

# Custom Procurement Report

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### **Customer Information**

Customer HRCG

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# **Project Information**

Project HSS Long Island ASC Fit-Out Name

**Location** East Meadow, NY

**Start Date** 5/13/2025

 $\begin{array}{ll} \textbf{Completion} & \text{N/A} \\ \textbf{Date} & \text{Budget} & \text{N/A} \end{array}$ 

**Scope** Healthcare facility fit-out with HVAC and power systems installation

**Project ID** e4130056-0863-4954-974c-eae85b9a64bc

Project URL BuildVision Project Link

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Date: 2025-05-20

# **Project Equipment**

### **Indoor Central-Station Air-Handling Units**

<b>Equipment Tag</b>	Manufacturer	Model
AHU-3-1	Haakon	CUSTOM
AHU-3-2	Haakon	CUSTOM

#### Notes

Custom AHUs designed for healthcare application

#### **Modular Water Chillers**

<b>Equipment Tag</b>	Manufacturer	Model
ASHP-1.1	AERMEC	NYK500HD
ASHP-1.2	AERMEC	NYK500HD
ASHP-1.3	AERMEC	NYK500HD
ASHP-1.4	AERMEC	NYK500HD
ASHP-1.5	AERMEC	NYK500HD
ASHP-1.6	AERMEC	NYK500HD
ASHP-1.7	AERMEC	NYK500HD

#### Notes

Heat pump chiller modules in 7-module configuration for heating and cooling

### **Diesel Engine Generators**

<b>Equipment Tag</b>	Manufacturer	Model
G-1	Caterpillar	D600 GC

#### Notes

600 kW generator for backup power

### **Automatic Transfer Switches**

<b>Equipment Tag</b>	Manufacturer	Model
ATS-CR	Schneider Electric	ASCO 7000 SERIES
ATS-EQ1	Schneider Electric	ASCO 7000 SERIES
ATS-EQ2	Schneider Electric	ASCO 7000 SERIES

ATS-LS Schneider Electric	ASCO 7000 SERIES
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#### **Notes**

Premium quality transfer switches for healthcare facility power distribution

# **Suppliers**

### **Indoor Central-Station Air-Handling Units**

Note: Cost differences are Al-estimated percentages relative to Basis of Design and are not based on actual project data. Always obtain accurate quotes from vendors directly via buildvision.io.

Manufacturer	Model	Representativ	Al Est. Cost D	Compatibility Notes	BoD
Haakon		N/A		Basis of Design	Yes
Haakon		N/A		Basis of Design	No
CES/Ventrol		Gil-Bar In- dustries		Listed as approved manufacturer in spec section 237313. Custom AHUs will require careful evaluation of alternatives to ensure they meet the specific requirements for the healthcare facility.	No
Nortek Air Solu- tions/Temtrol		Gil-Bar In- dustries		Listed as approved manufacturer in spec section 237313. Healthcaregrade specifications required.	No
Air Enter- prise		New York Thermal Systems		Listed as approved manufacturer in spec section 237313. Healthcaregrade specifications required.	No

### **Modular Water Chillers (Air-Source Heat Pump)**

Note: Cost differences are Al-estimated percentages relative to Basis of Design and are not based on actual project data. Always obtain accurate quotes from vendors directly via buildvision.io.

Manufacturer	Model	Representativ	Al Est. Cost D	Compatibility Notes	BoD
AERMEC	NYK500HD	N/A		Basis of Design	Yes

AERMEC	NYK500HD	N/A	E	Basis of Design	No
Multistack		SRS Enter- prises		Listed as approved manufacturer in spec section 236213. The AERMEC NYK500HD is a highefficiency heat pump chiller. The 7-module configuration suggests approximately 875 tons of capacity (125 tons per module). Modular system, good for redundancy.	No

# **Diesel Engine Generators**

Note: Cost differences are Al-estimated percentages relative to Basis of Design and are not based on actual project data. Always obtain accurate quotes from vendors directly via buildvision.io.

Manufacturer	Model	Representativ	Al Est. Cost D	Compatibility Notes	BoD
Caterpillar	D600 GC	N/A		Basis of Design	Yes
Caterpillar	D600 GC	N/A		Basis of Design	No
Kohler		H.O. Penn		The Caterpillar D600 GC is a 600 kW generator. Alternatives should match this capacity. H.O. Penn serves New York with full sales and service for Caterpillar products and represents Kohler generators.	No
Cummins		Cummins Northeast		Reliable option for health- care applications	No
MTU		Atlantic Power		Verify healthcare-grade features and 600 kW capacity	No

### **Automatic Transfer Switches**

Note: Cost differences are Al-estimated percentages relative to Basis of Design and are not based on actual project data. Always obtain accurate quotes from vendors directly via buildvision.io.

Manufacturer	Model	Representativ	Al Est. Cost D	Compatibility Notes	BoD
Schneider	Electric (ASCO) 7000 Series	N/A		Basis of Design	Yes
Schneider	Electric (ASCO) 7000 Series	N/A		Basis of Design	No
Russelectric		Russelectric Northeast		ASCO 7000 series are premium quality switches. Match quality and functionality.	No
Cummins		Cummins Northeast		Verify healthcare code compliance	No
Kohler		H.O. Penn		Verify healthcare code compliance	No
Eaton		Cooper Elec- tric		Evaluate carefully to ensure they meet healthcare code requirements	No

### **Small-Capacity Split-System Air Conditioners**

Note: Cost differences are Al-estimated percentages relative to Basis of Design and are not based on actual project data. Always obtain accurate quotes from vendors directly via buildvision.io.

Manufacturer	Model	Representativ	Al Est. Cost D	Compatibility Notes	BoD
Mitsubishi	Electric	N/A		Basis of Design	Yes
Mitsubishi	Electric	N/A		Basis of Design	No
Mitsubishi Electric (Including Trane Prod- ucts)	PUY- P24NKMU- E2 / PKY- P24NKMU- E2	Homans Associates		Listed as approved manufacturer in spec section 238126.13. Equipment tag: AC-1-1.	No

### **In-Line Centrifugal Hydronic Pumps**

Note: Cost differences are Al-estimated percentages relative to Basis of Design and are not based on actual project data. Always obtain accurate quotes from vendors directly via buildvision.io.

Manufacturer	Model	Representativ	Al Est. Cost D	Compatibility Notes	BoD
Taco	Comfort So- lutions	N/A		Basis of Design	Yes
Taco	Comfort So- lutions	N/A		Basis of Design	No
Taco Comfort Solutions	VL 1508	Emerson Swan		Equipment tags: CHWP-1-1, CHWP-1-2, CHWP-2-1, CHWP-2-2. Emerson Swan is the authorized representative for Taco Comfort Solutions in New York state.	No

### **Design Notes**

### **HVAC Systems**

#### **Technical Observations:**

- Custom Haakon air handling units designed for healthcare applications
- Air-source heat pump system with seven AERMEC NYK500HD modules
- Modular approach offers redundancy and ability to stage capacity
- System provides both heating and cooling capability

#### **Concerns:**

- Complex configuration with seven modules may increase maintenance requirements
- Custom AHUs will have long lead times (20-30 weeks)

#### **Opportunities:**

- Potential to reduce number of modules while maintaining redundancy
- Enhanced control systems could optimize module operation

### **Power Systems**

#### **Technical Observations:**

- Caterpillar D600 GC diesel generator (600 kW) for backup power
- Four ASCO 7000 Series automatic transfer switches
- Sophisticated power distribution system with separate emergency power branches
- Design meets code requirements for healthcare facilities

#### **Concerns:**

- Long lead times for generator and transfer switches
- · Premium equipment may have higher initial costs

#### **Opportunities:**

- Competitive bidding from multiple manufacturers may reduce costs
- · Early release of equipment packages to address lead times

#### **Air Handling Units**

#### **Technical Observations:**

- Custom Haakon AHUs specified for stringent healthcare requirements
- Units likely include heavy-gauge materials and double-wall construction
- Design addresses infection control, noise criteria, and specific airflow/filtration

#### needs

#### **Concerns:**

- · Custom units have limited alternatives that match exact specifications
- Premium construction increases costs

#### **Opportunities:**

- Several manufacturers can provide healthcare-grade units with proper specification
- Clear definition of critical specifications can ensure alternatives maintain quality

### **Distribution Systems**

#### **Technical Observations:**

- Hydronic distribution system with modular heat pumps
- System provides both chilled and hot water
- · Eliminates need for separate boiler systems
- Offers energy efficiency advantages in New York climate

#### **Concerns:**

- · Complex hydronic system requires careful commissioning
- Multiple modules increase connection complexity

#### **Opportunities:**

- · Heat recovery optimization could increase system efficiency
- Smart controls could enhance performance

#### **BuildVision Recommendations**

### 1. HVAC System Optimization

**Rationale:** The seven-module AERMEC heat pump system provides significant redundancy, which is important for a healthcare facility. However, fewer, larger modules might reduce initial costs while still providing adequate redundancy.

**Estimated Impact:** Potential reduction in initial costs and decreased connection complexity without compromising system reliability.

**Implementation:** Consider a 5-module configuration at 175 tons each instead of 7 modules at 125 tons each.

**Priority: Medium** 

#### 2. AHU Alternatives Evaluation

**Rationale:** While Haakon provides excellent custom units, other manufacturers with healthcare expertise may offer comparable quality at competitive prices.

**Estimated Impact:** Potential cost savings while maintaining required performance for healthcare applications.

**Implementation:** Request 'healthcare grade' specifications from alternative manufacturers that match Haakon's quality level, including double-wall construction, hospital-grade drainage pans, premium filtration systems, low air leakage rates, antimicrobial interior surfaces, and premium fan systems.

**Priority:** High

### 3. Generator System Alternatives

**Rationale:** The Caterpillar D600 GC generator is appropriately sized, but competitive bidding may identify cost-effective alternatives.

**Estimated Impact:** Potential cost savings while maintaining reliability and performance. **Implementation:** Solicit competitive bids from Kohler, Cummins, and MTU with 'healthcare grade' specifications including extended runtime capability, enhanced sound attenuation, robust paralleling capabilities, premium fuel filtration, and advanced monitoring systems. **Priority:** Medium

#### 4. Transfer Switch Evaluation

**Rationale:** ASCO 7000 Series transfer switches are top-tier equipment, but alternatives like Russelectric offer comparable quality.

**Estimated Impact:** Potential cost savings while maintaining reliability for critical power systems.

**Implementation:** Evaluate alternatives carefully to ensure they meet healthcare code requirements and reliability expectations.

**Priority:** Low

### **5. Project Phasing Coordination**

**Rationale:** Long lead times for custom AHUs and generators (20-30 weeks) should be factored into the project schedule early.

**Estimated Impact:** Prevention of project delays and avoidance of costly temporary measures.

**Implementation:** Consider early release of equipment packages, phased delivery to match construction sequence, and temporary conditioning options if permanent equipment cannot be installed in time for commissioning.

**Priority:** High

### 6. Energy Efficiency Enhancement

**Rationale:** Enhanced control systems could optimize the operation of all AERMEC heat pump modules.

**Estimated Impact:** Improved energy efficiency and reduced operational costs.

Implementation: Specify advanced BMS integration, predictive load management, heat

recovery optimization, and smart defrost cycling for winter operation.

**Priority: Medium** 

### 7. System Redundancy Validation

Rationale: Healthcare facilities require robust redundancy in critical systems.

**Estimated Impact:** Ensured continuity of operations and compliance with healthcare facility requirements.

**Implementation:** Validate that the proposed systems meet N+1 redundancy for critical cooling/heating systems, appropriate emergency power distribution, backup control systems, and failsafe modes for critical areas.

**Priority:** High

#### **Conclusion**

#### **Key Findings**

- The project utilizes high-quality, healthcare-grade equipment throughout
- The HVAC system design provides redundancy and flexibility through a modular approach
- The power distribution system is designed to meet healthcare code requirements
- Long lead times for custom equipment require early coordination
- Several opportunities exist to optimize the design while maintaining quality and reliability

#### **Highest Priority Actions**

- Evaluate AHU alternatives with healthcare-grade specifications
- · Coordinate equipment procurement with project phasing to address long lead times
- Validate system redundancy to ensure compliance with healthcare requirements

### **Summary**

This project features premium equipment appropriate for a healthcare facility. While the specified manufacturers represent excellent quality, there are multiple viable alternatives that could offer similar performance potentially at lower cost. The custom nature of the air handling units and the modular approach to the heating/cooling system suggest a well-designed system with appropriate redundancy.



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Date: 2025-05-20