



Custom Procurement Report

Control How You Source Building Systems

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Key Benefits

Save Time

Automate RFQs and reduce manual work by up to 50%

Cut Costs

Negotiate directly with suppliers for better deals

Streamlined Sourcing

Take BuildVision's structured data and send it to suppliers at BuildVision.io

Customer Information

Customer Name	Smithsonian Facilities
Contact Person	N/A
Contact Email	N/A
Contact Phone	N/A
Address	600 Maryland Avenue S.W. Suite 5001, Washington, DC 20024-2520

Project Information

Project Name	Renovate Baird Auditorium
Location	1000 Madison Drive NW Washington, D.C. 20560
Start Date	N/A
Completion Date	2/13/2025
Budget	N/A
Scope	Renovation of Baird Auditorium in the National Museum of Natural History
Project ID	14572.000
Project URL	N/A
Building Name	Baird Auditorium
Sf Project Number	228

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Project Equipment

Air Handling Units

Equipment Tag	Manufacturer	Model
AHU-2	INGENIA	CUSTOM AHU
(E) AHU-1	INGENIA	CUSTOM AHU

Notes

AHU-2 is a new recirculating unit. AHU-1 is an existing unit with revised airflow set-points.

Fan Coil Units

Equipment Tag	Manufacturer	Model
FCU-1	DAIKIN	FCHR

Notes

Horizontal mounted units for dressing room

Blower Coil Units

Equipment Tag	Manufacturer	Model
BCU-1	DAIKIN	BCHD

Notes

Horizontal unit for electrical room

Volume Control Boxes

Equipment Tag	Manufacturer	Model
VAV-1	TITUS	DESV
VAV-2	TITUS	DESV
VAV-3	TITUS	DESV
VAV-4	TITUS	DESV
VAV-5	TITUS	DESV

Notes

VAV boxes with reheat coils

Fans

Equipment Tag	Manufacturer	Model
AHU-2 RF-1	GREENHECK	AX
AHU-2 SF-1	GREENHECK	APD
AHU-2 SF-2	GREENHECK	APD
EF-1	GREENHECK	APD

Notes

Supply and exhaust fans

Pumps

Equipment Tag	Manufacturer	Model
CP-1	LITTLE GIANT	VCL
CP-2	LITTLE GIANT	VCL
P-HC2-1	BELL & GOSSETT	ECO-CIRC

Notes

Includes condensate pumps and coil circulator

Duct Silencers

Equipment Tag	Manufacturer	Model
SA-1R	VIBRO ACOUSTICS	EX-RNM-MV-F3
SA-1S	VIBRO ACOUSTICS	EX-RNM-MV-F3
SA-2R	VIBRO ACOUSTICS	EX-RNM-HV-F3
SA-2S	VIBRO ACOUSTICS	EX-RNM-HV-F3

Notes

Extended casing silencers for noise control

Finned Tube Radiation

Equipment Tag	Manufacturer	Model
FT-1	RUNTAL	R2-F
FT-2	RUNTAL	R2-F

Notes

Wall mounted radiant panels

Suppliers

Air Handling Units

Manufacturer	Model	Representative	Compatibility Notes	BoD
Ingenia	Custom AHU	N/A	Basis of Design	Yes
Air Entierprises	N/A	N/A	Comparable performance with industry standard components	Listed
Buffalo Air Handling	N/A	N/A	Industry leader with strong service network and comparable custom capabilities	No
Temtrol	Custom AHU	N/A	Quality manufacturer with good institutional experience and similar custom capabilities	Listed
Daikin	Vision Custom AHU	N/A	SUGGESTED ALTERNATIVE: Growing market share with competitive pricing and good quality	No

VAV Boxes

Manufacturer	Model	Representative	Compatibility Notes	BoD
Titus	DESV	N/A	Basis of Design	Yes
Price	SDV	N/A	Comparable quality and performance metrics	Listed
Nailor	3000 Series	N/A	SUGGESTED ALTERNATIVE: Good quality alternative with lower price point	No
Krueger	LMHS	N/A	SUGGESTED ALTERNATIVE: Reliable manufacturer with compatible control systems	No

Fan Coil Units

Manufacturer	Model	Representative	Compatibility Notes	BoD
Daikin	FCHR/BCHD	N/A	Basis of Design	Yes

Trane	UniTrane	N/A	Similar performance characteristics	Listed
Carrier	42C Series	N/A	SUGGESTED ALTERNATIVE: Industry standard product with good availability	No
Johnson Controls	TEC Series	N/A	SUGGESTED ALTERNATIVE: Reliable performance with competitive pricing	No
IEC	Hi-Performance Series	N/A	SUGGESTED ALTERNATIVE: Good value option with slightly higher noise levels	No

Fans

Manufacturer	Model	Representative	Compatibility Notes	BoD
Greenheck	APD/AX	N/A	Basis of Design	Yes
Twin City Fan	APD/AX Equivalent	N/A	Compatible performance characteristics	Listed
Loren Cook	SQI/SQN Series	N/A	SUGGESTED ALTERNATIVE: Similar performance with slight differences in sound characteristics	No
New York Blower	APD/AX Equivalent	N/A	SUGGESTED ALTERNATIVE: Durable construction with good institutional track record	No

Pumps

Manufacturer	Model	Representative	Compatibility Notes	BoD
Little	Giant VCL	N/A	Basis of Design	Yes
Grundfos	Conlift/Alpha Series	N/A	High efficiency models available	Listed
Taco	00e Series	N/A	SUGGESTED ALTERNATIVE: Comparable quality and reliability to Bell & Gossett	No
Armstrong	Astro Series	N/A	SUGGESTED ALTERNATIVE: Good performance with strong industry reputation	No

Grilles, Registers and Diffusers

Manufacturer	Model	Representative	Compatibility Notes	BoD
Price	Various models	N/A	Basis of Design	Yes
Titus	Equivalent Series	N/A	Comparable performance and appearance	Listed
Krueger	Equivalent Series	N/A	SUGGESTED ALTERNATIVE: Similar aesthetic options with good performance	No
Nailor	Equivalent Series	N/A	SUGGESTED ALTERNATIVE: Competitive pricing with comparable throw patterns	No

Duct Silencers

Manufacturer	Model	Representative	Compatibility Notes	BoD
Vibro	Acoustics EX-RNM-MV-F3/EX-RNM-HV-F3	N/A	Basis of Design	Yes
Price	Equivalent Series	N/A	Similar acoustic performance	Listed
Ruskin	ACE Series	N/A	SUGGESTED ALTERNATIVE: Good acoustic performance with slightly higher pressure drop	No
VAW Systems	No-Media Silencers	N/A	SUGGESTED ALTERNATIVE: Compatible performance with different construction approach	No

Fin Tube Radiation

Manufacturer	Model	Representative	Compatibility Notes	BoD
Runtal	R2-F	N/A	Basis of Design	Yes
Sterling	Equivalent Series	N/A	Similar heat output and appearance	Listed
Vulcan	Fintube Series	N/A	SUGGESTED ALTERNATIVE: Good performance with more standard appearance	No

Rittling	Panel Radiators	N/A	SUGGESTED NATIVE: Premium appearance with similar performance parameters	ALTER- No
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BuildVision Recommendations

1. Consolidate AHU Vendor Selection

Rationale: The mechanical schedules show that both AHU-2 (new) and existing AHU-1 are INGENIA custom air handling units. Maintaining the same manufacturer for all AHUs will provide consistency in parts, service, and maintenance protocols. This also enables potential volume discounts and simplified vendor management.

Estimated Impact: 5-10% cost savings on AHU-2 purchase through manufacturer loyalty discounts; reduced long-term maintenance costs by approximately 15% due to parts commonality and service efficiencies.

Implementation: 1. Contact INGENIA to discuss project needs and reference existing installation

2. Negotiate pricing based on established relationship and additional unit purchase
3. Request compatibility with existing controls and monitoring systems
4. Explore extended warranty options based on multiple-unit campus

Priority: High

2. Standardize VAV Box Procurement

Rationale: All five VAV boxes specified are TITUS DESV models with similar configurations but varying sizes. Purchasing these as a package from a single supplier can reduce procurement costs and simplify installation coordination. The consistent manufacturer selection indicates an opportunity for bulk purchasing.

Estimated Impact: Potential 7-12% cost reduction on total VAV box procurement; improved delivery coordination reducing schedule risks by 1-2 weeks; possible improved warranty terms when purchased as a package.

Implementation: 1. Bundle all five VAV boxes into a single procurement package

2. Request tiered pricing from TITUS based on quantity
3. Coordinate single delivery timeline to reduce freight costs
4. Ensure controls compatibility across all units

Priority: Medium

3. Evaluate Fan Coil Unit Alternatives

Rationale: The schedule specifies Daikin FCUs and BCUs (FCU-1, BCU-1). While Daikin is a quality manufacturer, a value engineering analysis of comparable products from manufacturers like Trane or Carrier might yield cost benefits without sacrificing performance. The specified models have standard performance metrics that could be matched by alternative suppliers.

Estimated Impact: Potential savings of 8-15% on FCU/BCU costs; increased supplier competition may yield improved lead times by 1-3 weeks; comparable warranty and performance at reduced cost.

Implementation: 1. Identify equivalent models from 2-3 alternative manufacturers
2. Request comparative quotes specifying the exact performance criteria
3. Evaluate total cost of ownership including energy efficiency
4. Require submittal of performance data to verify equivalence

Priority: Medium

4. Bulk Purchase Grilles, Registers, and Diffusers

Rationale: The schedule shows multiple air distribution devices (grilles, registers, and diffusers) primarily from PRICE. Consolidating this procurement with a single supplier order would likely result in volume discounts and reduced shipping costs. The project requires multiple types and sizes, making this an ideal category for bulk purchasing.

Estimated Impact: Approximately 10-15% cost savings on air distribution devices; reduced administrative overhead for processing multiple purchase orders; simplified delivery logistics and coordination.

Implementation: 1. Compile complete list of all air distribution devices
2. Request manufacturer representative to provide package pricing
3. Consider alternative manufacturers who can supply the full range
4. Coordinate single delivery to reduce shipping costs

Priority: Medium

5. Pre-Purchase Long Lead Items

Rationale: Several specialized items in the schedule may have extended manufacturing lead times, particularly the custom AHU-2 from INGENIA and the duct silencers from VIBRO ACOUSTICS. Early procurement of these items can prevent schedule delays that would impact overall project completion.

Estimated Impact: Potential schedule acceleration of 3-8 weeks; avoidance of expediting fees (typically 15-25% of equipment cost); better pricing by allowing standard manufacturing timelines rather than rushed production.

Implementation: 1. Identify all items with lead times exceeding 8 weeks
2. Initiate procurement process for these items immediately
3. Secure storage if items arrive before installation is possible
4. Consider partial payments to secure manufacturing slots

Priority: High

Conclusion

Key Findings

- Multiple equipment types from the same manufacturer present opportunities for bulk purchasing and vendor loyalty discounts, particularly for TITUS VAV boxes and PRICE air distribution devices
- Long lead items including custom INGENIA air handling units and VIBRO ACOUSTICS duct silencers require early procurement to prevent schedule delays
- Alternative manufacturers for most equipment types can provide comparable performance at 3-8% lower cost while maintaining quality standards
- Standardization of equipment manufacturers across the facility (including matching the existing AHU-1 with the new AHU-2) will simplify maintenance and reduce long-term operational costs

Highest Priority Actions

- Immediately initiate procurement of custom INGENIA AHU-2 and other long-lead items to maintain the February 2025 completion timeline
- Bundle VAV boxes, air distribution devices, and other similar components into consolidated purchase packages to leverage quantity discounts
- Evaluate alternative manufacturers, particularly for fan coil units and blower coil units, where 8-15% cost savings may be achieved without compromising performance
- Establish quality control protocols and performance testing requirements for all equipment to ensure compliance with acoustic and efficiency specifications critical for an auditorium environment

Summary

The Baird Auditorium renovation project requires strategic procurement of HVAC equipment including air handling units, VAV boxes, fan coil units, and various fans and pumps. The equipment procurement process should prioritize consistent manufacturer selection where possible, particularly for the custom INGENIA air handling units. Early ordering of long-lead items such as custom AHUs and duct silencers is critical to maintain the project timeline with completion targeted for February 2025. Several cost-saving opportunities exist through consolidated purchasing and consideration of alternative manufacturers that meet performance specifications.



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