

**KING COUNTY HOUSING AUTHORITY  
REQUEST FOR BID  
The BLVD Apartments Ventilation Bid**

**ADDENDUM #1**

Effective 4/30/2023 , this Addendum #1 shall be considered part of the Request for Bid Documents.

Please see pages 1 – 9, Exhibit D – Mechanical Specifications below:

## **EXHIBIT D MECHANICAL SPECIFICATIONS**

### **1. WORK SCOPE SUMMARY**

- A. Install one hundred forty-five (145) through wall Energy Recovery Ventilators in every bedroom of every unit.
- B. Replace one hundred and thirty-four (134) bathroom exhaust fans, remove the dampers on the fan and connect to ducting.
- C. Replace one hundred thirty-six (136) bath fan controls with Humidistat switches with integrated automatic run programming and replace the light switches and face plates to match.
- D. Install five (5) ERVs, with applicable controls, in the attic above the hallways, ducted with rigid 6' ducting with fire dampers on the supply and return registers.
- E. Install forty-eight (48) Magnetic Door Holders with Fire Alarm Release to work with the existing fire alarm system.
- F. Replace six (6) bathroom exhaust fans with modules to adjust air flow speed, in laundry rooms and bathrooms in the office/gym area, remove the dampers on the fan and connect to ducting.
- G. Install thirty-nine (39) electric fireplace inserts in existing sealed up fireplaces.
- H. Decommission Air Handling Unit in building A and seal any penetrations to the exterior.

#### Alternate 1

- Replace the existing 3 phase electric pool heater with a 3-phase heat pump pool heater.

### **2. GENERAL REQUIREMENTS**

- A. Schedule – This work is part of a full weatherization scope of work and needs to be coordinated with our funding requirements, material supply schedules and other contractors performing other parts of the weatherization scope of work on the site. For these reasons, we require a proposed work schedule to be provided as part of your bid submittals. Failure to meet our schedule needs will be considered non-responsive to the bid solicitation.
  - i. Work scope shall be performed as soon as possible to meet funding deadlines.**
  - ii. All work needs to be coordinated with the property management team for proper legal notification for entry and execution of the work to the residents.
  - iii. After a Notice to Proceed is issued, weekly meetings will be held to monitor progress against the schedule.
- B. Invoices – The firm will be required to invoice for work on a building-by-building basis rather than requesting payment based on a schedule of values.
- C. Training – The Firm shall be responsible for the technical competence and qualifications of his or her salespeople, installers, and service technicians. At least one technician**

- working on the job site must have received installation training from the manufacturer.
- D. Electrical – All electrical connections and repairs are to be performed by individuals who, working for a licensed electrical contractor, have received appropriate electrician certifications from the Washington State Department of Labor and Industries (L&I). Electrical repairs are to be conducted under an electrical administrator's supervision. L&I provides both electrician and administrator certifications for various levels of electrical work. The Firm is responsible for obtaining required certifications and licensing for self-performance of electrical repairs or for subcontracting electrical repairs to a properly licensed electrical contractor.
  - E. Instruction – The Firm shall arrange for the manufacturer to instruct maintenance staff in proper operation and maintenance of the ventilation systems, demonstrate filter replacement/cleaning and demonstrate the operation controls and indicator lights. The Firm shall provide the Weatherization Department with the manufacturer's owner's manual. The manufacturer shall explain to the building owner the different operating modes of the ERV. All this information shall be provided by KCHA in the owner's manual given to the building owner.
  - F. Coordination – There will be 39 Fireplaces to be removed by the weatherization contractor. Coordination on a building by building schedule will need to take place to give the weatherization contractor time to have the area ready for the through wall heat pump to be installed.
  - G. Code Compliance – The Firm shall pursue compliance with federal, state, and local building and environmental codes for the installation of this product. Follow manufacturer's installation instructions and specifications. The following specifications are not intended to replace manufacturer's specifications.
  - H. Permits – The Firm shall be responsible for all permits required by State and local ordinances for the installation of the heat pump system and mechanical work. The Firm shall provide the building owner and KCHA with copies of all permits related to the work.

### 3. NEW EQUIPMENT REQUIREMENTS

- A. **Through Wall ERV:** Corrosion proof outer hood, through wall installation, MERV6 air purification, Automatic shutters, EC-motor with efficiency of 5.6 CFM/W VENTS-US. Need to upgrade to MERV 14 filter.  
**Acceptable quality level: TwinFresh Expert RA1-50-2 with Upgraded MERV 14 Filter or approved equal.**
- B. **Bathroom Exhaust Fan:** Customizable ceiling mount ventilating fan, low sone and rated for continuous operation. ENERGY STAR® rated and certified by the Home Ventilating Institute (HVI). Evaluated by the Underwriters Laboratories and conforms to both UL and CUL standards.  
**Acceptable quality level: Greenheck SP-AP0511WL or approved equal.**
- C. **Bathroom Fan Controls:** 120V, 60Hz humidistat switch with integrated adjustable automatic run programming.  
**Acceptable quality level: Whisper Control FV-WCCS1-W, Whisper Control FV-WCCS1-A or approved equal.**

#### **D. Ducted Energy Recovery**

##### **Ventilators: Minimum characteristics:**

- **AUTO BALANCE** - DXPL03 control allows airflow to be selected for both supply and exhaust air streams. Live air pressure measurements enable automatic and continuous adjustment of fan speeds to ensure constant user selected airflow.
- **TOTAL RECOVERY CORE** - Cross-flow energy recover core transfers heat and water vapor between two airstreams. Easily removed for cleaning or service.
- **MOTORS AND BLOWERS** - Each airstream has an independent EC motorized impeller with multiple fan speed operation.
- **MERV 6 FILTERS** - Washable air filters in exhaust and supply airstreams. Upgrade to MERV 13 option available.
- **MOUNTING** - Mounting brackets supplied for ceiling or wall installation
- **FROST PREVENTION** - Temperature sensor activated, periodically shuts down supply motor. Drains not required.
- **CASE** - 20 gauge pre-painted galvanized steel for superior corrosion resistance, insulated to prevent exterior condensation.

**Acceptable quality level: Lifebreath MAX XTR with DXPL03 Deluxe Control or approved equal.**

#### **E. Magnetic Door Holder with Fire Alarm Release to work with existing fire alarm**

**system:** Equipment must be compatible with the Innovative Systems Tech maintained fire alarm system model Silent Knight SK4224 and AES Corp Intellinet 7750F/8

**Acceptable quality level: Edwards 1508-AQN5 Door Holder Surface/Wall, 24 VAC/DC, 120 VAC Electromagnetic Door Holder and power supply Altronics AL600.**

#### **F. Bathroom Exhaust Fan:** Customizable ceiling mount ventilating fan, low sone and rated for continuous operation. ENERGY STAR® rated and certified by the Home Ventilating Institute (HVI). Evaluated by the Underwriters Laboratories and conforms to both UL and CUL standards. Hardwired Speed Control, 6 Amp, 120V, Wall Mounted and in a tamperproof cover. **Acceptable quality level: Greenheck SP-AP0511 with Greenheck Speed Control 385031 or approved equal.**

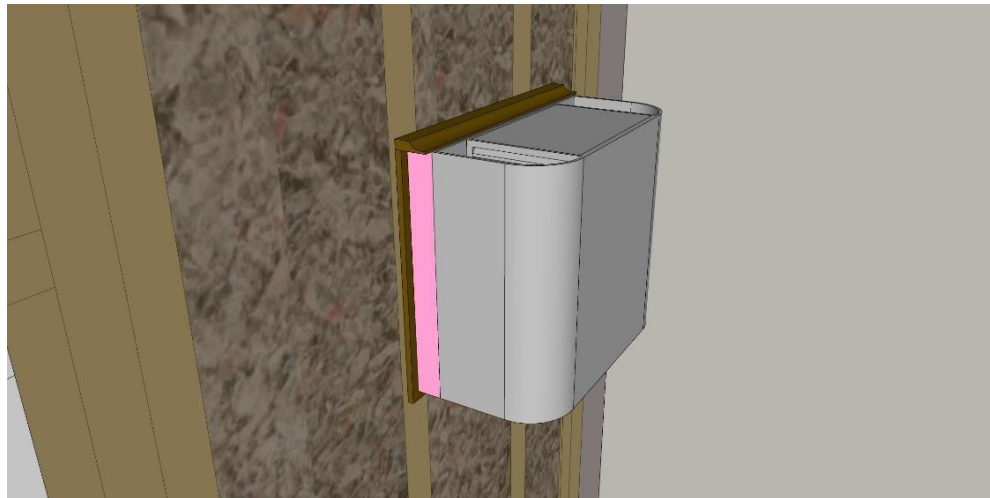
#### **G. Fireplace Insert:** Minimum characteristics: 120-Volt, 1500-Watt/5000 BTU electric fireplace, Full metal construction, Realistic flame display operates with or without heat for year round enjoyment, No fuel combustion, zero carbon monoxide emissions, Heats up to a 220 sq. ft. room with ease, Selectable high (1500-Watt) and low (750-Watt) settings let you adjust the fireplace's heat output, On demand heat - great for zone heating, Easy to reach manual controls, Remote control for variable heat and variable flame (included) **Acceptable quality level: True Flame 24 in. Electric Fireplace Insert in Sleek Black with Surround**

#### **I. Alternate #1 Swimming Pool Heater:** Replace existing natural gas swimming pool heater with a heat pump swimming pool heater. A new circuit will need to be run to location of install. **Acceptable quality level: Heat Siphon Z575HPX Pool Heat Pump, 120,000 BTU, 3 Phase or approved equal**

#### 4. Installation Requirements

##### A. Through Wall ERV:

- There will need to be an in line arc fault device for the ERV.
- Energy Recovery Ventilator will be installed in the bedroom in the same wall cavity as an electrical power source and is to be run inside the wall cavity and get power from an existing outlet. Remotes for the units will be saved and given to the building owner.
- New blocking installed by siders must be used for the penetration to the building envelope.
- 1” of rigid must be installed over the blocking and flashed as shown in the diagram. No exposed foam will be allowed.
- Electric Wiring – All field wiring, line and low voltage, shall comply with the manufacturer’s recommendations, the National Electrical Code and all applicable local codes and ordinances. Arc Fault Breakers to be installed on the circuit servicing ERV’s to meet the codes of the authority having jurisdiction.



##### B. Bathroom Exhaust Fans

- Energy Star Rated Bathroom Exhaust Fan: Install according to manufacturer’s recommendations and in accordance with codes by the authority having jurisdiction.
- Connect to existing ductwork to meet SWS specifications. This will be finished work when complete, patching, painting or repairing of any surface worked on will need to be completed in order to pass the KCHA inspection.

##### C. Bathroom Fan Controls

- Install according to manufacturer’s recommendations and in accordance with codes by the authority having jurisdiction. A switch leg may need to be added to make the fan function correctly with the new bathroom fans so that they will function to run automatically for high humidity levels or manual control. Face plates and light switches to match color with humidistat switch.

##### D. Ducted Common Area ERV’s

- New ducted ERVs are to be installed in the common hallway. Ducted ERVs are to be

located near the attic access hatch in the hallway for ease of maintenance, and must be vented to the exterior with independent supply and exhaust ports with a minimum of 3' of separation between the supply and exhaust wall caps, unless the manufacturer builds a combo cap that is acceptable by the authority having jurisdiction. Keep supply cap off distance above roofing shingles as required by code.

- Installation provisions must follow manufacturer's specifications and meet the requirements of the authority having jurisdiction.
- Fire Dampers are required on supply and exhaust registers.

**E. Magnetic Door Holder with Fire Alarm Release to work with existing fire alarm system**

- Wiring to power supply connected to the fire panel maintained by Innovative Systems Tech will be required.
- Chains may be needed in order for the base to be installed on a stud and for the magnetic system to reach the door.
- Conduit or wire mold will be needed to power magnetic locks.
- You will be required to meet system manufacturer's specification and the rules of the authority having jurisdiction in order to pass inspection.

**F. Bathroom exhaust Fans**

- Energy Star Rated Bathroom Exhaust Fan: Install according to manufacturer's recommendation and in accordance with codes by the authority having jurisdiction.
- Connect to existing ductwork to meet SWS specifications. This will be finished work when complete, patching, painting or repairing of any surface worked on will need to be completed in order to pass the KCHA inspection.
- Original fan controls to be replaced with the adjustable speed controller with a locking cover.

**G. Ceiling Mounted Heat Pump with ERV:** Installation instructions from the manufacturer as well as requirements from the authority having jurisdiction must be followed, not limited to but including:

- The power supply circuit is installed in accordance with the current edition of NEC (ANSI/NFPA 70) and local codes and ordinances. Note: Always consult local and national electric codes.
- Interior clearances as follows: Sides of unit to wall: 1"
- Properly installed insulated condensate drain line with a minimum of 30% slope if an external drain.
- Approved louvers installed with best practices to ensure no water into the wall assembly. 8" or larger diameter ducts through the wall which are tightly fitted to the rear openings of the unit.
- The unit must be perfectly level on the vertical and horizontal axis.
- The unit must be tight to the wall, with zero leakage between the external ducts and the unit. Use insulating material if wall is not level.
- Properly affixed ceiling bracket to ceiling studs or other supporting material.

H. **Fireplace Insert:** Power for the fireplaces will need to be pulled from the outlet closest to the fireplace and an arc fault outlet will need to be installed inside the firebox where the reset button can be reached. The heating element for the fireplace will need to be disconnected to lower the amperage draw for the appliance. Install must look like a finished product. Manufacturer's specifications and the rules of the authority having jurisdiction must be followed.

Building A	Building B	Building C	Building D	Building E
301	301	301	301	301
302	302	302	302	303
303	303	303	304	304
304	304	304	306	305
306	306	306	306	
307	307	307		
308	308	308		
309	309	309		
	310	310		
	311	311		
	312			
	313			



- I. **Decommission existing air handler:** Equipment must be safely decommissioned and all wires to power the existing unit safely in a junction box, or decommissioned to pass an inspection by the authority having jurisdiction. All penetrations to the exterior of the building must be sealed to be an air tight assembly and all ducting inside of the building sealed in a fire safe manor.
- J. **Alternate #1 3 Phase Heat Pump Pool Heater:** Installation must be done in a manner that follows the manufacturer's specifications and meets the approval of the authority having jurisdiction.



## **5. EXISTING EQUIPMENT**

- A. All dwelling units are currently heated electrically with in-wall heaters.
- B. In lieu of using Arc fault breakers when extending circuits, a new in line arc fault device inside a new j box and face plate will need to be installed in line with the new equipment.
- C. Safe Work Practices – The BLVD was built in 1986, and is assumed to not have any lead base paint.

## **6. WORK PRACTICES**

- A. The Firm shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work in accordance with best industry practices and applicable local, state and federal law, including without limitation regulations of the Secretary of Labor at 29 CFR Parts 1904 and 1926. For Statement of Work Items in excess of \$100,000, the Firm shall comply with the Contract Work Hours and Safety Standards Act, 40 U.S.C. §3701 et seq. The Firm shall take all reasonable precautions for the safety of, and shall provide all reasonable protection to prevent damage, injury or loss to (a) all workers and other persons on the work site, (b) all of the work, materials and equipment to be used or incorporated therein, and (c) all other property at the work site or adjacent thereto.
- B. The work is occurring in occupied residential units. The Firm shall coordinate all work with the property management team and in compliance with Washington State law for entry to an apartment. Employees of the firm working in occupied units are expected to be respectful and to minimize disturbance to the resident.
- C. The Firm shall notify KCHA of each building completion and arrange for an inspection of all completed work and be present during the inspection. All work shall be subject to review and approval. KCHA shall inform the Firm where it finds work to be unsatisfactory. The Firm shall correct unsatisfactory work within ten business days, and shall notify KCHA for a follow-up inspection.
- D. The Firm shall be responsible for all acts and omissions of the Firm's agents and employees and for the acts and omissions of subcontractors and their agents and employees.
- E. The Firm shall keep the work site free at all times from accumulations of waste materials or rubbish resulting from the work. The firm shall clean the project site and work areas daily, including common areas and coordinate progress cleanings for joint-use areas where more than one installer has worked. At completion of the work, the Firm shall remove all waste materials and rubbish, tools, materials and equipment, and surplus materials from

- the work site, and leave the work site as clean as or cleaner than when the work began. All debris resulting from the work will be removed and legally disposed of with every effort made toward recycling waste material.
- F. The firm shall adequately protect the building, paved areas, service drives, lawn, shrubs, trees, etc. from damage while performing the required work. The firm shall repair or be responsible for costs to repair any and all property damaged by the firm during the mechanical installation.
  - G. Siding penetrations will be done on an approved method, with blocking made for the siding where available. Damaged siding is the responsibility of the contractor to replace and it shall be replaced with matching siding.
  - H. Ceiling and wall patches: patch the ceilings, walls and any other areas where sheetrock repair is necessary as part of this installation. Restore surfaces to pre-construction condition and match adjoining texture or finish in a manner that will eliminate evidence of patching and refinishing. Paint will be supplied by the property manager or property maintenance staff.

## **7. DAMAGES**

- A. The Firm will be held responsible for any and all damages created during the performance of the work.
- B. All debris resulting from the work will be removed and legally disposed of with every effort made toward recycling waste material.