

Custom Procurement Report

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Customer Information

Customer **Paul Weiss**

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

Project Information

Project Paul Weiss - 1345 AoA Relocation

Name Location

1345 Avenue of Americas, New York, NY 10105

Start Date 4/1/2025 Completion N/A **Date Budget** N/A

Scope **HVAC Equipment Replacement and Renovation**

Project ID

Project URL **BuildVision Project Link** Contractor Structure Tone (NY)

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Project Equipment

Hydronic Pumps

Equipment Tag	Manufacturer	Model
CWP-14-1, -2, -3	Grundfos	LF-DOL15705
CWP-35-1, 2	Grundfos	CR3-DOL19-4P
CWP-37-1, 2, 3	Grundfos	LCS-DOL15705
PCWP-15-1, -2		
SCWP-15-1, -2		

Notes

Riser diagram calls for CWP-37-1/2/3 as 150 GPM, but schedule calls for 175 GPM. CWP-37-1/2/3 are lead/lag with third pump for redundancy.

Heat Exchangers

Equipment Tag	Manufacturer	Model
HX-15-1	Hexonic	LB60-DOL110H-1

Air Conditioning Units

Equipment Tag	Manufacturer	Model
AC-15-1	Mammoth	VVW-303-GXST
AC-16-1	Mammoth	VVW-393-CXST-L
MUA-14-1	Mammoth	VVX-1684-GEL

Notes

AC-15-1 and AC-16-1 serve VAVs and need VAV control. MUA-14-1 is a SCU but handles 100% outside air with a 227kW electric reheat coil.

Electronic Air Cleaners

Equipment Tag	Manufacturer	Model
ESP-14-1	Halton	PST-18-ESP-ESP-EF-OCUV-OCC-
		В

VAV Terminal Units

Equipment Tag	Manufacturer	Model
VAV-6	Titus	DESV-6
VAV-8	Titus	DESV-8
VAV-10	Titus	DESV-10
VAV-12	Titus	DESV-12
VAV-14	Titus	DESV-14
VAV-16	Titus	DESV-16

Notes

These are all single duct terminals without reheat. Low budget.

HVAC Fans

Equipment Tag	Manufacturer	Model
DXF-14-1	Greenheck	QEI-9
DXF-14-2	Greenheck	QEI-9
EF-13-1	Greenheck	CSP-A510-VG
EF-14-1	Greenheck	CSP-A510-VG
EF-15-1	Greenheck	CSP-A700
EF-15-2, -5	Greenheck	CSP-A390-VG
EF-15-3	Greenheck	CSP-A510-VG
EF-15-4	Greenheck	CSP-A780
EF-16-1	Greenheck	CSP-A700
EF-16-2, -5	Greenheck	CSP-A390-VG
EF-16-3	Greenheck	CSP-A510-VG
EF-16-4	Greenheck	CSP-A780
GXF-14-1	Greenheck	CSP-A390
TF-13-1	Greenheck	CSP-A1300
TF-14-1	Greenheck	CSP-A1300
TF-15-1	Greenheck	CSP-A1300
TF-16-1	Greenheck	CSP-A1300
TX-13-1, -2	Greenheck	CSP-A780
TX-14-1, -2	Greenheck	CSP-A780
TX-15-1, -2	Greenheck	CSP-A780
TX-16-1, -2	Greenheck	CSP-A780

Notes

DXF-14-1 serves dishwasher. Aluminum wheel needed for dishwasher exhaust fans. BOD fan may not be compatible with EC motor. Engineer requests add-alt breakout price for transfer fans serving IDF rooms.

Fan Coil Units

Equipment Tag	Manufacturer	Model
FCU-14-1	IEC	HPY12
FCU-16-1	IEC	HPY12
FCU-15-1, -2	IEC	HPY08
FCU-16-2, -3	IEC	HPY08

Notes

Fairly straightforward. Some manufacturers have piping packages included from factory. No external static pressure requirements listed.

Suppliers

Hydronic Pumps

Manufacturer	Model	Representative	Compatibility Notes	BoD
Grundfos	NBS25-DOL70- 2P	N/A	Used for end suction pumps CWP-14-1, -2, -3	Yes
Grundfos	CR5-DOL5-2P	N/A	Used for PCWP-15-1, -2 pumps	No
Grundfos	CR5-DOL3-2P	N/A	Used for SCWP-15-1, -2 pumps	No
Grundfos	CRE32-DOL2-1	N/A	Used for CWP-37-1, 2, 3 (practice floors)	No
Grundfos	CRE5-DOL6	N/A	Used for CWP-35-1, 2 (practice floors)	No
Armstrong		SRS Enterprises	Listed alternate for hydronic pumps	Listed
Bell & Gossett		Wallace Eannace	Listed alternate for hydronic pumps	Listed
Taco		Wales Darby	Listed alternate for hydronic pumps	Listed
Wilo		N/A	Additional suggested manufacturer for hydronic pumps	No
Xylem		N/A	Additional suggested manufacturer for hydronic pumps	No

Heat Exchangers

Manufacturer	Model	Representative	Compatibility Notes	BoD
Hexonic	LB60-DOL110H-1	N/A	Used for plate-type, liquid- to-liquid heat exchanger	Yes
Alfa Laval		N/A	Listed in specs as acceptable manufacturer for plate and frame heat exchangers	Listed
Mueller Accu- Therm		N/A	Listed in specs as acceptable manufacturer for plate and frame heat exchangers	Listed
Patterson-Kelly		N/A	Listed in specs as acceptable manufacturer for plate and frame heat exchangers	Listed
Bell & Gossett		Wallace Eannace	Mentioned in MH report as alternate manufacturer for heat exchangers	Listed
Taco		Wales Darby	Mentioned in MH report as alternate manufacturer for heat exchangers	Listed

Air Conditioning Units

Manufacturer	Model	Representative	Compatibility Notes	BoD
Mammoth	VVW-303-GXST	N/A	Water-cooled, self- contained air conditioner with waterside econo- mizer capability	Yes
Daikin Applied		Daikin NY	Listed alternate for self- contained AC units; re- quires verification of wa- terside economizer com- patibility	Listed
Trane		Trane NY	Listed alternate for self- contained AC units and water-source heat pumps	Listed
United Cool Air		Gil-Bar	Listed alternate for self- contained AC units	Listed
Florida Heat Pump		N/A	Listed as an acceptable manufacturer under the Bosch product line	Listed

Carrier	Carrier NY	Listed alternate for water- source heat pumps and computer room AC units	Listed
Johnson Controls	JCI NY	Listed alternate for water- source heat pumps	Listed
WaterFurnace	MWSK Equip- ment	Listed alternate for water- source heat pumps	Listed
Data Aire	N/A	Listed alternate for computer room AC units	Listed
Airedale	N/A	Listed alternate for computer room AC units; international manufacturer with limited US presence	Listed
Stulz	MWSK Equip- ment	Listed alternate for computer room AC units	Listed
Vertiv (formerly Liebert)	N/A	Additional suggested manufacturer for computer room AC units; industry leader with broad product offerings	No
ClimateMaster	N/A	Additional suggested manufacturer for water-source heat pumps; listed as acceptable alternative to Florida Heat Pump	No

Electronic Air Cleaners

Manufacturer	Model	Representative	Compatibility Notes	BoD
Halton	PST-18-ESP- ESP-EF-OCUV- OCC-B	N/A	ESP unit is mounted on the 14th floor serving the kitchen exhaust system.	Yes
Accurex		Local Office	Listed as alternate for pollution control unit.	Listed
CaptiveAire		Local Office	Listed as alternate for pollution control unit.	Listed
Trion		ADE Systems	Listed as alternate for pollution control unit.	Listed
Air Quality Engi- neering		N/A	Additional suitable manufacturer for electronic air cleaners.	No
United Air Specialists		N/A	Additional suitable manufacturer for electronic air cleaners.	No

VAV Terminal Units

Manufacturer	Model	Representative	Compatibility Notes	BoD
Titus	DESV	N/A	Basis of design for VAV terminal units; listed in BV dashboard with models DESV-6, DESV-8, DESV-10, DESV-12, DESV-14, DESV-16	Yes
Enviro-Tec		MWSK Equip- ment Sales	Listed alternate manufac- turer for single duct VAV terminals	Listed
Greenheck		ADE Systems	Listed alternate manufac- turer for single duct VAV terminals	Listed
MetalAire		SRS Enterprises	Listed alternate manufac- turer for single duct VAV terminals	Listed
Nailor		Bush Sales Co	Listed alternate manufac- turer for single duct VAV terminals	Listed
Price Industries		Air Distribution Systems	Listed alternate manufac- turer for single duct VAV terminals	Listed
Trane		Trane NY Sales Office	Listed alternate manufac- turer for single duct VAV terminals	Listed
Johnson Controls		N/A	Additional suggested man- ufacturer with VAV termi- nal product offerings	No
Krueger		N/A	Additional suggested man- ufacturer with VAV termi- nal product offerings	No

HVAC Fans

Manufacturer	Model	Representative	Compatibility Notes	BoD
Greenheck	QEI-9	N/A	Used for dishwasher exhaust fans (DXF-14-1, DXF-14-2)	Yes
Loren Cook		SRS Enterprises	Listed alternate for HVAC fans	Listed
Penn Barry		Brooklyn Fan & Blower	Listed alternate for HVAC fans	Listed
Twin City		Gil-Bar	Listed alternate for HVAC fans	Listed

Panasonic	N	Energy efficient ECM motors, suitable for ceiling applications	No
Continental Fan	N	Compatible with specified fan requirements	No

Fan Coil Units

Manufacturer	Model	Representative	Compatibility Notes	BoD
IEC	HPY Series	N/A	Basis of design for FCUs. Model HPY08 and HPY12 used for the project.	Yes
Carrier		Carrier NY	Listed as acceptable alternate for FCUs.	Listed
Daikin Applied		Daikin NY	Listed as acceptable alternate for FCUs.	Listed
Johnson Controls		JCI NY	Listed as acceptable alternate for FCUs.	Listed
Trane		Trane NY	Listed as acceptable alternate for FCUs.	Listed
Titus		Air Distribution Enterprises	Listed as acceptable alternate for FCUs.	Listed
Whalen		NY Thermal Systems	Listed as acceptable alternate for FCUs.	Listed
Williams Comfort		SRS Enterprises	Listed as acceptable alternate for FCUs.	Listed
First Co.		N/A	Suggested additional man- ufacturer with similar fan coil product line.	No
Enviro-Tec		N/A	Suggested additional manufacturer with comparable FCU product offerings.	No

BuildVision Recommendations

1. Consolidate HVAC Equipment Suppliers

Rationale: The equipment list shows multiple manufacturers for similar equipment types. For example, HVAC fans from Greenheck, water-source heat pumps from Bosch, and CRAC units from AboveAir. Consolidating suppliers can lead to bulk purchase discounts and simplified maintenance.

Estimated Impact: Potential 5-8% cost reduction on equipment purchases, reduced spare parts inventory requirements, and streamlined maintenance procedures with fewer service

contracts.

Implementation: 1. Group equipment by type and identify opportunities to standardize manufacturers

- 2. Request quotes from manufacturers for the consolidated equipment package
- 3. Evaluate warranty and service contract options for the entire package
- 4. Negotiate volume discounts based on total purchase value

Priority: High

2. Replace R-410A Systems with Lower GWP Refrigerants

Rationale: The specification mentions compliance with AIM Act requirements and preferences for low GWP refrigerants. Bosch water-source heat pumps currently use R-454B (lower GWP), but other units may still use R-410A which has higher environmental impact and may face future regulatory restrictions.

Estimated Impact: Avoids potential future retrofits costs of \$2,000-4,000 per unit, reduces environmental impact, and ensures compliance with evolving regulations. May qualify for utility rebates or incentives for low-GWP systems.

Implementation: 1. Request equipment options with R-32 or R-454B refrigerants from manufacturers

- 2. Compare initial costs against potential future retrofit expenses
- 3. Identify any utility incentives for low-GWP refrigerant systems
- 4. Ensure that selected refrigerants comply with NYC Fire Department standards

Priority: Medium

3. Preemptively Negotiate Extended Warranties

Rationale: The specification includes extended warranty requirements for specific equipment (5-year compressor warranty for WSHPs, 5-year warranty for actuators). Negotiating extended warranties for all major equipment during procurement can provide long-term cost protection.

Estimated Impact: Potential savings of \$15,000-25,000 in repair and replacement costs over 5 years compared to standard warranty coverage. Provides predictable maintenance costs and reduces financial risks.

Implementation: 1. Identify all major equipment that would benefit from extended warranties

- 2. Request extended warranty pricing at time of initial equipment purchase
- 3. Evaluate cost-benefit of extended warranties based on equipment criticality
- 4. Bundle warranty extensions into the initial purchase negotiation

Priority: Medium

4. Implement VFD Procurement Strategy

Rationale: The specifications indicate numerous variable frequency drives (VFDs) for pumps and fans. VFDs represent significant cost and are critical to energy efficiency. The project would benefit from a coordinated procurement approach for all VFDs rather than purchasing them individually.

Estimated Impact: Potential cost savings of 10-15% on VFD procurement through volume

purchasing. Standardization of VFD interfaces would also reduce commissioning and training costs and improve long-term maintainability.

Implementation: 1. Create a comprehensive VFD schedule across all equipment

- 2. Specify a single preferred manufacturer for all VFDs
- 3. Negotiate package pricing based on total VFD count
- 4. Ensure consistent communication protocols and interfaces

Priority: High

5. Pre-Purchase Critical Long-Lead Equipment

Rationale: Equipment such as CRAC units (particularly the larger MCW-018S1 models) and water-cooled AC units typically have long lead times. Current supply chain issues may further extend these lead times, potentially delaying the project schedule.

Estimated Impact: Reduces risk of project delays by 4-8 weeks. Early procurement may also avoid potential price increases that could occur during the project timeframe, potentially saving 3-5% on equipment costs.

Implementation: 1. Identify equipment with expected lead times exceeding 8 weeks

- 2. Prioritize critical path equipment for pre-purchase
- 3. Secure storage arrangements if needed
- 4. Coordinate delivery schedules with construction timeline
- 5. Ensure equipment warranty periods align with project completion

Priority: High

6. Implement Value Engineering for Control Valves and Actuators

Rationale: The specifications call for high-end control valves and actuators with features like redundant position feedback and advanced analytics. For less critical applications, simpler and less expensive models could provide adequate performance.

Estimated Impact: Potential savings of \$150-300 per valve/actuator assembly on non-critical applications. With dozens of valves in the project, this could yield total savings of \$5,000-10,000 without compromising system functionality.

Implementation: 1. Categorize valve applications by criticality (critical vs. non-critical)

- 2. Define minimum requirements for each category
- 3. Request alternative pricing for standard valves and actuators for non-critical applica-
- 4. Maintain premium specifications only where analytics and feedback are essential **Priority:** Medium

7. Secure Fixed-Price Commissioning Services

Rationale: The project includes extensive commissioning requirements, including for complex systems like the BMS. The specifications indicate potential variable costs for items such as after-hours commissioning and retesting of failed components.

Estimated Impact: Eliminates risk of cost overruns during commissioning phase, potentially saving \$10,000-15,000 in unplanned expenses. Provides budgetary certainty and incentivizes efficiency in commissioning procedures.

Implementation: 1. Define comprehensive commissioning scope including all required

tests

- 2. Request fixed-price proposals for complete commissioning services
- 3. Include allowances for reasonable retesting
- 4. Negotiate provisions for after-hours work in initial contract

Priority: Medium

Conclusion

Key Findings

- Multiple manufacturers are specified across similar equipment types, presenting an opportunity for supplier consolidation to achieve cost savings, simplified maintenance, and reduced spare parts inventory.
- The specification emphasizes low-GWP refrigerants (like R-454B) that comply with AIM Act requirements and NYC Fire Department standards, which should be a key consideration in equipment selection.
- Critical components with historically long lead times include CRAC units, watercooled AC units, and electronic air cleaners, which should be prioritized for early procurement.
- The project requires extensive BMS integration across all equipment, with dedicated tenant and landlord systems that must interface effectively, making coordinated procurement essential for compatibility.
- Value engineering opportunities exist for control valves, actuators, and VFDs, where standardization could yield significant cost savings without compromising functionality.

Highest Priority Actions

- Develop a consolidated equipment purchasing strategy that standardizes manufacturers where possible, especially for fans, pumps, and terminal units, to maximize volume discounts and simplify long-term maintenance.
- Pre-purchase identified long-lead items, particularly CRAC units and water-cooled AC units, to prevent project schedule delays and potential price increases.
- Implement a coordinated VFD procurement approach across all pump and fan applications to ensure consistency in interface, communications protocols, and maintenance requirements while reducing overall costs.
- Verify all equipment refrigerant selections comply with current regulations and future-proof against pending restrictions, with preference for R-32 or R-454B options where available.

Summary

The Paul Weiss project at 1345 Avenue of the Americas involves a comprehensive HVAC equipment procurement strategy spanning multiple floors (13-16 and 29-44). The equipment package includes water-source heat pumps, self-contained air conditioning units, computer room air conditioners, hydronic pumps, fan coil units, and various exhaust and transfer fans. The procurement approach should focus on equipment standardization, refrigerant compliance, strategic supplier selection, and careful timing of purchases to mitigate supply chain risks. Equipment specifications emphasize energy efficiency with features like waterside economizers, variable frequency drives, and advanced BMS control integration.



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