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New Hampshire Veterans Home
139 Winter Street
Tilton, NH 03276-5415
www.nh.gov/veterans



Kimberly M. MacKay
Commandant

Telephone: (603) 527-4400
Fax: (603) 527-4402

August 30, 2024

His Excellency, Governor Christopher T. Sununu
and the Honorable Council
State House
Concord, New Hampshire 03301

REQUESTED ACTION

Authorize the New Hampshire Veterans Home to enter into a retroactive amendment to an existing contract (Contract #8003497) with RTH Mechanical Contractors, Inc., (VC#277973), Dover, NH, for HVAC blower replacement by extending the completion date from June 29, 2024 to September 1, 2024, with no change to the price limitation of \$66,050, effective retroactive to June 29, 2024 upon Governor and Council approval. The original contract was approved by Governor and Executive Council on June 26, 2024, item #157.

EXPLANATION

As previously stated, the original contract was approved by Governor and Executive Council on June 26, 2024, item #157.

This amendment is Retroactive because of delays from the manufacturer in delivering three replacement air exchange blowers necessary to complete the project approved by the Governor and Executive Council. This delay has extended the completion date of the project beyond the originally anticipated completion date of June 29, 2024, to September 1, 2024.

These air exchange blowers regulate the indoor temperature at the New Hampshire Veterans Home (NHVH). The original air exchange blowers stopped working on, or about, March 13, 2024. This created an emergency situation because these blowers help maintain the indoor temperature by circulating warm and cold air throughout the building. Extending the completion date, will provide adequate time to receive the blowers and complete the installation.

Based on the foregoing, I am respectfully recommending approval of the Retroactive contract with RTH Mechanical Contractors, Inc.

Respectfully submitted,

Kimberly M. MacKay

Kimberly M. MacKay
Commandant

**FIRST AMENDMENT TO THE CONTRACT BETWEEN
RTH MECHANICAL CONTRACTORS, INC. AND
THE STATE OF NEW HAMPSHIRE,
NEW HAMPSHIRE VETERANS HOME,
FOR HVAC REPAIR SERVICES
CONTRACT # 8003497**

This First Amendment (hereinafter referred to as the "Amendment"), dated this 22 day of July, 2024, is by and between the State of New Hampshire, New Hampshire Veterans Home (hereinafter referred to as "the State") and RTH Mechanical Contractors, Inc. (hereinafter referred to as "the Contractor") for HVAC repair services.

WHEREAS, pursuant to an agreement effective May 20, 2024, set to expire June 29, 2024, (hereinafter referred to as "the Agreement"), the Contractor agreed to perform certain HVAC repair services for the State in consideration of payment by the State of certain sums as specified therein; and

WHEREAS, pursuant to Section 18 of the Agreement, the Agreement may be amended by an instrument in writing executed by both parties;

NOW, THEREFORE, for and in consideration of the mutual promises set forth in this Amendment and the underlying Agreement, the parties do mutually agree as follows:

1. Delete in its entirety Form Number P-37, item 1.7 Completion Date and substitute the following:
1.7 September 1, 2024
2. All other provisions of the Agreement, approved by the Governor and Executive Council on June 26, 2024, shall remain in full force and effect.

RTH MECHANICAL CONTRACTORS, INC.

By: [Signature]
Ken H. Harsell
(Print Name)

Title: President

Date: 2-22-24

STATE OF NEW HAMPSHIRE

By: [Signature]
Kimberly M. MacKay
(Print Name)

Title: Commandant
New Hampshire Veterans Home

Date: 7/29/2024

OFFICE OF THE ATTORNEY GENERAL

By: [Signature]
Duncan A. Edgar
(Print Name)

Title: Assistant Attorney General

Date: August 12, 2024

The foregoing contract was approved by the
Governor and Council of New Hampshire on

Signed: _____
(Print Name)
Title: _____

Contractor Initials: [Signature]

Date: 2-22-24

State of New Hampshire

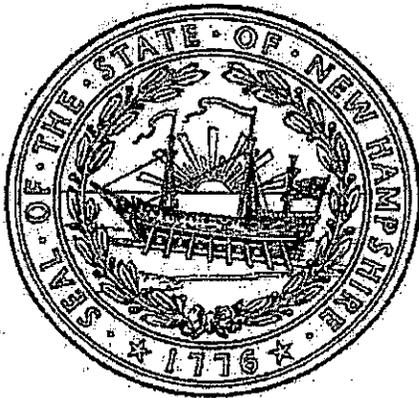
Department of State

CERTIFICATE

I, David M. Scanlan, Secretary of State of the State of New Hampshire, do hereby certify that RTH MECHANICAL CONTRACTORS, INC. is a New Hampshire Profit Corporation registered to transact business in New Hampshire on May 19, 2008. I further certify that all fees and documents required by the Secretary of State's office have been received and is in good standing as far as this office is concerned.

Business ID: 596733

Certificate Number: 0006690070



IN TESTIMONY WHEREOF,
I hereto set my hand and cause to be affixed
the Seal of the State of New Hampshire,
this 16th day of May A.D. 2024.

A handwritten signature in black ink, appearing to read "D. Scanlan", is written over a faint circular stamp.

David M. Scanlan
Secretary of State

Sole Officer Certification of Authority

I, Richard T. Hansell, hereby certify that I am the Sole Officer
(Name)

of, RTH Mechanical Contractors Inc which is a Corporation registered with the
(Name of Corporation)

Secretary of State under RSA 349. I certify that I am the Sole Officer of the Corporation.

I further certify that it is understood that the State of New Hampshire will rely on this certificate as evidence that the person listed above currently occupies the position indicated and that they have full authority to bind the Corporation. This Authority shall remain valid for thirty (30) days from the date of this Corporate Resolution.

DATED: 7-29-24

ATTEST:


Richard T. Hansell
President and Sole Officer



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
5/23/2024

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER THE ROWLEY AGENCY LLC 45 Constitution Avenue P.O. Box 511 Concord NH 03302-0511		CONTACT NAME: Rhonda Noble PHONE (A/C, No, Ext): (603) 224-2562 E-MAIL ADDRESS: rnoble@rowleyagency.com FAX (A/C, No): (603) 224-8012	
INSURED RTH Mechanical Contractors, Inc. 17 Production Drive Dover NH 03820		INSURER(S) AFFORDING COVERAGE	
		INSURER A: Phoenix Insurance Co.	NAIC # 25623
		INSURER B: Travelers Indemnity Co	25658
		INSURER C: Travelers Property Casualty of America	25674
		INSURER D: Maine Employers Mutual Ins Co.	11149
		INSURER E:	
		INSURER F:	

COVERAGES

CERTIFICATE NUMBER: 24/25

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC OTHER:			DT-CO-4X415491-PHX-24	2/20/2024	2/20/2025	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 500,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COM/OP AGG \$ 2,000,000
B	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input checked="" type="checkbox"/> ALL OWNED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS			810-4X420151-24-26-G	2/20/2024	2/20/2025	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
C	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> EXCESS LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$ 10,000			CUP-4X422421-24-26	2/20/2024	2/20/2025	EACH OCCURRENCE \$ 10,000,000 AGGREGATE \$ 10,000,000 COMPLETED OPS AGGREGATE \$ 10,000,000
D	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	N/A	Excluded Officer: Richard T. Hansell 5101800156 3A States: NH, VT, ME, MA & TX	2/20/2024	2/20/2025	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTHER EL. EACH ACCIDENT \$ 1,000,000 EL. DISEASE - EA EMPLOYEE \$ 1,000,000 EL. DISEASE - POLICY LIMIT \$ 1,000,000
C	Installation Floater			QT-630-7X691859-TIL-24	2/20/2024	2/20/2025	Installation (stored materials) \$1,000,000 Lmt
C	Leased/Rented Equipment			QT-630-7X691859-TIL-24	2/20/2024	2/20/2025	Leased/Rented Equipment \$250,000 Limit

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

State of NH Project: NH Veteran's Home, Northfield NH-Greenheck ERV Supply Blower Replacement. State of NH, Dept of Administrative Services its agencies, and its agents and employees are included as additional insureds, on a primary and non contributory basis, as respects to general, auto and excess liability coverages when required by written contract. General liability additional insured protection includes coverage for ongoing and completed operations, and the excess follows form, when required by written contract. Waiver of Subrogation applies to the general, auto and excess liability coverages when required by written contract.

CERTIFICATE HOLDER

CANCELLATION

State of New Hampshire Department of Administrative Services Bureau of Purchase & Property 25 Capitol St, Room 102 Concord, NH 03301	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE Rhonda Noble/RLN <i>Rhonda L. Noble</i>
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ARC



New Hampshire Veterans Home
139 Winter Street
Tilton, NH 03276



Kimberly M. MacKay
Commandant

Telephone: (603) 527-4400
Fax: (603) 286-4242

June 26, 2024

His Excellency, Governor Christopher T. Sununu
and the Honorable Council
State House
Concord, New Hampshire 03301

REQUESTED ACTION

Authorize the New Hampshire Veterans Home to enter into a **Retroactive, Sole Source** contract with RTH Mechanical Contractors, Inc. (VC#277973), Dover, NH in the amount of \$66,050.00 for HVAC blower replacement at the New Hampshire Veteran's Home, effective upon Governor and Council approval for the period May 20, 2024 through June 29, 2024. 100% General Funds.

Funding is available in account, Health and Social Services, NH Veterans Home, as follows:

	<u>FY 2024</u>
05-043-043-430010-53580000-030-500305 - Equipment New Replacement	\$66,050

EXPLANATION

This request is **Retroactive Sole Source** because three air exchange blowers that regulate the indoor temperature at the New Hampshire Veteran's Home (NHVH) stopped working on, or about, March 13, 2024. This created an emergency situation because these blowers help maintain the indoor temperature by circulating warm and cold air throughout the building.

The purpose of this request is to gain retroactive sole source approval facilitating timely replacement of critical cooling equipment needed to maintain a safe and comfortable environment for New Hampshire Veterans. These blowers had previously been scheduled for replacement because they are obsolete with parts no longer available. Because parts were not available for repair, the determination was made to replace the units at this time. The statewide contracted vendors were contacted for the repair/replacement of the blowers; however, none were able to repair or replace the blowers in a timely manner that met the urgent nature of this request. RTH Mechanical Contractors, Inc. was able to provide the solution with an installation date that allowed the NHVH HVAC system to be back in working order within a reasonable timeline.

His Excellency, Governor Christopher T. Sununu
and the Honorable Council
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These blower units are an integral part of the HVAC system's capacity to maintain indoor temperature within the required temperature range of 71-81 by efficiently moving cool air in the summer and heat in colder months. These units service six of NHVH's residential wings, capable of housing up to one hundred residents at full capacity. Without these blowers in operation many areas within the residential wing would become uncomfortable for the residents as the external heat rises, potentially requiring relocation of residence and discontinuing use of the effected space until which point when the HVAC system is repaired.

Contract Financials	
RTH Mechanical Estimate	\$61,050.00
Contract contingency	\$5,000
Price limitation	\$66,050.00

Based on the foregoing, I am respectfully recommending approval of the Retroactive Sole Source contract with RTH Mechanical Contractors, Inc.

Respectfully submitted,

Kimberly M. MacKay

Kimberly M. MacKay
Commandant

FORM NUMBER P-37 (version 2/23/2023)

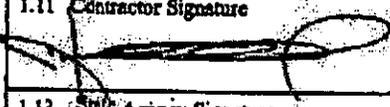
Notice: This agreement and all of its attachments shall become public upon submission to Governor and Executive Council for approval. Any information that is private, confidential or proprietary must be clearly identified to the agency and agreed to in writing prior to signing the contract.

AGREEMENT

The State of New Hampshire and the Contractor hereby mutually agree as follows:

GENERAL PROVISIONS

I. IDENTIFICATION

1.1 State Agency Name New Hampshire Veteran's Home		1.2 State Agency Address 139 Winter Street Tilton, NH 03276	
1.3 Contractor Name RTH Mechanical Contractors Inc		1.4 Contractor Address 17 Production Drive, Dover, NH 03820	
1.5 Contractor Phone Number (603) 772-9779	1.6 Account Unit and Class Various	1.7 Completion Date 06/29/2024	1.8 Price Limitation \$66,050.00
1.9 Contracting Officer for State Agency Steven Burgess		1.10 State Agency Telephone Number 1.11 (603) 271-2009	
1.11 Contractor Signature  Date: 5-23-24		1.12 Name and Title of Contractor Signatory RICH HANSELL President	
1.13 State Agency Signature Kimberly M MacKay Date: 6/10/2024		1.14 Name and Title of State Agency Signatory Kimberly M. MacKay, Commandant	
1.15 Approval by the N.H. Department of Administration, Division of Personnel (if applicable) By: _____ Director, On: _____			
1.16 Approval by the Attorney General (Form, Substance and Execution) (if applicable) By: <i>Duncan A. Edgar</i> On: June 10, 2024			
1.17 Approval by the Governor and Executive Council (if applicable) 157 G&C Item number: <i>215</i> SECRETARY OF STATE G&C Version Date: _____			

JUN 26 2024

Contractor Initials *RH*
Date 5-23-24

2. SERVICES TO BE PERFORMED. The State of New Hampshire, acting through the agency identified in block 1.1 ("State"), engages contractor identified in block 1.3 ("Contractor") to perform, and the Contractor shall perform, the work or sale of goods, or both, identified and more particularly described in the attached EXHIBIT B which is incorporated herein by reference ("Services").

3. EFFECTIVE DATE/COMPLETION OF SERVICES.

3.1 Notwithstanding any provision of this Agreement to the contrary, and subject to the approval of the Governor and Executive Council of the State of New Hampshire, if applicable, this Agreement, and all obligations of the parties hereunder, shall become effective on the date the Governor and Executive Council approve this Agreement, unless no such approval is required, in which case the Agreement shall become effective on the date the Agreement is signed by the State Agency as shown in block 1.13 ("Effective Date").

3.2 If the Contractor commences the Services prior to the Effective Date, all Services performed by the Contractor prior to the Effective Date shall be performed at the sole risk of the Contractor, and in the event that this Agreement does not become effective, the State shall have no liability to the Contractor, including without limitation, any obligation to pay the Contractor for any costs incurred or Services performed.

3.3 Contractor must complete all Services by the Completion Date specified in block 1.7.

4. CONDITIONAL NATURE OF AGREEMENT.

Notwithstanding any provision of this Agreement to the contrary, all obligations of the State hereunder, including, without limitation, the continuance of payments hereunder, are contingent upon the availability and continued appropriation of funds. In no event shall the State be liable for any payments hereunder in excess of such available appropriated funds. In the event of a reduction or termination of appropriated funds by any state or federal legislative or executive action that reduces, eliminates or otherwise modifies the appropriation or availability of funding for this Agreement and the Scope for Services provided in EXHIBIT B, in whole or in part, the State shall have the right to withhold payment until such funds become available, if ever, and shall have the right to reduce or terminate the Services under this Agreement immediately upon giving the Contractor notice of such reduction or termination. The State shall not be required to transfer funds from any other account or source to the Account identified in block 1.6 in the event funds in that Account are reduced or unavailable.

5. CONTRACT PRICE/PRICE LIMITATION/ PAYMENT.

5.1 The contract price, method of payment, and terms of payment are identified and more particularly described in EXHIBIT C which is incorporated herein by reference.

5.2 Notwithstanding any provision in this Agreement to the contrary, and notwithstanding unexpected circumstances, in no event shall the total of all payments authorized, or actually made hereunder, exceed the Price Limitation set forth in block 1.8. The payment by the State of the contract price shall be the only and the complete reimbursement to the Contractor for all expenses, of

whatever nature incurred by the Contractor in the performance hereof and shall be the only and the complete compensation to the Contractor for the Services.

5.3 The State reserves the right to offset from any amounts otherwise payable to the Contractor under this Agreement those liquidated amounts required or permitted by N.H. RSA 80:7 through RSA 80:7-c or any other provision of law.

5.4 The State's liability under this Agreement shall be limited to ~~monetary damages not to exceed the total fees paid.~~ The Contractor agrees that it has an adequate remedy at law for any breach of this Agreement by the State and hereby waives any right to specific performance or other equitable remedies against the State.

6. COMPLIANCE BY CONTRACTOR WITH LAWS AND REGULATIONS/EQUAL EMPLOYMENT OPPORTUNITY.

6.1 In connection with the performance of the Services, the Contractor shall comply with all applicable statutes, laws, regulations, and orders of federal, state, county or municipal authorities which impose any obligation or duty upon the Contractor, including, but not limited to, civil rights and equal employment opportunity laws and the Governor's order on Respect and Civility in the Workplace, Executive order 2020-01. In addition, if this Agreement is funded in any part by monies of the United States, the Contractor shall comply with all federal executive orders, rules, regulations and statutes, and with any rules, regulations and guidelines as the State or the United States issue to implement these regulations. The Contractor shall also comply with all applicable intellectual property laws.

6.2 During the term of this Agreement, the Contractor shall not discriminate against employees or applicants for employment because of age, sex, sexual orientation, race, color, marital status, physical or mental disability, religious creed, national origin, gender identity, or gender expression, and will take affirmative action to prevent such discrimination, unless exempt by state or federal law. The Contractor shall ensure any subcontractors comply with these nondiscrimination requirements.

6.3 No payments or transfers of value by Contractor or its representatives in connection with this Agreement have or shall be made which have the purpose or effect of public or commercial bribery, or acceptance of or acquiescence in extortion, kickbacks, or other unlawful or improper means of obtaining business.

6.4 The Contractor agrees to permit the State or United States access to any of the Contractor's books, records and accounts for the purpose of ascertaining compliance with this Agreement and all rules, regulations and orders pertaining to the covenants, terms and conditions of this Agreement.

7. PERSONNEL.

7.1 The Contractor shall at its own expense provide all personnel necessary to perform the Services. The Contractor warrants that all personnel engaged in the Services shall be qualified to perform the Services and shall be properly licensed and otherwise authorized to do so under all applicable laws.

7.2 The Contracting Officer specified in block 1.9, or any successor, shall be the State's point of contact pertaining to this Agreement.

8. EVENT OF DEFAULT/REMEDIES.

8.1 Any one or more of the following acts or omissions of the Contractor shall constitute an event of default hereunder ("Event of Default"):

8.1.1 failure to perform the Services satisfactorily or on schedule;

8.1.2 failure to submit any report required hereunder; and/or

8.1.3 failure to perform any other covenant, term or condition of this Agreement.

8.2 Upon the occurrence of any Event of Default, the State may take any one, or more, or all, of the following actions:

8.2.1 give the Contractor a written notice specifying the Event of Default and requiring it to be remedied within, in the absence of a greater or lesser specification of time, thirty (30) calendar days from the date of the notice; and if the Event of Default is not timely cured, terminate this Agreement, effective two (2) calendar days after giving the Contractor notice of termination;

8.2.2 give the Contractor a written notice specifying the Event of Default and suspending all payments to be made under this Agreement and ordering that the portion of the contract price which would otherwise accrue to the Contractor during the period from the date of such notice until such time as the State determines that the Contractor has cured the Event of Default shall never be paid to the Contractor;

8.2.3 give the Contractor a written notice specifying the Event of Default and set off against any other obligations the State may owe to the Contractor any damages the State suffers by reason of any Event of Default; and/or

8.2.4 give the Contractor a written notice specifying the Event of Default, treat the Agreement as breached, terminate the Agreement and pursue any of its remedies at law or in equity, or both.

9. TERMINATION.

9.1 Notwithstanding paragraph 8, the State may, at its sole discretion, terminate the Agreement for any reason, in whole or in part, by thirty (30) calendar days written notice to the Contractor that the State is exercising its option to terminate the Agreement.

9.2 In the event of an early termination of this Agreement for any reason other than the completion of the Services, the Contractor shall, at the State's discretion, deliver to the Contracting Officer, not later than fifteen (15) calendar days after the date of termination, a report ("Termination Report") describing in detail all Services performed, and the contract price earned, to and including the date of termination. In addition, at the State's discretion, the Contractor shall, within fifteen (15) calendar days of notice of early termination, develop and submit to the State a transition plan for Services under the Agreement.

10. PROPERTY OWNERSHIP/DISCLOSURE.

10.1 As used in this Agreement, the word "Property" shall mean all data, information and things developed or obtained during the performance of, or acquired or developed by reason of, this Agreement, including, but not limited to, all studies, reports, files, formulae, surveys, maps, charts, sound recordings, video recordings, pictorial reproductions, drawings, analyses, graphic representations, computer programs, computer printouts, notes, letters, memoranda, papers, and documents, all whether finished or unfinished.

10.2 All data and any Property which has been received from the State, or purchased with funds provided for that purpose under this Agreement, shall be the property of the State, and shall be returned to the State upon demand or upon termination of this Agreement for any reason.

10.3 Disclosure of data, information and other records shall be governed by N.H. RSA chapter 91-A and/or other applicable law. Disclosure requires prior written approval of the State.

11. **CONTRACTOR'S RELATION TO THE STATE.** In the performance of this Agreement the Contractor is in all respects an independent contractor, and is neither an agent nor an employee of the State. Neither the Contractor nor any of its officers, employees, agents or members shall have authority to bind the State or receive any benefits, workers' compensation or other emoluments provided by the State to its employees.

12. ASSIGNMENT/DELEGATION/SUBCONTRACTS.

12.1 Contractor shall provide the State written notice at least fifteen (15) calendar days before any proposed assignment, delegation, or other transfer of any interest in this Agreement. No such assignment, delegation, or other transfer shall be effective without the written consent of the State.

12.2 For purposes of paragraph 12, a Change of Control shall constitute assignment. "Change of Control" means (a) merger, consolidation, or a transaction or series of related transactions in which a third party, together with its affiliates, becomes the direct or indirect owner of fifty percent (50%) or more of the voting shares or similar equity interests, or combined voting power of the Contractor, or (b) the sale of all or substantially all of the assets of the Contractor.

12.3 None of the Services shall be subcontracted by the Contractor without prior written notice and consent of the State.

12.4 The State is entitled to copies of all subcontracts and assignment agreements and shall not be bound by any provisions contained in a subcontract or an assignment agreement to which it is not a party.

13. **INDEMNIFICATION.** The Contractor shall indemnify, defend, and hold harmless the State, its officers, and employees from and against all actions, claims, damages, demands, judgments, fines, liabilities, losses, and other expenses, including, without limitation, reasonable attorneys' fees, arising out of or relating to this Agreement directly or indirectly arising from death, personal injury, property damage, intellectual property infringement, or other claims asserted against the State, its officers, or employees caused by the acts or omissions of negligence, reckless or willful misconduct, or fraud by the Contractor, its employees, agents, or subcontractors. The State shall not be liable for any costs incurred by the Contractor arising under this paragraph 13. Notwithstanding the foregoing, nothing herein contained shall be deemed to constitute a waiver of the State's sovereign immunity, which immunity is hereby reserved to the State. This covenant in paragraph 13 shall survive the termination of this Agreement.

14. INSURANCE.

RH

14.1 The Contractor shall, at its sole expense, obtain and continuously maintain in force, and shall require any subcontractor or assignee to obtain and maintain in force, the following insurance:

14.1.1 commercial general liability insurance against all claims of bodily injury, death or property damage, in amounts of not less than \$1,000,000 per occurrence and \$2,000,000 aggregate or excess; and

~~14.1.2 special cause of loss coverage form covering all Property~~ subject to subparagraph 10.2 herein, in an amount not less than 80% of the whole replacement value of the Property.

14.2 The policies described in subparagraph 14.1 herein shall be on policy forms and endorsements approved for use in the State of New Hampshire by the N.H. Department of Insurance, and issued by insurers licensed in the State of New Hampshire.

14.3 The Contractor shall furnish to the Contracting Officer identified in block 1.9, or any successor, a certificate(s) of insurance for all insurance required under this Agreement. At the request of the Contracting Officer, or any successor, the Contractor shall provide certificate(s) of insurance for all renewal(s) of insurance required under this Agreement. The certificate(s) of insurance and any renewals thereof shall be attached and are incorporated herein by reference.

15. WORKERS' COMPENSATION.

15.1 By signing this agreement, the Contractor agrees, certifies and warrants that the Contractor is in compliance with or exempt from, the requirements of N.H. RSA chapter 281-A ("*Workers' Compensation*").

15.2 To the extent the Contractor is subject to the requirements of N.H. RSA chapter 281-A, Contractor shall maintain, and require any subcontractor or assignee to secure and maintain, payment of Workers' Compensation in connection with activities which the person proposes to undertake pursuant to this Agreement. The Contractor shall furnish the Contracting Officer identified in block 1.9, or any successor, proof of Workers' Compensation in the manner described in N.H. RSA chapter 281-A and any applicable renewal(s) thereof, which shall be attached and are incorporated herein by reference. The State shall not be responsible for payment of any Workers' Compensation premiums or for any other claim or benefit for Contractor, or any subcontractor or employee of Contractor, which might arise under applicable State of New Hampshire Workers' Compensation laws in connection with the performance of the Services under this Agreement.

16. **WAIVER OF BREACH.** A State's failure to enforce its rights with respect to any single or continuing breach of this Agreement shall not act as a waiver of the right of the State to later enforce any such rights or to enforce any other or any subsequent breach.

17. **NOTICE.** Any notice by a party hereto to the other party shall be deemed to have been duly delivered or given at the time of mailing by certified mail, postage prepaid, in a United States Post Office addressed to the parties at the addresses given in blocks 1.2 and 1.4, herein.

18. **AMENDMENT.** This Agreement may be amended, waived or discharged only by an instrument in writing signed by the parties hereto and only after approval of such amendment, waiver or discharge by the Governor and Executive Council of the State of New Hampshire unless no such approval is required under the circumstances pursuant to State law, rule or policy.

19. CHOICE OF LAW AND FORUM.

~~19.1 This Agreement shall be governed, interpreted and construed~~ in accordance with the laws of the State of New Hampshire except where the Federal supremacy clause requires otherwise. The wording used in this Agreement is the wording chosen by the parties to express their mutual intent, and no rule of construction shall be applied against or in favor of any party.

19.2 Any actions arising out of this Agreement, including the breach or alleged breach thereof, may not be submitted to binding arbitration, but must, instead, be brought and maintained in the Merrimack County Superior Court of New Hampshire which shall have exclusive jurisdiction thereof.

20. **CONFLICTING TERMS.** In the event of a conflict between the terms of this P-37 form (as modified in EXHIBIT A) and any other portion of this Agreement including any attachments thereto, the terms of the P-37 (as modified in EXHIBIT A) shall control.

21. **THIRD PARTIES.** This Agreement is being entered into for the sole benefit of the parties hereto, and nothing herein, express or implied, is intended to or will confer any legal or equitable right, benefit, or remedy of any nature upon any other person.

22. **HEADINGS.** The headings throughout the Agreement are for reference purposes only, and the words contained therein shall in no way be held to explain, modify, amplify or aid in the interpretation, construction or meaning of the provisions of this Agreement.

23. **SPECIAL PROVISIONS.** Additional or modifying provisions set forth in the attached EXHIBIT A are incorporated herein by reference.

24. **FURTHER ASSURANCES.** The Contractor, along with its agents and affiliates, shall, at its own cost and expense, execute any additional documents and take such further actions as may be reasonably required to carry out the provisions of this Agreement and give effect to the transactions contemplated hereby.

25. **SEVERABILITY.** In the event any of the provisions of this Agreement are held by a court of competent jurisdiction to be contrary to any state or federal law, the remaining provisions of this Agreement will remain in full force and effect.

26. **ENTIRE AGREEMENT.** This Agreement, which may be executed in a number of counterparts, each of which shall be deemed an original, constitutes the entire agreement and understanding between the parties, and supersedes all prior agreements and understandings with respect to the subject matter hereof.

EXHIBIT A - SPECIAL PROVISIONS

There are no special provisions of this contract.

Contractor Initials DW

Date 5-23-24

EXHIBIT B - SCOPE OF SERVICES

1. INTRODUCTION:

1.1. RTH Mechanical Contractors Inc (hereinafter referred to as the "Contractor") hereby agrees to provide the State of New Hampshire (hereinafter referred to as the "State"), New Hampshire Veterans Home, with HVAC Repair Services in accordance with the proposal submission and as described herein.

2. CONTRACT DOCUMENTS:

2.1. This Contract consists of the following documents ("Contract Documents"):

- State of New Hampshire Terms and Conditions, General Provisions Form P-37
- EXHIBIT A Special Provisions
- EXHIBIT B Scope of Services
- EXHIBIT C Method of Payment
- EXHIBIT D Contractor's Proposal

2.2. In the event of any conflict among the terms or provisions of the documents listed above, the following order of priority shall indicate which documents control: (1), Form Number P-37 as modified by EXHIBIT A "Special Provisions; (2) EXHIBIT B "Scope of Services," (3) EXHIBIT C "Method of Payment," (4) EXHIBIT D "Contractor's Proposal."

3. TERM OF CONTRACT:

3.1. The term of the contract shall commence on May 20, 2024 through June 29, 2024, a period of approximately six weeks.

4. SCOPE OF WORK:

4.1. Replace (3) Greenheck ERV supply blowers with direct drive fan assemblies.

4.1.1. Direct drive motors to be of VFD type with soft start and adjustable CFM.

4.1.2. Specifications of fans and drive motors detailed in Exhibit D.

4.2. Repair to Include:

4.2.1. Opening the top of the existing units for access.

4.2.2. Removal by crane of the existing blower assemblies.

4.2.3. Installation by crane of the new blower assemblies.

4.2.4. Disconnect and reconnection of power wiring at unit.

4.2.5. Re-sealing of the existing ERV roofs to make watertight.

4.2.6. Start-up of new fan assemblies

4.3. Repair and installation does not include the following:

4.3.1. Re-Balancing of the ERV's.

4.3.2. No DOC connections to VFD's

4.4. Except as otherwise provided in this Scope of Services, all services performed under this Contract shall be performed between the hours of 8:00 A.M. and 4:00 P.M. unless other arrangements are made in advance with the State. Any deviation in work hours shall be pre-approved by the Contracting Officer. The State requires ten-day advance knowledge of said work schedules to provide security and access to respective work areas

4.5. Neither the Contractor nor its employees or subcontractors shall represent themselves as employees or agents of the State.

- 4.6. While on State property the Contractor, its employees, and its sub-contractors shall be subject to the authority and control of the State, but under no circumstances shall such persons be deemed to be employees of the State.
- 4.7. All personnel shall observe all regulations or special restrictions in effect at any State agency location at which services are to be provided.
- 4.8. The Contractor's personnel shall be allowed only in areas where services are to be provided. The use of State telephones by the Contractor, its employees, or its sub-contractors is prohibited.
- ~~4.9. If sub-contractors are to be utilized, Contractor shall provide information regarding the proposed sub-contractors, including the name of the company, their address, contact person and three references for clients they are currently servicing. Approval by the State must be received prior to a sub-contractor starting any work.~~

5. CONTRACT TERMS AND EXECUTION:

5.1. Coordination and Project Conditions:

- 5.1.1. Maintain proper environmental conditions for installation of all building components and materials.
- 5.1.2. Coordinate completion and clean-up of Work of separate sections in preparation for Substantial Completion.

5.2. Permits and Fees:

- 5.2.1. Obtain and pay for all construction licenses, permits, and fees as may be required by law for construction of State's facility, and pay for all fees and charges, and use of the property other than the site of the work for storage of materials or other purposes.
- 5.2.2. Per "Saf-C 8100 State Building Permit System" a Building Permit shall be obtained by the Contractor from the Office of the State Fire Marshal (SFMO).
- 5.2.3. The Contractor shall create a Collaborator Profile through the SFMO permitting software MYGOV, if one is not already created. The Contractor will need to complete the application for each permit required and pay all applicable fees. The Agency on the MYGOV website refers to the State of New Hampshire Division of Fire Safety. The website to create the required profile and file all permit requests is:
https://public.mygov.us/divisionoffiresafety_nh
- 5.2.4. Permit applications for the Trades (Mechanical, Mechanical gas, Electrical, Fire Protection, Plumbing and SWPPP) are 'sub-permits' to the Building Construction Permit and each requires a separate application and payment. Application for Trade Permits must be submitted through the MYGOV electronic permitting system. For direct questions or further assistance, Contractors may contact Phil Biron at the State Fire Marshall's Office at (603) 223-4289 or DOS.FMO.INSPEC@DOS.NH.GOV.
- 5.2.5. When applying for a permit Contractor's will need the following:
 - 5.2.5.1. A copy of the Construction Permit Application Form (open on MYGOV)
 - 5.2.5.2. Contractor Information, Licensing Information and permit fee calculations
 - 5.2.5.3. Design professional information available on the drawing set.
 - 5.2.5.3.1. This information is found either on the seal of the architect or engineer of record, or by calling the design professional.
- 5.2.6. Fees for all re-inspections shall be paid by the Contractor as stated on the application form.
- 5.2.7. Along with permits, the State Fire Marshall's Office will issue a list of required inspections through the MYGOV Portal. All inspections will be maintained in the MYGOV Portal and be through the Collaborator Profile. Immediately upon receipt of Permits from the Office of the Fire Marshal, Contractor shall transmit copies to the State Project Manager. Additionally, Contractor shall post all paid permits at the applicable work site in a conspicuous location prior to beginning work.
- 5.2.8. All fees for interface with municipal (Town or City) and/or Private Infrastructure (Liberty, Eversource, etc.) must be applied for and paid for separately from this permit process. The Contractor is responsible to apply

for, obtain and pay for required permits from each municipality and/or Private company as required, unless noted otherwise in the Construction Documents.

5.3. State Labor Requirements:

- 5.3.1. Pursuant to RSA 21-I:80 and RSA 228:4-b, prior to any work being done by an individual contractor, such contractor, including ALL subcontractors and independent contractors, shall provide a Work Certificate for Contractors Before Beginning their Work on Public Projects (Work Certificate) to the State Project Manager. Sample form can be obtained at <http://das.nh.gov/publicworks/pwdocuments.asp>
-
- 5.3.2. The Work Certificate of this Contractor is required to be provided for approval of the Contract. All required information shall be completed with attached documentation and shall be returned to the NH DAS Division of Procurement & Support Services.
- 5.3.3. Subcontractors, including main and lower tier, will not be allowed to perform any work until their Work Certificates have been submitted to the State Project Manager via this Contractor. This Contractor shall maintain a log of all submitted subcontractor Work Certificates on-site. The log shall identify all main and lower-tier subcontractors and the status of the Work Certificate submission. This log shall be reviewed at each Progress Meeting to coordinate scheduled work with required Work Certificate submissions. An updated log shall be submitted with each Payment Application. This Contractor shall keep a copy of all Work Certificates on the jobsite, either in electronic or hardcopy form.
- 5.3.4. The Contractor shall obey all applicable State and Federal Labor laws.
- 5.3.5. Pursuant to RSA 21-I:81-a, the Contractor shall provide to the State Project Manager a list of the names and addresses of the CEO, CFO, other LLC principals, and each subcontractor to be used in the performance of the contract. This list shall be provided at the preconstruction meeting. The name and address of each subcontractor shall be provided on the Subcontractor/Employee Master List (below).
- 5.3.6. The Contractor shall maintain a Subcontractor/Employee Master List (Master List) of all personnel performing work on the job site, including the Contractor's employees, all subcontractors and subcontractor employees, and all independent contractors. Pursuant to RSA 21-I:81-b, the Master List shall identify which entity has hired each subcontractor and independent contractor and which entity is providing Workers Compensation coverage for the on-site personnel. The Master List shall also confirm that each employee has an OSHA-10 certification as required per RSA 277:5-a. Subcontractors and independent contractors will not be allowed to perform any work until they have been correctly identified on the Master List. A sample Master List document, created in Microsoft Word, can be obtained at <http://das.nh.gov/publicworks/pwdocuments.asp>. The initial Master List submission shall be at the preconstruction meeting.
- 5.3.7. The Master List shall be posted on the jobsite and updated as needed to reflect any new subcontractors and independent contractors. The Master List shall be reviewed at each Progress Meeting. On a monthly basis, the Contractor shall provide to the State Project Manager a .pdf or Microsoft Word file of the Master List, showing all current subcontracts.
- 5.3.8. The Contractor shall maintain a daily log-in sheet of all personnel performing work on the jobsite. Personnel shall list their name, name of employer, or identify themselves as independent contractors. No contractor, subcontractor or independent contractor performing work on the job site shall be allowed on site without first signing the daily log-in sheet. The Contractor shall verify that personnel listed on the daily log-in sheet are also listed on the Master List. If personnel are not listed on the Master List, they will not be allowed on site until their employer has certified, in writing, that the employee is covered under Workers Compensation coverage for the appropriate work classification noted on the Work Certificate.
- 5.3.9. The Contractor shall maintain on the jobsite copies of OSHA-10 certificates for all personnel listed on then the Master List and required per RSA 277:5-a to have an OSHA-10 certificate.
- 5.3.10. The Contractor shall post six (6) mandatory labor posters in a conspicuous, weather-tight place at the jobsite:
- 5.3.10.1. Protective Legislation Law
- 5.3.10.2. Criteria to Establish an Employee or Independent Contractor

- 5.3.10.3. NH Minimum Wage Law
- 5.3.10.4. Whistleblowers Protection Act
- 5.3.10.5. Workers Right to Know
- 5.3.10.6. Equal Pay Law
- 5.3.10.7. These posters can be found at the NH Dept. of Labor website Mandatory Posters | Inspection Division | NH Department of Labor

5.4. Preconstruction Meeting:

- 5.4.1. The State Project Manager will schedule meeting at the Project site prior to Contractor occupancy. Attendance is required for the following, unless otherwise waived:
 - 5.4.1.1. Contract Administrator
 - 5.4.1.2. Clerk of the Works
 - 5.4.1.3. Using Agency Representative(s)
 - 5.4.1.4. Major Subcontractors
- 5.4.2. The Contractor will be furnished a maximum of five (5) sets of Specifications and Drawings, free of charge. Any additional sets required shall be paid for at the cost of reproduction as determined by State.
- 5.4.3. The Contractor shall submit and review the following:
 - 5.4.3.1. All required Work Certificate(s) as defined above for the Contractor and all known subcontractors
 - 5.4.3.2. Work Certificate Log
 - 5.4.3.3. Master List of subcontractors and all personnel expected to be on site
 - 5.4.3.4. Daily log-in sheet requirement and format
 - 5.4.3.5. Contractor shall verify that personnel listed on log-in sheet are also on Master List
 - 5.4.3.6. OSHA-10 certificates for all on-site personnel required to be certified per RSA 277:5-a
 - 5.4.3.7. The Contractor will verify that all mandatory labor posters are posted in a conspicuous, weather-tight place, and that submission of list of products, schedule of values, and progress schedule.

5.5. Progress Meetings:

- 5.5.1. Progress meetings shall be scheduled and administered throughout progress of the work at regular intervals. The following are required to attend unless otherwise waived:
 - 5.5.2. Contract Administrator
 - 5.5.3. Clerk of the Works
 - 5.5.4. Using Agency Representative(s)
 - 5.5.5. Contractor
 - 5.5.6. Major Subcontractors as required.

5.6. Contract Requirements:

- 5.6.1. The Contractors and all Subcontractors shall refer to all of the Contract Documents, including those not specifically showing the work of their specialized trades, and shall perform all work reasonably inferable from them as being necessary to produce the intended results in compliance with applicable Federal, State, and Local codes.
- 5.6.2. All indications or notations which apply to one of a number of similar situations, materials or processes shall be deemed to apply to all such situations, materials or processes wherever they appear in the work, except where a contrary result is clearly indicated by the contract documents.
- 5.6.3. Where codes, standards, requirements, and publications of public and private bodies are referred to in the contract documents, such references shall be understood to be to the latest final and complete revision at the time of receiving Bids unless specifically identified, except where otherwise indicated.

- 5.6.4. Where no explicit quality or standards for materials or workmanship is established for work, such work is to be consistent with the best quality workmanship standards of the applicable trade.
- 5.6.5. All manufactured articles, materials, and equipment shall be applied, assembled, installed, connected, erected, tested, cleaned, and conditioned in accordance with the manufacturer's written or printed directions and instructions, unless specifically indicated otherwise in the contract documents.
- 5.6.6. The Drawings are made to scale as identified therein, but all working dimensions shall be taken from the figured dimensions and by actual measurements at the job; in no case by scaling. The Contractor shall study and compare all of the Drawings and verify all figures before laying out or constructing work. The Contractor shall be responsible for errors in his/her work that might have been avoided thereby. Whether or not an error is believed to exist, deviation from the Drawings and the dimensions given thereon shall be made only after approval in writing from the State Project Manager.
- 5.6.7. All Drawings and Specifications and copies thereof are the property of the State and shall not be used by the Contractor or Subcontractor on other Projects.
- 5.7. Notice:
- 5.7.1. Any written notice by either party to the Contract shall be sufficiently given if delivered to or at the last known business address of the person; partnership or corporation constituting the other party to the Contract, or to their, or their duly authorized agent, representative, or officer, or when sent by registered mail to such last known business address. The last known business address shall be that location which is last provided in writing.
- 5.7.2. All parties shall provide their most current physical location/address, mailing address, telephone number, fax number, and, where available, pager number(s), email address(es), and other methods of contact for all persons associated with the Contract.
- 5.7.3. Access to the Work:
- 5.7.4. The Contractor shall provide for access to the work, at all times, for observation and/or inspection by the State, Consultant, Engineer, and government officials having jurisdiction. The Contractor shall provide proper facilities for such access and inspection.
- 5.8. Accident Protection:
- 5.8.1. It is a condition of this Contract, and shall be made a condition of each subcontract entered into pursuant to the Contract, that the Contractor, any Subcontractors, or Independent Contractors shall not require any laborer or mechanic employed in the performance of the Contract to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous to the laborer's health or safety as determined by construction safety and health standards of the Occupational Safety and Health Administration, United States Department of Labor, which standards include, by reference, the established Federal Safety and Health Regulations for Construction. These standards and regulations comprise Part 1910 and Part 1926 respectively of Title 29 of the Code of Federal Regulations, as may be revised from time to time. In the event any revisions in the Code of Federal Regulations are published, such revisions will be deemed to supersede the appropriate Part 1910 and Part 1926, and be effective as of the date set forth in the revised regulation.
- 5.9. Hazardous Materials:
- 5.9.1. If any abnormal condition is encountered or exposed that indicates the presence of a hazardous material or toxic waste, construction operations shall be immediately suspended in the area and the State Project Manager notified. No further work shall be conducted in the area of the contaminated material until the site has been investigated and the State has given approval to continue the work in the area. The Contractor shall fully cooperate with the State and perform any remedial work as directed. Work shall continue in other areas of the Project unless otherwise directed.
- 5.10. Progress Cleaning and Waste Removal:



5.10.1. Contractor shall maintain areas free of waste materials, debris, and rubbish throughout the project, and ensure the project site is in a clean and orderly condition. Waste materials, debris, and rubbish shall be collected daily and disposed off-site. Permanent convenience receptacles may be utilized during construction.

5.11. Barriers:

5.11.1. Provide barriers to prevent unauthorized entry to construction areas, to allow for State's use of site, and to protect existing facilities and adjacent properties from damage from construction operations and demolition.

5.12. Security:

5.12.1. Contractor is required to submit criminal record forms for any employee on site. Additionally, Contractor will maintain log of workers and visitors to the site and make available to State on request.

5.12.2. State will control entrance of persons and vehicles related to State's operations.

5.13. Removal of Utilities, Facilities, and Controls:

5.13.1. The Contractor shall clean, and repair damage caused by installation or use of temporary work. All permanent facilities associated with the contract shall be restored to their specified, existing, and original condition as applicable. The State will provide graphics for required signage at the pre-construction meeting.

5.14. Submittal Procedures:

5.14.1. The Contractor shall provide one hard copy of all approved submittals to the Clerk of the Works. At completion of the project the Contractor shall provide two (2) digital copies on USB drives and one (1) hard copy in the form of a three-ring binder with all information from contract document software.

5.14.2. All submittals shall be transmitted with State accepted form. All transmittal forms shall be sequentially numbered, with revised submittals marked with the original number and sequential alphabetic suffix. Submittals shall contain the following information:

5.14.2.1. Identified Project

5.14.2.2. Contractor

5.14.2.3. Subcontractor and Supplier (as applicable)

5.14.2.4. Pertinent drawing, detail number, and specification section number (as applicable)

5.14.2.5. Contractor's stamp, signature, or initials (certifying review, verification, and approval)

5.14.3. Incomplete items submitted without the Contractor's stamp, signature, or initials shall be returned rejected.

5.14.4. All submittals shall be sent to the following individuals:

5.14.4.1. David Goulet David.W.Goulet@das.nh.gov

5.14.5. All shop drawings are to be returned to the Contractor from the State Project Manager. Direct return of shop drawings from Engineer to Contractor is not permitted.

5.14.6. Contractor shall identify variations from contract documents and product or system limitations that may be detrimental to successful performance of completed work. All changes shall be identified since time of previous submission. Contractor shall distribute copies of reviewed submittals as appropriate. Any and all submittals not requested will not be recognized or processed.

5.14.7. Work shall not begin until submittal items have been approved and returned to the Contractor by the State Project Manager and Engineer.

5.15. Construction Progress Schedules:

5.15.1. The Contractor shall submit initial schedules at the Pre-Construction Meeting, and updated schedules at all subsequent construction meetings. The Contractor shall submit revised progress schedule with each application for payment. The Contractor shall distribute copies of reviewed schedule to all subcontractors, suppliers, and other concerned parties. The Contractor shall instruct recipients to promptly report, in writing, problems anticipated by projections indicated in schedules.

5.16. Subcontracts:

5.16.1. Nothing contained in the Specifications or Drawings shall be construed as creating any contractual relationship between any subcontractor and the State. The Sections of the Specifications are not intended to control the Contractor in dividing the work among subcontractors or to limit the work performed by any trade. The Contractor shall be as fully responsible for the acts and omissions of subcontractors and of persons employed by them, as they are for the acts and omissions of persons directly employed by them. The Contractor shall, without additional expense to the State, utilize the services of specialty subcontractors, as required to complete the work.

~~5.16.2. The State will not undertake efforts to settle or resolve any differences between the Contractor and subcontractors or between subcontractors. The Contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the work to bind subcontractors to the Contractor by the terms of the General Conditions and other Contract Documents insofar as applicable to the work of subcontractors and to give the Contractor the same power to terminate any subcontract that the Contract Administrator may exercise over the Contractor under any provisions of the Contract Documents.~~

5.17. Responsibility of Contractor to Act in Emergency:

5.17.1. In case of any emergency that threatens loss or injury of property, and/or safety of life, the Contractor shall act as the situation may warrant. They shall notify the State Project Manager thereof immediately thereafter. Any compensation claimed by the Contractor together with substantiating documents in regard to expense, shall be submitted to the State Project Manager and the amount of compensation shall be determined by agreement.

5.17.2. In the event the State learns of an emergency that threatens loss or injury of property, and/or safety of life, the State shall notify the Contractor using the contact information provided in the Contract. The State may, but shall have no duty to take reasonable steps to mitigate the damage or loss to the Contractor. In either event, the State shall have no duty to undertake any specific acts and shall have no liability for actions or inactions taken absent gross negligence.

5.18. Mutual Responsibility of Contractors:

5.18.1. If the Contractor or any of their subcontractors or employees causes loss or damage to any separate Contractor or subcontractor on the work, the Contractor or Subcontractor agrees to settle with such separate Contractor or Subcontractor by agreement, if they will so settle. If such separate Contractor or subcontractor sues the State because of any loss so sustained, the Contract Administrator shall notify the Contractor and/or their subcontractors, who shall indemnify and hold harmless the State against any expenses or judgment arising therefrom.

5.19. Safety:

5.19.1. The Contractor shall, at all times, safely guard the State's property and persons from injury or loss in connection with this Contract. The Contractor shall, at all times, safely guard and protect their own work and that of adjacent property from damage. All passageways, guard fences, lights, and other facilities required for protection by Federal, State or Municipal laws and regulations must be provided and maintained.

5.20. Supervision:

5.20.1. All work shall be done under the observation and inspection of the State Project Manager, Engineer, Using Agency and/or the Clerk of the Works. The State Project Manager may observe, examine, and test materials and workmanship at any and all times during manufacture and/or construction, and at any and all places where such manufacture and/or construction is carried on. The State Project Manager shall suspend work that may be subject to damage by climatic conditions.

5.20.2. Prior to final acceptance, the State Project Manager may make an examination of work already completed that was not specifically called for to receive an inspection prior to covering over, and shall require removing or tearing out same, the Contractor shall, upon request, promptly furnish all necessary facilities, labor, and materials. If such work is found to be defective in any material respect, due to the fault of the Contractor or their subcontractors, they shall defray all expenses of such examination and of satisfactory reconstruction. If, however, such work is found to meet the requirements of the Contract, the actual cost of labor and material

necessarily involved in the examination and replacement, shall be completed per a Time and Material Alteration Order.

6. PROJECT COMPLETION REQUIREMENTS:

6.1. Closeout Procedures:

- 6.1.1. Submit a signed Substantial Completion Application attesting that the Contract Documents have been reviewed, Work has been inspected, and that all Work is complete in accordance with Contract Documents and ready for State Project Manager review. The Substantial Completion Application for use by the Contractor can be requested from the State Project Manager. The State Project Manager may modify this Agreement to accommodate any changes in Work.
- 6.1.2. Provide submittals to the State Project Manager as required by the Contract Documents and as required by authorities having jurisdiction.
- 6.1.3. Only after completion of all Punch List items and submission of all items the Contractor shall submit a Final Application for Payment identifying total adjusted contract sum, previous payments, and sum remaining due.
- 6.1.4. State will occupy all portions of building during construction as specified herein.

6.2. Final Cleaning:

- 6.2.1. Execute final cleaning prior to final project assessment. Final cleaning includes, but is not limited to, sweeping all working areas; removing temporary labels, stains, and foreign substances; removing waste, surplus materials, and rubbish from working areas. Use of proper cleaning agents is authorized.

6.3. Protecting Installed Construction:

- 6.3.1. Protect all installed work and provide special protection where specified in individual required sections. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.

6.4. Project Record Documents:

- 6.4.1. Maintain on site one set of the following record documents:
- 6.4.2. Drawings and specifications
- 6.4.3. Revisions to the work
- 6.4.4. Shop drawings.
- 6.4.5. Manufacturer's instructions for assembly, installation, and adjusting.
- 6.4.6. All drawings, specifications, revisions, and shop drawings to be the most current and approved documents. Ensure entries are complete and accurate, enabling future reference by State. Contractor shall submit all required documents to the State Project Manager at time of Substantial Completion.

6.5. Operation and Maintenance Data:

- 6.5.1. Submit data bound in 8-1/2 x 11-inch (A4) text pages, three D side ring binders with durable plastic covers. Prepare binder cover with printed title "OPERATION AND MAINTENANCE INSTRUCTIONS", title of project, and subject matter of binder when multiple binders are required. Internally subdivide binder contents with permanent page dividers, logically organized as described below; with tab titling clearly printed under reinforced laminated plastic tabs.
- 6.5.2. For all Drawings: provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages. Prepare Table of Contents for each volume, with each product or system description identified, typed on white paper, in three parts as follows:
 - 6.5.2.1. Part 1: Directory, listing names, addresses, and telephone numbers of, Engineer, Contractor, subcontractors, and major equipment suppliers.
 - 6.5.2.2. Part 2: Operation and maintenance instructions, subdivided by specification section. For each category, identify names, addresses, and telephone numbers of subcontractors and suppliers. Additionally, identify the

any significant design criteria, parts list for each component, maintenance instructions for equipment and systems.

6.5.2.3. Part 3: Project documents and certificates, to include Shop Drawings, product data, material certificates (as applicable), and originals of warranties and bonds (as applicable).

6.6. Manual for Materials and Finishes:

6.6.1. Submit two copies of preliminary draft or proposed formats and outlines of contents before start of Work. The State Project Manager will review draft and return one copy with comments. Manual to include, but not limited to:

6.6.2. Applicable product information (to include manufacturer part number and cut sheets as applicable)

6.6.3. Instructions for care and maintenance

6.6.4. GHS information (as applicable)

6.6.5. Reorder information in the case of custom materials (as applicable)

6.6.6. Additional information (as specified in other contract sections)

6.7. Spare Parts and Maintenance Products:

6.7.1. Furnish spare parts, maintenance, and extra products in quantities specified in individual specification sections.

6.7.2. Deliver to Project site and place in location as directed by State; obtain receipt prior to final payment.

6.8. Product Warranties and Product Bonds:

6.8.1. Obtain warranties and bonds executed in duplicate by responsible subcontractors, suppliers, and manufacturers, within ten days after Substantial Completion. All warranties start dates shall be the Substantial Completion Date. Verify that all documents are in proper form and contain full information. Submit all documents prior to Final Payment application.

6.9. Guarantee of Work:

6.9.1. Except as otherwise specified, all work shall be guaranteed by the Contractor against defects resulting from the use of inferior materials, equipment, or workmanship for one (1) year from the Date of Substantial Completion of the work. If, within any guarantee period, repairs or changes are required in connection with guaranteed work, which in the opinion of the State Project Manager, is rendered necessary as a result of the use of materials, equipment or workmanship which are inferior, defective, or not in accordance with the terms of the Contract shall, promptly upon receipt of notice from the Contract Administrator, and at his own expense:

6.9.2. Replace in satisfactory condition in every particular, all such guaranteed work; correct all defects therein.

6.9.3. Make good all damage to the building or site, or equipment or contents thereof, which in the opinion of the State Project Manager, is the result of the use of materials, equipment or workmanship which are inferior, defective, or not in accordance with the terms of the Contract.

6.9.4. Make good any work or material, or the equipment and contents of said building or site disturbed in fulfilling any such guarantee.

6.9.5. In any case, wherein fulfilling the requirements of the Contract or of any guarantee, embraced in or required thereby, the Contractor disturbs any work guaranteed under another contract, he shall restore such disturbed work to a condition satisfactory to the State Project Manager and guarantee such restored work to the same extent as it was guaranteed under such other contracts.

6.9.6. If the Contractor, after notice, fails to proceed promptly to comply with the terms of the guarantee, the State may have the defects corrected and the Contractor and his/her Surety shall be liable for all expense incurred.

6.9.7. All special guarantees applicable to definite parts of the work that may be stipulated in the Specifications or other papers forming a part of the Contract shall be subject to the term of this paragraph during the first year of the life of such special guarantee.

7. ADDITIONAL REQUIREMENTS:

- 7.1. Any deviation in work hours shall be pre-approved by the State Project Manager. The State requires ten-day advance knowledge of said work schedules to provide security and access to respective work areas. No premium charges shall be paid for any off-hour work.
- 7.2. The Contractor shall conduct their work so as to interfere as little as possible with State business. They shall at their own expense, wherever necessary or required, furnish safety devices, and take such other precautions as may be necessary to protect life and property. All electrical equipment must be in operating condition at the end of every shift.

- 7.3. The Contractor shall not commence work until a conference is held with each agency, at which representatives of the Contractor and the State are present. The conference shall be arranged by the (State).
- 7.4. The State shall require correction of defective work or damages to any part of a building or its appurtenances when caused by the Contractor's employees, equipment, or supplies. The Contractor shall replace in satisfactory condition all defective work and damages rendered thereby or any other damages incurred. Upon failure of the Contractor to proceed promptly with the necessary corrections, the State may withhold any amount necessary to correct all defective work or damages from payments to the Contractor.
- 7.5. The work staff shall consist of qualified persons completely familiar with the products and equipment they shall use. The Contracting Officer may require the Contractor to dismiss from the work such employees as it deems incompetent, careless, insubordinate, or otherwise objectionable, or whose continued employment on the work is deemed to be contrary to the public interest or inconsistent with the best interest of security and the State.
- 7.6. The Contractor shall initiate, maintain, and supervise all safety precautions and programs in connection with the work. The Contractor shall provide the necessary equipment and comply with all City, State and or Federal safety regulations.
- 7.7. The Contractor shall also be aware of laws and regulations relating to hazardous materials that may be encountered during duct cleaning operations. The health and safety of employees, the general public, and the potential of damage to the overall environment is possible if hazardous materials are not recognized, reported, and the appropriate action taken to dispose of, remove from the site, or otherwise contain the possible contaminants.
- 7.8. If at any time during the performance of the work required by the Contract, the Contractor finds, or has reason to suspect, the presence of mold, asbestos, lead paint, or other hazardous materials, in the work area, the Contractor shall immediately notify the State representative setting forth their observations, suspicions and requesting instructions. No further work shall be conducted in the area of the contaminated material until the site has been investigated and the State has given approval to continue the work in the area. At the same time, the Contractor shall withdraw all personnel from the potentially contaminated area. The Contractor shall fully cooperate with the State and perform any remedial work as directed.
- 7.9. The Contractor shall give all notices and comply with all applicable laws, ordinances, rules, regulations, and lawful orders of a public authority bearing on the safety of personnel or property or their protection from damage, injury, or loss.
- 7.10. The Contractor shall provide adequate supervision of their employees to ensure complete and satisfactory performance of all work in accordance with the terms of the Contract.
- 7.11. The Contractor shall supervise and direct the work, using their best skills and attention. The Contractor shall be solely responsible for all means, methods, techniques, sequences, and procedures and for coordinating all portions of the work. All aspects of the project shall be subject to the inspection and approval of the State. The Contractor guarantees to repair, replace, re-execute, or otherwise correct any defect in workmanship, material, or the like that fails to conform to the requirements of the State, or that appear during the progress of the work or within one year of final acceptance by the State. The Contractor shall supply the State with all warranty information whether it be expressed or implied.

7.12. The Contractor shall perform all the work and furnish all the materials, tools, equipment, and safety devices necessary to perform in the manner and within the time hereinafter specified. The Contractor shall complete the entire work to the satisfaction of the State and in accordance with the specifications herein mentioned, at the price herein agreed upon and fixed, therefore. All the work, and labor furnished under this Contract, shall be done, and furnished strictly pursuant to, and in conformity with the specifications described herein, and the direction of the State representatives as given from time to time during the progress of the work, under the terms of this Contract.

~~7.13. The Contractor shall adequately secure and protect their own tools, equipment, materials, and supplies. The State assumes no liability for any damage, theft, or negligent injury to the Contractor's property or to the property of their employees, agents or approved sub-contractors.~~

7.14. While on State property the Contractor, its employees, and its sub-contractors shall be subject to the authority and control of the State, but under no circumstances shall such persons be deemed to be employees of the State.

7.15. All personnel shall observe all regulations or special restrictions in effect at the State agency location at which services are to be provided.

7.16. The Contractor's personnel shall be allowed only in areas where services are to be provided. The use of State telephones by the Contractor, its employees, or its sub-contractors is prohibited.

7.17. If sub-contractors are to be utilized, Contractor shall provide information regarding the proposed sub-contractors including the name of the company, their address, contact person and three references for clients they are currently servicing. Approval by the State must be received prior to a sub-contractor starting any work.

8. OBLIGATIONS AND LIABILITY OF THE CONTRACTOR:

8.1. The Contractor shall provide all services strictly pursuant to, and in conformity with, the specifications described in the proposal, as described herein, and under the terms of this Contract.

8.2. It is the responsibility of the Contractor to maintain this contract and New Hampshire Vendor Registration with up to date contact information.

8.3. Contract specific contact information (Sales contact, Contractor contract manager, etc.) shall be sent to the State's Contracting Office listed in Box 1.9 of Form P-37.

8.4. Additionally, all updates i.e., telephone numbers, contact names, email addresses, W9, tax identification numbers are required to be current through a formal electronic submission to the Bureau of Purchase and Property at: [https://das.nh.gov/purchasing/vendorregistration/\(S\(q0fzcv55qhaeqs45jpvq5i45\)\)/welcome.aspx](https://das.nh.gov/purchasing/vendorregistration/(S(q0fzcv55qhaeqs45jpvq5i45))/welcome.aspx).

8.5. The Contractor shall agree to hold the State of NH harmless from liability arising out of injuries or damage caused while performing this work. The Contractor shall agree that any damage to building(s), materials, equipment, or other property during the performance of the service shall be repaired at its own expense, to the State's satisfaction.

8.6. Successful Vendor shall not be allowed to require any other type of order, nor shall the successful Vendor be allowed to require the filling out or signing of any other document by State of New Hampshire personnel.

9. DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION LOWER TIER COVERED TRANSACTIONS:

9.1. The Contractor certifies, by signature of this contract, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal Department or Agency.

10. CONFIDENTIALITY & CRIMINAL RECORD:

10.1. If requested by the using agency, the Contractor and its employees, and Sub-Contractors (if any), shall be required to sign and submit a Confidential Nature of Department Records Form and a Criminal Authorization Records Form. These forms shall be submitted to the individual using agency prior to the start of any work.

Contractor Initials DKH

Date 5-23-24

EXHIBIT C - METHOD OF PAYMENT

11. CONTRACT PRICE:

11.1. The Contractor hereby agrees to provide HVAC repair services in complete compliance with the terms and conditions specified in Exhibit B for an amount up to and not to exceed a price of \$66,050.00; this figure shall not be considered a guaranteed or minimum figure; however, it shall be considered a maximum figure from the effective date through the expiration date as indicated in Form P-37 Block 1.7.

From contract approval through completion	
Description	Lump Sum Cost
Lump sum offer, complete project scope as contained herein. Replace (3) Greenheck ERV supply blowers with direct drive fan assemblies.	\$61,050.00
Project Contingency (available at the states sole option)	\$5,000.00
Grand Total	\$66,050.00

12. PRICING STRUCTURE:

12.1. One payment for project subject to contract retainage.

13. INVOICE:

13.1. Itemized invoices shall be submitted to the individual agency after the completion of the job and shall include a brief description of the work done along with the location of work.

13.2. Contractor shall be paid according to the pricing structure after receipt of properly documented invoice and acceptance of the work to the State's satisfaction.

13.3. The invoice shall be sent to the following address:

David W. Goulet
 Department of Administrative Services
 Division of Public Works Design & Construction
 7 Hazen Drive
 John O. Morton Building
 POB 483
 Concord NH 03301

14. PAYMENT:

14.1. Contract Retainage:

14.1.1. The State shall retain 5% of the total price limitation from the final payment, to be released upon the issuance of a successful completion form approved by the Agency and the Division of Public Works Design and Construction.

14.2. Payments may be made via ACH. Use the following link to enroll with the State Treasury for ACH payments: <https://www.nh.gov/treasury>.

Contractor Initials DW

Date 5-23-21

EXHIBIT D - Contractors Proposal

Contractor Initials B.N.

Date 5-23-24

RTH Mechanical Contractors Inc.



17 Production Drive
Dover, NH 03820
David Goulet

Phone: 603-772-9779
Fax: 603-772-0389

2015 NATIONAL
SUBCONTRACTOR OF THE YEAR
04-30-2024

Project Manager III
Department of Administrative Services
Division of Public Works Design & Construction
7 Hazen Drive
John O. Morton Building
POB 483
Concord NH 03301

For: NH Veteran's Home - Northfield, NH
RE: Greenheck ERV Supply Blower Replacement

David, thank you for requesting a proposal to replace the (3) existing Greenheck ERV supply blowers at the facility. As I mentioned I would recommend the complete replacement of each of the three blower assemblies versus the repair/rebuilding of the existing fans that have had multiple repairs done to them at this time. I have spoken to our local Greenheck representative, and they have quoted us two options for the site's current units. The lead time on both options is quoted as 15-day build from factory. Our replacement method would require accessing the units through the existing roof of the units and then sealing the top of the units back up after the repair. This may not be a permanent repair to the roof but should be able to buy enough time for the site to look at replacement units in future.

Option 1: replace the existing fan assembly with as close to the existing belt driven single speed fan assembly, closely matching the existing fan assembly.

\$ 53,650.00

Option 2: Replace the existing belt driven fan with a direct drive fan assembly with a VFD added to the motor to be able to do soft starts and if needed adjust the fan CFM if needed.

\$ 61,050.00

We have included:

- Opening the top of the existing units for access
- Removal by crane of the existing blower assemblies
- Installation by crane of the new blower assemblies.
- Disconnect and reconnection of power wiring at unit.
- Re-sealing of the existing ERV roofs to make watertight.
- Start-up of new fan assemblies

We have not included:

- Re-Balancing of the ERV's
- No DDC connections to VFD's

Please let me know if you have any questions.

Thank you,

Bryan Covey

Bryan Covey - Estimator/Project Manager

SUBMITTAL

Job Name: Tilton VA

Engineer: na

Elevation: (ft) 233

Date: 4/30/2024

Submitted By: James Westfall

Email: jwestfall@buckleyonline.com

Phone: (603)669-3566

BUCKLEY ASSOCIATES INC - 270

55 BUCKLEY CIRCLE

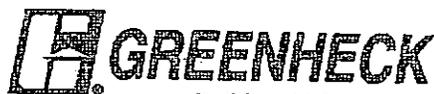
MANCHESTER, NH 03109

US

Phone: (603)669-3566

Fax: (603)669-2347

Email Address: jwestfall@buckleyonline.com



Building Value in Air.

P.O. Box 410 Schofield, WI 54476 (715) 359-6171 FAX (715) 355-2399 www.greenheck.com

Performance	
Quantity	3
Volume (CFM)	5200
Total External SP (in. wg)	1
Operating Power (hp)	2.33
Required Power (hp)	2.33
Fan RPM	1626
Max Fan RPM	2,074
Oper. Frequency (Hz)	60
Elevation (ft)	233
Start-up Temp.(F)	70
Operating Temp.(F)	70

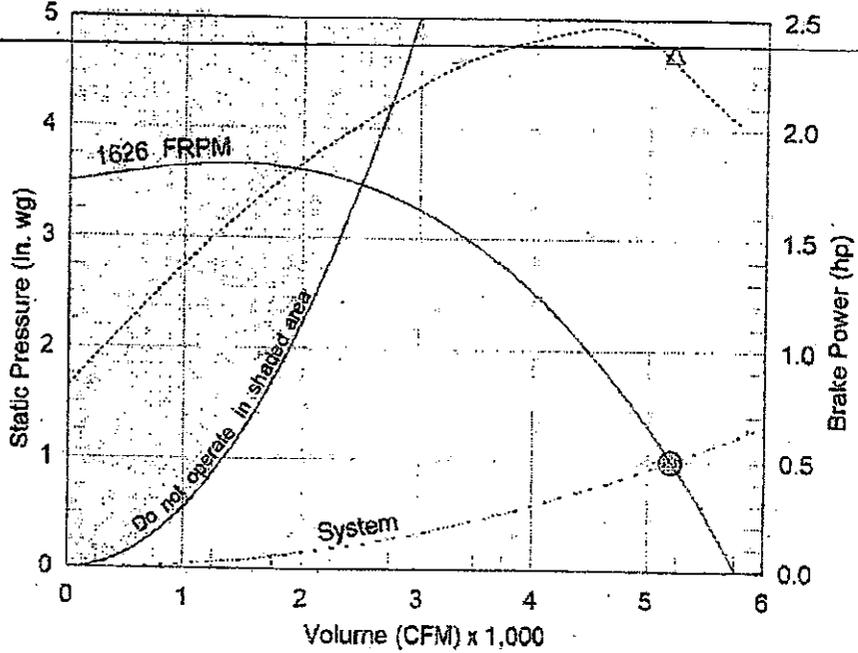
Fan Configuration	
Size	18
Wheel Type	B1
Arrangement	10
Drive Type	Belt
Class	I
Rotation	CCW
Discharge Position	TH
Construction Type	PermaLock
Spark Resistance	None
Scroll Material	Steel
Wheel Material	Steel
Inlet Cone Material	Steel
Pedestal Material	Steel

Equipment Weights	
Fan (LMD)(lb)	197
Motor/Drive (lb)	92
Accessories (lb)	0
Fan Total (lb)	289

Misc Fan Data	
Fan Energy Index (FEI)	1.11
Outlet Velocity (ft/min)	2,714
Static Efficiency (%)	37
Tip Speed (ft/min)	7,768
Shaft Bearing Type	Standard
Bearing Life Calculation	Operating Point
L10 - Bearing Life (hrs.)	573,870

Motor and Drives	
Motor	Included
Size (hp)	5
RPM	1725
Enclosure	ODP
V/C/P	208/50/3
Frame Size	184T
Max Frame Size	215
Location	Centered
Pulley Type	Adjustable
Drive Loss (%)	4.7
Drives	Standard
Drive Service Factor	1.5
MCA* (Amps)	20.88
MOP* (Amps)	25
SCOR* (Kiloamps)	5

Model: USF-18
Universal Single Width Fan
Operating Performance



- △ Operating Bhp point
- Operating point at Total External SP
- Fan curve
- System curve
- Brake horsepower curve

Nameplate Model: USF-18-3-B6-00-02-02

Sound Power by Octave Band

Sound Data	62.5	125	250	500	1000	2000	4000	8000	LwA	dBA	Sones
Inlet	88	88	90	86	80	79	75	70	88	76	27
Outlet	95	91	88	84	82	79	76	68	88	76	28

*Values are estimated and subject to change. Actual values provided on fan at time of manufacture.
LwA - A weighted sound power level, based on ANSI S1.4
dBA - A weighted sound pressure level, based on 11.5 dB attenuation per octave band at 6 ft. dBA levels are not licensed by AMCA International
Sones - calculated using AMCA 301 at 5 ft



Model: USF-18
Universal Single Width Fan

Standard Construction Features:

HOUSING: Class II and under feature Perma-Lock construction on sizes 4 - 49 and continuously welded on sizes 54 - 73 and all class III fans - Unit support angles with mounting holes - Adjustable motor plate - Corrosion resistant fasteners - Inlet collars - Outlet flange standard on sizes 27 - 73 and all class III fans - Untreated steel parts are processed through a multi-stage cleaning and pre-treatment and then finished with a high-performance powder coating. Sizes 24 and less are rotatable in 45 deg. increments. Sizes 27 to 40 are rotatable in 90 deg. increments. Sizes greater than 40 and all class III are not rotatable.

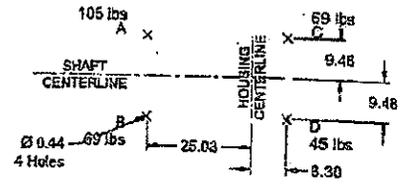
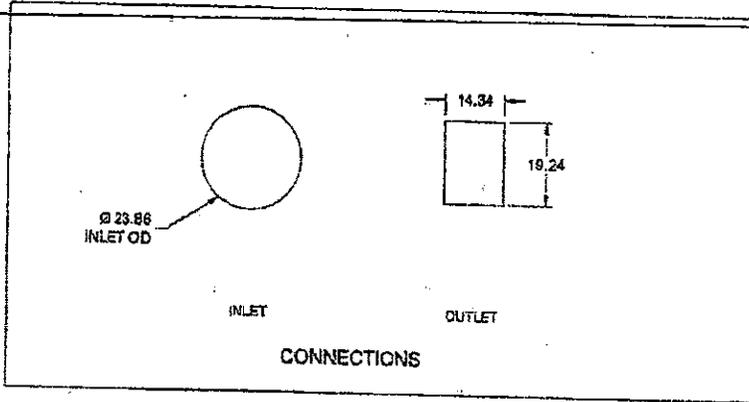
BEARINGS, SHAFT, AND WHEEL: Air handling quality, self-aligning, ball bearing in pillow block housing - Polished, solid steel shafts with rust inhibitor - Centrifugal wheel

Selected Options & Accessories:

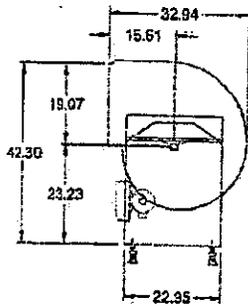
Specific Motor Efficiency Minimum of 0.0%
Switch - NEMA-3R, Toggle, For Indoor or Outdoor Use, Mounted & Wired
Motor with Class B or Greater Insulation
Standard Drives
Finish - Coated
Coating - Permalector, Concrete Gray-RAL 7023, Fan and Attached Accessories
Direct Mount Isolators, Isolator Spring, Free Standing, 1 Inch, Indoor Use Only, Base Coating - N/A
Rotation - CCW
Bearings - L10 Standard Life, 573k hours at Operating Point
Discharge Position - TH
UL/cUL-705 - Power Ventilators
Polished Steel Shaft
Extended Lube Lines - Nylon
Inlet Connection, Slip Fit
Outlet Connection, Slip Fit
Weatherhood - Steel Construction
Fasteners - Standard
Unit Warranty: 1 Yr (Standard)

Model: USF-18

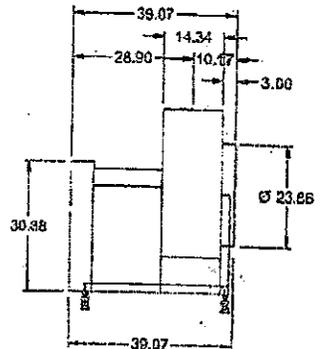
Universal Single Width Fan



FOOTPRINT VIEW



SIDE VIEW



END VIEW

Notes: All dimensions shown are in units of in.

Isolators

Type: Spring, Free Standing, 1 Inch

Standard Construction Features:

Laterally stable spring mounts. Springs are color coded or identified to indicate load capacity. Neoprene pad for noise reduction.

Fan Configuration

Model: USF-18

Arrangement: 10

Rotation: CCW

Motor Position: Centered

Isolator Color A: Gray

Isolator Color C: Gray

Isolator Description A: FDS-1-120

Isolator Description C: FDS-1-120

Isolator Manufacturer: Kinetics

Discharge Position: TH

Class: I

Motor Frame Size: 184T

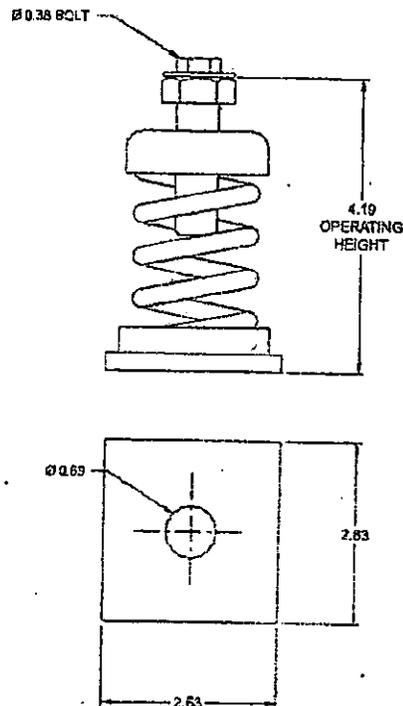
Isolator/Deflection: Spring, Free Standing, 1 Inch

Isolator Color B: Gray

Isolator Color D: Green

Isolator Description B: FDS-1-120

Isolator Description D: FDS-1-70



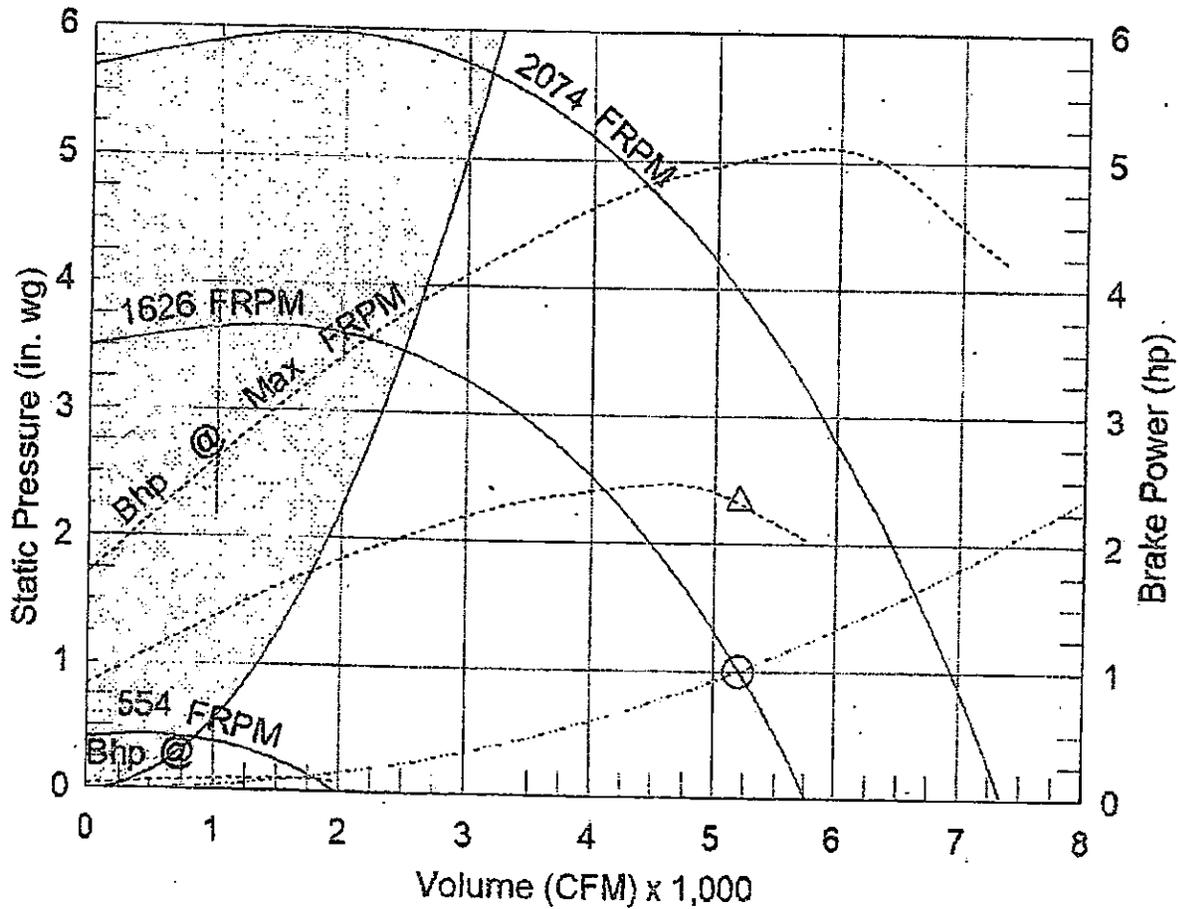
Notes: All dimensions shown are in units of in.

USF-18

Min/Max Fan Curve

Performance

Requested Volume (CFM)	Actual Volume (CFM)	External SP (in. wg)	Total SP (in. wg)	Fan RPM	Operating Power (hp)
5,200	5,200	1	1	1626	2.33



- △ Operating Bhp point
- Operating point at Total External SP
- Construction Limit
- Fan curve
- Min FRPM
- - - System curve
- · · Brake horsepower curve

Performance	
Quantity	3
Volume (CFM)	5,200
Total External SP (in. wg)	1
Operating Power (hp)	2.2
Required Power (hp)	2.2
Fan RPM	1626
Max Fan RPM	2,074
Oper. Frequency (Hz)	55
Elevation (ft)	233
Start-up Temp.(F)	70
Operating Temp.(F)	70

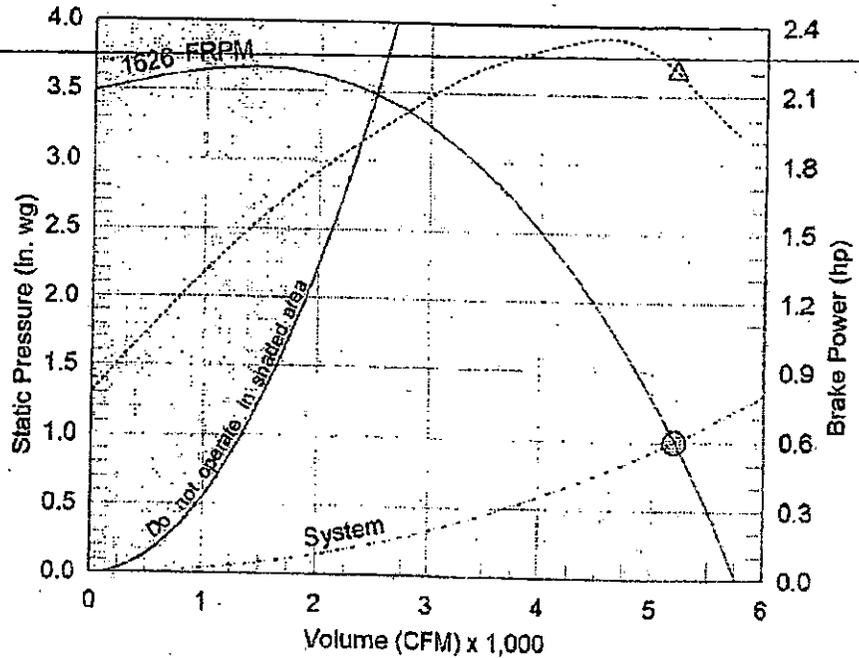
Fan Configuration	
Size	18
Wheel Type	BI
Arrangement	4
Drive Type	Direct
Class	I
Rotation	CCW
Discharge Position	TH
Construction Type	PermaLock
Spark Resistance	None
Scroll Material	Steel
Wheel Material	Steel
Inlet Cone Material	Steel
Pedestal Material	Steel

Equipment Weights	
Fan (LMD)(lb)	179
Motor/Drive (lb)	115
Control Box (lb)	50
Accessories (lb)	1
Fan Total (lb)	345

Misc Fan Data	
Fan Energy Index (FEI)	1.11
Outlet Velocity (ft/min)	2,714
Static Efficiency (%)	37
Tip Speed (ft/min)	7,768
Shaft Bearing Type	N/A
Bearing Life Calculation	N/A

Motor and Drives	
Motor	Included
Size (hp)	5
RPM	1770
Enclosure	TEFC
VIC/P	208/60/3
Frame Size	184T
Max Frame Size	284
Location	Centered
MCA* (Amps)	34.58
MOP* (Amps)	35
SCCR* (Kiloamps)	5

Model: USF-18
Universal Single Width Fan
Operating Performance



- ▲ Operating Bhp point
- Operating point at Total External SP
- Fan curve
- - - System curve
- Brake horsepower curve

Nameplate Model: USF-18-3-B6-00-02-02

Sound Power by Octave Band

Sound Data	62.5	125	250	500	1000	2000	4000	8000	LWA	dBA	Sones
Inlet	88	88	90	86	80	79	75	70	88	76	27
Outlet	96	91	88	84	82	79	76	68	88	76	28

*Values are assumed and subject to change. Actual values provided on fan at time of manufacture.
LWA - A weighted sound power level, based on ANSI S1.4

dBA - A weighted sound pressure level, based on 11.5 dB attenuation per octave band at 5 ft. dBA levels are not licensed by AMCA International
Sones - calculated using AMCA 301 at 5 ft.



Model: USF-18
Universal Single Width Fan

Standard Construction Features:

HOUSING: Class II and under feature Perma-Lock construction on sizes 4 - 49 and continuously welded on sizes 54 - 73 and all class III fans - Unit support angles with mounting holes - Adjustable motor plate - Corrosion resistant fasteners - Inlet collars - Outlet flange standard on sizes 27 - 73 and all class III fans - Untreated steel parts are processed through a multi-stage cleaning and pre-treatment and then finished with a high-performance powder coating. Sizes 24 and less are rotatable in 45 deg. increments. Sizes 27 to 40 are rotatable in 90 deg. increments. Sizes greater than 40 and all class III are not rotatable.

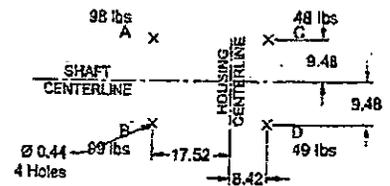
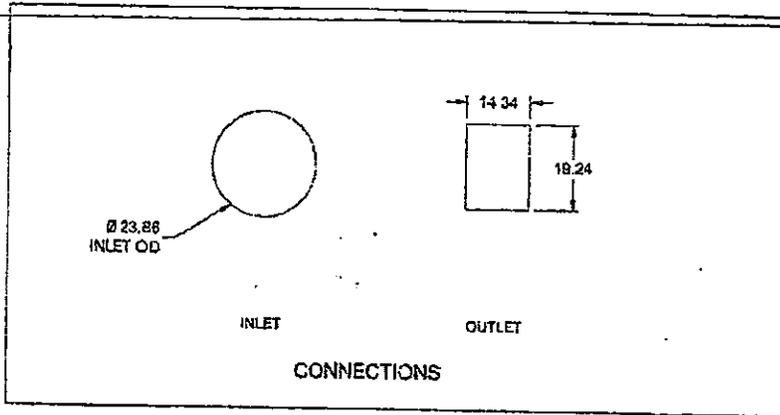
BEARINGS, SHAFT, AND WHEEL: Air handling quality, self-aligning, ball bearing in pillow block housing - Polished, solid steel shafts with rust inhibitor - Centrifugal wheel

Selected Options & Accessories:

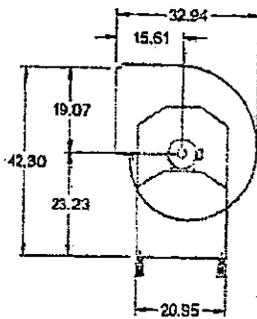
NEMA Premium Efficient Motor - meets NEMA Table 12-12
Motor VFD Rated without Shaft Grounding Protection
Control - ABB ACS320 VFD, Mounted and Wired
Control - Hand/Off/Auto, Mounted and Wired
Control - 24V Transformer, Mounted & Wired
Control Box - NEMA 3R Enclosure w/disconnect, Ship Loose
Motor sized for fan rpm operation with VFD, not power line Hz
Motor with Class B or Greater Insulation
Finish - Coated
Coating - Permatecor, Concrete Gray-RAL 7023, Fan and Attached Accessories
Switch - NEMA-3R, Toggle, For Indoor or Outdoor Use, Mounted and Wired
Direct Mount Isolators, Isolator Spring, Free Standing, 1 Inch, Indoor Use Only, Base Coating - N/A
Rotation - CCW
Discharge Position - TH
Arrangement - 4
UL/cUL-705 - Power Ventilators
Inlet Connection, Slip Fit
Outlet Connection, Slip Fit
Motor Cover - Steel Construction
Fasteners - Standard
Unit Warranty: 1 Yr (Standard)

Model: USF-18

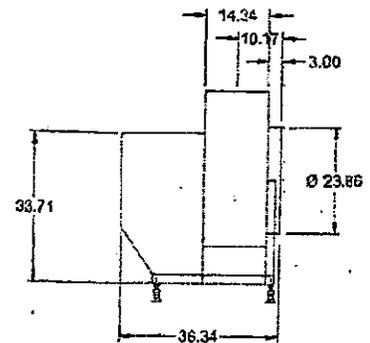
Universal Single Width Fan



FOOTPRINT VIEW



SIDE VIEW

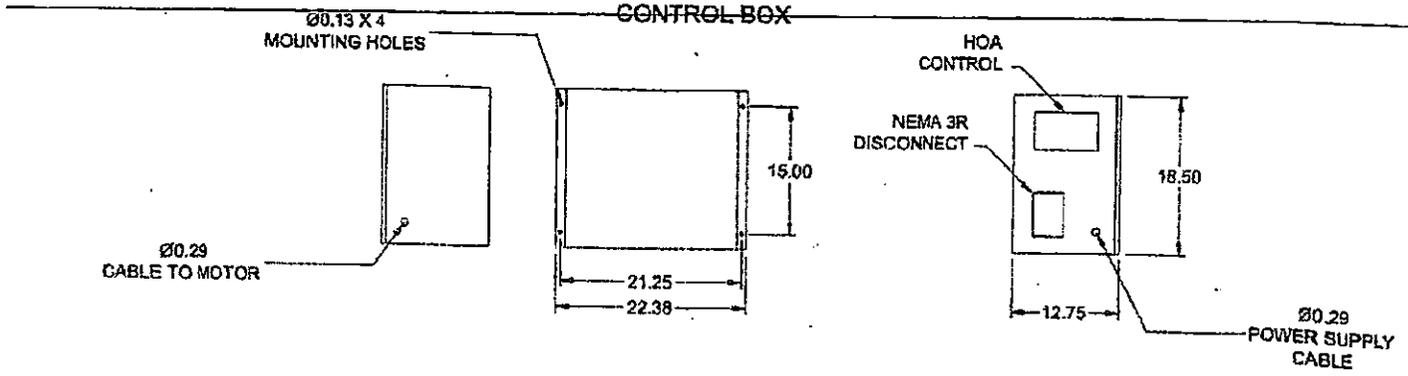


END VIEW

Notes: All dimensions shown are in units of in.

Model: USF-18

Universal Single Width Fan



Notes: All dimensions shown are in units of in.

Isolators

Type: Spring, Free Standing, 1 Inch

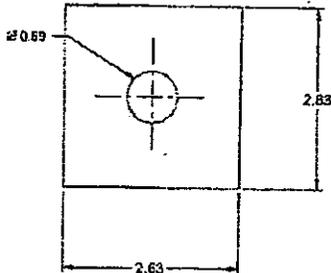
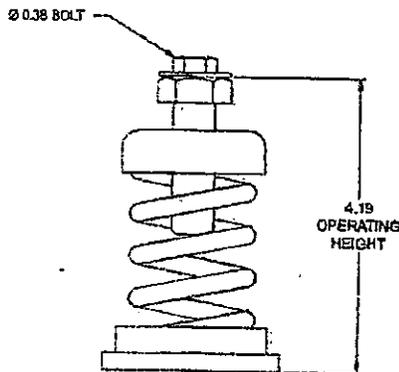
Standard Construction Features:

Laterally stable spring mounts. Springs are color coded or identified to indicate load capacity. Neoprene pad for noise reduction.

Fan Configuration

Model: USF-18
Arrangement: 4
Rotation: CCW
Motor Position: Centered
Isolator Color A: Gray
Isolator Color C: Green
Isolator Description A: FDS-1-120
Isolator Description C: FDS-1-70
Isolator Manufacturer: Kinetics

Discharge Position: TH
Class: I
Motor Frame Size: 184T
Isolator/Deflection: Spring, Free Standing, 1 Inch
Isolator Color B: Gray
Isolator Color D: Green
Isolator Description B: FDS-1-120
Isolator Description D: FDS-1-70



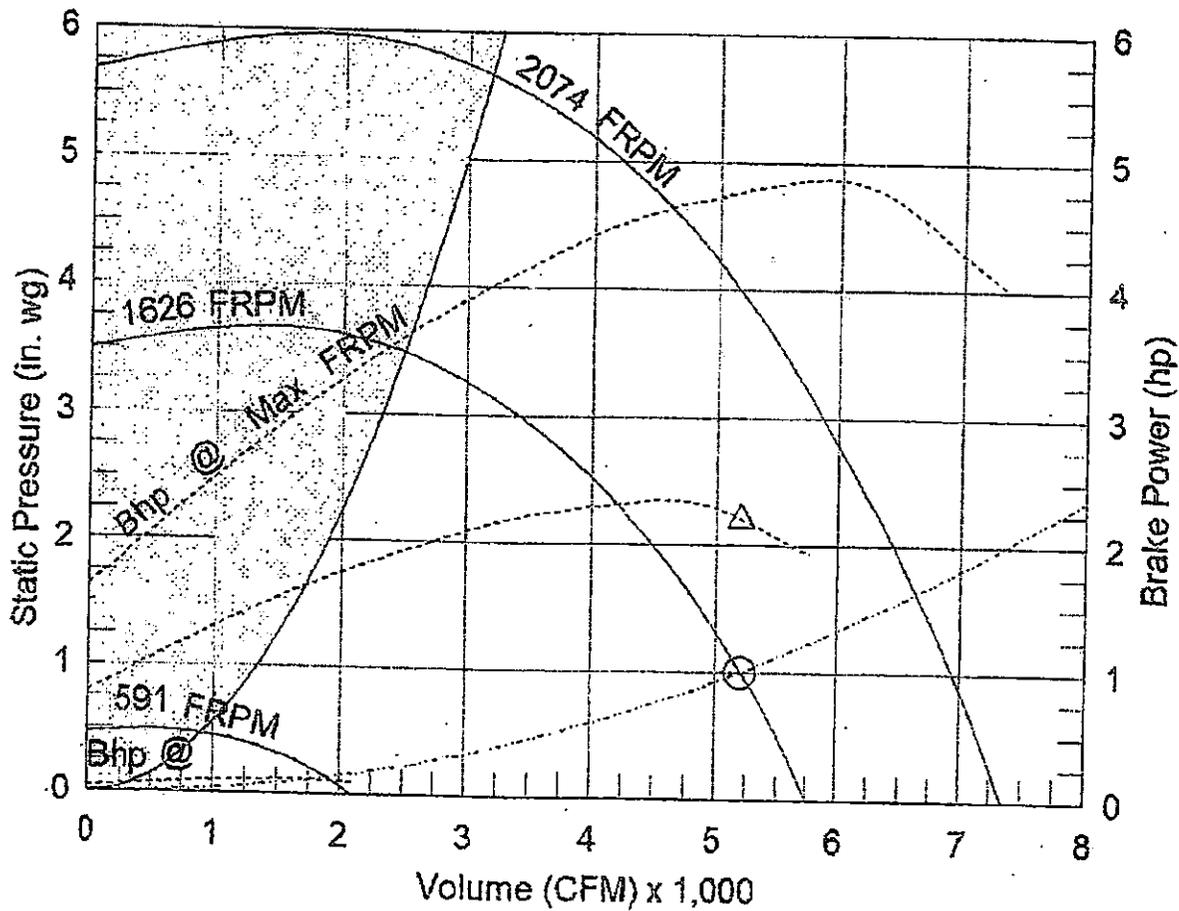
Notes: All dimensions shown are in units of in.

USF-18

Min/Max Fan Curve

Performance

Requested Volume (CFM)	Actual Volume (CFM)	External SP (in. wg)	Total SP (in. wg)	Fan RPM	Operating Power (hp)
5,200	5,200	1	1	1626	2.2

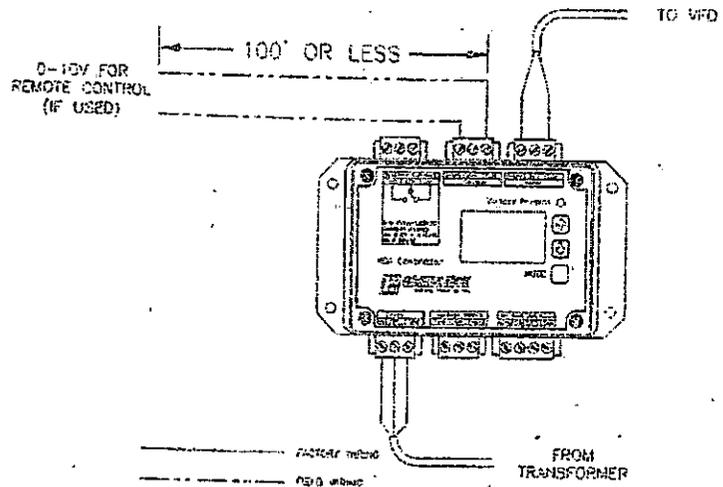


- △ Operating Bhp point
- Operating point at Total External SP
- Construction/System Limit
- Fan curve
- VFD 20 HZ Limit
- System curve
- Brake horsepower curve

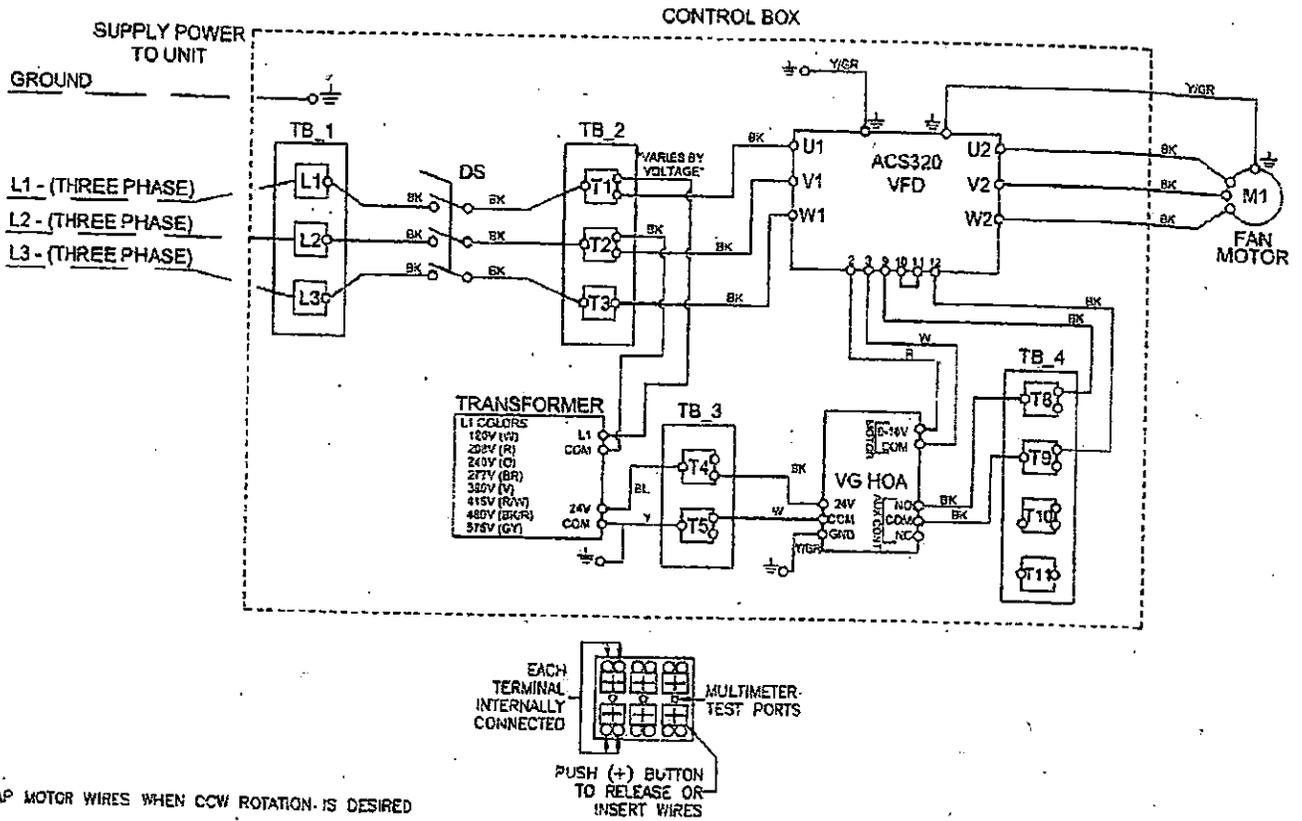
Vari-Green Motor & Control Options

The control box is a NEMA-3R Enclosure which is safe for indoor/outdoor usage. It provides a connection point for incoming power as well as shelters the electronics. A NEMA-3R Disconnect is also included providing a means to completely power down the fan. The HOA Controller can adjust motor speed via built-in buttons or accommodate a 0-10VDC input signal provided by Others.

Input Voltage:	208
Input Phase:	3ph
Output Voltage:	208
Output Phase:	3ph
Motor Type:	Induction
VFD Brand:	ABB
VFD Model:	ACS320
Control Box Mounting:	Ship Loose
Control Type:	Hand/Off/Auto
Transformer/HOA:	HOA Mtd
Control Damper:	None



Wiring Diagram





LOW VOLTAGE AC DRIVES

ABB drives for HVAC ACS320, 1.2 to 50.8A



The compact ACS320 will save energy throughout your pump and fan HVAC applications. From booster pumps, exhaust and condenser fans to supply and return fans, the drive's built-in HVAC features such as embedded BACnet (MS/TP) ensure easy and complete integration into building management systems.

Making HVAC user friendly

The preprogrammed application macros and easy to use control panel make installation and drive setup simple. The control panel on the ACS320 uses HVAC terms and units, removing any guess work, and comes with 18 languages built-in. The unified height and depth of the drive frame sizes minimizes needed installation space.

Energy savings

With energy savings of up to 70 percent, the ACS320 can help to attain sustainability targets. The drive's energy optimizer tunes the drive's performance to help save even more energy. Built-in energy efficiency calculators monitor the energy used and saved. The savings are shown in kilowatt-hours and in local currency. Carbon dioxide (CO₂) emission reductions are also shown.



Technical data	
Supply connection	
Voltage and power range	1-phase, 200 to 240 V ±10% (2.4 to 9.8 A) 3-phase, 200 to 240 V ±10% (2.6 to 50.8 A) 3-phase, 380 to 480 V ±10% (3.2 to 44 A)
Frequency	48 to 63 Hz
Connections	
Motor types	Asynchronous induction motors
Frequency	0 to 500 Hz
Switching frequency	Selectable 4, 8, 12 and 16 kHz (derated)
Type of control	Scalar control and user definable U/f profiles Energy optimizer
Inputs and outputs	Two analog inputs, one analog output, five digital inputs (DI5 can be programmed for pulse train input, one digital output (can be programmed as pulse train output), one relay output.
PTC and PT100	Any of the 5 digital inputs or analog input can be configured for PTC. Analog output can be used to feed PT100 sensor.
Communication	Embedded fieldbus protocols: BACnet (MS/TP), Modbus RTU (EIA-485), Johnson Controls N2, Siemens Building Technology FLN (P1). Available as an external option: Ethernet adapter for remote monitoring.
Options	
User interface	Basic control panel, ACR-CP-C Advanced HVAC control panel, ACH-CP-B Panel mounting kits for cabinet door installation
I/O extensions	MREL-01 module, three Form C relay outputs, 250 VAC/30 V DC
Chokes and filters	AC input and output chokes EMC filters
PC tools	DriveWindow Light 2
Environmental limits	
Degree of protection	IP20/optional NEMA 1 kit
Ambient temperature	-10 to +50 °C (-14 to +122 °F), no frost allowed
Product compliance	
Directives and standards	Low Voltage Directive 2006/95/EC, Machinery Directive 2006/42/EC, EMC Directive 2004/108/EC, CE and C-Tick approvals, UL, cUL and GOST R, RoHS compliant, Quality assurance system ISO 9001
EMC	Class C3 (2 nd environment unrestricted distribution) built-in as standard Class C2 and C1 with external optional EMC filters

Complete HVAC functionality

The ACS320 comes standard with four embedded communication protocols, including BACnet (MS/TP) for easy integration into building management systems. Built-in real time clock and timers help you optimize energy use. The drive provides full output current at ambient temperatures of up to 50 °C without derating. Built-in software for controlling common HVAC applications includes:

- 2 PID controllers
- Timers with real time clock
- Pump and fan control
- Cooling fan control
- Pump cleaning
- Underload (broken belt) detection
- Pump protection
- Sleep function
- Pipe fill (precharge)

Typical applications for the ACS320 include:

- Supply and return fans
- Condenser fans
- Exhaust fans
- Fume hood fans
- Booster pumps
- Submersible pumps

Easy to order

The drive can be ordered with a blank panel, the basic control panel, or can be ordered with the advanced HVAC control panel. These three packages simplify the ordering process.

Advanced PC tool

The DriveWindow Light 2 PC tool can be used to monitor process performance or to set and tune drive parameters. It can also be used in offline mode to configure drive parameters before the drive installation on site.

ABB
Robotics and Motion
Drives and Controls
16250 W. Chertule Drive
New Berlin, WI 53131

abb.com/drives

ACS320-440000-00 REV. E: 06/01/2018

Vari-Green Hand/Off/Auto (HOA) Control

Features:

Hand Mode: Set motor speed manually in the HOA keypad. Can be used for balancing, troubleshooting or to operate fan before external controls are installed/operational.

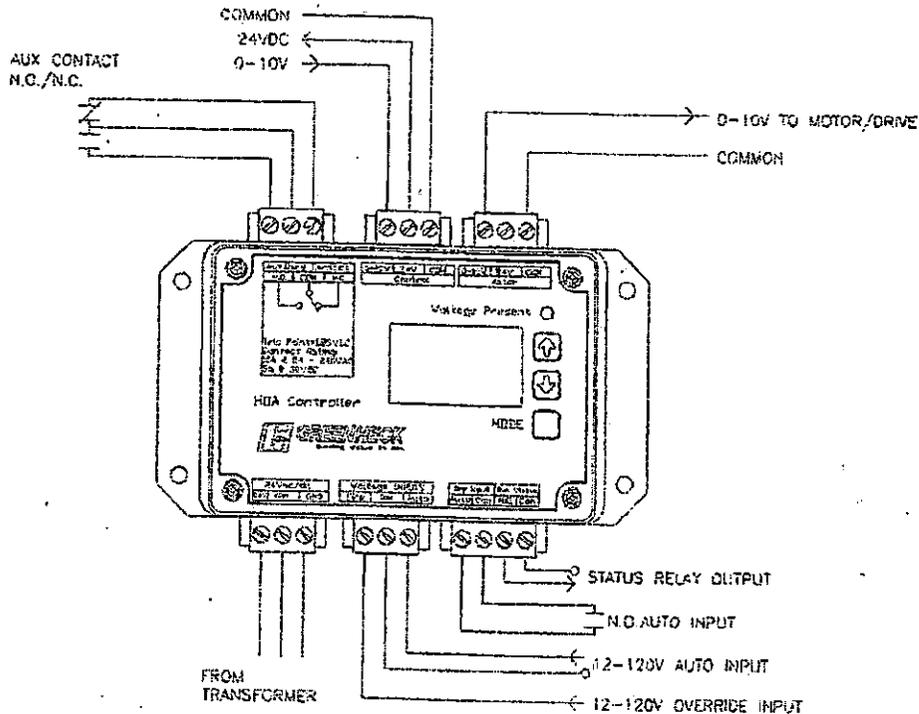
Auto-Local Mode: Set motor speed using HOA control. Motor can be started/stopped remotely via dry input and/or voltage input.

Auto-Remote Mode: Remote device provides 0-10V signal for speed reference. Motor can be started/stopped remotely via dry input and/or voltage input.

Override: Override: Voltage input will run motor at speed set in the HOA keypad. This input will take precedence over every other signal/mode.

Auxiliary Contact: N.O./N.C. contact will change states when the motor is being sent above 1.85VDC. Useful to signal a damper actuator to open/close.

Status Output: N.O. contact will close when the motor is being sent above 1.85VDC. Useful to signal BMS or other device motor is being commanded to run. Does NOT prove motor is running.



Specifications and Contact Ratings	
Power Input	24VAC/VDC
Voltage Input	12-120VAC/VDC
Override Input	12-120VAC/VDC
Auxiliary Contact (N.O./N.C.)	10A @ 24-240VAC / 5A @ 30VDC
Speed Reference Output	0-10VDC
Status Output (N.O.)	Closes >= 2.0V Speed reference