

SINGLE PACKAGE A/C / HEAT PUMP (SPHP) CERTIFIED DRAWING

DWG. NO. _____
 Submittal Template SPAC (new construction)
 REV. - 01

| | | | | | | | |
|-------------|--|-----------|--------------|-----|------|-----------|-------------|
| PROJECT | | DATE | 8/8/19 | BY | JL | REVISIONS | |
| PURCHASER | | P.O. # | | QTY | DATE | BY | DESCRIPTION |
| ARCHITECT | | SHIP DATE | ACCESS PANEL | | | | |
| ENGINEER | | | WALL PLENUM | | | | |
| HVAC CONTR. | | | LOUVER | | | | |
| GEN. CONTR. | | | CHASSIS | | | | |

| DESIGNATION | MODEL NUMBER | QTY | ACCESS PANEL | | WALL PLENUM | | LOUVER | | ELECTRIC HEAT | | DIGITAL THERMOSTAT | | YES | NO | YES | NO | YES | NO |
|-------------|--------------|-----|--------------|------|-------------|------|--------|------|---------------|--|--------------------|----|-----|----|-----|----|-----|----|
| | | | STD | SPCL | STD | SPCL | STD | SPCL | | | YES | NO | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| TOTAL | | | | | | | | | | | | | | | | | | |

UNIT SPECIFICATIONS+

GENERAL NOTES:

- 1: WALL PLENUM IS #18 GAUGE GALVANIZED STEEL.
- 2: WALL PLENUM DEPTH TO BE SPECIFIED BY CONTRACTOR.
- 3: WALL PLENUM OPENING TO BE 1.125" LARGER THAN CHASSIS

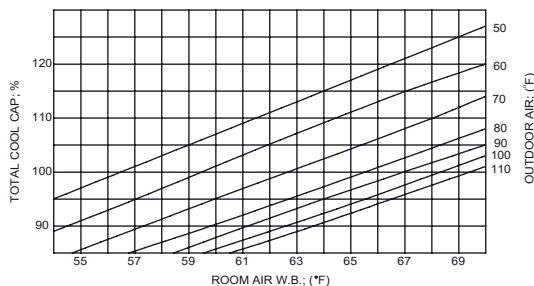
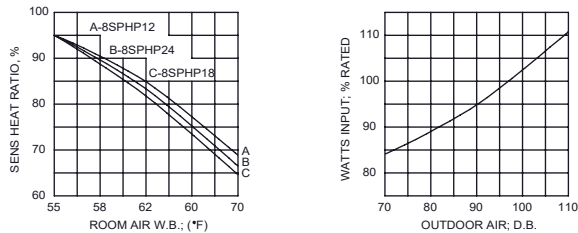
| SERIES MODEL # | 8SPHP12 | 8SPHP18 | 8SPHP24 |
|-----------------------------|---------|---------|---------|
| COOLING CAPACITY* | 11,200 | 17,600 | 22,000 |
| SENSIBLE CAPACITY | 8,400 | 13,400 | 16,700 |
| EER | 11 | 11 | 11 |
| COOLING WATTS | 1018 | 1600 | 2000 |
| COOLING AMP | 4.9 | 7.7 | 9.6 |
| HEATING CAPACITY | 10,700 | 16,800 | 19,000 |
| HEATING COP | 3.3 | 3.3 | 3.3 |
| HEATING AMP | 4.6 | 7.2 | 8.1 |
| ELECTRIC HEAT MAX. | 3.5 | 3.5 | 5 |
| VOLTAGE | 208 | 208 | 208 |
| MAX. ESP (INDOOR) | 0.3" | 0.3" | 0.3" |
| MCA | 17.3 | 21.2 | 25.2 |
| MAX FUSE (NO ELECTRIC HEAT) | 20 | 25 | 30 |
| CHASSIS WEIGHT | 176 | 200 | 225 |

CUSTOM NOTES:

- 1: DISCONNECT SWITCH
- 2: WALL MOUNTED DIGITAL THERMOSTAT
- 3: DRAWING SHOWS OPTIONAL FRESH AIR MODULE, NORMALLY NOT INCLUDED

PERFORMANCE DATA

COOLING CAPACITY CORRECTION FACTORS

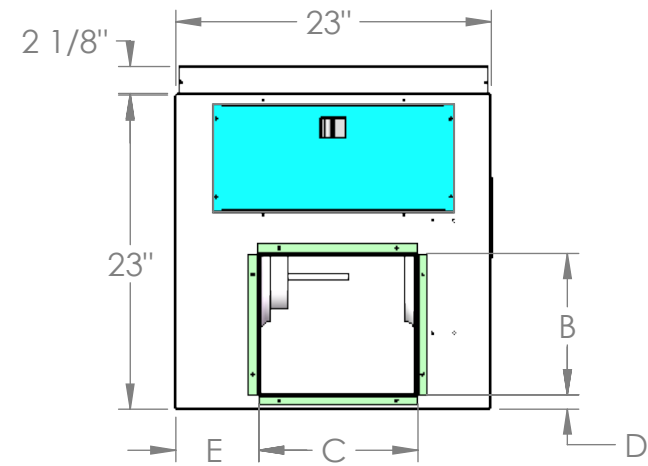


SPECIFICATION NOTES:

- 1: * = BTUH @ 95°F. DB/75 °F. WB OUTDOORS; 80 °F. DB/67 °F. DB INDOORS.
- 2: ** = BTUH @ 47°F. DB/43 °F. WB OUTDOORS; 70 °F. DB/60 °F. DB INDOORS.
- 3: FOR CAPACITIES AT CONDITIONS OTHER THAN THOSE SHOWN IN NOTES 1-2 ABOVE USE GRAPHICS BELOW.

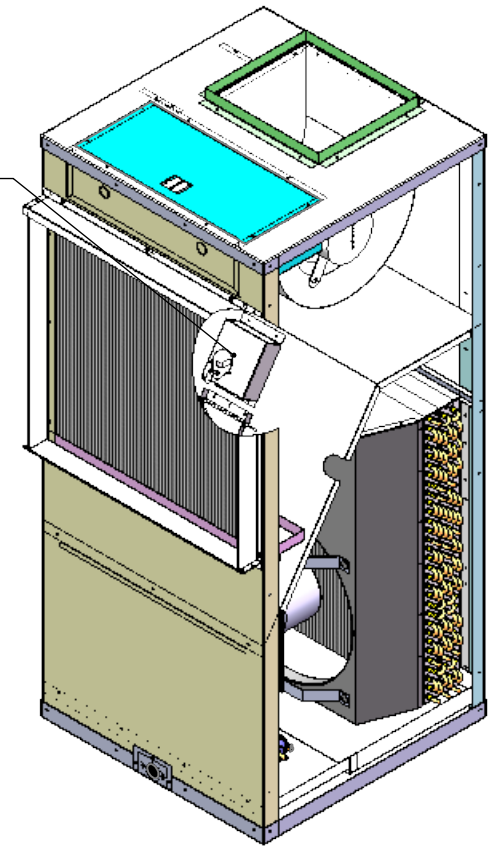
| REVISIONS | | | |
|-----------|-------------|----|------|
| REV. | DESCRIPTION | BY | DATE |

| UNIT SIZE | A | B | C | D | E | F | G |
|------------|----|-------|-------|-------|-------|--------|-------|
| 12, 18, 24 | 47 | 8 1/2 | 9 1/2 | 2 1/4 | 8 1/4 | 22 3/4 | 9 1/4 |

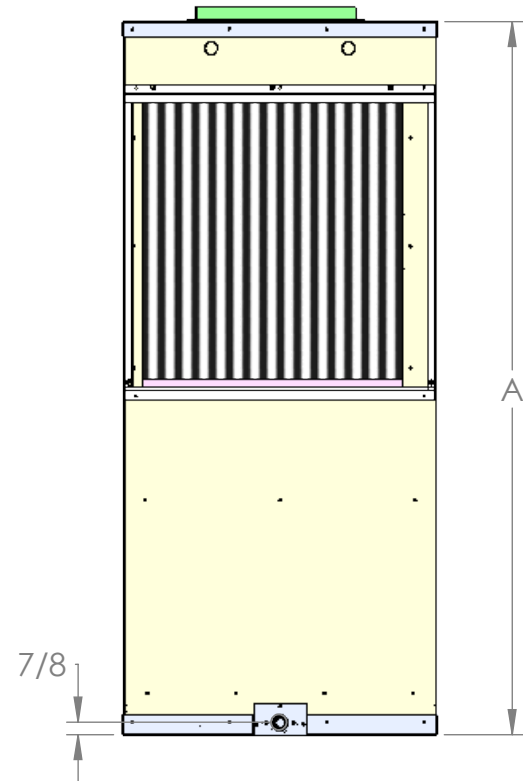


TOP VIEW

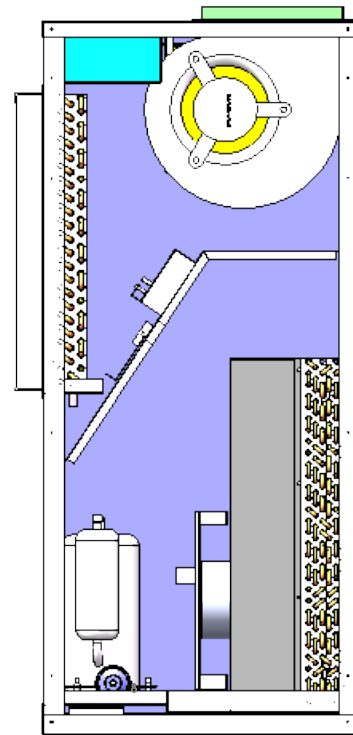
FRESH AIR MODULE (OPTIONAL)



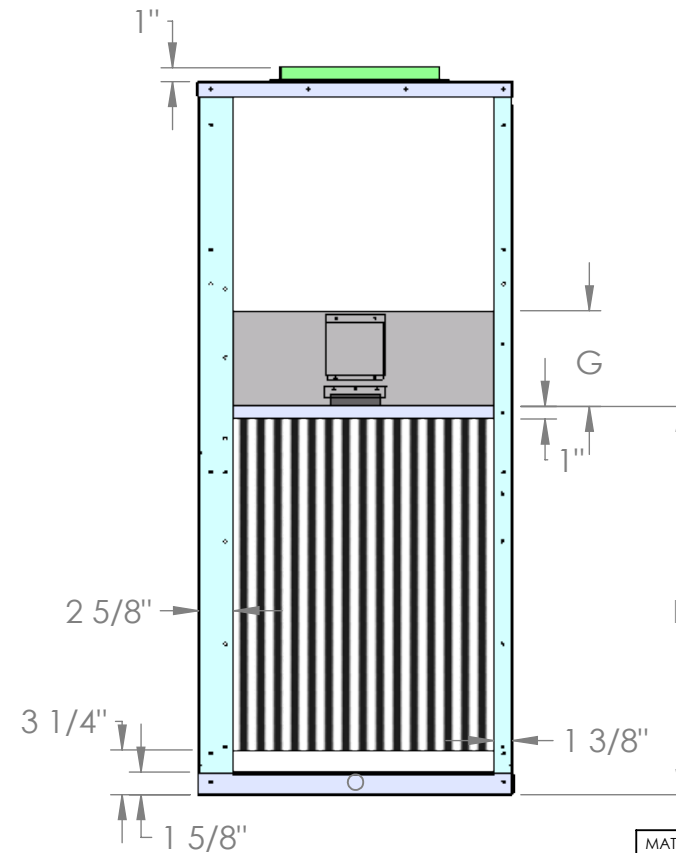
ISOMETRIC VIEW



FRONT VIEW



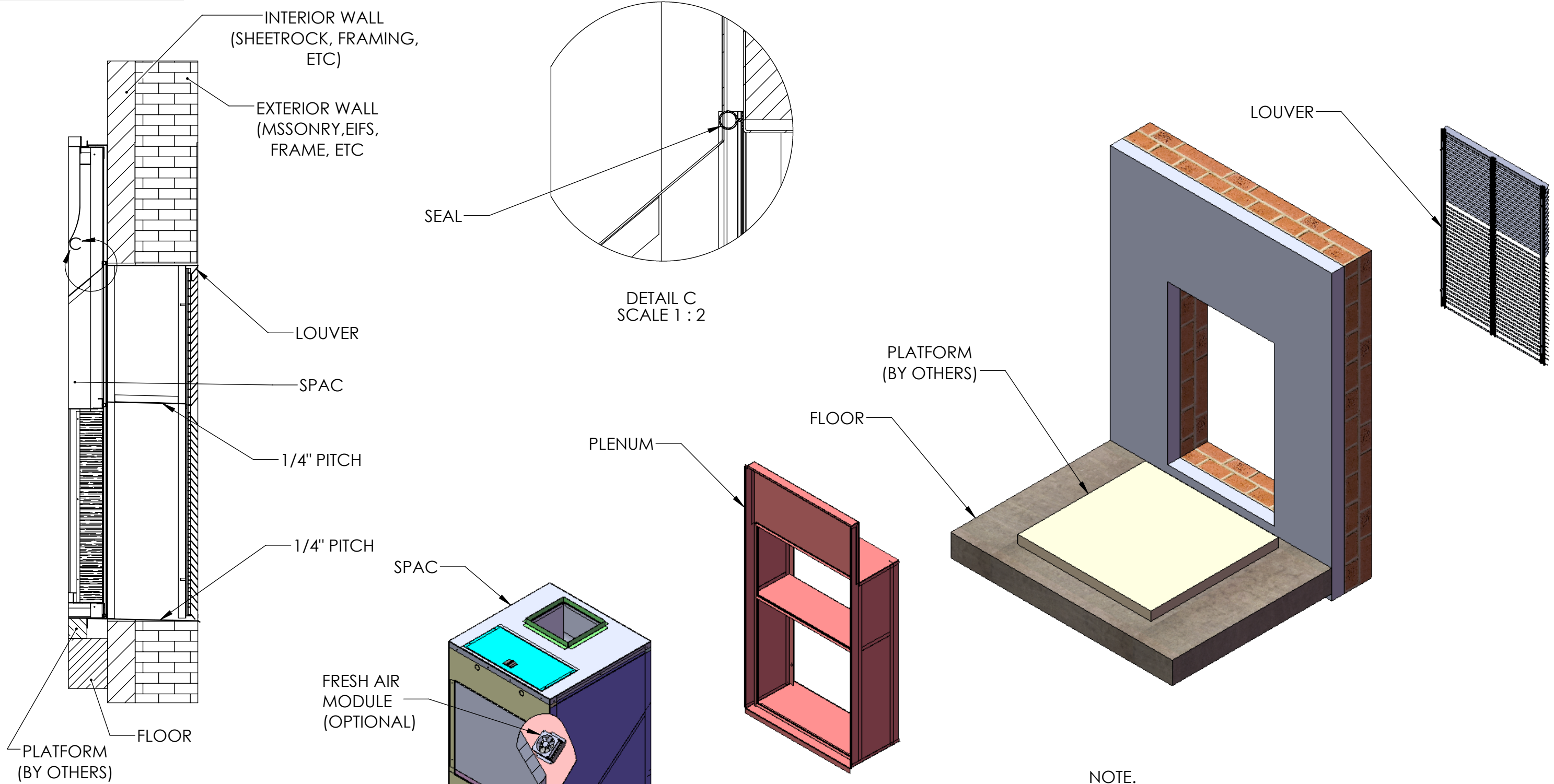
RIGHT VIEW



REAR VIEW

| | | | |
|---|--|------------------|-------------------------------------|
| MATERIAL: | ICE-AIR LLC. 80 HARTFORD AVENUE MOUNT VERNON, NY 10553 | | |
| WEIGHT (LBS): 103144.030 | | | |
| FINISH: N/A | TITLE: SPAC NEW DESIGN | | |
| UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 1/32 ANGULAR: MACH ± ° BEND ± 1° TWO PLACE DECIMAL ± .03 THREE PLACE DECIMAL ± .015 | MODEL BY: VP | DATE: 07/20/18 | DWG. NO. |
| | DRAWING BY: - | DATE: - | SAB-10287 |
| Third Angle Projection | PROPRIETARY AND CONFIDENTIAL This drawing is the intellectual property of Ice Air, LLC and consists of confidential data belonging solely to Ice Air, LLC. The sharing of this data with you does not constitute a license to share this data with any third party, which is strictly prohibited without Ice Air's prior written consent. | SIZE B | SCALE: NONE DO NOT SCALE DRAWING |
| 8 | 7 | 6 | 5 |
| 4 | 3 | 2 | 1 |
| SHEET 1 OF 1 | | | REV |

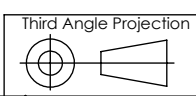
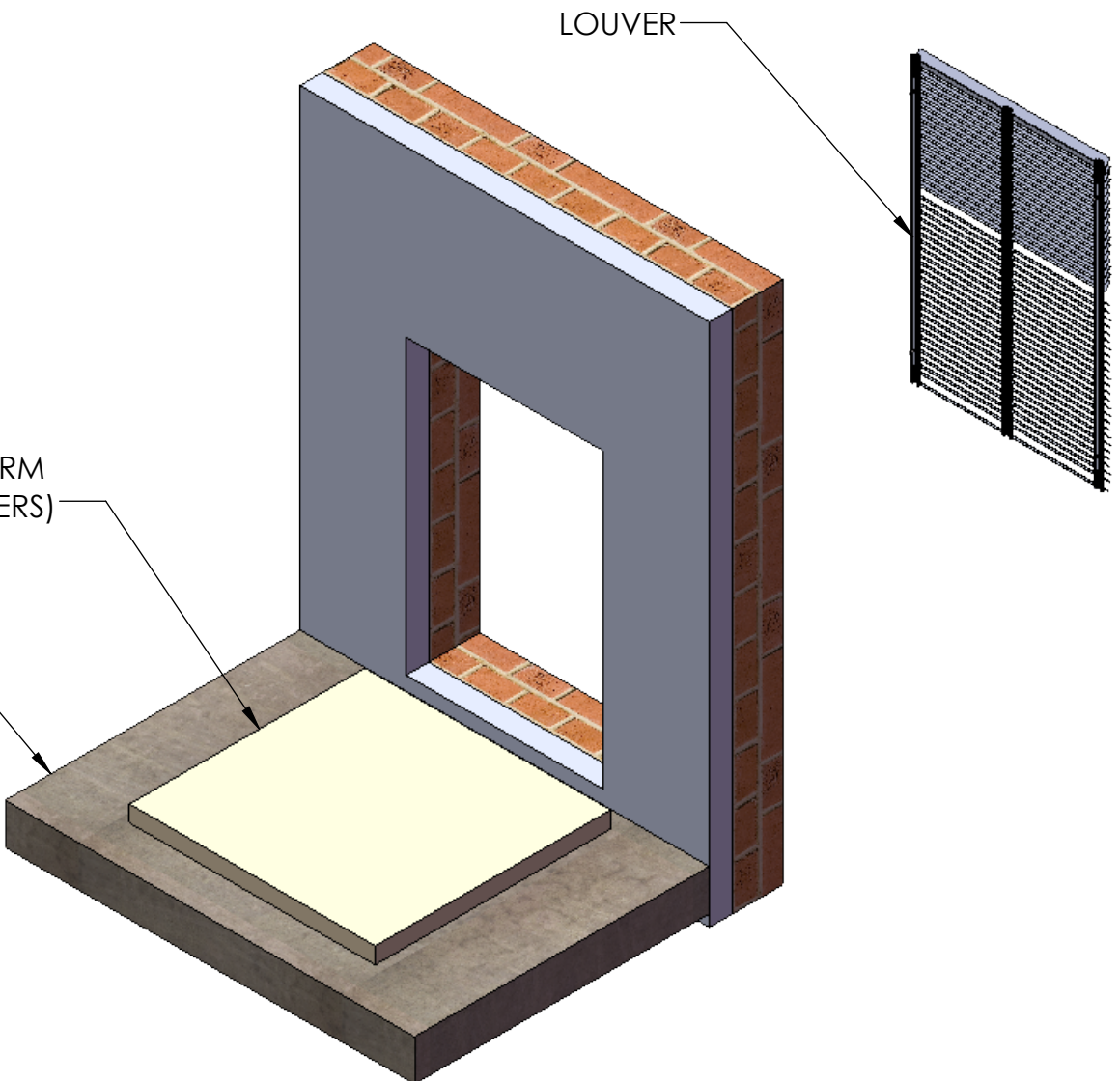
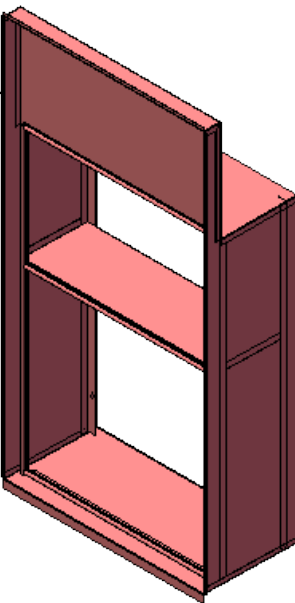
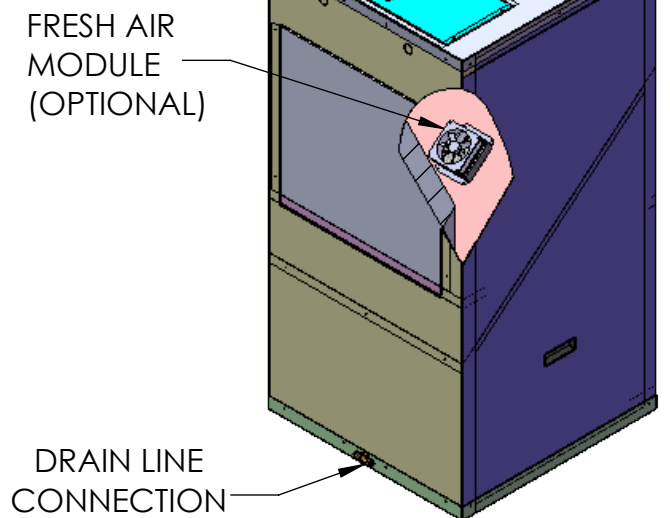
| REVISIONS | | | |
|-----------|-------------|----|------|
| REV. | DESCRIPTION | BY | DATE |
| | | | |



DETAIL C
SCALE 1 : 2

VERTICAL
SECTION
SCALE 1 : 10

NOTE.
PLENUM DEPTH DETERMINED BY WALL THICKNESS.



PROPRIETARY AND CONFIDENTIAL
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| | | | |
|---|---|----------------|--------------|
| MATERIAL: | ICE-AIR LLC. 80 HARTFORD AVENUE MOUNT VERNON, NY 10553 | | |
| WEIGHT (LBS): 1327.37 | | | |
| FINISH: N/A | TITLE: SPAC NEW CONSTRUCTION DESIGN LAYOUT | | |
| UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 1/32 ANGULAR: MACH ± ° BEND ± 1° TWO PLACE DECIMAL ± .03 THREE PLACE DECIMAL ± .015 | MODEL BY: VP | DATE: 07/27/18 | DWG. NO. |
| | DRAWING BY: - | DATE: - | SAB-10305-01 |
| SIZE B | SCALE: NONE DO NOT SCALE DRAWING | SHEET 2 OF 2 | REV |

PRODUCT SPECIFICATIONS
SINGLE PACKAGED AIR CONDITIONER (SPHP)

ICE AIR HI SPEC™ UNITS
'SPAC' SERIES UNITS

1. Equipment: Provide "SPHP" Series Single Packaged Heat pump (SPHP), as manufactured by Ice Air, LLC.
2. Components: Heat Pump to consist of wall plenum, exterior louver, cooling/heating chassis and front panel. Units to operate at 208 / 230-volt, single phase, 60 hertz circuits.
3. Wall Plenum: Wall plenum exterior dimensions to be 47 ^{3/4}" high x 23^{3/4}" wide to comply with US DOE requirements for new construction SPACs. Smaller dimension wall plenums are not acceptable under DOE regulations. Wall plenum to be factory fabricated of 18 gauge galvanized steel and to be shipped with a mechanically-attached temporary coated cardboard filler panel at the exterior for weather protection. Cardboard filler panel to be removed prior to chassis and louver installation. Wall plenum to have built-in pitch of at least 1/4" and to be fabricated with an angled rain lip for proper drainage to the exterior of the building. Wall plenums for masonry locations to be factory fabricated to match the full wall depth at each location; wall plenums with field-installed extension pieces are not acceptable.
4. Louvers: Exterior louver to be horizontal, extruded aluminum blade-type construction with clear anodized (painted Duranar) finish. Louver to be supplied with stainless steel fastening hardware and must be capable of being installed from within the wall plenum, supplied for all through wall locations
5. Chassis: Cooling chassis to be a self-contained, assembly consisting of a sealed refrigerant system, evaporator and condenser sections with separate PSC motors (single motor units are not acceptable), motorized outside fresh air damper (optional), wired for remote mounted thermostats and a non fused disconnect. Provide a permanent, washable mesh filter with each unit.
- 5a. Refrigeration System: Sealed refrigerant system to consist of high efficiency rotary compressor, copper tube / aluminum fin evaporator and condenser coils, refrigeration metering device consisting of a capillary tube expansion system, a reversing valve and interconnecting tubing. System to be factory charged and sealed and capable of operating in the cooling mode to an outdoor ambient temperature of 35° F. All units to be manufactured with R410A Green refrigerant; units containing R22 or R407C refrigerant are not acceptable.

- 5b. Evaporator Section: Evaporator motor and blower wheel to be mounted behind the evaporator coil. Blower wheel to be fabricated from aluminum and to be directly driven by a multi-speed PSC motor with built-in thermal overload protector. Evaporator section to contain an integral stamped and powder coated steel drain pan, draining into one 3/4" O.D. drain hose.
- 5c. Condenser Section: Condenser section to contain a separate PSC motor and plastic or metal propeller fan with an integral slinger ring. Condenser motor to cycle with compressor and to run during the cooling and heating cycle.
- 5d. Condensate Disposal: Condensate to drain from the indoor base pan into the lower galvanized steel condenser base pan through one 3/4" O.D. drain hose. Condensate disposal to be accomplished by the entrainment of water particles in the condenser air stream and evaporation upon the hot condenser coil. Building condensate drain lines may be required.
- 5e. Chassis Sheet Metal: Chassis sheet metal parts to be manufactured entirely of 18 gauge and 20 gauge galvanized steel. Chassis base pan to be powder coated inside and out to prevent corrosion of sheet metal pan. Chassis will slide into the wall plenum interior flanges and creates a positive weather seal using crushable pressure-sensitive foam tape, thereby preventing air and water infiltration. Chassis seal must be an integral part of unit construction, use of attached sealing angles or channels is not acceptable.
- 5f. Unit Controls: Unit controls to include a wall-mounted digital controller with integral electronic thermostat. Controller to be seven-day programmable type. Interior room temperature, and Freezestat to be mounted on the evaporator coil only (condenser mounted freezestats are unacceptable) to provide true temperature readings.
- 5g. Outside Air: Provide motorized outside air damper with chassis mounted actuator. Optional motorized damper could also be supplied by special request.
6. Front access panel: Front access panel to be fabricated from 20 gauge galvanized steel. Panel to be finished in (Antique White) (Arctic White) baked powder coat finish. Front access panel to mount to closet jam.
7. Warranty and Code Compliance: Unit to be guaranteed free of defects in material and workmanship for one year from date of delivery. Units to be ETL listed for safety in the United States and Canada, to have New York City MEA and BEC approvals, to be in compliance with all local, state and federal energy efficiency and building codes and to be tested in accordance with current ARI standards.