Memorandum

Date: 12/18/2023
To: Dr. Negron; NHPS Finance & Operations Committee; NHPS Board of Education
From: Thomas Lamb, Chief Operating Officer
RE: Approval of Education Specification Documents

HVAC Indoor Air Quality Grant Application Documents

The New Haven Public Schools has embarked on a journey to apply for the HVAC Indoor air quality grant through the State of Connecticut. There are many requirements for the application to the State of Connecticut for the district to meet. One of these requirements that we are seeking is for the Board of Education to approve Education Specification Documents for each of the projects we are seeking grant funding.

Each education specification documents requires that we answer 8 questions each with sub parts. Some more complex than others. Many of these questions the district Facilities Team is able to gather the information based on current building records and working with school principals and staff.

1. Project Rational, why are we applying for this project.
2. Long Range Plan, how does each project fit into the long-range planning for the district.
3. The Project, define the project scope.
4. Define the current interior building environment as it relates to the project.
   a. Ceiling Type
   b. Ductwork size and type
   c. Lighting Type
   d. Electrical Infrastructure Related to Project
   e. Plumbing Systems Related to Project
   f. Type of Windows & Doors Related to Project
5. Site Development
   a. Was site acquisition required?
   b. Will parking be affected by the project?
   c. Will driveway or Access to parking be affected by project?
d. Will project have impact on Outdoor Athletic facilities?
e. Will project have impact on Landscaping?
f. Will project require site improvements?

6. Special Programming at School
   a. School Readiness
   b. Lighthouse School
   c. CHOICE
   d. Reduced Class Size
   e. Regional Vo-ag Center: n/a
   f. Inter-district Magnet School: no
   g. Inter-district Cooperative School: n/a
   h. Regional Special education Center

7. Community Issues
   a. PTO yes
   b. The Recreation Department
   c. Voting Site
   d. Summer Enrichment Programs
   e. Neighborhood and Citywide public meetings
   f. Boys and Girl Scouts
   g. Community choral and other performances

Brief Project Descriptions include:

a. Fair Haven School
   Fair Haven School—Rooftop Project
   All the mechanical cooling and gas heat rooftop units at Fair Haven need to be replaced because they operate with R22 refrigerant and have also met their life expectancy. These units should be replaced with packaged roof top units with variable speed drives, mechanical cooling, and operating on 410a refrigerant.

b. Lincoln-Basset School
   Lincoln-Basset—Rooftop Project
   All the mechanical cooling and gas fired rooftop units at Lincoln Basset need to be replaced because they have met their life expectancy and operate on R22 refrigerant. These roof top units should be replaced with packaged roof top units with variable speed drives, mechanical cooling, and operating on 410a refrigerant.

c. Brennan-Rogers Art of Communication and Media Magnet School
Brennan-Rogers School—Rooftop Project
All the mechanical cooling and gas-fired rooftop units at Brennan need to be replaced because they have met their life expectancy and also operate on R22 refrigerant. These roof top units need to be replaced with variable speed drives, mechanical cooling, and 410a refrigerant.

d. Edgewood Creative Thinking Through STEAM School
Edgewood School—Rooftop & Split Unit Project
There are 3 large rooftop units with mechanical cooling and gas heat. These units need to be replaced with package units with variable speed drives, mechanical cooling, and 410a refrigerant. There are also 15 split units serving classrooms that need to be replaced with modern units running off modern refrigerant.
Educational Specifications

HVAC Roof Top Units Replacement Project—Edgewood School

1. **RATIONALE:**

The New Haven Public Schools is looking to replace roof top unit HVAC systems at the Edgewood School. The school HVAC system was last renovated in 1999. This system has exceeded its life expectancy. Roof top units are currently failing, as reported by our in-house technicians and our on-call services; many ongoing repairs are being continuously performed. Failure of these systems is likely and to not replace can cause the school to be without heat or air conditioning.

2. **LONG-RANGE PLAN**

The New Haven Public School is committed to creating a safe and appropriate learning environment and has engaged in the development of a Long-Range Facilities Real Estate Master Plan that incorporates school conditions, enrolment projections and school programing in the positioning the district the next chapter of excellence and beyond. In pursuit of this the New Haven Public Schools will need to replace aging unfractured including systems that contribute to the indoor air quality and environment at all New Haven Public Schools. The HVAC System at the Edgewood School, located at 737 Edgewood Ave, New Haven CT 06513 has been identified as a system at end of life and replacement will support the district plans.

3. **THE PROJECT**

- The project proposes the following components of its HVAC System project:
  - All mechanical cooling and gas heat roof top units to be demo ’ed to include.
    - 9 Rooftop Units, roof curbs, hot water and DX coils, ductwork connections and controls.
  - All units to be replaced with high efficiency packaged Rooftop Units with hot water coils, DX cooling, variable speed drives, 410a refrigerant and new BMS controls. All RTU’s to be equipped with new roof curbs, dunnage, and full economizers. Upgrade the BMS controls and tie them into the existing front-end system. Upgrade graphics and sequence of operation to reflect this renovation. Factory installed items shall be as follows as applied.
The current school includes grades K through 8th grade and houses various classroom’s, gym, art rooms, music rooms, special education classes, nurse’s office, school base health clinic, kitchen, cafeteria, custodial spaces, storage space, electrical rooms, boiler room and school administration offices.

Building construction type is steel, metal and brick.

4. **BUILDING SYSTEMS**

   - Security: Yes, systems are in place and properly functioning; not affected by this scope of work for this project.
   - Public Address: 737 Edgewood Ave, New Haven CT 06513
   - Technology: Yes, systems are in place and properly functioning; Not affected by this scope of work for this project.
   - Phone systems: Yes, systems are properly functioning; Not affected by the scope of work for this scope of work
   - Clocks: Yes, systems are properly functioning; Not affected by this scope of work

5. **INTERIOR BUILDING ENVIRONMENT**

   - Acoustics: Ceilings: If ceiling tiles are damaged due to construction during the project, they will be replaced as part of the project.
• Ductwork to be replace per the design by the Engineer
• Lighting: Yes, systems are properly functioning; Not affected by this scope of work
• Roof to be replace or repaired around new units as needed
• Plumbing: to be upgraded as effected by project
• Windows and Doors: to be removed and put back in place as needed to allow units to be replaced

6. SITE DEVELOPMENT

• Site Acquisitions: n/a
• Parking: n/a
• Drives: n/a
• Walkways: n/a
• Outdoor Athletic facilities: n/a
• Landscaping: n/a
• Site Improvements: n/a

7. CONSTRUCTION BONUS REQUESTS

Special program eligible for a school construction bonus.

• School Reediness: YES, program located at this school
• Lighthouse School: n/a
• CHOICE: n/a
• Full Day Kindergarten: YES, program is located at this school
• Reduced Class size: n/a
• Regional Vo-ag Center: n/a
• Inter-district Magnet School: no
• Inter-district Cooperative School: n/a
• Regional Special education Center: n/a

8. COMMUNITY USES

Edgewood School is designed for community uses before and after school hours and on some weekends, throughout the school year and summer. Various and sometimes multiple areas are used for these functions. The uses to include but not be limited to include:

• PTO / yes
• The Recreation Department / yes
• Voting / yes
• Summer Enrichment Programs / yes
• Neighborhood and Citywide public meetings / yes
• Boys and Girl Scouts / No
• Community choral and other performances / Yes
Educational Specifications

Project HVAC Replacement – Fair Haven School

1. **RATIONALE:**

   The New Haven Public Schools is looking to replace the HVAC system at the Fair Haven School. The entire HVAC system was last renovated in 2000. The systems have met their life expectancy. There are units that are currently failing, as reported by our inhouse technician and our on-call services; many ongoing repairs are being continuously performed. Failure to not replace can cause the school to be without heat and AC.

2. **LONG-RANGE PLAN**

   The New Haven Public School is committed to creating a safe and appropriate learning environment and has engaged in the development of a Long-Range Facilities Real Estate Master Plan that incorporates school conditions, enrolment projections and school programing in the positioning the district the next chapter of excellence and beyond. In pursuit of this the New Haven Public Schools will need to replace aging unfractured including systems that contribute to the indoor air quality and environment at all New Haven Public Schools. The HVAC System at the Fair Haven School, located at 164 Grand Ave., New Haven CT 06513 has been identified as having systems at end of life and replacement will support the district plans.

3. **THE PROJECT**

   • The project proposes the following components of its HVAC System renovation project:
   • All mechanical cooling and gas heat roof top units to be demo ’ed to include.
     o 9 Rooftop Units, roof curbs, hot water and DX coils, ductwork connections and controls.
     o 11 Air Handling Units, hot water and DX coils, ductwork, connections, and controls.
   • All units to be replaced with high efficiency packaged Rooftop and Air Handling Units with hot water coils, DX cooling, variable speed drives, 410a refrigerant and new BMS controls. All RTU’s to have new roof curbs, dunnage, and full economizers. Air Handling Units shall be equipped with supply and return fans and VFD’s and remote air-cooled condensers. Upgrade the BMS controls and tie into the existing front-end system. Upgrade graphics and sequence of operation to reflect this renovation. Factory installed items shall be as follows as applied.
The current school includes grades Pre-K through 8th grade and houses various classroom's, gym, auditorium, art rooms, music rooms, special education classes, nurse's office, school base health clinic, kitchen, cafeteria, custodial spaces, storage space, electrical rooms, boiler room and school administration offices.

- Building construction type is steel, metal and brick.

4. BUILDING SYSTEMS

- Security: Yes, systems are properly functioning; not affected by this scope of work.
- Public Address: 164 Grand Ave, New Haven CT 06513
- Technology: Yes, systems are properly functioning; Not affected by this scope of work
- Phone systems: Yes, systems are properly functioning; Not affected by this scope of work
- Clocks: Yes, systems are properly functioning; Not affected by this scope of work

5. INTERIOR BUILDING ENVIRONMENT

- Acoustics: Ceilings: If ceiling tiles are damaged due to construction during the project, they will be replaced as part of the project.
- Ductwork to be replace per the design by the Engineer
• Lighting: Yes, systems are properly functioning; Not affected by this scope of work
• Roof to be replace or repaired around new units as needed
• Plumbing: to be upgraded as effected by project
• Windows and Doors: to be removed and put back in place as needed to allow units to be replaced

6. **SITE DEVELOPMENT**

• Site Acquisitions: n/a
• Parking: n/a
• Drives: n/a
• Walkways: n/a
• Outdoor Athletic facilities: n/a
• Landscaping: n/a
• Site Improvements: n/a

7. **CONSTRUCTION BONUS REQUESTS**

Special programs eligible for a school construction bonus.

• School Readiness: currently in this location
• Lighthouse School: n/a
• CHOICE: n/a
• Full Day Kindergarten: yes
• Reduced Class size: n/a
• Regional Vo-ag Center: n/a
• Inter-district Magnet School: no
• Inter-district Cooperative School: n/a
• Regional Special education Center: n/a
8. **COMMUNITY USES**

Fair Haven School is designed for community uses before and after school hours and on some weekends, throughout the school year and summer. Various and sometimes multiple areas are used for these functions. The uses to include but not be limited to include:

- PTO yes
- The Recreation Department yes
- Voting yes
- Summer Enrichment Programs yes
- Neighborhood and Citywide public meetings yes
- Boys and Girl Scouts no
- Community choral and other performances yes
Dec. 18, 2023

Educational Specifications

Project HVAC Replacement – Kathrine Brennan School

1. **RATIONALE:**

The New Haven Public Schools is looking to replace the HVAC system at the Kathrine Brennan School. The entire HVAC system was last installed in 1999. This system has met its life expectancy. There are units that are currently failing, as reported by our inhouse technicians and our on-call services; many ongoing repairs are being continuously performed. Failure to not replace can cause the school to be without heat and AC.

2. **LONG-RANGE PLAN**

The New Haven Public School is committed to creating a safe and appropriate learning environment and has engaged in the development of a Long-Range Facilities Real Estate Master Plan that incorporates school conditions, enrolment projections and school programing in the positioning the district the next chapter of excellence and beyond. In pursuit of this the New Haven Public Schools will need to replace aging unfractured including systems that contribute to the indoor air quality and environment at all New Haven Public Schools. The HVAC System at the Edgewood School, located at 200 Wilmot Rd., New Haven CT 06513 has been identified as a system at end of life and replacement will support the district plans.

3. **THE PROJECT**

- The project proposes the following components of its HVAC System project:
- All mechanical cooling and gas heat roof top units to be demo ‘ed to include.
  - 9 Rooftop Units, roof curbs, hot water and chilled water coils, ductwork connections and controls.
- All units to be replaced with high efficiency packaged Rooftop Units with hot and chilled water coils, variable speed drives, and new BMS controls. All RTU’s to be equipped with new roof curbs, dunnage, and full economizers. Upgrade the BMS controls and tie them into the existing front-end system. Upgrade graphics and sequence of operation to reflect this renovation. Factory installed items shall be as follows as applied.
The currant school includes grades Pre K through 8th grade and houses various classroom’s, gym, art rooms, music rooms, special education classes, nurse’s office, school base health clinic, kitchen, cafeteria, custodial spaces, storage space, electrical rooms, boiler room and school administration offices.

Building construction type is steel, metal and brick.
4. **BUILDING SYSTEMS**
   - Security: Yes, systems are properly functioning; not affected by this scope of work.
   - Public Address: 200 Wilmot Rd, New Haven CT 06513
   - Technology: Yes, systems are properly functioning; Not affected by this scope of work
   - Phone systems: Yes, systems are properly functioning; Not affected by this scope of work
   - Clocks: Yes, systems are properly functioning; Not affected by this scope of work

5. **INTERIOR BUILDING ENVIRONMENT**
   - Acoustics: Ceilings: If ceiling tiles are damaged due to construction during the project, they will be replaced as part of the project.
   - Ductwork to be replace per the design by the Engineer
   - Lighting: Yes, systems are properly functioning; Not affected by this scope of work
   - Roof to be replace or repair around new units as needed
   - Plumbing: to be upgraded as effected by project
   - Windows and Doors: to be removed and put back in place as need to allow units to be replaced

6. **SITE DEVELOPMENT**
   - Site Acquisitions: n/a
   - Parking: n/a
   - Drives: n/a
   - Walkways: n/a
   - Outdoor Athletic facilities: n/a
   - Landscaping: n/a
   - Site Improvements: n/a

7. **CONSTRUCTION BONUS REQUESTS**

   **Special program eligible for a school construction bonus.**
   - School Reediness: currently in this location
   - Lighthouse School: n/a
   - CHOICE: n/a
   - Full Day Kindergarten: yes
   - Reduced Class size: n/a
- Regional Vo-ag Center: n/a
- Inter-district Magnet School: no
- Inter-district Cooperative School: n/a
- Regional Special education Center: n/a
8. **COMMUNITY USES**

Kathrine Brennan School is designed for community uses before and after school hours and on some weekends, throughout the school year and summer. Various and sometimes multiple areas are used for these functions. The uses to include but not be limited to include:

- PTO yes
- The Recreation Department yes
- Voting yes
- Summer Enrichment Programs yes
- Neighborhood and Citywide public meetings yes
- Boys and Girl Scouts no
- Community choral and other performances yes.
Educational Specifications

Project HVAC Replacement – at Lincoln Basset School

1. **RATIONALE:**

The New Haven Public Schools is looking to replace the HVAC system at the Lincoln Basset School. The entire HVAC system was last installed in 1998. The units have met their life expectancy. There are units that are currently failing, as reported by our inhouse technicians and our on-call services; many ongoing repairs are being continuously performed. Failure to not replace can cause the school to be without heat and AC.

2. **LONG-RANGE PLAN**

The New Haven Public School is committed to creating a safe and appropriate learning environment and has engaged in the development of a Long-Range Facilities Real Estate Master Plan that incorporates school conditions, enrolment projections and school programing in the positioning the district the next chapter of excellence and beyond. In pursuit of this, the New Haven Public Schools will need to replace aging unfractured including systems that contribute to the indoor air quality and environment at all New Haven Public Schools. The HVAC System at the Edgewood School, located at 130 Bassett Street, New Haven CT 06513 has been identified as a system at end of life and replacement will support the district plans.

3. **THE PROJECT**

- The project proposes the following components of its HVAC System project:
  - All mechanical cooling and gas heat roof top units to be demo ‘ed to include.
    - 6 Rooftop Units, roof curbs, hot water and DX coils, ductwork connections and controls.
  - All units to be replaced with high efficiency packaged Rooftop Units with hot water coils, DX cooling, variable speed drives, 410a refrigerant and new BMS controls. All RTU’s to be equipped with new roof curbs, dunnage, and full economizers. Upgrade the BMS controls and tie them into the existing front-end system. Upgrade graphics and sequence of operation to reflect this renovation. Factory installed items shall be as follows as applied.
The current school includes grades Pre K through 5th grade and houses various classroom’s, gym, art rooms, music rooms, special education classes, nurse’s office, school base health clinic, kitchen, cafeteria, custodial spaces, storage space, electrical rooms boiler room and school administration offices.

Building construction type is steel, metal and brick.

4. **BUILDING SYSTEMS**

- Security: Yes, systems are properly functioning; Not affected by this scope of work
- Public Address: 130 Bassett St, New Haven CT 06511
- Technology: Yes, systems are properly functioning; Not affected by this scope of work
- Phone systems: Yes, systems are properly functioning; Not affected by this scope of work
- Clocks: Yes, systems are properly functioning; Not affected by this scope of work

5. **INTERIOR BUILDING ENVIRONMENT**

- Acoustics: Ceilings: If ceiling tiles are damaged due to construction during the
project, they will be replaced as part of the project.

- Ductwork to be replace per the design by the Engineer
- Lighting: Yes, systems are properly functioning; Not affected by this scope of work
- Roof to be replace or repaired around new units as needed
- Plumbing: too be upgraded as effected by project
- Windows and Doors: to be removed and put back in place as needed to allow units to be replaced

6. **SITE DEVELOPMENT**

- Site Acquisitions: n/a
- Parking: n/a
- Drives: n/a
- Walkways: n/a
- Outdoor Athletic facilities: n/a
- Landscaping: n/a
- Site Improvements: n/a

7. **CONSTRUCTION BONUS REQUESTS**

*does not house any special program eligible for a school construction bonus.*

- School Reediness: n/a
- Lighthouse School: n/a
- CHOICE: n/a
- Full Day Kindergarten: yes
- Reduced Class size: n/a
- Regional Vo-ag Center: n/a
- Inter-district Magnet School: n/a
- Inter-district Cooperative School: n/a
- Regional Special education Center: n/a
8. **COMMUNITY USES**

Lincoln Basset School is designed for community uses before and after school hours and on some weekends, throughout the school year and summer. Various and sometimes multiple areas are used for these functions. The uses to include but not be limited to include:

- PTO yes
- The Recreation Department yes
- Voting yes
- Summer Enrichment Programs yes
- Neighborhood and Citywide public meetings yes
- Boys and Girl Scouts no
- Community choral and other performances yes.