66 \$ 28.51 \$ 490.05 \$ 520.66 \$ 4,725.00	5 \$0 17.2	.2
	D-27 D-16	12	T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112 112	1.3 0.7	SW SW SW	2600 8,15 2600 3,49 2600 1.74		T 50 R LED T 50 R LED		RTLED50 RTLED50 RTLED50	50	0.6 0.3	SW 2,600 SW 2,600	3,640 1,560 780	1,934 0.7	\$ 520.66 \$ 4,725.00 \$ 240.36 \$ 2,835.00 \$ 120.18 \$ 1.417.50	0 \$0 11.8	.8
	D-14 (locked - no entry D-12	12	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112 112	1.3	SW	2600 3,49 2600 3,20	4 12 3 11	T 50 R LED		RTLED50	50	0.6 0.6	SW 2,600 SW 2,600	1,560 1,430	1,934 0.7	\$ 240.36 \$ 2,835.00 \$ 220.33 \$ 2,598.75	0 \$0 11.8	.8
	Office Office	2 2	T 34 R F 3 (MAG) T 34 R F 3 (MAG)	F43EE F43EE	115 115	0.2	SW SW	2600 59 2600 59	8 2	T 28 R F 3		F43SSILL F43SSILL	72 72	0.1 0.1	SW 2,600 SW 2,600	374 374	224 0.1	\$ 27.78 \$ 256.50 \$ 27.78 \$ 256.50	0 \$0 9.2 0 \$0 9.2	2
	D-21 (locked - no entry Gold Cafeteria	38	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	1.3 4.3	SW SW	2600 3,49 2600 11,06	6 38	T 28 R F 3 T 50 R LED T 50 R LED		RTLED50	50 50	0.6	SW 2,600 SW 2,600	1,560 4,940	1,934 0.7 6,126 2.4	\$ 240.36 \$ 2,835.00 \$ 761.13 \$ 8,977.50	0 \$0 11.8 0 \$0 11.8	.8
	Classroom in Cafeteria Kitchen Storage	12 6	T 32 R F 4 (ELE) W 34 C F 2 (MAG)	F44ILL F42EE	112 72	1.3 0.4	SW SW	2600 3,49 1560 67	4 12 4 6	T 50 R LED 4 ft LED Tube		RTLED50 200732x2	50 30	0.6 0.2	SW 2,600 SW 1,560	1,560 281	1,934 0.7 393 0.3	\$ 240.36 \$ 2,835.00 \$ 57.01 \$ 980.10	0 \$0 11.8 0 \$0 17.2	
	Custodial Storage (locked - no entry	1	CF 26 W 34 C F 2 (MAG)	CFQ26/1-L F42EE	27 72	0.0 0.1	SW SW	1560 22	2 1	CF 26 4 ft LED Tube T 50 R LED		CFQ26/1-L 200732x2	27 30	0.0 0.1	SW 1,560 SW 1,560	42 94	- 0.0	\$ - \$ - \$ 19.00 \$ 326.70	\$0 0 \$0 17.2	2
	Serving Line Cafeteria	8 54	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	0.9 6.0	SW	2600 2,33 2600 15,72	5 54	T 50 R LED		RTLED50 RTLED50	50 50	0.4 2.7	SW 2,600 SW 2,600	1,040 7,020	1,290 0.5 8,705 3.3	\$ 160.24 \$ 1,890.00 \$ 1,081.61 \$ 12,757.50	0 \$0 11.8 0 \$0 11.8	8
	D-19 (locked - no entry D-17 (locked - no entry	2 2	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	0.2 0.2	SW	2600 58 2600 58	2 2 2	T 50 R LED T 50 R LED		RTLED50 RTLED50	50 50	0.1 0.1	SW 2,600 SW 2,600	260 260	322 0.1 322 0.1	\$ 40.06 \$ 472.50 \$ 40.06 \$ 472.50	0 \$0 11.8 0 \$0 11.8	.8
	D-10 Teacher's Lounge Child Study Team Office	6 39	T 32 R F 4 (ELE) T 32 R F 3 (ELE)	F44ILL F43ILL/2	112 90	0.7 3.5	SW SW	2600 1,74 2600 9,12	7 6 6 39	T 50 R LED T 38 R LED		RTLED50 RTLED38	50 38	0.3 1.5	SW 2,600 SW 2,600	780 3,853		\$ 120.18 \$ 1,417.50 \$ 655.17 \$ 9,213.75	0 \$0 11.8 5 \$0 14.1	.1
	Conference Room Main Office Corridor Main Office Oth (locked property)	3	T 32 R F 3 (ELE) T 32 R F 4 (ELE)	F43ILL/2 F44ILL	90 112	0.4	SW SW	1560 56 3640 1,22		T 38 R LED T 50 R LED		RTLED38 RTLED50	38 50	0.2	SW 1,560 SW 3,640	237 546		\$ 47.06 \$ 945.00 \$ 78.10 \$ 708.75		
	Main Office 9th (locked - no entry Main Office Restroom Main Office 11th (locked - no entry	12	T 32 R F 4 (ELE) CF 26 T 32 R F 4 (ELE)	F44ILL CFQ26/1-L	112 27	1.3	SW SW	2600 3,49 3120 8	4 1	T 50 R LED CF 26		RTLED50 CFQ26/1-L	27	0.6	SW 2,600 SW 3,120	1,560 84	- 0.0	\$ 240.36 \$ 2,835.00	\$0	
	Main Office 11th (locked - no entry Main Office 12th (locked - no entry Main Office 10th	12 12	T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112	1.3 1.3	SW SW SW	2600 3,49 2600 3,49 2600 1,45	12 4 12 6 5	T 50 R LED T 50 R LED T 50 R LED		RTLED50 RTLED50 RTLED50	50	0.6 0.6	SW 2,600 SW 2,600 SW 2,600	1,560 1,560 650		\$ 240.36 \$ 2,835.00 \$ 240.36 \$ 2,835.00 \$ 100.15 \$ 1,181.25	0 \$0 11.8 0 \$0 11.8 5 \$0 11.8	.8
	Guidance Office 1 Guidance Office 2	2	T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112 112	0.6 0.2 0.2	SW SW	2600 58	2 2	T 50 R LED T 50 R LED		RTLED50 RTLED50 RTLED50	50	0.3 0.1 0.1	SW 2,600 SW 2,600 SW 2,600	260 260	322 0.1	\$ 100.15 \$ 1,181.25 \$ 40.06 \$ 472.50 \$ 40.06 \$ 472.50	0 \$0 11.8	.8
	Guidance Office 2 Guidance Office 3 Guidance Office 4	2	T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112 112	0.2 0.2 0.2	SW SW	2600 58 2600 58 2600 58	2 2	T 50 R LED		RTLED50 RTLED50	50	0.1	SW 2,600 SW 2,600 SW 2,600	260 260	322 0.1	\$ 40.06 \$ 472.50 \$ 40.06 \$ 472.50 \$ 40.06 \$ 472.50	0 \$0 11.8	.8
	Guidance Office 5 Guidance Office 6	2 2	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	0.2 0.2	SW SW	2600 58 2600 58 2600 58	2 2	T 50 R LED T 50 R LED T 50 R LED		RTLED50 RTLED50	50 50	0.1 0.1	SW 2,600 SW 2,600	260 260 260	322 0.1	\$ 40.06 \$ 472.50 \$ 40.06 \$ 472.50	0 \$0 11.8	.8
	Guidance Office 7		T 32 R F 4 (ELE)	F44ILL	112	0.2	SW	2600 58				RTLED50		0.1	SW 2,600	200		\$ 40.06 \$ 472.50	0 \$0 11.8	.8

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			EXISTING CON	Watts per							Watts per		Retrofit		Annual kWh	COST & SAVINGS ANALYSIS	NJ Smart Start Simple Page With O	
Code Un	Area Description sique description of the location - Room number/Room name: Floor number (if applicable)	No. of Fixtures No. of fixtures before the retrofit 40 R F(U) = 2"x2" Troff 40 w Recess. Flor	Fixture Code 2T Code from Table of Standard or 2 Fixture Wattages	Fixture Value from Table of Standard	(Watts/Fixt) * (Fixt Pr	e-inst. Estimated daily hours for the usage group	(kW/space) *	the retrofit	Standard Fixture Code "Lighting Fixture Code" Example 2T 40 R F(U) = 2'x2' Troff 40 w Recess. Floor 2 lamps U shape	Fixture Code Code from Table of Standard Fixture Wattages	Fixture Value from Table of Standard	kW/Space (Watts/Fixt) * (Number of Fixtures)	Control Annual H Retrofit control Estimated annual hor for the usa		Saved Annual kW Saved (Original Annual kWh) - (Retrofit Annual kWh) Annual kWh) Annual kW)	(kWh Saved) * Cost for (\$/kWh) * Cost for renovations to lighting syster	Prescriptive Length of t	time Length of time for renovations cost
.ED	Guidance Office 10	2 T 32 R F 4 (ELE)	F44ILL	Fixture Wattages 112	0.2	SW 2600	582		T 50 R LED	RTLED50	Fixture Wattages	0.1	group SW 2,600			\$ 40.06 \$ 472.5	recovered	
.ED	Guidance Office 11	2 T 32 R F 4 (ELE)	F44ILL	112	0.2	SW 2600	582	2	T 50 R LED	RTLED50	50	0.1	SW 2,600	260	322 0.1	\$ 40.06 \$ 472.5	0 \$0 11.8	11.8
.ED	Break Room Break Room Storage (locked - no entry	4 T 32 R F 3 (ELE) 2 W 34 C F 2 (MAG)	F43ILL/2 F42EE	90 72	0.4 0.1	SW 2600 SW 1560	936 225	2 .	T 38 R LED 4 ft LED Tube	RTLED38 200732x2	38	0.2 0.1	SW 2,600 SW 1,560	395 94	131 0.1	\$ 67.20 \$ 945.0 \$ 19.00 \$ 326.7	0 \$0 17.2	17.2
ED ED	Break Room Storage (locked - no entry D-15 Break Room	2 W 34 C F 2 (MAG) 6 T 32 R F 4 (ELE)	F42EE F44ILL	72 112	0.1 0.7	SW 1560 SW 2600	225 1,747	6	4 ft LED Tube T 50 R LED	200732x2 RTLED50	30 50	0.1	SW 1,560 SW 2,600	94 780	131 0.1 967 0.4	\$ 19.00 \$ 326.7 \$ 120.18 \$ 1,417.5	0 \$0 17.2 0 \$0 11.8	17.2
D D	Women's Staff Restroom Men's Staff Restroom	2 S 32 C F 1 (ELE) 2 S 32 C F 1 (ELE)	F41LL F41LL	32	0.1	SW 3120 SW 3120	200	2	4 ft LED Tube	200732x1 200732x1	15	0.0	SW 3,120 SW 3,120	94	106 0.0	\$ 12.63 \$ 163.3 \$ 12.63 \$ 163.3	15 \$0 12.9 15 \$0 12.9	12.9
D	Electrical Room (locked - no entry	8 S 32 C F 2 (ELE) 12 T 32 R F 4 (ELE)	F42LL	60	0.5	SW 2080 SW 2600	998	8	T 38 R LED T 50 R LED	RTLED38	38	0.3	SW 2,080 SW 2,600	632	366 0.2	\$ 48.34 \$ 1,890.0	0 \$0 39.1	39.1
ED ED	D-13(locked - no entry D-08 (locked - no entry	12 T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	1.3 1.3	SW 2600	3,494 3,494	12	T 50 R LED	RTLED50 RTLED50	50	0.6 0.6	SW 2,600	1,560	1,934 0.7	\$ 240.36 \$ 2,835.0 \$ 240.36 \$ 2,835.0	0 \$0 11.8	11.8
D D	D-11(locked - no entry D-09 (locked - no entry	12 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	1.3	SW 2600 SW 2600	3,494 3,494		T 50 R LED T 50 R LED	RTLED50 RTLED50	50	0.6	SW 2,600 SW 2,600		1,934 0.7 1,934 0.7	\$ 240.36 \$ 2,835.0 \$ 240.36 \$ 2,835.0		
D D	D-06 D-07 (locked - no entry	11 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	1.2	SW 2600 SW 2600	3,203 3,494	11 12	T 50 R LED T 50 R LED	RTLED50 RTLED50	50 50	0.6 0.6	SW 2,600 SW 2,600			\$ 220.33 \$ 2,598.7 \$ 240.36 \$ 2,835.0		
	D-05 (locked - no entry D-03 (locked - no entry	2 T 34 R F 3 (MAG) 2 T 34 R F 3 (MAG)	F43EE F43EE	115 115	0.2 0.2	SW 2600 SW 2600	598 598		T 28 R F 3 T 28 R F 3	F43SSILL F43SSILL	72	0.1 0.1	SW 2,600 SW 2,600	374	224 0.1	\$ 27.78 \$ 256.5 \$ 27.78 \$ 256.5	0 \$0 9.2	9.2
D D	D-04	11 T 32 R F 4 (ELE) 12 T 32 R F 4 (FLF)	F44ILL F44ILL	112	1.2	SW 2600	3,203 3,494		T 50 R LED T 50 R LED	RTLED50 RTLED50	50	0.6	SW 2,600 SW 2,600	1,430	1,773 0.7	\$ 220.33 \$ 2,598.7	5 \$0 11.8	11.8
D	D-01 (locked - no entry D-02	6 T 32 R F 4 (ELE)	F44ILL	112 112	0.7	SW 2600	1,747	6	T 50 R LED	RTLED50	50	0.6	SW 2,600	780	967 0.4	\$ 240.36 \$ 2,835.0 \$ 120.18 \$ 1,417.5		11.8
3	Custodial (C-Wing) (locked - no entry Men's Staff Restroom (locked - no entry	1 CF 26 1 CF 26	CFQ26/1-L CFQ26/1-L	27 27	0.0	SW 1560 SW 3120	42 84		CF 26 CF 26	CFQ26/1-L CFQ26/1-L	27 27	0.0	SW 1,560 SW 3,120	84		\$ - \$ -	\$0 \$0	#DIV/0! #DIV/0!
3 ED	Custodial Storage (locked - no entry C-08	1 CF 26 6 T 32 R F 4 (ELE)	CFQ26/1-L F44ILL	27 112	0.0	SW 1560 SW 2600	42 1,747	6	CF 26 T 50 R LED	CFQ26/1-L RTLED50	27 50	0.0	SW 1,560 SW 2,600	780	967 0.4	\$ - \$ - \$ 120.18 \$ 1,417.5		#DIV/0! 11.8
D D	C-09 FDD	16 T 32 R F 4 (ELE) 6 T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	1.8	SW 2600 SW 2600	4,659 1,747	16 6	T 50 R LED T 50 R LED	RTLED50 RTLED50	50	0.8	SW 2,600 SW 2,600	2,080 780	2,579 1.0	\$ 320.48 \$ 3,780.0 \$ 120.18 \$ 1.417.5	0 \$0 11.8 0 \$0 11.8	11.8
D D	C-12 C-11	6 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	0.7	SW 2600 SW 2600	1,747 3,494		T 50 R LED T 50 R LED	RTLED50	50	0.3	SW 2,600 SW 2,600	780 1.560		\$ 120.18 \$ 1,417.5 \$ 240.36 \$ 2,835.0	0 \$0 11.8	11.8
D	C-13	7 T 32 R F 4 (ELE)	F44ILL	112	0.8	SW 2600	2,038	7	T 50 R LED	RTLED50	50	0.6	SW 2,600	910	1,128 0.4	\$ 140.21 \$ 1,653.7	5 \$0 11.8	11.8
D D	C-14 Loop Corrido	9 T 32 R F 4 (ELE) 9 T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	1.0 1.0	SW 2600 SW 3640	2,621 3,669	9	T 50 R LED T 50 R LED	RTLED50 RTLED50	50	0.5 0.5	SW 2,600 SW 3,640	1,638		\$ 180.27 \$ 2,126.2 \$ 234.30 \$ 2,126.2	5 \$0 9.1	9.1
)	Loop Corridor C Corridor Stairs	7 T 32 R F 3 (ELE) 3 T 32 R F 4 (ELE)	F43ILL/2 F44ILL	90 112	0.6	SW 3640 SW 3640	2,293 1,223	7 3	T 38 R LED T 50 R LED	RTLED38 RTLED50	38 50	0.3	SW 3,640 SW 3.640	968 546	1,325 0.4 6 677 0.2	\$ 152.84 \$ 1,653.7 \$ 78.10 \$ 708.7		
)	C Corridor Stairs	3 W 32 C F 2 (ELE) 24 T 32 R F 4 (ELE)	F42LL F44ILL	60 112	0.2	SW 3640 SW 3640	655 9,784		4 ft LED Tube T 50 R LED	200732x2 RTLED50	30 50	0.1	SW 3,640 SW 3,640		3 328 0.1 3 5.416 1.5	\$ 37.79 \$ 490.0 \$ 624.79 \$ 5.670.0		13.0
)	Gym Wing Corridor Athletic Trainer Office next to Trainer (locked - no entry	4 T 32 R F 4 (ELE) 4 T 32 R F 4 (ELE)	F44ILL F44ILL	112	0.4	SW 2600 SW 2600	1,165 1,165	4	T 50 R LED T 50 R LED T 50 R LED	RTLED50 RTLED50	50	0.2	SW 2,600 SW 2,600	520	0 645 0.2 0 645 0.2	\$ 80.12 \$ 945.0 \$ 80.12 \$ 945.0	0 \$0 11.8	11.8
)	Gymnasium	64 High Bay MH 400	MH400/1	458	29.3	SW 3120	91,453	64	BAYLED78W	BAYLED78W	93	6.0	SW 3,120	18,570	72,883 23.4	\$ 8,677.61 \$ 54,028.5	1 \$6,400 6.2	5.5
)	Auxilary Gymnasium Boys' Restroom	54 S 34 P F 2 (MAG) 2 T 32 R F 4 (ELE)	F42EE F44ILL	72 112	3.9 0.2	SW 3120 SW 3120	12,131 699	54 2	T 38 R LED T 50 R LED	RTLED38 RTLED50	50	2.1 0.1	SW 3,120 SW 3,120	6,402 312	5,728 1.8 387 0.1	\$ 682.02 \$ 12,757.5 \$ 46.06 \$ 472.5		
)	Girls' Restroom Boys' Locker Room	2 T 32 R F 4 (ELE) 22 W 32 C F 2 (ELE)	F44ILL F42LL	112 60	0.2 1.3	SW 3120 SW 3120	699 4.118		T 50 R LED 4 ft LED Tube	RTLED50 200732x2	50 30	0.1 0.7	SW 3,120 SW 3,120			\$ 46.06 \$ 472.5 \$ 245.17 \$ 3,593.7	0 \$0 10.3 0 \$0 14.7	
	Boy's Locker Room Restroon Boys' Locker Room Exi	1 W 32 C F 2 (ELE) 1 W 34 C F 2 (MAG)	F42LL F42EE	60 72	0.1 0.1	SW 3120 SW 3120	187 225	1 .	4 ft LED Tube	200732x2 200732x2	30	0.0	SW 3,120 SW 3,120	94	94 0.0	\$ 11.14 \$ 163.3 \$ 15.60 \$ 163.3	5 \$0 14.7	14.7
	Boys' Locker Room Office (locked - no entry	2 W 32 C F 2 (ELE)	F42LL	60	0.1	SW 2600	312	2	4 ft LED Tube	200732x2	30	0.0	SW 2,600	156	156 0.1	\$ 19.38 \$ 326.7	0 \$0 16.9	16.9
	Girls' Locker Room Girls' Locker Room Restroon	22 W 32 C F 2 (ELE) 1 W 32 C F 2 (ELE)	F42LL F42LL	60	1.3 0.1	SW 3120 SW 3120	4,118 187	1 .	4 ft LED Tube 4 ft LED Tube	200732x2 200732x2	30	0.7	SW 3,120 SW 3,120	94	94 0.0	\$ 245.17 \$ 3,593.7 \$ 11.14 \$ 163.3	5 \$0 14.7	14.7
	Girls' Locker Room Exi Girls' Locker Room Office (locked - no entry	1 W 34 C F 2 (MAG) 2 W 32 C F 2 (ELE)	F42EE F42LL	72 60	0.1 0.1	SW 3120 SW 2600	225 312	1 2	4 ft LED Tube 4 ft LED Tube	200732x2 200732x2	30	0.0	SW 3,120 SW 2,600	94 156	131 0.0 5 156 0.1	\$ 15.60 \$ 163.3 \$ 19.38 \$ 326.7	5 \$0 10.5 0 \$0 16.9	10.5
	Custodial E Corridor	1 T 32 R F 4 (ELE) 14 T 32 R F 4 (ELE)	F44ILL F44ILL	112	0.1	SW 1560 SW 3640	175 5,708	1 14	T 50 R LED T 50 R LED	RTLED50 RTLED50	50	0.1	SW 1,560 SW 3,640	78 2.548	97 0.1 3 3,160 0.9	\$ 14.03 \$ 236.2 \$ 364.46 \$ 3.307.5	5 \$0 16.8 0 \$0 9.1	16.8
	E-05 E-Wing Weight Room Corridor	38 T 32 R F 3 (ELE) 5 T 32 R F 4 (ELE)	F43ILL/2 F44ILL	90	3.4	SW 2600 SW 3640	8,892 2,038	38	T 38 R LED T 50 R LED	RTLED38	38	1.4	SW 2,600 SW 3,640	3,754	5,138 2.0	\$ 638.37 \$ 8,977.5 \$ 130.16 \$ 1.181.2	60 \$0 14.1	
)	Weight Room (locked - no entry	9 HPS 250	HPS250/1	295	2.7	SW 3120	8,284	9	FXLED78	FXLED78/1	78	0.7	SW 3,120		6,093 2.0	\$ 725.49 \$ 7,597.7	6 \$900 10.5	9.2
)	Community Office Room (locked - no entry Athletic Office	4 T 32 R F 4 (ELE) 5 T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	0.4 0.6	SW 2600 SW 2600	1,165 1,456		T 50 R LED T 50 R LED	RTLED50 RTLED50	50	0.2	SW 2,600 SW 2,600		0 645 0.2 0 806 0.3	\$ 80.12 \$ 945.0 \$ 100.15 \$ 1,181.2	5 \$0 11.8	11.8
)	Athletic Office Team Rooms	3 T 32 R F 4 (ELE) 4 T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	0.3	SW 2600 SW 1560	874 699		T 50 R LED T 50 R LED	RTLED50 RTLED50	50 50	0.2	SW 2,600 SW 1,560			\$ 60.09 \$ 708.7 \$ 56.11 \$ 945.0		
)	Viewing Room (locked - no entry Cross Country/Track Locker Room	4 T 32 R F 4 (ELE) 7 T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	0.4 0.8	SW 2600 SW 3120	1,165 2,446		T 50 R LED T 50 R LED	RTLED50 RTLED50	50	0.2 0.4	SW 2,600 SW 3,120		645 0.2 1,354 0.4	\$ 80.12 \$ 945.0 \$ 161.22 \$ 1,653.7		
)	Track Coaches Office Locker Room Exi	4 T 32 R F 4 (ELE) 1 T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	0.4	SW 2600 SW 3640	1,165 408	4	T 50 R LED T 50 R LED	RTLED50 RTLED50	50	0.2	SW 2,600 SW 3,640	520	645 0.2	\$ 80.12 \$ 945.0 \$ 26.03 \$ 236.2	0 \$0 11.8	11.8
)	Locker Room Restroom	4 T 32 R F 4 (ELE)	F44ILL	112	0.4	SW 3120	1,398	4	T 50 R LED	RTLED50	50	0.2	SW 3,120	624		\$ 92.13 \$ 945.0	0 \$0 10.3	10.3
D D	Team Room #2 (locked - no entry E-01	8 T 32 R F 4 (ELE) 16 1T 32 RF 1 - P	F44ILL F41LL	112 32	0.9 0.5	SW 3120 SW 2600	2,796 1,331	16	T 50 R LED 4 ft LED Tube	RTLED50 200732x1	50 15	0.4	SW 3,120 SW 2,600	1,248 624	707 0.3	\$ 184.25 \$ 1,890.0 \$ 87.87 \$ 1,306.8	0 \$0 14.9	14.9
)	Main Electrician Media Cente	58 T 34 R F 4 (MAG) 123 1T 32 R F 2 (ELE)	F44EE F42LL	144 60	8.4 7.4	SW 2080 SW 3120	17,372 23,026		T 50 R LED 4 ft LED Tube	RTLED50 200732x2	30	2.9 3.7	SW 2,080 SW 3,120	6,032 11,513	2 11,340 5.5 3 11,513 3.7	\$ 1,497.39 \$ 13,702.5 \$ 1,370.74 \$ 20,092.0	60 \$0 9.2 15 \$0 14.7	9.2 14.7
0	Media Center Media Center Office	90 D 13 C CF 2 2 T 32 R F 4 (ELE)	CFQ13/2-L F44II I	28 112	2.5	SW 3120 SW 3120	7,862 699	90	D 13 C CF 2 T 50 R LED	CFQ13/2-L RTLFD50	28	2.5 0.1	SW 3,120 SW 3,120	7,862	- 0.0	\$ - \$ - \$ 46.06 \$ 472.5	\$0	#DIV/0!
)	Media Center Video Storage Media Center Break Roon	2 T 32 R F 4 (ELE) 2 T 32 R F 4 (ELE)	F44ILL F44ILL	112	0.2	SW 1560 SW 2600	349 582	2	T 50 R LED T 50 R LED	RTLED50 RTLED50	50	0.1	SW 1,560 SW 2,600	156		\$ 28.05 \$ 472.5 \$ 40.06 \$ 472.5	0 \$0 16.8	16.8
0	Corridor - Pine Bell	15 T 32 R F 3 (ELE)	F43ILL/2	90	1.4	SW 3640	4,914	15	T 38 R LED	RTLED38	38	0.6	SW 3,640	2,075	5 2,839 0.8	\$ 327.51 \$ 3,543.7		10.8
	Corridor - Pine Bell Corridor Display	134 D 13 C CF 2 12 D 13 C CF 2	CFQ13/2-L CFQ13/2-L	28	0.3	SW 3640 SW 2080	13,657 699	12	D 13 C CF 2 D 13 C CF 2	CFQ13/2-L CFQ13/2-L	28	0.3	SW 3,640 SW 2,080	699	- 0.0	\$ - \$ -	\$0	#DIV/0! #DIV/0!
	Corridor Display Pine Belt Gym	70 S 32 C F 1 (ELE) 16 S 25 C F 1 (MAG) SINK LIGHT	F41LL F31EE	32 38	2.2 0.6	SW 3640 SW 2080	8,154 1,265		4 ft LED Tube S 25 C F 1 (MAG) SINK LIGHT	200732x1 F31EE	15 38	1.1 0.6	SW 3,640 SW 2,080		2 4,332 1.2 5 - 0.0	\$ 499.66 \$ 5,717.2 \$ - \$ -	25 \$0 11.4 \$0	11.4 #DIV/0!
)	Pine Belt Gym Corridor	44 High Bay MH 400 30 1B 32 P F 2 (FLF)	MH400/1 F42LL	458 60	20.2 1.8	SW 3120 SW 3640	62,874 6,552		BAYLED78W 4 ft LED Tube	BAYLED78W 200732x2	93	4.1 0.9	SW 3,120 SW 3,640	12,767 3,276	50,107 16.1 3,276 0.9	\$ 5,965.86 \$ 37,144.6 \$ 377.90 \$ 4,900.5	60 \$4,400 6.2 60 \$0 13.0	5.5
	Storage (locked - no entry Nurse's Office (locked - no entry	1 CF 26 6 T 32 R F 4 (ELE)	CFQ26/1-L F44II I	27 112	0.0	SW 1560 SW 2600	42 1.747	1	CF 26 T 50 R LED	CFQ26/1-L RTLFD50	27	0.0	SW 1,560 SW 2,600	42	- 0.0	\$ - \$ - \$ 120.18 \$ 1.417.5	\$0	#DIV/0!
	Men's Restroom Men's Restroom	14 W 32 C F 2 (ELE)	F42LL	60	0.8	SW 3120	2,621	14	4 ft LED Tube	200732x2	30	0.4	SW 3,120	1,310	1,310 0.4	\$ 156.02 \$ 2,286.9	0 \$0 14.7	14.7
	Women's Restroom	1 T 32 R F 4 (ELE) 14 W 32 C F 2 (ELE)	F44ILL F42LL	112 60	0.1 0.8	SW 3120 SW 3120	349 2,621	14	T 50 R LED 4 ft LED Tube	RTLED50 200732x2	30	0.1 0.4	SW 3,120 SW 3,120	1,310	1,310 0.4	\$ 23.03 \$ 236.2 \$ 156.02 \$ 2,286.9	0 \$0 14.7	14.7
	Women's Restroom Concession Stand	1 T 32 R F 4 (ELE) 6 13 W CF 1	F44ILL CFQ13/1-L	112 15	0.1 0.1	SW 3120 SW 1040	349 94		T 50 R LED 13 W CF 1	RTLED50 CFQ13/1-L	50 15	0.1 0.1	SW 3,120 SW 1,040			\$ 23.03 \$ 236.2 \$ - \$ -		10.3 #DIV/0!
	Grounds Shed Grounds Shed	4 S 32 C F 2 (ELE) 2 T 32 R F 4 (ELE)	F42LL F44ILL	60 112	0.2 0.2	SW 1560 SW 1560	374 349	4	T 38 R LED T 50 R LED	RTLED38 RTLED50	38 50	0.2	SW 1,560 SW 1,560	237 156	137 0.1 5 193 0.1	\$ 19.91 \$ 945.0 \$ 28.05 \$ 472.5	0 \$0 47.5 0 \$0 16.8	
	Grounds Shed - Backroom Small Snack Shack	2 T 32 R F 4 (ELE) 2 S 32 C F 2 (ELE)	F44ILL F42LL	112	0.2 0.1	SW 1560	349	2	T 50 R LED T 38 R LED	RTLED50 RTLED38	50	0.1	SW 1,560	156	193 0.1	\$ 28.05 \$ 472.5	0 \$0 16.8	16.8
	Field House	20 S 32 C F 2 (ELE)	F42LL	60	1.2	SW 1040 SW 1560	125 1,872		T 38 R LED	RTLED38	38	0.8	SW 1,040 SW 1,560			\$ 99.54 \$ 4,725.0		47.5
	Field House - Sink Room Field House - Towel Roon	1 S 32 C F 2 (ELE) 2 S 32 C F 2 (ELE)	F42LL F42LL	60	0.1	SW 1560 SW 1560	94 187		T 38 R LED T 38 R LED	RTLED38 RTLED38	38	0.0	SW 1,560 SW 1,560	119		\$ 4.98 \$ 236.2 \$ 9.95 \$ 472.5	60 \$0 47.5	
	Field House - Shower Roon Field House - Ice Room	6 S 32 C F 2 (ELE) 1 S 32 C F 2 (ELE)	F42LL F42LL	60 60	0.4	SW 1560 SW 1560	562 94	1	T 38 R LED T 38 R LED	RTLED38 RTLED38	38	0.2	SW 1,560 SW 1,560	59	34 0.0	\$ 29.86 \$ 1,417.5 \$ 4.98 \$ 236.2		47.5 47.5
	Field House - Locker Roon Field House - Varsity Locke	18 T 32 R F 2 (ELE) 9 T 32 R F 2 (ELE)	F42LL F42LL	60 60	1.1 0.5	SW 1560 SW 1560	1,685 842		T 38 R LED T 38 R LED	RTLED38 RTLED38	38	0.7	SW 1,560 SW 1,560			\$ 89.59 \$ 4,252.5 \$ 44.80 \$ 2,126.2		
	Field House - Back Hal	2 S 32 C F 2 (ELE)	F42LL	60	0.1	SW 1560	187	2	T 38 R LED	RTLED38	38	0.1	SW 1,560	119		\$ 9.95 \$ 472.5	0 \$0 47.5	47.5
	Field House - Women's Restroon Field House - Storage	3 S 32 C F 2 (ELE) 4 T 32 R F 2 (ELE)	F42LL F42LL	60	0.2	SW 1560 SW 1560	281 374		T 38 R LED T 38 R LED	RTLED38 RTLED38	38	0.1	SW 1,560 SW 1,560	237		\$ 14.93 \$ 708.7 \$ 19.91 \$ 945.0	0 \$0 47.5	47.5
	Field House - Men's Restroon Field House - Water Fountair	3 S 32 C F 2 (ELE) 1 T 32 R F 2 (ELE)	F42LL F42LL	60 60	0.2 0.1	SW 1560 SW 1560	281 94 749	3	T 38 R LED T 38 R LED	RTLED38 RTLED38	38 38	0.1 0.0	SW 1,560 SW 1,560	59	34 0.0	\$ 14.93 \$ 708.7 \$ 4.98 \$ 236.2	5 \$0 47.5	47.5
	Field House - Coaches Roon Field House - Coaches Room - Rest Roon	8 T 32 R F 2 (ELE) 1 S 32 C F 2 (ELE)	F42LL F42LL	60 60	0.5 0.1	SW 1560 SW 1560	749 94	8	T 38 R LED T 38 R LED	RTLED38 RTLED38	38 38	0.3 0.0	SW 1,560 SW 1,560	59	275 0.2 34 0.0	\$ 39.82 \$ 1,890.0 \$ 4.98 \$ 236.2	5 \$0 47.5	47.5
	Security - Front Room	3 T 32 R F 2 (ELE) 3 T 32 R F 2 (ELE)	F42LL F42LL	60 60	0.2	SW 2600	94 468 468		T 38 R LED T 38 R LED	RTLED38	38	0.1	SW 2,600	296	172 0.1	\$ 21.32 \$ 708.7 \$ 21.32 \$ 708.7	5 \$0 33.2	33.2
	Security - Director (Locked - No Entry Security - Restroor Security - Main Roor	1 13 W CF 1	CFQ13/1-L	15	0.0	SW 2600	468 39	1	13 W CF 1	CFQ13/1-L	15	0.0	SW 2,600	39	- 0.0	\$ - \$ -	\$0	#DIV/0!
)	Security - Storage	4 S 32 C F 2 (ELE) 4 S 32 C F 2 (ELE)	F42LL F42LL	60	0.2 0.2	SW 2600 SW 2600	624 624	4	T 38 R LED T 38 R LED	RTLED38 RTLED38	38	0.2	SW 2,600 SW 2,600	395		\$ 28.43 \$ 945.0 \$ 28.43 \$ 945.0	0 \$0 33.2 0 \$0 33.2	
	Security - Restroor Security - Breakroor	1 13 W CF 1 1 2T 32 R F 2 (u) (ELE) Thin Tube	CFQ13/1-L FU2LL	15 60	0.0 0.1	SW 2600 SW 2600	39 156	1 1	13 W CF 1 2T 25 R LED	CFQ13/1-L 2RTLED	15 25	0.0	SW 2,600 SW 2,600	65	91 0.0	\$ - \$ - \$ 11.31 \$ 202.5		
D	Exterior Building Lighting	15 WP400MH1 7 CF 26	MH400/1 CFQ26/1-L	458 27	6.9 0.2	SW 3120 SW 3120	21,434 590	15 7	WPLED2T78 CF 26	WPLED2T78 CFQ26/1-L	91 27	1.4 0.2	SW 3,120 SW 3,120	4,259 590		\$ 2,044.96 \$ 15,362.8 \$ - \$ -	7 \$1,500 7.5 \$0	6.8 #DIV/0!
Tota	Exterior Building Lighting Exterior Building Lighting	10 70 W MH Wall Pack	MH70/1	95	1.0	SW 3120	2,964	10	FXLED18	FXLED18/1	18	0.2	SW 3,120	562		\$ 286.03 \$ 4,232.2		11.3
rota	•	3,329	1		344.1		911,344	3,329	i	1	15,178	144.6	1 1	407,350 Dema	and Savings	\$69,225 \$741,366 199.5 \$16,159	⊕13,400	_
															/h Savings	569,994 \$53,066		

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			EXISTING COM	NDITIONS						RETROFI	IT CONDITIONS							COST & SAVING	GS ANALYSIS			
	Area Description	No. of Fixtures Standard Fixture Code	Fixture Code	Watts per Fixture	kW/Space	Exist Control Annual Ho	urs Annual kWh	Number	r of Fixtures Standard Fixture Code	Fixture Code	Watts per Fixture	kW/Space	Retrofit Control	Annual Hour	s Annual kWh	Annual kWh Saved	Annual kW Saved	Annual \$ Saved	Retrofit Cost	NJ Smart Start Si Lighting	With Out Incentive Sim	imple Payback
Field Code Ur	nique description of the location - Room number/Roor name: Floor number (if applicable)		Code from Table of Standard Fixture Wattages	Value from Table of	(Watts/Fixt) * (Fixt	Pre-inst. Estimated ar control device hours for the	nual (kW/space) *		ixtures after "Lighting Fixture Code" Example	Code from Table of Standard Fixture	Value from Table of	(Watts/Fixt) * (Number of	Retrofit contro		(kW/space) * (Annual Hours)	(Original Annual	(Original Annual kW) - (Retrofit	(kW Saved) * (\$/kWh)	Cost for renovations to	Le	ength of time Leng	ngth of time for ovations cost to
				Standard Fixture		usage group			Recess. Floor 2 lamps U shape	Wattages	Standard Fixture	Fixtures)		for the usage group		Annual kWh)	Annual kW)	, ,	lighting system		ost to be be covered be	be recovered
15LED	Boiler Room	10 S 32 C F 2 (ELE)	F42LL	Wattages 60	0.6	SW 2080			10 S 32 C F 2 (ELE)	F42LL	Wattages 60	0.6	NONE	2080	1,248.0	0.0	0.0	\$0.00	\$0.00	\$0.00		#DIV/0!
115 6LED 18LED	Main Office Main Office Main Office	3 W 20 C F 2 15 T 34 R F 4 (MAG) 5 T 32 R F 4 (ELE)	F22SS F44EE F44ILL	56 144 112	0.2 2.2 0.6	SW 2600 SW 2600 SW 2600	5,61 1,45	6.0	3 W 20 C F 2 15 T 34 R F 4 (MAG) 5 T 32 R F 4 (ELE)	F22SS F44EE F44ILL	56 144 112	0.2 2.2 0.6	C-OCC	1950 1950	327.6 4,212.0 1.092.0	1,404.0 364.0	0.0	\$10.17 \$130.71 \$33.89	\$270.00	\$35.00 \$35.00 \$35.00	26.6 2.1 8.0	23.1 1.8 6.9
18LED 18LED	C-25 C-20	5 132 R F 4 (ELE) 12 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE)	F44ILL F44ILL	112 112 112	1.3	SW 2600 SW 2600 SW 2600	3,49 3,49	14.4	12 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112 112	1.3	C-OCC	1950 1950	2,620.8 2.620.8	873.6 873.6	0.0	\$81.33 \$81.33	\$270.00 \$270.00 \$270.00	\$35.00 \$35.00 \$35.00	3.3 3.3	2.9 2.9
52LED 133	Prep Room Women's Faculty Lavaton	5 W 34 C F 2 (MAG) 1 CF 26	F42EE CFQ26/1-L	72 27	0.4	SW 1560 SW 3120	56		5 W 34 C F 2 (MAG) 1 CF 26	F42EE CFQ26/1-L	72 27	0.4	C-OCC C-OCC	780 1560	280.8 42.1	280.8 42.1	0.0	\$26.14 \$3.92	\$270.00	\$35.00 \$35.00	10.3 68.9	9.0 59.9
18LED 18LED	C-22 C-27	12 T 32 R F 4 (ELE) 14 T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	1.3 1.6	SW 2600 SW 2600	3,49 4,07	6.8	12 T 32 R F 4 (ELE) 14 T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	1.3 1.6	C-OCC	1950 1950	2,620.8 3,057.6	873.6 1,019.2	0.0	\$81.33 \$94.89		\$35.00 \$35.00	3.3 2.8	2.9 2.5
18LED 133 18LED	C-24 Men's Restroom C-29	8 T 32 R F 4 (ELE) 1 CF 26 15 T 32 R F 4 (ELE)	F44ILL CFQ26/1-L F44ILL	112 27 112	0.9 0.0 1.7	SW 2600 SW 3120 SW 2600	2,32 8 4,36	4.2	8 T 32 R F 4 (ELE) 1 CF 26 15 T 32 R F 4 (ELE)	F44ILL CFQ26/1-L F44ILL	112 27 112	0.9 0.0 1.7	C-OCC	1950 1560	1,747.2 42.1 3,276.0	582.4 42.1 1,092.0	0.0	\$54.22 \$3.92 \$101.66	\$270.00 \$270.00 \$270.00	\$35.00 \$35.00 \$35.00	5.0 68.9 2.7	4.3 59.9 2.3
46LED 93	Boys' Restroom Custodial	6 W 32 C F 2 (ELE)	F42LL 175/1	60	0.4 0.1	SW 3120 SW 1560	1,12 11		6 W 32 C F 2 (ELE) 1 175	F44ILL F42LL I75/1	60	0.4	C-OCC NONE	1560 1560	561.6 117.0	561.6 0.0	0.0	\$52.28 \$0.00		\$35.00 \$35.00 \$0.00	5.2	4.5 #DIV/0!
46LED 18LED	Girls' Restroom C-26	6 W 32 C F 2 (ELE) 8 T 32 R F 4 (ELE)	F42LL F44ILL	60 112	0.4	SW 3120 SW 2600	1,12 2,32	3.2	6 W 32 C F 2 (ELE) 8 T 32 R F 4 (ELE)	F42LL F44ILL	60 112	0.4	C-OCC C-OCC	1560 1950	561.6 1,747.2	561.6 582.4	0.0	\$52.28 \$54.22	\$270.00 \$270.00	\$35.00 \$35.00	5.2 5.0	4.5 4.3
18LED 18LED	C-28 C-31	8 T 32 R F 4 (ELE) 8 T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	0.9	SW 2600 SW 2600	2,32 2,32	9.6 9.6	8 T 32 R F 4 (ELE) 8 T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	0.9 0.9	C-OCC	1950 1950	1,747.2 1,747.2	582.4 582.4	0.0	\$54.22 \$54.22	\$270.00 \$270.00	\$35.00 \$35.00	5.0 5.0	4.3 4.3
115 4LED 18LED	C-31 C-31 C-33	2 W 20 C F 2 1 2B 34 R F 2 (u) (MAG) 9 T 32 R F 4 (FL F)	F22SS FU2EE F44II I	56 72 112	0.1	SW 2600 SW 2600 SW 2600	29 18 2,62	7.2	2 W 20 C F 2 1 2B 34 R F 2 (u) (MAG) 9 T 32 R F 4 (ELE)	F22SS FU2EE F44ILL	56 72 112	0.1	C-OCC C-OCC	1950 1950	218.4 140.4 1.965.6	72.8 46.8 655.2	0.0	\$6.78 \$4.36 \$61.00	\$270.00	\$35.00 \$35.00 \$35.00	39.8 62.0	34.7 53.9
18LED 18LED 18LED	C-33 C-30 C-32	9 132 K F 4 (ELE) 8 T 32 R F 4 (ELE) 8 T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112 112	1.0 0.9 0.9	SW 2600 SW 2600 SW 2600	2,62 2,32 2,32		8 T 32 R F 4 (ELE) 8 T 32 R F 4 (ELE) 8 T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112 112	1.0 0.9 0.9	C-OCC	1950 1950	1,747.2 1,747.2	582.4 582.4	0.0	\$54.22 \$54.22	\$270.00 \$270.00 \$270.00	\$35.00 \$35.00 \$35.00	4.4 5.0 5.0	3.9 4.3 4.3
18LED 18LED	C-35 C-34	9 T 32 R F 4 (ELE) 4 T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	1.0	SW 2600 SW 2600	2,62 1,16	0.8	9 T 32 R F 4 (ELE) 4 T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	1.0	C-OCC C-OCC	1950 1950	1,965.6 873.6	655.2 291.2	0.0	\$61.00 \$27.11	\$270.00 \$270.00 \$270.00	\$35.00 \$35.00	4.4 10.0	3.9
35LED 18LED	Walkway Walkway	32 T 32 R F 3 (ELE) 1 T 32 R F 4 (ELE)	F43ILL/2 F44ILL	90 112	2.9 0.1	SW 3640 SW 3640	10,48 40	13.2 17.7	32 T 32 R F 3 (ELE) 1 T 32 R F 4 (ELE)	F43ILL/2 F44ILL	90 112	2.9 0.1	C-OCC	2912 2912	8,386.6 326.1	2,096.6 81.5	0.0	\$195.20 \$7.59	\$270.00 \$270.00	\$35.00 \$35.00	1.4 35.6	1.2 31.0
46LED 35LED	Elevator 1 F Corridor	2 W 32 C F 2 (ELE) 26 T 32 R F 3 (ELE)	F42LL F43ILL/2	60 90	0.1 2.3	SW 3640 SW 3640	43 8,51	7.6	2 W 32 C F 2 (ELE) 26 T 32 R F 3 (ELE)	F42LL F43ILL/2	60 90	0.1 2.3	C-OCC	2912 2912	349.4 6,814.1	87.4 1,703.5	0.0	\$8.13 \$158.60	\$270.00 \$270.00	\$35.00 \$35.00	33.2 1.7	28.9 1.5
115 18LED 18LED	F-208 F-208	3 W 20 C F 2 9 T 32 R F 4 (ELE) 3 T 32 R F 4 (FLF)	F22SS F44ILL F44II I	56 112 112	0.2 1.0 0.3	SW 2600 SW 2600 SW 2600	43 2,62 87	0.8	3 W 20 C F 2 9 T 32 R F 4 (ELE) 3 T 32 R F 4 (FLF)	F22SS F44ILL F44II I	56 112 112	0.2 1.0 0.3	C-OCC	1950 1950	327.6 1,965.6 436.8	109.2 655.2 436.8	0.0	\$10.17 \$61.00 \$40.67	\$270.00 \$270.00 \$270.00	\$35.00 \$35.00 \$35.00	26.6 4.4 6.6	23.1 3.9 5.8
18LED 18LED	Teachers Lounge F-210 F-210	3 132 R F 4 (ELE) 8 T 32 R F 4 (ELE) 4 W 20 C F 2	F44ILL F44ILL F22SS	112	0.3 0.9 0.2	SW 2600 SW 2600 SW 2600	2,32	9.6	8 T 32 R F 4 (ELE) 4 W 20 C F 2	F44ILL F44ILL F22SS	112	0.3	C-OCC	1950 1950	1,747.2 436.8	582.4 145.6	0.0	\$40.67 \$54.22 \$13.56	\$270.00 \$270.00 \$270.00	\$35.00 \$35.00 \$35.00	5.0 19.9	4.3 17.3
18LED 115	F-206 (locked - no entry F-206 (locked - no entry	9 T 32 R F 4 (ELE) 2 W 20 C F 2	F44ILL F22SS	112 56	1.0	SW 2600 SW 2600	2,62	11.2	9 T 32 R F 4 (ELE) 2 W 20 C F 2	F44ILL F22SS	112 56	1.0	C-OCC C-OCC	1950 1950	1,965.6 218.4	655.2 72.8	0.0	\$61.00 \$6.78	\$270.00 \$270.00	\$35.00 \$35.00	4.4 39.8	3.9 34.7
18LED 115	F-209 (locked - no entry F-209 (locked - no entry	8 T 32 R F 4 (ELE) 4 W 20 C F 2	F44ILL F22SS	112 56	0.9 0.2	SW 2600 SW 2600	2,32 58	2.4	8 T 32 R F 4 (ELE) 4 W 20 C F 2	F44ILL F22SS	112 56	0.9 0.2	C-OCC	1950 1950	1,747.2 436.8	582.4 145.6	0.0	\$54.22 \$13.56	\$270.00 \$270.00	\$35.00 \$35.00	5.0 19.9	4.3 17.3
18LED 115	F-207 F-207	9 T 32 R F 4 (ELE) 3 W 20 C F 2 9 T 32 R F 4 (ELE)	F44ILL F22SS	112 56 112	1.0 0.2 1.0	SW 2600 SW 2600	2,62	6.8	9 T 32 R F 4 (ELE) 3 W 20 C F 2 9 T 32 R F 4 (ELE)	F44ILL F22SS F44ILL	112 56 112	1.0 0.2	C-OCC	1950 1950	1,965.6 327.6	655.2 109.2	0.0	\$61.00 \$10.17 \$61.00	\$270.00 \$270.00	\$35.00 \$35.00	4.4 26.6 4.4	3.9 23.1
18LED 115 18LED	F-204 F-204 F-202	9 132 K F 4 (ELE) 2 W 20 C F 2 9 T 32 R F 4 (FLF)	F44ILL F22SS F44II I	56 112	0.1 1.0	SW 2600 SW 2600 SW 2600	2,62 29 2.62	11.2	2 W 20 C F 2 9 T 32 R F 4 (ELE)	F22SS F44II I	56 112	1.0 0.1 1.0	C-OCC	1950 1950	1,965.6 218.4 1,965.6	72.8 655.2	0.0	\$6.78 \$6.100	\$270.00 \$270.00 \$270.00	\$35.00 \$35.00 \$35.00	39.8 4.4	3.9 34.7 3.9
115 18LED	F-202 F-205 (locked - no entry	2 W 20 C F 2 9 T 32 R F 4 (ELE)	F22SS F44ILL	56 112	0.1	SW 2600 SW 2600	29 2,62	11.2	2 W 20 C F 2 9 T 32 R F 4 (ELE)	F22SS F44ILL	56 112	0.1	C-OCC C-OCC	1950 1950	218.4 1,965.6	72.8 655.2	0.0	\$6.78 \$61.00	\$270.00 \$270.00	\$35.00 \$35.00	39.8 4.4	34.7 3.9
115 18LED	F-205 (locked - no entry F-203 (locked - no entry	2 W 20 C F 2 9 T 32 R F 4 (ELE)	F22SS F44ILL	56 112	0.1 1.0	SW 2600 SW 2600	29 2,62		2 W 20 C F 2 9 T 32 R F 4 (ELE)	F22SS F44ILL	56 112	0.1 1.0	C-OCC	1950 1950	218.4 1,965.6	72.8 655.2	0.0	\$6.78 \$61.00	\$270.00 \$270.00	\$35.00 \$35.00	39.8 4.4	34.7 3.9
115 18LED 115	F-203 (locked - no entry F-201 (locked - no entry F-201 (locked - no entry	2 W 20 C F 2 8 T 32 R F 4 (ELE) 4 W 20 C F 2	F22SS F44ILL F22SS	56 112 56	0.1 0.9 0.2	SW 2600 SW 2600	29	9.6	2 W 20 C F 2 8 T 32 R F 4 (ELE)	F22SS F44ILL F22SS	56 112 56	0.1	C-OCC	1950 1950	218.4 1,747.2 436.8	72.8 582.4 145.6	0.0	\$6.78 \$54.22 \$13.56	\$270.00 \$270.00 \$270.00	\$35.00 \$35.00	39.8 5.0 19.9	34.7 4.3 17.3
18LED 18LED	Men's Restroom (locked - no entry Women's Restroom (locked - no entry	3 T 32 R F 4 (ELE) 3 T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	0.2 0.3 0.3	SW 2600 SW 3120 SW 3120	58 1,04 1,04	8.3	4 W 20 C F 2 3 T 32 R F 4 (ELE) 3 T 32 R F 4 (ELE)	F2255 F44ILL F44ILL	112 112	0.2	C-OCC	1560 1560	524.2 524.2	524.2 524.2	0.0	\$48.80 \$48.80	\$270.00 \$270.00 \$270.00	\$35.00 \$35.00 \$35.00	5.5 5.5	4.8 4.8
18LED 115	F-212 F-212	5 T 32 R F 4 (ELE) 1 W 20 C F 2	F44ILL F22SS	112 56	0.6 0.1	SW 2600 SW 2600	1,45 14	6.0 5.6	5 T 32 R F 4 (ELE) 1 W 20 C F 2	F44ILL F22SS	112 56	0.6 0.1	C-OCC	1950 1950	1,092.0 109.2	364.0 36.4	0.0	\$33.89 \$3.39	\$270.00 \$270.00	\$35.00 \$35.00	8.0 79.7	6.9 69.3
18LED 18LED	Men's Staff Restroom (locked - no entry Women's Staff Restroom (locked - no entry	3 T 32 R F 4 (ELE) 3 T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	0.3	SW 3120 SW 3120	1,04 1,04	8.3	3 T 32 R F 4 (ELE) 3 T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	0.3	C-OCC	1560 1560		524.2 524.2	0.0	\$48.80 \$48.80		\$35.00 \$35.00	5.5 5.5	4.8 4.8
35LED 35LED 18LED	Corridor Outside F-212 Corridor to B Corridor B	11 T 32 R F 3 (ELE) 3 T 32 R F 3 (ELE) 20 T 32 R F 4 (ELE)	F43ILL/2 F43ILL/2 F44ILL	90 90 112	1.0 0.3 2.2	SW 3640 SW 3640 SW 3640	3,60 98 8,15	2.8	11 T 32 R F 3 (ELE) 3 T 32 R F 3 (ELE) 20 T 32 R F 4 (ELE)	F43ILL/2 F43ILL/2 F44ILL	90 90 112	1.0 0.3 2.2	C-OCC	2912 2912	2,882.9 786.2 6.522.9	720.7 196.6 1.630.7	0.0	\$67.10 \$18.30 \$151.82	\$270.00	\$35.00 \$35.00 \$35.00	4.0 14.8 1.8	3.5 12.8 1.5
18LED 18LED	B-19 (locked - no entry B-21	12 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	1.3	SW 2600 SW 2600	3,49 3,49	14.4 14.4	12 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	1.3	C-OCC C-OCC	1950 1950	2,620.8 2,620.8	873.6 873.6	0.0	\$81.33 \$81.33	\$270.00 \$270.00	\$35.00 \$35.00	3.3	2.9
18LED 18LED	B-23 (locked - no entry B-25 (locked - no entry	12 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	1.3	SW 2600 SW 2600	3,49 3,49	14.4 14.4	12 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	1.3	C-OCC	1950 1950		873.6 873.6	0.0	\$81.33 \$81.33	\$270.00 \$270.00	\$35.00 \$35.00	3.3	2.9 2.9
18LED 133	B-20 Women's Staff Restroom (locked - no entry	12 T 32 R F 4 (ELE) 1 CF 26	F44ILL CFQ26/1-L	112 27	1.3 0.0	SW 2600 SW 3120	3,49	4.2	12 T 32 R F 4 (ELE) 1 CF 26	F44ILL CFQ26/1-L	112 27	1.3 0.0	C-OCC	1950 1560	2,620.8 42.1	873.6 42.1	0.0	\$81.33 \$3.92		\$35.00 \$35.00	3.3 68.9	2.9 59.9
18LED 18LED 4LED	B-22 B-27 B-27	12 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE) 2 2B 34 R F 2 (u) (MAG)	F44ILL F44ILL FU2FF	112 112 72	1.3 1.3 0.1	SW 2600 SW 2600 SW 2600	3,49 3,49 37	14.4	12 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE) 2 2B 34 R F 2 (u) (MAG)	F44ILL F44ILL FU2FF	112 112 72	1.3 1.3 0.1	C-OCC	1950 1950 1950	2,620.8 2,620.8 280.8	873.6 873.6 93.6	0.0	\$81.33 \$81.33 \$8.71	\$270.00	\$35.00 \$35.00 \$35.00	3.3 3.3 31.0	2.9 2.9 27.0
52LED 133	Prep Room Men's Staff Restroom	5 W 34 C F 2 (MAG)	F42EE	72 27	0.4	SW 1560	56	1.6	5 W 34 C F 2 (MAG)	F42EE CFQ26/1-L	72	0.4	C-OCC C-OCC	780 1560		280.8 42.1	0.0	\$26.14		\$35.00 \$35.00	10.3	9.0 59.9
46LED 18LED	Men's Restroom B-29	1 CF 26 6 W 32 C F 2 (ELE) 8 T 32 R F 4 (ELE)	CFQ26/1-L F42LL F44ILL	60 112	0.4	SW 3120 SW 3120 SW 2600	1,12 2,32	3.2	1 CF 26 6 W 32 C F 2 (ELE) 8 T 32 R F 4 (ELE)	F42LL F44ILL	60 112	0.4	C-OCC	1560 1950	561.6 1,747.2	561.6 582.4	0.0	\$3.92 \$52.28 \$54.22		\$35.00 \$35.00	5.2 5.0	4.5 4.3
X5 46LED	Custodial Room Girls' Restroom	1 CF42/1 6 W 32 C F 2 (ELE)	CF42/1-I F42LL	48 60	0.0	SW 1560 SW 3120	1,12	3.2	1 CF42/1 6 W 32 C F 2 (ELE)	CF42/1-I F42LL	48 60	0.0 0.4	NONE C-OCC	1560 1560	74.9 561.6	0.0 561.6	0.0	\$0.00 \$52.28	\$0.00 \$270.00	\$0.00 \$35.00	5.2	#DIV/0! 4.5
18LED 18LED 18LED	B-26 B-28 B-30	16 T 32 R F 4 (ELE) 16 T 32 R F 4 (ELE) 8 T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112 112	1.8 1.8 0.9	SW 2600 SW 2600 SW 2600	4,65 4,65 2,32	i9.2	16 T 32 R F 4 (ELE) 16 T 32 R F 4 (ELE) 8 T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112 112	1.8 1.8 0.9	C-OCC	1950 1950	3,494.4 3,494.4 1,747.2	1,164.8 1,164.8 582.4	0.0	\$108.44 \$108.44 \$54.22		\$35.00 \$35.00 \$35.00	2.5 2.5 5.0	2.2 2.2 4.3
18LED	B-31	8 T 32 R F 4 (ELE)	F44ILL F44ILL F22SS	112	0.9 0.9 0.2	SW 2600 SW 2600	2,32	9.6	8 T 32 R F 4 (ELE)	F44ILL F42SS	112	0.9 0.2	C-OCC	1950 1950	1,747.2 1,747.2 436.8	582.4 145.6	0.0	\$54.22 \$13.56	\$270.00	\$35.00 \$35.00	5.0 5.0 19.9	4.3 4.3 17.3
115 18LED 18LED	B-31 B-33 B-32	4 W 20 C F 2 8 T 32 R F 4 (ELE) 8 T 32 R F 4 (ELE)	F44ILL F44ILL	56 112 112 112	0.9	SW 2600 SW 2600 SW 2600	58 2,32 2,32 2,32 2,32	9.6	4 W 20 C F 2 8 T 32 R F 4 (ELE) 8 T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	0.9	C-OCC	1950 1950	1,747.2	582.4 582.4	0.0	\$54.22 \$54.22 \$54.22	\$270.00	\$35.00 \$35.00	5.0	4.3 4.3
18LED 18LED	B-35 B-34	8 T 32 R F 4 (ELE) 4 T 32 R F 4 (ELE)	F44ILL F44ILL	112 112 112	0.9 0.4	SW 2600	2,32 1,16 9,37	9.6	8 T 32 R F 4 (ELE) 4 T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	0.9	C-OCC	1950 1950	1,747.2 873.6 7,501.3	582.4 291.2	0.0	\$27.11	\$270.00 \$270.00	\$35.00 \$35.00	5.0 10.0 1.5	4.3 8.7
18LED 18LED 18LED	A Corridor A-24 A-25	23 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112 112	2.6 1.3 1.3	SW 3640 SW 2600 SW 2600	9,37 3,49 3,49	14.4	23 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112 112	2.6 1.3 1.3	C-OCC	2912 1950 1950	7,501.3 2,620.8 2,620.8	1,875.3 873.6 873.6	0.0	\$174.59 \$81.33 \$81.33		\$35.00 \$35.00 \$35.00	1.5 3.3 3.3	1.3 2.9 2.9
18LED 18LED 15LED	A-25 A-26 Electrical Room (locked - no entry	10 T 32 R F 4 (ELE)	F44ILL F44ILL F42LL	112	1.3 1.1 0.5	SW 2600	2,91	2.0	10 T 32 R F 4 (ELE)	F44ILL F44ILL F42LL	112	1.3 1.1 0.5	C-OCC NONE	1950 1950 2080	2,184.0	728.0 0.0	0.0	\$67.78		\$35.00	4.0	3.5 #DIV/0!
18LED 18LED 18LED	A-27 A-28	8 S 32 C F 2 (ELE) 11 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE)	F44ILL F44ILL	60 112 112 112	1.2	SW 2080 SW 2600 SW 2600 SW 2600	99 3,20 3,49 3,49	13.2	8 S 32 C F 2 (ELE) 11 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	60 112 112	1.2	C-OCC	1950 1950	2,402.4 2,620.8	800.8 873.6	0.0	\$0.00 \$74.55 \$81.33 \$81.33	\$270.00 \$270.00	\$0.00 \$35.00 \$35.00	3.6 3.3 3.3	3.2 2.9
18LED	A-29 B Stairway	12 T 32 R F 4 (ELE) 4 T 32 R F 4 (ELE)	F44ILL F44ILL	112	1.3 0.4	SW 3640	3,49 1,63 78	14.4 10.7	12 T 32 R F 4 (ELE) 4 T 32 R F 4 (ELE) 3 W 34 C F 2 (MAG)	F44ILL	112 112	1.3 0.4	C-OCC	1950 2912	2,620.8 1,304.6 629.0	873.6 326.1	0.0	\$30.36	\$270.00	\$35.00 \$35.00 \$35.00	3.3 8.9 18.4	2.9 7.7
52LED 18LED 217LED	B Stairway C Wing Corridor	3 W 34 C F 2 (MAG) 25 T 32 R F 4 (ELE) 1 2B 17 R F 4 (ELE)	F42EE F44ILL F24ILL	72 112 61	0.2 2.8 0.1	SW 3640 SW 3640 SW 3640	78 10,19 22	12.0	3 W 34 C F 2 (MAG) 25 T 32 R F 4 (ELE) 1 2B 17 R F 4 (ELE)	F42EE F44ILL F24ILL	72 112 61	0.2 2.8	C-OCC	2912 2912	629.0 8,153.6 177.6	157.2 2,038.4 44.4	0.0	\$14.64 \$189.77 \$4.13		\$35.00 \$35.00 \$35.00	18.4 1.4 65.3	16.1 1.2 56.8
18LED 18LED	C Wing Corridor Attenance Office C-01	1 28 17 K F 4 (ELE) 4 T 32 R F 4 (ELE) 11 T 32 R F 4 (ELE)	F44ILL F44ILL	112	0.4 1.2	SW 2600 SW 2600	1,16	4.8	4 T 32 R F 4 (ELE) 11 T 32 R F 4 (ELE)	F44ILL F44ILL	112	0.4	C-OCC	1950 1950	873.6 2.402.4	291.2 800.8	0.0	\$27.11 \$74.55		\$35.00 \$35.00 \$35.00	10.0	8.7 3.2
18LED 18LED	C-02 C-03	12 T 32 R F 4 (ELE) 16 T 32 R F 4 (ELE)	F44ILL F44ILL	112	1.3	SW 2600	3,20 3,49 4,65		12 T 32 R F 4 (ELE) 16 T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	1.3	C-OCC C-OCC	1950 1950	2,620.8 3,494.4	873.6 1,164.8	0.0	\$81.33 \$108.44	\$270.00 \$270.00	\$35.00 \$35.00	3.3	2.9
18LED 18LED	C-04 C-06	16 T 32 R F 4 (ELE) 15 T 32 R F 4 (ELE) 1 T 32 R F 4 (ELE)	F44ILL F44ILL	112 112 112 112	1.8	SW 2600 SW 2600	4,65 4,36	9.2	16 T 32 R F 4 (ELE) 15 T 32 R F 4 (ELE) 1 T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	1.8	C-OCC	1950 1950	3,494.4 3,276.0	1,164.8 1,092.0	0.0	\$108.44 \$101.66	\$270.00 \$270.00	\$35.00 \$35.00	2.5 2.5 2.7	2.2
18LED 18LED 18LED	C-06 Closet C-05 Rous' Pastroom	1 T 32 R F 4 (ELE) 16 T 32 R F 4 (ELE) 3 T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112	0.1 1.8	SW 1560 SW 2600	17 4,65 1,04	i9.2	16 T 32 R F 4 (ELE)	F44ILL F44ILL F44II I	112 112	0.1 1.8	C-OCC	1560 1950	174.7 3,494.4	0.0 1,164.8	0.0	\$0.00 \$108.44		\$0.00 \$35.00	2.5	#DIV/0! 2.2
18LED 18LED 18LED	Boys' Restroom Girls' Restroom C-07	3 T 32 R F 4 (ELE) 3 T 32 R F 4 (ELE) 15 T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112 112	0.3 0.3 1.7	SW 3120 SW 3120 SW 2600	1,04 1,04 4,36	8.3	3 T 32 R F 4 (ELE) 3 T 32 R F 4 (ELE) 15 T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112 112	0.3 0.3 1.7	C-OCC	1560 1560	524.2 524.2 3,276.0	524.2 524.2 1,092.0	0.0	\$48.80 \$48.80 \$101.66	\$270.00 \$270.00 \$270.00	\$35.00 \$35.00 \$35.00	5.5 5.5 2.7	4.8 4.8 2.3
133 35LED	Women's Staff Restroom D Corridor	1 CF 26 28 T 32 R F 3 (ELE)	CFQ26/1-L F43ILL/2	27	0.0 2.5	SW 3120 SW 3640	9,17	2.8	1 CF 26 28 T 32 R F 3 (ELE)	CFQ26/1-L F43ILL/2	27	0.0 2.5	C-OCC C-OCC	1560 2912	42.1 7,338.2	42.1 1,834.6	0.0	\$3.92 \$170.80	\$270.00 \$270.00 \$270.00	\$35.00 \$35.00	68.9 1.6	59.9 1.4
35LED 18LED	F Wing Corridor F-108	40 T 32 R F 3 (ELE) 9 T 32 R F 4 (ELE)	F43ILL/2 F44ILL	90 112	3.6 1.0	SW 3640 SW 2600	13,10 2,62	14.0	40 T 32 R F 3 (ELE) 9 T 32 R F 4 (ELE)	F43ILL/2 F44ILL	90 112	3.6 1.0	C-OCC	2912 1950	10,483.2 1,965.6	2,620.8 655.2	0.0	\$243.99 \$61.00	\$270.00 \$270.00	\$35.00 \$35.00	1.1 4.4	1.0
115 18LED	F-108 F-111	2 W 20 C F 2 4 T 32 R F 4 (ELE)	F22SS F44ILL	56 112	0.1	SW 2600 SW 2600	29 1,16	11.2 i4.8	2 W 20 C F 2 4 T 32 R F 4 (ELE)	F22SS F44ILL	56 112	0.1	C-OCC	1950 1950	218.4 873.6	72.8 291.2	0.0	\$6.78 \$27.11		\$35.00 \$35.00	39.8 10.0	34.7 8.7
18LED 115 18LED	F-110 F-110 F-106	9 T 32 R F 4 (ELE) 3 W 20 C F 2 9 T 32 R F 4 (ELE)	F44ILL F22SS F44ILL	112 56 112	1.0 0.2 1.0	SW 2600 SW 2600 SW 2600	2,62 43 2,62	6.8	9 T 32 R F 4 (ELE) 3 W 20 C F 2 9 T 32 R F 4 (ELE)	F44ILL F22SS F44ILL	112 56 112	1.0 0.2 1.0	C-OCC	1950 1950	1,965.6 327.6 1.965.6	655.2 109.2 655.2	0.0	\$61.00 \$10.17 \$61.00	\$270.00 \$270.00 \$270.00	\$35.00 \$35.00 \$35.00	4.4 26.6 4.4	3.9 23.1 3.9
115 18LED	F-106 F-109	9 132 K F 4 (ELE) 3 W 20 C F 2 9 T 32 R F 4 (ELE)	F22SS F44ILL	56 112	0.2 1.0	SW 2600 SW 2600 SW 2600	2,62 43 2,62	6.8	3 W 20 C F 2 9 T 32 R F 4 (ELE)	F22SS F44ILL	56 112	0.2 1.0	C-OCC	1950 1950	327.6 1,965.6	109.2 655.2	0.0	\$10.17 \$61.00	\$270.00 \$270.00 \$270.00	\$35.00 \$35.00 \$35.00	26.6 4.4	23.1 3.9
115 18LED	F-109 F-107	1 W 20 C F 2 9 T 32 R F 4 (ELE)	F22SS F44ILL	56 112	0.1	SW 2600 SW 2600	14 2,62	5.6	1 W 20 C F 2 9 T 32 R F 4 (ELE)	F22SS F44ILL	56 112	0.1	C-OCC	1950 1950	109.2 1,965.6	36.4 655.2	0.0	\$3.39 \$61.00	\$270.00 \$270.00	\$35.00 \$35.00	79.7 4.4	69.3 3.9
115 18LED	F-107 F-104	3 W 20 C F 2 9 T 32 R F 4 (ELE)	F22SS F44ILL	56 112	0.2 1.0	SW 2600 SW 2600	43 2,62	6.8	3 W 20 C F 2 9 T 32 R F 4 (ELE)	F22SS F44ILL	56 112	0.2 1.0	C-OCC	1950 1950	327.6 1,965.6	109.2 655.2	0.0	\$10.17 \$61.00	\$270.00 \$270.00	\$35.00 \$35.00	26.6 4.4	23.1 3.9

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		EXISTING CON	Watts per						TIT CONDITIONS Watts per		Retrofit			Annual kWh		COST & SAVIN			ple Payback With Out	
Area Description jue description of the location - Room number/R name: Floor number (if applicable)	No. of Fixtures Standard Fixture Code No. of fixtures Lighting Fixture Code before the retrofit	Fixture Code Code from Table of Standard Fixture Wattages	Fixture Value from Table of	(Watts/Fixt) * (Fixt Pre-inst	ontrol Annual Hours Annual kWh Estimated annual (kW/space) * Hevice hours for the (Annual Hours)		fter "Lighting Fixture Code" Example 2T 40 R F(U) = 2'x2' Troff 40 w	Fixture Code Code from Table of Standard Fixture	Fixture Value from Table of	kW/Space (Watts/Fixt) * (Number of	Control Retrofit contro device	Annual Hou Estimated annual hours	(kW/space) *	Saved (Original Annual	(Original Annual (I	Annual \$ Saved (W Saved) * 6/kWh)	Cost for renovations to	Leng		Simple Payt Length of tim renovations of
name. Froof number (ii applicable)	before the feature	i ixture wattages	Standard Fixture Wattages	No.,	usage group	ine retront	Recess. Floor 2 lamps U shape	Wattages	Standard Fixture Wattages	Fixtures)	uevice	for the usage group		Annual kWh)	Annual kW)	ukwii)	lighting system	cost	to be vered	be recover
F-104 F-102	3 W 20 C F 2 9 T 32 R F 4 (ELE)	F22SS F44ILL	56 112	0.2 SI 1.0 SI	V 2600 2,620	0.8 9	W 20 C F 2 T 32 R F 4 (ELE)	F22SS F44ILL	56 112	0.2 1.0	C-OCC	1950 1950	327.6 1,965.6	109.2 655.2	0.0 \$	10.17 61.00	\$270.00	\$35.00 \$35.00	26.6 4.4	23.1 3.9
F-102 F-105 F-105	3 W 20 C F 2 9 T 32 R F 4 (ELE) 3 W 20 C F 2	F22SS F44ILL F22SS	56 112 56	0.2 SI 1.0 SI 0.2 SI	V 2600 2,620	0.8 9	W 20 C F 2 T 32 R F 4 (ELE) W 20 C F 2	F22SS F44ILL F22SS	56 112 56	0.2 1.0 0.2	C-OCC C-OCC	1950 1950 1950	327.6 1,965.6 327.6	109.2 655.2 109.2	0.0	10.17 61.00 10.17	\$270.00	\$35.00 \$35.00 \$35.00	26.6 4.4 26.6	23.1 3.9 23.1
F-103 F-103 Men's Staff Restroom (locked - no entry	9 T 32 R F 4 (ELE) 3 W 20 C F 2 3 T 32 R F 4 (ELE)	F22SS F44ILL F22SS F44II I	112 56 112	1.0 SI 0.2 SI 0.3 SI	V 2600 2,620 V 2600 436	0.8 9 6.8 3	W 20 C F 2 T 32 R F 4 (ELE) W 20 C F 2 T 32 R F 4 (ELE)	F44ILL F22SS F44ILL	112 56 112	1.0 0.2 0.3	C-OCC	1950 1950 1560	1,965.6 327.6 524.2	655.2 109.2 524.2		61.00 10.17 48.80	\$270.00 \$270.00	\$35.00 \$35.00 \$35.00	4.4 26.6 5.5	3.9 23.1 4.8
Women's Staff Restroom (locked - no entry Electrical Room (locked - no entry	3 T 32 R F 4 (ELE) 8 S 32 C F 2 (ELE)	F44ILL F42LL	112 60	0.3 SI 0.5 SI	V 3120 1,048	3.3 3	T 32 R F 4 (ELE) S 32 C F 2 (ELE)	F44ILL F42LL	112 112 60	0.3 0.5	C-OCC NONE	1560	524.2	524.2 0.0	0.0 \$	48.80 0.00	\$270.00	\$35.00 \$35.00 \$0.00	5.5	4.8 #DIV/0!
Janitor (locked - no entry F-101 F-101	1 CF 26 9 T 32 R F 4 (ELE) 3 W 20 C F 2	CFQ26/1-L F44ILL F22SS	27 112 56	0.0 SI 1.0 SI 0.2 SI	V 2600 2,620	0.8 9	CF 26 T 32 R F 4 (ELE) W 20 C F 2	CFQ26/1-L F44ILL F22SS	27 112 56	0.0 1.0 0.2	C-OCC	1560 1950	42.1 1,965.6 327.6	0.0 655.2 109.2		0.00 61.00	\$270.00	\$0.00 \$35.00 \$35.00	4.4 26.6	#DIV/0! 3.9 23.1
F-Stairway F Corridor	6 T 32 R F 4 (ELE) 50 S 32 C F 1 (ELE)	F44ILL F41LL	112 32	0.7 SI 1.6 SI	V 3640 2,446 V 3640 5,824	6.1 6 4.0 50	T 32 R F 4 (ELE) S 32 C F 1 (ELE)	F44ILL F41LL	112 32	0.7 1.6	C-OCC	2912 2912	1,956.9 4,659.2	489.2 1,164.8	0.0 \$	45.55 108.44	\$270.00 \$270.00	\$35.00 \$35.00	5.9 2.5	5.2 2.2
F Corridor Boys' Restroom Girls' Restroom	26 S 32 C F 1 (ELE) 2 T 32 R F 4 (ELE) 2 T 32 R F 4 (ELE)	F41LL F44ILL F44ILL	32 112 112	0.8 SI 0.2 SI 0.2 SI		3.9 2	S 32 C F 1 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F41LL F44ILL F44ILL	32 112 112	0.8 0.2 0.2	C-OCC	2912 1560 1560	2,422.8 349.4 349.4	605.7 349.4 349.4	0.0 \$	56.39 32.53 32.53	\$270.00	\$35.00 \$35.00 \$35.00	4.8 8.3 8.3	7.2 7.2
BB Corridor BB-8	18 W 32 C F 2 (ELE) 12 T 32 R F 4 (ELE)	F42LL F44ILL	60 112	1.1 SI 1.3 SI	V 3640 3,93° V 2600 3,494	i.2 18 i.4 12	W 32 C F 2 (ELE) T 32 R F 4 (ELE)	F42LL F44ILL	60 112	1.1	C-OCC	2912 1950	3,145.0 2,620.8	786.2 873.6		73.20 81.33	\$270.00 \$270.00	\$35.00 \$35.00	3.7	3.2
BB-6 BB-7 BB-5	12 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112 112	1.3 SI 1.3 SI		1.4 12	T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112 112	1.3 1.3	C-0CC	1950 1950	2,620.8 2,620.8 2,620.8	873.6 873.6	0.0 \$ 0.0 \$	81.33 81.33 81.33	\$270.00	\$35.00 \$35.00 \$35.00	3.3 3.3	2.9
BB-4 BB-3	20 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	2.2 SI 1.3 SI	V 2600 5,824 V 2600 3,494	1.4 12	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	2.2	C-OCC	1950 1950	4,368.0 2,620.8	1,456.0 873.6	0.0 \$ 0.0 \$	135.55 81.33	\$270.00 \$270.00	\$35.00 \$35.00	3.3 2.0 3.3	1.7
BB-1 BB-2 Women's Staff Restroom	12 T 32 R F 4 (ELE) 20 T 32 R F 4 (ELE) 4 W 32 C F 2 (ELE)	F44ILL F44ILL F42LL	112 112 60	1.3 SI 2.2 SI 0.2 SI	V 2600 3,494 V 2600 5,824 V 3120 748	1.0 20	T 32 R F 4 (ELE) T 32 R F 4 (ELE) W 32 C F 2 (ELE)	F44ILL F44ILL F42LL	112 112 60	1.3 2.2 0.2	C-OCC	1950 1950	2,620.8 4,368.0 374.4	873.6 1,456.0 374.4	0.0 \$ 0.0 \$	81.33 135.55 34.86	\$270.00	\$35.00 \$35.00 \$35.00	3.3 2.0 7.7	2.9 1.7 6.7
Custodial Room Men's Staff Restroom	1 W 34 C F 2 (MAG) 4 W 32 C F 2 (ELE)	F42EE F42LL	72 60	0.1 SI 0.2 SI	V 1560 112 V 3120 748	2.3 1 3.8 4	W 34 C F 2 (MAG) W 32 C F 2 (ELE)	F42EE F42LL	72 60	0.1 0.2	NONE C-OCC	1560 1560	112.3 374.4	0.0 374.4	0.0 \$ 0.0 \$	0.00 34.86	\$0.00 \$270.00	\$0.00 \$35.00	7.7	#DIV/0
Storage Room (locked - no entry Elevator Equipment (locked - no entry Storage Room (locked - no entry	2 T 32 R F 4 (ELE) 1 S 32 C F 2 (ELE) 2 S 32 C F 2 (ELE)	F44ILL F42LL F42LL	112 60 60	0.2 SI 0.1 SI 0.1 SI	V 1560 349 V 1560 93 V 1560 183	9.4 2 8.6 1	T 32 R F 4 (ELE) S 32 C F 2 (ELE) S 32 C F 2 (FLF)	F44ILL F42LL F42LL	112 60 60	0.2 0.1	NONE C-OCC	780 1560 780	174.7 93.6	174.7 0.0 93.6	0.0 \$ 0.0 \$	16.27 0.00 8.71	\$0.00	\$35.00 \$0.00 \$35.00	16.6	14.4 #DIV/
B Corridor 1 B Corridor 1	21 T 32 R F 4 (ELE) 1 2B 17 R F 4 (ELE)	F44ILL F24ILL	112 61	2.4 SI 0.1 SI		2.0	T 32 R F 4 (ELE) 2B 17 R F 4 (ELE)	F44ILL F24ILL	112 61	2.4 0.1	C-OCC	2912 2912	6,849.0 177.6	1,712.3 44.4	0.0 \$ 0.0 \$	159.41 4.13	\$270.00	\$35.00 \$35.00	1.7 65.3	1.5 56.8
B-14 B-15 B-13	16 T 32 R F 4 (ELE) 4 T 32 R F 4 (ELE) 4 T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112 112	1.8 SI 0.4 SI 0.4 SI		1.8 4	T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112 112	1.8 0.4 0.4	C-OCC C-OCC	1950 1950 1950	3,494.4 873.6 873.6	1,164.8 291.2 291.2	0.0 \$ 0.0 \$ 0.0 \$	108.44 27.11 27.11	\$270.00	\$35.00 \$35.00 \$35.00	2.5 10.0 10.0	2.2 8.7 8.7
B-11 B-12	12 T 32 R F 4 (ELE) 8 T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	1.3 SI 0.9 SI	V 2600 3,494 V 2600 2,329	9.6	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	1.3 0.9	C-OCC	1950 1950	2,620.8 1,747.2	873.6 582.4	0.0 \$ 0.0 \$	81.33 54.22	\$270.00 \$270.00	\$35.00 \$35.00	3.3 5.0	2.9
B-09 B-09 B-10	12 T 32 R F 4 (ELE) 3 W 20 C F 2 8 T 32 R F 4 (ELE)	F44ILL F22SS F44II I	112 56 112	1.3 SI 0.2 SI 0.9 SI	V 2600 3,494 V 2600 436 V 2600 2,329	3.8	T 32 R F 4 (ELE) W 20 C F 2 T 32 R F 4 (ELE)	F44ILL F22SS F44II I	112 56 112	1.3 0.2 0.9	C-OCC C-OCC	1950 1950 1950	2,620.8 327.6 1,747.2	873.6 109.2 582.4	0.0 \$ 0.0 \$	81.33 10.17 54.22	\$270.00	\$35.00 \$35.00 \$35.00	3.3 26.6 5.0	2. 23 4.
B-08 B-08	5 T 32 R F 4 (ELE) 3 W 20 C F 2	F44ILL F22SS	112 56	0.6 SI 0.2 SI	V 2600 1,456 V 2600 436	5.0 5 5.8 3	T 32 R F 4 (ELE) W 20 C F 2	F44ILL F22SS	112 56	0.6 0.2	C-OCC	1950 1950	1,092.0 327.6	364.0 109.2	0.0 \$ 0.0 \$	33.89 10.17	\$270.00 \$270.00	\$35.00 \$35.00	8.0 26.6	6.9 23.
Custodial Room (locked - no entry Men's Staff Restroom Storage	1 CF 26 1 2B 34 R F 2 (u) (MAG) 1 CF 26	CFQ26/1-L FU2EE CFQ26/1-I	27 72 27	0.0 SI 0.1 SI 0.0 SI	V 3120 224	1.6 1	CF 26 2B 34 R F 2 (u) (MAG) CF 26	CFQ26/1-L FU2EE CFQ26/1-L	27 72 27	0.0 0.1 0.0	C-OCC C-OCC	1560 1560 780	42.1 112.3 21.1	0.0 112.3 21.1	0.0 \$ 0.0 \$	0.00 10.46 1.96	\$270.00	\$0.00 \$35.00 \$35.00	25.8 137.7	#DI\ 22 119
Girls' Restroom Girls' Restroom	2 T 32 R F 4 (ELE) 1 S 32 PC F 1	CFQ26/1-L F44ILL F41LL	112 32	0.2 SI 0.0 SI	V 3120 698 V 3120 99	9.8 1	T 32 R F 4 (ELE) S 32 PC F 1	F44ILL F41LL	112 32	0.2 0.0	C-OCC	1560 1560	349.4 49.9	349.4 49.9	0.0 \$ 0.0 \$	32.53 4.65	\$270.00 \$270.00	\$35.00 \$35.00	8.3 58.1	7. 50
Women's Staff Restroom Boys' Restroom Boys' Restroom	1 2B 34 R F 2 (u) (MAG) 2 T 32 R F 4 (ELE) 1 S 32 PC F 1	FU2EE F44ILL F41LL	72 112 32	0.1 SI 0.2 SI 0.0 SI	V 3120 698		2B 34 R F 2 (u) (MAG) T 32 R F 4 (ELE) S 32 PC F 1	FU2EE F44ILL F41LL	72 112 32	0.1 0.2 0.0	C-OCC C-OCC	1560 1560 1560	112.3 349.4 49.9	112.3 349.4 49.9	0.0 \$ 0.0 \$ 0.0 \$	10.46 32.53 4.65	\$270.00	\$35.00 \$35.00 \$35.00	25.8 8.3 58.1	7. 50
B-07 B-07	15 T 32 R F 4 (ELE) 3 W 20 C F 2	F44ILL F22SS	112 56	1.7 SI 0.2 SI	V 2600 4,360 V 2600 436	3.8	T 32 R F 4 (ELE) W 20 C F 2	F44ILL F22SS	112 56	1.7 0.2	C-OCC C-OCC	1950 1950	3,276.0 327.6	1,092.0 109.2	0.0 \$	101.66	\$270.00 \$270.00	\$35.00 \$35.00	2.7 26.6	2. 23
B-06 B-05 B-04 Teacher's Loung€	12 T 32 R F 4 (ELE) 15 T 32 R F 4 (ELE) 13 T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112 112	1.3 SI 1.7 SI 1.5 SI	V 2600 4,368	3.0 15	T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112 112	1.3 1.7 1.5	C-OCC C-OCC	1950 1950 1300	2,620.8 3,276.0 1,892.8	873.6 1,092.0 1,892.8	0.0 \$	81.33 101.66 176.22	\$270.00	\$35.00 \$35.00 \$35.00	3.3 2.7 1.5	2. 2. 1.
B-03 B-01 B-02	16 T 32 R F 4 (ELE) 10 T 32 R F 4 (ELE) 11 T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112 112	1.8 SI 1.1 SI 1.2 SI	V 2600 2,912	2.0 10	T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112	1.8	C-OCC C-OCC	1950 1950	3,494.4 2,184.0	1,164.8 728.0 800.8	0.0	108.44 67.78 74.55	\$270.00	\$35.00 \$35.00	2.5 4.0	2. 3. 3.
Lower A Classroom Lower A Stairs	3 T 32 R F 4 (ELE) 2 T 32 R F 4 (ELE)	F44ILL F44ILL	112 112 112	0.3 SI 0.2 SI	V 2600 873 V 3640 815	3.6 3 5.4 2	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112 112	0.3 0.2	C-OCC C-OCC	1950 1950 2912	2,402.4 655.2 652.3	218.4 163.1	0.0 \$	20.33 15.18	\$270.00 \$270.00	\$35.00 \$35.00 \$35.00	3.6 13.3 17.8	11 15
Lower A Stairs A Wing Corridor Storage (locked - no entry	3 W 32 C F 2 (ELE) 27 T 32 R F 4 (ELE) 2 W 34 C F 2 (MAG)	F42LL F44ILL F42EE	60 112 72	0.2 SI 3.0 SI 0.1 SI	V 3640 11,007	7.4 27	W 32 C F 2 (ELE) T 32 R F 4 (ELE) W 34 C F 2 (MAG)	F42LL F44ILL F42EE	60 112 72	0.2 3.0 0.1	C-OCC C-OCC	2912 2912	524.2 8,805.9 112.3	131.0 2,201.5 112.3	0.0 \$	12.20 204.96 10.46	\$270.00	\$35.00 \$35.00 \$35.00	22.1 1.3	19.
Men's Staff Restroom A-01	1 CF 26 7 T 32 R F 4 (ELE)	CFQ26/1-L F44ILL	27 112	0.0 SI 0.8 SI	V 3120 84 V 2600 2,038	1.2 1	CF 26 T 32 R F 4 (ELE)	CFQ26/1-L F44ILL	27 112	0.0	C-OCC C-OCC	1560 1950	42.1 1,528.8	42.1 509.6	0.0 \$	3.92 47.44	\$270.00 \$270.00	\$35.00 \$35.00	25.8 68.9 5.7	59 5.
Women's Staff Restroom A-02 Boys' Restroom	1 CF 26 7 T 32 R F 4 (ELE) 2 T 32 R F 4 (ELE)	CFQ26/1-L F44ILL F44ILL	27 112 112	0.0 SI 0.8 SI 0.2 SI	V 2600 2,038	3.4 7	CF 26 T 32 R F 4 (ELE) T 32 R F 4 (ELE)	CFQ26/1-L F44ILL F44II I	27 112 112	0.0 0.8 0.2	C-OCC	1560 1950 1560	42.1 1,528.8 349.4	42.1 509.6 349.4		3.92 47.44 32.53	\$270.00	\$35.00 \$35.00 \$35.00	68.9 5.7 8.3	59 5. 7.
Custodial Custodial	1 CF 26 1 I 75	CFQ26/1-L 175/1	27 75	0.0 SI 0.1 SI	V 1560 42 V 1560 117	2.1 1	CF 26	CFQ26/1-L I75/1	27 75	0.0	NONE NONE		42.1 117.0	0.0	0.0 \$ 0.0 \$	0.00	\$0.00 \$0.00	\$0.00 \$0.00		#DI\ #DI\ 7.
Girls' Restroom A-04 Music Room A-04 Storage	2 T 32 R F 4 (ELE) 50 W 34 C F 2 (MAG) 2 W 34 C F 2 (MAG)	F44ILL F42EE F42EE	112 72 72	0.2 SI 3.6 SI 0.1 SI	V 2600 9,360	0.0 50	T 32 R F 4 (ELE) W 34 C F 2 (MAG) W 34 C F 2 (MAG)	F44ILL F42EE F42EE	112 72 72	0.2 3.6 0.1	C-OCC C-OCC	1560 1950 780	349.4 7,020.0 112.3	349.4 2,340.0 112.3	0.0 \$	32.53 217.85 10.46	\$270.00	\$35.00 \$35.00 \$35.00	8.3 1.2 25.8	7. 1. 22
A-04 Instruments A-04 Storage	2 W 34 C F 2 (MAG) 2 W 34 C F 2 (MAG)	F42EE F42EE	72 72	0.1 SI 0.1 SI	V 1560 224 V 1560 224	i.6 2	W 34 C F 2 (MAG) W 34 C F 2 (MAG)	F42EE F42EE	72 72	0.1 0.1	C-OCC	780 780	112.3 112.3	112.3 112.3	0.0 \$ 0.0 \$	10.46 10.46	\$270.00 \$270.00	\$35.00 \$35.00	25.8 25.8	22 22
A-04 Sheet Music Storage A-04 Office A-04 Instruments	3 W 34 C F 2 (MAG) 2 W 34 C F 2 (MAG) 3 L 75	F42EE F42EE I75/1	72 72 75	0.2 SI 0.1 SI 0.2 SI	V 1560 337 V 1560 224 V 1560 35		W 34 C F 2 (MAG) W 34 C F 2 (MAG)	F42EE F42EE I75/1	72 72 75	0.2 0.1 0.2	C-OCC C-OCC	780 780 780	168.5 112.3 175.5	168.5 112.3 175.5	0.0 \$	15.69 10.46 16.34	\$270.00	\$35.00 \$35.00 \$35.00	17.2 25.8 16.5	15 22 14
A-02 (locked - no entry Auditorium	40 W 34 C F 2 (MAG) 12 HPS 250	F42EE HPS250/1	72 295	2.9 SI 3.5 SI	V 2600 7,488 V 3120 11,04	1.8 12	W 34 C F 2 (MAG) HPS 250	F42EE HPS250/1	72 295	2.9 3.5	C-OCC NONE	1950 3120	5,616.0 11,044.8	1,872.0 0.0	0.0 \$	174.28 0.00	\$270.00 \$0.00	\$35.00 \$0.00	1.5	1 #DI
Backstage Right Stage Backstage Left	3 175 2 175 1 S 32 C F 1 (ELE)	175/1 175/1 F41LL	75 75 32	0.2 SI 0.2 SI 0.0 SI	V 3120 468		175 175 S 32 C F 1 (ELE)	175/1 175/1 F41LL	75 75 32	0.2 0.2 0.0	NONE NONE NONE	3120 3120 3120	702.0 468.0 99.8	0.0	0.0 S 0.0 S	0.00 0.00 0.00	\$0.00	\$0.00 \$0.00 \$0.00		#DI #DI #DI
Storage Auditorium Corrido	3 W 34 C F 2 (MAG) 20 T 32 R F 4 (ELE)	F42EE F44ILL	72 112	0.2 SI 2.2 SI	V 1560 333 V 3640 8,150	7.0 3	S 32 C F 1 (ELE) W 34 C F 2 (MAG) T 32 R F 4 (ELE)	F41LL F42EE F44ILL	72 112	0.2 2.2	C-OCC C-OCC	780 2912	168.5 6,522.9	168.5 1,630.7		15.69 151.82	\$270.00 \$270.00	\$35.00 \$35.00	17.2 1.8	#DI 15 1
D-27 D-16 D-14 (locked - no entry	12 T 32 R F 4 (ELE) 6 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112 112	1.3 SI 0.7 SI 1.3 SI			T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112 112	1.3 0.7 1.3	C-OCC C-OCC	1950 1950 1950	2,620.8 1,310.4 2,620.8	873.6 436.8 873.6	0.0 \$ 0.0 \$ 0.0 \$	81.33 40.67 81.33	\$270.00	\$35.00 \$35.00 \$35.00	3.3 6.6 3.3	5 2
D-12 Office	11 T 32 R F 4 (ELE) 2 T 34 R F 3 (MAG) 2 T 34 R F 3 (MAG)	F44ILL F43EE F43EE	112 112 115 115	1.3 SI 1.2 SI 0.2 SI 0.2 SI		3.2 11 3.0 2	T 32 R F 4 (ELE) T 34 R F 3 (MAG) T 34 R F 3 (MAG)	F44ILL F43EE F43EF	112 112 115 115	1.2 0.2	C-OCC C-OCC	1950 1950	2,402.4 448.5 448.5	800.8 149.5 149.5	0.0 \$	74.55 13.92	\$270.00 \$270.00	\$35.00 \$35.00	3.3 3.6 19.4 19.4	3 16
Office D-21 (locked - no entry Gold Cafeteria	2 134 K + 3 (MAG) 12 T 32 R F 4 (ELE) 38 T 32 R F 4 (ELE)	F43EE F44ILL F44ILL	115 112 112	0.2 SI 1.3 SI 4.3 SI		1.4 12	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	115 112 112	0.2 1.3 4.3	C-OCC C-OCC	1950 1950 1950	2,620.8 8,299.2	149.5 873.6 2,766.4	0.0 \$ 0.0 \$ 0.0 \$	13.92 81.33 257.55	\$270.00	\$35.00 \$35.00 \$35.00	3.3 1.0	16 2 0
Classroom in Cafeteria Kitchen Storage	12 T 32 R F 4 (ELE) 6 W 34 C F 2 (MAG) 1 CF 26	F44ILL F42EE CFQ26/1-L	112 72	1.3 SI 0.4 SI 0.0 SI	V 2600 3,494 V 1560 673	i.4 12 i.9 6	T 32 R F 4 (ELE) W 34 C F 2 (MAG) CF 26	F44ILL F42EE CFQ26/1-L	112 72	1.3 0.4	C-OCC C-OCC	1950 780	2,620.8 337.0	873.6 337.0	0.0 \$	81.33 31.37	\$270.00 \$270.00	\$35.00 \$35.00 \$0.00	3.3 8.6	2 7 #DI
Custodial Storage (locked - no entry Serving Line	1	F42EE F44ILL	72 112	0.0 SI 0.1 SI 0.9 SI	V 1560 224 V 2600 2,329	i.6 2 9.6 8	W 34 C F 2 (MAG) T 32 R F 4 (ELE)	F42EE F44ILL	72 112	0.0 0.1 0.9	C-OCC C-OCC	1560 780 1950	112.3 1,747.2	112.3 582.4	0.0 \$ 0.0 \$	10.46 54.22	\$270.00	\$35.00 \$35.00	25.8 5.0	#DIV 22 4.
Serving Line Cafeteria D-19 (locked - no entry D-17 (locked - no entry	54 T 32 R F 4 (ELE) 2 T 32 R F 4 (ELE) 2 T 32 R F 4 (ELE) 2 T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112 112	6.0 SI 0.2 SI	V 2600 15,724 V 2600 583 V 2600 583	1.8 54 2.4 2	T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112	6.0 0.2	C-OCC C-OCC	1950 1950	11,793.6 436.8 436.8	3,931.2 145.6 145.6	0.0 \$ 0.0 \$	365.99 13.56	\$270.00	\$35.00 \$35.00 \$35.00	0.7 19.9 19.9	0. 17
D-10 Teacher's Lounge Child Study Team Office	6 T 32 R F 4 (ELE) 39 T 32 R F 3 (ELE)	F44ILL F44ILL F43ILL/2	112 112 90	0.2 Si 0.7 Si 3.5 Si	V 2600 1,747	7.2 6	T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 3 (ELE)	F44ILL F43ILL/2	112 112 90	0.2 0.7 3.5	C-OCC C-OCC	1300 1950	873.6 6,844.5	873.6 2,281.5	0.0 \$ 0.0 \$ 0.0 \$	81.33 212.41	\$270.00	\$35.00 \$35.00 \$35.00	3.3 1.3	2.9
Conference Room Main Office Corrido Main Office 9th (locked - no entry	4 T 32 R F 3 (ELE) 3 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE)	F43ILL/2 F44ILL	90 112	0.4 SI 0.3 SI	V 1560 56° V 3640 1,22°	1.6 4 3.0 3	T 32 R F 3 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F43ILL/2 F44ILL	90 112 112	0.4 0.3	NONE C-OCC		561.6 978.4	0.0 244.6	0.0 \$	0.00 22.77		\$0.00 \$35.00	11.9	#DI\ 10
Main Office Restroom Main Office 11th (locked - no entry	1 CF 26 12 T 32 R F 4 (ELE)	F44ILL CFQ26/1-L F44ILL	112 27 112	1.3 SI 0.0 SI 1.3 SI	V 3120 84 V 2600 3,494	l.2 1 l.4 12	CF 26 T 32 R F 4 (ELE)	F44ILL CFQ26/1-L F44ILL	27 112	1.3 0.0 1.3	C-OCC	1950 1560 1950	2,620.8 42.1 2,620.8	873.6 42.1 873.6	0.0 \$ 0.0 \$ 0.0 \$	51.33 3.92 81.33	\$270.00	\$35.00 \$35.00 \$35.00	3.3 68.9 3.3	59 2
Main Office 12th (locked - no entry Main Office 10th	12 T 32 R F 4 (ELE) 5 T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	1.3 SI 0.6 SI	V 2600 3,494 V 2600 1,456	1.4 12 3.0 5	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	1.3 0.6	C-OCC	1950 1950	2,620.8 1,092.0	873.6 364.0	0.0 \$	81.33 33.89	\$270.00 \$270.00	\$35.00 \$35.00	3.3 8.0	2. 6.
Guidance Office 1 Guidance Office 2 Guidance Office 3	2 T 32 R F 4 (ELE) 2 T 32 R F 4 (ELE) 2 T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112 112	0.2 SI 0.2 SI 0.2 SI	V 2600 582 V 2600 582	2.4 2	T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112 112	0.2 0.2 0.2	C-OCC	1950 1950 1950	436.8 436.8 436.8	145.6 145.6 145.6	0.0 \$ 0.0 \$	13.56 13.56 13.56	\$270.00	\$35.00 \$35.00 \$35.00	19.9 19.9 19.9	17. 17. 17.
Guidance Office 4 Guidance Office 5	2 T 32 R F 4 (ELE) 2 T 32 R F 4 (ELE) 2 T 32 R F 4 (ELE) 2 T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	0.2 SI 0.2 SI	V 2600 583 V 2600 583	2.4 2	T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112	0.2 0.2	C-OCC	1950 1950	436.8 436.8	145.6 145.6	0.0 \$	13.56 13.56	\$270.00 \$270.00	\$35.00 \$35.00	19.9 19.9	17.3 17.3
Guidance Office 6 Guidance Office 7 Guidance Office 8	2 T 32 R F 4 (ELE) 2 T 32 R F 4 (ELE) 2 T 32 R F 4 (FLF)	F44ILL F44ILL F44ILL	112 112 112	0.2 SI 0.2 SI 0.2 SI	V 2600 582	2.4 2	T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (FLF)	F44ILL F44ILL F44II I	112 112 112	0.2 0.2 0.2	C-0CC	1950 1950 1950 1950	436.8 436.8 436.8	145.6 145.6		13.56 13.56 13.56	\$270.00	\$35.00 \$35.00 \$35.00	19.9 19.9 19.9	17.3 17.3

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Area Description pilon of the location - Room number/Room me: Floor number (if applicable) Guidance Office 10 Guidance Office 11 Break Room Micros Storage (locked - no entry Brown Storage (locked - no entry D-15 Break Room Men's Staff Restroom D-13 (locked - no entry D-08 (locked - no entry D-09 (locked - no entry D-09 (locked - no entry D-09 (locked - no entry D-05 (locked - no entry C-06 (locked - no entry C-07 (locked - no entry C-08 (locked - no entry C-08 (locked - no entry C-09	T32 R F 4 (ELE)	Fixture Code Code from Table of Standard Fixture Wattages F-44ILL	Watts per Fixture Value from Table of Standard Fixture Wattages 112 112 112 112 112 112 112 1	kW/Space (Watts/Fixt) * (Fixt No.) 0 2 0 2 0 2 0 4 0 1 0 1 0 1 0 1 0 1 0 1 1 3 1 3 1 3 1 3 1 3 1 3 1 3 0 2 2 2 2 2 2 9 0 2 0 4 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1	Exist Control Pre-inst. control device SW	2600 55 2600 93 1560 22 1560 22 2600 17,7 1560 22 2600 17,7 3120 15 3120 15 3120 15 3120 15 2600 3,44 2600 3,45 2600 1,77 1560 4	No. of fixtures at the retrofit	ter *Lighting Fixture Code* Example 2T 40 R F(U) = 2*X 2T 40 F M Recess. Floor 2 lamps U shape 1 32 R F 4 (ELE) 1 32 R F 4 (ELE) 1 32 R F 3 (ELE) W 34 C F 2 (MAG) W 34 C F 2 (MAG) 3 2 R F 4 (ELE) 3 3 C F 1 (ELE) 1 3 2 R F 4 (ELE) 1 3 3 4 R F 3 (MAG) 1 3 2 R F 4 (ELE) 1 3 2 R F 4 (ELE) 1 3 2 R F 4 (ELE) 1 3 3 4 R F 3 (MAG) 1 3 2 R F 4 (ELE) 1 3 4 R F 3 (MAG) 1 3 2 R F 4 (ELE) 1 3 2 R F 4 (ELE) 1 3 3 4 R F 3 (MAG) 1 3 4 R F 3 (MAG) 1 3 4 R F 4 (ELE)	Fixture Code Code from Table of Standard Fixture Wattages F44ILL F44ILL F43ILL2 F42EE F42EE F44EE F41LL F41LL F41LL F44ILL F4XILL F4XI	Watts per Fixture Value from Table of Standard Fixture Wattages 112 112 112 112 112 112 112 112 112 11	kW/Space (Watts/Fixt) ** (Number of Fixtures) ** 0.2 0.4 0.1 0.1 0.7 0.1 0.5 1.3 1.3 1.3 1.3 1.2 1.2		stimated (kW	inual kWh space) ** (Original Control	Ar A	W) - (Retrofit (1) (2) (2) (3)	Annual \$ Saved (kW Saved) * (\$RkWh) * \$13.56 \$13.56 \$13.56 \$10.46 \$10.46 \$10.46 \$93.00	\$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00	Lighting Incentive \$33.00 \$35.00 \$35.00 \$35.00 \$35.00 \$35.00 \$35.00 \$35.00 \$35.00 \$35.00 \$35.00 \$35.00 \$35.00 \$35.00 \$35.00 \$35.00 \$35.00 \$35.00 \$35.00	With Out Incentive Length of time for renovations cost to be recovered 19.9 6.2 25.8 25.8 25.9 3.3 3.3 29.0 3.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3 3
Guidance Office 10 Guidance Office 11 Break Room Ik Room Storage (locked - no entr) D-15 Break Room Women's Staff Restroom Men's Staff Restroom Men's Staff Restroom Storage (locked - no entry D-13(locked - no entry D-13(locked - no entry D-10 (locked - no entry D-05 (locked	T32 R F 4 (ELE)	Fixture Wattages F44ILL F44ILL F44ILL F44ILL F44ILL F44ILL F44IL	Table of Standard Fixture Wattages 112 113 114 115	02 02 02 04 01 01 01 01 01 05 13 13 13 13 12 02 02 12 07	SW S	Annual Hours Annual Hours Canual Hours Canu	the retrofit 22.4	2T 40 R F(U) = 2*X2 Troff 40 w Recess. Floor 2 lamps U shape T 32 R F 4 (ELE) T 32 R F 3 (ELE) T 32 R F 3 (ELE) W 34 C F 2 (MAG) W 34 C F 2 (MAG) W 34 C F 2 (MAG) S 32 C F 1 (ELE) S 32 C F 1 (ELE) S 32 C F 2 (ELE) T 32 R F 4 (ELE) T 34 R F 3 (MAG) T 32 R F 4 (ELE) T 34 R F 3 (MAG) T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 34 R F 3 (MAG) T 32 R F 4 (ELE)	Standard Fixture Wattages F44 L F44 L F45 L F45 L F45 L F45 L	Table of Standard Fixture Wattages 112 90 72 112 32 60 112 112 112 112 112 1112 1112 1115	(Number of Fixtures) 0.2 0.2 0.4 0.4 0.1 0.1 0.7 0.7 0.1 1.3 1.3 1.3 1.2 1.3	device a f f f f f f f f f	nnual hours or the usage roup 1950	Name	(a) (Retrofit Author) (b) (c) (c	W) - (Retrofit (1) (2) (2) (3)	\$13.56 \$13.56 \$13.56 \$43.57 \$10.46 \$10.46 \$81.33 \$9.30 \$9.30 \$9.30 \$81.33 \$81.33 \$81.33 \$81.33 \$81.33 \$81.33 \$81.33	\$270.00 \$270.00	\$35.00 \$35.00	19.9 19.9 19.9 19.9 19.9 25.8 25.8 3.3 29.0 29.0 3.3 3.3 3.3 3.6 3.3 19.4
Guidance Office 11 Break Room Ik Room Storage (locked - no entry Ik Room Storage (locked - no entry D-15 Break Room Men's Staff Restroom D-13 (locked - no entry D-13 (locked - no entry D-14 (locked - no entry D-15 (locked - no entry D-16	2 T 32 R F 4 (ELE) 4 T 32 R F 3 (ELE) 2 W 34 C F 2 (MAG) 6 T 32 R F 4 (ELE) 2 S 32 C F 1 (ELE) 2 S 32 C F 1 (ELE) 3 S 32 C F 1 (ELE) 12 T 32 R F 4 (ELE) 13 T 32 R F 4 (ELE) 14 T 32 R F 4 (ELE) 15 T 32 R F 4 (ELE) 16 T 32 R F 4 (ELE) 17 T 32 R F 4 (ELE) 18 T 32 R F 4 (ELE) 19 T 32 R F 4 (ELE) 10 T 32 R F 4 (ELE) 11 T 32 R F 4 (ELE) 12 T 34 R F 3 (MAG) 11 T 32 R F 4 (ELE) 12 T 34 R F 3 (ELE) 13 T 34 R F 3 (ELE) 14 T 35 R F 4 (ELE) 15 T 35 R F 4 (ELE) 16 T 35 R F 4 (ELE) 17 T 35 R F 4 (ELE) 18 T 35 R F 4 (ELE) 19 T 35 R F 4 (ELE) 11 T 35 R F 4 (ELE) 12 T 35 R F 4 (ELE) 13 T 35 R F 4 (ELE) 14 T 35 R F 4 (ELE) 15 T 35 R F 4 (ELE) 17 T 35 R F 4 (ELE) 19 T 35 R F 4 (ELE) 11 T 35 R F 4 (ELE) 11 T 35 R F 4 (ELE) 11 T 35 R F 4 (ELE) 12 T 35 R F 4 (ELE) 13 T 35 R F 4 (ELE) 14 T 35 R F 4 (ELE) 15 T 35 R F 4 (ELE) 16 T 35 R F 4 (ELE) 17 T 35 R F 4 (ELE) 17 T 35 R F 4 (ELE) 17 T 35 R F 4 (ELE) 18 T 35 R F 4 (ELE) 19 T 35 R F 4 (ELE) 19 T 35 R F 4 (ELE) 11 T 35 R F 4 (ELE)	F44ILL F44ILL F44ILL F44ILL F43ILIZ F42EE F43ILL F43ILL F43ILL F43ILL F43ILL F44ILL	Exture Wattages 112 113 114 115 11	0 2 0 4 0 4 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 1 0 1 1 0 1 1 1 0 1 1 1 0 1 1 1 0 1 1 1 1 0 1	SW S	2800	82.4 2 36.0 4 24.6 2 24.6 2 24.6 2 24.7 2 6 99.7 2 99.7 2 99.7 2 99.7 1 99.4 12 94.4 12 95.0 2 96.0 2	T 32 R F 4 (ELE) T 32 R F 3 (ELE) T 32 R F 3 (ELE) W 34 C F 2 (MAC) W 34 C F 2 (MAC) W 34 C F 2 (MAC) T 32 R F 4 (ELE) S 32 C F 1 (ELE) S 32 C F 1 (ELE) S 32 C F 1 (ELE) T 32 R F 4 (ELE) T 34 R F 3 (MAG) T 32 R F 4 (ELE) T 34 R F 3 (MAG) T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F43ILL2 F43ILL2 F43ILL2 F42EE F42EE F44EL F41LL F41LL F44ILL F43EE	Fixture Wattages 112 112 90 72 112 32 60 1112 112 112 1112 1112 1112 1112 11	0.2 0.2 0.4 0.1 0.1 0.7 0.1 0.1 0.1 0.5 1.3 1.3 1.3 1.3	C-OCC C-OCC C-OCC C-OCC C-OCC C-OCC C-OCC	1950 436. 1950 436. 1950 436. 1950 436. 780 112. 1300 873. 1560 99.8 1560 99.8 1950 2,62 1950 2,62 1950 2,62 1950 2,62	3 145.6 5 1465.6 5 4686.3 3 112.3 6 873.6 9 99.8 4 0.0 0.8 873.6 8 873	6 0.4 6.6 0.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	1.00 \$ \$ \$ \$ \$ \$ \$ \$ \$	\$13.56 \$43.57 \$10.46 \$10.46 \$81.33 \$93.0 \$0.00 \$81.33 \$81.33 \$81.33 \$81.33 \$74.55 \$81.33 \$74.55	\$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00	\$35.00 \$35.00	19.9 19.9 19.9 6.2 25.8 25.8 3.3 29.0 29.0 3.3 3.3 3.3 3.3 3.3 3.6 3.3 19.4
Guidance Office 11 Break Room Ik Room Storage (locked - no entry Ik Room Storage (locked - no entry D-15 Break Room Men's Staff Restroom D-13 (locked - no entry D-13 (locked - no entry D-14 (locked - no entry D-15 (locked - no entry D-16	2 T 32 R F 4 (ELE) 4 T 32 R F 3 (ELE) 2 W 34 C F 2 (MAG) 6 T 32 R F 4 (ELE) 2 S 32 C F 1 (ELE) 2 S 32 C F 1 (ELE) 3 S 32 C F 1 (ELE) 12 T 32 R F 4 (ELE) 13 T 32 R F 4 (ELE) 14 T 32 R F 4 (ELE) 15 T 32 R F 4 (ELE) 16 T 32 R F 4 (ELE) 17 T 32 R F 4 (ELE) 18 T 32 R F 4 (ELE) 19 T 32 R F 4 (ELE) 10 T 32 R F 4 (ELE) 11 T 32 R F 4 (ELE) 12 T 34 R F 3 (MAG) 11 T 32 R F 4 (ELE) 12 T 34 R F 3 (ELE) 13 T 34 R F 3 (ELE) 14 T 35 R F 4 (ELE) 15 T 35 R F 4 (ELE) 16 T 35 R F 4 (ELE) 17 T 35 R F 4 (ELE) 18 T 35 R F 4 (ELE) 19 T 35 R F 4 (ELE) 11 T 35 R F 4 (ELE) 12 T 35 R F 4 (ELE) 13 T 35 R F 4 (ELE) 14 T 35 R F 4 (ELE) 15 T 35 R F 4 (ELE) 17 T 35 R F 4 (ELE) 19 T 35 R F 4 (ELE) 11 T 35 R F 4 (ELE) 11 T 35 R F 4 (ELE) 11 T 35 R F 4 (ELE) 12 T 35 R F 4 (ELE) 13 T 35 R F 4 (ELE) 14 T 35 R F 4 (ELE) 15 T 35 R F 4 (ELE) 16 T 35 R F 4 (ELE) 17 T 35 R F 4 (ELE) 17 T 35 R F 4 (ELE) 17 T 35 R F 4 (ELE) 18 T 35 R F 4 (ELE) 19 T 35 R F 4 (ELE) 19 T 35 R F 4 (ELE) 11 T 35 R F 4 (ELE)	F44ILL F43ILL2 F42EE F42EE F44ILL F41IL F41IL F41IL F41IL F41IL F44IL	112 112 90 90 72 72 112 32 86 60 112 112 112 112 112 112 112 112 112 11	0 2 0 4 0 4 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 1 0 1 1 0 1 1 1 0 1 1 1 0 1 1 1 0 1 1 1 1 0 1	SW S	2600	82.4 2 36.0 4 24.6 2 24.6 2 24.6 2 24.7 2 6 99.7 2 99.7 2 99.7 2 99.7 1 99.4 12 94.4 12 95.0 2 96.0 2	T 32 R F 4 (ELE) T 32 R F 3 (ELE) W 34 G F 2 (MAG) W 34 G F 2 (MAG) T 32 R F 4 (ELE) S 32 C F 1 (ELE) S 32 C F 1 (ELE) S 32 C F 1 (ELE) T 32 R F 4 (ELE) T 32 R F 3 (ELE) T 34 R F 3 (MAG) T 34 R F 3 (MAG) T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 34 R F 3 (MAG) T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F43LE F43LE F42EE F42EE F44ILL F41LL F41LL F44ILL	Wattages 112 112 90 72 72 112 32 32 32 60 112 112 112 112 112 1112 1112 1112	0.2 0.4 0.1 0.1 0.7 0.1 0.5 1.3 1.3 1.3 1.3	C-OCC	1950 436.0 1300 468.8 780 112.2 780 112.1 1300 99.8.0 1560 99.8.0 1950 2.62 1950 2.62 1950 2.62 1950 2.62 1950 2.62 1950 2.62 1950 2.62 1950 2.62	8 145.6 488.0 3 112.3 3 112.3 3 112.3 3 12.3	.6 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4	0.0 S 0.0	\$13.56 \$43.57 \$10.46 \$10.46 \$81.33 \$93.0 \$0.00 \$81.33 \$81.33 \$81.33 \$81.33 \$74.55 \$81.33 \$74.55	\$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00	\$35.00 \$35.00	19.9 19.9 6.2 25.8 25.8 29.0 29.0 29.0 3.3 3.3 3.3 3.3 3.3 3.3 3.3 19.4
Guidance Office 11 Break Room Ik Room Storage (locked - no entry Ik Room Storage (locked - no entry D-15 Break Room Men's Staff Restroom D-13 (locked - no entry D-13 (locked - no entry D-14 (locked - no entry D-15 (locked - no entry D-16	2 T 32 R F 4 (ELE) 4 T 32 R F 3 (ELE) 2 W 34 C F 2 (MAG) 6 T 32 R F 4 (ELE) 2 S 32 C F 1 (ELE) 2 S 32 C F 1 (ELE) 3 S 32 C F 1 (ELE) 12 T 32 R F 4 (ELE) 13 T 32 R F 4 (ELE) 14 T 32 R F 4 (ELE) 15 T 32 R F 4 (ELE) 16 T 32 R F 4 (ELE) 17 T 32 R F 4 (ELE) 18 T 32 R F 4 (ELE) 19 T 32 R F 4 (ELE) 10 T 32 R F 4 (ELE) 11 T 32 R F 4 (ELE) 12 T 34 R F 3 (MAG) 11 T 32 R F 4 (ELE) 12 T 34 R F 3 (ELE) 13 T 34 R F 3 (ELE) 14 T 35 R F 4 (ELE) 15 T 35 R F 4 (ELE) 16 T 35 R F 4 (ELE) 17 T 35 R F 4 (ELE) 18 T 35 R F 4 (ELE) 19 T 35 R F 4 (ELE) 11 T 35 R F 4 (ELE) 12 T 35 R F 4 (ELE) 13 T 35 R F 4 (ELE) 14 T 35 R F 4 (ELE) 15 T 35 R F 4 (ELE) 17 T 35 R F 4 (ELE) 19 T 35 R F 4 (ELE) 11 T 35 R F 4 (ELE) 11 T 35 R F 4 (ELE) 11 T 35 R F 4 (ELE) 12 T 35 R F 4 (ELE) 13 T 35 R F 4 (ELE) 14 T 35 R F 4 (ELE) 15 T 35 R F 4 (ELE) 16 T 35 R F 4 (ELE) 17 T 35 R F 4 (ELE) 17 T 35 R F 4 (ELE) 17 T 35 R F 4 (ELE) 18 T 35 R F 4 (ELE) 19 T 35 R F 4 (ELE) 19 T 35 R F 4 (ELE) 11 T 35 R F 4 (ELE)	F44ILL F43ILL2 F42EE F42EE F44ILL F41IL F41IL F41IL F41IL F41IL F44IL	112 90 72 72 112 32 32 32 32 112 112 112 1	0 2 0 4 0 4 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 1 0 1 1 0 1 1 1 0 1 1 1 0 1 1 1 0 1 1 1 1 0 1	SW S	2600	82.4 2 36.0 4 24.6 2 24.6 2 24.6 2 247.2 6 99.7 2 99.7 2 99.7 2 99.7 1 88.4 12 94.4 12 95.0 2	T 32 R F 4 (ELE) T 32 R F 3 (ELE) W 34 G F 2 (MAG) W 34 G F 2 (MAG) T 32 R F 4 (ELE) S 32 C F 1 (ELE) S 32 C F 1 (ELE) S 32 C F 1 (ELE) T 32 R F 4 (ELE) T 32 R F 3 (ELE) T 34 R F 3 (MAG) T 34 R F 3 (MAG) T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 34 R F 3 (MAG) T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F43LE F43LE F42EE F42EE F44ILL F41LL F41LL F44ILL	112 90 72 72 72 112 32 32 60 112 112 112 112 112 112 1112 1112 1112	0.2 0.4 0.1 0.1 0.7 0.1 0.5 1.3 1.3 1.3 1.3	C-OCC	1950 436.0 1300 468.8 780 112.2 780 112.1 1300 99.8.0 1560 99.8.0 1950 2.62 1950 2.62 1950 2.62 1950 2.62 1950 2.62 1950 2.62 1950 2.62 1950 2.62	8 145.6 488.0 3 112.3 3 112.3 3 112.3 3 12.3	.6 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4	0.0 S 0.0	\$13.56 \$43.57 \$10.46 \$10.46 \$81.33 \$93.0 \$0.00 \$81.33 \$81.33 \$81.33 \$81.33 \$74.55 \$81.33 \$74.55	\$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00	\$35.00 \$35.00	19.9 6.2 25.8 25.8 3.3 29.0 29.0 3.3 3.3 3.3 3.3 3.3 3.3 19.4
ki Room Storage (locked - no entry ki Room Storage (locked - no entry D-15 Break Room Men's Staff Restroom D-13 (locked - no entry D-13 (locked - no entry D-14 (locked - no entry D-15 (locked - no entry D-15 (locked - no entry D-15 (locked - no entry D-16 (locked - no entry D-17 (locked - no entry D-17 (locked - no entry D-18 (lock	2 W 34 G F 2 (MAG) 2 W 34 G F 2 (MAG) 6 T 32 R F 4 (ELE) 2 S 32 C F 1 (ELE) 3 S 2 C F 1 (ELE) 12 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE) 11 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE) 11 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE) 11 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE) 11 T 32 R F 4 (ELE) 12 T 34 R F 3 (MAG) 11 T 32 R F 4 (ELE) 11 T 32 R F 4 (ELE) 12 T 34 R F 3 (ELE) 13 T 34 R F 4 (ELE) 14 T 32 R F 4 (ELE) 15 T 32 R F 4 (ELE) 16 T 32 R F 4 (ELE) 17 T 32 R F 4 (ELE) 18 T 32 R F 4 (ELE) 19 T 32 R F 4 (ELE) 10 T 32 R F 4 (ELE) 11 C F 26 11 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE) 13 T 32 R F 4 (ELE) 14 T 32 R F 4 (ELE) 15 T 32 R F 4 (ELE) 17 T 32 R F 4 (ELE) 18 T 32 R F 4 (ELE) 19 T 32 R F 4 (ELE) 11 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE) 13 T 32 R F 4 (ELE) 14 T 32 R F 4 (ELE) 15 T 32 R F 4 (ELE) 17 T 32 R F 3 (ELE) 18 T 32 R F 4 (ELE) 19 T 32 R F 4 (ELE) 19 T 32 R F 4 (ELE) 11 T 32 R F 4 (ELE)	F42EE F42EE F44IL F41IL F41IL F41IL F41IL F44IL	32 32 60 112 112 112 112 112 112 115 116 116 117 117 117 117 117 117	0.1 0.1 0.7 0.1 0.1 0.5 1.3 1.3 1.3 1.3 1.2 1.3 0.2 0.2 1.2 1.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	SW SW SW SW SW SW SW SW SW SW SW SW SW S	1560 22 2600 1.74 3120 15 3120 15 3120 15 3120 15 3120 15 3120 35 2800 3.46 2800 3.46 2800 3.46 2800 3.46 2800 3.46 2800 3.46 2800 3.46 2800 3.46 2800 3.46 2800 3.46 2800 3.46 3800 3.47 3800 55 3800 3.47 3800 3.48 3800 3.48 3800 3.48	244.6 2 246.6 2 47.2 6 99.7 2 99.7 2 99.7 2 88.4 8 12 94.4 12 94.4 12 94.4 12 94.4 12 94.4 12 94.4 12 95.0 2 11 94.4 12 94.1 12 94.1 12 94.1 12 94.1 12 94.1 12 94.1 12 94.1 12 94.1 12 94.1 12	W 34 C F 2 (MAG) W 34 C F 2 (MAG) T 32 R F 4 (ELE) S 32 C F 1 (ELE) S 32 C F 1 (ELE) S 32 C F 1 (ELE) T 32 R F 4 (ELE) T 32 R F 3 (ELE) T 34 R F 3 (MAG) T 34 R F 3 (MAG) T 32 R F 4 (ELE) T 34 R F 3 (MAG) T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F42EE F42EE F44ILL F44ILL F41L F42LL F44ILL	32 32 60 112 112 112 112 112 112 112 115	0.1 0.7 0.1 0.1 0.1 0.5 1.3 1.3 1.3 1.3	C-OCC	780 112.2 780 112.2 780 112.2 780 112.2 1300 873.3 1560 99.8 1560 99.8 1560 99.8 1950 2,622 1950 2,622 1950 2,623 1950 2,623 1950 2,623 1950 2,623	3 112.3 6 873.6 99.8 4 0.0 1.8 873.6 0.8 873.6 0.8 873.6 0.8 873.6 0.8 873.6	.3 0.1 0.6 0.4 0.4 0.5 0.4 0.4 0.5 0.4 0.4 0.6 0.4 0.6 0.4 0.6 0.4 0.6 0.4 0.6 0.4 0.6 0.4 0.6 0.4 0.6 0.4 0.6 0.4 0.6 0.4 0.4 0.6 0.4 0.4 0.6 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4	1.00 \$	\$10.46 \$81.33 \$9.30 \$9.30 \$0.00 \$81.33 \$81.33 \$81.33 \$81.33 \$74.55 \$81.33 \$74.55	\$270.00 \$0.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00	\$35.00 \$35.00 \$35.00 \$35.00 \$35.00 \$35.00 \$35.00 \$35.00 \$35.00 \$35.00 \$35.00 \$35.00 \$35.00 \$35.00 \$35.00 \$35.00	25.8 25.8 25.8 3.3 29.0 29.0 3.3 3.3 3.3 3.3 3.3 3.3 19.4
D-15 Break Room Women's Staff Restroom Men's Staff Restroom Men's Staff Restroom Men's Staff Restroom D-13 (locked - no entry) D-13 (locked - no entry) D-10 (locked - no entry) D-10 (locked - no entry) D-00 (locked - no entry) D-00 (locked - no entry) D-01 (locked - no entry) D-03 (locked - no entry) D-03 (locked - no entry) D-04 (locked - no entry) D-05 (locked - no entry) D-05 (locked - no entry) D-06 (locked - no entry) D-07 (locked - no entry) D-08 (locked - no entry) D-09 (locked - no entry)	6 T 32 R F 4 (ELE) 2 S 32 C F 1 (ELE) 3 S 32 C F 1 (ELE) 12 T 32 R F 4 (ELE) 13 T 32 R F 4 (ELE) 14 T 32 R F 4 (ELE) 15 T 32 R F 4 (ELE) 16 T 32 R F 4 (ELE) 17 T 32 R F 4 (ELE) 18 T 32 R F 4 (ELE) 19 T 32 R F 4 (ELE) 10 T 32 R F 4 (ELE) 11 T 32 R F 4 (ELE) 11 T 32 R F 4 (ELE) 12 T 34 R F 3 (MAG) 13 T 32 R F 4 (ELE) 14 T 32 R F 4 (ELE) 15 T 32 R F 4 (ELE) 16 T 32 R F 4 (ELE) 17 T 32 R F 4 (ELE) 18 T 32 R F 4 (ELE) 19 T 32 R F 4 (ELE) 19 T 32 R F 4 (ELE) 10 T 32 R F 4 (ELE) 11 T 32 R F 4 (ELE) 11 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE) 13 T 32 R F 4 (ELE) 14 T 32 R F 4 (ELE) 15 T 32 R F 4 (ELE) 17 T 32 R F 4 (ELE) 18 T 32 R F 4 (ELE) 19 T 32 R F 4 (ELE) 19 T 32 R F 4 (ELE) 11 T 32 R F 4 (ELE) 11 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE) 13 T 32 R F 4 (ELE) 14 T 32 R F 4 (ELE) 15 T 32 R F 4 (ELE) 16 T 32 R F 4 (ELE) 17 T 32 R F 3 (ELE) 18 T 32 R F 4 (ELE) 19 T 32 R F 4 (ELE) 19 T 32 R F 4 (ELE) 10 T 32 R F 4 (ELE) 11 T 32 R F 4 (ELE)	F-44IL F-41L F-41L F-41L F-44IL	32 32 60 112 112 112 112 112 112 115 116 116 117 117 117 117 117 117	0.7 0.1 0.1 0.5 1.3 1.3 1.3 1.2 1.2 1.3 0.2 0.2 0.2 0.2 0.2 0.0 0.0	SW SW SW SW SW SW SW SW SW SW SW SW SW S	2600 1.74 3120 19 3120 19 3120 19 3120 19 2800 99 2800 3.44 2800 3.44 2800 3.44 2800 3.44 2800 3.45 2800 3.45 2800 3.45 2800 3.45 2800 3.46 2800 55 2800 55 2800 3.27 2800 3.46 2800 3.27 2800 3.47 2800 3.47 2800 3.48 2800 3.49 2800 3.49 2800 3.49 2800 3.40	99.7 2 99.7 2 99.7 2 99.7 2 88.4 8 94.4 12 94.4 12 94.4 12 94.4 12 94.4 12 94.4 12 94.4 12 95.0 2 11 94.4 12 96.0 2 11 94.4 12 98.0 2 98.0 2 98.0 2 98.0 4	T 32 R F 4 (ELE) S 32 C F 1 (ELE) S 32 C F 1 (ELE) S 32 C F 2 (ELE) T 32 R F 4 (ELE) T 34 R F 3 (MAG) T 34 R F 3 (MAG) T 32 R F 4 (ELE) T 34 R F 3 (ELE)	F44ILL F41LL F41LL F42LL F44ILL	32 32 60 112 112 112 112 112 112 112 115	0.1 0.1 0.5 1.3 1.3 1.3 1.3 1.3	C-OCC	1560 99.8 2080 998. 1950 2,62 1950 2,62 1950 2,62 1950 2,62 1950 2,40 1950 2,62	99.8 4 0.0 0.8 873.6 0.8 873.6 0.8 873.6 0.8 873.6 2.4 800.8 0.8 873.6 5 149.5	3 0.0 0.4 6 0.4 6 0.4 6 0.4 6 0.4 8 0.4 8 0.6	.00 \$.00 \$.00 \$.00 \$.00 \$.00 \$.00 \$.00	\$81.33 \$9.30 \$9.30 \$0.00 \$81.33 \$81.33 \$81.33 \$81.33 \$81.33 \$74.55 \$81.33 \$74.55	\$270.00 \$0.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00	\$35.00 \$35.00 \$35.00 \$35.00 \$35.00 \$35.00 \$35.00 \$35.00 \$35.00 \$35.00 \$35.00 \$35.00 \$35.00	3.3 29.0 29.0 3.3 3.3 3.3 3.3 3.3 3.3 3.3 19.4
Men's Staff Restroom excircial Room (locked - no entry D-13(locked - no entry D-13(locked - no entry D-14(locked - no entry D-16 (locked - no entry D-	2 S 32 C F 1 (ELE) 8 S 32 C F 2 (ELE) 12 T 32 R F 4 (ELE) 11 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE) 11 T 32 R F 4 (ELE) 12 T 34 R F 3 (MAG) 11 T 32 R F 4 (ELE) 12 T 34 R F 3 (MAG) 11 T 32 R F 4 (ELE) 12 T 34 R F 3 (ELE) 13 T 34 R F 3 (ELE) 14 T 32 R F 4 (ELE) 16 T 32 R F 4 (ELE) 17 T 32 R F 4 (ELE) 18 T 32 R F 4 (ELE) 19 T 32 R F 4 (ELE) 10 T 32 R F 4 (ELE) 11 T 32 R F 4 (ELE) 11 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE) 13 T 32 R F 4 (ELE) 14 T 32 R F 4 (ELE) 15 T 32 R F 4 (ELE) 17 T 32 R F 4 (ELE) 18 T 32 R F 4 (ELE) 19 T 32 R F 4 (ELE) 11 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE) 13 T 32 R F 4 (ELE) 14 T 32 R F 4 (ELE) 15 T 32 R F 4 (ELE) 17 T 32 R F 3 (ELE) 18 T 32 R F 4 (ELE) 19 T 32 R F 4 (ELE) 19 T 32 R F 4 (ELE) 10 T 32 R F 4 (ELE) 11 T 32 R F 4 (ELE)	F41LL F44LL	60 112 112 112 112 112 112 112 11	0.1 0.5 1.3 1.3 1.3 1.3 1.2 1.3 0.2 0.2 0.2 1.2 1.3 0.7 0.0 0.0	SW S	3120 19 2080 99 2600 3.44 2600 3.45 2600 3.45 2600 3.45 2600 3.45 2600 3.45 2600 3.5 2600 5.5 2600 5.5 2600 5.5 2600 3.2 2600 3.2 2600 3.2 2600 3.2 3600 4.5 3600 4.7 3600 4.7 3600 4.7 3600 4.7 3600 4.7 3600 4.7 3600 4.7	99.7 2 98.4 8 94.4 12 94.4 12 94.4 12 94.4 12 94.4 12 94.4 12 94.4 12 98.0 2 98.0 2 98.0 2 98.0 2	S 32 C F 1 (ELE) S 32 C F 2 (EEE) T 32 R F 4 (ELE) T 34 R F 3 (MAG) T 34 R F 3 (MAG) T 32 R F 4 (ELE) T 34 R F 3 (MAG)	F41LL F42LL F44ILL	112 112 112 112 112 112 115	0.1 0.5 1.3 1.3 1.3 1.3 1.3 1.3	C-OCC	1560 99.8 2080 998. 1950 2,62 1950 2,62 1950 2,62 1950 2,62 1950 2,40 1950 2,62	99.8 4 0.0 0.8 873.6 0.8 873.6 0.8 873.6 0.8 873.6 2.4 800.8 0.8 873.6 5 149.5	3 0.0 0.4 6 0.4 6 0.4 6 0.4 6 0.4 8 0.4 8 0.6	.00 \$.00 \$.00 \$.00 \$.00 \$.00 \$.00 \$.00	\$9.30 \$0.00 \$81.33 \$81.33 \$81.33 \$81.33 \$81.33 \$74.55 \$81.33 \$74.55	\$270.00 \$0.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00	\$35.00 \$0.00 \$35.00 \$35.00 \$35.00 \$35.00 \$35.00 \$35.00 \$35.00 \$35.00 \$35.00	29.0 3.3 3.3 3.3 3.3 3.6 3.3 19.4
D-13(locked - no entry D-13(locked - no entry D-11(locked - no entry D-11(locked - no entry D-08 (locked - no entry D-09 (locked - no entry D-09 (locked - no entry D-09 (locked - no entry D-05 (locked - no entry D-05 (locked - no entry D-03 (locked - no entry D-04 (locked - no entry D-05 (locked - no entry D-05 (locked - no entry D-06 (locked - no entry D-07 (locked - no entry D-08 (locked - no entry D-09 (lock	8 S 32 C F 2 (ELE) 12 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE) 11 T 32 R F 4 (ELE) 11 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE) 13 T 32 R F 4 (ELE) 14 T 32 R F 4 (ELE) 15 T 34 R F 3 (MAG) 16 T 34 R F 3 (MAG) 17 T 34 R F 4 (ELE) 18 T 32 R F 4 (ELE) 19 T 32 R F 4 (ELE) 10 C F 26 11 C F	F-44IL F-44IL F-44IL F-44IL F-44IL F-44IL F-45E F-45E F-44IL	112 112 112 112 112 112 112 115 115 115	1.3 1.3 1.3 1.2 1.3 0.2 1.2 0.2 0.2 0.2 0.7 0.0 0.0 0.0	SW SW SW SW SW SW SW SW SW SW SW	2080 99 2600 3.44 2600 3.45 2600 3.45 2600 3.45 2600 3.45 2600 3.45 2600 3.45 2600 3.5 2600 5.5 2600 5.5 2600 3.2 2600 3.2 2600 3.45 2600 3.2 2600 3.45 3120 8	94.4 12 94.4 12 94.4 12 94.4 12 94.4 12 94.4 12 96.0 2 96.0 2 98.0 2 98.0 1 98.0 2 98.0 1 99.4 11 99.4 12	S 32 C F 2 (ELE) T 32 R F 4 (ELE) T 32 R F 5 (ELE) T 34 R F 3 (MAG) T 32 R F 4 (ELE) T 34 R F 3 (MAG) T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL F44ILL F44ILL F44ILL F44ILL F43EE F43EE	112 112 112 112 112 112 115	1.3 1.3 1.3 1.2 1.3	NONE	1950 2,62 1950 2,62 1950 2,62 1950 2,62 1950 2,62 1950 2,40 1950 2,62	0.8 873.6 0.8 873.6 0.8 873.6 0.8 873.6 0.8 873.6 0.8 873.6 0.8 873.6 0.8 873.6	.6 0.0 .6 0.0 .8 0.0 .6 0.0	.0 \$.0	\$81.33 \$81.33 \$81.33 \$74.55 \$81.33 \$13.92	\$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00	\$35.00 \$35.00 \$35.00 \$35.00 \$35.00 \$35.00	3.3 3.3 3.3 3.6 3.3 19.4
D-08 (locked - no entry D-11 (locked - no entry D-09 (locked - no entry D-06 D-07 (locked - no entry D-06 D-07 (locked - no entry D-05 (locked - no entry D-04 D-05 (locked - no entry D-04 D-05 (locked - no entry D-04 D-07 D-04 D-07 D-04 D-07 D-09 D-09 D-07 D-07 D-07 D-07 D-07 D-07 D-07 D-07	12 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE) 11 T 32 R F 4 (ELE) 11 T 32 R F 4 (ELE) 12 T 34 R F 3 (MAG) 2 T 34 R F 3 (MAG) 11 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE) 14 C F 26 1 C F 26 1 C F 26 1 C F 26 1 T 32 R F 4 (ELE) 16 T 32 R F 4 (ELE) 17 T 32 R F 4 (ELE) 18 T 32 R F 4 (ELE) 19 T 32 R F 4 (ELE) 19 T 32 R F 4 (ELE) 10 T 32 R F 4 (ELE) 11 C F 26 11 C F 26 12 T 32 R F 4 (ELE) 13 C F 26 14 T 32 R F 4 (ELE) 15 T 32 R F 4 (ELE) 17 T 32 R F 4 (ELE) 18 T 32 R F 4 (ELE) 19 T 32 R F 4 (ELE) 19 T 32 R F 4 (ELE) 10 T 32 R F 4 (ELE) 11 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE) 13 T 32 R F 4 (ELE) 14 T 32 R F 4 (ELE) 15 T 32 R F 4 (ELE) 16 T 32 R F 4 (ELE) 17 T 32 R F 3 (ELE) 18 T 32 R F 4 (ELE) 19 T 32 R F 4 (ELE) 24 T 32 R F 4 (ELE)	F44IL	112 112 112 112 112 112 112 115 115 115	1.3 1.3 1.3 1.2 1.3 0.2 1.2 0.2 0.2 0.2 0.7 0.0 0.0 0.0	SW SW SW SW SW SW SW SW SW SW SW	2600 3.45 2600 3.45 2600 3.45 2600 3.25 2600 3.25 2600 3.25 2600 5.5 2600 5.5 2600 3.25 2600 3.25 2600 3.45 2600 3.25 2600 3.45 2600 1.74 1560 4.45	94.4 12 94.4 12 94.4 12 03.2 11 94.4 12 98.0 2 98.0 2 03.2 11 94.4 12	T 32 R F 4 (ELE) T 34 R F 5 (MAG) T 34 R F 5 (MAG) T 32 R F 4 (ELE) T 34 R F 5 (MAG)	F44ILL F44ILL F44ILL F44ILL F44ILL F44ILL F43EE F43EE	112 112 112 112 112 112 115	1.3 1.3 1.3 1.2 1.3	C-OCC C-OCC C-OCC C-OCC	1950 2,62 1950 2,62 1950 2,62 1950 2,40 1950 2,62	0.8 873.6 0.8 873.6 0.8 873.6 0.4 800.8 0.8 873.6 0.8 149.5	.6 0.0 .6 0.0 .8 0.0 .6 0.0	.0 \$.0	\$81.33 \$81.33 \$81.33 \$74.55 \$81.33 \$13.92	\$270.00 \$270.00 \$270.00 \$270.00 \$270.00 \$270.00	\$35.00 \$35.00 \$35.00 \$35.00 \$35.00 \$35.00	3.3 3.3 3.3 3.6 3.3 19.4
D-09 (locked - no entry D-06 D-07 (locked - no entry D-05 (locked - no entry D-05 (locked - no entry D-05 (locked - no entry D-06 (locked - no entry D-07 D-04 D-07 (locked - no entry D-09 D-09 D-09 Staff Restroom (locked - no entry Stodial (Storage (locked - no entry Stodial Storage (locked - no entry Stodial Storage (locked - no entry Stodial Storage (locked - no entry C-09 D-09 C-19 C-11 C-13 C-14 Loop Corridor C-07 Loop Corridor C Corridor Stairs Gym Wing Corridor Afhelic Trainer Se next to Trainer (locked - no entry Gymnasium Auxiliary Gymnasium Boys' Restroom Giris' Restroom Giris' Restroom Boys' Locker Roor	12	F-44IL F-44IL F-44IL F-44IL F-44IL F-45E F-45E F-45E F-46IL F-46IL CF026'1-L CF026'1-L CF026'1-L F-46IL	112 112 112 115 115 115 112 112 112 27 27 27 27 2112 112 112 11	1.2 1.3 0.2 0.2 1.2 1.3 0.7 0.0 0.0	SW SW SW SW SW SW SW SW SW	2600 3.45 2600 3.2C 2600 3.2C 2600 55 2600 55 2600 55 2600 3.45 2600 3.45 2600 3.45 2600 3.45 2600 3.45 2600 3.45 2600 3.45 2600 4.74	94.4 12 03.2 11 94.4 12 98.0 2 98.0 2 03.2 11 94.4 12	T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 34 R F 3 (MAG) T 34 R F 3 (MAG) T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL F43EE F43EE	112 112 112 115	1.2 1.3	C-OCC C-OCC C-OCC	1950 2,62 1950 2,40 1950 2,62	0.8 873.6 2.4 800.8 0.8 873.6 5 149.5	.6 0.0 .8 0.0 .6 0.0	0.0 \$1.0 \$1.0 \$1.0 \$1.0	\$81.33 \$74.55 \$81.33 \$13.92	\$270.00 \$270.00 \$270.00	\$35.00 \$35.00 \$35.00 \$35.00	3.3 3.6 3.3 19.4
D-07 (locked - no entry D-05 (locked - no entry D-05 (locked - no entry D-04 D-07 (locked - no entry D-04 D-07 (locked - no entry D-02 Idodal (C-Wing) (locked - no entry Stodial Storage (locked - no entry C-09 C-09 C-09 C-12 C-11 C-13 C-14 Loop Corridor C Corridor Stairs Gym Wing Corridor C Corridor Stairs Gym Wing Corridor Athelet Trainer Is next to Trainer (locked - no entry Gymnasium Auxiliary Gymnasium Auxiliary Gymnasium Boys' Restroor Giris' Restroor Giris' Restroor	12	F44ILL F43EE F43EE F43EE F44IL F44IL F44IL F670281-L CF0281-L CF0281-L F44IL	112 115 115 115 112 112 112 27 27 27 27 112 112 112 112	1.3 0.2 0.2 1.2 1.3 0.7 0.0 0.0	SW SW SW SW SW SW SW	2600 3,44 2600 55 2600 55 2600 3,22 2600 3,45 2600 1,74 1560 4 3120 8	94.4 12 98.0 2 98.0 2 03.2 11 94.4 12	T 32 R F 4 (ELE) T 34 R F 3 (MAG) T 34 R F 3 (MAG) T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F43EE F43EE	112 115	1.3	C-OCC C-OCC	1950 2,62	0.8 873.6 5 149.5	.6 0.0	.0 \$	\$81.33 \$13.92	\$270.00	\$35.00 \$35.00	3.3 19.4
D-33 (locked - no entry D-04 D-91 (locked - no entry D-04 D-91 (locked - no entry D-02 D-92 Staff Restroom (locked - no entry Stodial Storage (locked - no entry C-09 D-05 D-05 D-05 D-05 D-05 D-05 D-05 D-05	2 T 34 R F 3 (MAG) 111 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE) 1 C F 26 1 C F 26 1 C F 26 1 T 32 R F 4 (ELE) 16 T 32 R F 4 (ELE) 17 T 32 R F 4 (ELE) 18 T 32 R F 4 (ELE) 19 T 32 R F 4 (ELE) 19 T 32 R F 4 (ELE) 10 T 32 R F 4 (ELE) 11 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE) 13 T 32 R F 4 (ELE) 14 T 32 R F 4 (ELE) 15 T 32 R F 4 (ELE) 17 T 32 R F 3 (ELE) 18 T 32 R F 4 (ELE) 19 T 32 R F 4 (ELE) 19 T 32 R F 4 (ELE) 20 T 32 R F 4 (ELE) 21 T 32 R F 4 (ELE) 22 T 32 R F 4 (ELE) 23 T 32 R F 4 (ELE) 24 T 32 R F 4 (ELE) 24 T 32 R F 4 (ELE)	F-95E F-44IL F-44IL F-44IL F-44IL CF-0281-L CF-0281-L CF-0281-L F-44IL	115 112 112 112 27 27 27 27 112 112 112 112	0.2 1.2 1.3 0.7 0.0 0.0 0.0	SW SW SW SW SW	2600 59 2600 3,20 2600 3,45 2600 1,74 1560 4 3120 8	98.0 2 03.2 11 94.4 12	T 34 R F 3 (MAG) T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F43EE		0.2	C-OCC	1950 448		5 0.0	.0 le		\$270.00		
D-04 D-01 (locked - no entry D-02 todal (C-Wing) (locked - no entry s Staff Restroom (locked - no entry storial Storage (locked - no entry storial Storage (locked - no entry c-08 C-09 FDD C-12 C-11 C-13 C-14 Loop Corridol Alhelet Trainer e next to Trainer (locked - no entry Gymnasium Auxilary Gymnasium Auxilary Gymnasium Boys' Restroom Girls Restroom Girls Restroom	12 T 32 R F 4 (ELE) 6 T 32 R F 4 (ELE) 1 OF 26 1 OF 26 6 T 32 R F 4 (ELE) 16 T 32 R F 4 (ELE) 16 T 32 R F 4 (ELE) 16 T 32 R F 4 (ELE) 17 T 32 R F 4 (ELE) 18 T 32 R F 4 (ELE) 19 T 32 R F 4 (ELE) 10 T 32 R F 4 (ELE) 11 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE) 13 T 32 R F 4 (ELE) 14 T 32 R F 4 (ELE) 15 T 32 R F 4 (ELE) 16 T 32 R F 4 (ELE) 17 T 32 R F 3 (ELE) 18 T 32 R F 4 (ELE) 19 T 32 R F 4 (ELE) 20 T 32 R F 4 (ELE) 21 T 32 R F 4 (ELE) 22 R T 32 R F 4 (ELE) 23 T 32 R F 4 (ELE) 24 T 32 R F 4 (ELE)	F44IL F44IL CF028f1-L CF028f1-L CF028f1-L CF028f1-L F44ILL	112 112 27 27 27 112 112 112 112 112 112	0.7 0.0 0.0 0.0	SW SW	2600 3,20 2600 3,45 2600 1,74 1560 4 3120 8	94.4 12	T 32 R F 4 (ELE)	F44ILL		0.2	C-OCC	1950 448.	149.5			\$13.92	\$270.00	\$35.00	19.4
D-02 Intofal (C-Wing) (locked - no entry S Istal Restroom (locked - no entry S Istal Restroom (locked - no entry Stodial Storage (locked - no entry C-08 C-09 FDD C-12 C-11 C-13 C-14 Loop Corridor Loop Corridor C Corndor Stairs Gym Wing Corridor Alhelic Trainer E next to Trainer (locked - no entry Gymnasium Auxilary Gymnasium Auxilary Gymnasium Auxilary Gymnasium Boys' Exestroom Girl's Restroom Girl's Restroom	6 T 22 R F 4 (ELE) 1 CF 26 1 CF 26 1 CF 26 1 CF 26 6 T 32 R F 4 (ELE) 16 T 32 R F 4 (ELE) 6 T 32 R F 4 (ELE) 6 T 32 R F 4 (ELE) 7 T 32 R F 4 (ELE) 7 T 32 R F 4 (ELE) 9 T 32 R F 4 (ELE) 9 T 32 R F 4 (ELE) 3 T 32 R F 4 (ELE) 4 T 32 R F 4 (ELE) 7 T 32 R F 4 (ELE) 9 T 32 R F 4 (ELE) 1 T 32 R F 4 (ELE) 1 T 32 R F 4 (ELE) 2 T 32 R F 4 (ELE) 3 T 32 R F 4 (ELE) 4 T 32 R F 4 (ELE) 24 T 32 R F 4 (ELE) 4 T 32 R F 4 (ELE)	FF0281-L FF0281-L FF0281-L FF441L	27 27 27 112 112 112 112 112 112	0.0 0.0 0.0	SW	1560 4 3120 8	47.2 6 42.1 1	T 22 B E 4 (E' E'	F44II I	112 112	1.2	C-OCC	1950 2,40 1950 2,62				\$74.55 \$81.33	\$270.00 \$270.00	\$35.00 \$35.00	3.6
s Staff Restroom (locked - no entry storial storage locked - no entry storial storage locked - no entry c-09 FDD C-12 C-11 C-13 C-14 Loop Comdon Loop	1	CFC26/1-L F44 LL F44 LL	112 112 112 112	0.0	SW SW SW	3120 8		T 32 R F 4 (ELE)	F44ILL	112	0.7	C-OCC	1950 1,31				\$40.67		\$35.00	6.6
C-08 C-09 FDD C-12 C-11 C-13 C-14 C-13 C-14 Lop Corrido Lop Corrido C Corridor Stairs C Corridor Stairs Gym Wing Corridor Alhelet Trainer Annel (locked - no entry Gymnasium Auxiliary Gymnasium Boys' Restroom Girls' Restroom Girls' Restroom	6 T 32 R F 4 (ELE) 16 T 32 R F 4 (ELE) 6 T 32 R F 4 (ELE) 7 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE) 13 T 32 R F 4 (ELE) 9 T 32 R F 4 (ELE) 9 T 32 R F 4 (ELE) 9 T 32 R F 4 (ELE) 3 T 32 R F 4 (ELE) 3 T 32 R F 4 (ELE) 4 T 32 R F 4 (ELE)	F44ILL	112 112 112 112	0.0 0.7 1.8 0.7	SW		84.2 1	CF 26	CFQ26/1-L CFQ26/1-L	27	0.0	NONE C-OCC	1560 42.1 1560 42.1	42.1	0.0	1.0 \$	3.92	\$270.00	\$35.00	68.9
FDD C-12 C-11 C-13 C-14 Loop Corridor Loop Corridor Loop Corridor C Corridor Stairs C Corridor Stairs Gym Wing Corridor Athetic Trainer I e next to Trainer (locked - no entry Gymnasium Auxiliary Gymnasium Auxiliary Gymnasium Boys' Restroom Giris' Restroom Giris' Restroom Boys' Locker Roor	6 T 32 R F 4 (ELE) 6 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE) 7 T 32 R F 4 (ELE) 9 T 32 R F 4 (ELE) 9 T 32 R F 4 (ELE) 7 T 32 R F 4 (ELE) 3 T 32 R F 4 (ELE) 3 W 32 G F 5 (ELE) 4 T 32 R F 4 (ELE) 4 T 32 R F 4 (ELE) 4 T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL F44ILL F44ILL F44ILL F44ILL	112 112	1.8 0.7		1560 4 2600 1,74		CF 26 T 32 R F 4 (ELE)	CFQ26/1-L F44ILL	27 112	0.0	NONE C-OCC		0.0			\$0.00 \$40.67	\$0.00 \$270.00	\$0.00 \$35.00	6.6
C-11 C-13 C-14 Loop Corridot Loop Corridot Loop Corridot Corridot Stairs C Corridor Stairs C Corridor Stairs Gym Wing Corridon Afheter Trainer e next to Trainer (locked - no entry Gymnasium Auxiliary Gymnasium Boys Restroom Girls Restroom Boys Locker Roor	12 T 32 R F 4 (ELE) 7 T 32 R F 4 (ELE) 9 T 32 R F 4 (ELE) 9 T 32 R F 4 (ELE) 7 T 32 R F 3 (ELE) 3 T 32 R F 3 (ELE) 3 W 32 C F 2 (ELE) 24 T 32 R F 4 (ELE) 4 T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL F44ILL		0.7	SW	2600 4,65 2600 1,74	59.2 16 47.2 6	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	1.8 0.7	C-OCC C-OCC		1.4 1,164 0.4 436.8			\$108.44 \$40.67	\$270.00 \$270.00	\$35.00 \$35.00	2.5 6.6
C-13 C-14 Loop Corridot Loop Corridot Loop Corridot C Corridor Stairs C Corridor Stairs C Corridor Stairs Gym Wing Corridor Athlete Trainer Athlete Trainer Australian Gymmasium Australian Gymmasium Boys Rosetroom Giris Restroom Giris Restroom Boys Locker Roor	7	F44ILL F44ILL F44ILL		1.3	SW	2600 1,74		T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	0.7	C-OCC		0.4 436.8			\$40.67 \$81.33	\$270.00 \$270.00	\$35.00 \$35.00	6.6
Loop Corrido Loop Corrido Corridor Stairs C Corridor Stairs C Corridor Stairs Gym Wing Corridor Athelet Trainer Athelet Trainer Gym Wing Corridor Athelet Trainer Australian Gymnasium Australian Gymnasium Australian Gymnasium Boyls Locker Roor Girls Restroom Girls Restroom Boyl Locker Roor	9 T 32 R F 4 (ELE) 7 T 32 R F 3 (ELE) 3 T 32 R F 4 (ELE) 3 W 32 C F 2 (ELE) 24 T 32 R F 4 (ELE) 4 T 32 R F 4 (ELE)	F44ILL	112	0.8	SW	2600 2,03	38.4 7	T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112	0.8	C-OCC	1950 2,62 1950 1,52 1950 1.96	3.8 509.6			\$47.44 \$61.00	\$270.00	\$35.00	5.7 4.4
C Corridor Stairs C Corridor Stairs Gym Wing Corridor Athlete Trainer Athlete Trainer Gym Wing Corridor Athlete Trainer Gymnasium Auxiliary Gymnasium Boys Restroor Giris Restroor Giris Restroor	3 T 32 R F 4 (ELE) 3 W 32 C F 2 (ELE) 24 T 32 R F 4 (ELE) 4 T 32 R F 4 (ELE)	E4311 1 /3	112	1.0	SW	3640 3,66		T 32 R F 4 (ELE)	F44ILL	112	1.0	C-0CC	2912 2,93	5.3 733.8	.8 0.0	.0 \$	\$68.32	\$270.00 \$270.00	\$35.00 \$35.00	4.0
Gym Wing Corridor Athletic Trainer en ext to Trainer (locked - no entry Gymnasium Auxilary Gymnasium Boys' Restroom Girls' Restroom Boys' Locker Roorr	24 T 32 R F 4 (ELE) 4 T 32 R F 4 (ELE)	F44ILL	90 112	0.6	SW		23.0 3	T 32 R F 3 (ELE) T 32 R F 4 (ELE)	F43ILL/2 F44ILL	90 112	0.6 0.3	C-OCC	2912 1,83 2912 978.	1 244.6		.0 \$:			\$35.00 \$35.00	6.3 11.9
Athletic Trainer se next to Trainer (locked - no entry Gymnasium Auxilary Gymnasium Boys' Restroom Girls' Restroom Boys' Locker Room	4 T 32 R F 4 (ELE)	F42LL F44ILL	60 112	0.2 2.7	SW	3640 65 3640 9,78	55.2 3 84.3 24	W 32 C F 2 (ELE) T 32 R F 4 (ELE)	F42LL F44ILL	60 112	0.2 2.7	C-OCC	2912 524. 2912 7,82		.0 0.0		\$12.20 \$182.18	\$270.00 \$270.00	\$35.00 \$35.00	22.1 1.5
Gymnasium Auxilary Gymnasium Boys' Restroom Girls' Restroom Boys' Locker Room	4 T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	0.4	SW	2600 1,16	64.8 4 64.8 4	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	0.4	C-OCC	1950 873. 1950 873.				\$27.11 \$27.11	\$270.00 \$270.00	\$35.00 \$35.00	10.0 10.0
Boys' Restroom Girls' Restroom Boys' Locker Room	64 High Bay MH 400 54 S 34 P F 2 (MAG)	MH400/1 F42EE	458	29.3	SW	3120 91,45	53.4 64	High Bay MH 400 S 34 P F 2 (MAG)	MH400/1 F42EE	458	29.3	NONE NONE	3120 91,4 3120 12,1	53.4 0.0 30.6 0.0	0.0		\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	
Boys' Locker Room	2 T 32 R F 4 (ELE)	F44ILL	112	0.2	SW	3120 69	98.9 2	T 32 R F 4 (ELE)	F44ILL	112	0.2	C-OCC	1560 349.	4 349.4	.4 0.0	.0 \$	\$32.53	\$270.00	\$35.00	8.3
.,	2 T 32 R F 4 (ELE) 22 W 32 C F 2 (ELE)	F44ILL F42LL	112 60	0.2 1.3	SW	3120 4,11	98.9 2 18.4 22	T 32 R F 4 (ELE) W 32 C F 2 (ELE)	F44ILL F42LL	112 60	1.3	C-OCC	1560 349. 2340 3,08		.4 0.0 29.6 0.0	i.0 \$	\$32.53 \$95.86	\$270.00 \$270.00	\$35.00 \$35.00	8.3 2.8
Boy's Locker Room Restroon Boys' Locker Room Exi	1 W 32 C F 2 (ELE) 1 W 34 C F 2 (MAG)	F42LL F42EE	60 72	0.1 0.1	SW	3120 22	87.2 1 24.6 1	W 32 C F 2 (ELE) W 34 C F 2 (MAG)	F42LL F42EE	60 72	0.1	C-OCC	1560 93.6 2340 168.		0.0	.0 \$i	8.71 \$5.23	\$270.00 \$270.00	\$35.00 \$35.00	31.0 51.6
ocker Room Office (locked - no entry Girls' Locker Room			60 60	0.1 1.3	SW SW	2600 31 3120 4.11	12.0 2 18.4 22	W 32 C F 2 (ELE) W 32 C F 2 (ELE)	F42LL F42LL	60 60	0.1 1.3	C-OCC			9.6	.0 \$.0 \$	\$7.26 \$95.86	\$270.00 \$270.00	\$35.00 \$35.00	37.2 2.8
Girls' Locker Room Restroon	1 W 32 C F 2 (ELE)	F42LL	60	0.1	SW	3120 18		W 32 C F 2 (ELE)	F42LL	60	0.1	C-OCC			0.0	0.0	8.71	\$270.00	\$35.00	31.0 51.6
ocker Room Office (locked - no entry	2 W 32 C F 2 (ELE)	F42LL	60	0.1	SW	2600 31	12.0 2	W 32 C F 2 (ELE)	F42LL	60	0.1	C-OCC	1950 234.	78.0	0.0	1.0 \$	7.26	\$270.00	\$35.00	37.2
E Corridor	14 T 32 R F 4 (ELE)	F44ILL	112	1.6	SW	3640 5,70	07.5 14	T 32 R F 4 (ELE)	F44ILL	112	1.6	C-OCC	2912 4,56		11.5 0.0		\$0.00 \$106.27	\$270.00	\$35.00	2.5
	5 T 32 R F 4 (ELE)	F44ILL	90 112	3.4 0.6	SW	3640 2,03	38.4 5	T 32 R F 3 (ELE) T 32 R F 4 (ELE)	F44ILL	90 112	3.4 0.6	C-OCC C-OCC	2912 1,63	0.7 407.7				\$270.00 \$270.00	\$35.00 \$35.00	1.3 7.1
	9 HPS 250 4 T 32 R F 4 (ELE)	HPS250/1 F44ILL	295 112	2.7 0.4	SW			HPS 250 T 32 R F 4 (ELE)	HPS250/1 F44ILL	295 112	2.7 0.4	NONE C-OCC			.2 0.0			\$0.00 \$270.00	\$0.00 \$35.00	10.0
Athletic Office	5 T 32 R F 4 (ELE) 3 T 32 R F 4 (FLE)	F44ILL F44II I	112	0.6	SW	2600 1,45		T 32 R F 4 (ELE)	F44ILL F44II I	112	0.6	C-OCC						\$270.00	\$35.00 \$35.00	8.0 13.3
Team Rooms	4 T 32 R F 4 (ELE)	F44ILL	112	0.4	SW	1560 69	98.9 4	T 32 R F 4 (ELE)	F44ILL	112	0.4	NONE		0.0	0.0	.0 \$	\$0.00	\$0.00	\$0.00	
ross Country/Track Locker Room	7 T 32 R F 4 (ELE)	F44ILL	112	0.8	SW	3120 2,44	46.1 7	T 32 R F 4 (ELE)	F44ILL	112	0.8	C-OCC		1.6 611.5	.5 0.0	.0 \$	\$56.93	\$270.00	\$35.00	10.0 4.7
Locker Room Exi	1 T 32 R F 4 (ELE)	F44ILL	112	0.1	SW	3640 40	07.7 1	T 32 R F 4 (ELE)	F44ILL	112	0.1	C-OCC	2912 326.	1 81.5	0.0	.0 \$	27.11 \$7.59	\$270.00 \$270.00	\$35.00	10.0 35.6
Locker Room Restroom eam Room #2 (locked - no entry	8 T 32 R F 4 (ELE)	F44ILL	112 112	0.4	SW	3120 2,79	95.5 8	T 32 R F 4 (ELE)	F44ILL	112	0.4	C-OCC				i.0 \$i	65.07 65.07	\$270.00 \$270.00	\$35.00 \$35.00	4.1 4.1
E-01 Main Electrician	16 1T 32 RF 1 - P 58 T 34 R F 4 (MAG)	F41LL F44EE	32 144	0.5 8.4	SW	2600 1,33 2080 17,37	31.2 16 72.2 58		F41LL F44EE	32 144	0.5 8.4	C-OCC NONE		4 332.8 72.2 0.0	0.0	.0 \$: .0 \$:	30.98 \$0.00	\$270.00 \$0.00	\$35.00 \$0.00	8.7
Media Cente	123 1T 32 R F 2 (ELE)	F42LL CFO13/2-I	60	7.4	SW			1T 32 R F 2 (ELE)	F42LL CFO13/2-I	60	7.4	C-OCC	2340 17,2			.0 \$	\$535.92 \$183.00	\$270.00	\$35.00 \$35.00	0.5
Media Center Office	2 T 32 R F 4 (ELE)	F44ILL	112	0.2	SW		98.9 2	T 32 R F 4 (ELE)	F44ILL	112	0.2	0.000		174.7	.7 0.0		\$16.27	\$270.00	\$35.00	16.6 16.6
Media Center Break Roon	2 T 32 R F 4 (ELE)	F44ILL	112	0.2	SW	2600 58	82.4 2	T 32 R F 4 (ELE)	F44ILL	112	0.2	C-OCC		2 291.2	.2 0.0	.0 \$:	\$27.11	\$270.00	\$35.00	10.0
Corridor - Pine Bell	134 D 13 C CF 2	CFQ13/2-L	28	3.8	SW	3640 13,65	57.3 134	D 13 C CF 2	CFQ13/2-L	28	3.8	C-OCC	2912 10,9	25.8 2,731	31.5 0.0	1.0 \$	\$254.30	\$270.00	\$35.00	3.0 1.1
Corridor Display Corridor	70 S 32 C F 1 (ELE)	F41LL	28 32	0.3 2.2	SW	3640 8,15	53.6 70	D 13 C CF 2 S 32 C F 1 (ELE)	F41LL	28 32	0.3 2.2	C-OCC						\$270.00 \$270.00	\$35.00	8.3 1.8
Display Pine Belt Gvm			38 458	0.6	SW					38 458	0.6	C-OCC NONE			.3 0.0			\$270.00 \$0.00		4.6
Corridor	30 1B 32 P F 2 (ELE)	F42LL	60	1.8	SW	3640 6,55	52.0 30 42.1 1	1B 32 P F 2 (ELE)	F42LL	60	1.8	C-0CC	2912 5,24 780 21.1	1.6 1,310	0.4 0.0		\$122.00	\$270.00	\$35.00	2.2 137.7
lurse's Office (locked - no entry		F44ILL	112	0.7	SW		47.2 6	T 32 R F 4 (ELE)	F44ILL	112	0.7	0.000		0.4 436.8	.8 0.0	.0 \$	\$40.67	\$270.00	\$35.00	6.6 2.2
Men's Restroom	1 T 32 R F 4 (ELE)	F44ILL	112	0.1	SW	3120 2,62	49.4 1	T 32 R F 4 (ELE)	F44ILL	112	0.1	C-0CC	1560 174.	7 174.7	.7 0.0			\$270.00	\$35.00	16.6
Women's Restroom	1 T 32 R F 4 (ELE)	F44ILL	112	0.1				T 32 R F 4 (ELE)	F44ILL	112	0.1	C-OCC	1560 174.	7 174.7		.0 \$	\$16.27	\$270.00	\$35.00	2.2 16.6
Concession Stand Grounds Shed	6 13 W CF 1	F42LL	15 60	0.1 0.2	SW			13 W CF 1 S 32 C F 2 (ELE)	F42LL	15 60	0.1 0.2	NONE			0.0		\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	
Grounds Shed Grounds Shed - Backroom	2 T 32 R F 4 (ELE) 2 T 32 R F 4 (FLF)	F44ILL	112 112	0.2	SW	1560 34 1560 34	49.4 2 49.4 2	T 32 R F 4 (ELE)	F44ILL	112 112	0.2	NONE	1560 349. 1560 349.	4 0.0	0.0	.0 \$.0.00	\$0.00 \$0.00	\$0.00	
Small Snack Shack	2 S 32 C F 2 (ELE)	F42LL	60	0.1	SW	1040 12	24.8 2	S 32 C F 2 (ELE)	F42LL	60	0.1	NONE	1040 124.	3 0.0	0.0	.0 \$	0.00	\$0.00	\$0.00	
Field House - Sink Room	1 S 32 C F 2 (ELE)	F42LL	60	0.1	SW	1560 9	93.6	S 32 C F 2 (ELE)	F42LL	60	0.1	NONE	1560 93.6	0.0	0.0	.0 \$	\$0.00	\$0.00	\$0.00	
Field House - Shower Roon	6 S 32 C F 2 (ELE)	F42LL	60	0.4	SW	1560 56	61.6	S 32 C F 2 (ELE)	F42LL	60	0.4	NONE	1560 561.	0.0	0.0	.0 \$	\$0.00	\$0.00	\$0.00	
Field House - Ice Room Field House - Locker Roon	1 S 32 C F 2 (ELE) 18 T 32 R F 2 (ELE)	F42LL F42LL	60 60	0.1 1.1	SW SW	1560 1,68	84.8 18	S 32 C F 2 (ELE) T 32 R F 2 (ELE)	F42LL F42LL	60 60	0.1 1.1	NONE NONE	1560 93.6 1560 1,68	10.0	0.0			\$0.00 \$0.00	\$0.00 \$0.00	
Field House - Varsity Locke Field House - Back Hal	9 T 32 R F 2 (ELE) 2 S 32 C F 2 (FI F)	F42LL	60 60	0.5 0.1	SW	1560 84 1560 19	42.4 9 87.2 2	T 32 R F 2 (ELE) S 32 C F 2 (ELE)	F42LL	60 60	0.5 0.1	NONE NONE			0.0			\$0.00 \$0.00	\$0.00 \$0.00	
ield House - Women's Restroom	3 S 32 C F 2 (ELE)	F42LL	60	0.2	SW			S 32 C F 2 (ELE)	F42LL	60	0.2	NONE	1560 280. 1560 374		0.0	1.0 \$	\$0.00	\$0.00	\$0.00	
Field House - Men's Restroon	3 S 32 C F 2 (ELE)	F42LL	60	0.2				S 32 C F 2 (ELE)	F42LL	60	0.2				0.0	1.0 \$1	\$0.00	\$0.00	\$0.00	
Field House - Coaches Roon		F42LL	60	0.5					F42LL	60	0.5	NONE	1560 93.6 1560 748.	0.0 3 0.0	0.0	.0 \$	\$0.00	\$0.00	\$0.00	
House - Coaches Room - Rest Roon Security - Front Room	3 T 32 R F 2 (ELE)	F42LL F42LL	60 60	0.1 0.2	SW			T 32 R F 2 (ELE)	F42LL F42LL	60 60	0.1 0.2	NONE	1560 93.6 2600 468.	0.0	0.0	.0 \$	\$0.00	\$0.00 \$0.00	\$0.00 \$0.00	
urity - Director (Locked - No Entry	3 T 32 R F 2 (ELE) 1 13 W CF 1	F42LL	60 15	0.2	SW	2600 46		T 32 R F 2 (ELE)	F42LL	60 15	0.2	NONE	2600 468. 2600 39.0		0.0	.0 \$.0.00	\$0.00 \$0.00	\$0.00 \$0.00	
Security - Main Room	4 S 32 C F 2 (ELE)	F42LL	60	0.2	SW	2600 62		S 32 C F 2 (ELE)	F42LL	60	0.2	NONE	2600 624.	0.0	0.0	i.0 \$	0.00	\$0.00	\$0.00	
	1 13 W CF 1		15	0.0	SW	2600 3	39.0 1	13 W CF 1	CFQ13/1-L	15	0.2	NONE	2600 39.0	0.0	0.0	.0 \$	0.00	\$0.00	\$0.00	
Security - Breakroom Exterior Building Lighting	15 WP400MH1	MH400/1	60 458	0.1 6.9	SW	3120 21,43	34.4 15	WP400MH1	FU2LL MH400/1	60 458	0.1 6.9	NONE NONE	2600 156. 3120 21,4	34.4 0.0	0.0	.0 \$	0.00	\$0.00 \$0.00	\$0.00 \$0.00	
Exterior Building Lighting Exterior Building Lighting	7 CF 26 10 70 W MH Wall Pack	CFQ26/1-L MH70/1	27 95	0.2 1.0	SW SW	3120 58 3120 2.96	89.7	CF 26 70 W MH Wall Pack	CFQ26/1-L MH70/1	27 95	0.2 1.0	NONE NONE	3120 589. 3120 2.96	7 0.0 4.0 0.0	0.0	.0 \$.0 \$	0.00	\$0.00 \$0.00	\$0.00 \$0.00	
v v v	3,329			344.1					***************************************		244.4				0.0				10500.0	
M I I I F F F F F F F F F F F F F F F F	Girls* Locker Room Girls* Locker Room Bestroom Girls* Locker Room Exi Ker Room Office (locked - no entry Custodial E Corridor E-05 Wing Weight Room Corridor gint Room (locked - no entry Alhelic Office Tarian Room Ing Office Room (locked - no entry Athletic Office Athletic Office Athletic Office Tarian Room Ing Room (locked - no entry Athletic Office Tarian Room Ing Room (locked - no entry Athletic Office Tarian Room Ing Room (locked - no entry Athletic Office Ing Room (locked - no entry Athletic Office Tarian Room Ing Room (locked - no entry Ing	Girls Locker Room Restroom 22 W 32 C F 2 (ELE)	Girls Locker Room 22 W. 32 C.F. 2 (ELE) F.42LL	Girls Locker Room 22 W 32 C F 2 (ELE)	Girls Locker Room 22 W. 32 C.F. 2 (LE) F42LL 60	Grie Locar Room 22 W 32 C F 2 (ELE) F42LL 60 1.3 SW 1.5 SW	Giff Loder Room 22 W 3 C F 2 (ELE)	One Lond Room 20 W 30 CF 2 (LEE) FASTL 00 13 800 130 4116 22 FASTL 00 13 800 130 130 4116 22 FASTL 00 13 800 130 130 130 130 130 130 130 130 130 1	Obe Losen Repel 2	Online O	Observation	Office Annual Control 1	## OF CASE AND PARTY OF CASE A	Mate Land Mate Ma	Material 1	The second column 1	Selection 19 1 19 19 19 19 19 19 19 19 19 19 19 1	September 19. 10 10 10 10 10 10 10 10 10 10 10 10 10	20	Column

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				EXISTING CONDITI	IONS						RETROFI	T CONDITIONS						COST & SAVING	GS ANALYSIS			
					Watts per							Watts per		Retrofit			Annual kWh			NJ Smart Start Lighting	Simple Payback With Out	
Field Code		No. of Fixtures No. of fixtures	Standard Fixture Code Lighting Fixture Code	Fixture Code Code from Table of Standard	Fixture Value from	kW/Space (Watts/Fixt) * (Fixt	Pre-inst. Estimated daily	(kW/space) *		es Standard Fixture Code ter Lighting Fixture Code	Fixture Code Code from Table of	Value from	(Watts/Fixt) *	Control Retrofit contro	ol Estimated	(kW/space) *		(kWh Saved) *	Retrofit Cost Cost for	Incentive Prescriptive	Incentive Length of time	Simple Payback Length of time for
	name: Floor number (if applicable)	before the retrofit		Fixture Wattages	Table of Standard Fixture	No.)	control device hours for the usage group	(Annual Hours)	the retrofit		Standard Fixture Wattages	Table of Standard Fixture	(Number of Fixtures)	device	annual hours for the usage		kWh) - (Retrofit Annual kWh)		renovations to ighting system	Lighting Measures	for renovations cost to be recovered	renovations cost to be recovered
15LED	Boiler Room	10	S 32 C F 2 (FLF)	F42LL	Wattages	0.6	SW 20:	30 1,248	10	T 38 R LED	RTLED38	Wattages	0.4	NONE	2,08	80 790	458 0.2	\$ 60.42	\$ 2,362.50	٩ .	39.1	39.1
115 6LED	Main Office Main Office	3 15	S 32 C F 2 (ELE) W 20 C F 2 T 34 R F 4 (MAG)	F22SS F44EE	56 144	0.2	SW 200 SW 260 SW 260	00 437	3 15	W 17 W C 2 T 50 R LED	F22ILL RTLED50	33 50	0.1	C-OCC C-OCC	1,95	50 193 50 1,463	244 0.1 4,154 1.4	\$ 28.28 \$ 500.90	\$ 594.00 \$ 3,813.75	\$ 35	21.0 7.6	19.8 7.5
18LED 18LED	Main Office C-25	5 12	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	2 0.6 2 1.3	SW 26/ SW 26/ SW 26/	3,494	5 12	T 50 R LED T 50 R LED	RTLED50 RTLED50	50 50	0.3 0.6	C-OCC	1,95 1,95	50 488 50 1,170	969 0.3 2,324 0.7	\$ 115.28 \$ 276.67	\$ 1,451.25 \$ 3,105.00	\$ 35	12.6 11.2	12.3 11.1
18LED 52LED	C-20 Prep Room	12 5	T 32 R F 4 (ELE) W 34 C F 2 (MAG)	F44ILL F42EE	112 72	0.4	SW 26 SW 15	3,494 30 562	12 5	T 50 R LED 4 ft LED Tube	RTLED50 200732x2	50 30	0.6 0.2	C-OCC	1,95	50 1,170 80 117	2,324 0.7 445 0.2	\$ 276.67 \$ 58.40	\$ 3,105.00 \$ 1,086.75	\$ 35	11.2 18.6	11.1 18.0
133 18LED	Women's Faculty Lavaton C-22	1 12	CF 26 T 32 R F 4 (ELE)	CFQ26/1-L F44ILL	112	2 1.3	SW 31: SW 26		1 12	CF 26 T 50 R LED	CFQ26/1-L RTLED50	27 50	0.0	C-OCC	1,56	50 42 50 1,170	42 0.0 2,324 0.7	\$ 3.92 \$ 276.67	\$ 270.00 \$ 3,105.00	\$ 35	68.9 11.2	59.9 11.1
18LED 18LED 133	C-27 C-24 Men's Restroom	14 8	T 32 R F 4 (ELE) T 32 R F 4 (ELE) CF 26	F44ILL F44ILL CFQ26/1-L	112 112	2 1.6 2 0.9 7 0.0	SW 26 SW 26 SW 31:		8 1	T 50 R LED T 50 R LED CF 26	RTLED50 RTLED50 CFQ26/1-L	50 50 27	0.7	C-OCC	1,95	1,365 50 780 60 42	2,712 0.9 1,550 0.5	\$ 322.78 \$ 184.44 \$ 3.92	\$ 3,577.50 \$ 2,160.00 \$ 270.00	\$ 35	11.1 11.7 68.9	11.0 11.5 59.9
18LED 46LED	C-29 Boys' Restroom	15	T 32 R F 4 (ELE) W 32 C F 2 (ELE)	F44ILL F42LL	112	1.7	SW 26	00 4,368 20 1,123	15	T 50 R LED 4 ft LED Tube	RTLED50 200732x2	50 30	0.8 0.2	C-OCC C-OCC	1,95	50 1,463 60 281	42 0.0 2,906 0.9 842 0.2	\$ 345.83 \$ 93.01	\$ 3,813.75 \$ 1,250.10	\$ 35	11.0 13.4	10.9
93 46LED	Custodial Girls' Restroom	1 6	I 75 W 32 C F 2 (ELE)	175/1 F42LL	75 60	0.1	SW 15 SW 31:	20 1,123	1 6	CF 26 4 ft LED Tube	CFQ26/1-L 200732x2	27	0.0 0.2	NONE C-OCC	1,56	60 42 60 281	842 0.2	\$ 10.86 \$ 93.01	\$ 5.40 \$ 1,250.10	\$ -	0.5 13.4	0.5 13.1
18LED 18LED	C-26 C-28	8	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112		SW 26 SW 26	2,330	8	T 50 R LED T 50 R LED	RTLED50 RTLED50	50 50	0.4 0.4	C-OCC	1,95 1,95	780 780	1,550 0.5 1,550 0.5	\$ 184.44 \$ 184.44		\$ 35		11.5 11.5
18LED 115	C-31 C-31	2	T 32 R F 4 (ELE) W 20 C F 2	F44ILL F22SS	112 56		SW 266 SW 266		8 2	T 50 R LED W 17 W C 2	RTLED50 F22ILL 2RTLED	50 33	0.4	C-OCC C-OCC	1,95	50 780 50 129	1,550 0.5 163 0.0 138 0.0	\$ 184.44 \$ 18.85	\$ 2,160.00 \$ 486.00	\$ 35	25.8	11.5 23.9
4LED 18LED 18LED	C-31 C-33	9	2B 34 R F 2 (u) (MAG) T 32 R F 4 (ELE) T 32 R F 4 (ELE)	FU2EE F44ILL F44ILL	72 112		SW 26 SW 26 SW 26	00 2,621	9	2T 25 R LED T 50 R LED T 50 R LED	RTLED50	50	0.0 0.5 0.4	C-OCC	1,95	50 49 50 878 50 780	1,743 0.6	\$ 16.70 \$ 207.50 \$ 184.44	\$ 472.50 \$ 2,396.25 \$ 2,160.00	\$ 35	28.3 11.5 11.7	26.2 11.4 11.5
18LED 18LED	C-30 C-32 C-35	8 9	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112	0.9	SW 26i SW 26i SW 26i		8 9	T 50 R LED T 50 R LED	RTLED50 RTLED50 RTLED50	50 50 50	0.4	C-OCC	1,95	50 780 50 878	1,550 0.5 1,550 0.5 1,743 0.6	\$ 184.44 \$ 207.50	\$ 2,160.00 \$ 2,396.25	\$ 35	11.7 11.5	11.5 11.4
18LED 35LED	C-34 Walkway	4 32	T 32 R F 4 (ELE) T 32 R F 3 (ELE)	F44ILL F43ILL/2	112 90	2.9	SW 26 SW 36	10,483	4 32	T 50 R LED T 38 R LED	RTLED50 RTLED38	50 38	0.2 1.2	C-OCC C-OCC	1,95 2,91	390 3,541	775 0.2 6,942 1.7	\$ 92.22 \$ 781.10	\$ 1,215.00 \$ 7,830.00	\$ 35 \$ 35	13.2 10.0	12.8 10.0
18LED 46LED	Walkway Elevator 1	1 2	T 32 R F 4 (ELE) W 32 C F 2 (ELE)	F44ILL F42LL	112 60	0.1	SW 36- SW 36-	10 437	1 2	T 50 R LED 4 ft LED Tube	RTLED50 200732x2	50 30	0.1 0.1	C-OCC	2,9° 2,9°	12 146 12 175	262 0.1 262 0.1	\$ 29.42 \$ 29.26	\$ 506.25 \$ 596.70	\$ 35	17.2 20.4	16.0 19.2
35LED 115 18LED	F Corridor F-208 F-208	26 3	T 32 R F 3 (ELE) W 20 C F 2 T 32 R F 4 (ELE)	F43ILL/2 F22SS F44ILL	90 56	2.3 0.2	SW 36- SW 26- SW 26-	10 8,518 00 437	26 3	T 38 R LED W 17 W C 2 T 50 R LED	RTLED38 F22ILL RTLED50	33	1.0 0.1	C-OCC	2,9° 1,98	12 2,877 50 193	5,641 1.4 244 0.1	\$ 634.65 \$ 28.28 \$ 207.50	\$ 6,412.50 \$ 594.00 \$ 2,396.25	\$ 35	10.1 21.0	10.0 19.8 11.4
18LED 18LED	Teachers Lounge F-210	3 8	T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112	0.3 2 0.9	SW 26 SW 26	00 874	3 8	T 50 R LED T 50 R LED T 50 R LED	RTLED50 RTLED50	50 50 50	0.5 0.2 0.4	C-OCC	1,30	50 878 00 195 50 780	1,743 0.6 679 0.2 1,550 0.5	\$ 207.50 \$ 78.24 \$ 184.44	\$ 2,396.25 \$ 978.75 \$ 2,160.00		11.5 12.5 11.7	11.4 12.1 11.5
115 18LED	F-210 F-206 (locked - no entry	4 9	W 20 C F 2 T 32 R F 4 (ELE)	F22SS F44ILL	56 112	0.2	SW 26 SW 26	00 582	4 9	W 17 W C 2 T 50 R LED	F22ILL RTLED50	33	0.4 0.1 0.5	C-OCC C-OCC	1,95	50 257 50 878	325 0.1	\$ 37.71	\$ 2,160.00 \$ 702.00 \$ 2,396.25	\$ 35	18.6 11.5	17.7 11.4
115 18LED	F-206 (locked - no entry F-209 (locked - no entry	2 8	W 20 C F 2 T 32 R F 4 (ELE)	F22SS F44ILL	56 112	0.1	SW 26	00 2,330	2 8	W 17 W C 2 T 50 R LED	F22ILL RTLED50	50 33 50 33	0.1 0.4	C-OCC	1,95 1,95	50 129 50 780	1,743 0.6 163 0.0 1,550 0.5	\$ 207.50 \$ 18.85 \$ 184.44	\$ 2,160.00	\$ 35	25.8 11.7	23.9 11.5
115 18LED	F-209 (locked - no entry F-207 F-207	9	W 20 C F 2 T 32 R F 4 (ELE) W 20 C F 2	F22SS F44ILL F22SS	56 112	0.2	SW 26 SW 26 SW 26	00 582 00 2,621	9	W 17 W C 2 T 50 R LED	F22ILL RTLED50	50	0.1 0.5	C-OCC	1,95 1,95	50 257 50 878	325 0.1 1,743 0.6	\$ 37.71 \$ 207.50	\$ 702.00 \$ 2,396.25		18.6 11.5	17.7 11.4
115 18LED 115	F-207 F-204 F-204	9	W 20 C F 2 T 32 R F 4 (ELE) W 20 C F 2	F22SS F44ILL F22SS	112 56	2 1.0	SW 26 SW 26 SW 26		9	W 17 W C 2 T 50 R LED W 17 W C 2	F22ILL RTLED50 F22ILL	33 50	0.1	C-OCC	1,95	50 193 50 878	244 0.1 1,743 0.6	\$ 28.28 \$ 207.50 \$ 18.85	\$ 594.00 \$ 2,396.25 \$ 486.00	\$ 35	21.0 11.5 25.8	19.8 11.4 23.9
18LED 115	F-202 F-202	9	T 32 R F 4 (ELE) W 20 C F 2	F44ILL F22SS	112	1.0	SW 26 SW 26	2,621	9	T 50 R LED W 17 W C 2	RTLED50	50	0.5	C-OCC	1,95	50 878 50 129	163 0.0 1,743 0.6 163 0.0	\$ 207.50 \$ 18.85	\$ 2,396.25 \$ 486.00	\$ 35	11.5 25.8	11.4
18LED 115	F-205 (locked - no entry F-205 (locked - no entry	9 2	T 32 R F 4 (ELE) W 20 C F 2	F44ILL F22SS	112 56	2 1.0 6 0.1	SW 26 SW 26	00 2,621 00 291	9 2	T 50 R LED W 17 W C 2	F22ILL RTLED50 F22ILL	33	0.5 0.1	C-OCC	1,95	50 878 50 129	163 0.0 1,743 0.6 163 0.0	\$ 207.50 \$ 18.85	\$ 2,396.25 \$ 486.00	\$ 35	11.5	23.9 11.4 23.9
18LED 115	F-203 (locked - no entry F-203 (locked - no entry	9 2	T 32 R F 4 (ELE) W 20 C F 2	F44ILL F22SS	112 56	2 1.0 3 0.1	SW 26 SW 26	00 2,621 00 291	9	T 50 R LED W 17 W C 2	RTLED50 F22ILL	33	0.5 0.1	C-OCC	1,95 1,95	50 878 50 129	163 0.0 1,743 0.6 163 0.0	\$ 207.50 \$ 18.85		\$ 35	11.5 25.8	11.4 23.9
18LED 115	F-201 (locked - no entry F-201 (locked - no entry Men's Restroom (locked - no entry	8	T 32 R F 4 (ELE) W 20 C F 2 T 32 R F 4 (ELE)	F44ILL F22SS F44ILL	112 56	0.9	SW 260 SW 260 SW 311	00 582	8	T 50 R LED W 17 W C 2 T 50 R LED	RTLED50 F22ILL RTLED50	50 33 50	0.4	C-OCC	1,95 1,95	50 780 50 257	1,550 0.5 325 0.1	\$ 184.44 \$ 37.71	\$ 2,160.00 \$ 702.00	\$ 35	11.7 18.6	11.5 17.7
18LED 18LED 18LED	Wen's Restroom (locked - no entry Women's Restroom (locked - no entry F-212	3	T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112	2 0.3 2 0.3 2 0.6	SW 31: SW 26		3 5	T 50 R LED T 50 R LED T 50 R LED	RTLED50 RTLED50 RTLED50	50 50 50	0.2 0.2 0.3	C-OCC	1,56	50 234 50 234 50 488	814 0.2 814 0.2 969 0.3	\$ 90.88 \$ 90.88 \$ 115.28	\$ 978.75 \$ 978.75 \$ 1,451.25	\$ 35	10.8 10.8 12.6	10.4 10.4 12.3
115 18LED	F-212 Men's Staff Restroom (locked - no entry	1 3	W 20 C F 2 T 32 R F 4 (ELE)	F22SS F44ILL	56 112	0.1	SW 26 SW 31:	00 146	1 3	W 17 W C 2 T 50 R LED	F22ILL RTLED50	33 50	0.0 0.2	C-OCC C-OCC	1,95	50 64 60 234	81 0.0	\$ 9.43 \$ 90.88	\$ 378.00	\$ 35		36.4 10.4
18LED 35LED	Women's Staff Restroom (locked - no entry Corridor Outside F-212	3 11	T 32 R F 4 (ELE) T 32 R F 3 (ELE)	F44ILL F43ILL/2	112 90	0.3	SW 31: SW 36-	20 1,048 40 3,604	3 11	T 50 R LED T 38 R LED	RTLED50 RTLED38	38	0.2 0.4	C-OCC	1,56 2,9°	234 12 1,217	814 0.2 2,386 0.6	\$ 90.88 \$ 268.50	\$ 2,868.75	\$ 35		10.4 10.6
35LED 18LED	Corridor to B Corridor B	3 20	T 32 R F 3 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (FLE)	F43ILL/2 F44ILL F44ILL	90 112 112	2.2	SW 36- SW 36- SW 26-	10 8,154	3 20	T 38 R LED T 50 R LED	RTLED38 RTLED50	50	0.1 1.0	C-OCC	2,9° 2,9°	12 332 12 2,912	651 0.2 5,242 1.2	\$ 73.23 \$ 588.43	\$ 978.75 \$ 4,995.00	\$ 35	13.4 8.5	12.9 8.4
18LED 18LED 18LED	B-19 (locked - no entry B-21 B-23 (locked - no entry	12	T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112	1.3	SW 26 SW 26 SW 26	00 3,494	12 12	T 50 R LED T 50 R LED T 50 R LED	RTLED50 RTLED50 RTLED50	50	0.6 0.6 0.6	C-OCC	1,95	50 1,170 50 1,170 50 1,170	2,324 0.7 2,324 0.7 2,324 0.7	\$ 276.67 \$ 276.67 \$ 276.67	\$ 3,105.00 \$ 3,105.00 \$ 3,105.00	\$ 35	11.2 11.2 11.2	11.1 11.1
18LED 18LED	B-25 (locked - no entry B-20	12	T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112	1.3	SW 26 SW 26		12	T 50 R LED T 50 R LED	RTLED50 RTLED50		0.6	C-OCC	1,95	50 1,170 50 1,170		\$ 276.67 \$ 276.67	\$ 3,105.00 \$ 3,105.00		11.2 11.2	11.1
133 18LED	Women's Staff Restroom (locked - no entry B-22	1 12	CF 26 T 32 R F 4 (ELE)	CFQ26/1-L F44ILL	27 112	0.0	SW 31: SW 26	20 84 00 3,494	1 12	CF 26 T 50 R LED	CFQ26/1-L RTLED50	27 50	0.0 0.6	C-OCC	1,56 1,95	50 42 50 1,170	42 0.0 2,324 0.7	\$ 3.92 \$ 276.67	\$ 270.00 \$ 3,105.00	\$ 35 \$ 35	68.9 11.2	59.9 11.1
18LED 4LED	B-27 B-27	12	T 32 R F 4 (ELE) 2B 34 R F 2 (u) (MAG)	F44ILL FU2EE	112 72	2 1.3 2 0.1	SW 26 SW 26 SW 15	00 374	12 2	T 50 R LED 2T 25 R LED	RTLED50 2RTLED	50 25	0.6 0.1	C-OCC	1,95 1,95	50 1,170 50 98	2,324 0.7 277 0.1	\$ 276.67 \$ 33.39		\$ 35	11.2 20.2	11.1 19.2
52LED 133 46LED	Prep Room Men's Staff Restroom Men's Restroom	1	W 34 C F 2 (MAG) CF 26 W 32 C F 2 (ELE)	F42EE CFQ26/1-L F4211	72 27	0.4 0.0 0.4	SW 150 SW 31: SW 31:		5 1	4 ft LED Tube CF 26 4 ft LED Tube	200732x2 CFQ26/1-L 200732x2	30 27 30	0.2	C-OCC	1,56	30 117 30 42	445 0.2 42 0.0 842 0.2	\$ 58.40 \$ 3.92 \$ 93.01	\$ 1,086.75 \$ 270.00 \$ 1,250.10		18.6 68.9 13.4	18.0 59.9 13.1
18LED X5	B-29 Custodial Room	8	T 32 R F 4 (ELE) CF42/1	F44ILL CF42/1-I	112	0.9	SW 26 SW 15	00 2,330	8	T 50 R LED CF42/1	RTLED50 CF42/1-I	50 48	0.4	C-OCC NONE	1,95	50 780 60 75	1,550 0.5	\$ 184.44 \$ -	\$ 2,160.00 \$ -	\$ 35	11.7	11.5
46LED 18LED	Girls' Restroom B-26	6	W 32 C F 2 (ELE) T 32 R F 4 (ELE)	F42LL F44ILL	60	0.4	SW 31: SW 26	20 1,123	6	4 ft LED Tube T 50 R LED	200732x2 RTLED50	30 50	0.2	C-OCC C-OCC	1,56	50 281 50 1,560	842 0.2 3,099 1.0	\$ 93.01 \$ 368.89	\$ 1,250.10 \$ 4,050.00	\$ 35 \$ 35	13.4 11.0	13.1 10.9
18LED 18LED	B-28 B-30	16 8	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	2 1.8 2 0.9	SW 26 SW 26	00 4,659 00 2,330	16 8	T 50 R LED T 50 R LED	RTLED50 RTLED50	50 50	0.8 0.4	C-OCC	1,95 1,95	50 1,560 50 780	3,099 1.0 1,550 0.5	\$ 368.89 \$ 184.44	\$ 4,050.00 \$ 2,160.00	\$ 35 \$ 35	11.0 11.7	10.9 11.5
18LED 115 18LED	B-31 B-31	4	T 32 R F 4 (ELE) W 20 C F 2 T 32 R F 4 (ELE)	F44ILL F22SS F44ILL	112 56	0.9	SW 26 SW 26	00 2,330 00 582 00 2,330	4	T 50 R LED W 17 W C 2 T 50 R LED	F22ILL RTLED50	50 33	0.4	C-OCC	1,95	50 780 50 257	1,550 0.5 325 0.1	\$ 184.44 \$ 37.71 \$ 184.44	\$ 2,160.00 \$ 702.00 \$ 2,160.00	\$ 35 \$ 35	11.7 18.6 11.7	11.5 17.7 11.5
18LED 18LED	B-33 B-32 B-35	8	T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (FLE)	F44ILL F44ILL	112	2 0.9 2 0.9 2 0.9	SW 26i SW 26i SW 26i	00 2,330 00 2,330 00 2,330	8 8	T 50 R LED	RTLED50	50 50	0.4 0.4 0.4	C-OCC	1,95	50 780 50 780 50 780	1,550 0.5 1,550 0.5 1,550 0.5	\$ 184.44 \$ 184.44		\$ 35	11.7	11.5 11.5
18LED 18LED	B-35 B-34 A Corridor	4 23	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112	2 0.4	SW 26		4 23	T 50 R LED T 50 R LED	RTLED50 RTLED50 RTLED50	50 50 50	0.2	C-OCC C-OCC	1,95	50 390 12 3,349	775 0.2	\$ 92.22 \$ 676.70	\$ 1,215.00 \$ 5,703.75	\$ 35	13.2 8.4	12.8 8.4
18LED 18LED	A-24 A-25	12 12	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	2 1.3 2 1.3	SW 36- SW 26- SW 26- SW 26- SW 26-	00 3,494 00 3,494	12 12	T 50 R LED T 50 R LED	RTLED50 RTLED50 RTLED50 RTLED50	50 50 50 50	0.6 0.6	C-OCC	1,95 1,95	50 1,170 50 1,170	2,324 0.7 2,324 0.7 1,937 0.6	\$ 276.67 \$ 276.67	\$ 3,105.00 \$ 3,105.00	\$ 35	11.2 11.2	11.1 11.1
18LED 15LED	A-26 Electrical Room (locked - no entry	10 8	T 32 R F 4 (ELE) S 32 C F 2 (ELE)	F44ILL F42LL	112 60	0.5	SW 20	30 998	10	T 50 R LED T 38 R LED	RTLED38	38	0.5 0.3	NONE	2,08	975 30 632	366 0.2	\$ 230.56 \$ 48.34	\$ 2,632.50 \$ 1,890.00	\$ -	11.4 39.1	11.3 39.1
18LED 18LED 18LED	A-27 A-28 A-29	12	T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112 112	1.3	SW 26 SW 26 SW 26	3,494	12	T 50 R LED T 50 R LED T 50 R LED	RTLED50 RTLED50 RTLED50	50	0.6 0.6 0.6	C-OCC	1,95	50 1,073 50 1,170 50 1,170	2,131 0.7 2,324 0.7 2,324 0.7	\$ 253.61 \$ 276.67 \$ 276.67	\$ 2,868.75 \$ 3,105.00 \$ 3,105.00	\$ 35	11.3 11.2 11.2	11.2 11.1 11.1
18LED 52LED	B Stairway B Stairway	4	T 32 R F 4 (ELE)	F44ILL F42EE	112	0.4	SW 36-	10 1,631 10 786	4 3	T 50 R LED 4 ft LED Tube	RTI FD50	50	0.0 0.2 0.1	C-OCC C-OCC	2,91	12 582 12 262	1,048 0.2	\$ 117.69 \$ 59.01	\$ 1,215.00 \$ 760.05	\$ 35	10.3	10.0
18LED 217LED	C Wing Corridor	25 1	W 34 C F 2 (MAG) T 32 R F 4 (ELE) 2B 17 R F 4 (ELE)	F44ILL F24ILL	72 112 61	0.1	SW 36- SW 36- SW 36-	10 222	25 1	T 50 R LED 2T 25 R LED	200732x2 RTLED50 2RTLED RTLED50	50 25 50	1.3 0.0	C-OCC	2,9° 2,9°	12 3,640 12 73	6,552 1.6 149 0.0	\$ 735.54 \$ 16.81	\$ 6,176.25 \$ 472.50	\$ 35 \$ 35	8.4 28.1	8.3 26.0
18LED 18LED	Attenance Office C-01 C-02	4 11	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	1.2	SW 260 SW 260 SW 260		11	T 50 R LED T 50 R LED	RTLED50 RTLED50 RTLED50	50 50 50	0.2	C-OCC C-OCC	1,95 1,95	50 390 50 1,073 50 1,170	775 0.2 2,131 0.7 2,324 0.7	\$ 92.22 \$ 253.61 \$ 276.67	\$ 1,215.00 \$ 2,868.75	\$ 35	13.2 11.3	12.8 11.2
18LED 18LED 18LED	C-02 C-03 C-04	12 16 16	T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112 112	1.8	SW 26 SW 26 SW 26	00 4,659	12 16 16	T 50 R LED T 50 R LED T 50 R LED	RTLED50 RTLED50 RTLED50	50 50 50	0.6 0.8 0.8	C-OCC C-OCC	1,95	50 1,170 50 1,560 50 1,560	3,099 1.0	\$ 276.67 \$ 368.89 \$ 368.89	\$ 3,105.00 \$ 4,050.00 \$ 4,050.00	\$ 35		11.1 10.9 10.9
18LED 18LED	C-04 C-06 C-06 Closet	16 15	T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112 112	1.7	SW 26 SW 26 SW 15	00 4,368	16 15 1	T 50 R LED T 50 R LED T 50 R LED	RTLED50 RTLED50 RTLED50	50 50 50	0.8 0.8 0.1	C-OCC NONE	1,95 1,95	1,463	3,099 1.0 2,906 0.9 97 0.1	\$ 368.89 \$ 345.83 \$ 14.03	\$ 4,050.00 \$ 3,813.75 \$ 236.25	\$ 35		10.9 10.9 16.8
18LED 18LED 18LED	C-05	16	T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112 112	2 1.8	SW 26 SW 31: SW 31:	00 4,659	16 3	T 50 R LED T 50 R LED	RTLED50 RTLED50 RTLED50	50	0.8 0.2	C-OCC	1,56	50 1,560 60 234 60 234	3,099 1.0	\$ 368.89 \$ 90.88 \$ 90.88	\$ 4,050.00	\$ 35	11.0	10.9
18LED	Boys' Restroom Girls' Restroom C-07	15	T 32 R F 4 (ELE)	F44ILL	112 112	2 0.3 2 1.7	SW 26	20 1,048 00 4,368	3 15	T 50 R LED T 50 R LED	RTLED50	50	0.2 0.8	C-OCC	1,56 1,95	1,463	2,906 0.9	\$ 345.83	\$ 978.75 \$ 3,813.75 \$ 270.00	\$ 35 \$ 35	10.8 10.8 11.0	10.4 10.4 10.9 59.9
133 35LED 35LED	Women's Staff Restroom D Corridor E Wing Corridor	1 28 40	CF 26 T 32 R F 3 (ELE) T 32 R F 3 (ELE)	CFQ26/1-L F43ILL/2 F43ILL/2	27 90		SW 31: SW 36: SW 36:	10 9.173	1 28	CF 26 T 38 R LED T 38 R LED	CFQ26/1-L RTLED38 RTLED38	27 38 38	0.0 1.1 1.5	C-OCC	1,56 2,9°	3,098 12 4,426	42 0.0 6,074 1.5	\$ 3.92 \$ 683.47 \$ 976.38	\$ 6,885.00	\$ 35	68.9 10.1 10.0	59.9 10.0 9.9
18LED 115	F Wing Corridor F-108 F-108	9	T 32 R F 3 (ELE) T 32 R F 4 (ELE) W 20 C F 2	F43ILL/2 F44ILL F22SS	90 112	3.6 2 1.0 6 0.1	SW 36- SW 26- SW 26-	10 13,104 00 2,621 00 291	40 9 2	T 38 R LED T 50 R LED W 17 W C 2	RTLED50	50 33	0.5	C-OCC	1,95	12 4,426 50 878 50 129	8,678 2.1 1,743 0.6 163 0.0	\$ 976.38 \$ 207.50 \$ 18.85		\$ 35	11.5	9.9 11.4 23.9
18LED 18LED	F-111 F-110 F-110	4 9	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	2 0.4	SW 26	00 1,165	4 9	T 50 R LED T 50 R LED	RTLED50	50 50	0.2 0.5	C-OCC	1,95	50 390 50 878	775 0.2 1,743 0.6	\$ 92.22 \$ 207.50	\$ 1,215.00 \$ 2,396.25	\$ 35 \$ 35	13.2 11.5	12.8 11.4
115 18LED 115	F-106	3 9	W 20 C F 2 T 32 R F 4 (ELE)	F22SS F44ILL	56 112	0.2	SW 26 SW 26	00 2,621	3 9	W 17 W C 2 T 50 R LED	F22ILL RTLED50	33	0.1 0.5	C-OCC	1,95 1,95	50 193 50 878	244 0.1 1,743 0.6	\$ 28.28 \$ 207.50	\$ 594.00 \$ 2,396.25	\$ 35	21.0 11.5	19.8 11.4
115 18LED 115	F-106 F-109 F-109	9	W 20 C F 2 T 32 R F 4 (ELE)	F22SS F44ILL F22SS	56 112	0.2	SW 26 SW 26 SW 26	00 437 00 2,621	9	W 17 W C 2 T 50 R LED	F22ILL RTLED50	33 50	0.1 0.5	C-OCC	1,95 1,95	50 193 50 878	244 0.1 1,743 0.6	\$ 28.28 \$ 207.50	\$ 594.00 \$ 2,396.25	\$ 35	21.0 11.5	19.8 11.4
115 18LED 115	F-109 F-107 F-107	9 3	W 20 C F 2 T 32 R F 4 (ELE) W 20 C F 2	F22SS F44ILL F22SS	56 112 56	0.1 2 1.0 6 0.2	SW 26	00 146 00 2,621 00 437	1 9 3	W 17 W C 2 T 50 R LED W 17 W C 2	F22ILL RTLED50 F22ILI	33 50 33	0.0 0.5 0.1	C-0CC	1,95	50 64 50 878 50 193	81 0.0 1,743 0.6 244 0.1	\$ 9.43 \$ 207.50 \$ 28.28	\$ 378.00 \$ 2,396.25 \$ 594.00	\$ 35	40.1 11.5 21.0	36.4 11.4 19.8
18LED	F-104	9	T 32 R F 4 (ELE)	F44ILL	112	2 1.0	SW 26 SW 26	00 2,621	9	T 50 R LED	F22ILL RTLED50	50	0.5	C-OCC	1,95	50 878	1,743 0.6	\$ 207.50	\$ 2,396.25	\$ 35		11.4

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Area Description	No. of Fixtures Standard Fixture Code	Fixture Code	Watts per Fixture	kW/Space Exist Control Annual Ho	ırs Annual kWh	Number of Fixtures	Standard Fixture Code	Fixture Code	Watts per Fixture		Retrofit Control	Annual Hou	rs Annual kWh	Annual kWh Saved An	nual kW Saved Annual \$ Save	d Retrofit Cost	Lighting Incentive	With Out Incentive	
description of the location - Room number/Room name: Floor number (if applicable)		Code from Table of Standard Fixture Wattages	Value from Table of	(Watts/Fixt) * (Fixt No.) Pre-inst. Estimated da hours for the	ily (kW/space) * (Annual Hours)	No. of fixtures after	Lighting Fixture Code	Code from Table of Standard Fixture	Value from Table of	(Watts/Fixt) * (Number of	Retrofit contro device	Estimated annual hours	(kW/space) * (Annual	(Original Annual kWh) - (Retrofit kW	iginal Annual) - (Retrofit (\$/kWh)	Cost for renovations to	Prescriptive Lighting	Length of time for renovations	ne Lo
			Standard Fixture Wattages	usage group				Wattages	Standard Fixture Wattages	Fixtures)		for the usage group	Hours)	Annual kWh) Ann	nual kW)	lighting system	Measures	cost to be recovered	
F-104 F-102	3 W 20 C F 2 9 T 32 R F 4 (ELE)	F22SS F44ILL	56 112		2600 2,6	3 321 9	W 17 W C 2 T 50 R LED	F22ILL RTLED50	33 50	0.1 0.5	C-OCC	1,99	50 193 50 878	244 0.1 1,743 0.6	\$ 28. \$ 207.	50 \$ 2,396.2		21.0 11.5	1
F-102 F-105	3 W 20 C F 2 9 T 32 R F 4 (ELE)	F22SS F44ILL	56 112	0.2 SW 1.0 SW	2600 4 2600 2,6	3 321 9	W 17 W C 2 T 50 R LED	F22ILL RTLED50	33 50	0.1 0.5	C-OCC	1,9: 1,9:	50 193 50 878	244 0.1 1,743 0.6	\$ 28. \$ 207.	28 \$ 594.00 50 \$ 2,396.29	\$ 35 5 \$ 35	21.0 11.5	\equiv
F-105 F-103 F-103	3 W 20 C F 2 9 T 32 R F 4 (ELE) 3 W 20 C F 2	F22SS F44ILL F22SS	56 112 56	1.0 SW	2600 2,6	137 3 321 9 137 3	W 17 W C 2 T 50 R LED W 17 W C 2	F22ILL RTLED50 F22ILL	33 50 33	0.1 0.5 0.1	C-OCC	1,9	50 193 50 878 50 193		\$ 28. \$ 207. \$ 28.	50 \$ 2,396.2	\$ 35	21.0 11.5 21.0	#
Men's Staff Restroom (locked - no entry Women's Staff Restroom (locked - no entry	3 T32 R F 4 (ELE) 3 T32 R F 4 (ELE)	F44ILL F44ILL	112 112	0.3 SW	3120 1,0	048 3 048 3	T 50 R LED T 50 R LED	RTLED50	50 50	0.2	C-OCC	1,50	50 234 50 234		\$ 90.	88 \$ 978.79 88 \$ 978.79	\$ 35	10.8 10.8	#
Electrical Room (locked - no entry Janitor (locked - no entry	8 S 32 C F 2 (ELE) 1 CF 26	F42LL CFQ26/1-L	60 27 112		1560	998 8	T 38 R LED CF 26 T 50 R LED	RTLED38 CFQ26/1-L	38 27	0.3 0.0	NONE NONE	2,01	60 42	- 0.0	\$ 48.	\$ -	\$ -	39.1 11.5	
F-101 F-101 F-Stairway	9 T 32 R F 4 (ELE) 3 W 20 C F 2 6 T 32 R F 4 (ELE)	F44ILL F22SS F44ILL	56 112	0.2 SW	2600 4	321 9 137 3 146 6	W 17 W C 2 T 50 R LED	RTLED50 F22ILL RTLED50	50 33 50	0.5 0.1 0.3	C-OCC	1,99	50 878 50 193 12 874	244 0.1	\$ 207. \$ 28. \$ 176.	28 \$ 594.0	\$ 35	21.0	_
F Corridor F Corridor	50 S 32 C F 1 (ELE) 26 S 32 C F 1 (ELE)	F41LL F41LL	32 32	1.6 SW 0.8 SW	3640 5,8 3640 3,0	324 50 328 26	4 ft LED Tube 4 ft LED Tube	200732x1 200732x1	15 15	0.8 0.4	C-OCC	2,9	12 2,184 12 1,136	1,893 0.4	\$ 407. \$ 212.	73 \$ 4,353.75 02 \$ 2,393.55	5 \$ 35 5 \$ 35	9.6 10.7 11.3	\exists
Boys' Restroom Girls' Restroom BB Corridor	2 T 32 R F 4 (ELE) 2 T 32 R F 4 (ELE) 18 W 32 C F 2 (ELE)	F44ILL F44ILL F42LL	112 112 60	0.2 SW	3120 6	399 2 399 2 331 18	T 50 R LED T 50 R LED 4 ft LED Tube	RTLED50 RTLED50 200732x2	50 50 30	0.1 0.1 0.5	C-OCC	1,50	50 156 50 156 12 1,572	543 0.1 543 0.1	\$ 60. \$ 60. \$ 263.	59 \$ 742.5	\$ 35	12.3 12.3	_
BB-8	12 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE)	F44ILL F44ILL	112	1.3 SW	2600 3,4	194 12 194 12	T 50 R LED	RTLED50 RTLED50	50	0.6 0.6	C-OCC	1,9	50 1,170 50 1,170	2,324 0.7	\$ 263. \$ 276. \$ 276.	67 \$ 3,105.0	\$ 35	12.2 11.2 11.2	#
BB-6 BB-7 BB-5	12 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	1.3 SW 1.3 SW	2600 3,4 2600 3,4	194 12 194 12	T 50 R LED	RTLED50 RTLED50	50 50 50 50	0.6 0.6	C-OCC	1,9: 1,9:	50 1,170 50 1,170	2,324 0.7 2,324 0.7 2,324 0.7 3,874 1.2	\$ 276. \$ 276.	67 \$ 3,105.00 67 \$ 3,105.00	\$ 35 \$ 35	11.2 11.2	\equiv
BB-4 BB-3 BB-1	20 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112	1.3 SW	2600 3,4	324 20 194 12 194 12	T 50 R LED T 50 R LED T 50 R LED	RTLED50 RTLED50 RTLED50	50 50 50	1.0 0.6 0.6	C-OCC C-OCC	1,9	1,950 50 1,170 50 1,170	3,874 1.2 2,324 0.7 2,324 0.7	\$ 461. \$ 276. \$ 276.	67 \$ 3,105.0	\$ 35	10.8 11.2 11.2	
BB-2 Women's Staff Restroom	20 T 32 R F 4 (ELE) 4 W 32 C F 2 (ELE)	F44ILL F42LL	112	2.2 SW	2600 5,8	324 20	T 50 R LED 4 ft LED Tube	RTLED50 200732x2	50 30	1.0 0.1	C-OCC C-OCC	1,9	50 1,950 50 187	3,874 1.2	\$ 461.		\$ 35	10.8	#
Custodial Room Men's Staff Restroom	1 W 34 C F 2 (MAG) 4 W 32 C F 2 (ELE) 2 T 32 R F 4 (ELE)	F42EE F42LL	72 60	0.1 SW	1560 1	112 1	4 ft LED Tube 4 ft LED Tube T 50 R LED	200732x2 200732x2 RTLED50	30 30 50	0.0 0.1	NONE C-OCC	1,5i		66 0.0 562 0.1 271 0.1	\$ 9. \$ 62.	50 \$ 163.3 00 \$ 923.4	5 \$ -	17.2 14.9	\exists
Storage Room (locked - no entry Elevator Equipment (locked - no entry	2 T 32 R F 4 (ELE) 1 S 32 C F 2 (ELE) 2 S 32 C F 2 (ELE)	F44ILL F42LL F42LL	112 60	0.1 SW		94 1 187 2	T 38 R LED T 38 R LED	RTLED38 RTLED38	38 38	0.1	NONE C-OCC	1,50	80 78 60 59	271 0.1 34 0.0 128 0.0		98 \$ 236.2		21.0 47.5 48.0	#
Storage Room (locked - no entry B Corridor 1 B Corridor 1	21 T 32 R F 4 (ELE) 1 2B 17 R F 4 (ELE)	F44ILL F24ILL	112 61	2.4 SW 0.1 SW	3640 8,5 3640 2	561 21 222 1	T 50 R LED 2T 25 R LED	RTLED50 2RTLED	50 25	1.1 0.0	C-OCC	2,9	12 3,058 12 73		\$ 617. \$ 16.	36 \$ 5,231.2	5 \$ 35 0 \$ 35	8.5 28.1	#
B-14 B-15	16 T 32 R F 4 (ELE) 4 T 32 R F 4 (ELE)	F44ILL F44ILL	112 112		2600 1,1	359 16 165 4	T 50 R LED T 50 R LED	RTLED50 RTLED50	50 50	0.8 0.2	C-OCC	1,9: 1,9:	50 1,560 50 390	3,099 1.0 775 0.2 775 0.2	\$ 368. \$ 92.	89 \$ 4,050.00 22 \$ 1,215.00	\$ 35 0 \$ 35	11.0 13.2	
B-13 B-11 B-12	4 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE) 8 T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112	1.3 SW		165 4 194 12 330 8	T 50 R LED T 50 R LED T 50 R LED	RTLED50 RTLED50 RTLED50	50 50 50	0.2 0.6 0.4	C-OCC	1,9	50 390 50 1,170 50 780	775 0.2 2,324 0.7 1,550 0.5	\$ 92. \$ 276. \$ 184.		\$ 35	13.2 11.2 11.7	=
B-09 B-09	132 R F 4 (ELE) 12 T 32 R F 4 (ELE) 3 W 20 C F 2	F44ILL F44ILL F22SS	112	1.3 SW	2600 3,4	194 12 137 3	T 50 R LED W 17 W C 2	RTLED50 RTLED50 F22ILL	50 50 33	0.4 0.6 0.1	C-OCC	1,9:	50 780 50 1,170 50 193	2,324 0.7 244 0.1	\$ 276. \$ 28.	67 \$ 3,105.0	\$ 35	11.7 11.2 21.0	=
B-10 B-08	8 T 32 R F 4 (ELE) 5 T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	0.9 SW 0.6 SW	2600 2,3 2600 1,4	330 8 156 5	T 50 R LED T 50 R LED	RTLED50 RTLED50	50 50	0.4 0.3	C-OCC	1,9	50 780 50 488	1,550 0.5 969 0.3	\$ 184. \$ 115.	44 \$ 2,160.00 28 \$ 1,451.25	\$ 35 5 \$ 35	11.7 12.6	=
B-08 Custodial Room (locked - no entry	3 W 20 C F 2 1 CF 26	F22SS CFQ26/1-L	56 27	0.0 SW	1560	137 3 42 1	W 17 W C 2 CF 26 2T 25 R LED	F22ILL CFQ26/1-L	33 27	0.1	C-OCC NONE	1,9	50 193 60 42	244 0.1	\$ 28.	\$ -	\$ -	21.0	
Men's Staff Restroom Storage Girls' Restroom	1 2B 34 R F 2 (u) (MAG) 1 CF 26 2 T 32 R F 4 (FL F)	FU2EE CFQ26/1-L F44II I	27 112	0.2 SW	3120 2 1560 3120 6	42 1 399 2	CF 26 T 50 R LED	2RTLED CFQ26/1-L RTLED50	25 27 50	0.0 0.0 0.1	C-OCC	1,5i 7i 1.5i	30 39 30 21 30 156	186 0.0 21 0.0 543 0.1	\$ 21. \$ 1. \$ 60	96 \$ 270.0		22.4 137.7 12.3	=
Girls' Restroom Women's Staff Restroom	1 S 32 PC F 1 1 2B 34 R F 2 (u) (MAG)	F41LL FU2EE	32 72	0.0 SW 0.1 SW	3120 1		4 ft LED Tube 2T 25 R LED	200732x1 2RTLED	15	0.0	C-OCC C-OCC	1,50	50 23 50 39	76 0.0 186 0.0	\$ 8.	49 \$ 351.66 09 \$ 472.50		41.4 22.4	7
Boys' Restroom Boys' Restroom	2 T 32 R F 4 (ELE) 1 S 32 PC F 1	F44ILL F41LL	112 32	0.2 SW 0.0 SW	3120 6 3120 1	99 2 100 1	T 50 R LED 4 ft LED Tube	RTLED50 200732x1	25 50 15	0.1 0.0	C-OCC	1,5i	50 156 50 23	543 0.1 76 0.0	\$ 60. \$ 8.	49 \$ 351.6	3 \$ 35	12.3 41.4	-
B-07 B-07 B-06	15 T 32 R F 4 (ELE) 3 W 20 C F 2 12 T 32 R F 4 (ELE)	F44ILL F22SS F44ILL	112 56	0.2 SW	2600 4,3 2600 4	368 15 137 3 194 12	T 50 R LED W 17 W C 2 T 50 R LED	RTLED50 F22ILL RTLED50	50 33 50	0.8 0.1	C-OCC	1,9	50 1,463 50 193 50 1,170	2,906 0.9 244 0.1 2,324 0.7	\$ 345. \$ 28. \$ 276.	28 \$ 594.0	\$ 35	11.0 21.0 11.2	=
B-05 B-04 Teacher's Loungs	15 T32 R F 4 (ELE) 13 T32 R F 4 (ELE)	F44ILL F44ILL	112	1.7 SW	2600 4,3		T 50 R LED T 50 R LED	RTLED50 RTLED50	50	0.8 0.7	C-OCC C-OCC	1,9	50 1,463 00 845	2,906 0.9 2,941 0.8	\$ 345. \$ 339.	3,813.7	\$ 35	11.0 9.9	=
B-03 B-01	16 T 32 R F 4 (ELE) 10 T 32 R F 4 (ELE)	F44ILL F44ILL	112 112			659 16 912 10	T 50 R LED T 50 R LED	RTLED50 RTLED50	50 50 50	0.8 0.5	C-OCC	1,9: 1,9:	50 1,560 50 975	3,099 1.0 1,937 0.6	\$ 368. \$ 230.	56 \$ 2,632.5	\$ 35	11.0 11.4	
B-02 Lower A Classroom Lower A Stairs	11 T 32 R F 4 (ELE) 3 T 32 R F 4 (ELE) 2 T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112 112	0.3 SW	2600 8	203 11 374 3 315 2	T 50 R LED T 50 R LED T 50 R LED	RTLED50 RTLED50 RTLED50	50 50 50	0.6 0.2 0.1	C-OCC	1,9	50 1,073 50 293 12 291	2,131 0.7 581 0.2 524 0.1	\$ 253. \$ 69. \$ 58.	17 \$ 978.7	\$ 35	11.3 14.2 12.6	=
Lower A Stairs A Wing Corridor	3 W 32 C F 2 (ELE) 27 T 32 R F 4 (ELE)	F42LL F44ILL	60 112	0.2 SW 3.0 SW	3640 6 3640 11.0	355 3 007 27	4 ft LED Tube T 50 R LED	200732x2 RTLED50	30 50	0.1	C-OCC C-OCC	2,9	12 262 12 3,931	393 0.1 7,076 1.7	\$ 43. \$ 794.	39 \$ 760.0	5 \$ 35	17.3 8.4	7
Storage (locked - no entry Men's Staff Restroom	2 W 34 C F 2 (MAG) 1 CF 26	F42EE CFQ26/1-L	72 27		3120	225 2 84 1	4 ft LED Tube CF 26	200732x2 CFQ26/1-L	30 27	0.1 0.0	C-OCC	1,5	80 47 60 42	178 0.1 42 0.0 1,356 0.4		92 \$ 270.0	\$ 35	25.5 68.9	
A-01 Women's Staff Restroom A-02	7 T 32 R F 4 (ELE) 1 CF 26 7 T 32 R F 4 (ELE)	F44ILL CFQ26/1-L F44ILL	112 27		3120	038 7 84 1 038 7	T 50 R LED CF 26 T 50 R LED	CFQ26/1-L RTLED50	50 27 50	0.4 0.0 0.4	C-OCC	1,9	50 683 60 42 50 683	1,356 0.4 42 0.0 1,356 0.4	\$ 161. \$ 3. \$ 161.	92 \$ 270.0	5 \$ 35 0 \$ 35	11.9 68.9 11.9	=
Boys' Restroom Custodial	2 T 32 R F 4 (ELE) 1 CF 26	F44ILL F44ILL CFQ26/1-L	112	0.2 SW		399 2	T 50 R LED CF 26	RTLED50 CFQ26/1-L	50 27	0.4 0.1 0.0	C-OCC NONE	1,50	156	543 0.1 - 0.0	\$ 60.				=
Custodial Girls' Restroom	1 175 2 T 32 R F 4 (ELE)	175/1 F44II I	75 112	0.1 SW 0.2 SW	1560 1 3120 6	117 1 399 2	CF 26 T 50 R LED	CFQ26/1-L RTLED50	27 50	0.0 0.1	NONE C-OCC	1,50	156		\$ 60.		\$ 35	0.5 12.3	
A-04 Music Room A-04 Storage A-04 Instruments	50 W 34 C F 2 (MAG) 2 W 34 C F 2 (MAG) 2 W 34 C F 2 (MAG)	F42EE F42EE F42EE	72 72			225 2	4 ft LED Tube 4 ft LED Tube	200732x2 200732x2	30 30	1.5 0.1	C-OCC C-OCC	1,99	2,925 30 47	6,435 2.1 178 0.1 178 0.1		36 \$ 596.7	\$ 35	11.0 25.5	_
A-04 Storage A-04 Sheet Music Storage	2 W 34 C F 2 (MAG) 3 W 34 C F 2 (MAG)	F42EE F42EE F42EE	72 72			225 2	4 ft LED Tube 4 ft LED Tube 4 ft LED Tube	200732x2 200732x2 200732x2	30 30 30	0.1 0.1 0.1	C-OCC	71	30 47 30 47	178 0.1 178 0.1 267 0.1	\$ 23. \$ 23. \$ 35.	36 \$ 596.7	\$ 35	25.5 25.5 21.7	=
A-04 Office A-04 Instruments	2 W 34 C F 2 (MAG) 3 I 75	F42EE I75/1	72 75	0.1 SW 0.2 SW	1560 3	225 2 351 3	4 ft LED Tube CF 26	200732x2 CFQ26/1-L	30 27	0.1 0.1	C-OCC	79	80 47 80 63		\$ 23. \$ 38.	36 \$ 596.70 46 \$ 286.20	\$ 35 0 \$ 35		╛
A-02 (locked - no entry Auditorium Backstage Right	40 W 34 C F 2 (MAG) 12 HPS 250 3 175	F42EE HPS250/1 I75/1	72 295 75	3.5 SW	3120 11,0	12	4 ft LED Tube FXLED78 CF 26	200732x2 FXLED78/1 CFQ26/1-L	30 78 27	1.2 0.9 0.1	NONE NONE	1,9: 3,1: 3.1:		8,124 2.6	\$ 615. \$ 967.	32 \$ 10,130.3	\$ 1,200		#
Stage Backstage Left	2 175 1 S 32 C F 1 (ELE)	175/1 F41LL	75 75 32	0.2 SW 0.0 SW	3120 4 3120 1	168 2 100 1	CF 26 4 ft LED Tube	CFQ26/1-L	27 15	0.1 0.0	NONE NONE	3,1	20 168	300 0.1	\$ 35. \$ 6.	66 \$ 10.8 32 \$ 81.6	S -	0.3 12.9	#
Storage Auditorium Corrido	3 W 34 C F 2 (MAG) 20 T 32 R F 4 (ELE)	F42EE F44ILL	72 112	0.2 SW 2.2 SW	1560 3 3640 8,1	337 3 154 20	4 ft LED Tube T 50 R LED	200732x1 200732x2 RTLED50	30 50	0.1 1.0	C-OCC	2,9	70 12 2,912	53 0.0 267 0.1 5,242 1.2	\$ 35. \$ 588.	04 \$ 760.09 43 \$ 4,995.00	\$ \$ 35 0 \$ 35	21.7 8.5	\exists
D-27 D-16 D-14 (locked - no entry	12 T 32 R F 4 (ELE) 6 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112	1.3 SW 0.7 SW 1.3 SW		194 12 747 6	T 50 R LED T 50 R LED	RTLED50 RTLED50 RTLED50	50 50	0.6 0.3	C-OCC	1,99	50 1,170 50 585 50 1,170	2,324 0.7 1,162 0.4	\$ 276. \$ 138. \$ 276.		\$ 35		4
D-14 (locked - no entry D-12 Office	12 1 32 K F 4 (ELE) 11 T 32 R F 4 (ELE) 2 T 34 R F 3 (MAG)	F44ILL F43EE	112 112 115	1.2 SW	2600 3,2	194 12 203 11 598 2	T 50 R LED T 50 R LED T 28 R F 3	RTLED50 F43SSILL	50	0.6 0.6 0.1	C-OCC C-OCC	1,9	50 1,170 50 1,073 50 281		\$ 276. \$ 253. \$ 36.	61 \$ 2,868.7	\$ 35	11.2 11.3 14.4	#
Office D-21 (locked - no entry	2 T 34 R F 3 (MAG) 12 T 32 R F 4 (ELE)	F43EE F44ILL	115 112	0.2 SW 1.3 SW	2600 5 2600 3,4	598 2 194 12	T 28 R F 3 T 50 R LED	F43SSILL RTLED50	72 50	0.1 0.6	C-OCC C-OCC	1,9: 1,9:	50 281 50 1,170	317 0.1 2.324 0.7	\$ 36. \$ 276.	50 \$ 526.50 67 \$ 3.105.00	\$ 35 0 \$ 35	14.4 11.2	=
Gold Cafeteria Classroom in Cafeteria Kitchen Storage	38 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE) 6 W 34 C F 2 (MAG)	F44ILL F44ILL F42EE	112 112	4.3 SW 1.3 SW 0.4 SW		194 12	T 50 R LED T 50 R LED	RTLED50 RTLED50	50 50	1.9 0.6	C-OCC	1,9	3,705 50 1,170		\$ 876. \$ 276.	11 \$ 9,247.50 67 \$ 3,105.00	35 0 \$ 35	10.6 11.2	#
Custodial Storage (locked - no entry	1 CF 26 2 W 34 C F 2 (MAG)	CFQ26/1-L F42EE	27 72	0.0 SW 0.1 SW	1560		4 ft LED Tube CF 26 4 ft LED Tube	200732x2 CFQ26/1-L 200732x2	27 30	0.2 0.0 0.1	NONE C-OCC	1,50	30 140 50 42 30 47	534 0.3 - 0.0 178 0.1	\$ 70. \$ - \$ 23.	- \$	\$ -	17.8 25.5	#
Serving Line Cafeteria	8 T 32 R F 4 (ELE) 54 T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	0.9 SW 6.0 SW	2600 2,3 2600 15,7	725 54	4 ft LED Tube T 50 R LED T 50 R LED	200732x2 RTLED50 RTLED50	50	0.4 2.7	C-OCC	1,9	780 50 5,265	10,460 3.3	\$ 23. \$ 184. \$ 1,245.	00 \$ 13,027.5	\$ 35	25.5 11.7 10.5	4
D-19 (locked - no entry D-17 (locked - no entry	2 T 32 R F 4 (ELE) 2 T 32 R F 4 (ELE) 6 T 31 R F 4 (ELE)	F44ILL F44ILL	112 112	0.2 SW	2600 5 2600 5	582 2 582 2	T 50 R LED T 50 R LED	RTLED50 RTLED50	50 50	0.1 0.1	C-OCC	1,9	50 195 50 195	387 0.1	\$ 46. \$ 46.	11 \$ 742.50 11 \$ 742.50	\$ 35 0 \$ 35	16.1 16.1	\exists
D-10 Teacher's Lounge Child Study Team Office Conference Room	6 T 32 R F 4 (ELE) 39 T 32 R F 3 (ELE) 4 T 32 R F 3 (ELE)	F44ILL F43ILL/2 F43ILL/2	90 90	0.7 SW 3.5 SW 0.4 SW			T 50 R LED T 38 R LED T 38 R LED	RTLED50 RTLED38 RTLED38	50 38 38	0.3 1.5 0.2	C-OCC C-OCC NONE	1,3 1,9 1,5	390 50 2,890 60 237	1,357 0.4 6,236 2.0 324 0.2	\$ 156. \$ 744. \$ 47.	85 \$ 9,483.7	5 \$ 35	10.8 12.7 20.1	#
Main Office Corridor Main Office 9th (locked - no entry	3 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	0.3 SW 1.3 SW	2600 3,4	562 4 223 3 194 12	T 38 R LED T 50 R LED T 50 R LED	RTLED38 RTLED50 RTLED50	50	0.2 0.6	C-OCC	2,9 1,9	12 437 50 1,170	2,324 0.7	\$ 88. \$ 276.	27 \$ 978.78 67 \$ 3,105.00	5 \$ 35 0 \$ 35	20.1 11.1 11.2	=
Main Office Restroom Main Office 11th (locked - no entry	1 CF 26 12 T 32 R F 4 (ELE) 12 T 32 R F 4 (ELE)	CFQ26/1-L F44ILL F44ILL	27 112	1.3 SW	3120 2600 3,4	84 1	CF 26 T 50 R LED T 50 R LED	CFQ26/1-L RTLED50 RTLED50	27	0.0	C-OCC	1,5	50 42 50 1,170 50 1,170	42 0.0	\$ 3. \$ 276. \$ 276.			68.9 11.2 11.2	╛
Main Office 12th (locked - no entry Main Office 10th Guidance Office 1	12 T 32 R F 4 (ELE) 5 T 32 R F 4 (ELE) 2 T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112 112 119	0.6 SW		194 12 156 5 582 2	T 50 R LED T 50 R LED T 50 R LED	RTLED50 RTLED50 RTLED50	50	0.6 0.3 0.1	C-OCC	1,9	50 1,170 50 488 50 195	969 0.3	\$ 276. \$ 115. \$ 46.	28 \$ 1,451.2	\$ 35	11.2 12.6 16.1	#
Guidance Office 2 Guidance Office 3	2 T 32 R F 4 (ELE) 2 T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	0.2 SW 0.2 SW	2600 5 2600 5	582 2 582 2	T 50 R LED T 50 R LED T 50 R LED	RTLED50 RTLED50 RTLED50	50 50 50	0.1 0.1	C-OCC	1,9	50 195 50 195	387 0.1 387 0.1 387 0.1	\$ 46. \$ 46.	11 \$ 742.50 11 \$ 742.50	\$ 35	16.1 16.1	\exists
Guidance Office 4 Guidance Office 5	2 T 32 R F 4 (ELE) 2 T 32 R F 4 (ELE)	F44ILL F44ILL	112 112	0.2 SW	2600 5	582 2 582 2	T 50 R LED T 50 R LED T 50 R LED	RTLED50	50 50 50	0.1 0.1	C-OCC	1,9: 1,9:	50 195 50 195	387 0.1 387 0.1 387 0.1 387 0.1 387 0.1 387 0.1 387 0.1	\$ 46. \$ 46.	11 \$ 742.50 11 \$ 742.50	\$ 35	16.1 16.1 16.1	1
Guidance Office 6 Guidance Office 7	2 T 32 R F 4 (ELE) 2 T 32 R F 4 (ELE)	F44ILL F44ILL	112	0.2 SW 0.2 SW	2600 5 2600 5	582 2	T 50 R LED T 50 R LED	RTLED50	50 50 50 50	0.1	C-OCC	1,9	50 195	387 0.1	\$ 46. \$ 46.	11 \$ 742.50 11 \$ 742.50	J \$ 35	16.1 16.1	

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				EXISTING CON	IDITIONS						RETROFIT	CONDITIONS						COST & SAVIN	GS ANALYSIS	NJ Smart Start	Simple Payback	
	Area Description	No. of Fixtures	Standard Fixture Code	Fixture Code	Watts per Fixture	kW/Space	Exist Control Annual Hours	Annual kWh	Number of Fixtures	s Standard Fixture Code	Fixture Code	Watts per Fixture	kW/Space	Retrofit Control	Annual Hours	s Annual kWh	Annual kWh Saved Annual kW Saved	Annual \$ Saved	Retrofit Cost	Lighting Incentive	With Out Incentive	Simple Payba
de Unique	description of the location - Room number/Room name: Floor number (if applicable)	No. of fixtures before the retrofit	Lighting Fixture Code	Code from Table of Standard Fixture Wattages	Value from Table of	(Watts/Fixt) * (Fixt No.)	Pre-inst. Estimated daily control device hours for the	(kW/space) * (Annual Hours)	No. of fixtures after the retrofit	r Lighting Fixture Code	Code from Table of Standard Fixture	Value from Table of	(Watts/Fixt) * (Number of	Retrofit control device	Estimated annual hours	(kW/space) * (Annual	(Original Annual kWh) - (Retrofit kW) - (Retrofit	(kWh Saved) * (\$/kWh)	Cost for renovations to	Prescriptive Lighting	Length of time for renovations	Length of time
					Standard Fixture		usage group				Wattages	Standard Fixture	Fixtures)		for the usage group	Hours)	Annual kWh) Annual kW)		lighting system	Measures	cost to be recovered	be recover
	Guidance Office 10	2	T 32 R F 4 (ELE)	F44ILL	Wattages 112	2 0.2	SW 260	0 582	2	T 50 R LED	RTLED50	Wattages 50	0.1	C-OCC	1,95	0 195	387 0.1	\$ 46.11	\$ 742.50	\$ 35	16.1	15.3
	Guidance Office 11 Break Room	4	T 32 R F 4 (ELE) T 32 R F 3 (ELE)	F44ILL F43ILL/2	112	2 0.2 2 0.2 0 0.4	SW 260 SW 260 SW 260 SW 156	0 582 0 936	4	T 50 R LED T 38 R LED	RTLED50 RTLED38	50 38	0.1 0.2	C-OCC	1,950 1,300	0 195 0 198	387 0.1 738 0.2	\$ 46.11 \$ 85.59	\$ 742.50 \$ 1,215.00	\$ 35 \$ 35	16.1 14.2	15.3 13.8
	Break Room Storage (locked - no entry Break Room Storage (locked - no entry	2 2	W 34 C F 2 (MAG) W 34 C F 2 (MAG)	F42EE F42EE	72	2 0.1	SW 156	0 225	2	4 ft LED Tube 4 ft LED Tube	200732x2 200732x2	30 30	0.1 0.1	C-OCC	780 780	0 47	178 0.1 178 0.1	\$ 23.36 \$ 23.36	\$ 596.70 \$ 596.70	\$ 35 \$ 35	25.5 25.5	24.0 24.0
	D-15 Break Room Women's Staff Restroom	6 2	T 32 R F 4 (ELE) S 32 C F 1 (ELE)	F44ILL F41LL	112 32	2 0.7 2 0.1	SW 260 SW 312	0 1,747 0 200	6 2	T 50 R LED 4 ft LED Tube	RTLED50 200732x1	50 15	0.3	C-OCC	1,30 1,56	0 390 0 47	1,357 0.4 153 0.0	\$ 156.49 \$ 16.99	\$ 1,687.50		10.8 25.5	10.6 23.5
	Men's Staff Restroom Electrical Room (locked - no entry	2 8	S 32 C F 1 (ELE) S 32 C F 2 (ELE)	F41LL F42LL	32 60	0.1	SW 312 SW 208	0 200		4 ft LED Tube T 38 R LED	200732x1 RTLED38	15 38	0.0	C-OCC NONE	1,56i 2,08i	0 47	153 0.0 366 0.2	\$ 16.99 \$ 48.34	\$ 433.35 \$ 1,890.00	\$ 35	25.5 39.1	23.5
	D-13(locked - no entry D-08 (locked - no entry	12	T 32 R F 4 (ELE)	F44ILL F44ILL	112	2 1.3	SW 260 SW 260			T 50 R LED T 50 R LED	RTLED50 RTLED50	50 50	0.6	C-0CC	1,95	0 1,170	2,324 0.7 2,324 0.7	\$ 276.67 \$ 276.67	\$ 3,105.00 \$ 3,105.00		11.2	11.1
	D-11(locked - no entry D-09 (locked - no entry	12	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112	2 1.3	SW 260 SW 260	0 3,494 0 3,494	12	T 50 R LED T 50 R LED	RTLED50 RTLED50	50 50	0.6	0.000	1,95	0 1,170 0 1,170	2,324 0.7 2,324 0.7 2,324 0.7	\$ 276.67 \$ 276.67	\$ 3,105.00 \$ 3,105.00	\$ 35	11.2	11.1
	D-06 D-07 (locked - no entry	11 12	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112		SW 260 SW 260	0 3,203 0 3,494	11	T 50 R LED T 50 R LED	RTLED50 RTLED50	50 50	0.6 0.6	C-OCC	1,950	0 1,073 0 1,170	2,131 0.7 2,324 0.7	\$ 253.61 \$ 276.67	\$ 2,868.75 \$ 3,105.00	\$ 35	11.3 11.2	11.2
	D-05 (locked - no entry	2	T 34 R F 3 (MAG) T 34 R F 3 (MAG)	F43EE F43EE	115	5 0.2	SW 260	598	2	T 28 R F 3	F43SSILL	72	0.1	C-OCC	1,950	0 281 0 281	317 0.1 317 0.1	\$ 36.50	\$ 526.50 \$ 526.50		14.4	13.5
	D-03 (locked - no entry D-04		T 32 R F 4 (ELE)	F43EE F44ILL F44ILL	112	1.2	SW 260 SW 260	3,203	11	T 50 R LED	F43SSILL RTLED50	72 50	0.1	C-0CC	1,95	0 1,073	2,131 0.7	\$ 36.50 \$ 253.61	\$ 2,868.75		14.4 11.3	13.5
	D-01 (locked - no entry D-02	12 6	T 32 R F 4 (ELE)	F44ILL	112 112		SW 260 SW 260		12	T 50 R LED T 50 R LED	RTLED50 RTLED50	50 50	0.6 0.3	C-OCC	1,950	0 1,170 0 585	2,324 0.7 1,162 0.4	\$ 276.67 \$ 138.33	\$ 3,105.00 \$ 1,687.50		11.2 12.2	11.1 11.9
	Custodial (C-Wing) (locked - no entry Men's Staff Restroom (locked - no entry		CF 26 CF 26	CFQ26/1-L CFQ26/1-L	27	7 0.0	SW 156 SW 312	0 84	1	CF 26 CF 26	CFQ26/1-L CFQ26/1-L	27 27	0.0	NONE C-OCC	1,56i	0 42	- 0.0 42 0.0	\$ 3.92	\$ - \$ 270.00	\$ 35	68.9	59.9
	Custodial Storage (locked - no entry C-08		CF 26 T 32 R F 4 (ELE)	CFQ26/1-L F44ILL	112		SW 156 SW 260	0 1,747		CF 26 T 50 R LED	CFQ26/1-L RTLED50	27 50	0.0	NONE C-OCC	1,56	0 42	- 0.0 1,162 0.4	\$ - \$ 138.33	\$ - \$ 1,687.50		12.2	11.9
	C-09 FDD	16 6	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112	2 1.8 2 0.7	SW 260 SW 260	0 1,747	16 6	T 50 R LED T 50 R LED	RTLED50 RTLED50	50 50	0.8	C-OCC	1,95i	0 1,560 0 585	1,162 0.4	\$ 368.89 \$ 138.33	\$ 4,050.00 \$ 1,687.50	\$ 35	11.0 12.2	10.9 11.9
	C-12 C-11	6 12	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112		SW 260 SW 260	0 3,494	6	T 50 R LED T 50 R LED	RTLED50 RTLED50	50 50	0.3	C-OCC	1,950 1,950	0 585 0 1,170	1,162 0.4 2,324 0.7	\$ 138.33 \$ 276.67	\$ 1,687.50 \$ 3,105.00	\$ 35	12.2 11.2	11.9 11.1
	C-13 C-14	7 9	T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL F44ILL	112	2 0.8	SW 260 SW 260 SW 364	0 2,038	7	T 50 R LED T 50 R LED	RTLED50 RTLED50	50 50	0.4 0.5	C-OCC	1,95	0 683 0 878	1,356 0.4 1,743 0.6 2,359 0.6	\$ 161.39 \$ 207.50	\$ 1,923.75 \$ 2,396.25	\$ 35	11.9 11.5	11.7 11.4
	Loop Corridor Loop Corridor	9 7	T 32 R F 3 (ELE)	F43ILL/2	112	1.0	SW 364		9 7	T 50 R LED T 38 R LED	RTLED50 RTLED38	50 50 38	0.5	0.000	2,91	2 1,310 2 775		\$ 264.80 \$ 170.87	\$ 2,396.25	\$ 35	9.0	8.9 11.1
	C Corridor Stairs C Corridor Stairs	3	T 32 R F 4 (ELE) W 32 C F 2 (ELE)	F44ILL F42LL	112	0.3	SW 364 SW 364	0 1,223	3	T 50 R LED 4 ft LED Tube	RTLED50 200732x2	38 50 30	0.2	C-OCC	2,91	2 437 2 262	1,519 0.4 786 0.2 393 0.1	\$ 88.27 \$ 43.89	\$ 1,923.75 \$ 978.75 \$ 760.05		11.1	10.7
	Gym Wing Corridor Athletic Trainer	24 4	T 32 R F 4 (ELE)	F44ILL F44ILL	112	2 2.7	SW 364 SW 260	0 9,784	24	T 50 R LED T 50 R LED	RTLED50	50	1.2	0.000	2,91	2 3,494	393 0.1 6,290 1.5 775 0.2	\$ 706.12 \$ 92.22	\$ 5,940.00 \$ 1,215.00	\$ 35	8.4 13.2	8.4 12.8
,)	Office next to Trainer (locked - no entry	4	T 32 R F 4 (ELE)	F44ILL F44ILL MH400/1	112	0.4	SW 260	0 1,165 0 1,165 0 91,453	4	T 50 R LED BAYLED78W	RTLED50 RTLED50 BAYLED78W	50 50	0.2	C-OCC NONE	1,950	0 390 0 18.570	775 0.2 775 0.2 72,883 23.4	\$ 92.22 \$ 92.22 \$ 8,677.61	\$ 1,215.00 \$ 1,215.00 \$ 54.028.51		13.2	12.8
	Gymnasium Auxilary Gymnasium	54	High Bay MH 400 S 34 P F 2 (MAG)	F42EE	458	2 3.9	SW 312	12,131	54	T 38 R LED	RTLED38	93	6.0 2.1	NONE	3,12i 3,12i	0 6,402	5,728 1.8	\$ 682.02	\$ 12,757.50	\$ -	18.7	5.5 18.7
	Boys' Restroom Girls' Restroom	2	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112	2 0.2	SW 312 SW 312		2	T 50 R LED T 50 R LED	RTLED50 RTLED50	50 50	0.1	C-OCC	1,56	0 156	543 0.1 543 0.1 2,574 0.7	\$ 60.59 \$ 60.59	\$ 742.50 \$ 742.50	\$ 35	12.3 12.3	11.7
1	Boys' Locker Room Boy's Locker Room Restroon		W 32 C F 2 (ELE) W 32 C F 2 (ELE)	F42LL F42LL	60	0 1.3	SW 312 SW 312		1	4 ft LED Tube 4 ft LED Tube	200732x2 200732x2	30 30	0.7	C-OCC	2,34i 1,56i	0 1,544	140 0.0	\$ 293.10 \$ 15.50	\$ 3,863.70 \$ 433.35		13.2 28.0	13.1 25.7
	Boys' Locker Room Exi Boys' Locker Room Office (locked - no entry	2	W 34 C F 2 (MAG) W 32 C F 2 (ELE)	F42EE F42LL	72	0.1	SW 312 SW 260		2	4 ft LED Tube 4 ft LED Tube	200732x2 200732x2	30 30	0.0	C-OCC	2,34i 1,95i	0 70	154 0.0 195 0.1	\$ 17.78 \$ 23.01	\$ 433.35 \$ 596.70	\$ 35	24.4 25.9	22.4 24.4
	Girls' Locker Room Girls' Locker Room Restroon	1	W 32 C F 2 (ELE) W 32 C F 2 (ELE)	F42LL F42LL	60	0 1.3	SW 312 SW 312 SW 312		1	4 ft LED Tube 4 ft LED Tube	200732x2 200732x2	30 30	0.7	C-OCC	2,34i 1,56i	0 1,544	2,574 0.7 140 0.0	\$ 293.10 \$ 15.50	\$ 3,863.70 \$ 433.35		13.2 28.0	13.1 25.7
	Girls' Locker Room Exi Girls' Locker Room Office (locked - no entry		W 34 C F 2 (MAG) W 32 C F 2 (ELE)	F42EE F42LL	72	0.1	SW 260	0 225	1 2	4 ft LED Tube 4 ft LED Tube	200732x2 200732x2	30 30	0.0 0.1	C-OCC	2,34 1,95	0 70	154 0.0 195 0.1	\$ 17.78 \$ 23.01	\$ 433.35 \$ 596.70	\$ 35 \$ 35	24.4 25.9	22.4 24.4
	Custodial E Corridor	1 14	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112	2 0.1 2 1.6			1 14	T 50 R LED T 50 R LED	RTLED50 RTLED50	50 50	0.1 0.7	NONE C-OCC	1,56	0 78 2 2,038	97 0.1 3,669 0.9	\$ 14.03 \$ 411.90	\$ 236.25 \$ 3,577.50	\$ - \$ 35	16.8 8.7	16.8 8.6
1	E-05 E-Wing Weight Room Corridor	38 5	T 32 R F 3 (ELE) T 32 R F 4 (ELE)	F43ILL/2 F44ILL	90		SW 260		38	T 38 R LED T 50 R LED	RTLED38 RTLED50	38 50	1.4	C-OCC	1,950	0 2,816 2 728	6.076 2.0	\$ 725.75 \$ 147.11	\$ 9,247.50 \$ 1,451.25	\$ 35	12.7 9.9	12.7 9.6
)	Weight Room (locked - no entry Community Office Room (locked - no entry	9	HPS 250 T 32 R F 4 (ELE)	HPS250/1 F44ILL	295	5 2.7	SW 312	0 8,284	9	FXLED78 T 50 R I FD	FXLED78/1 RTLED50	78	0.7	NONE C-OCC	3,12		1,310 0.3 6,093 2.0 775 0.2	\$ 725.49 \$ 92.22	\$ 7,597.76 \$ 1,215.00	\$ 900	10.5	9.2
	Athletic Office Athletic Office		T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112		SW 260 SW 260 SW 260	0 1,456 0 874		T 50 R LED T 50 R LED	RTLED50 RTLED50	50 50	0.3	C-0CC	1,95	0 488	969 0.3	\$ 115.28 \$ 69.17	\$ 1,451.25 \$ 978.75	\$ 35	12.6 14.2	12.3 13.6
1	Team Rooms	4	T 32 R F 4 (ELE)	F44ILL F44II I	112	0.4	SW 156 SW 260	0 699	4	T 50 R LED	RTLED50	50	0.2	NONE	1,56		581 0.2 387 0.2	\$ 56.11	\$ 945.00	\$ -	16.8	16.8
	Viewing Room (locked - no entry Cross Country/Track Locker Room	7	T 32 R F 4 (ELE) T 32 R F 4 (ELE) T 32 R F 4 (FLF)	F44ILL F44ILL F44ILL	112	2 0.8	SW 260 SW 312 SW 260	0 2,446	7	T 50 R LED T 50 R LED	RTLED50 RTLED50	50 50	0.2	C-0CC	2,34	0 390 0 819	775 0.2 1,627 0.4	\$ 92.22 \$ 186.64	\$ 1,215.00 \$ 1,923.75	\$ 35	13.2 10.3	12.8 10.1
1	Track Coaches Office Locker Room Exi	1	T 32 R F 4 (ELE)	F44ILL	112	0.1	SW 364		1	T 50 R LED T 50 R LED	RTLED50 RTLED50	50 50	0.2 0.1	C-OCC	1,950 2,911	0 390 2 146	775 0.2 262 0.1 1,086 0.2	\$ 92.22 \$ 29.42 \$ 121.17	\$ 1,215.00 \$ 506.25	\$ 35	13.2 17.2	12.8 16.0
	Locker Room Restroom Team Room #2 (locked - no entry	8	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112		SW 312 SW 312 SW 260			T 50 R LED T 50 R LED	RTLED50 RTLED50	50 50	0.2	C-OCC	1,560 2,340	0 312 0 936	1,086 0.2 1,860 0.5 863 0.3	\$ 121.17 \$ 213.30 \$ 102.40	\$ 1,215.00 \$ 2,160.00 \$ 1,576.80		10.0 10.1	9.7
)	E-01 Main Electrician	16 58	1T 32 RF 1 - P T 34 R F 4 (MAG)	F41LL F44EE	32 144		SW 208	0 17.372	58	4 ft LED Tube T 50 R LED	200732x1 RTLED50	15 50 30	0.2 2.9	C-OCC NONE	1,950 2,080		11,340 5.5	\$ 1,497.39	\$ 13,702.50	\$ -	15.4 9.2 12.4	15.1 9.2 12.4
	Media Centei Media Centei	123 90	1T 32 R F 2 (ELE) D 13 C CF 2	F42LL CFQ13/2-L	28	7.4	SW 312 SW 312	0 23,026 0 7.862	123	4 ft LED Tube D 13 C CF 2	200732x2 CFQ13/2-L	30 28	3.7 2.5	C-OCC	2,34	0 8,635 0 5,897	14,391 3.7 1,966 0.0	\$ 1,638.69 \$ 183.00	\$ 20,362.05 \$ 270.00 \$ 742.50	\$ 35 \$ 35	12.4 1.5	12.4
	Media Center Office Media Center Video Storagi	2 2	T 32 R F 4 (ELE) T 32 R F 4 (ELE)	F44ILL F44ILL	112	2 0.2 2 0.2	SW 312 SW 156	0 699 0 349	2 2	T 50 R LED T 50 R LED	RTLED50 RTLED50	50 50	0.1 0.1	C-OCC	2,340 780	0 234 0 78	465 0.1 271 0.1	\$ 53.32 \$ 35.32	\$ 742.50 \$ 742.50		13.9 21.0	13.3 20.0
1	Media Center Break Roon Corridor - Pine Bell	2 15	T 32 R F 4 (ELE) T 32 R F 3 (ELE)	F44ILL F43ILL/2	112	0.2	SW 260 SW 364	0 582 0 4.914	2 15	T 50 R LED T 38 R LED	RTLED50 RTLED38	50 38	0.1 0.6	C-OCC	1,30	0 130 2 1,660	452 0.1 3,254 0.8	\$ 52.16 \$ 366.14	\$ 742.50 \$ 3.813.75		14.2 10.4	13.6 10.3
	Corridor - Pine Bell Corridor Display	134	D 13 C CF 2 D 13 C CF 2	CFQ13/2-L CFQ13/2-L	28	3.8	SW 364 SW 208	0 13,657	134	D 13 C CF 2 D 13 C CF 2	CFQ13/2-L CFQ13/2-L	28 28	3.8	C-OCC	2,91	2 10,926 0 349	2,731 0.0 349 0.0	\$ 254.30 \$ 32.53	\$ 270.00 \$ 270.00	\$ 35 \$ 35	1.1 8.3	0.9 7.2
	Corridor Display	70 16	S 32 C F 1 (ELE) S 25 C F 1 (MAG) SINK LIGHT	F41LL F31EE	32	2 2.2	SW 364 SW 208	0 8,154	70	4 ft LED Tube S 25 C F 1 (MAG) SINK LIGHT	200732x1 F31EE	15 38	1.1	C-OCC	2,91:	2 3,058 0 632	5,096 1.2 632 0.0	\$ 570.83 \$ 58.87	\$ 5,987.25 \$ 270.00		10.5 4.6	10.4
)	Pine Belt Gym Corridor	44	High Bay MH 400 1B 32 P F 2 (ELE)	MH400/1 F42LL	458	3 20.2	SW 312 SW 364	0 62,874	44	BAYLED78W 4 ft LED Tube	BAYLED78W 200732x2	93	4.1 0.9	NONE C-OCC	3,12	0 12,767 2 2,621	50,107 16.1	\$ 5,965.86 \$ 438.89	\$ 37,144.60 \$ 5,170.50	\$ 4,400	6.2 11.8	5.5
	Storage (locked - no entry	1 6	CF 26 T 32 R F 4 (ELE)	CFQ26/1-L F44ILL	27	7 0.0	SW 364 SW 156 SW 260	0 6,552	1 6	CF 26 T 50 R LED	CFQ26/1-L RTLED50	27	0.9 0.0 0.3	0.000	78	0 21	21 0.0	\$ 1.96 \$ 138.33	\$ 5,170.50 \$ 270.00 \$ 1,687.50	\$ 35	137.7 12.2	11.7 119.9 11.9
	Nurse's Office (locked - no entry Men's Restroom Men's Restroom	14	W 32 C F 2 (ELE) T 32 R F 4 (ELE)	F44ILL F42LL F44ILL	60	0.7	SW 260 SW 312 SW 312		14	4 ft LED Tube T 50 R LED	200732x2 RTLED50	50 30	0.3 0.4 0.1	C-OCC	1,56	0 655	1,162 0.4 1,966 0.4	\$ 217.02	\$ 1,687.50 \$ 2,556.90 \$ 506.25	\$ 35	11.8 16.7	11.6 15.6
	Women's Restroom	14	W 32 C F 2 (ELE) T 32 R F 4 (ELE)	F44ILL F42LL F44ILL	60		SW 312 SW 312 SW 312			4 ft LED Tube	200732x2 RTLED50	50 30 50	0.1	C-0CC	1,56	0 78 0 655	271 0.1 1,966 0.4	\$ 30.29 \$ 217.02	\$ 2,556.90	\$ 35	11.8	11.6
	Women's Restroom Concession Stand	6	13 W CF 1	F44ILL CFQ13/1-L F42LL	112	0.1	SW 312 SW 104 SW 156			T 50 R LED 13 W CF 1	CFQ13/1-L	15	0.1	NONE	1,56	0 78	271 0.1	\$ 30.29	\$ 506.25 \$ -	\$ 35	16.7	15.6
	Grounds Shed Grounds Shed	2	S 32 C F 2 (ELE) T 32 R F 4 (ELE)	F44ILL	112	0.2	SW 156	0 374 0 349 0 349	2	T 38 R LED T 50 R LED	RTLED38 RTLED50	38 50	0.2 0.1	NONE NONE	1,56	0 237	137 0.1 193 0.1 193 0.1	\$ 19.91 \$ 28.05	\$ 945.00 \$ 472.50	\$ -	47.5 16.8	47.5 16.8
	Grounds Shed - Backroom Small Snack Shack	2	T 32 R F 4 (ELE) S 32 C F 2 (ELE)	F44ILL F42LL	112	0.2	SW 104	0 125	2	T 50 R LED T 38 R LED	RTLED50 RTLED38	50 38	0.1 0.1	NONE NONE	1,56i 1,04i	0 79	46 0.0	\$ 28.05 \$ 7.82	\$ 472.50 \$ 472.50	\$ -	16.8 60.4	16.8 60.4
	Field House Field House - Sink Room	1	S 32 C F 2 (ELE) S 32 C F 2 (ELE)	F42LL F42LL	60	0.1	SW 156 SW 156	0 1,872 0 94	20	T 38 R LED T 38 R LED	RTLED38 RTLED38	38 38	0.8	NONE	1,560 1,560	0 59	686 0.4	\$ 99.54 \$ 4.98	\$ 4,725.00 \$ 236.25	\$ - \$ -	47.5 47.5	47.5 47.5
	Field House - Towel Roon Field House - Shower Roon	6	S 32 C F 2 (ELE) S 32 C F 2 (ELE)	F42LL F42LL	60	0.4	SW 156 SW 156	0 187 0 562	6	T 38 R LED T 38 R LED	RTLED38	38	0.1 0.2	NONE NONE	1,560 1,560	0 356	34 0.0 69 0.0 206 0.1	\$ 9.95 \$ 29.86	\$ 472.50	\$ -	47.5 47.5	47.5 47.5
	Field House - Ice Room Field House - Locker Roon		S 32 C F 2 (ELE) T 32 R F 2 (ELE)	F42LL F42LL	60	0.1	SW 156 SW 156	0 94 0 1,685	. 1	T 38 R LED T 38 R LED	RTLED38 RTLED38	38 38	0.0	NONE NONE	1,56	0 59	34 0.0 618 0.4	\$ 4.98 \$ 89.59		\$ -	47.5 47.5	47.5 47.5
	Field House - Varsity Locke Field House - Back Hal		T 32 R F 2 (ELE) S 32 C F 2 (ELE)	F42LL F42LL	60	0.5	SW 156 SW 156	0 842 0 187		T 38 R LED T 38 R LED	RTLED38 RTLED38	38	0.3 0.1	NONE NONE	1,56	0 534	309 0.2	\$ 44.80 \$ 9.95	\$ 2,126.25	\$ -	47.5 47.5	47.5 47.5
	Field House - Women's Restroon Field House - Storage	3	S 32 C F 2 (ELE) T 32 R F 2 (ELE)	F42LL F42LL	60	0.2	SW 156 SW 156	0 281	3	T 38 R LED T 38 R LED	RTLED38 RTLED38	38 38	0.1 0.2	NONE NONE	1,56	0 178	103 0.1	\$ 14.93 \$ 19.91	\$ 708.75	\$ -	47.5 47.5	47.5 47.5
	Field House - Men's Restroon Field House - Water Fountair	3	S 32 C F 2 (ELE) T 32 R F 2 (ELE)	F42LL F42LL F42LL	60	0.2	SW 156 SW 156	0 281		T 38 R LED T 38 R LED	RTLED38 RTLED38	38 38	0.1 0.0	NONE NONE	1,56i 1,56i	0 178		\$ 14.93 \$ 4.98	\$ 708.75	\$ -	47.5 47.5 47.5	47.5 47.5
	Field House - Coaches Roon		T 32 R F 2 (ELE)	F42LL	60	0.5	SW 156 SW 156	749	8	T 38 R LED T 38 R LED	RTLED38 RTLED38	38	0.3	NONE NONE	1,56	0 474	275 0.2	\$ 4.98 \$ 39.82 \$ 4.98	\$ 1,890.00	\$ -	47.5	47.5
	Field House - Coaches Room - Rest Roon Security - Front Room	3	S 32 C F 2 (ELE) T 32 R F 2 (ELE)	F42LL F42LL	60	0.2	SW 260	0 468	3	T 38 R LED	RTLED38	38 38	0.0 0.1	NONE	2,60	0 296	34 0.0 172 0.1	\$ 21.32	\$ 708.75	\$ -	47.5 33.2	47.5 33.2
1	Security - Director (Locked - No Entry Security - Restroom	1	T 32 R F 2 (ELE) 13 W CF 1	F42LL CFQ13/1-L	15	0.2	SW 260 SW 260	0 468 0 39		T 38 R LED 13 W CF 1	RTLED38 CFQ13/1-L		0.1	NONE NONE	2,600 2,600		- 0.0	\$ 21.32 \$ -	\$ -	\$ -	33.2	33.2
	Security - Main Room Security - Storage Security - Restroom		S 32 C F 2 (ELE) S 32 C F 2 (ELE)	F42LL F42LL	60	0.2	SW 260 SW 260			T 38 R LED T 38 R LED	RTLED38 RTLED38	38 38	0.2 0.2	NONE NONE	2,600 2,600		229 0.1 229 0.1	\$ 28.43 \$ 28.43	\$ 945.00 \$ 945.00	\$ -	33.2 33.2	33.2 33.2
	Security - Breakroom	1	13 W CF 1 2T 32 R F 2 (u) (ELE) Thin Tube	CFQ13/1-L FU2LL	15	0.0	SW 260 SW 260	0 156	1	13 W CF 1 2T 25 R LED	CFQ13/1-L 2RTLED	15 25	0.0	NONE NONE	2,600 2,600		- 0.0 91 0.0	\$ - \$ 11.31	\$ - \$ 202.50		17.9	17.9
	Exterior Building Lighting		WP400MH1 CF 26	MH400/1 CFQ26/1-L	458	7 0.2	SW 312 SW 312	590	15 7	WPLED2T78 CF 26	WPLED2T78 CFQ26/1-L	91 27	1.4 0.2	NONE NONE	3,12i 3,12i	0 4,259 0 590	17,176 5.5 - 0.0	\$ 2,044.96 \$ -	\$ 15,362.87 \$ -	\$ -	7.5	6.8
)	Exterior Building Lighting	/				5 1.0	SW 312	0 2,964	10	FXLED18	FXLED18/1	18	0.2	NONE	3,12	0 562	2,402 0.8	\$ 286.03	\$ 4,232.25	\$ 1.000	14.8	11.3
)	Exterior Building Lighting Exterior Building Lighting	10 3,329	70 W MH Wall Pack	MH70/1	95	344.1	3VV 312	977,344	3,329	FXLED18	FALED18/1	10	144.6	NONE	3,12	320,626		\$ 286.03 77,299	\$ 4,232.25 822,366	\$25,900	14.0	11.5

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APPENDIX D

New Jersey Board of Public Utilities Incentives

- i. Smart Start
- ii. Direct Install
- iii. Pay for Performance (P4P)
- iv. Energy Savings Improvement Plan (ESIP)

I. SMART START



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NJ SmartStart Buildings

Program Overview



HURRICANE SANDY

PROGRAMS

NJ SMARTSTART BUILDINGS

EQUIPMENT INCENTIVES

FOOD SERVICE EQUIPMENT

APPLICATION FORMS

TOOLS AND RESOURCES

PAY FOR PERFORMANCE

COMBINED HEAT & POWER AND FUEL CELLS

LOCAL GOVERNMENT ENERGY AUDIT

LARGE ENERGY USERS PROGRAM

ENERGY SAVINGS IMPROVEMENT PROGRAM

DIRECT INSTALL

ENERGY BENCHMARKING

OIL, PROPANE & MUNICIPAL **ELECTRIC CUSTOMERS**

EDA PROGRAMS

SBC CREDIT PROGRAM



With New Jersey SmartStart Buildings ...

... A smart start now means better performance later! Whether you're starting a commer industrial project from the ground up, renovating existing space, or upgrading equipmenunique opportunities to upgrade the energy efficiency of the project.

Special Notice

Enhanced incentives are available for NJ SmartStart Building upgrades in buildings im-Hurricane Sandy. Eligible projects receive an additional 50% and new incentives have added for high efficiency food service equipment.

Visit the Sandy web page for details and important links.

New Jersey SmartStart Buildings can provide a range of support — at no cost to you substantial energy savings, both now and for the future. Learn more about:

> **Project Categories Custom Measures**

Incentives for Qualifying Equipment and Projects

Program Terms and Conditions

Find a Trade Ally

Please note: pre-approval is required for almost all energy efficiency incentives. I you must submit an application form (and applicable worksheets) and receive an approv from the program before any equipment is installed (click here for complete Terms and (Upon receipt of an approval letter, you may proceed to install the equipment listed on yo approved application. Equipment installed prior to the date of the approval letter is not e an incentive. Any customer and/or agent who purchases equipment prior to the rec incentive approval letter does so at his/her own risk.

Getting Started

Submit your project application form as soon as you know you will be doing a constructive or replacing/adding equipment.

PAST PROGRAMS

TOOLS AND RESOURCES

PROGRAM UPDATES

CONTACT US

Apply for pre-approval by submitting an application for the type of equipment you have c install. The application should be accompanied by a related worksheet, where applicable manufacturer's specification sheet (refer to the specific program requirements on the ba application for specs needed for your project) for the equipment you are planning to inst (Program representatives will review your application package and approve it, reject it, advise you of upgrades in equipment that will save energy costs and/or increase your in

Support for Custom Energy-Efficiency Measures

Custom measures allows program participants the opportunity to receive an incentive fo energy-efficiency measures that are not on the prescriptive equipment Incentive list, but project/facility specific.

Incentives for Qualifying Equipment and Projects

Financial incentives are available for large and small projects. These incentives offset so maybe even all! — of the added cost to purchase qualifying energy-efficient equipment, provides significant long-term energy savings. Ranges of incentives are available for quequipment (depending on type, size, and efficiency) in several categories.

Find out more about equipment incentives

For specific details on equipment requirements and financial incentives, including ince equipment not listed here, contact a program representative. Fiscal year financial incent be limited to a maximum of \$500,000 per customer utility account and are available as fi permits.

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AND LOGAL GOVERNMENT

Equipment Incentives

Special Notice

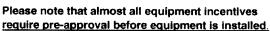
Enhanced incentives are available for NJ SmartStart Building upgrades in buildings imp Hurricane Sandy. Eligible projects receive an additional 50% and new incentives have added for high efficiency food service equipment.

Visit the Sandy web page for details and important links.

More reasons for a smart start on your next project!

New Jersey SmartStart Buildings provides financial incentives for qualifying equipment. These incentives were developed to help our customers offset some of the added cost to purchase qualifying energy-efficient equipment, which provides significant long-term energy savings. A wide range of incentives are available for qualifying equipment (depending on type, size and efficiency).

Listed below are the types of qualifying equipment and ranges of incentives. For details on equipment requirements and full listings of incentives, refer to the online application forms.



(click for exceptions) To start the pre-approval process,

submit an Equipment Application, and appropriate Equipment Worksheets, for the type (types of equipment you are planning to install along with equipment specification sheets (refer to the specific program requirements on the back of the application for specificatic needed for your project) and a current utility bill(s).

In order to be eligible to receive financial incentives under this Program, Applicants mus receive electric and/or gas service from one of the regulated electric and/or gas utilities is the State of New Jersey. They are: Atlantic City Electric, Jersey Central Power & Light, Rockland Electric Company, New Jersey Natural Gas, Elizabethtown Gas, PSE&G, and South Jersey Gas.

Electric Chillers

Water-cooled chillers (\$12 - \$170 per ton) Air-cooled chillers (\$8 - \$52 per ton)

Gas Cooling

Gas absorption chillers (\$185-\$450 per ton) Gas Engine-Driven Chillers (Calculated through Custom Measure F **PAST PROGRAMS**

TOOLS AND RESOURCES

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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 Thermostats (\$75 each)
A/C Economizing Controls (\$85 - \$170 each)

Ground Source Heat Pumps

Closed Loop (\$450-750 per ton)

Gas Heating

Gas-fired boilers < 300 MBH (\$300 per unit)
Gas-fired boilers ≥ 300 MBH - 1500 MBH (\$1.75 per MBH)
Gas-fired boilers ≥ 1500 MBH - ≤ 4000 MBH (\$1.00 per MBH)
Gas-fired boilers > 4000 MBH (Calculated through Custom Measure
Gas furnaces (\$300-\$400 per unit)
Gas infrared heaters - indoor only (\$300 - \$500 per unit)
Boiler economizing controls (\$1,200 - \$2,700 per unit)

Variable Frequency Drives

Variable air volume (\$65 - \$155 per hp) Chilled-water pumps (\$60 per hp) Compressors (\$5,250 to \$12,500 per drive)

Natural Gas Water Heating

Gas water heaters ≤ 50 gallons (\$50 per unit)
Gas-fired water heaters > 50 gallons (\$1.00 - \$2.00 per MBH)
Tankless water heaters replacing a free standing water heater > 82 energy factor (\$300 per heater)
Gas-fired booster water heaters (\$17 - \$35 per MBH)

Premium Motors

Three-phase motors (\$45 - \$700 per motor) (Incentive was discor effective March 1, 2013 except for buildings impacted by Hurric Sandy. Approved applications will have the standard timeframyear from the program commitment date to complete the instal

Refrigerator/Freezer Case Premium Efficiency Motors (ECM)

Fractional (< 1 HP) Electronic Commutated Motors (ECM) (\$40 per for replacement of existing shaded-pole motor in refrigerated/freeze

Prescriptive Lighting

New Linear Fluorescent

T-12, HID and Incandescent to T-5 and T-8 (\$25 - \$200 pt fixture) (Note: T12 replacements are only available for buildings impacted by Hurricane Sandy)

New Induction (\$70 per replaced HID fixture)

New LED

Screw-in/Plug-in (\$10 - \$20 per lamp)

Refrigerator/Freezer Case (\$30 - \$65 per fixture)

Outdoor pole/arm/wall-mounted luminaires (\$100 - \$175 p fixture)

Display case (\$30 per case)

Shelf-mounted display and task (\$15 per linear foot)

Wall-wash, desk, recessed (\$20 - \$35 per fixture)

Parking garage luminaires (\$100 per fixture)

Track or Mono-Point directional (\$50 per fixture)

Stairwell and Passageway luminaires (\$40 per fixture)

High-Bay, Low-Bay (\$150 per fixture)

Bollard (\$50 per fixture)

luminaires for Ambient Lighting of Interior Commercial Spa

Linear panels (\$50 per fixture)

Fuel pump canopy (\$100 per fixture)

LED retrofit kits (custom measures)

New Pulse-Start Metal Hallide (\$25 per fixture)

Linear Fluorescent Retrofit (\$10 - \$20 per fixture)

Induction Retrofit (\$50 per retrofitted HID fixture)

New Construction/Complete Renovation (performance-based)

Note: Incentives for T-12 to T-5 and T-8 lamps with electronic ballast in facilities (\$10 per fixture, 1-4 lamps) and T-5/T-8 high bay fixtures (\$16 per fixture) were discontinued effective March 1, 2013 for T-12 retrofits replacements except for buildings impacted by Hurricane Sandy, Appro applications will have the standard timeframe of one year from the proc commitment date to complete the installation

Lighting Controls

Occupancy Sensors

Wall mounted (\$20 per control)

Remote mounted (\$35 per control)

Daylight dimmers (\$25 per fixture controlled, \$50 per fixture office applications only)

Occupancy controlled hi-low fluorescent controls (\$25 per controlled)

HID or Fluorescent Hi-Bay Controls

Occupancy hi-low (\$35 per fixture controlled)

Daylight dimming (\$45 per fixture controlled)

Refrigeration

Covers and Doors

Energy-Efficient doors for open refrigerated doors/covers

Aluminum Night Curtains for open refrigerated cases (\$3.5 linear foot)

Controls

Door Heater Control (\$50 per control)

Electric Defrost Control (\$50 per control)

Evaporator Fan Control (\$75 per control)

Novelty Cooler Shutoff (\$50 per control)

Food Service Equipment

Cooking

Combination Electric Oven/Steamer (\$1,000 per oven)

Combination Gas Oven/Steamer (\$750 per oven)

Electric Convection Oven (\$350 per oven)

Gas Convection Oven (\$500 per oven)

Gas Rack Oven (\$1,000 single, \$2,000 double)

Gas Conveyor Oven (\$500 small deck, \$750 large deck)

Electric Fryer (\$200 per vat)

Gas Fryer (\$749 per vat)

Electric Large Vat Fryer (\$200 per vat)

Gas Large Vat Fryer (\$500 per vat)

Electric Griddle (\$300 per griddle)

Gas Griddle (\$125 per griddle)

Electric Steam Cooker (\$1,250 per steamer)

Gas Steam Cooker (\$2,000 per steamer)

Holding

Full Size Insulated Cabinets (\$300 per cabinet)

Three Quarter Size Insulated Cabinets (\$250 per cabinet)

Half Size Insulated Cabinets (\$200 per cabinet)

Cooling

Glass Door Refrigerators (\$75 - \$150 per unit)

Solid Door Refrigerators (\$50 - \$200 per unit)

Glass Door Freezers (\$200 - \$1,000 per unit)

Solid Door Freezers (\$100 - \$600 per unit)

Ice Machines (\$50 - \$500 per unit)

Cleaning

Dishwashers (\$400 - \$1,500 per unit)

Other Equipment Incentives*

Performance Lighting (\$1.00 per watt per square foot below prograi incentive threshold, currently 5% more energy efficient than ASHRA 2007 for New Construction only.)

Custom electric and gas equipment incentives (not prescriptive)

*Equipment incentives are calculated based on type, efficiency, size, and apand are evaluated on a case-by-case basis. Contact us for details.

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II. DIRECT INSTALL



Your Power to Save

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COMMERCIAL, INDUSTRIAL AND LOCAL GOVERNMENT





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Direct Install



HURRICANE SANDY

PROGRAMS

NJ SMARTSTART BUILDINGS

PAY FOR PERFORMANCE

COMBINED HEAT & POWER AND FUEL CELLS

LOCAL GOVERNMENT ENERGY AUDIT

LARGE ENERGY USERS PROGRAM

ENERGY SAVINGS IMPROVEMENT PROGRAM

DIRECT INSTALL

PARTICIPATION STEPS

PARTICIPATING CONTRACTORS

SUSTAINABLE JERSEY

ENERGY BENCHMARKING

OIL, PROPANE & MUNICIPAL ELECTRIC CUSTOMERS

EDA PROGRAMS

SBC CREDIT PROGRAM



Let us pay up to 70% of your energy efficiency upgrade.

Sometimes, the biggest challenge to improving energy efficiency is knowing where to and how to get through the process. Created specifically for existing small to medium facilities, Direct Install is a turnkey solution that makes it easy and affordable to upgrahigh efficiency equipment. Direct Install is designed to cut your facility's energy costs replacing lighting, HVAC and other outdated operational equipment with energy efficient alternatives. The program pays up to 70% of retrofit costs, dramatically improving yo payback on the project. There is a \$125,000 incentive cap on each project.

ELIGIBILITY



Existing small to mid-sized commercial and industrial fawith a peak electric demand that did not exceed 200 k any of the preceding 12 months are eligible to participa Direct Install. Applicants will submit the last 12 months electric utility bills indicating that they are below the deithreshold and have occupied the building during that till Buildings must be located in New Jersey and served by the state's public, regulated electric or natural gas utility companies.

SYSTEMS & EQUIPMENT ADDRESSED BY THE PROGRAM

Lighting
Heating, Cooling & Ventilation (HVAC)
Refrigeration

Motors

Natural Gas

Variable Frequency Drives



Measures eligible for Direct Install are limited to specific equipment categories, types capacities. Boilers may not exceed 500,000 Btuh and furnaces may not exceed 140,

III. PAY FOR PERFORMANCE (P4P)



Your Power to Save

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HOME

RESIDENTIAL





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Pay for Performance - Existing Buildings

Download program applications and incentive forms.

The Greater the Savings, the Greater Your Incentives

Take a comprehensive, whole-building approach to saving energy in your existing facilities earn incentives that are directly linked to your savings. Pay for Performance relies on a

COMMERCIAL, INDUSTRIAL AND LOCAL GOVERNMENT

HURRICANE SANDY

PROGRAMS

NJ SMARTSTART BUILDINGS

PAY FOR PERFORMANCE

EXISTING BUILDINGS

PARTICIPATION STEPS

APPLICATIONS AND FORMS

APPROVED PARTNERS

NEW CONSTRUCTION

FAQS

BECOME A PARTNER

COMBINED HEAT & POWER AND FUEL CELLS

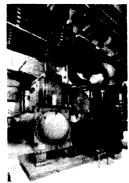
LOCAL GOVERNMENT ENERGY **AUDIT**

LARGE ENERGY USERS PROGRAM

ENERGY SAVINGS IMPROVEMENT PROGRAM

DIRECT INSTALL

ENERGY BENCHMARKING



program partners who provide technical services under direct you. Acting as your energy expert, your partner will develop ε reduction plan for each project with a whole-building technica component of a traditional energy audit, a financial plan for fu energy efficient measures and a construction schedule for ins

Eligibility

Existing commercial, industrial and institutional buildings with demand over 100 kW for any of the preceding twelve months to participate including hotels and casinos, large office buildir family buildings, supermarkets, manufacturing facilities, schoshopping malls and restaurants. Buildings that fall into the fol customer classes are not required to meet the 100 kW demai

to participate in the program: hospitals, public colleges and universities, 501(c)(3) non-p affordable multifamily housing, and local governmental entities. Your energy reduction p define a comprehensive package of measures capable of reducing the existing energy consumption of your building by 15% or more.

Exceptions to the 15% threshold requirement may be made for certain industrial, manufwater treatment and datacenter building types whose annual energy consumption is her weighted on process loads. Details are available in the high energy intensity section of t

ENERGY STAR Portfolio Manager

Pay for Performance takes advantage of the ENERGY STAR Program with Portfolio Manager, EPA's interactive tool that allows facility managers to track and evaluate energy and water consumption across all of their buildings. The tool provides the opportunity to load in the characteristics and energy usage of your buildings and determine an energy performance benchmark score. You can then assess energy management goals over time, identify strategic opportunities for savings, and receive EPA recognition for superior energy performance



This rating system assesses building performance by tracking and scoring energy use in facilities and comparing it to similar buildings. That can be a big help in locating opportui cost-justified energy efficiency upgrades. And, based on our findings, you may be invited participate in the Building Performance with ENERGY STAR initiative and receive specirecognition as an industry leader in energy efficiency.

Incentives

OIL, PROPANE & MUNICIPAL ELECTRIC CUSTOMERS

EDA PROGRAMS

SBC CREDIT PROGRAM

PAST PROGRAMS

TOOLS AND RESOURCES

PROGRAM UPDATES

CONTACT US

Pay for Performance incentives are awarded upon the satisfactory completion of three p milestones:

Incentive #1 - Submittal of complete energy reduction plan prepared by an app program partner - Contingent on moving forward, incentives will be between \$5 \$50,000 based on approximately \$.10 per square foot, not to exceed 50% of the annual energy expense.

Incentive #2 - Installation of recommended measures - Incentives are based on the projected level of electricity and natural gas savings resulting from the installation of comprehensive energy-efficiency measures.

Incentive #3 - Completion of Post-Construction Benchmarking Report - A completed report verifying energy reductions based on one year of post-

implementation results. Incentives for electricity and natural gas savings will be based on actual savings, provided that the minimum performance threshold of savings has been achieved.

A detailed Incentive Structure document is available on the applications and form

Steps to Participation

Click here for a step-by-step description of the program.

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PAY FOR PERFORMANCE APPLICATION FORM

July 1, 2013 - June 30, 2014

Utility Serving Applicant: New Jersey Natural Gas Other Electric Service Pro Other Fuel Provider:	□ Elizabe wider (please			Central Power & and Electric Co.		□ PSE&G □ South Jersey Gas
Instructions					ARIIIIA AAY AA A	
1. Read the program material to determ 2. Read the Participation Agreement at 3. Fill out all applicable spaces on this 4. Provide a copy of the customer's cor 5. Provide the most recent consecutive for the project.	nd sign where is form. mpany W-9 forn	ndicated. n.	7. Partner mu DIRECTL' Approval of th Scope of work		ation package vio nager – see back an approval of t on approval of th	of this form. he project's scope of work. he Energy Reduction Plan.
Customer/Owner In	formati	iON (paymeı	nt will be n	Project Contact/Title	entered h	ere)
Company Address			City	A TOTAL CONTRACTOR CON	State	Zip
Phone/Fax	E-mail			Federal ID	/SSN	
Partner Information Company Name	n ·			Project Contact/Tit	le	
Company Address			City		State	Zip
Phone	Fax		E-mail			A PORT LA PORT LA CONTRACTOR CONT
Project Information Project Name	1					
Building Address			City		State	Zip
Utility Account Number(s): Electric	}			Gas		
° Note: Please use the back of this page for additional Annual Peak kW Demand		ntity exceeds space allotme ding Type	ent.		Number of t	Buildings
Size of Building(s) (gross sq/ft)			Direct, A	Naster or Sub Metered		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Funding Check the box if an Energy Savin	gs Improveme	nt Program (ESII	P) will be a sou	rce of funding. ES	IP allows gove	rnment
agencies to pay for energy related	improvements	using the value o	f the resulting e	energy savings.		
Do you expect to receive funding	-		•			•
Utility Program #1 – Utility: Utility Program #2 – Utility:				gram Name: gram Name:		
Federal Program #1 – Organizati				gram Name:		
Federal Program #2 – Organizati	ion:			gram Name:		
Other Program - Organization: _				gram Name:		

Additional Project inf	ormation
Additional Utility Account(s)	
Additional Other Account(s)	
Account type	Account number
dditional Comments:	

Complete this application form and send it directly to the Commercial/Industrial Market Manager by e-mail, mail or fax.

New Jersey's Clean Energy Program c/o TRC Energy Services-P4P 900 Route 9 North, Suite 404 • Woodbridge, NJ 07095

> Phone: 866-657-6278 • Fax: 732-855-0422 E-mail: P4P@NJCleanEnergy.com

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Pay For Performance-Existing Buildings

Participation Agreement

Definitions:

Design Incentives – Incentives that may be offered to design professionals by the Program.

Design Services – Services that may be offered to design professionals under the Program.

Energy-Efficient Measures – Any device eligible to receive a Program Incentive payment through the NJ Clean Energy Commercial and Industrial Program (New Jersey SmartStart Buildings).

New Jersey Utilities – The regulated electric and/or gas utilities in the State of New Jersey. They are: Atlantic City Electric, Jersey Central Power & Light, Rockland Electric Company, New Jersey Natural Gas, Elizabethtown Gas, PSE&G, and South Jersey Gas.

Administrator – New Jersey Board of Public Utilities, Office of Clean Energy

Participating Customers – Those non-residential electric and/or gas service customers of the New Jersey Utilities who participate in this Program.

Product Installation or Equipment Installation – Installation of the Energy-Efficient Measures.

Projects with a contract threshold of \$14,187 (increasing to \$15,444 effective July 1, 2014) are required to pay no less than prevailing wage rate to workers employed in the performance of any construction undertaken in connection with Board of Public Utilities financial assistance, or undertaken to fulfill any condition of receiving Board of Public Utilities financial assistance, including the performance of any contract to construct, renovate or otherwise prepare a facility, the operations of which are necessary for the receipt of Board of Public Utilities financial assistance. By submitting an application, or accepting program incentives, applicant agrees to adhere to New Jersey Prevailing Wage requirements, as applicable.

Program – The Commercial and Industrial Energy-Efficient Construction Program (New Jersey SmartStart Buildings) offered herein by the New Jersey Board of Public Utilities, Office of Clean Energy pursuant to state regulatory approval under the New Jersey Electric Discount and Energy Competition Act, NJSA 48:3-49, et seq.

Program Incentives – Refers to the amount or level of incentive that the Program provides to Participating Customers pursuant to the Program offered herein (see description under "Incentive Amount" heading).

Program Offer – Program Incentives are available to nonresidential retail electric and/or gas service customers of the New Jersey Utilities identified above.

Program Manager - TRC Energy Services.

Application and Eligibility Process - The Program pays incentives after the installation of qualified energy-efficient

measures that were pre-approved (for exceptions to this condition, please refer to "Exceptions for Approval".) In order to be eligible for Program Incentives, a Customer, or an agent (contractor/vendor) authorized by a Customer, must submit a properly completed application package. The package must include an application signed by the customer; a complete (current) utility bill; and technology worksheet and manufacturer's cut sheets (where appropriate). This information must be submitted to the Program Manager before equipment is installed. Applications for measures that are self installed by customers must be submitted by the customer and not the sales vendor of the measure, however, the customer may elect to assign payment of the incentive to the sales vendor. This application package must be received by the Program Manager on or before June 30, 2014 in order to be eligible for the fiscal year July 1, 2013-June 30, 2014 incentives. The Program Manager will review the application package to determine if the project is eligible for a Program Incentive. If eligible, the Customer will receive an approval letter with the estimated authorized incentive amount and the date by which the equipment must be installed in order for the approval to remain in effect. Upon receipt of an approval letter, the Customer may then proceed to install the equipment listed on the approved application. Equipment installed prior to the date of the Program Manager's approval letter is not eligible for an incentive. The Program Manager reserves the right to conduct a pre-inspection of the facility prior to the installation of equipment. This will be done prior to the issuance of the approval letter. All equipment must be purchased within 12 months of date of application. Any Customer and/ or agent who purchases equipment prior to the receipt of an incentive approval letter does so at his/her own risk.

Exceptions for Approval – The Application and Eligibility Process pertains to all projects except for those involving either Gas Heating, Unitary HVAC or Motors having an incentive amount less than \$5,000 that were installed within 12 months of receipt of the application. These measures, at this incentive level, may be installed without prior approval. In addition, but at the sole discretion of the Program Manager, emergency replacement of equipment may not require a prior approval determination and letter. In such cases, please notify the Program Manager of such emergencies as early as possible, that an application will soon be sent in that was not pre-approved.

Post-Installation Approval — After installation is completed, the Customer, or an agent authorized by the Customer, must finalize and submit an invoice for the purchase of the equipment (material cost must be broken out from labor costs), and any other required documentation as specified on the equipment application or in the Program Manager's initial approval letter.

Please refer to the program guide on the NJCleanEnergy.com/ ssb website for the complete Application and Eligibility Process.

The Program Manager reserves the right to verify sales transactions and to have reasonable access to Participating Customer's facility to inspect both pre-existing product or equipment (if applicable) and the Energy-Efficient Measures installed under this Program, either prior to issuing incentives or at a later time.

Energy-Efficient Measures must be installed in buildings located within a New Jersey Utilities' service territory and designated on the Participating Customer's incentive application. Program Incentives are available for qualified Energy-Efficient Measures as listed and described in the Program materials and incentive applications. The Participating Customer must ultimately own the equipment, either through an up-front purchase or at the end of a short-term lease. Design Incentives are available to design professionals as described in the Program materials and applications. A different and separate agreement must be executed by participating design professionals to be eligible for this type of incentive. The design professional does not need to be based in New Jersey.

Equipment procured by Participating Customers through another program offered by New Jersey's Clean Energy Program or the New Jersey Utilities, as applicable, is not eligible for incentives through this program. Customers who have not contributed to the Societal Benefits Charge of the applicable New Jersey Utility are not be eligible for incentives offered through this program.

Incentive Amount – Program Incentives will equal either: a) the approved Program Incentive amount, or b) the actual equipment cost of the Energy-Efficient Measure, whichever is less, as determined by the Program Manager. Products offered at no direct cost to the customer are ineligible. Incomplete application submissions, applications requiring inspections and unanticipated high volume of activities may cause processing delays. Program Incentives are limited to \$500,000 per utility account in a calendar year. Contact the Program Manager regarding any questions.

Tax Liability – The Program Manager will not be responsible for any tax liability that may be imposed on any Participating Customer as a result of the payment of Program Incentives. All Participating Customers must supply their federal tax identification number or social security number to the Program Manager on the application form in order to receive a Program Incentive. In addition, Participating Customers must also provide a Tax Clearance Form (entitled "Business Assistance or Incentive Clearance Certificate") that is dated within 90 days of equipment installation.

Endorsement – The Program Manager and Administrator do not endorse, support or recommend any particular manufacturer, product or system design in promoting this Program.

Warranties – THE PROGRAM MANAGER AND ADMINISTRATOR DO NOT WARRANT THE PERFORMANCE OF INSTALLED EQUIPMENT, AND/OR SERVICES RENDERED AS PART OF THIS PROGRAM, EITHER EXPRESSLY OR IMPLICITLY. NO WARRANTIES OR REPRESENTATIONS OF ANY KIND, WHETHER STATUTORY, EXPRESSED, OR IMPLIED, INCLUDING, WITHOUT LIMITATIONS, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE REGARDING EQUIPMENT OR SERVICES PROVIDED BY A MANUFACTURER OR VENDOR. CONTACT YOUR VENDOR/SERVICES PROVIDER FOR DETAILS REGARDING PERFORMANCE AND WARRANTIES.

Limitation of Liability – By virtue of participating in this Program, Participating Customers agree to waive any and all claims or damages against the Program Manager or the Administrator, except the receipt of the Program Incentive. Participating Customers agree that the Program Manager's and Administrator's liability, in connection with this Program, is limited to paying the Program Incentive specified. Under no circumstances shall the Program Manager, its representatives, or subcontractors, or the Administrator, be liable for any lost profits, special, punitive, consequential or incidental damages or for any other damages or claims connected with or resulting from participation in this Program. Further, any liability attributed to the Program Manager under this Program shall be individual, and not joint and/or several.

Assignment – The Participating Customer may assign Program Incentive payments to a specified vendor.

Participating Customer's Certification – Participating Customer certifies that he/she purchased and installed the equipment listed in their application at their defined New Jersey location. Participating Customer agrees that all information is true and that he/she has conformed to all of the Program and equipment requirements listed in the application.

Termination – The New Jersey Board of Public Utilities reserves the right to extend, modify (this includes modification of Program Incentive levels) or terminate this Program without prior or further notice.

Acknowledgement – I have read, understood and am in compliance with all rules and regulations concerning this incentive program. I certify that all information provided is correct to the best of my knowledge, and I give the Program Manager permission to share my records with the New Jersey Board of Public Utilities, and contractors it selects to manage, coordinate or evaluate the NJ SmartStart Buildings Program. Additionally, I allow reasonable access to my property to inspect the installation and performance of the technologies and installations that are eligible for incentives under the guidelines of New Jersey's Clean Energy Program.

CUSTOMER'S SIGNATURE

PARTNER SIGNATURE

By signing, I certify that I have read, understand and agree to the Participation Agreement listed above.

IV. ENERGY SAVINGS IMPROVEMENT PLAN (ESIP)



Your Power to Save

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LARGE ENERGY USERS PROGRAM

ENERGY SAVINGS IMPROVEMENT PROGRAM

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Energy Savings Improvement Program

A new State law allows government agencies to make energy related improvements to t facilities and pay for the costs using the value of energy savings that result from the imp Under Chapter 4 of the Laws of 2009 (the law), the "Energy Savings Improvement Program" (ESIP), provides all government agencies in New Jersey with a flexible tool to and reduce energy usage with minimal expenditure of new financial resources.

This Local Finance Notice outlines how local governments can develop and implement a their facilities. Below are two sample RFPs:

> Local Government School Districts (K-12)

All RFPs must be submitted to the Board for approval at ESIP@bpu.state.nj.us.

The Board also adopted protocols to measure energy savings:

Measuring Energy Savings Procedures for Implementation

The ESIP approach may not be appropriate for all energy conservation and energy effic improvements. Local units should carefully consider all alternatives to develop an approbest meets their needs. Local units considering an ESIP should carefully review the Loc Notice, the law, and consult with qualified professionals to determine how they should a task.

The NJ Board of Public Utilities sponsored Sustainable Jersey in the creation of an ESIF Guidebook that explains how to implement the program. The guidebook also includes ca of successful projects and a list of helpful resources.

FIRST STEP - ENERGY AUDIT

For local governments interested in pursuing an ESIP, the first step is to perform an ene as prescribed in P.L.2012 c.55.

ENERGY REDUCTION PLANS

If you have an ESIP plan that needs to be submitted to the Board of Public Utilities, plea to ESIP@bpu.state.nj.us. Please limit the file size to 3MB (or break it into smaller files).

> Frankford Township School District Northern Hunterdon-Voorhees Regional High School

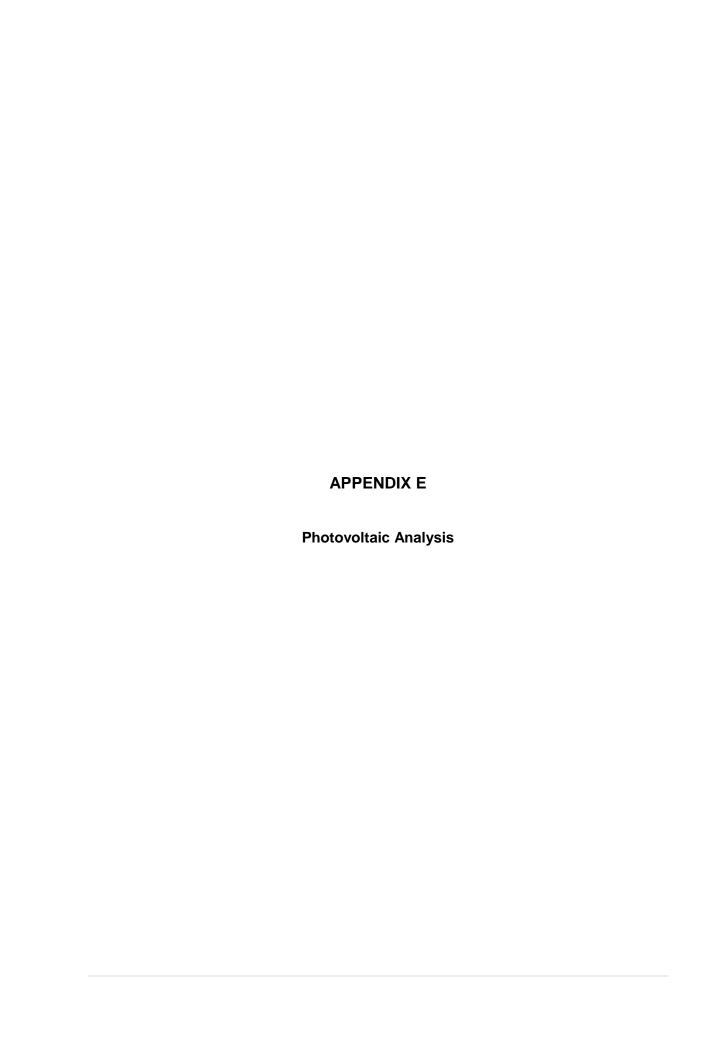
Manalapan Township (180 MB - Right Click, Save As)

http://www.njcleanenergy.com/commercial-industrial/programs/energy-savings-improvem... 5/30/2014

BPU RULES

- 1. Public Entity must decide if they will use an ESCO or DIY method or Hybrid thereof prior to issuing the RFP and the RFP must state the intended method. A change in the project procurement model after the RFP closing date will be cause for immediate rejection and disqualification of potential Clean Energy program incentives.
- 2. RFP procedures shall be adhered to as per the legislation, including the use of BPU approved forms. Any alteration of the forms, without prior approval from the BPU shall be grounds for rejection.
- 3. RFP must include copy of an audit (ASHRAE Level II w/Level III for lighting) and audit must be prepared by a firm classified by DPMC in the 036 discipline.
- 4. All firms, including professional services, whether using ESCO or DIY model, must be DPMC classified.
- 5. If an Architect is engaged by the public entity, the architectural fees are the responsibility of the public entity and must be paid directly to the firm. These fees may be included in the energy cost savings analysis and payback.
 - ESCO's may contract directly with an architectural firm, in which case the architectural firm serves as a subcontractor to the ESCO and the project related service costs may be included within the project's economic model.
- 6. Public entity shall conduct pre-bid meetings and site visits per existing statutes.
 - In the interest of open public bidding transparency, it is a requirement of the BPU that all proposers must attend the pre-proposal bid meeting.
- 7. There shall be no negative cash flow in any year of the program. section 7 (1)(a)
 - "the energy savings resulting from the program will be sufficient to cover the cost of the program's energy conservation measures."
- 8. SREC values are not permitted to be used in the energy cost savings calculations.
- 9. Capital cost avoidance values are not to be used in the energy savings calculations.
- 10. Operational and Maintenance (O&M) cost savings may be permitted in the cost savings calculations, but only with supporting documentation.
- 11. Blended utility rates shall not be permitted. Use the actual utility tariff or local contracted rates if there is a third party supplier.
 - For the RFP proposals, the public entity shall define the utility rates in the RFP

- 12. Contracted third party utility rates may only be used for the term of the contract (5 yr. maximum) Subsequent years are to be projected at the utility tariff rates plus the annual BPU escalation rates.
- 13. Public entity shall conduct M&V (measurement and verification) at the one (1) year operational date and shall provide a copy of the M&V report to the Board of Public Utilities.
 - For the RFP proposals, the ESCO shall provide the cost for the one (1) year M&V only. For comparative purposes, the one year M&V pricing shall be indicated on the proposal Form VI, under the "Annual Service Costs" column. Additional M&V costs are at the discretion of the local unit and are not to be included in the proposal.
- 14. The decisions made by BPU staff regarding compliance or other issues that arise in connection with the RFP procurement process shall be considered a final decision of the BPU. Any appeal will need to be through the New Jersey Superior Court, Appellate Division.
- 15. For the RFP proposals only, Demand Response (DR) revenues claimed by ESCO's can only be projected for a maximum period of three (3) years. DR revenue projections beyond three years will not be permitted. DR revenues must be included and presented under the "Energy Rebates/Incentives" column of FORM VI.
- 16. ESCO "fees" proposed during the RFP phase of the project cannot increase post-award. ESCO's are required to maintain the fee percentages through final contract negotiations and construction of the Board approved Energy Savings Plan
- 17. Public Bid openings shall be held on the due date of the proposal submissions. The public entity shall announce the name of the bidder and the total dollar amount. After award of a contract, all proposals received will be made available by the owner for public inspection
- 18. Rejection of bids by the public entity shall be conducted in accordance with the appropriate sections of the applicable legislation, as stated in Title 40A:11-13.2. Additionally all proposals must be returned to the respective ESCO's upon rejection.
- 19. Field changes that exceed 5% of the project cost require BPU approval.
- 20. Energy Savings Plans (ESP) that is dependent upon incentives from the Clean Energy Program must review the current program requirements, at the time of application, for each incentive to insure eligibility. If any program incentive is denied, resubmission of all ESIP related forms will be necessary to remain ESIP qualified.



TOMS RIVER REGIONAL SCHOOL DISTRICT HIGH SCHOOL NORTH

Cost of Electricity \$0.09 /kWh
Electricity Usage 3,164,313 kWh/yr
System Unit Cost \$4,000 /kW

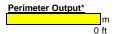
NO FURTHER PV RECOMMENDED

Photovoltaic (PV) Solar Power Generation - Screening Assessment

Budgetary Cost		Annual Utility Sa	avings		Estimated Maintenance	Total Savings	Federal Tax Credit	New Jersey Renewable	Payback (without SREC	Payback (with SREC
Cost					Maintenance	Savings	Credit	SKEC	3ドロ	SKEU
					Savings					
\$	kW	kWh	therms	\$	\$	\$	\$	\$	Years	Years
\$0	0.0	0	0	\$0	0	\$0	\$0	\$0	#DIV/0!	#DIV/0!
-					(00=0) 00=0 (4-37	0.00			

^{**} Estimated Solar Renewable Energy Certificate Program (SREC) SREC for 15 Years= \$165 /1000kwh

Area Output* m2
0 ft2



Available Roof Space for PV:

(Area Output - 10 ft x Perimeter) x 85%

0 ft2

Approximate System Size: Is the roof flat? (Yes/No) Yes

8	watt/ft2	
0	DC watts	
0	kW	Enter into PV Watts

PV Watts Inputs***

Array Tilt Angle 20 pitched - enter estimated roof angle)

Array Azimuth 180 Enter into PV Watts (always 20 if flat, if pitched - enter estimated roof angle)

Enter into PV Watts (default)

Zip Code 08753 Enter into PV Watts

DC/AC Derate Factor 0.83 Enter info PV Watts

PV Watts Output

annual kWh calculated in PV Watts program

% Offset Calc

Usage 3,164,313 (from utilities)

PV Generation 0 (generated using PV Watts)

% offset

* http://www.freemaptools.com/area-calculator.htm

** http://www.flettexchange.com

*** http://gisatnrel.nrel.gov/PVWatts Viewer/index.html







ENERGY STAR[®] Statement of Energy Performance

94

Toms River High School North

Primary Property Function: K-12 School

Gross Floor Area (ft²): 310,000

Built: 1969

ENERGY STAR®
Score¹

Property & Contact Information

For Year Ending: April 30, 2014 Date Generated: September 29, 2014

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Property Address Toms River High School North 1245 Old Freehold Road		Property Owner Toms River Regional Schools Board of Education		Primary Contact Mark Wagner 125 Walnut St	
Toms River, New Jersey 08753		331 Newman Springs Road Suite 203 Red Bank, NJ 07701 ()		Toms River, NJ 08753 973-267-9029 cbuttitta@chacompanies.com	
Property ID: 4075989					
Energy Consumption and Energy Use Intensity (EUI)					
Site EUI 37 kBtu/ft² Source EUI 84.1 kBtu/ft²	Annual Energy by Fu Electric - Solar (kBtu) Electric - Grid (kBtu) Natural Gas (kBtu)	1,611,570 (14%) 6,741,176 (59%)	% Diff from Nation Annual Emissions	ite EUI (kBtu/ft²) ource EUI (kBtu/ft²) al Median Source EUI	68.4 155.2 -46% 1,068
Signature & Stamp of Verifying Professional I (Name) verify that the above information is true and correct to the best of my knowledge.					
Signature:					
· · · · · · · · · · · · · · · · · · ·					

Professional Engineer Stamp (if applicable)