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# Custom Procurement Report

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**→** **Streamlined Sourcing**

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## Customer Information

| | |
|---|---|
| **Customer Name** | HRCG |
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| **Contact Phone** | N/A |
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## Project Information

| | |
|---|---|
| **Project Name** | HSS Long Island ASC Fit-Out |
| **Location** | East Meadow, NY |
| **Start Date** | 5/13/2025 |
| **Completion Date** | N/A |
| **Budget** | N/A |
| **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: 5/14/2025

# Project Equipment

## Indoor Central-Station Air-Handling Units

| Equipment Tag | Manufacturer | Model |
|---|---|---|
| AHU-3-1 | Haakon | CUSTOM |
| AHU-3-2 | Haakon | CUSTOM |

**Notes**

Custom AHUs designed for healthcare application

## Modular Water Chillers

| Equipment Tag | 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

| Equipment Tag | Manufacturer | Model |
|---|---|---|
| G-1 | Caterpillar | D600 GC |

**Notes**

600 kW generator for backup power

## Automatic Transfer Switches

| Equipment Tag | 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 |

**Notes**

Premium quality transfer switches for healthcare facility power distribution

# Alternate Manufacturers

## Indoor Central-Station Air-Handling Units

**Basis of Design:** Haakon

| Manufacturer | Model | Representativ | Compatibility Notes |
|---|---|---|---|
| CES/Ventrol | | Gil-Bar Industries | 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. |
| Nortek Air Solutions/Temtrol | | Gil-Bar Industries | Listed as approved manufacturer in spec section 237313. Healthcare-grade specifications required. |
| Air Enterprise | | New York Thermal Systems | Listed as approved manufacturer in spec section 237313. Healthcare-grade specifications required. |

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

**Basis of Design:** AERMEC NYK500HD

| Manufacturer | Model | Representativ | Compatibility Notes |
|---|---|---|---|
| Multistack | | SRS Enterprises | Listed as approved manufacturer in spec section 236213. The AERMEC NYK500HD is a high-efficiency heat pump chiller. The 7-module configuration suggests approximately 875 tons of capacity (125 tons per module). Modular system, good for redundancy. |

## Diesel Engine Generators

**Basis of Design:** Caterpillar D600 GC

| Manufacturer | Model | Representativ | Compatibility Notes |
|---|---|---|---|
| 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. |
| Cummins | | Cummins Northeast | Reliable option for healthcare applications |
| MTU | | Atlantic Power | Verify healthcare-grade features and 600 kW capacity |

## Automatic Transfer Switches

**Basis of Design:** Schneider Electric (ASCO) 7000 Series

| Manufacturer | Model | Representativ | Compatibility Notes |
|---|---|---|---|
| Russelectric | | Russelectric Northeast | ASCO 7000 series are premium quality switches. Match quality and functionality. |
| Cummins | | Cummins Northeast | Verify healthcare code compliance |
| Kohler | | H.O. Penn | Verify healthcare code compliance |
| Eaton | | Cooper Electric | Evaluate carefully to ensure they meet healthcare code requirements |

## Small-Capacity Split-System Air Conditioners

**Basis of Design:** Mitsubishi Electric

| Manufacturer | Model | Representativ | Compatibility Notes |
|---|---|---|---|
| Mitsubishi Electric (Including Trane Products) | PUY-P24NKMU-E2 / PKY-P24NKMU-E2 | Homans Associates | Listed as approved manufacturer in spec section 238126.13. Equipment tag: AC-1-1. |

## In-Line Centrifugal Hydronic Pumps

**Basis of Design:** Taco Comfort Solutions

| Manufacturer | Model | Representativ | Compatibility Notes |
|---|---|---|---|
| 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. |

# 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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