



PENNCREST School District Investment Grade Audit Presentation

Presented by:

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McClure Company

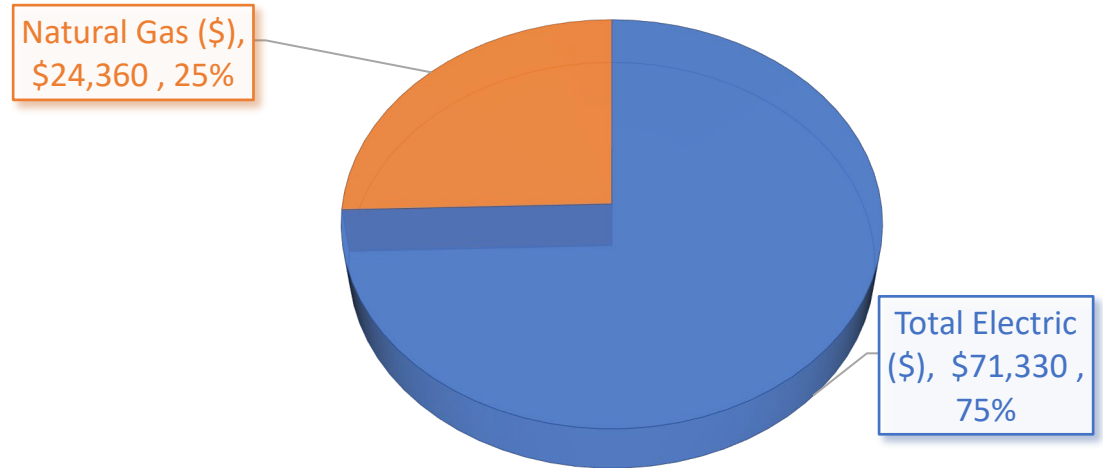
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Saegertown High School Building Profile



ENERGY COST BREAKDOWN

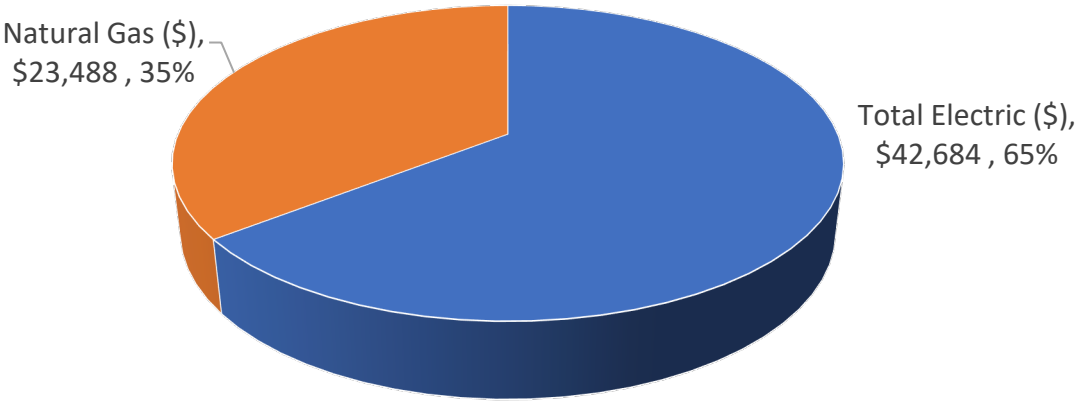


Constructed 1970, renovations: 1989, 1999 and 2006
High School Square Footage: 133,000
Total Utility Cost: \$95,690 – Excludes Water/Sewage
Cost Per Square Foot: \$.71
National Average for HS is \$1.10 - \$1.25

SES and Administration Energy Profile



ENERGY COST BREAKDOWN

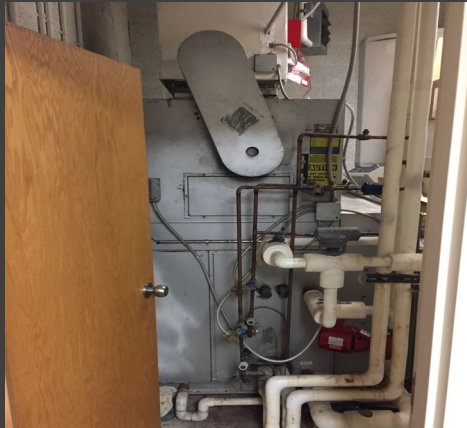


Building Constructed 1960, renovations: 1989, 1999
Square Footage: 99,800
Total Utility Cost: \$66,173
Cost Per Square Foot: \$.66
National Average for ES is \$.90 - \$1.00

PENNCREST School District Upgrades Evaluated



- SES/SHS HVAC Equipment Replacements/Upgrades
- SES Domestic Hot Water Plants
- SHS Central Heating Plant
- SES/SHS HVAC Building Control Systems
- SES/SHS Interior/Exterior Lighting Systems
- SHS Electrical Switchgear, Panel and Transformer Upgrades
- SHS/SES Door, Entrances and Transom Replacements
- SHS Windows Replacements
- SES/SHS Ceiling Replacements
- SES/SHS Building Envelope Sealing
- SES Window Replacements and Hardware Upgrades
- SHS/SES Asbestos Abatement and Flooring Replacements
- Roofing Replacements and Roofing Drain Asbestos Abatement

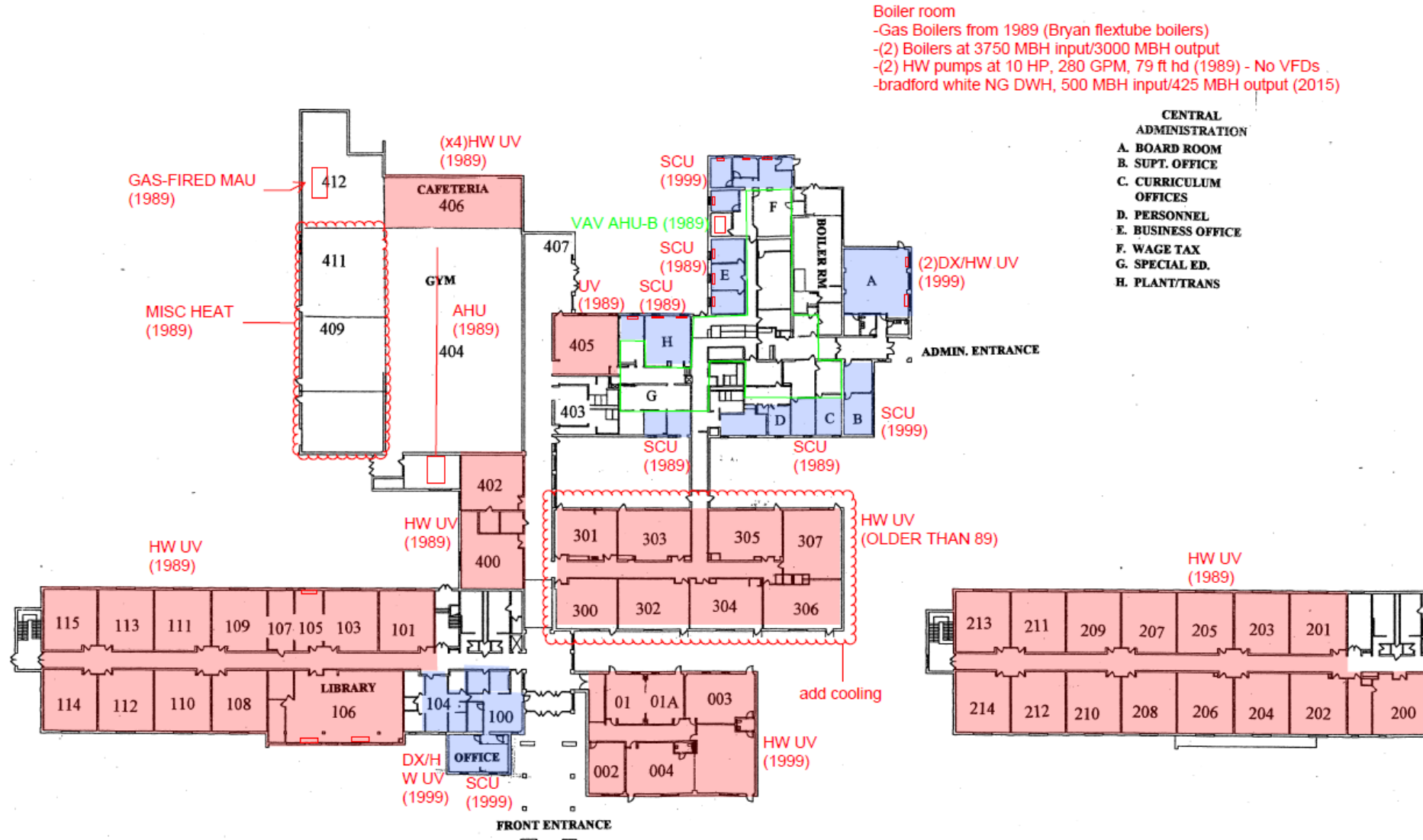


SES and Administration HVAC Conditions

Majority of Existing Equipment is from 1989, and 1998 renovations, some still exists from original construction, all equipment is beyond useful life expectancy.

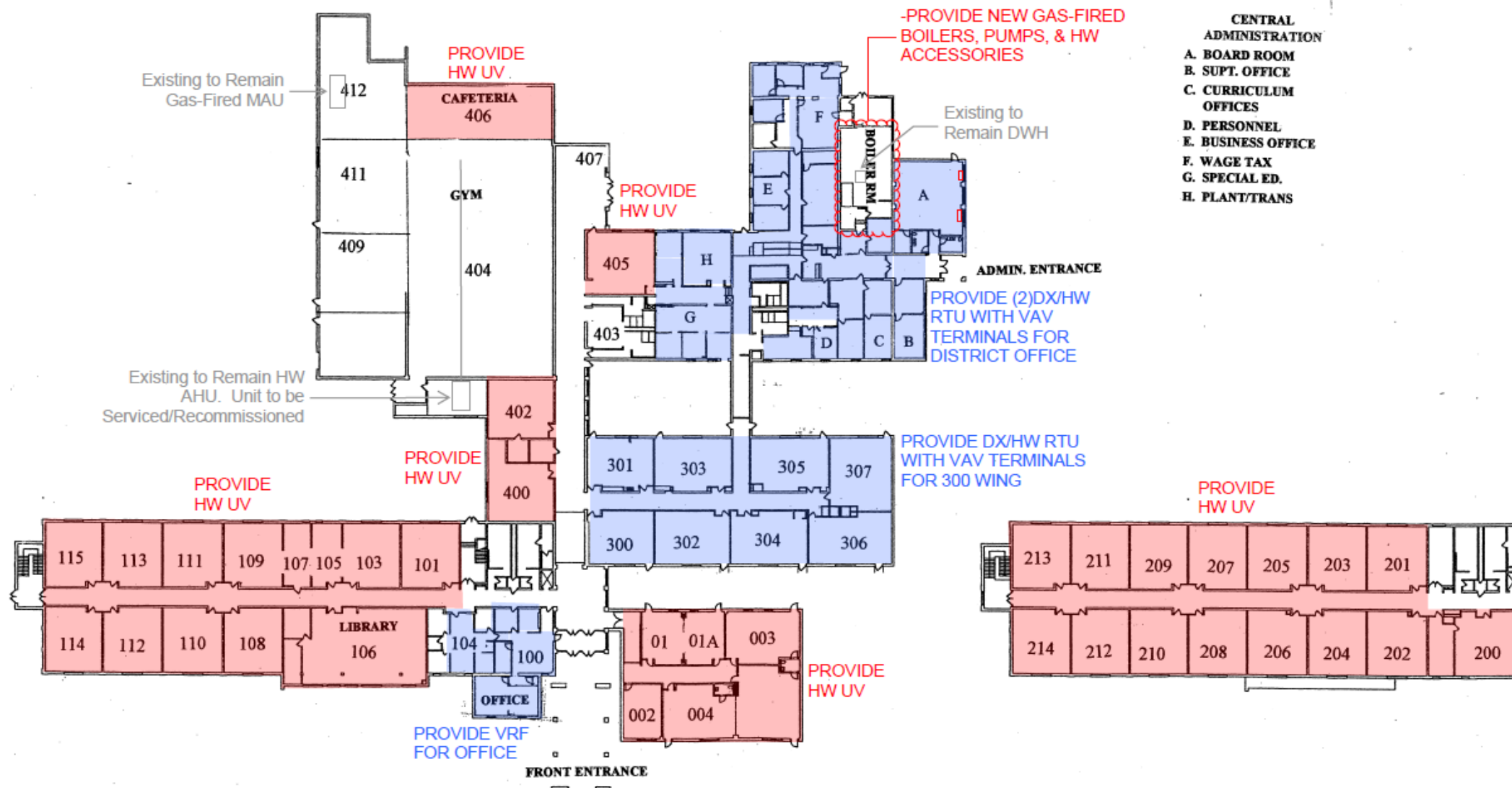
- Scope of Proposed Improvements
- Unit Ventilator Replacements
- Roof Top Unit Installation with VAV
- Variable Refrigerant Flow
- Central Heating Plants inc. VFD, Pumps
- Equipment Refurbishment and Repair
- Building Wide Control Upgrades

SES and Administration HVAC Conditions



Saegertown Elementary School

SAEGERTOWN ES - PROPOSED MECHANICAL IGA SCOPE



Saegertown Elementary School

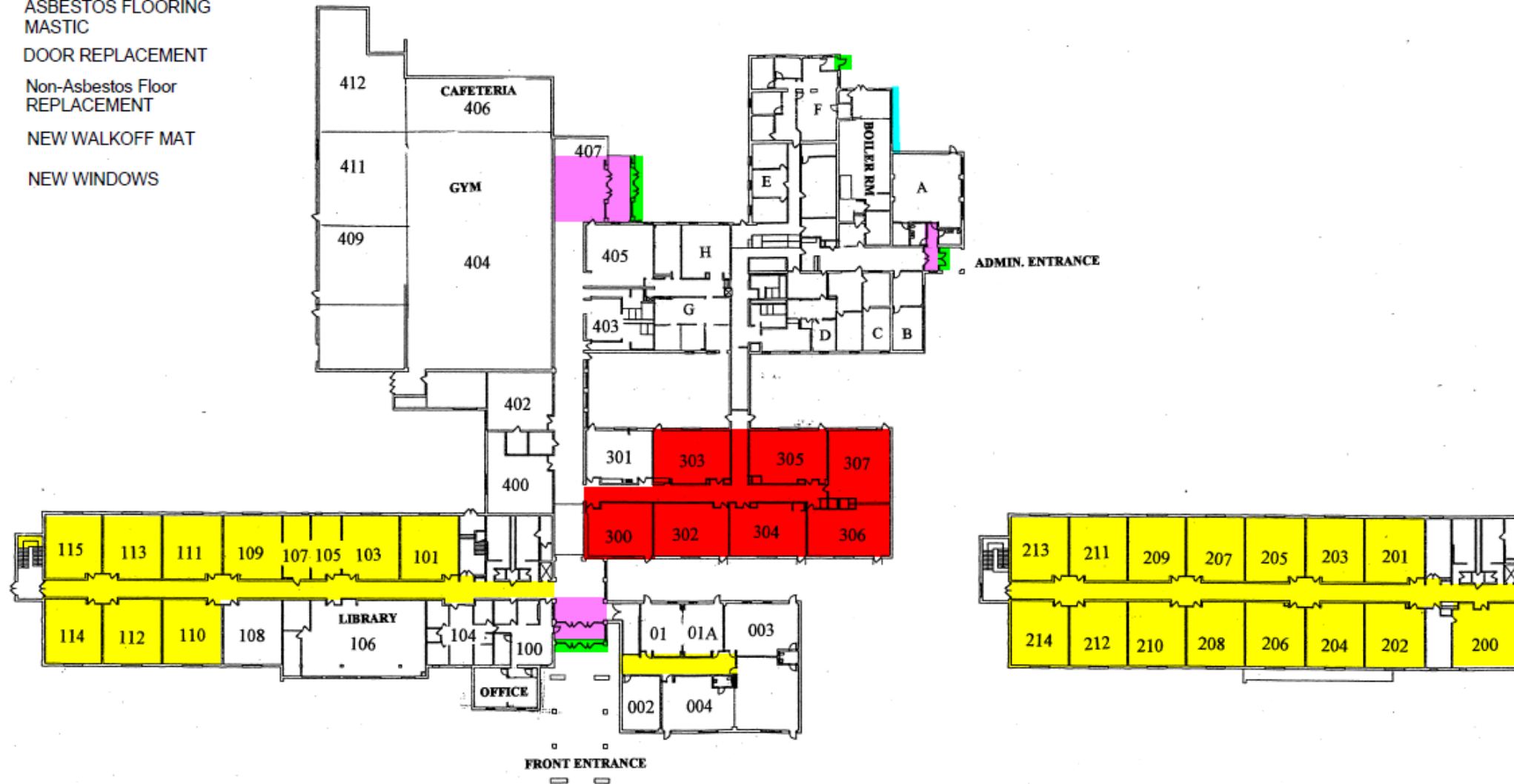
SES General Construction Conditions

- Various areas related to HVAC Improvements will incorporate flooring and ceiling replacements.
- Other areas of the buildings flooring contains asbestos and should be abated and replaced.
- Select Windows should be replaced, hardware on other windows should be replaced.
- New doors, transoms and walk off mats should be upgraded to improve security.
- Select Areas of damaged ceiling tiles will be replaced, areas while are in good shape will be reused.
- Classroom Rooms will need Patched and Painted
- Building Envelope should be sealed through out the building



SES and Administration General Construction Scope

- ASBESTOS FLOORING
MASTIC
- DOOR REPLACEMENT
- Non-Asbestos Floor
REPLACEMENT
- NEW WALKOFF MAT
- NEW WINDOWS



Saegertown Elementary School

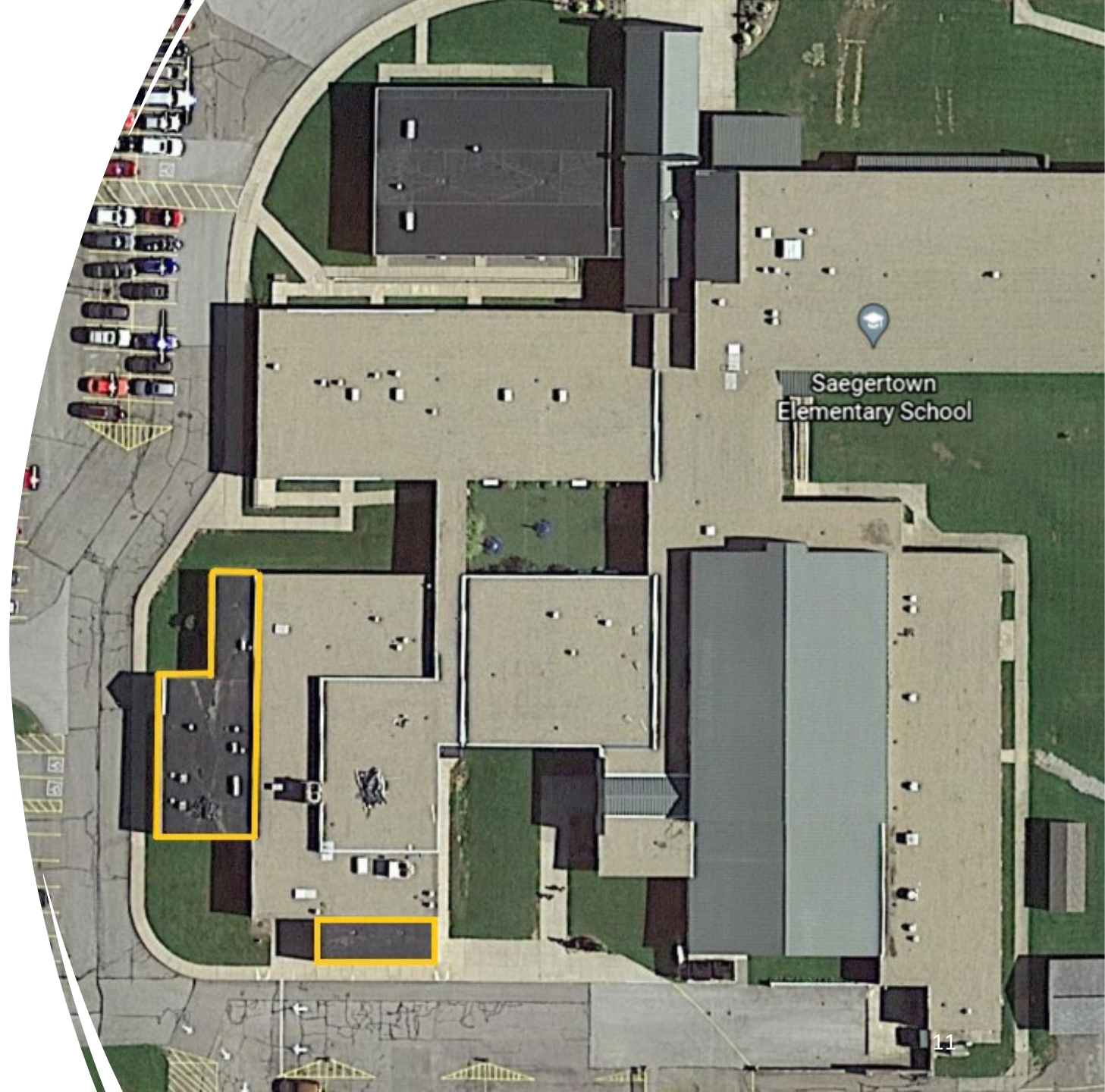
SES and Administration General Construction Scope

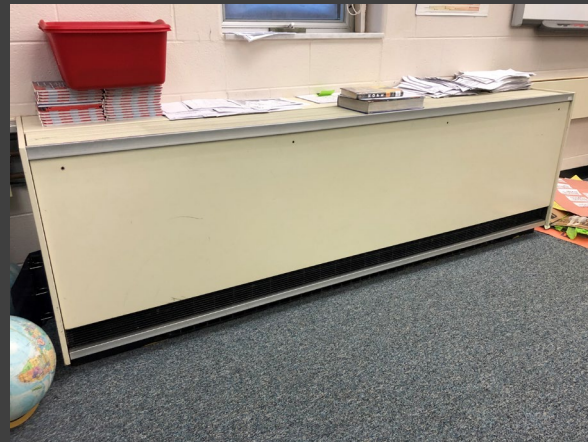


Saegertown Elementary School

Select Roofing Scope

- Roof Sections surrounded in yellow to be replaced with in Project
- Incorporated with HVAC Scope
- Asbestos Roofing Drain Bowl Mitigation SES/SHS
- Increased Energy Savings
- Manufacturer and Installation Company





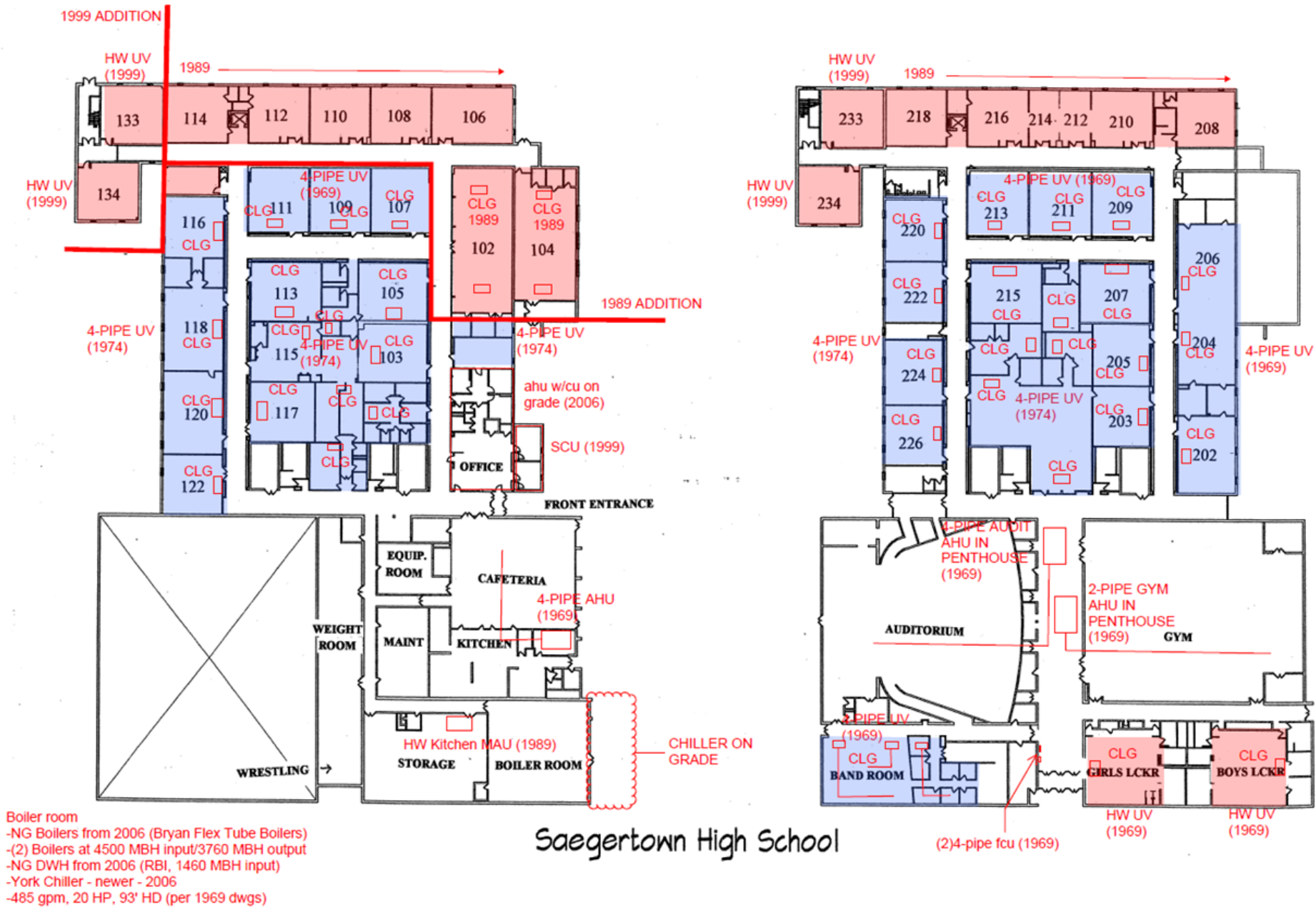
SHS HVAC Conditions

Majority of Existing Equipment is from 1969, 1974 and 1989, some upgrades were completed in 2006. All equipment pre 2006 is beyond useful life and should be replaced.

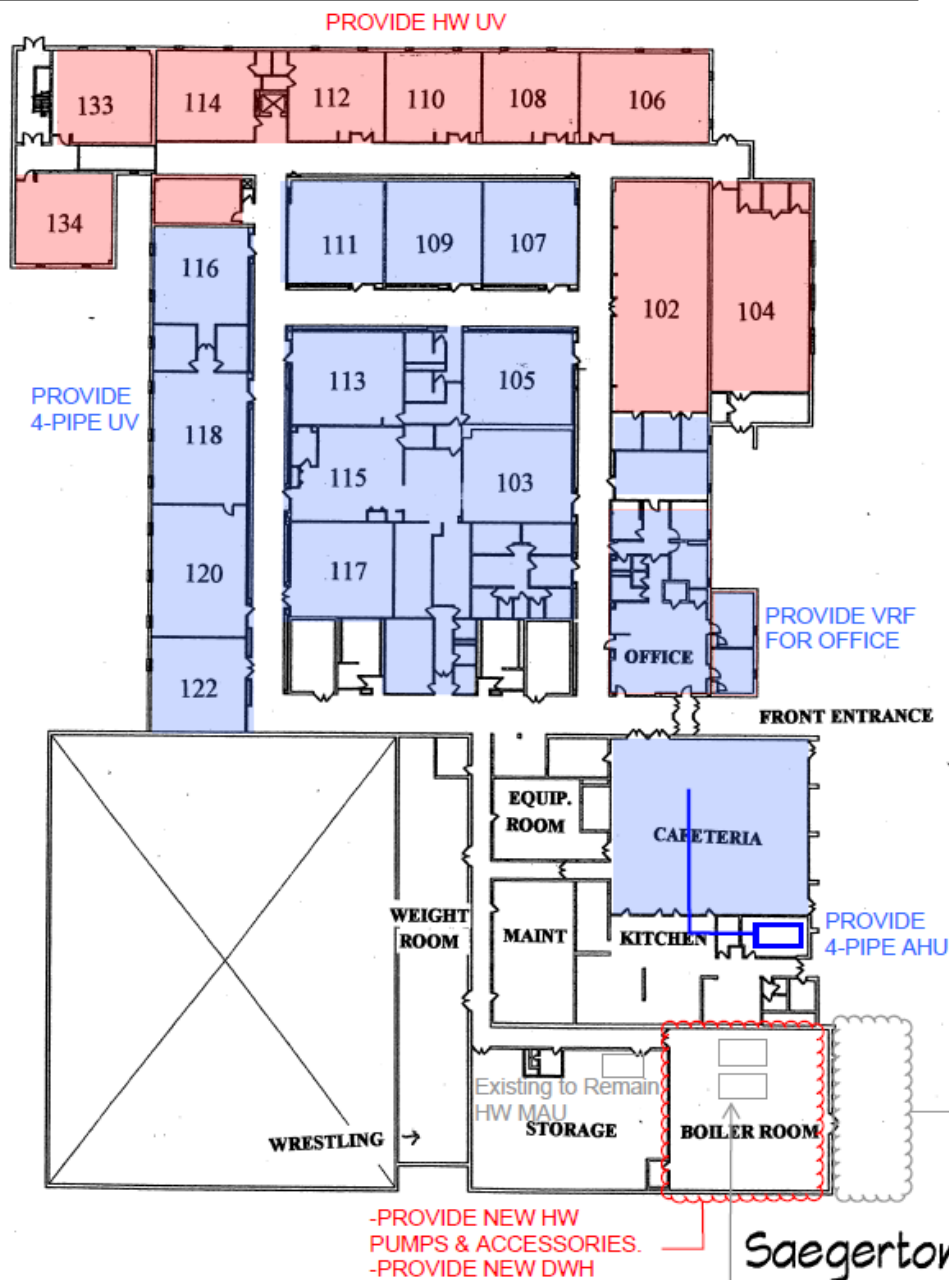
Scope of Proposed Improvements

- Unit Ventilator Replacements
- Roof Top Unit Installation with DX
- Variable Refrigerant Flow
- Central Heating Plants VFD, Pumps
- Air Handling Units
- Domestic Hot Water Plant VFD, Pumps
- Equipment Refurbishment and Repair
- Building Wide Control Upgrades

SHS HVAC Conditions



SAEGERTOWN HS - PROPOSED MECHANICAL IGA SCOPE



Saegertown High School



SHS General Construction Conditions

- Various areas related to HVAC Improvements will incorporate flooring and ceiling replacements.
- Other areas of the buildings flooring contains asbestos and should be abated and replaced.
- Select Windows should be replaced.
- New doors, transoms and walk off matts should be upgraded to improve security.
- Select Areas of damaged ceiling tiles will be replaced, areas while are in good shape will be reused.
- Classrooms will need Patched and Painted
- Building Envelope should be sealed through out the building
- Select Roofing Replacement and Drain Bowl Asbestos Removal

SHS General Construction Scope



Saegertown High School

SHS General Construction Scope



Saegertown High School

SHS Electrical Scope



The High School Electrical Systems date to the original construction of the building (1969). These systems are at end of life and should be replaced to reduce the hazards associated with antiquated Electrical Systems.

- 1 Main Switchgear (2000 AMP)
- 37 Panel Boards
- 17 Transformers



SES/SHS Building Wide Lighting Systems

Most of the Lighting Systems through out the District utilize a T-8 Style Fluorescent Electronic Ballasted Lighting System

Exterior Lighting uses HID (High Intensity Discharge)

Building Exit Lighting uses incandescent bulbs as opposed to High Efficiency LED Lighting

Operation and Maintenance related to these styles of lighting system is costly and time consuming

Current Lighting System while operational uses higher amounts of energy than a LED Lighting System



SES/SHS Proposed LED Lighting Systems

New interior/exterior LED Lighting Systems will be implemented to reduce electrical consumption, maintenance and operational costs.

These lights will implement lighting controls and occupancy sensors.

- Interior Flat Panel LED Lighting Solution
- Limited Retrofit Solution
- Exterior LED Building and Flood Lighting
- Implemented with HVAC Upgrades

PENNCREST School District – IGA Phase II Matrix

ECM	Description	Project Cost	20-Year Savings	Program
1	Saegertown Elementary School Central Heating Plant including Pumping Systems and VFD's	\$ 487,733	\$ 49,283	x
2	Saegertown Elementary School and District Administrative Offices HVAC Replacements/Upgrades	\$ 3,064,643	\$ 100,629	x
3	Saegertown Elementary School Add Fin Tube Radiation System to 300 Wing	\$ 168,699	-	
4	Saegertown Elementary School and District Adminisitrative Offices Interior/Exterior Lighting Upgrades	\$ 352,238	\$ 477,366	x
5	Saegertown Elementary School Building Envelope Upgrades	\$ 73,864	\$ 93,539	x
6	Saegertown Elementary School Flooring Replacements (Asbestos)	\$ 219,381	-	x
7	Saegertown Elementary School Flooring Replacements (Non-Asbestos)	\$ 539,513	-	x
8	Saegertown Elementary School and Administrative Office Entance Doors, and Select Windows	\$ 101,981	-	x
9	Saegertown District Administrative Office Roofing Replacements	\$ 134,588	\$ 2,301	x
10	Saegertown Elementary School Door and Window Hardware Upgrades	\$ 31,078	-	x
11	Saegertown High School Domestic Hot Water Plant	\$ 218,511	\$ 2,739	x
12	Saegertown High School HVAC Replacements/Upgrades	\$ 3,576,012	\$ 299,314	x
13	Saegertown High School Interior/Exterior Lighting Upgrades	\$ 365,524	\$ 723,607	x
14	Saegertown Highn School Electrical Panel, Switchgear and Transformer Replacements	\$ 474,476	\$ 228,298	x
15	Saegertown High School Building Envelope Upgrades	\$ 41,594	\$ 30,566	x
16	Saegertown High School Window Replacements	\$ 322,767	\$ 11,352	x
17	Saegertown High School Flooring Replacements (Asbestos)	\$ 185,466	-	x
18	Saegertown High School Flooring Replacements (Non-Asbestos)	\$ 551,347	-	x
19	Saegertown High School Exterior/Interior Doors (Building Entrances)	\$ 237,575	-	x
20	Saegertown High School Field Lighting Upgrades (LED)	\$ 463,235	\$ 66,517	x
21	Saegertown High School Asbestos Roof Drain Bowl Mitigation and Roofing Savings	\$ 18,353	\$ 53,042	x
			Subtotal	\$ 11,459,879
			Payment and Performance Bond	\$ 75,029
			District Controlled Contingency	\$ 100,000
			Total Project Cost	\$ 11,634,908
			Total Operational and Enery Savings	\$ 2,138,553
			Net Cost to District	\$ 9,321,326

Process Map

Investment Grade Audit – October 19, 2021

- ✓ Complete detailed design and phase development
- ✓ Develop firm costs and guaranteed savings associated with improvements
- ✓ Identify all financial incentives and options
- ✓ Present results to the District
- Finalize Amendment I & Phase II Project Scope for delivery

Contract Amendment – November 11, 2021

- Amendment execution

ADDITIONAL Q&A – THANK YOU!

