

scope of work



Project: Meydenbauer Center Walk-In Cooler/Freezer Replacement ITB

Client: Bellevue Convention Center Authority

Project Address: 11100 NE 6th St, Bellevue, WA 98004

PROJECT SUMMARY

This project includes the replacement of the existing combo (3) walk-in coolers and (1) freezer that serve the Meydenbauer Center's kitchen. All boxes/equipment are to be replaced, and the system will be set up like the existing with the compressor rack on top of the walk-ins and remote condenser(s) on the roof in the existing mechanical well location.

As an additive alternate, the refrigeration system will be duplicated for redundancy with alarm notification sent to maintenance indicating one of the systems is down. A lead/lag controller will be installed to automatically switch the system over to the functioning refrigeration system.

Work must be completed during a two-week building shutdown Performance Period between **June 29 – July 17, 2026**. The contractor will need to have a representative available to be on site to receive the equipment from the manufacturer and certify the work of any subcontractors is to their specifications.

EXISTING CONDITIONS

- The Walk-in coolers are split up into 4 sections: Meat cooler, freezer, cooler, and cooler. There are (4) evaporators total, (1) in each walk-in box.
 - It appears each evaporator is served by a 120V, 1-Phase, 20A circuit. However, it is not clear exactly which breakers feed the evaporators.
 - Based on the panel directories, it appears there are between (4) and (7) 20A circuits on panel MBA that serve the walk ins. It is unclear what exactly these circuits serve. They could be for the evaporators, the alarms and light fixtures inside the walk-ins.
- There is (1) Condenser unit in the roof well.
 - 208V, 3-phase. The disconnect switch is rated for 30A. However, the amp rating of the breaker in the panel could not be verified because there is tape over the breaker.
 - Circuit #: MBD-16,18,20

- There is a built-up compressor rack on top of the walk-ins that contains (4) compressors, (1) for each walk in.
 - 208V, 3-phase, 50A breaker for the whole assembly.
 - Circuit #: MBD-26,28,30
- There are (8) refrigerant lines, (2) for each walk-in box, running between the condenser unit in the roof well and the built-up rack on top of the walk-ins.
- The thermostats are located at the end of the coolers.
- The kitchen is located on the top floor of the building.
- Slab under the coolers has leaked in the past into the lower floor. Part of this replacement should ensure no leakage to below. There is currently pan deck floor in the kitchen area.
- If new circuits are needed for the new walk-ins, there are 20+ spare breakers across multiple panels in the kitchen electrical room. However, added load on new circuits will need to be justified.
- The exact loading of these panels is not known since the as-builts are not accurate for existing conditions. After final selection of the refrigeration system is complete, evaluation of the existing panel loads may be needed including a 30-day demand meter reading.

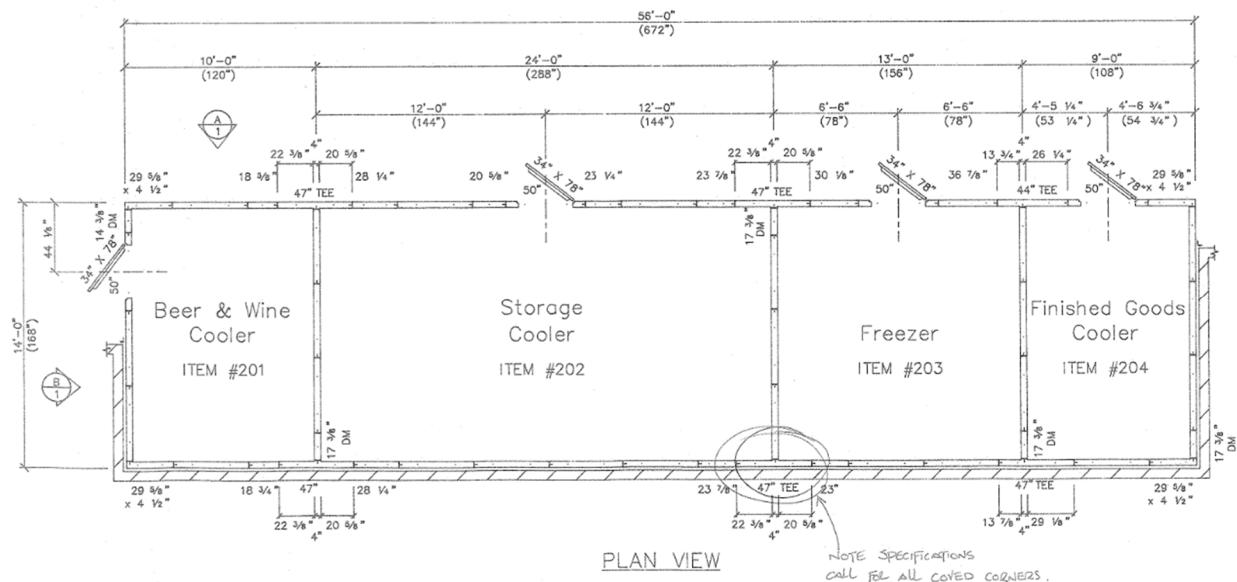
Existing Condenser Unit in Roof Well:



Existing compressor rack on top of the walk-ins:



Existing walk-in combo box configuration (dimensions to field verified):



SCOPE OF WORK NARRATIVE

The existing walk-in coolers and freezer that serve the Meydenbauer Center's kitchen facilities are in need of replacement. The current 56' x 14' walk-in combo box is split into four sections (10' wide cooler, 24' wide cooler, 13' wide freezer and 9' wide cooler) and the Meydenbauer Center would like to replace the system in kind, maintaining the location and layout of the compartments and overall footprint of the existing box. Replacement freezer / cooler boxes shall be all new components with insulated floor and roof panels throughout. The new condenser unit and compressor rack for the replacement walk-ins would be installed in the same location as the existing equipment, with the condenser unit at the roof well and compressor rack on top of the walk-in box. The replacement boxes should feature self-closing doors, and all refrigerant lines are to be insulated. Temperature controls shall be connected to the Building Management System with text notification alerts enabled. The FRP parapet wall between the walk-in boxes and existing dropped ceiling will need to be maintained or replaced in kind.

The facilities team has also requested that an additive alternate for a redundant refrigeration system at the replacement kitchen walk-ins be priced in this bid. This redundancy would feature a duplicated refrigeration system with additional condenser units, evaporators and compressors and refrigeration lines with an alarm notification system sent to maintenance indicating when one of the systems is down. The redundant equipment would be run through a lead lag controller to automatically switch the system over to the functioning refrigeration system while also assuring that only one unit per walk-in can run at a time. The redundant compressor rack is to be located on top of the walk-in boxes, and redundant rooftop condensers shall be located within the roof well in an open area near the primary condenser rack. A structural assessment will be required to confirm the adequacy of the existing roof structure to support any added loads. If additional structural work is required, contractor is to run the redundant lines and make necessary preparations for the redundant system during the noted Period of Performance with the final installation of the redundant system to occur later once any structural modifications have been assessed and implemented.

Potential location of redundant condenser rack at existing roof well (in green - dimensions to be field verified):



Plumbing: Include indirect drains from 4 evaporator units (8 for additive alternate) to existing funnel drain.

Provide heat trace and insulation on line(s) that travel through a freezer compartment.

Electrical: Furnish and install new breakers in the existing panels, new wire in conduit from panel to the compressor relay control (and lead lag controller for the alternate), new wire and conduit to roof for condensers and boxes for evaporators. Include a new roof penetration for power. Install new wiring in conduit from the existing panel for all 120V circuits for heat trace, heated doors, and lights in walk-ins. Lighting and controls shall meet the 2021 WSEC requirements. Furnish and install all disconnects per code and manuf. requirements which may require fused disconnects at equipment. Demolish existing electrical conduit, wiring and equipment associated with this scope that is not being reused. Coordinate with walk-in cooler/freezer manufacturer for all wiring and control requirements. The electrical bid shall include all work, materials, and equipment for a fully operational system.

Fire Sprinkler: Remove existing sprinkler heads and drops in walk-ins. Reinstall drops into new walk-ins and install new sprinkler heads. Coordinate with owner for additional requirements to shut down, drain and recharge this portion of the fire sprinkler system including possible after-hours work.

Based on existing structural and food service plans provided by the Meydenbauer Center, it appears that there is an existing stepped section in the structural concrete slab below the existing walk-in cooler unit, and that the entire footprint of the existing cooler/freezer box features insulated walk-in floor panels within this recessed depth so that the finish floors of the coolers are roughly flush with the adjacent kitchen floor. Field verification and/or exploratory demolition may be necessary to verify this condition; however, the proposed scope of work herein assumes the existing cooler box to be recessed and that the replacement units will similarly feature recessed insulated floor panels throughout. Sleepers or other infill may be required to assure a flush condition between the walk-in cooler and kitchen floor surfaces depending on the walk-in floor assembly depth employed. Meydenbauer Center facilities staff have also noted a leak in the slab below the walk-in that will need to be assessed, and a new waterproofing membrane floor with curbs shall be installed. A structural assessment will be required to verify these assumptions, and that the replacement equipment does not increase the allowable loads on the existing structure.

Mechanical permitting & walk-in Cooler installation to be performed by a qualified experienced refrigeration system installer (ORCA Mechanical or equivalent). Contractor is to assess the scope of work of the installation subcontractor with regards to typical exclusions and evaluate any additional scope of work necessary to complete the project, which may include but is not limited to:

- New flooring / waterproofing
- Slab core drilling / sealing or any alterations to existing structural slab
- Roof penetrations / sealing / curbs
- Seismic support design and installation for equipment
- Alterations to existing structural slab, if needed
- Replacement RFP panel wall system between walk-in walls and dropped ceiling, if needed

Engineered plans for plumbing and electrical scope permits will be provided by the project design team at a later date and are not to be included in the scope of this bid.

WALK-IN COOLER/FREEZER SPECIFICATIONS

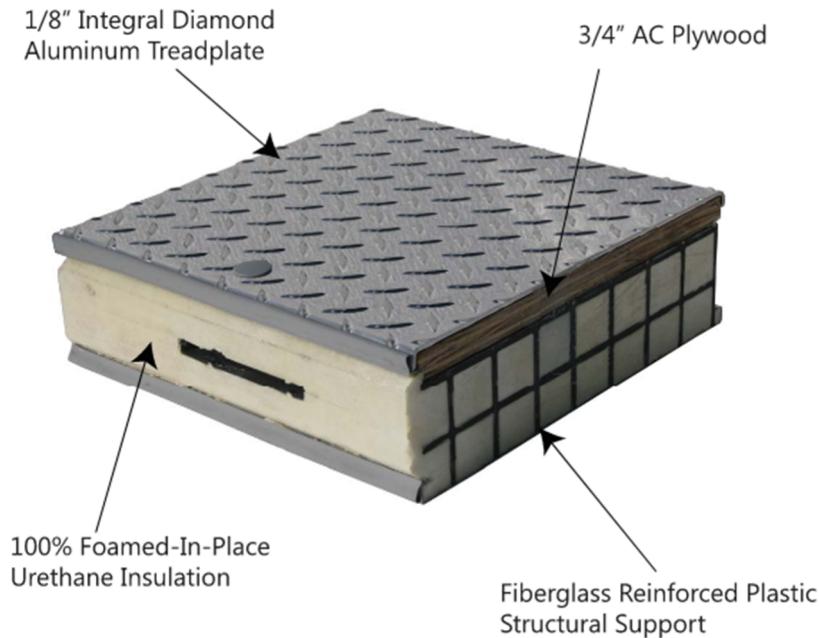
The walk-in cooler panels are to be of heavy-duty construction utilizing durable edge-to-edge urethane foamed-in-place construction (American Panel or equivalent). Walk in boxes should be specified with a smooth white exterior finish, heavy-duty hardware and self-closing doors and are required to meet the following specifications:

PERFORMANCE: Walk-In is to be manufactured using foamed-in-place (FIP) urethane technologies, using 245B as an expanding agent. Cooler panels, where required, shall have an R-Value no less than R29/R36. Freezer panels, where required, shall have an R-Value no less than R32/R40. R-Values based on 4"/5" thicknesses, respectively.

CONSTRUCTION: In conjunction with a FIP manufacturing process, no internal strapping shall be required, or allowed. Cam-lock fasteners shall be held in place using only the foam and the cam lock itself. All metal panel facings will utilize 90° bends along the length of the panel to ensure proper skin and gasket adherence. Gasketing shall be of the tear drop variety, wrap around the entirety of said 90° bends, and be held in place by the urethane foam as well.

Walkin floor to be a constructed factory built 100% foamed-in-place urethane insulation complete with $\frac{3}{4}$ " plywood backing under a foamed-in-place aluminum tread plate wear surface, Beverage- Beer/Wine Cooler floor to include structural floor support (AmeriTuff RFP or equivalent).

AmeriTuff Structural Flooring section (Support for Static Loads up to 15,000 lbs.):



MONITORING SYSTEM: Walk-In is to be supplied with factory installed with Intelligent Controller Monitoring System on each door. Monitoring system is to include door heater wire control, high and low alarm set points, integral light switch w/ automatic shut-off timer, door monitoring with ajar alarm & automatic lights on/off capability, power failure alarm, Cloud base wireless remote monitoring of walkin environment & controls for collected HACCP data points and has the ability to send real time high/low temperature, door ajar alerts.

REFRIGRATION EQUIPMENT SPECIFICATIONS

Refrigeration equipment packages are to be manufactured and specified by a qualified supplier (OmniTemp Refrigeration or equivalent). As a reference point, base-line specifications for the refrigeration equipment have been included as Addendum A of this document. Substitution requests are allowed within 10 days of bid due date, subject to approval.

ATTACHMENTS

Attachment A – Refrigeration Equipment Specification Sheet

OmniTeam, Inc.

Air-Cooled Refrigerant Multi-Compressor Specification

Rack Item Number R-1 Remote Refrigeration Package

The refrigeration package shall be pre-engineered and factory assembled unit as manufactured by OmniTemp Refrigeration, a Division of OmniTeam, Inc., 4380 Ayers Avenue, Vernon, California, 90058. Toll Free (800) 423-9660, Main Line (562) 923-9660, Fax (562) 862-7466, www.omniteaminc.com

Contractor shall furnish and install, where shown on plans, (1) OmniTeam, Inc. E.T.L. approved Air-Cooled remote refrigeration package, Model OTD4-AC-V-8-0-3-4, with control panel, 208 Volts, 3 Phase, 60 Hz. Refrigeration system shall be indoor frame, and panels shall be fabricated of galvanized steel. Entire frame shall be pre-assembled, welded, cleaned, and painted with a prime coat of zinc chromate then finished with a coat of baked enamel epoxy based paint. The REMOTE condenser shall be multi-circuited with rifled tube slotted finned and shall be designed for an average 20°F TD. The condenser shall also be designed for each project location; that takes into account high ambient temperatures and altitude factors. Condenser fan motors can be configured for either Horizontal or Vertical Air Discharge. Optional: 100% flip-flop redundancy features a duplicated refrigeration system including remote condenser coils, compressors and dual circuit evaporator coils. Alarm notification system to indicate system failure to maintenance.

1) REFRIGERATION UNITS –

- a) Air-cooled compressor units shall be hermetic/scroll and or semi-hermetic type (Copeland). Each unit shall be equipped with high-low pressure control, liquid drier, sight glass & head pressure control.
- b) All compressor units shall be new factory assembled to operate with the refrigerant specified in the engineering summary sheet. Refrigerant R _____ shall be used on all medium and low temperature units.

2) PRE-PIPING -

- a) All refrigerant lines shall be extended to right side of the package in a neat and orderly manner and must be piped through a pitch pocket inside the refrigeration rack. Suction line for medium and low temperature units must be insulated with Armaflex (3/4" for medium and 1" for low temperature wall thickness).
- b) All tubing shall be securely supported and anchored with clamps.
- c) Silver solder and/or sil-fos shall be used for all refrigerant piping. Soft solder is not acceptable.
- d) All piping to be pressure tested with nitrogen at 300 PSI. After the condensing unit and coil have been connected, the balance of the system shall be leak tested with all valves open.

3) CONTROL PANEL-

- a) The package shall have factory mounted and pre-wired control panel complete with main disconnect breaker switch, compressor circuit breakers, fuses, contactors, temperature controls, and time clocks wired for single point connection.
- b) Electrical contractor shall provide and install main power lines to panel and provide wire harness wiring for control and defrost heater between the defrost clock and the refrigerant fixtures, all in accordance with the wiring diagram and local codes.

4) SAFETY CAUTION –

- a) Each system and evaporator is shipped under nitrogen pressure. Use caution and exercise safety at all times when preparing for final hook-up.

5) EVAPORATOR COIL –

- a) Dual circuit refrigerant coils supplied by OmniTeam, Inc. shall be direct expansion type fabricated of copper tubes with aluminum fins provided with expansion valve, solenoid valve and thermostat (pump down set-up).

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OmniTeam, Inc.

Air-Cooled Refrigerant Multi-Compressor Specification

CONSTRUCTION NOTES FOR TRADES

It is the responsibility of each contractor to pull necessary permits for their respective work performed.

1) GENERAL & KITCHEN EQUIPMENT CONTRACTOR -

- a) The Kitchen Equipment Contractor shall verify all dimensions and coordinate with other trades. General contractor shall prepare and weatherproof the platform and curbed openings. This includes fabrication and installation of roof pad to support the remote rack equipment (see OmniTeam drawings).
- b) The General Contractor shall backfill (seal) the internal pitch-pocket located inside the rack once all trades have completed their work.

2) REFRIGERATION CONTRACTOR -

- a) All copper tubing to be refrigerant grade A.C.R or type "L".
- b) Silver solder and/or sil-fos shall be used on all refrigerant piping. Soft solder is not acceptable.
- c) All copper refrigerant piping to be pressure tested with nitrogen at 300 PSI. After the condensing unit and coil have been connected, the balance of the system shall be leak tested with all valves open.
- d) The complete system shall be evacuated with vacuum pump.
- e) Charge, test and adjust each unit.
- f) Refrigerant contractor to provide and install drain-line heater in freezer to be connected (wired) by electrical contractor. Copper condensate drain-line supplied and installed by Plumbing Contractor.
- g) Refrigerant suction lines outside of refrigerated compartments, not run in conduit, shall be insulated back to compressor with Armstrong Arma-Flex AP-25/50 foamed plastic insulation or equal in accord with direction of the manufacturer. Minimum thickness shall be 3/4 inch for medium temperature and 1 inch for low temperature.

3) ELECTRICAL CONTRACTOR -

- a) Electrical contractor shall provide power for refrigeration package and connect control and defrost systems at the coil.
- b) Electrical contractor to provide power for medium and low temperature evaporator coils. Power from building. Provide separate power source for each evaporator.
- c) Electrical contractor to connect drain line heater after refrigeration contractor has provided and installed heater cable in freezer.
- d) All electrical wiring and installation shall be in accordance with the wiring diagram and local codes.

4) PLUMBING CONTRACTOR -

- a) Plumbing contractor to provide type "M" copper drain for walk-in refrigeration and freezer, pitched 1/2" per foot of run towards the floor sink. In freezer, unheated drain line must be outside of insulation to prevent freezing. Trap drain line outside of refrigerated space to avoid entrance of warm and moist air.
- b) Plumbing contractor to provide individual drain line for each evaporator unless otherwise called for.
- c) All plumbing installation shall be in accordance with local codes.

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