

6/6/2025

Re: G.A. Terminal Remodel
Sturgis Municipal Airport
Sturgis, South Dakota
A.I.P. #3-46-0054-023-2025
A-9396

Bid Opening: **June 11, 2025**
1:30 pm (local time)

ADDENDUM NUMBER 1

The following modifications are made to the plans and specifications for the G.A. Terminal Remodel Project at the Sturgis Municipal Airport.

*** Mobilization shall be limited to Maximum of 10% of the Total Project Cost ***

*** Mechanical Plans are attached to this addendum.**

ALL OTHER ITEMS OF THE PLANS AND SPECIFICATIONS REMAIN UNCHANGED



BY: _____

PROJECT ENGINEER – HELMS & ASSOCIATES

Acknowledge receipt of the Addendum by inserting its number on the Bid Form. Failure to do so may subject bidder to disqualification. This Addendum forms a part of the Contract Documents. It modifies them as above.

GAS FORCED AIR FURNACE SCHEDULE																		
UNIT NO.	MANUFACTURER AND MODEL NO.	SERVES	EXT. SP.	HEATING DATA			DX COOLING COIL DATA			LDB	LVB	ACCU DATA			REMARKS			
				BTH INPUT	BTH OUTPUT	HEAT CFM	COIL	COOL CFM	CAPACITY			MODEL NO.	POWER	SUCTION LINE OD		LIQUID LINE OD	MOTOR HP.	POWER
GFA#1	TRANE 59X2B0B0	OFFICES	0.70	80,000/52,000	77,600/50,440	1200	5TXC003	1200	34,331	59.5	57.7	5TTR3036	200-230/1	3/4	5/16	3/4	120/1/60	UNIT PER HORIZONTAL CONFIGURATION; FURNACE-11.3A; MOCP-15A; ACCU - RLA-13.5A; MCA-10A; MOCP-30A.

AMBIENT AIR TEMP 95°F
 UNIT TO BE FURNISHED WITH ENERGY RECOVERY VENTILATION FOR OUTSIDE AIR. EQUAL TO RENEWARE PREMIUM XH WITH EC MOTOR - 220 WATTS, 120V/60/1, FLA 2.7A; MCA 15A; MOCP-15A.

MECHANICAL LEGEND	
CFM	CUBIC FEET PER MINUTE
REG	REGISTER
EXH	EXHAUST
RA	RETURN AIR
VD	VOLUME DAMPER
CF	CEILING FAN
GFAU	GAS FORCED AIR FURNACE
ACCU	AIR COOLED CONDENSING UNIT

CEILING FAN SCHEDULE								
UNIT NO.	MANUFACTURER AND MODEL NO.	SERVES	CFM	EXT. SP.	RPM	WTS	POWER (V/Ø)	REMARKS
CF#1	COOK GC-146	102	78	0.31	900	29.2	120/1	TERMINATE WITH MANUFACTURERS RECOMMENDATIONS
CF#2	COOK GC-146	102	78	0.31	900	29.2	120/1	TERMINATE WITH MANUFACTURERS RECOMMENDATIONS

MECHANICAL HVAC NOTES

REFRIGERANT PIPING

- Furnish and install, in accordance with manufacturer's recommendation, all refrigerant piping, fittings, valves, sight glasses, hangers, and refrigeration specialties, including a filter dryer, as required to connect and put into satisfactory operation the air conditioning equipment shown.
- Furnish and install all Freon (refrigerant) and oil to fully charge the units. Further, this contractor shall furnish and install, at no additional cost, oil replacement Freon (refrigerant) or oil that may be required for a period of one year from date of written notice of acceptance.
- Furnish and install Type L copper liquid and suction lines in accordance with manufacturer's recommendations. Evacuate units and charge with Freon and oil. Refrigerant piping shall be installed under the direct supervision of an approved refrigeration mechanic. Lines shall be purged with oil pumped nitrogen. Fittings shall be wrought copper, assembled with silver solder (1100°F). Pipe shall be ACN nitrogen filled and capped refrigerant pipe.
- All suction piping inside the building shall be insulated with 1" thick Armaflex. Slide insulation over the piping where possible. Where absolutely necessary, the insulation may be slit. All slit pipes shall be wrapped with vaporproof tape at 12" intervals. The slits and all joints shall also be taped. Support pies as required and provide galvanized saddles between the insulation and the pipe hangers.
- Support refrigerant pipes on walls or ceiling with Unistrut channel and pipe clamps.
- Provide Unistrut channels attached to the wall vertically and horizontally on 5' centers and rack the refrigerant pipes on the channels using Unistrut clamps. Provide Armaflex pipe insulation under the clamps.

Sheet Metal Work

a. All sheet metal work shall be fabricated of the best grade of galvanized iron sheets as manufactured by Wheeling Steel Corporation, Inland, or equal. Sheets shall be "Tight-Coat" grade or equal, and shall be guaranteed not to fracture when run through a lock-former.

b. Duct sizes shown on plans are "net" inside dimensions. Where these specifications call for duct to be lined with insulation, the size of the ducts shall be increased to maintain the net inside sizes shown on the plans.

c. All sheet metal work shall be fabricated and installed in accordance with the recommendations of the American Society of Heating, Refrigeration and Air Conditioning Engineers' (ASHRAE) Guide, 1983 Edition, or SMACNA 2007 Edition. Galvanized sheet metal gauges and type of transverse joints for various size ducts are listed below:

U.S. Std. Gauge	Inches	Transverse Joint Connection	Bracing
26	Up to 12	S drive, pocket or bar slips on 7"-10" centers.	None.
24	13 to 18	Same as above.	None.
24	19 to 30	S drive	1"x1"x1/8" angles @ 60° top & bottom

Longitudinal joints shall be made with Pittsburg lock, or may be formed with Rol-Formit machine.

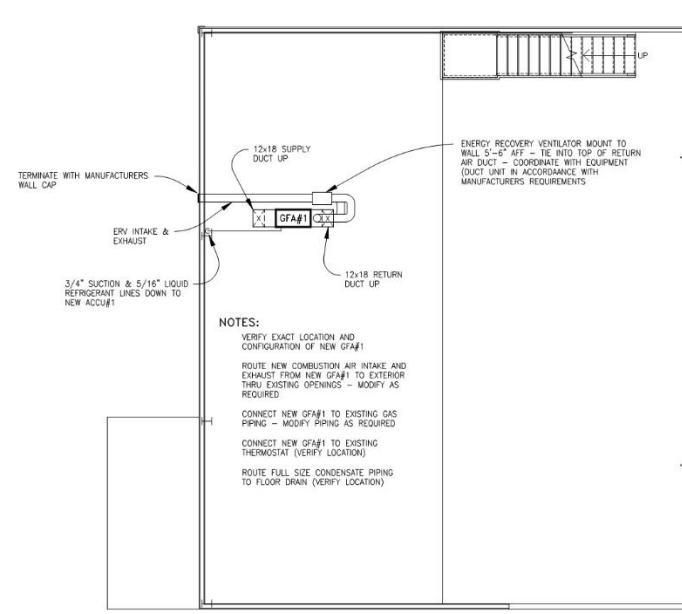
- All rectangular ductwork insulated or uninsulated shall be cross broken on all sides.
- All ducts shall be substantially supported to the ceiling construction or adjacent construction by means of 1" wide galvanized 16 gauge hangers placed not more than 8' on centers horizontally. Hangers shall be riveted or bolted to ducts and fastened to construction by means of expansion bolts or other approved means.
- Flex duct shall not be used.
- Contractor may use round duct, 24 gauge, for branch ducts to serve rooms. Use high efficiency take-offs and insulate on the exterior, overlapping over lined ductwork.
- Clothes dryer: Extend vent for dryer to the exterior as shown, terminate vent as recommended by manufacturer.

INSULATION

a. Duct insulation shall be CertainTeed Saint Gobain Monolithic Ultralite duct liner, Owens-Corning Mid-faced, Knazol, or Schuller Microfite duct insulation. All duct insulation shall meet NFPA Bulletin 90A or 90B and ASTM 1071 Type I, and shall have a minimum NRC value for 1" thickness of .45, and have a maximum thermal conductivity (k) at 75°F of 0.31, with flame spread under 25 and smoke developed under 50. Minimum density shall be 2 pound. The glass fiber liner shall have a coated or composite, abrasion resistant, air stream surface. All portions of duct designated to receive duct liner shall be completely covered with duct liner. Transverse joints shall be neatly butted and there shall be no interruptions or gaps. Duct liner shall be cut to assure overlapped and compressed longitudinal corner joints.

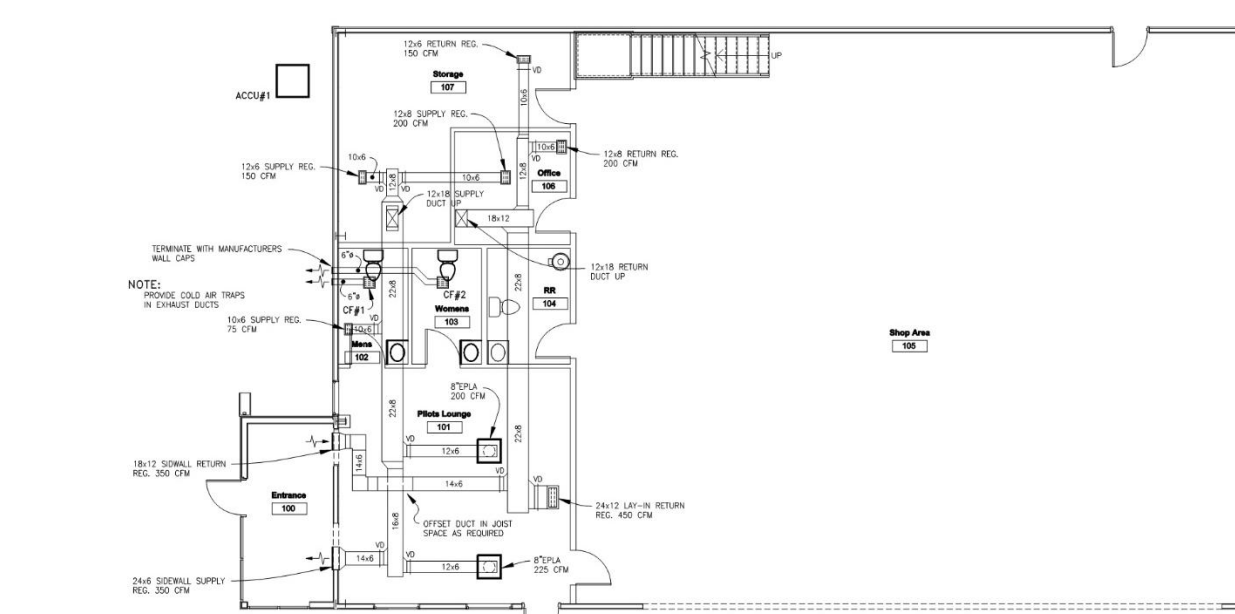
b. Duct insulation to be installed on the inside of the ducts and shall be attached with Minnesota Mining Adhesive #33, meeting ASTM C916, 100% coverage, applied with spray gun. It shall rate "Zero" on flame spread when tested against NFPA Standard 90A. Approved equal adhesive shall be Tuff Bond or Swift Company. "Butter" all raw exposed edges. In addition, all duct insulation on ducts 18" and wider shall be mechanically attached with stick clips, pin welders or sheet metal screws with large washers 1/2" on center both ways. Fasteners shall not compress the liner greater than 10% of the liner thickness. Duct liner product shall be kept clean and dry from time of manufacture through jobsite installation completion. Keep fabricated finished liner ductwork clean and dry through jobsite installation and system commissioning. Provide temporary waterproof enclosures to keep lined ductwork dry during construction.

c. All rectangular ductwork shall be lined with 1/2" duct insulation.



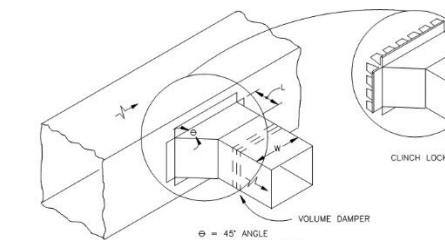
MEZZANINE PLAN - MECHANICAL

SCALE 1/8" = 1'-0"



FIRST FLOOR PLAN - MECHANICAL

SCALE 1/8" = 1'-0"



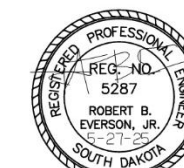
45 DEGREE BRANCH ENTRY DETAIL
 NOT TO SCALE

MECHANICAL PLUMBING NOTES

REPLACE EXISTING WATER CLOSETS IN ROOMS 102, 103 WITH Water Closet - 270FA101 tank type, elongated Cadet 3, 1.28 gallon flush, vitreous china close coupled tank, power wash rim action bowl, EverClean surface, lip to floor 16 1/2". w/2 bolt caps w/trip lever w/R-3504 chromard 3/8" supply to wall, flexible tube riser w/Church 9400SSC white Moltex open front seat for elongated bowl, no cover, stainless steel hinge post, or equal by Beneke, Bemis, Gisonite, or Spertel. w/tank cover locking device. RECONNECT ALL EXISTING WATER, WASTE & VENT PIPING TO NEW FIXTURE.

REPLACE EXISTING WALL HUNG LAVATORY'S IN ROOMS 102, 103 WITH

Wall Hung Lavatory (HC) - Lucern 20"x18", #0355.012, 4" spread faucet holes, vitreous china, front overflow, integral back w/ American Standard 2385.004 centered Reliant lavatory supply and drain fitting with single lever handle, spray spout, aerator with integral perforated grid strainer, with 4-1/2" offset w/water supply connection with flexible high pressure hose and strainer w/appropriate mounting hardware included w/1-1/4", 17 gauge cast brass, chrome plated P-trap Provide special steel backup plates, as required, to support lavatory. Backup plates shall be bolted to walls. Mount lavatories with clearance of 29" from floor to bottom of apron. w/7723.018 4-1/2" offset tailpiece, "CAUTION" - Offset waste rough-in to keep trap back next to wall. RECONNECT ALL EXISTING WATER, WASTE & VENT PIPING TO NEW FIXTURE.



ROBY, QUINTAL & EVERSON
 CONSULTING ENGINEERS
 MITCHELL, SOUTH DAKOTA 605-996-7543



REVISION DATE	Plans for City of Sturgis Sturgis Airport Sturgis, South Dakota	Mechanical Floor Plans	DESIGNED BY RBC	DATE 5/27/25	PROJECT NO. 2024-0029
DRAWN BY JO	TRACED BY ...	CHECKED BY RBC	DATE	PROJECT NO.	