

**General Project Information**

Date of Submission	8/30/2019
Capital Project-New or Expansion	
Capital Maintenance Major-New Project	
Capital Maintenance-Neither new nor expanding	X
County/School?	School



Project Title	HVAC Replacement
Project Location	Peasley, TCWEC and Bethel
Department Name	Facilities
Contact Name/Phone/Email	Bryan Hartley, 693-4103, bhartley@gc.k12.va.us

**Proposed Schedule/Cost**

Date Improvements Begin	7/1/2020	Date Improvements Complete	6/30/2025	Useful life (in years)	20
Design/Engineering Cost		Construction/Equipment Cost	\$ 1,279,109	Previous Funding Amount	\$ 220,000
Annual/Recurring Cost		Recurring Revenue Generated	\$ -	For What Fiscal Year	FY20

Capital Cost/Funding Analysis	FY21	FY22	FY23	FY24	FY25	Total FY21-25	Costs Beyond	Total Project Costs
<b>Proposed Capital Costs</b>	\$ 470,000	\$ 485,000	\$ 550,532	\$ 484,468	\$ 145,000	\$ 2,135,000		\$ 2,135,000
<b>Financing</b>								<b>Total Project Financing</b>
General Fund Operating						\$ -		\$ -
Enterprise Fund Operating						-		-
Fund Balance-Committed						-		-
Fund Balance-Unassigned	470,000	485,000	550,532	484,468	145,000	2,135,000		2,135,000
Debt						-		-
Grant-Federal, State, Local						-		-
Proffers						-		-
Other Sources						-		-
<b>Total Capital Funding</b>	\$ 470,000	\$ 485,000	\$ 550,532	\$ 484,468	\$ 145,000	\$ 2,135,000	\$ -	\$ 2,135,000
Variance-over (short)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Project Narrative/Justification	Mandated?	No	Mandating Agency	
Please read the instructions on the required justifying information needed.		Federal/State/Local?		

**1) Statement of Need. What is the project expected to accomplish? Quantify benefits.**  
 A cyclical replacement of school HVAC equipment is necessary to maintain building mechanical systems. Peasley is in need of replacements for the water source heat exchangers in various halls, boilers, circulator pumps and piping. TCWEC's HVAC units range in age of 23-26 years old and with the increased need of space for Head Start and county agencies, the current units are not able to provide the efficiency and demand that is needed. Bethel's HVAC system is over 20 years old, parts are becoming difficult to obtain, and the air-to-air systems will need to be replaced.

**2) Indicate and quantify any alternatives that might meet the needs indicated and why they were rejected.**  
 At Peasley, air-to-air systems were rejected to maintain the water source system, which proves to be more economical. At Bethel, air-to-air systems will be replaced with similar systems to reduce engineering and installation costs.

**3) Indicate and quantify what the consequences would be on services if not funded.**  
 Catastrophic failure could result in closing schools, thus resulting in a failure to serve the students and the community. Even failures of less stature could negatively impact the learning environment, thus impacting academic success for students...the ultimate division mission. Catastrophic failure or even leaks in a closed water loop system could result in water damage to school and personal property, slip hazards, and the release of antifreeze solutions, which may cause reactions in some adults or children.

**4) Outline any potential liabilities that need to be prepared for with doing or not doing this project.**  
 Potential liabilities could result from an unsafe atmospheric environment, resulting in the growth of mold or spores that could contribute to health issues.

**5) Indicate and quantify the impact of the capital investment on operating budgets going forward. Include any additional information to assist in the evaluation process.**  
 Costs are as proposed by Honeywell as approximate project costs. For Peasley, an exception occurs in 2021 in that consideration must be given to the replacement of the boilers/circulator pump, and the need to inspect and possibly replace portions of the treated water piping, which has been in place for nearly 30 years.

Attachments (list):	Add for HVAC
	HVAC Ratings
	HVAC Replacement Plan

**Project Narrative/Justification**

5. Continued.  
2021.....Replace remaining WSHP (12), boilers, circulator pumps and piping at Peasley \$470,000 (this will complete the Peasley project)  
2022.....Replace (6) rooftop units at TCWEC \$485,000  
2023.....Replace 5 of 9 existing air-to-air rooftop systems at Bethel \$550,532  
2024.....Replace the remaining 4 air-to-air rooftop systems at Bethel \$484,468  
2025.....Replace boiler at TCWEC - \$145,000  
Moving forward with this project will directly impact the operations budget.

5. Continued.
- 1.) Funds in the operations budget scheduled for repair and replacement projects will remain and not be redirected to short term fixes on unfunded capital projects.
  - 2.) Short term fixes on capital projects will not become double work in the sense that the repair work would not occur in unscheduled design order, be short term due to the method of repair able to be funded, or simply out of the scope of the required work.
  - 3.) The skilled workforce would not be redirected from other needed, planned, or scheduled projects or service requirements.
  - 4.) The improved environment will produce recurring savings in productivity and efficiency, ultimately resulting in financial savings.