



# Building Dashboard

High School			21 Barr Ave		
Building Data					
Structural Details		HVAC		Appliances/equipment	
<b>Year Built</b>	New construction completed in 2015 - Auditorium (only part of original building) built in 1957	<b>Heating System</b>	3 gas-fired hot water boilers, AHU-1 for gym, AHU-2 for café, RTU-1 auditorium, RTU-2 library, RTU-3 offices and nurse, cabinet heaters at entrances, 18 mini-splits assorted rooms	<b>Interior Lighting</b>	All high efficiency LEDs
<b>Square footage</b>	169,650	<b>Air Conditioning</b>	Economisers on units, mini-splits serve specific rooms	<b>Exterior Lighting</b>	All high efficiency LEDs
<b>Envelope</b>	High performance thermal envelope with multiple insulation layers - R-34	<b>Hot Water Heater</b>	Two Aerco International gas-fired heaters and storage tank	<b>Vending Machines</b>	N/A
<b>Roof</b>	White membrane flat roof to reduce cooling loads, solar ready	<b>Ventilation</b>	In addition to above, 8 ERUnits for classrooms, and 11 exhaust fans	<b>Emergency Generator</b>	550 kW Diesel
<b>Windows</b>	Double glazed windows maximizing daylighting strategies	<b>Heat Distribution</b>	In addition to above, water boilers work with fin tube radiation system		
<b>Insulation</b>	R-34 walls, roof - Needs Data	<b>EMS</b>	Siemens management system: controls temp setbacks and scheduling for heat and ventilation as well as exterior lights.		
<b>Building Summary</b>	New LEED Gold High School opened in Fall 2015, auditorium is only original space that remained from old building. Roof is solar-ready, and there are plans to add panels and battery storage in FY20-21.				
Energy Profile - FY2021			Usage Trends		
Energy Usage			■ Monthly Use ■ Annual Use (12 Month Rolling Sum) An asterisk over a bar indicates building interventions completed in that month. Click on the bar to display more information about the interventions.		
Electric (kWh)	Heat (therms)	EUI (kBtu/sqft)			
894,240	31,921	37			
EUI ≤ 35 Meets Zero Energy Goal	EUI = 35-50 Efficient	EUI > 50 Priority to Improve			
Annual Energy Cost					
Electric	Heat	Total			
\$167,322	\$24,053	\$191,375			
<b>Berkshire Gas Rate Class</b>			G42		
<b>Electric Service Rate Class</b>			I2		
<b>Average Monthly Demand (kW)</b>			228.7		
Completed Work					
Fiscal Year	Project	Project Cost	Grants/Rebates	Life Expectancy	Warranty
2016	Renovations completed (MSBA)	\$65,743,393	\$41,787,165	varies	varies
Capital Improvement Plan Projects					
Fiscal Year	Project	Town Cost	Grant/Rebate	Life Expectancy	Warranty
2022-23	Solar Panels and Battery Storage	\$200,000	\$367,310	20-30 years	10-20 years
2021-22	Food Service Appliance Replacement (with Middle School)	\$152,500	N/A	N/A	N/A
Maintenance and Replacement Projects Identified					
Project			Predicted Cost	Payback Time	Supporting Info
Continue with BMS Assessment - implement optimized start/stop schedules			\$2,500	1 year	Peregrine Proposal
Audits/Assessments					
Fiscal Year	Type	Findings			
2017	Solar and Storage Assessments	DOER Clean Energy Resiliency Initiative Grant awarded in 2016 - project on indefinite hold			