

# Custom Procurement Report

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# **Customer Information**

Customer Tunstall (Purchasing)

Name Contact N/A Person Contact N/A **Email** Contact N/A Phone

# **Project Information**

**Project** Barnstead ES Additions & Renovations

Name 91 Maple St, Center Barnstead, NH 03225 Location

**Start Date** N/A Completion N/A Date **Budget** N/A

Scope HVAC mechanical systems including heating water systems, air

conditioning systems, air moving and handling systems, control dampers and valves, cooling and heating coils, terminal units, exhaust and supply fans, temperature and humidity monitoring, hot water heating systems, fire alarm system interfaces, variable fre-

quency drives for pumps and fans

927efb28-6593-472f-a377-702743c3ef3b **Project ID** 

**Project URL BuildVision Project Link Project** TTG Proj No. 5199 Number

Building Type

**Elementary School** 

**Issue Date** 05/20/2025

Architect The H.L. Turner Group Inc.

Milestone Engineering & Construction Engineer

Contract Bid Pack No2 Type

# **Prepared By**

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Date: 2025-06-17

# **Project Equipment**

## **Finned-Tube Radiation Heaters**

<b>Equipment Tag</b>	Manufacturer	Model
FR-1	Sterling HVAC	C3/4-435
FR-2	Sterling HVAC	JVB-SS

#### Notes

Ratings at water velocity scheduled. Copper tubes expanded into aluminum fins with front panels, backplates, and wall sleeves.

#### **Cabinet Unit Heaters**

<b>Equipment Tag</b>	Manufacturer	Model
CUH-1	Trane	FFEB-030
CUH-2	Trane	FFEB-030
CUH-3	Trane	FFEB-030
CUH-4	Trane	FFEB-030
CUH-5	Trane	FFEB-030
CUH-6	Trane	FFEB-030
CUH-7	Trane	FFEB-030
CUH-8	Trane	FFEB-030
CUH-9	Trane	FFEB-030
CUH-10	Trane	FFEB-030

#### Notes

Speed control and disconnect switch, mounted and wired in enclosure. Rated temperature as scheduled with tamped bottom inlet and outlet louvers.

#### **Hot Water Unit Heaters**

<b>Equipment Tag</b>	Manufacturer	Model
UH-1	Trane	UHS-18
UH-2	Trane	UHS-19

#### **Notes**

Speed controller mounted on heater and wired to motor for reducing airflow and noise. Mason Industries double-deflection neoprene hangers at top of rods.

## **Hot Water Coils**

<b>Equipment Tag</b>	Manufacturer	Model
HC-1	Aerofin	HWP-13.0 AF
HC-2	Aerofin	HW-12.0 OAS
HC-3	Johnson Controls	HW-12.0 OAS
HC-4	Johnson Controls	HWP13.0 AF
HC-5	Johnson Controls	HWP-12.0 AS

## Notes

Coils shall have copper tubes with aluminum fins, threaded carbon steel connections and galvanized casings.

# **Radiant Heating and Cooling Hydronic Panels**

<b>Equipment Tag</b>	Manufacturer	Model
RCP-1	Sterling	Modular
RCP-2	Sterling	Modular
RCP-3	Sterling	Modular
RCP-4	Sterling	Modular
RCP-5	Sterling	Modular
RCP-6	Sterling	Modular
RCP-7	Sterling	Modular
RCP-8	Sterling	Modular
RCP-9	Sterling	Modular
RCP-10	Sterling	Modular
RCP-11	Sterling	Modular
RCP-12	Sterling	Modular
RCP-13	Sterling	Modular
RCP-14	Sterling	Modular
RCP-15	Sterling	Modular
RCP-16	Sterling	Modular
RCP-17	Sterling	Modular
RCP-18	Sterling	Modular
RCP-19	Sterling	Modular
RCP-20	Sterling	Modular

# Notes

Bottom pan and sides of 18-gauge aluminum sheet in nominal sizes to fit T-stat lay-in ceiling grids. Copper tube heating coil mechanically fastened to surface panel.

# **Suppliers**

# **Finned-Tube Radiation Heaters**

Manufacturer	Model	Representative	Compatibility Notes	BoD
Sterling HVAC	C3/4-435, JVB- SS	N/A	Sterling HVAC appears as the BoD manufacturer on mechanical schedules for Finned-Tube Radiation Heaters FR-1 and FR-2	Yes
Rittling		N/A	Listed as acceptable man- ufacturer for baseboard ra- diation in specifications	Listed
Slant-Fin		N/A	Listed as acceptable man- ufacturer for baseboard ra- diation in specifications	Listed
Vulcan		N/A	Listed as acceptable man- ufacturer for baseboard ra- diation in specifications	Listed
Beacon-Morris		N/A	Well-established manufacturer of finned tube radiation products, commonly used in educational facilities	No
Hydronic Alterna- tives		N/A	Specializes in hydronic heating solutions, compatible with specified system requirements	No

# **Cabinet Unit Heaters**

Manufacturer	Model	Representative	<b>Compatibility Notes</b>	BoD
Trane	FFEB-030	N/A	Basis of design manufacturer identified in mechanical schedules. Model FFEB-030 specified for all Cabinet Unit Heater units CUH-1 through CUH-10.	Yes
Sterling Hydronics		N/A	Listed as acceptable manufacturer in specification section 238200 for Cabinet Unit Heaters.	Listed

Beacon-Morris	N/A	Listed as acceptable man- ufacturer in specification section 238200 for Cabi- net Unit Heaters.	Listed
Dunham Bush	N/A	Listed as acceptable man- ufacturer in specification section 238200 for Cabi- net Unit Heaters.	Listed
McQuay	N/A	Listed as acceptable man- ufacturer in specification section 238200 for Cabi- net Unit Heaters.	Listed
Modine	N/A	Listed as acceptable manufacturer in specification section 238200 for Cabinet Unit Heaters.	Listed
Price Industries	N/A	Listed as acceptable manufacturer in specification section 238200 for Cabinet Unit Heaters.	Listed
Rittling	N/A	Listed as acceptable man- ufacturer in specification section 238200 for Cabi- net Unit Heaters.	Listed

# **Hot Water Unit Heaters**

Manufacturer	Model	Representative	Compatibility Notes	BoD
Trane	UHS-18	N/A	Model UHS-18 as shown on mechanical schedules for equipment tag UH-1	Yes
Sterling HVAC	Various Models	N/A	Listed as acceptable manufacturer in Section 238200 for convection heating units including cabinet unit heaters	Listed
Beacon-Morris	Various Models	N/A	Listed as acceptable manufacturer in Section 238200 for cabinet unit heaters	Listed
Modine	Various Models	N/A	Listed as acceptable manufacturer in Section 238200 for cabinet unit heaters	Listed

#### **Hot Water Coils**

Manufacturer	Model	Representative	<b>Compatibility Notes</b>	BoD
Aerofin	HWP-13.0 AF	N/A	Used for HC-1 and HC-4 hot water coils	Yes
Johnson Controls	HWP-12.0 AS	N/A	Used for HC-5 guidance offices hot water coil	No
Nationwide Coils		N/A	Industry manufacturer of air coils, including hydronic	No

## **Radiant Heating and Cooling Hydronic Panels**

Manufacturer	Model	Representative	Compatibility Notes	BoD
Sterling HVAC	Radiant Heating Panel - Hydronic	N/A	Listed as BoD Manu- facturer in mechanical schedules for all RCP-1 through RCP-24 radiant ceiling panels	Yes
Beacon-Morris	Radiant Heating Panel - Hydronic	N/A	Suitable alternative for radiant heating panels with similar specifications	No
Runtal	Radiant Heating Panel - Hydronic	N/A	Premium radiant panel manufacturer with compatible hydronic systems	No

## **BuildVision Recommendations**

# 1. Implement Competitive Bidding Strategy for HVAC Equipment

**Rationale:** The project specifies major HVAC equipment from multiple acceptable manufacturers including Trane, Sterling HVAC, and Aerofin across various components. By soliciting competitive bids from all approved manufacturers rather than sole-sourcing, significant cost savings can be achieved while maintaining quality standards. The specifications already provide flexibility with multiple approved manufacturers for most equipment categories.

**Estimated Impact:** Potential cost savings through competitive pricing while ensuring compliance with technical specifications and maintaining project quality standards **Implementation:** 1) Prepare detailed RFP packages for each equipment category listing all approved manufacturers, 2) Require detailed technical submittals and warranty terms from each bidder, 3) Evaluate bids on total cost of ownership including maintenance and energy efficiency, 4) Negotiate final pricing and delivery terms with selected suppliers **Priority:** High

# 2. Consolidate Equipment Suppliers for Volume Discounts

**Rationale:** The project requires substantial quantities of similar equipment types including 24 radiant ceiling panels (RCP-1 through RCP-24), 10 cabinet unit heaters (CUH-1 through CUH-10), and multiple hot water coils. Consolidating purchases with fewer suppliers who can provide multiple equipment types can leverage volume purchasing power for better pricing and streamlined logistics.

**Estimated Impact:** Reduced procurement costs through volume discounts and simplified project management with fewer vendor relationships to coordinate

**Implementation:** 1) Analyze equipment specifications to identify suppliers capable of providing multiple categories, 2) Request bundled pricing proposals for large quantity orders, 3) Negotiate volume discount tiers and delivery schedules, 4) Establish single points of contact for coordination and technical support

**Priority:** High

## 3. Establish Equipment Standardization Program

**Rationale:** The project shows multiple instances of identical equipment specifications (such as 10 identical Trane FFEB-030 cabinet unit heaters and multiple Sterling HVAC modular radiant panels). Standardizing on fewer models and manufacturers can reduce procurement complexity, improve maintenance efficiency, and enable better spare parts inventory management for the school district's long-term operations.

**Estimated Impact:** Long-term operational cost savings through simplified maintenance procedures, reduced spare parts inventory requirements, and standardized training needs **Implementation:** 1) Review all equipment schedules to identify opportunities for further standardization, 2) Work with manufacturers to confirm availability and pricing for standardized models, 3) Develop preferred equipment lists for future projects, 4) Coordinate with facilities management for maintenance planning

**Priority: Medium** 

# 4. Optimize Equipment Delivery and Sequencing

**Rationale:** The project involves a school renovation with multiple mechanical systems that must be coordinated carefully to minimize disruption. The specifications indicate complex coordination requirements between existing and new systems. Strategic procurement timing and delivery sequencing can reduce storage costs, minimize equipment damage risk, and optimize installation efficiency.

**Estimated Impact:** Reduced project costs through minimized storage requirements and improved installation efficiency while reducing risk of equipment damage **Implementation:** 1) Develop detailed delivery schedule coordinated with construction

milestones, 2) Negotiate flexible delivery terms with suppliers, 3) Identify on-site storage requirements and protection measures, 4) Establish equipment inspection and acceptance procedures upon delivery

**Priority: Medium** 

## 5. Negotiate Extended Warranty and Service Packages

**Rationale:** The specifications reference various warranty periods for different equipment types and manufacturers. For a school environment requiring reliable operation, negotiating comprehensive warranty packages and service agreements during procurement can provide better long-term value and operational security than standard manufacturer warranties

**Estimated Impact:** Enhanced operational reliability and predictable maintenance costs while reducing long-term facility management burden

**Implementation:** 1) Analyze standard warranty terms from all manufacturers, 2) Negotiate extended warranty options and comprehensive service packages, 3) Compare total cost of ownership including extended coverage, 4) Establish clear service response requirements and performance metrics

**Priority:** Medium

# **Conclusion**

# **Key Findings**

- Equipment standardization opportunities exist with 10 identical Trane FFEB-030 cabinet unit heaters and 24 Sterling modular radiant panels, enabling volume purchase negotiations
- Multiple approved manufacturers are specified across equipment categories (Sterling HVAC, Trane, Aerofin, Johnson Controls), creating competitive bidding opportunities while maintaining technical compliance
- Complex integration requirements between new DDC controls and existing Barnstead School District SAU BMS systems require careful vendor coordination and compatibility verification
- Delivery sequencing will be critical for school renovation environment with specific requirements for minimizing construction dust in ductwork systems and coordinating with occupied facility operations
- Comprehensive warranty and service requirements are specified with varying terms by equipment type, providing negotiation opportunities for enhanced coverage packages

# **Highest Priority Actions**

- Implement competitive bidding strategy leveraging multiple approved manufacturers to achieve optimal pricing while ensuring technical compliance with detailed specifications
- Negotiate volume discounts for standardized equipment quantities, particularly for the 10 identical cabinet unit heaters and 24 radiant ceiling panels
- Establish detailed delivery and coordination schedule with suppliers to minimize storage costs and equipment damage risk while accommodating school operational re-

#### quirements

• Verify DDC controls compatibility and coordination requirements with Control Technologies for seamless integration with existing building management systems

## **Summary**

The Barnstead ES Additions & Renovations project represents a comprehensive HVAC mechanical systems procurement with 44 major equipment units across five distinct categories. The project features well-defined technical specifications with multiple approved manufacturers for most equipment types, providing excellent opportunities for competitive procurement while maintaining quality standards. Key procurement considerations include coordinating new systems with existing building infrastructure, managing delivery sequencing for an operational school environment, and leveraging substantial equipment quantities for volume pricing advantages.



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Date: 2025-06-17