ENVIRONMENTAL COVENANT AND EASEMENT

Preferred ID BF0001593

This Environmental Covenant and Easement ("Environmental Covenant") is executed pursuant to the Uniform Environmental Covenants Act, Minn. Stat. ch. 114E ("UECA") in connection with an environmental response project approved by the Minnesota Pollution Control Agency ("MPCA").

1. Grantor and Property description.

A. Owner and legal description of Property.

Rayette Owner LLC, a limited liability company organized under the laws of Washington is the fee owner of certain real property located at 261 5th Street East, St. Paul, in Ramsey County, State of Minnesota, with parcel identification number(s) 312922440090, shown on **Exhibit 1** and legally described in **Exhibit 2** (hereinafter the "Property").

B. Grantor.

Rayette Owner LLC is the Grantor of this Environmental Covenant.

2. Grant of Covenant; Covenant runs with the land.

Grantor does hereby Covenant and Declare that the Property shall be subject to the Activity and Use Limitations and associated terms and conditions set forth in this Environmental Covenant including the Easement in Paragraph 9, and that these Activity and Use Limitations and

associated terms and conditions constitute covenants which run with the Property and which shall be binding on Grantor, its heirs, successors and assigns, and on all present and future Owners of the Property and all persons who now or hereafter hold any right, title or interest in the Property. An Owner is bound by this Environmental Covenant during the time when the Owner holds fee title to the Property. Any other person that holds any right, title or interest in or to the Property is bound by this Environmental Covenant during the time the person holds the right, title or interest. An Owner ceases to be bound by this Environmental Covenant when the Owner conveys fee title to another person, and any other person that holds any right, title or interest in or to the Property ceases to be bound when the person conveys the right, title or interest to another person.

3. Environmental Agency; Grantee and Holder of Environmental Covenant; acceptance of interest in real Property.

A. Environmental agency.

The MPCA is the environmental agency with authority to approve this Environmental Covenant under UECA.

B. Grantee and Holder; acceptance of interest in Property.

The MPCA is the Grantee and Holder of the interest in real property conveyed by this Environmental Covenant. MPCA has authority to acquire an interest in real property, including an Environmental Covenant, under Minn. Stat. § 115B.17, subd. 15, as the MPCA determines necessary for a response action related to hazardous substances, pollutants or contaminants. MPCA's signature on this Environmental Covenant constitutes approval of this Environmental Covenant under UECA and acceptance of the interest in real property granted herein for purposes of Minn. Stat. § 115B.17, subd. 15.

4. Environmental response project.

The Property is the location of releases or threatened releases of hazardous substances, pollutants, or contaminants that are addressed by an environmental response project under the MPCA Voluntary Investigation and Cleanup ("VIC") Program pursuant to Minn. Stat. § 115B.17, subd. 14. MPCA has determined that an Environmental Covenant is needed for the Property because of the affirmative obligation to operate, monitor, and maintain the vapor intrusion mitigation system in the Property building.

5. Statement of facts.

A. Facts about the release and response actions.

The Property has been used for various commerical/light industrial purposes since the early 1900s including; a millinery, manufacturer of cosmetic and beauty supplies, garment manufacturers, dry good wholesalers and an engraving business, school food service, and electroplating and circuit board manufacturers. A sub-slab soil vapor investigation at the Property in March 2020 identified tetrachloroethene ("PCE") in soil vapor at concentrations greater than the MPCA action level of 33X its residential intrusion screening value ("ISV"). A Response Action Plan ("RAP") was submitted and approved by the MPCA in a letter dated August 18, 2020. The RAP was implemented from May 2020 through January 2021 and included installation of a sub-slab depressurization system ("SSDS") in the underground parking garage of the existing apartment building at the Property. Post mitigation

2

diagnostics were conducted in December 2020 with post mitigation confirmation sampling in January 2021. According to the Vapor RAP Implementation Report dated June 30, 2021, the active SSDS is functioning as designed and has reduced the risk of vapor intrusion to the building. The system is intended to run continuously until approval to turn off the system is obtained from the MPCA. Details regarding the investigation and response actions can be found in the MPCA's file for the **Rayette Lofts** site, MPCA Preferred ID **BF0001593**.

B. Facts constitute affidavit under Minn. Stat. § 115B.16, subd. 2

The facts stated in Paragraph 5.A. are stated under oath by the person signing this Environmental Covenant on behalf of the Grantor, and are intended to satisfy the requirement of an affidavit under Minn. Stat. § 115B.16, subd. 2. In the event of a material change in any facts stated in Paragraph 5.A. requiring the recording of an additional affidavit under Minn. Stat. § 115B.16, subd. 2, the additional affidavit may be made and recorded without amending this Environmental Covenant.

6. Definitions.

The terms used in this Environmental Covenant shall have the meanings given in UECA, and in the Minnesota Environmental Response and Liability Act ("MERLA"), Minn. Stat. §115B.02. In addition, the definitions in this Paragraph 6 apply to the terms used in this Environmental Covenant.

- A. "Commissioner" means the Commissioner of the MPCA, the Commissioner's successor, or other person delegated by the Commissioner to act on behalf of the Commissioner.
- B. "MPCA" means the Minnesota Pollution Control Agency, an agency of the State of Minnesota, or its successor or assign under any governmental reorganization.
- C. "Owner" means a person that holds fee title to the Property and is bound by this Environmental Covenant as provided in Paragraph 2. When the Property is subject to a contract for deed, both the contract for deed vendor and vendee are collectively considered the Owner.
- D. "Political Subdivision" means the county, and the statutory or home rule charter city or township, in which the Property is located.
- E. "Property" means the real property described in Paragraph 1 of this Environmental Covenant.

7. Activity and use limitations.

The following Activity and Use Limitations shall apply to the Property:

A. Use limitations.

There are no use limitations on the Property.

B. Activity limitations.

The following activities are prohibited on the Property except as provided in

There shall be no disturbance, removal, or interference with the operation of any component of the vapor mitigation system within the Property building, as shown in **Exhibit 3**.

C. Affirmative obligations of Owner.

The Activity and Use Limitations imposed under this Environmental Covenant include the following affirmative covenants and obligations:

Owner shall operate, monitor, and maintain the vapor mitigation system in the Property building(s), in accordance with the Operation and Maintenance ("O&M") Plan set forth in **Exhibit 3**.

8. Prior MPCA approval required for activities limited under Environmental Covenant.

A. Approval procedure.

Any activity subject to limitation under Paragraph 7.B. shall not occur without the prior written approval of the Commissioner. The Commissioner's approval may include conditions which the Commissioner deems reasonable and necessary to protect public health or welfare or the environment, including submission to and approval of a contingency plan for the activity. Within 60 days after receipt of a written request for approval to engage in any activities subject to a limitation under Paragraph 7.B., the MPCA shall respond, in writing, by approving such request, or requiring that additional information be provided. A lack of response from the Commissioner shall not constitute approval by default or authorization to proceed with the proposed activity.

9. Easement; right of access to the Property.

Owner grants to the MPCA, the City of St. Paul, and Ramsey County an easement to enter the Property from time to time, to inspect the Property and to evaluate compliance with the Activity and Use Limitations set forth in Paragraph 7. In addition, for the purpose of evaluating compliance, Owner grants to the MPCA the right to take samples of environmental media such as soil, groundwater, surface water, soil vapor, and air, and to install, maintain and close borings, probes, wells or other structures necessary to carry out the sampling.

MPCA, the City of St. Paul, and Ramsey County, and their employees, agents, contractors and subcontractors, may exercise the rights granted under this Paragraph 9 at reasonable times and with reasonable notice to the then-current owner, in a manner that, to the extent possible, minimizes interruption with the activities of the authorized occupants, conditioned only upon showing identification or credentials by the persons seeking to exercise those rights. MPCA will be liable for injury to or loss of property or personal injury or death caused by any act or omission of any employee of the State of Minnesota in the performance of the work described above, under circumstances where the State of Minnesota, if a private person, would be liable to the claimant, in accordance with Minn. Stat. § 3.736.

10. Duration; amendment or termination of Environmental Covenant.

A. Duration of Environmental Covenant.

This environmental covenant is perpetual as provided in Minn. Stat. § 114E.40(a).

B. Amendment or termination by consent.

i. This Environmental Covenant may be amended or terminated in writing by the Owner and the MPCA. An amendment is binding on the Owner but does not affect any other interest in the real Property unless the current owner of that interest has consented to the amendment or agreed to waive its right to consent.

The Grantor of this Environmental Covenant agrees that, upon conveying fee title to the Property to any other person, the Grantor waives the right to consent to amendment or termination of this Environmental Covenant.

C. Termination, reduction of burden, or modification by MPCA.

The MPCA may terminate, reduce the burden of, or modify this Environmental Covenant as provided in Minn. Stat. § 114E.40.

11. Disclosure in Property conveyance instruments.

Notice of this Environmental Covenant, and the Activity and Use Limitations and Affirmative Obligations set forth in Paragraph 7 and Compliance Reporting Requirements set forth in Paragraphs 8, 18 and 19 of this Environmental Covenant, shall be incorporated in full or by reference into all instruments conveying an interest in and/or a right to use the Property (e.g., easements, mortgages, leases). The notice shall be substantially in the following form:

THE INTEREST CONVEYED HEREBY IS S	UBJECT TO AN ENVIRONMENTAL COVENANT
UNDER MINN. STAT. CH. 114E, DATED	, RECORDED IN THE OFFICIAL
PROPERTY RECORDS OFC	COUNTY, MINNESOTA AS DOCUMENT NO.
THE ENVIRONMENTA	AL COVENANT INCLUDES THE FOLLOWING
ACTIVITY AND USE LIMITATIONS AND A	AFFIRMATIVE OBLIGATIONS:

There shall be no disturbance, removal, or interference with the operation of any component of the vapor mitigation system within the Property building, as shown in Exhibit 3.

Owner shall operate, monitor, and maintain the vapor mitigation system in the Property building(s), in accordance with the Operation and Maintenance ("O&M") Plan set forth in Exhibit 3.

12. Recording and notice of Environmental Covenant, amendments and termination.

A. The original Environmental Covenant.

Within 30 days after the MPCA executes and delivers to Grantor this Environmental Covenant, the Grantor shall record this Environmental Covenant in the office of the County Recorder or Registrar of Titles of Ramsey County.

B. Termination, amendment or modification.

Within 30 days after MPCA executes and delivers to Owner any termination, amendment or modification of this Environmental Covenant, the Owner shall record the amendment, modification, or notice of termination of this Environmental Covenant in the office of the County Recorder or Registrar of Titles of Ramsey County.

C. Providing notice of covenant, termination, amendment or modification.

Within 30 days after recording this Environmental Covenant, the Grantor shall transmit a copy of the Environmental Covenant in recorded form to:

- each person that signed the covenant or their successor or assign;
- ii. each person holding a recorded interest in the Property;
- iii. each person in possession of the Property;
- iv. the environmental officer of each political subdivision in which the Property is located; and
- v_a any other person the environmental agency requires.

Within 30 days after recording a termination, amendment, or modification of this Environmental Covenant, the Owner shall transmit a copy of the document in recorded form to the persons listed in items i to v above.

13. Notices to Grantor and environmental agency.

A. Manner of giving notice.

Any notice required or permitted to be given under this Environmental Covenant is given in accordance with this Environmental Covenant if it is placed in United States first class mail postage prepaid; or deposited cost paid for delivery by a nationally recognized overnight delivery service; or transmitted by electronic mail to instcontrols.pca@state.mn.us.

B. Notices to the Grantor.

Notices to the Grantor shall be directed to:

Rayette Owner LLC John Goodman 2801 Alaskan Way, Suite 310 Seattle, Washington 98121 206-448-0259 jgoodman@goodmanre.com

C. Notices to MPCA.

All notices, including reports or other documents, required to be submitted to the MPCA shall reference the MPCA Preferred ID. *Email submittal is preferred*.

Minnesota Pollution Control Agency

Remediation Division – Institutional Controls Coordinator MPCA Preferred ID: **BF0001593** 520 Lafayette Road North St. Paul, MN 55155

Email: instcontrols.pca@state.mn.us

14. Enforcement and compliance.

A. Civil action for injunction or equitable relief.

This Environmental Covenant may be enforced through a civil action for injunctive or other equitable relief for any violation of any term or condition of this Environmental Covenant, including violation of the Activity and Use Limitations under Paragraph 7 and denial of Right of Access under Paragraph 9. Such an action may be brought by:

- i. The MPCA;
- ii. A political subdivision in which the Property is located;
- iii. A person whose interest in the Property or whose collateral or liability may be affected by the alleged violation of the covenant;
- iv. A party to the covenant, including all holders; or
- v. Any person to whom the covenant expressly grants power to enforce.

B. Additional rights of enforcement by MPCA.

In addition to its authority under subparagraph A of this Paragraph 14, the MPCA may enforce this Environmental Covenant using any remedy or enforcement measure authorized under UECA or other applicable law, including remedies pursuant to Minn. Stat. §§ 115.071, subds. 3 to 5, or 116.072.

C. No waiver of enforcement.

Failure or delay in the enforcement of this Environmental Covenant shall not be considered a waiver of the right to enforce, nor shall it bar any subsequent action to enforce, this Environmental Covenant.

D. Former Owners and interest holders subject to enforcement.

Subject to any applicable statute of limitations, an Owner or other person holding any right, title or interest in or to the Property, that violates this Environmental Covenant during the time when the Owner or other person is bound by this Environmental Covenant remains subject to enforcement with respect to that violation regardless of whether the Owner or other person has subsequently conveyed the fee title, or other right, title or interest, to another person.

E. Other authorities of MPCA not affected.

Nothing in this Environmental Covenant affects MPCA's authority to take or require performance of response actions to address releases or threatened releases of hazardous

substances or pollutants or contaminants at or from the Property, or to enforce a consent order, consent decree or other settlement agreement entered into by MPCA, or to rescind or modify a liability assurance issued by MPCA, that addresses such response actions.

15. Administrative record.

Subject to the document retention policy of the MPCA, reports, correspondence and other documents which support and explain the environmental response project for the Property are maintained by the MPCA Brownfield Program at the MPCA's office at 520 Lafayette Road N, St. Paul, Minnesota in the file maintained for **Rayette Lofts**, MPCA Preferred ID **BF0001593**.

16. Representations and warranties.

Grantor hereby represents and warrants to the MPCA and any other signatories to this Environmental Covenant that, at the time of execution of this Environmental Covenant:

- A. Every fee owner of the Property has been identified;
- B. Grantor holds fee simple title to the Property which is subject to the interests and encumbrances identified in Exhibit 4.
- C. Grantor has authority to grant the rights and interests and carry out the obligations provided in this Environmental Covenant;
- D. Nothing in this Environmental Covenant materially violates, contravenes, or constitutes a default under any agreement, document or instrument that is binding upon the Grantor.
- E. Except as otherwise directed by MPCA, Grantor has obtained, from each person holding an interest and encumbrance in the Property identified in **Exhibit 4**, a Subordination Agreement, or other agreement satisfactory to the Commissioner, assuring that such person is bound by this Environmental Covenant and that this Environmental Covenant shall survive any foreclosure or other action to enforce the interest. Such an agreement may include a waiver of that person's right to consent to any amendment of this Environmental Covenant. Executed agreements by such persons are included in **Exhibit 5** of this Environmental Covenant.

17. Governing law.

This Environmental Covenant shall be governed by and interpreted in accordance with the laws of the State of Minnesota.

18. Compliance reporting.

The Owner shall submit to MPCA on an annual basis a written report confirming compliance with the Activity and Use Limitations and Affirmative Obligations provided in Paragraph 7 and summarizing any actions taken pursuant to Paragraph 8 of this Environmental Covenant. Reports shall be submitted on the first July 1 that occurs at least six months after the effective date of this Environmental Covenant, and on each succeeding July 1 thereafter.

Owner shall notify the MPCA as soon as possible of any actions or conditions that would constitute a breach of the Activity and Use Limitations in Paragraph 7.

19. Notice of conveyance of interest in Property.

Owner shall provide written notice to MPCA within 30 days after any conveyance of fee title to the Property or any portion of the Property. The notice shall identify the name and contact information of the new Owner, and the portion of the Property conveyed to that Owner.

20. Severability.

In the event that any provision of this Environmental Covenant is held by a court to be unenforceable, the other provisions of this Environmental Covenant shall remain valid and enforceable.

21. Effective date.

This Environmental Covenant is effective on the date of acknowledgement of the signature of the MPCA.

THE UNDERSIGNED REPRESENTATIVE OF THE GRANTOR REPRESENTS AND CERTIFIES THAT THEY ARE AUTHORIZED TO EXECUTE THIS ENVIRONMENTAL COVENANT

IN WITNESS WHEREOF, THIS INSTRUMENT HAS BEEN EXECUTED ON THE DATES INDICATED BELOW:
FOR THE GRANTOR:
(Signature of Grantor) John Goodman
Manager
Rayette Owner LLC
STATE OF (IN SHEAV TYP)

COUNTY OF KING

On JUNE 13, 2024, this instrument was acknowledged before me, and the facts stated herein were affirmed by John Goodman, Manager of Rayette Owner LLC, on behalf of Rayette Owner LLC.

(signature

Notary Public

My Commission Expires MAY 31,202E

DEBORAH D DEWALL Notary Public State of Washington Commission # 20105207 My Comm. Expires May 31, 2028

FOR THE ENVIRONMENTAL AGENCY AND HOLDER:

MINNESOTA POLINTION CONTROL A	AGENCY	
By /low///	,	(signature)
Thomas Higgins, Manager Site Remediation and Redevelopmen Remediation Division Delegate of the Commissioner of the Minnesota Pollution Control Agency	t Section	
STATE OF MINNESOTA)) SS. COUNTY OF RAMSEY)		
This instrument was acknowl Higgins, Manager of the Site Remedia a Delegate of the Commissioner of th Pollution Control Agency.	ation and Redevelopment Section	
My K. Andiana Notary Public My Commission Expires 1/31/	_ (signature)	AMY K. HADIARIS NO1ARY PUBLIC MINNESOTA My Coinnission Expires Jan 31 2025
THIS INSTRUMENT WAS DRAFTED BY AND WHEN RECORDED RETURN TO:		¥
Hillis Clark Martin & Peterson P.S.		

Hillis Clark Martin & Peterson P.S. c/o Alexandra Kleeman 999 Third Avenue, Suite 4600

Seattle, Washington 98104



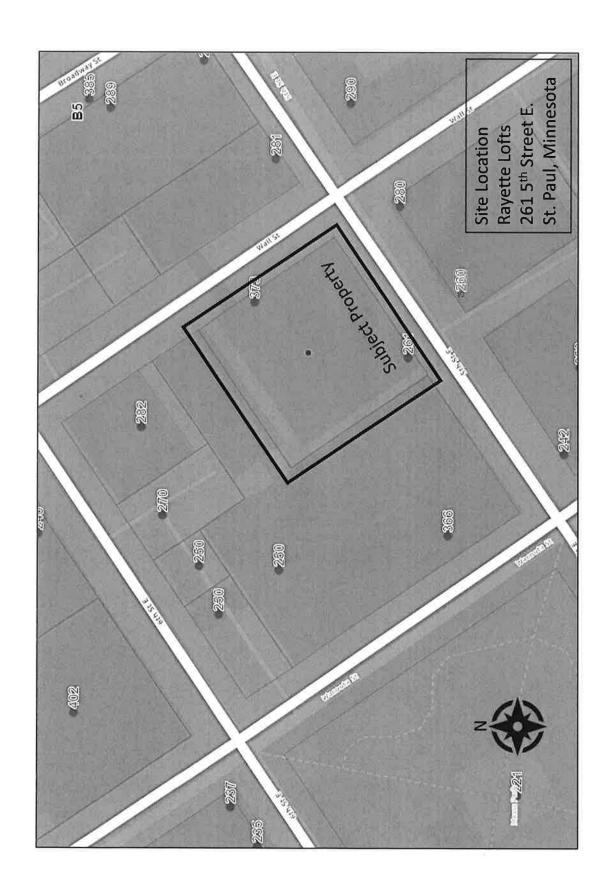


Exhibit 2

Exhibit 2 Legal Description

Lots 4, 5 and 6, Block 11, Whitney and Smith's Addition, according to the recorded plat thereof, Ramsey County, Minnesota.

Together with all that part of vacated Wall Street adjoining Lots 4, 5 and 6, Block 11, Whitney and Smith's Additionto St. Paul that is described as follows:

Beginning at the most Easterly corner of Lot 6 said Block 11; thence Northwesterly, along the Northeasterly line of said Lots 4, 5 and 6, for a distance of 130.00 feet; thence Northeasterly at right angles for a distance of 0.20 feet; thence Southeasterly, parallel with the Northeasterly line of said Lots 4, 5 and 6, for a distance of 130.00 feet to the intersection with the Northeasterly extension of the Southeasterly line of said Lot 6; thence Southwesterly, along said extension, a distance of 0.20 feet to the point of beginning.

And together with all that part of vacated East Fifth Street adjoining Lot 6, Block 11, Whitney and Smith's Additionto St. Paul that is described as follows:

Beginning at the most Southerly corner of Lot 6 said Block 11; thence Northeasterly, along the Southeasterly line of said Lot 6 and its Northeasterly extension a distance of 140.39 feet; thence Southeasterly at right angles for a distance of 0.20 feet; thence Southwesterly, parallel with the Southeasterly line of said Lot 6 for a distance of

61.98 feet; thence Southeasterly at right angles for a distance of 0.20 feet; thence Southwesterly at right angles for a distance of 3.20 feet; thence Northwesterly at right angles for a distance of 0.20 feet; thence Southwesterly at right angles for a distance of 10.50 feet; thence Southeasterly at right angles for a distance of 0.20 feet; thence Southwesterly at right angles for a distance of 0.20 feet; thence Southwesterly at right angles for a distance of 0.20 feet; thence Southwesterly at right angles for a distance of 0.20 feet; thence Southwesterly at right angles for a distance of 0.20 feet; thence Southwesterly at right angles for a distance of 0.20 feet; thence Southwesterly at right angles for a distance of 0.20 feet; thence Northwesterly for a distance of 0.20 feet to the point of beginning.

Being Registered land as is evidenced by Certificate of Title No.633216

Exhibit 3

Operation and Maintenance Plan Soil Vapor Mitigation System Rayette Lofts 261 5th Street East St. Paul, MN 55101

Prepared by:

Braun Intertec Corporation, Minneapolis, Minnesota August 4, 2021

Purpose:

According to previous soil vapor investigations conducted at the Rayette Lofts property (Site), the compound tetrachloroethene (also known as perchloroethene or PCE) was detected at concentrations below the subsurface that exceeded 33x Residential Intrusion Screening Value (ISV). Exceedance of the 33x Residential ISV for a volatile compound triggers the need for vapor mitigation in order to address vapor intrusion into the structure.

In order to mitigate the potential for contaminated soil vapor intrusion into the Site building, a soil vapor mitigation system was installed in the sublevel parking garage of the building. The purpose of the soil vapor mitigation system is to create and maintain a negative pressure under the floor slab to capture and remove PCE soil vapors and discharge those vapors to the atmosphere outside the building structure. The soil vapor mitigation system is intended to be operated continuously for the life of the building.

Soil Vapor Mitigation System Description:

The sub-slab depressurization (SSD) soil vapor mitigation system was installed in 2020. The general location of the SSD system is shown on the attached Figure. The SSD system consists of the following:

- The system includes five suction pits, each located adjacent to a column pad. Piping from each suction pit was routed below the floor slab to nearby columns, up the columns, and penetrated the roof using two vent pipes at one location, near the staircase on the western side of the garage.
- A Cincinnati PB-14 vapor mitigation blower fan was installed above the roof to induce soil vapor depressurization at the five suction pits. A drain-down suction pit was installed as well to allow for the management of moisture accumulation in the pipes due to the limited amount of headspace in the garage, which affects the pitch of the piping.
- A magnehelic gauge to monitor system performance was installed in the parking garage mechanical room.
- A Variable Frequency Drive (VFD) was installed in the penthouse mechanical room to control the level of vacuum.

Soil Vapor Mitigation System Operation and Maintenance Goals:

 Maintain all components of the soil vapor mitigation system including piping, the extraction fan and gauge in good condition.

- Operate the extraction fan continuously.
- Monitor the soil vapor mitigation system vacuum by observing the system gauge. When operating normally, the gauge should read approximately 6 to 10 inches of water column.

Requirements:

- If any components of the soil vapor mitigation system (i.e., pipes, seals at pipe penetrations, fan or gauge) are damaged or otherwise modified during remodeling or maintenance they must be restored as soon as possible.
- The extraction fan is designed for continuous operation with little or no maintenance. If the fan fails, it shall be replaced with a similar fan. Manufacturer fan information is attached.
- Keep system vent stack exhaust on roof clear of snow.
- The operating vacuum of the soil vapor mitigation system should be checked monthly, and recorded quarterly in the attached table, by observing the reading on the system gauge. The gauge reading may very slightly during the different seasons and is expected to range from approximately 6 to 10 inches of water column. If the gauge reads zero then the system extraction fan is not operating, or if the gauge reading varies significantly (approximately +/-15%) from normal then the system fan is not operating normally, and a qualified system contractor should contacted in order to have the system inspected and have any required maintenance performed.

Contacts:

Braun Intertec Corporation

11001 Hampshire Avenue South Minneapolis, MN 55438 952-995-2000

Project ID #: B2000786.02

Minnesota Pollution Control Agency

Voluntary Brownfield Program 520 Lafayette Road North St. Paul, MN 55155 651-296-6300

Project ID #: BF0001593

Quarterly Soil Vapor Mitigation System Gauge Readings Rayette Lofts 261 5th Street East St. Paul, Minnesota 55101

Date	SSD System Gauge Reading (inches of water column)

OPERATIONS AND MAINTENANCE FOR VAPOR MITIGATION SYSTEM

261 5th St E St. Paul, MN 55101

There are several components to the existing vapor mitigation system which include the following:

A Cincinnati PB-14 vapor mitigation blower was installed to induce soil gas depressurization at the vapor extraction port to capture and control the subsurface vapors.



A 'Magnehelic' pressure gauge measures vacuum pressure and allows the property owner to know at a glance if the system is operating or not.



Gate Valves/Slip Valves act like a damper and control the amount of air flow going through the vertical risers. The valve is open when pulled out and closed when pushed all the way in.



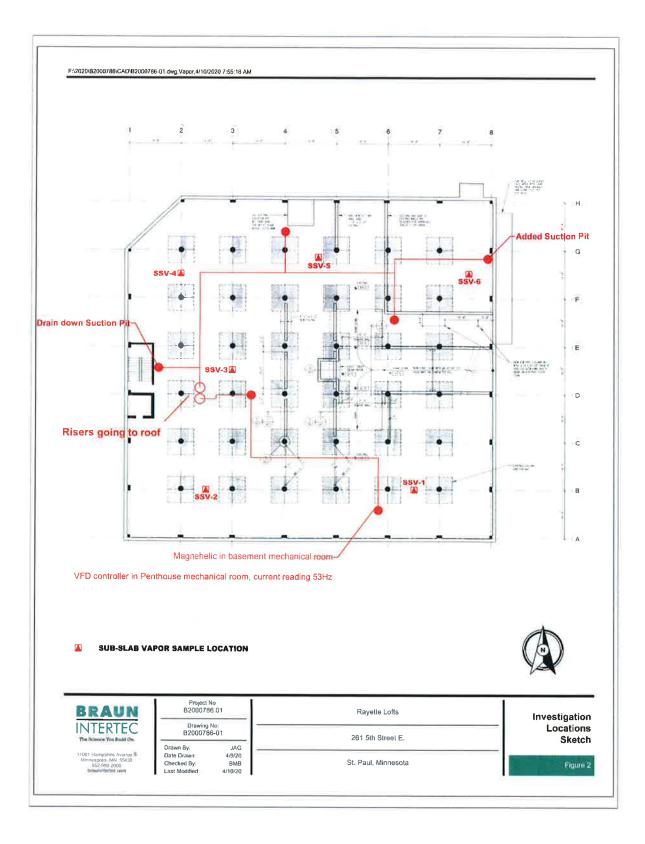
A Variable Frequency Drive or VFD was installed to control the level of vacuum as well as protect the rooftop blower from electrical damage. If there is a power outage the fan will not restart on its own. Press the 'Run' button on the VFD and it will return to its previous settings.



These components need to be repaired or replaced if noted as being damaged or malfunctioning.

The primary means of determining if the system is operating normally is to observe a normal operating sound from the blower, and the magnehelic pressure gauge is not reading zero.

Home Safety Solutions, Inc. 763-434-3263 info@homesafetysolutionsinc.com



261 5th St E St. Paul, MN 55101



















Form: OMM-01-0509 Effective: 5/4/09 Supersedes OMM-01-0207 Part No.: 01218

Installation, Safety, Operation & Maintenance Instructions And Parts List For Models PB, PBS, SPB, LM and LMF.

Arrangement 4 Blowers

NOTE

READ ENTIRE MANUAL, INCLUDING "SECTION IV. INITIAL UNIT STARTUP" BEFORE ATTEMPTING TO INSTALL AND OPERATE THIS EQUIPMENT.

	BLOWER SPECIFIC	ATIONS	
BLOWER SERIAL NUMBER:	1912503	MFG. DATE:	10/07/19
NOTE: The serial number above	is a required reference for ar	ny assistance. It is stamped on	the blower nameplate.
BLOWER SPECIFICATIONS:			
Model: PB-14A Arrang	ement: 4 Ro	tation:CW Discharge	e:UB
Nominal Inlet Size:6	_ (in Inches) Wheel Size	e and Type:13 X 3-1/4 BC	
BLOWER PERFORMANCE DAT	A: (If entered on order)		
CFM: 300 SP: 9	.000 (Inches of Water Ga	uge) Motor BHP: 0.9	20
Density:0.072	Altitude: 1129 (Ft, abo	ove S.L.) Airstream Tempe	rature: <u>70</u> °F.
Fan RPM:3500	Maximum Safe Fan RPM:	4000 @ 70°F DO NOT EXC	EED THIS RPM
MOTOR DATA: (This section is c	ompleted only if the motor w	as supplied by Cincinnati Fan)	
HP:1-1/2 RPM:	3500 Voltage:	208-230/460V	Phase: 3
Hz: 60 Frame S	ize: 143TC Enclose	ure: <u>TEFC</u> Efficience	cy: Prem Eff
IF Motor is EXP, Class(es) & Group(s) are:			
Manufacturers Model Numb	ver: VEM3550T	CFV Part Number:	3710538B

ATTENTION: RECEIVING DEPARTMENT

All Cincinnati Fan products are packaged to minimize any damage during shipment. The freight carrier is responsible for delivering all items in their original condition as received from Cincinnati Fan. The individual receiving this equipment is responsible for inspecting this unit for any obvious or concealed damage, If any damage is found, it should be noted on the bill of lading before the freight is accepted and the receiver must file a claim with the freight carrier.

LONG TERM STORAGE NOTICE

If this blower will NOT be installed and put into operation within 30 days, refer to the "Long Term Storage Instructions" on pages 12 and 13. Failure to follow all applicable long term storage instructions, will void your warranty. This blower should be stored indoors in a clean, dry location.

A

Hazardous voltage can cause electrical shock and death

High speed rotating equipment can cause severe personal injury

⚠ DANGER



Lock out/Tag out to prevent personal injury BEFORE starting ANY service or inspection.



Avoid injury NEVER operate without ALL required safety guards in place.



Avoid injury. You MUST read and understand all instructions in this manual BEFORE installing.

TABLE OF CONTENTS

I. GENERAL	IV. INITIAL UNIT STARTUP
A. Unpacking and Handling2	A Pre-Startup & Post-Startup Checks7
B. Safety Accessories & Instructions2-3	B. Vibration8-9
II. INSTALLATION	V. ROUTINE INSPECTION & MAINTENANCE9
A. Vibration3	A. Hardware10
B. Mounting Methods3-4	B. Motor Bearing Lubrication10
C. Duct Work Connections4	C. Wheel Balance10
D. Safety Guards4	D. Vibration10
E. Dampers and Valves4	E. Dampers and Valves10
F. Set Screw & Taper-lock Bushing	F. Safety Equipment or Accessories10-11
Torque Values5	VI. ORDERING PARTS11
III. ELECTRICAL	VII. TROUBLESHOOTING
A. Disconnect Switches5	VIII. LONG TERM STORAGE12-13
B. Motors5-6	IX. WARRANTY, LIABILITY & RETURNS14
C. Maximum Blower Speed6	X. PARTS DRAWING15

I. GENERAL

A. Unpacking:

Be careful not to damage or deform any parts of the blower when removing it from the packaging container. All the packaging material should be kept in the event the blower needs to be returned.

Handling:

Handling of the blower should be performed by trained personnel and be consistent with all safe handling practices. Verify that all lifting equipment is in good operating condition and has the proper lifting capacity. The blower should be lifted using well-padded chains, cables or lifting straps with spreader bars. Some blower models have lifting eye locations provided in the blower base. NEVER lift the blower by an inlet or discharge flange, motor shaft, motor eye bolt, or any other part of the blower assembly that could cause distortion of the blower assembly.

B. Safety Instructions & Accessories:

1. Safety Instructions:

All installers, operators and maintenance personnel should read AMCA Publication 410-96, "Recommended Safety Practices for Users and Installers of Industrial and Commercial Fans". This manual is included with the blower. Additional copies can be requested by writing us at Cincinnati Fan, 7697 Snider Rd., Mason, OH 45040-9135

2. Sound:

Some blowers can generate sound that could be hazardous to personnel. It is the responsibility of the user to measure the sound levels of the blower and/or system, determine the degree of personnel exposure, and comply with all applicable safety laws and requirements to protect personnel from excessive noise.

3. Air Pressure and Suction:

In addition to the normal dangers of rotating machinery, the blower can present additional hazards from the suction or pressure created at the blower inlet or discharge. Suction at the blower inlet can draw materials into the blower where they become high velocity projectiles at the discharge and cause severe personal injury or death. It can also be extremely dangerous to persons in close proximity to the inlet or discharge as the forces involved can overcome the strength of most individuals.

⚠ WARNING

NEVER OPERATE A BLOWER WITH A NON-DUCTED INLET AND/OR DISCHARGE. IF THE BLOWER INLET AND/OR DISCHARGE IS NON-DUCTED, IT IS THE USERS RESPONSIBILITY TO INSTALL AN INLET AND/OR DISCHARGE GUARD.

4. Temperature:

Many blowers, blower components and all motors operate at temperatures that could burn someone if they come in contact with them. If this potential hazard could exist in your installation, steps must be taken by the user to protect anyone from coming in contact with this equipment.

5. Spark Resistance; (Per AMCA Standard 99-0401-86 and ISO 13499)

↑ DANGER

NO GUARANTEE OF ANY LEVEL OF SPARK RESISTANCE IS IMPLIED BY SPARK RESISTANT CONSTRUCTION. IT HAS BEEN DEMONSTRATED THAT ALUMINUM IMPELLERS RUBBING ON RUSTY STEEL CAN CAUSE HIGH INTENSITY SPARKS. AIR STREAM MATERIAL AND DEBRIS OR OTHER SYSTEM FACTORS CAN ALSO CAUSE SPARKS.

6. Safety Accessories;

Guards:

All moving parts must be guarded to protect personnel. Safety requirements can vary, so the number and types of guards required to meet company, local, state and OSHA regulations must be determined and specified by the actual user or operator of the equipment.

<u>NEVER</u> start any blower without having all required safety guards properly installed. All blowers should be checked on a regular schedule, for missing or damaged guards. If any required guards are found to be missing or defective, the power to the blower should be <u>immediately</u> turned off and locked out in accordance with OSHA regulations. Power to the blower should <u>NOT</u> be tuned back on until the required guards have been repaired or replaced.

This blower can become dangerous due to a potential "windmill" effect, even though all electrical power has been turned off or disconnected. The blower wheel should be <u>carefully</u> secured to prevent any rotational turning <u>BEFORE</u> working on any parts of the blower/motor assembly that could move.

7. Access or Inspection Doors:

↑ DANGER

NEVER OPEN ANY ACCESS OR INSPECTION DOORS WHILE THE BLOWER IS OPERATING. SERIOUS INJURY OR DEATH COULD RESULT FROM THE AFFECTS OF AIR PRESSURE, AIR SUCTION OR MATERIAL THAT IS BEING CONVEYED. DISCONNECT OR LOCK OUT POWER TO THE BLOWER AND LETTHE BLOWER WHEEL COME TO A COMPLETE STOP BEFORE OPENING ANY TYPE OF ACCESS OR INSPECTION DOOR.

II. INSTALLATION

A. Vibration:

Before any mounting method is selected, the user should be aware of the effects vibration will have on the blower, motor and other parts. Improper blower installation can cause excessive vibration causing premature wheel and/or motor bearing failure, that is <u>not</u> covered under warranty, Vibration eliminator pads, springs or bases should be properly installed to prevent any blower vibration from transmitting to the foundation, support structure or ducting.

⚠ WARNING

SHUT THE BLOWER DOWN IMMEDIATELY IF THERE IS ANY SUDDEN INCREASE IN VIBRATION.

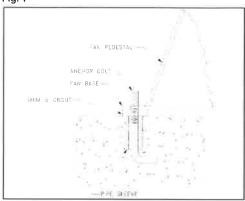
B. Mounting Methods:

1. Floor Mounted Units;

Centrifugal blowers should be mounted on a flat, level, concrete foundation weighing 2-3 times the weight of the complete blower/motor assembly. It is recommended that the foundation be at least 6 inches larger than the base of the blower. The foundation should include anchor bolts such as shown in Fig. 1 on page 4. Place the blower over the anchor bolts and shim under each bolt until the blower is level. After shimming, flat washers, lock washers and lock nuts should be tightened at each anchor bolt. Any gaps between the blower base and the foundation should be grouted. If the blower will be sitting on some type of vibration pads or mounts, follow the recommended mounting procedures supplied with the vibration elimination equipment.

OMM-01-0509-page 3

Fig. 1



2. Elevated Units;

Improper mounting of elevated blowers can cause vibration problems. The structure that the blower/motor assembly will be mounted on must be strong enough to support at least 3 times the weight of the entire blower/motor assembly. An insufficient support will cause excessive vibration and lead to premature wheel and/or motor bearing failure. Bracing of the support structure must be sufficient enough to prevent any side sway. The entire structure should be welded at all connection joints to maintain constant alignment of the platform.

⚠ DANGER

THE IMPROPER DESIGN OF AN ELEVATED PLATFORM STRUCTURE COULD RESULT IN A RESONANT CONDITION, AND CONSEQUENTLY, CAUSE A LIFE THREATENING, CATASTROPHIC, STRUCTURAL FAILURE.

C. Duct Work Connections:

All duct connections to the blower should include <u>flexible</u> connectors between the ducting and the blower inlet and/or discharge. This will eliminate distortion, noise and vibration from transmitting to the duct and building. The connectors should be selected to handle the operating conditions for air volume and pressure that the blower will produce. All ducting or accessories, added by the user, should be <u>independently supported. DO NOT</u> use the blower/motor assembly to support any additional weight. Inlet and/or discharge duct elbows should be located a minimum of 2 blower wheel diameters from the blower. Any duct elbows located closer than 2 wheel diameters to the blower inlet or discharge WILL reduce the air performance and blower efficiency. Any duct elbows near the blower discharge should be in the same rotational direction as the blower rotation.

Non-Ducted Blower Inlet:

Any blower with no ducting on the inlet <u>must</u> have an inlet guard. The blower should be located so the blower inlet is, at least, 1 wheel diameter away from any wall or bulkhead to eliminate a reduction in air flow.

Non-Ducted Blower Discharge:

Any blower with no ducting on the discharge must have a discharge guard

D. Safety Guards:

Cincinnati Fan offers guards, as optional, to keep your blower in compliance with OSHA safety regulations. These include inlet or discharge guards. Any blowers built with high temperature construction, a "heat slinger guard" is standard. It is the responsibility of the user to make sure this blower meets all local, state and OSHA safety regulations, If you have a specific guard requirement not covered by OSHA, please contact the local Cincinnati Fan sales office for assistance.

E. Dampers and Valves: (Airflow control devices)

If the blower is supplied with any type of air flow control device, it should be closed before initial start-up of the blower to minimize overloading of the motor. Any airflow control device, with bearings, should be maintained in accordance with the manufacturers instructions. Any air flow control device, with an automatic control mechanism, should be adjusted per the manufacturers recommendations.

F. Set Screw and Taper-lock Bushing Torque Values:

All blower wheel set screws are tightened to the proper torque prior to shipment. Some wheels may have taper-lock hubs and split, taper-lock bushings to secure the wheel to the motor shaft.

NOTE: Check all set screw or taper-lock bushing torques. Forces encountered during shipment, handling, rigging and temperature can affect factory settings, For correct torque values, see **Tables 1** and **2** below.

Table 1

SET S	CREW TORQUE VA	LUES
Diameter & Number of Treads/Inch	Hex Wrence Size (Across Flats)	Required Torque (inch Pounds)
1/4-20	1/8"	65
5/16-18	5/32"	165
3/8-16	3/16"	228
7/16-14	7/32"	348
1/2-13	1/4"	504
5/8-11	5/16"	1104

Table 2

	VALUES FOR CK BUSHINGS		
Taper-lock Required Torque Bushing Size (Inch Pounds)			
Busning Size	(inch Pounds)		
Н	95		
В	192		
P	192		
Q	350		
R	350		
	TAPER-LO Taper-lock Bushing Size H B P		

↑ CAUTION

Set screws should NEVER be used more than once. If the set screws are loosened, they MUST be replaced.

Use only knurled, cup-point, set screws with a nylon locking patch.

III. ELECTRICAL

A. Disconnect Switches:

All blower motors should have an independent disconnect switch located in close visual proximity to turn off the electrical service to the blower motor. Disconnects must be locked out in accordance with OSHA "lock out-tag out" procedures any time inspection or maintenance is being performed on the blower and/or motor assembly. The "lock out-tag out" procedure should be performed by a licensed electrician or authorized personnel. All disconnects should be sized in accordance with the latest NEC codes (National Electric Codes) and any local codes and should be installed only by a licensed electrician. "Slow blow" or "time delay" fuses or breakers should be used since the initial start-up time for the blower motor, although rare, can be up to 10 seconds.

B. Motors:

⚠ DANGER

ALL WIRING CONNECTIONS, INSPECTION AND MAINTENANCE OF ANY MOTOR MUST BE PERFORMED BY A LICENSED ELECTRICIAN IN ACCORDANCE WITH THE MOTOR MANUFACTURERS RECOMMENDATIONS, ALL ELECTRICAL CODES AND OSHA REGULATIONS. FAILURE TO PROPERLY INSTALL, MAKE WIRING CONNECTIONS, INSPECT OR PERFORM ANY MAINTENANCE TO A MOTOR CAN RESULT IN MOTOR FAILURE, PROPERTY DAMAGE, EXPLOSION, ELECTRICAL SHOCK AND DEATH.

- DO NOT connect or operate a motor without reading the motor manufacturers instructions supplied with the blower. The basic principle of motor maintenance is: KEEP THE MOTOR CLEAN AND DRY. This requires periodic inspections of the motor, The frequency of the inspections depends on the type of motor, the service and environment it will be subjected to and the motor manufacturers instructions.
- Cleaning: Cleaning should be limited to exterior surfaces only, Follow motor manufacturers cleaning instructions.
- 3. Lubrication: Most small motors have sealed bearings that are permanently lubricated for the life of the motor. Some larger motors have grease plugs that should be replaced with grease fittings to perform re-lubrication. These motors, or any motor with grease fittings, should be lubricated in accordance with the motor manufacturers recommendations. Lubrication (requency depends on the motor horsepower, speed and service, BE SURE you use compatible grease and DO NOT over grease.
- 4. Location: If the motor will be outside and subjected to the weather, it is recommended that a weather cover be installed to keep rain and snow off of the motor. No motors are guaranteed to be "watertight". Be careful to allow enough openings between the motor and the motor cover to let the motor "breath". If the back end of the motor is covered, the cover should be no closer than 3" to the back of the motor for proper ventilation.

- 5. Wiring Connections: All wiring connections should be made for the proper voltage and phase as shown on the motor nameplate. Connections should follow the motor manufacturers recommendations as shown on the wiring schematic, This wiring diagram will be located on the outside of the motor, inside of the motor conduit box or on the motor nameplate. Reversing some wires might be necessary to get the correct blower rotation.
- 6. Motors with Thermal Overload Protection: If a motor is equipped with thermal overloads, the thermal overload must be wired per the wiring schematic to be operable. There are 3 types of thermal overloads:
 - a. Automatic: These will automatically shut the motor down if the internal temperature exceeds the design limits,

↑ DANGER

MAKE SURE YOU LOCK OUT THE POWER TO THE MOTOR <u>BEFORE</u> INSPECTING ANY MOTOR WITH AUTOMATIC THERMALS. WHEN THE THERMALS COOL DOWN, THEY WILL ALLOW THE MOTOR TO AUTOMATICALLY START UP AGAIN, UNLESS YOU HAVE LOCKED OUT THE POWER TO THE MOTOR.

- b. Manual: These motors will have a button on them. If the motor overheats, it will shut down. After you have inspected the motor and eliminated the over heating problem, you will need to "reset" it by pushing the button. You should still lock out the power BEFORE inspecting the motor.
- c. Thermostats: This type of thermal is a temperature sensing device ONLY. If the motor overheats, the thermostats will open or close (depending on the type) and send a "signal" to the electrical box. THEY WILL NOT TURN THE MOTOR OFF. These are pilot circuit devices that must be connected to the magnetic starter circuit.
- 7. EXPLOSION PROOF Motors: No motor is explosion proof. Explosion proof (EXP) motors are designed so if there is an explosion WITHIN the motor, the explosion will be CONTAINED INSIDE the motor and not allowed to get out to the atmosphere. All explosion proof motors must be selected based on the atmosphere and/or the environment the motor will be operating in. Explosion proof motors are designed, rated, and labeled for their operating conditions based on Classes, Groups and "T" Codes. The Class, Group and "T" Code of an EXP motor MUST be selected based on the atmosphere and/or environmental conditions the motor will be operating in. Consult the NEC (National Electric Code) and the NFPA (National Fire Protection Association) for the proper EXP motor Class, Group and "T" Code required for your specific application and location.

⚠ DANGER

IF AN EXPLOSION PROOF MOTOR IS USED IN AN AREA CONTAINING VOLITILE LIQUIDS, GASES, FUMES OR DUST FOR WHICH THE MOTOR <u>WAS NOT</u> DESIGNED TO OPERATE IN, AN EXPLOSION AND/OR FIRE <u>CAN</u> OCCUR.

NOTICE:

- a. All EXP motors have <u>some</u> type of thermal overload as required by UL (Underwriters Laboratories).
 Refer to all of Section 6 above.
- b. All EXP motors are required to have the UL (Underwriters Laboratories) and CSA (Canadian Standards Association) listing numbers on the motor name plate or on a separate plate attached to the motor. The Class, Group and "T" Code the motor is designed for must also be listed.
- 8. Normal Motor Operating Temperatures:

Using your hand to test the normal running temperature of a motor can be a <u>very</u> painful experience;

The <u>normal</u> operating temperature of a fully loaded, open type, electric motor operating in a 70°F. (21° C.)

ambient temperature is 174°F. (79° C.)

C. Maximum Blower Speed and Motor Speed Controllers:

If you will be using any type of motor speed controller with this blower, **DO NOT** exceed the **maximum safe blower speed**. Installing and using a speed control device requires special training and certification as required by the speed control manufacturer. See the manufacturers instructions for proper use, installation and wiring connections for the maximum speed settings. It may also be necessary to "block out" some speeds to eliminate a resonant vibration problem. The maximum safe blower speed is shown on the data sheet shipped with the blower. If you have lost the data sheet, contact Cincinnati Fan or our sales office for your area. You must have the serial number from the **blower** name plate for us to determine the maximum safe blower speed. Cincinnati Fan will only <u>extend</u> the motor manufacturers warranty, when used with a speed controlling device, if the motor has the words "Inverter Duty" marked on the <u>motor</u> name plate. If the motor does not have "Inverter Duty" marked on the motor name plate, and you have a motor failure, you will be required to contact the motor manufacturer for any service or warranty claims.

IV. INITIAL	UNIT STARTUP		
NO	OTICE: Failure to complete and document checks, listed in sections A (below	all the following pre-startup a) and B on page 8, could void	nd both post-startup all warranties.
A. Pre-St	artup & Post-Startup Checks: (Check blocks a: . Pre-Startup Checks Completed By:	s each step is completed. Retain t	
	- A2. 8 Hour, Post-Startup Checks Completed	Pu.	DATE:
	— A3. 3 Day, Post-Startup Checks Complete		DATE:
111	MAKE SURE POWER TO THE MOTOR IS LOCKED OU		
. * * *			
1.	If possible, CAREFULLY spin the blower wheel heard.	by hand to ensure it rotates freely a	nd no rubbing or clicking noise is
2.	Check all blower, foundation and duct work hard	lware to make ours it is tight	
3.	Check all blower wheel set screws to make sure		r
4	If the wheel has a taper-lock bushing, make sur	o the botte are tightened per Table	3 00 0000 F
5	Make certain there is no foreign material in the	blower or duct work that can become	2 on page 5
6.	Make sure any inspection doors in the duct wor	k are securely holted or locked	e a projectile
7	Ensure all electrical power components are proj	party sized and matched for your old	actrical avatom
8.	Check that all required guards are properly secu		ectrical system.
9.	Any dampers should be fully opened and closed		r interference
10.	If your blower is mounted on an elevated suppo	rt etructure, make cure the etructure	is wolded at all the injet connec
	tions and the structure is properly braced to pre	want "cido cway"	is weided at all the joint connec-
11,0	Close any dampers to minimize load on motor. I	enecially on blowers with high tom	parature construction Never out
	ject a "cold" blower to a "hot" gas stream. If the t	slower will be bandling "bot gases" of	rester than 150°E (65°C) it in
	imperative that the blower be subjected to a gra	dual rate of temperature increase in	not to exceed 15°F/minute
	(8°C/minute). The same temperature limits are a	also important when the blower is ex	meriencing a drop in temperature
	until the temperature drops down to 150°F (65°C	C). Only when the entire blower has	reached an equilibrium tempera-
	ture of 150°F (65°C), or less, should the power	be turned off	record an equipment tempera-
12	Make sure the power source connections to the		nufacturers instructions.
13.	Make sure the blower wheel is stationary prior to	startup. Starting a blower with a	wheel that is rotating back-
	wards can cause wheel damage.	3	
14,	Apply power to the blower motor momentarily (i. er is rotating in the wrong direction, reconnect the rotation is determined by viewing the blower reconnecting the leads, repeat this step. See Fig.	ne motor leads per the motor manufa from the motor side of the blowe	acturers wiring schematic, Blower
	Fig. 2		
		,	
	-	Motor =	
		World	
	Clockwise (CW) Rotation	Counter-Clockwise (CCW) Rotation	•
15 16 17	Apply power to the blower motor and let it come noise or mechanical abnormality while the blowe the blower wheel to come to a complete stop, low Unlock power and start the blower. Measure, record and keep the following motor da (Single phase motors will only have L1 and L	r wheel is still spinning, If any are no cate the cause and correct it, ata for future reference and compari	oticed, lock out the power, wait for
	Amperage draw on each motor lead: L1 (Running amps SHOULD NOT exceed the motor	L2 L3 L3 nameplate amps for the voltage be	eing operated on)
	Voltage coming to motor leads: L1 L2 (Should be about the same input voltage on all leads)		

B. Vibration:

The blower was balanced at the factory to comply with ANSI/AMCA Standard 204-05, Category BV-2, However, rough handling in shipment and/or erection, weak and/or non-rigid foundations, and misalignment may cause a vibration problem after installation. After installation, the vibration levels should be checked by personnel experienced with vibration analysis and vibration analysis equipment.

NOTE:

The blower SHOULD NOT be operated if the vibration velocity of the fan exceeds 0.50 inches per second, filter out, if the blower is rigidly mounted. If the blower is mounted on isolators or on an isolator base, it SHOULD NOT be operated if the vibration velocity of the blower exceeds 0.75 inches per second, filter out.

Vibration readings for direct driven blowers should be taken on the motor at the top, sides and end as per Fig. 3 below. After you have taken your vibration readings, write them down in the spaces below and keep for future comparison.

↑ DANGER

If the blower is going to be conveying material, it is the users responsibility to periodically turn the blower off and lock out the power. The blower wheel should then be checked for material build-up and/or erosion. If material has built up on any parts of the wheel, it MUST be removed and cleaned before it is put back into service. If any parts of the wheel have been eroded, the wheel MUST be replaced. Failure to perform this inspection can cause excessive vibration that will damage the blower and/or motor bearings. When vibration becomes excessive, it will lead to complete blower failure that could cause property damage, severe personal injury and death. The user must determine the frequency of this inspection based on the actual circumstances of their operation, BUT checking the vibration readings should NEVER exceed a 12 month period. For the AMCA/ANSI standard for vibration limits, see Fig. 4 on page 9.

Fig. 3

r	·ıg. 3						(1)	2	
2	VIBRATION METER PROBE POSITIONS For Arrangement 4 Blowers								
-	1	2	3	4	5				
A						5	1		
В							3)	4	
C								12	
A P	re-Startı	ıp	•••••••••••••••••••••••••••••••••••••••	. Readir	ngs taken by:			Date:	
B 8	Hour Po	st-Startu	р	. Readir	ngs taken by:			Date:	
C 3	Day Pos	t-Startup		. Readir	ngs taken by:			Date:	

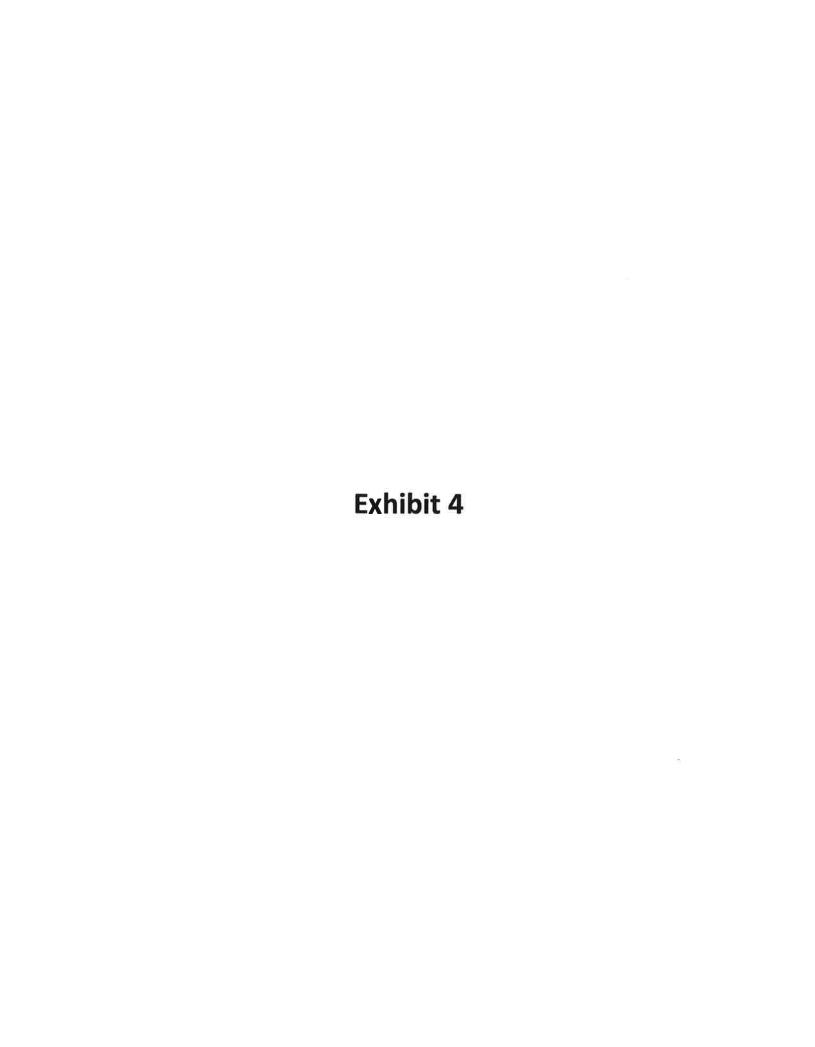


Exhibit 4 Encumbrances

ACREC 2021-FL1 LTD, an exempted company incorporated with limited liability under the laws of the Cayman Islands, as assignee, pursuant to that Mortgage, Assignment of Leases and Rents, Security Agreement, and Fixture Filing, dated August 31, 2021 and recorded on September 14, 2021 as document number T02711886 in the Office of the Registrar of Titles of Ramsey County, Minnesota, as assigned.

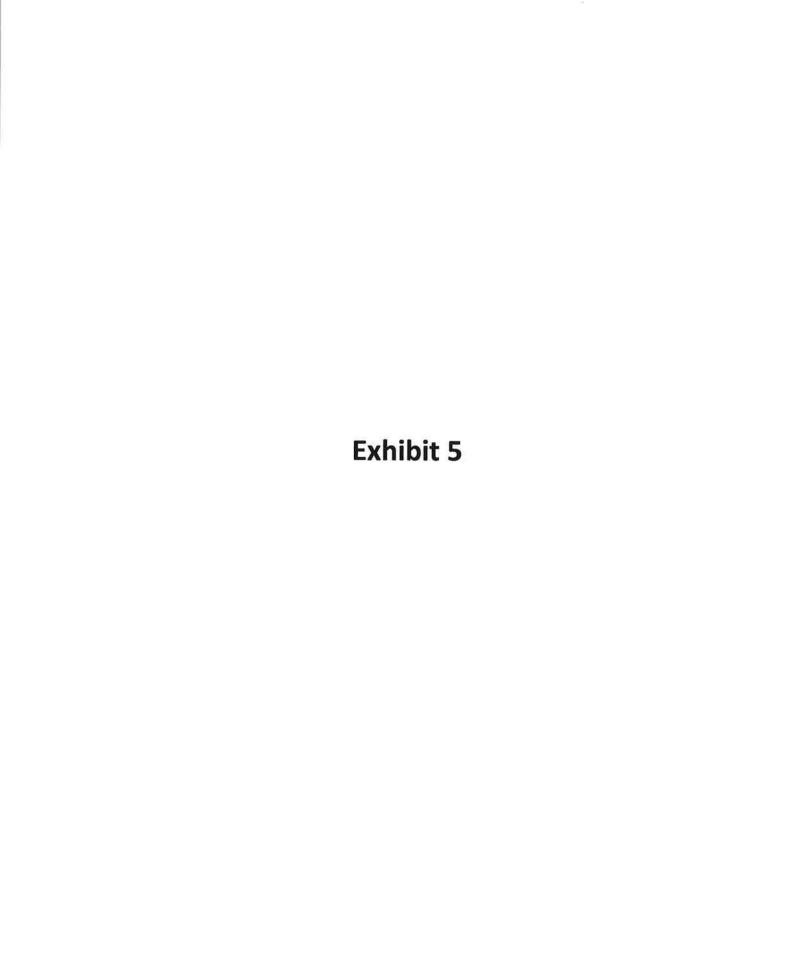


EXHIBIT 5

LENDER SUBORDINATION AGREEMENT

FOR VALUABLE CONSIDERATION, the undersigned hereby subordinates the lien on real property in Ramsey County, Minnesota, which is evidenced by a Mortgage, Assignment of Leases and Rents, Security Agreement, and Fixture Filing, dated August 31, 2021, and recorded on September 14, 2021, as document number T02711886, in the Office of the Registrar of Titles of Ramsey County, Minnesota, as assigned to ACREC Loan Seller LLC, a Delaware limited liability company, under that certain title of assignment dated October 15, 2021, and recorded on December 20, 2021, as document number T02720749, in the Office of the Registrar of Titles of Ramsey County, Minnesota, and as further assigned to the undersigned under that certain title of assignment dated October 15, 2021, and recorded on December 20, 2021, as document number T02720752, in the Office of the Registrar of Titles of Ramsey County, Minnesota, to the Environmental Covenant and Easement to which this agreement is attached. The undersigned does not waive the right to consent to any subsequent amendment or modification to the Environmental Covenant and Easement.

	ACREC 2021-FL1 LTD., an exempted company
	incorporated with limited liability under the laws
	of the Cayman Islands
	By:
	Name: Daniel Jacobs
	Title: Director
STATE OF STATE NEW YOYK)) SS. COUNTY OF COUNTY NEW YOYK	
) SS.	
COUNTY OF COUNTY New York	
This instrument was acknowledged before	ore me on <u>September 6, 2023</u> , by (month/day/year)
0	
(name of authorized signer), as	fixed of (type of authority)
(name of authorized signer)	(type of authority)
ACREC 2021- FLT UM.	
(name of entity on behalf of whom the instrume	ent was signed)
Carnola R (signatur	e)
Notary Public	
My Commission Expires (mm/dd/yyyy): <u>09/23</u>	CARMELA RIVERA NOTARY PUBLIC, STATE OF NEW YORK Registration No. 01Ri6398303 Qualified in New York County Commission Expires September 23, 2023