



**CITY OF NEWARK
DELAWARE**

February 26, 2020

To: Honorable Mayor and City Council

From: Jeff Martindale, Assistant to the City Manager 
David Del Grande, Finance Director *DD*

Via: Tom Coleman, City Manager 

Subject: Recommendation to Amend the Budget to Transfer Funds from CIP N1806 to CIP N1603 and Award Design and Construction Services Associated with RFP 19-01 for Energy Savings Performance Contracting and HVAC Renovations at the George Wilson Center

BACKGROUND

On September 9, 2019, City Council awarded RFP 19-01 to Seiberlich Trane Energy of New Castle, Delaware by agreeing to the terms of an Investment Grade Energy Audit in the amount of \$35,000 (\$17,500 of which will be reimbursed to the City through a DNREC Energy Efficiency Investment Fund (EEIF) Energy Assessment Grant). Since this date, Assistant to the City Manager Jeff Martindale and Facilities Superintendent Dave Greenplate coordinated with Seiberlich Trane to determine the scope of an HVAC and Energy Savings Performance Contracting project throughout City buildings and other City-owned properties/equipment.

One of the major components of this project that staff reiterated to Seiberlich Trane throughout the audit stage was the need to upgrade the HVAC system at the GWC ahead of the City's summer camps and other summer activities in 2020. The large event space on the top floor of the GWC is currently served by 4 one-ton cooling window air conditioners. The cooling load needed in this space is at least double the current load available (8 tons) and, depending on the number of people in the space and the building's ventilation strategy, the cooling needed can be nearly triple the available cooling (12 tons). Additionally, the current ventilation (fresh air) is inadequate for the population that can occupy the space, which can create indoor air quality issues.

As such, HVAC renovations are direly needed to avoid heat-related health problems and discomfort issues for staff and those visiting the GWC. So, while Seiberlich Trane's audit process for the total project (all buildings) is still a few weeks away from being complete, which Seiberlich Trane will be back to discuss in full at the May 11th City Council meeting, staff recommends authorizing renovations at the GWC now to ensure all HVAC issues are addressed before summer activities commence. As noted in Related Document #3, Seiberlich Trane estimates the GWC HVAC work will be completed by June 1 if authorized at the March 9th City Council meeting.

However, since Council is not approving the ESCO project associated with RFP 19-01 in whole at this time, funding to cover the work associated with the GWC portion of the larger project must be available through CIP N1603 (GWC – HVAC System Upgrades) before work can begin. Having funding available for the GWC work now provides protection to both the City and Seiberlich Trane, since this work will be distinct from the rest of the ESCO project, which Council will need to approve separately. If, for some reason, the remainder of the greater project does not move forward, payment for this HVAC project will at least be available and dispersible.

Staff additionally recommends transferring funds from CIP N1806 (FOC – Master Plan) to CIP N1603 to cover any costs above budgeted amounts to complete this work. Staff met multiple times to discuss the Maintenance Yard Master Plan project and determined that an extension to Warehouse #2 would be the best use of City funds at this time to provide additional Electric Department storage space. However, when N1806 was initially presented, staff's plan was to rebuild the now demolished Warehouse #3. Since this project will require new engineering design work before completed, as well as re-budgeting for the CIP, staff believes the best course of action is to move funds from N1806 that will not be spent in 2020 to N1603 for the completion of the HVAC renovations at the GWC. Funds for CIP N1806 will either be reimbursed through the transfer of RSA funds or re-budgeted using new estimates during the 2021 budget process.

FUNDING

Currently, funding up to \$105,000 is noted for CIP N1603 through the Green Energy Fund (DEMEC/CAC). However, since DEMEC's Green Energy Report provided on February 28th indicated a total Green Energy Fund balance of \$194,764 (\$35,234 for grants; \$138,052 for community renewable projects; \$21,478 for efficiency projects), and Council earmarked approximately \$9,000 for the procurement of electric vehicle charging stations at the February 10th Council meeting, staff now recommends moving all needed funds for CIP N1603 from CIP N1806 instead of depleting the majority of the Green Energy Fund. Seiberlich Trane estimates that the design and construction services associated with CIP N1603 will not exceed \$226,000. As such, a budget amendment transferring \$226,000 from CIP N1806 to CIP N1603 is needed to make available all funds required for the completion of the GWC HVAC work.

RELATED DOCUMENTS

1. CIP N1603
2. CIP N1806
3. Seiberlich Trane GWC Proposed HVAC Scope of Work & Budget

RECOMMENDATION

I move that Council approve a budget amendment to transfer \$226,000 from CIP N1806 to CIP N1603 and award design and construction services associated with RFP 19-01 to Seiberlich Trane of New Castle, Delaware for Energy Savings Performance Contracting and HVAC renovations at the George Wilson Center in an amount not to exceed \$226,000.

RELATED DOCUMENT #1



PROJECT NO: N1603
PROJECT TITLE: GWC - HVAC System Upgrades
PROJECT STATUS: In Progress (with end date)

FUNDING SUMMARY:

*Prior Authorized Balance includes 2019 carryover funding only.

	2020	2021	2022	2023	2024	Total 5 Year
New Funding:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
*Prior Authorized Balance:	\$ 105,000	\$ -	\$ -	\$ -	\$ -	\$ 105,000
2020-2024 Funding:	\$ 105,000	\$ -	\$ -	\$ -	\$ -	\$ 105,000

CAPITAL BUDGET - PROJECT DETAIL	
DEPARTMENT:	Administration
DIVISION:	Facilities Maintenance
FUND:	Maintenance
PROJECT LOCATION:	George Wilson Center
PROJECT PRIORITY:	4 - Medium
<small>This project is a NEED and not a WANT, but no significant risk in the deferral of this item</small>	
COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:	Sustainable Community

§ 806.1(3) SUMMARY OF PROJECT DATA	
First Year in Program:	2016
Est. Completion Date:	2020
Est. Useful Life (in years):	20
Est. Total Cost:	\$ 105,000
Est. Spend @ 12/31/2019 (if underway) ¹ :	\$ -
% Complete (if underway):	0.0%
Balance to be funded ¹ :	\$ 105,000

¹ For ongoing projects, we must estimate total spent since inception through current year to derive the balance to be funded thereafter.

PROJECT COST BY CATEGORY		
CLASSIFICATION	ACCOUNT NUMBER	AMOUNT
Labor:	6006016.9621	\$ 5,000
Materials:	6006016.9621	\$ 50,000
Other Contracts:	6006016.9621	\$ 50,000
TOTAL PROJECT COST		\$ 105,000

² Council is not required to authorize budget year funding for this portion, but this portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:	
<p>The existing HVAC system at the George Wilson Center utilizes electric baseboard heat and individual wall unit air conditioners. The air conditioners are old and leak, and need to be shut off at night to minimize damage from leakage. Facilities Management staff brought in several different HVAC contractors to assess the situation and all agree that upgrading to a combined single heat and air conditioning system will provide greatly improved efficiency and reduce overall heating and air conditioning costs for the Center, as well as improve the overall appearance of the building. Estimated costs include a combined heat and air conditioning system, (heat pump option at \$89,400), filling in 7 A/C holes currently cut into the building (\$5,480); and painting (\$2,000) and site work/trash disposal (\$2,000) which will be done in house.</p> <p>Increased costs of \$6,120 are due to increases within the vendor contract quote from 2017.</p> <p>It is anticipated that this upgrade will result in ongoing operational savings, which will be determined by the end of year 2020.</p>	

PROJECT FINANCING BY PLAN YEAR										
§ 806.1(3) SOURCE OF FUNDS:	Prior Authorized ²	Actual Funds Utilized as of 03/31/19	Estimated Expenditures 04/01/19 - 12/31/19	Estimated Authorized Balance ² 12/31/19	2020	2021	2022	2023	2024	TOTAL 5 Year CIP
CURRENT RESOURCES	-	-	-	\$ -	-	-	-	-	-	\$ -
CAPITAL RESERVES	-	-	-	\$ -	-	-	-	-	-	\$ -
EQUIPMENT REPLACEMENT	-	-	-	\$ -	-	-	-	-	-	\$ -
GRANTS (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -
BOND ISSUES	-	-	-	\$ -	-	-	-	-	-	\$ -
STATE REVOLVING LOAN	-	-	-	\$ -	-	-	-	-	-	\$ -
OTHER DEMEC/CAC	105,000	-	-	\$ 105,000	105,000	-	-	-	-	\$ 105,000
TOTAL:	\$ 105,000	\$ -	\$ -	\$ 105,000	\$ 105,000	\$ -	\$ -	\$ -	\$ -	\$ 105,000
§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET	OPERATING IMPACT:				2020	2021	2022	2023	2024	TOTAL
	INCREMENTAL COSTS (NET SAVINGS)				-	-	-	-	-	\$ -

RELATED DOCUMENT #2



PROJECT NO: N1806
PROJECT TITLE: FOC - Master Plan
PROJECT STATUS: In Progress (with end date)

FUNDING SUMMARY:

*Prior Authorized Balance includes 2018 carryover funding only.

	2019	2020	2021	2022	2023	Total 5 Year
New Funding:	\$ 225,000	\$ -	\$ -	\$ -	\$ -	\$ 225,000
*Prior Authorized Balance:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2019-2023 Funding:	\$ 225,000	\$ -	\$ -	\$ -	\$ -	\$ 225,000

CAPITAL BUDGET - PROJECT DETAIL	
DEPARTMENT:	Administration
DIVISION:	Facilities Maintenance
FUND:	Maintenance
PROJECT LOCATION:	Field Operations Complex
PROJECT PRIORITY:	4 - Medium
<small>This project is a NEED and not a WANT, but no significant risk in the deferral of this item</small>	
COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:	Not Applicable

§ 806.1(3) SUMMARY OF PROJECT DATA	
First Year in Program:	2018
Est. Completion Date:	2019
Est. Useful Life (in years):	20
Est. Total Cost:	\$ 348,000
Est. Spend @ 12/31/2018 (if underway) ¹ :	\$ 123,000
% Complete (if underway):	35.3%
Balance to be funded ¹ :	\$ 225,000

¹ For ongoing projects, we must estimate total spent since inception through current year to derive the balance to be funded thereafter.

PROJECT COST BY CATEGORY		
CLASSIFICATION	ACCOUNT NUMBER	AMOUNT
Labor:		\$ -
Materials:		\$ -
Other Contracts:	6006016.9621	\$ 225,000
TOTAL PROJECT COST		\$ 225,000

² Council is not required to authorize budget year funding for this portion, but this portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:
This project was previously identified as M1101 (PWWR - Maintenance) and has now been moved and renumbered to Facilities Division.
Phase 1: Needs Assessment and Master Planning (Completed 2016)
Phase 2: Salt Shed Construction (Completed 2017)
Phase 3: Demolition of Building #3 (2018) - Estimate \$53,000, and Additional Electric Utility Storage in Building #2 (2018) - Estimate \$70,000
Phase 4: New Parking Area (2019) - Estimate \$100,000
Phase 5: Construction of Expanded Building #3 (2019) - Estimate \$125,000
The Old Warehouse at the Facilities Operations Complex (Yard) is becoming a safety risk due to its condition. This building houses items such as: Vehicles, Electric Utility, Public Works Pumps and Filtering Media, Pipes and Hydrants, Police Impound. New Building Design is currently being evaluated.

PROJECT FINANCING BY PLAN YEAR										
§ 806.1(3) SOURCE OF FUNDS:	Prior Authorized ²	Actual Funds Utilized as of 06/30/18	Estimated Expenditures 07/01/18 - 12/31/18	Estimated Authorized Balance ² 12/31/18	2019	2020	2021	2022	2023	TOTAL 5 Year CIP
CURRENT RESOURCES	53,000	22,262	30,738	\$ -						\$ -
CAPITAL RESERVES				\$ -						\$ -
EQUIPMENT REPLACEMENT				\$ -						\$ -
GRANTS (SPECIFY)				\$ -						\$ -
BOND ISSUES	70,000		70,000	\$ -	225,000					\$ 225,000
STATE REVOLVING LOAN				\$ -						\$ -
OTHER (SPECIFY)				\$ -						\$ -
TOTAL:	\$ 123,000	\$ 22,262	\$ 100,738	\$ -	\$ 225,000	\$ -	\$ -	\$ -	\$ -	\$ 225,000
§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET	OPERATING IMPACT:				2019	2020	2021	2022	2023	TOTAL
	INCREMENTAL COSTS (NET SAVINGS)									\$ -

George Wilson Community Center

Air Conditioning and Ventilation Renovation



303 New London Road, Newark, DE 19711

Seiberlich Trane Energy Services

February 28, 2020



Executive Summary:

The Wilson Community Center is an (approx.) 11,000 square foot two story building that was built in the 1930's as a school and was taken over in the 1970's by the City of Newark. The building serves as a Community Center and rental facility for the citizens of Newark.

The upstairs (2nd floor) is comprised of a large central event space that can host events for up to 90 people. There is a small cooking kitchen with exhaust hood and another dance studio type room on the second floor.

The first floor includes smaller classroom style rooms on one side of the hallway, and the other side of the hallway is sealed unoccupied/unconditioned space that formerly was used for the original boiler rooms.

Many diverse recurring program and unique events (weddings, celebrations, civic events, etc) are held at the facility in support of the Newark community. A majority of the events are Monday – Friday in the afternoon/evening hours, and all day and evening on weekends. During the summer Monday – Friday daytime schedule is fully occupied with youth day camps.

In the summer months the main event space on the upper floor gets extremely hot and uncomfortable.

This project will install new, energy efficient heating ventilation and air conditioning (HVAC) systems that will significantly increase and improve the cooling capacity of the Community Center. These new HVAC systems will also bring the building into compliance with the current outdoor air ventilation codes.

Technical Approach:

The facility is currently heated by electric baseboard heat and cooling is provided by permanently installed portable window air conditioners. These portable units are insufficient to carry the cooling load when events are being held in the upstairs event space. Additionally, there is no active or natural ventilation introduced into the upstairs space which greatly compounds the comfort issues and leads to both personal comfort and air quality issues when the area is populated.

For the upper floors, a new Trane rooftop unit (RTU) will be installed on the roof to provide heating, cooling and ventilation (conditioned outside air) for the top floor. Conditioned air (and ventilation) will be ducted to the different top floor rooms via a new duct system installed above the existing suspended ceiling. Ceiling mounted diffusers will be installed for room-level air distribution. For energy efficiency, the RTU will monitor CO2 levels in the large event space and will adjust the amount of ventilation to ensure CO2 levels stay below the code requirements. This minimizes the amount of ventilation needed when the space is lightly occupied (saving energy) and also allows for high volumes of ventilation when the space is loaded with people. The RTU will use natural gas as the heating fuel.



For the lower floors, new Mitsubishi split system electric heat pumps will be installed to provide both heating and cooling in the lower level hallway and rooms on the west side of the hallway. The new units will be installed at/about grade level most likely at the north east corner of the building. These outdoor units will feed indoor cassettes mounted in the lower level hallway and rooms. As space permits, ceiling mounted cassettes will be installed for room-level cooling and heating. If the ceiling conditions do not have sufficient space, then wall mounted cassettes will be installed. The lower level space on the east side of the hallway is sealed/closed from normal usage is not included in the upgrades.

The existing baseboard heating will either be disabled or stay in place (partial or full) as a backup source depending on available electric capacity and the desires of the City. The window air conditioners will be removed, at the upper level the exterior walls will be framed, insulated and patched. On the lower level the portable air conditioners are in windows, the windows will simply be closed upon AC removal.

Engineering and Design:

Perform cooling and heating load calculations.

Determine specific equipment selections, sizing, arrangements, and power requirements.

Design heating and cooling distribution systems and room level grilles/registers/diffusers.

As required, prepare structural analysis for the roof such that the weight of at least one rooftop unit can be staged on the roof.

Prepare roof curb design and grade level platform designs for new equipment setting.

Prepare infill details for the former wall-mounted air conditioner wall penetrations.

Prepare electric power plan for providing both three phase and single phase electric from existing panels.

Develop plan for the existing electric baseboard heating system and controls, and how it factors into the available power for the new equipment.

Design a building automation system for the new equipment such that it can be scheduled and controlled both locally and remotely.

Prepare permit quality PE-sealed drawings and specifications for the design.

Procure necessary permits for the work.

Field Implementation:

Second Floor/Upper Level:

Prepare a new equipment roof curb and roof penetration. Roof curb will be designed and constructed such that any potential interior noise from the RTU is mitigated.

Supply and install new rooftop unit to supply heating and cooling to the upper level rooms. This unit should also carry the requisite ventilation load for the facility.

Route electric power and natural gas service to the new RTU.

Supply and install electrical disconnect for the RTU.

Perform factory-certified startup of the new rooftop unit.

Supply and install air distribution systems to route conditioned air throughout the second floor.

Supply and install sensors for temperature control.

Tie equipment and sensors into a simple building automation platform for both local and remote control.

Provide air balancing for the second floor air distribution system.

Remove and dispose of existing portable wall-mounted air conditioners.

Patch the exterior wall penetrations remaining from removing the portable air conditioners.

First Floor/Lower Level:

Construct new exterior equipment platform(s) for outdoor units.

Rig, set and secure the outdoor units on the new equipment platform(s).

Route electric service to the outdoor units, including exterior wall penetrations and patching.

Supply and install new electrical disconnects for the outdoor equipment.

Route refrigeration lines to lower level hallway and individual classrooms, including exterior wall penetrations and patching.

Supply and install ceiling mounted cassettes for air distribution in the individual rooms. If above-ceiling conditions do not permit ceiling cassettes, then wall mounted air units will be used.

Supply and install sensors for temperature control.

Tie equipment and sensors into a simple building automation platform for both local and remote control.



Remove and dispose of existing portable window-mounted air conditioners.

New systems only support the hallway and all rooms on the west side of the hallway in the lower level. The east side is currently sealed from usage and that space is not included in the coverage.

Milestone Schedule:

- March 16 (or earlier) – Notice to Proceed
- March 20 – Release HVAC Equipment for Purchase
- March 23 – Submit Design Drawings for Permits
- March 26 – Final Cost Determined (Within the ‘Not to Exceed’ Limit)
- March 30 – April 10 – Field Start MEP, Roofing, Civil Trades
- May 1 – All HVAC Equipment Received
- May 29 – System Startup & Balancing
- June 1 – Turnover/Field Work Substantially Complete

Clarifications:

All work performed during normal daytime hours, Monday thru Friday 7:00 AM – 4:00 PM.

Seiberlich Trane’s management team will coordinate activities with the Community Center such that there is minimal interference with their event schedule. Seiberlich Trane is accustomed to working under these conditions including major work at schools, universities, offices, the Chase Center, and other similar facilities without impact to their normal operating schedules.

Current lead times for the HVAC equipment is approximately 4 - 6 weeks.

All field work will be performed under New Castle County prevailing wage rates.

Training for City of Newark personnel will be performed at turnover.

No bonding or costs for bonding are included in the budget.

Financial:

Seiberlich Trane is requesting the City approve a Not to Exceed budget of \$226,000 for this initiative.

Upon further engineering design development, a final cost will be determined and communicated to the City. This amount will not exceed the \$226,000 budget approval.



Seiberlich Trane and the City of Newark are both members of the US Communities/OMNIA Partners program. If desired, this program can be used to independently verify the final cost of this Community Center HVAC Upgrade scope of work.

Costs for this scope of work will be rolled into the upcoming ESCO energy program. Seiberlich Trane will perform the work and withhold invoicing for the work until the ESCO program is approved. Seiberlich Trane will invoice in full for this scope of work upon contract approval and financing of the ESCO program. ESCO contract execution is anticipated late 2Q2020/early 3Q2020.

Questions/Comments/Next Steps:

Please feel free to contact us with any questions or if you need additional information.

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