

# CSC BOWDEN CORCAN A28 AHU REPLACEMENT

BOWDEN INSTITUTE  
HIGHWAY 2 ,  
BOWDEN, AB

## DRAWING LIST


### DRAWING NUMBER

M1  
M2  
M3  
M4  
E1  
E2  
E3  
S1  
S2


### DRAWING NAME

COVER PAGE  
HVAC DEMOLITION  
MAIN FLOOR HVAC PLAN  
MECHANICAL SCHEDULES AND UNIT DETAILS  
ELECTRICAL POWER PLAN DEMOLITION  
ELECTRICAL POWER PLAN RENOVATION  
ELECTRICAL SCHEDULES  
STRUCTURAL FLOOR PLAN  
CONCRETE PAD DETAILS


VENTILATION LEGEND




SUPPLY AIR DUCT




RETURN AIR DUCT




OUTSIDE AIR OR COMBUSTION AIR DUCT




CANVASS OR FLEXIBLE CONNECTION




ACOUSTIC DUCT LINING - INTERNAL




VOLUME BALANCING DAMPER




MOTORIZED DAMPER




TURNING VANES




HUMIDITY SENSOR



DIFFUSER AND GRILLE TAG (SEE SCHEDULE)




EQUIPMENT TAG (SEE SCHEDULE)




G NATURAL GAS LINE


VALVE AND FITTING LEGEND




ISOLATION VALVE




SOLENOID VALVE




PRESSURE RELIEF VALVE




PRESSURE REGULATING VALVE




PIPE SLEEVE




PIPE DOWN




PIPE UP




PIPE RISER



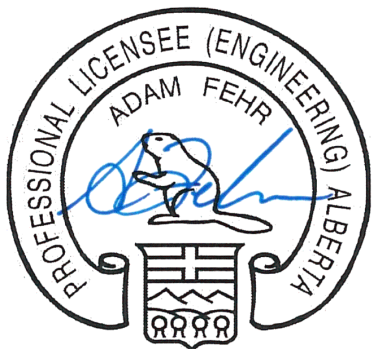
PIPE DROP



PIPE TEE DOWN

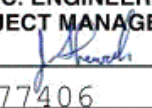


PIPE TEE UP



2021-03-11

PERMIT TO PRACTICE  
SNC-LAVALIN INC. ENGINEERING, DESIGN  
AND PROJECT MANAGEMENT

RM SIGNATURE: 

RM APEGA ID #: 77906

DATE: 2021-03-11

PERMIT NUMBER: P009643

The Association of Professional Engineers and  
Geoscientists of Alberta (APEGA)

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0	ISSUED FOR TENDER	2021/03/10
Revision	Description	Date

Client

client

PUBLIC SERVICES AND  
PROCUREMENT CANADA

Project

Bowden Institution  
Bowden, Alberta

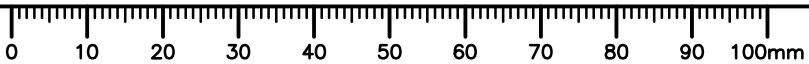
CSC BOWDEN  
CORCAN A28  
AHU REPLACEMENT

Project

Designed by	Conçu par
AF	
Drawn by	Dessiné par
AF	
Approved by	Approuvé par
AF	
PWGSC Project Manager	Administrateur de Projets TPWSC
YB	
Drawing title	Titre du dessin

COVER PAGE

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
672201	M1 OF 4	0







Client

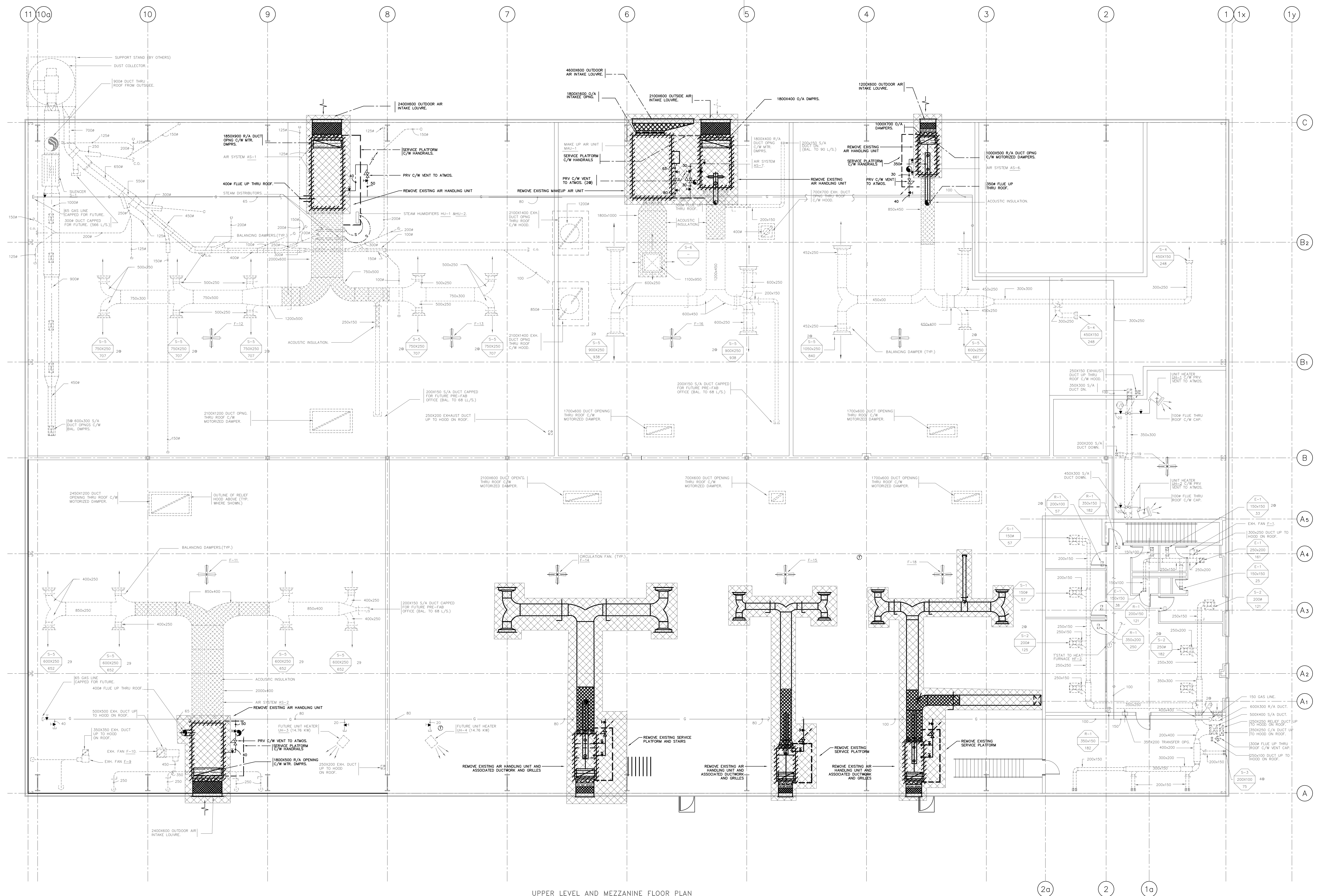
client

Public Services and Procurement Canada

**CSC BOWDEN  
CORCAN A28  
AHU REPLACEMENT**

HVAC  
DEMO

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
664341	M2	0
	OF 4	



UPPER LEVEL AND MEZZANINE FLOOR PLAN

SCALE 1:100



Public Services and  
Procurement Canada

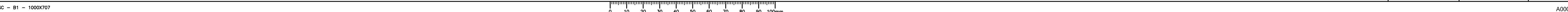
Project	Bowden Institution Bowden, Alberta	Project
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**CSC BOWDEN  
CORCAN A28  
AHU REPLACEMENT**

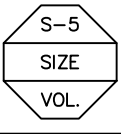
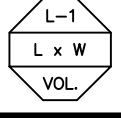
Designed by AF	Conçu par
Drawn by AF	Dessiné par
Approved by AF	Approuvé par
PM/SCC Project Manager YB	Administrateur de Projets TPS/CC
Drawing title	Titre du dessin

## MAIN FLOOR HVAC PLAN

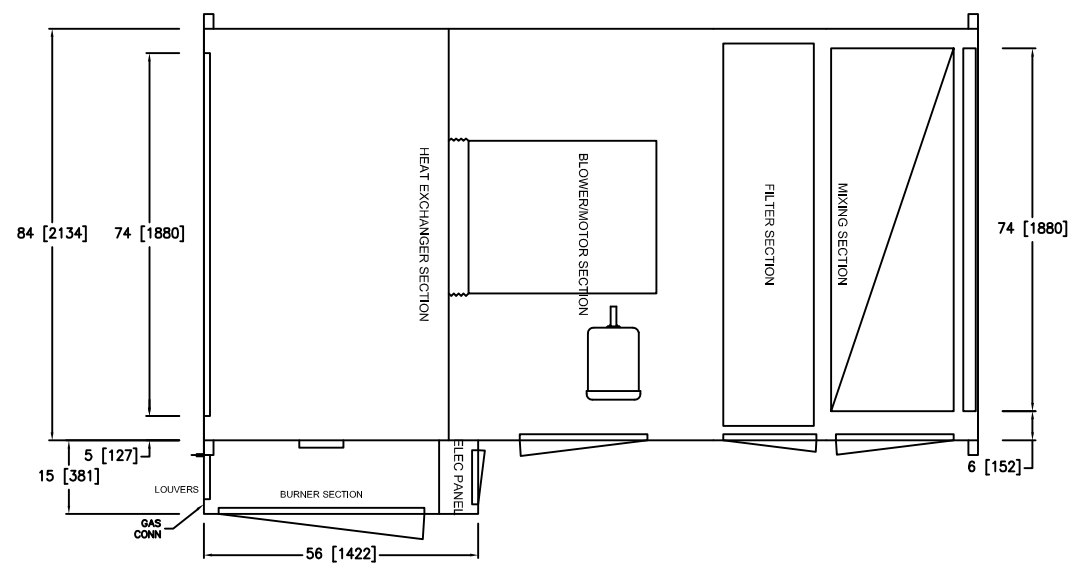
Project no./No. du projet	Drawing no./No. du dessin	Revision no.
664341	M3 OF 4	0



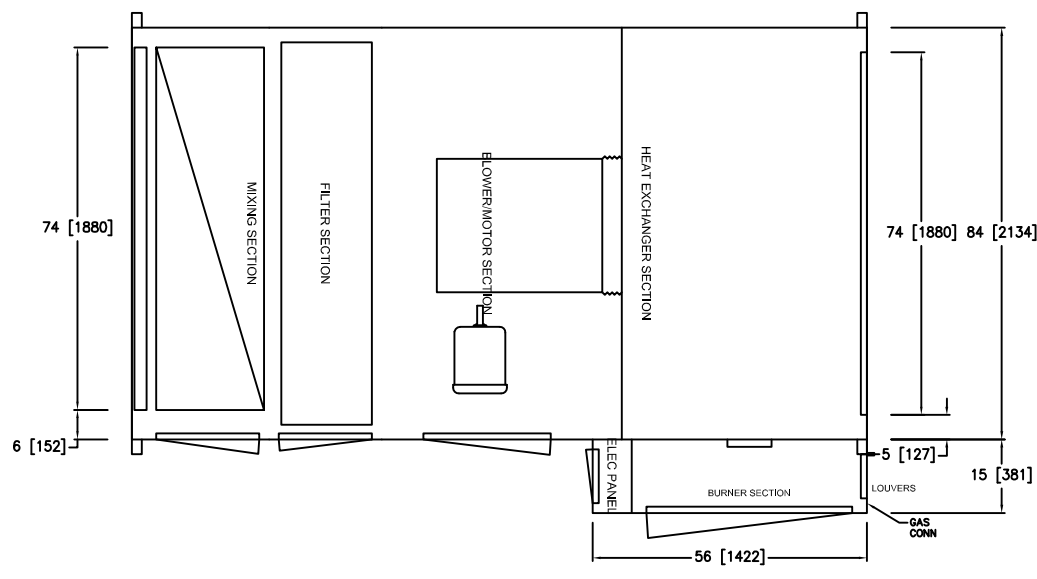


GRILLES AND DIFFUSERS SCHEDULE			
TAG	SLOTS AND BOOT LENGTH	DESCRIPTION	REMARKS
 S-S SIZE VOL	PRICE HCD DRUM LOUVRE	HIGH CAPACITY DRUM LOUVRE WITH EXTRUDED ALUMINUM BLADES MOUNTED INSIDE A ROTATABLE DRUM. FINISH TO BE POWDER COAT TO MATCH EXISTING.	
 L-W L x W VOL	PRICE ZE439 FIXED BLADE LOUVRE	4 INCH DEEP, 39" FIXED BLADE NON-DRAINABLE LOUVRE. ALL WELDED ALUMINUM CONSTRUCTION, 55.2% FREE AREA, Z-BLADE PROFILE. FINISH TO BE BAKED WHITE ENAMEL.	

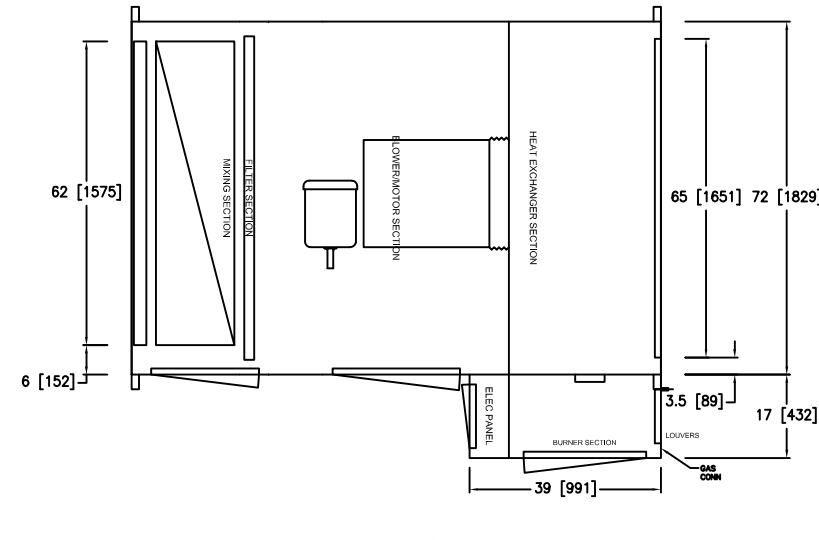
AIR HANDLING UNIT SCHEDULE												
TAG	DESCRIPTION	AIRFLOW (L/s)	ESP Pa	RPM	ELECTRICAL			FIRE ALARM SHUTDOWN	TEMP RISE °C	GAS INPUT kW	GAS OUTPUT kW	REMARKS
					kW	VOLTS	PHASE					
AHU-1	AIR HANDLING UNIT – WOOD SHOP	7,146	124	1750	7.5	600	3ø	X	36.7	380	308	INDOOR SUPPLY AIR HANDLING UNIT SUSPENDED FROM STRUCTURE C/W REAR INLET, BOTTOM RETURN, MOTORIZED INLET DAMPERS, AND FINAL FILTERS. ACCESS FROM LHS (WHEN SITTING ON THE UNIT FACING THE SAME DIRECTION AS THE AIRFLOW). UNIT SHALL BE ALL ALUMINUM CONSTRUCTION. MAX UNIT WEIGHT: 1250 kg.
AHU-2	AIR HANDLING UNIT – METAL SHOP	5,282	186	1750	5.6	600	3ø	X	50	380	308	INDOOR SUPPLY AIR HANDLING UNIT SUSPENDED FROM STRUCTURE C/W REAR INLET, BOTTOM RETURN, MOTORIZED INLET DAMPERS, AND FINAL FILTERS. ACCESS FROM RHS (WHEN SITTING ON THE UNIT FACING THE SAME DIRECTION AS THE AIRFLOW). UNIT SHALL BE ALL ALUMINUM CONSTRUCTION. MAX UNIT WEIGHT: 1205 kg.
AHU-6	AIR HANDLING UNIT – CENTRAL STORES	3,139	186	1750	5.6	600	3ø	X	36	161	130	INDOOR SUPPLY AIR HANDLING UNIT SUSPENDED FROM STRUCTURE C/W REAR INLET, BOTTOM RETURN, MOTORIZED INLET DAMPERS, AND FINAL FILTERS. ACCESS FROM RHS (WHEN SITTING ON THE UNIT FACING THE SAME DIRECTION AS THE AIRFLOW). UNIT SHALL BE ALL ALUMINUM CONSTRUCTION. MAX UNIT WEIGHT: 710 kg.
AHU-7	AIR HANDLING UNIT – PAINT SHOP	3,908	124	1750	5.6	600	3ø	X	24	132	107	INDOOR SUPPLY AIR HANDLING UNIT SUSPENDED FROM STRUCTURE C/W REAR INLET, BOTTOM RETURN, MOTORIZED INLET DAMPERS, AND FINAL FILTERS. ACCESS FROM RHS (WHEN SITTING ON THE UNIT FACING THE SAME DIRECTION AS THE AIRFLOW). UNIT SHALL BE ALL ALUMINUM CONSTRUCTION. MAX UNIT WEIGHT: 710 kg.
AHU-8	AIR HANDLING UNIT – COMBINED UNIT	8,020	186	1750	11.2	600	3ø	X	37	410	332	OUTDOOR SUPPLY AIR HANDLING UNIT MOUNTED ON NEW CONCRETE PAD C/W REAR INLET, TOP RETURN, MOTORIZED INLET DAMPERS, AND FINAL FILTERS. ACCESS FROM RHS (WHEN SITTING ON THE UNIT FACING THE SAME DIRECTION AS THE AIRFLOW).
MAU-1	MAKE-UP AIR UNIT – PAINT SHOP	14,160	124	1750	11.2	600	3ø	X	66.6	1159	940	INDOOR MAKE-UP AIR UNIT SUSPENDED FROM STRUCTURE C/W REAR INLET, MOTORIZED INLET DAMPERS, AND FINAL FILTERS. ACCESS FROM LHS (WHEN SITTING ON THE UNIT FACING THE SAME DIRECTION AS THE AIRFLOW). UNIT SHALL BE ALL ALUMINUM CONSTRUCTION. MAX UNIT WEIGHT: 1370 kg.



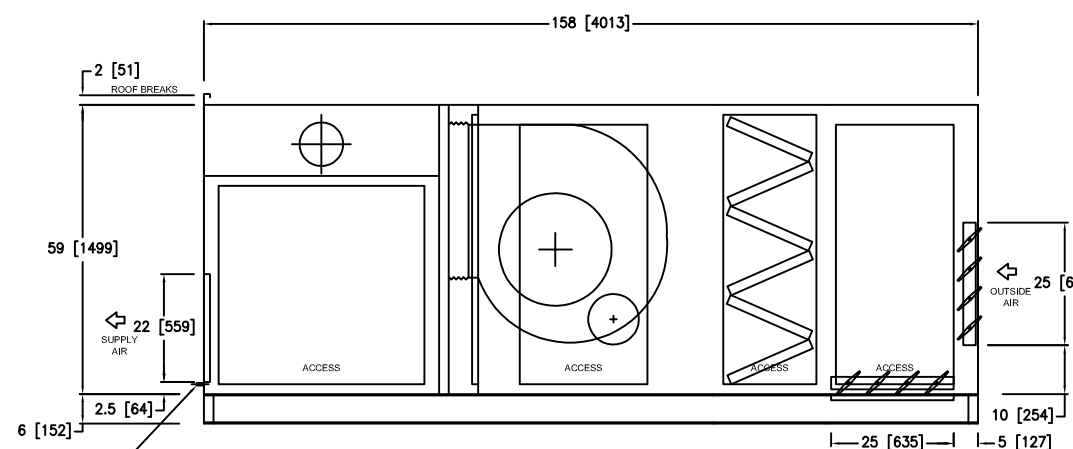
1 AS-1  
SCALE \_\_\_\_\_ NTS



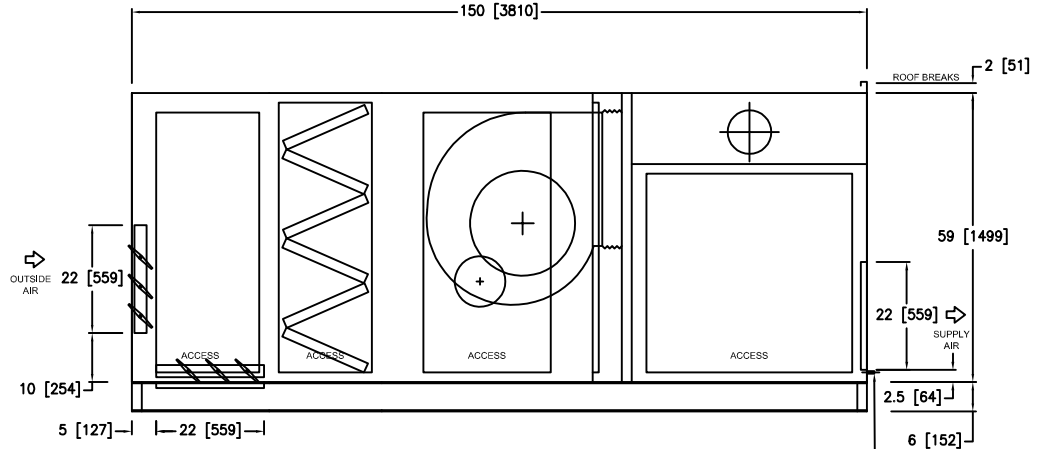
2 AS-2  
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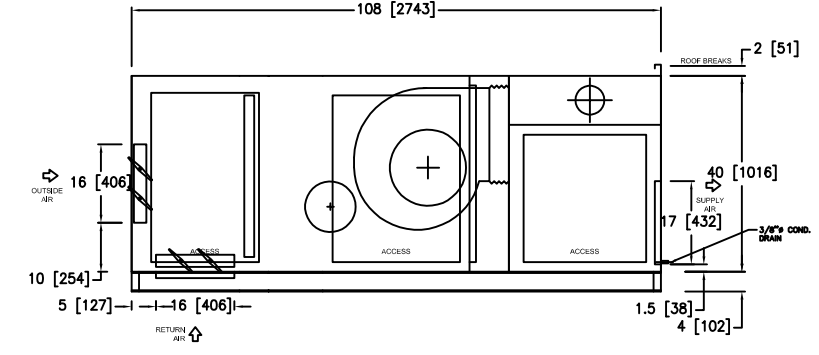
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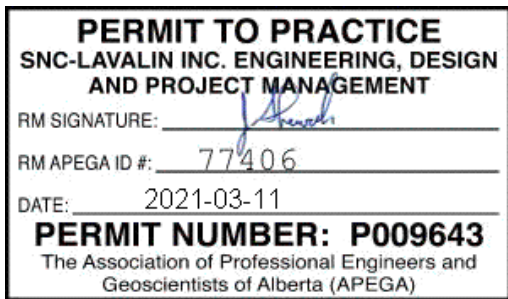
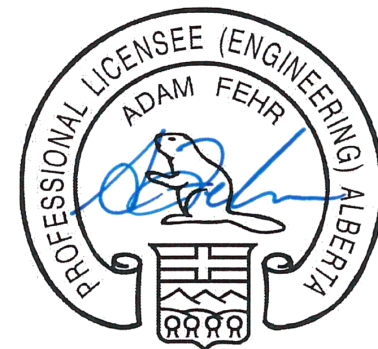
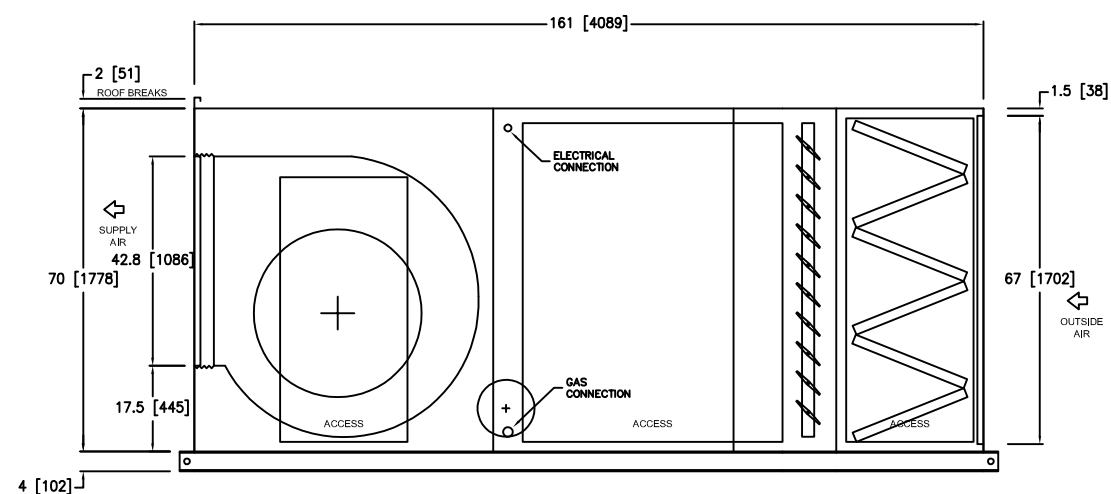
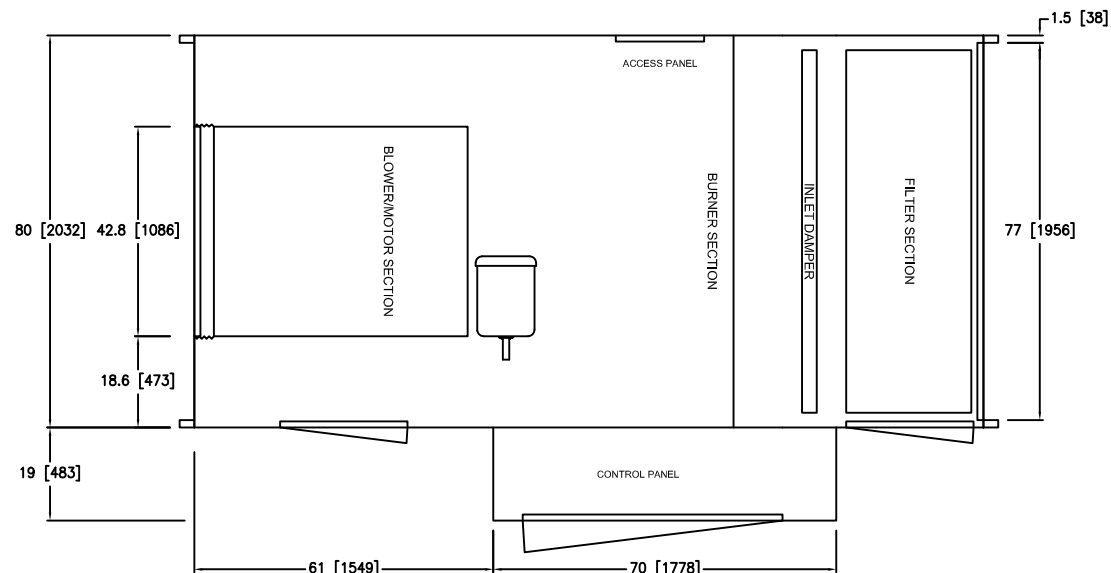
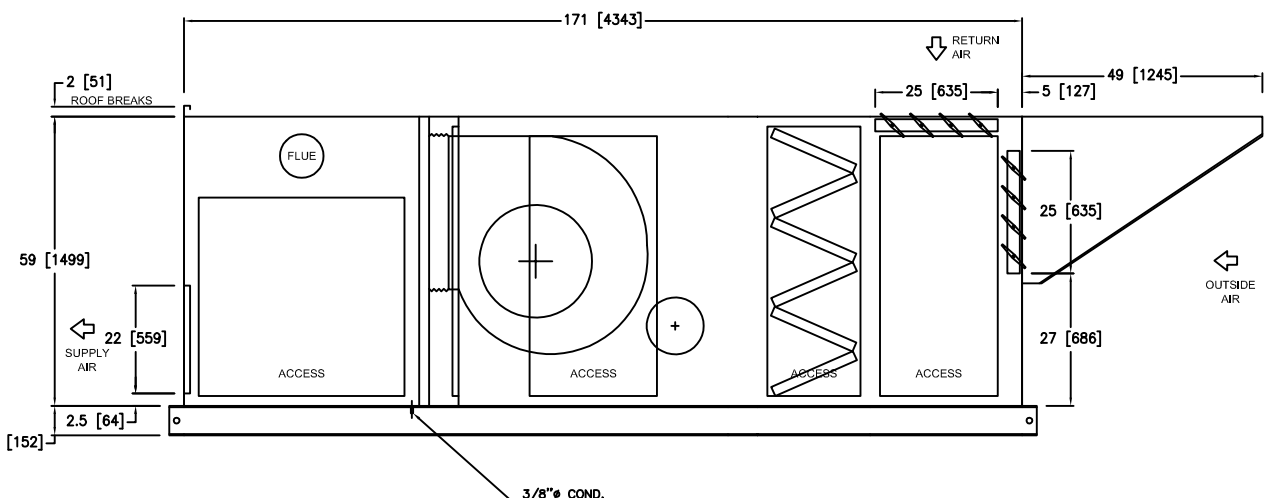
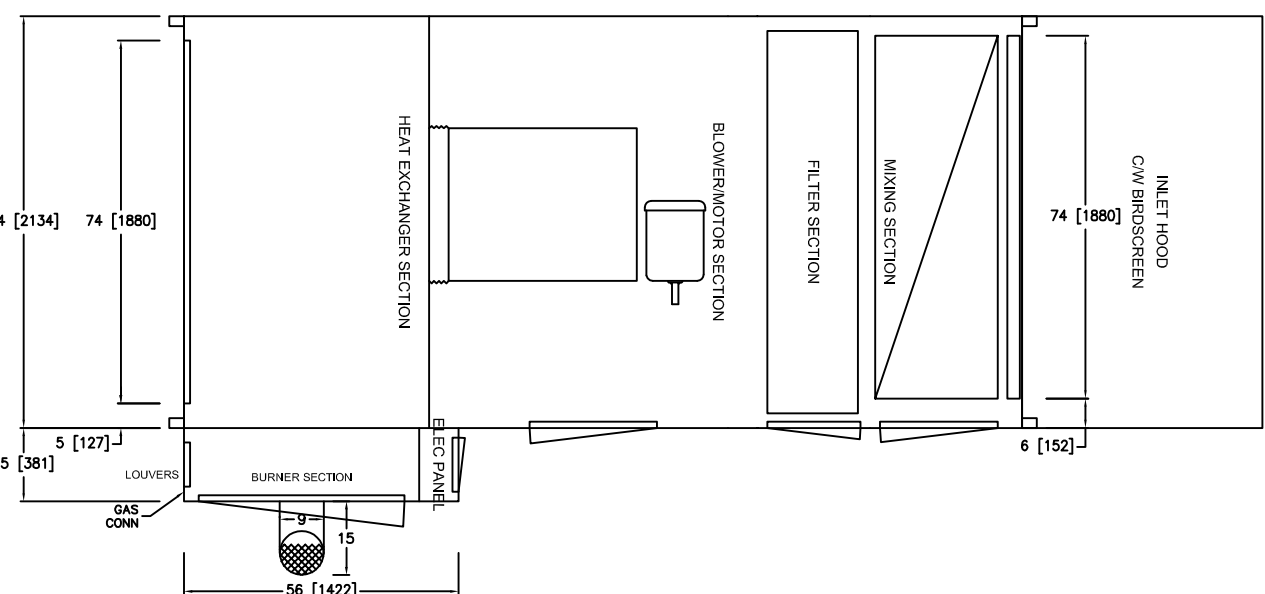
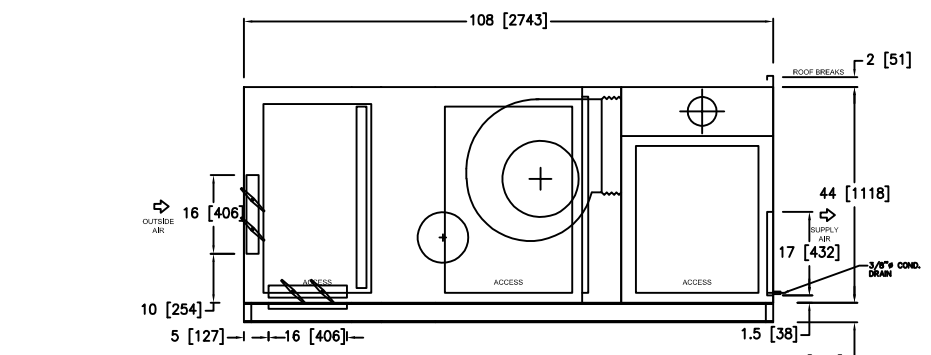
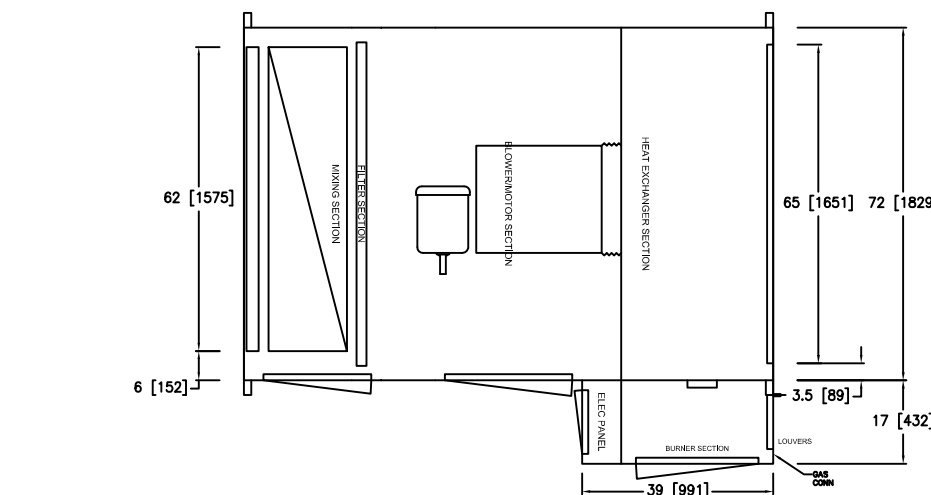
4 AS-7  
SCALE \_\_\_\_\_ NTS



5 AS-8  
SCALE \_\_\_\_\_ NTS



6 MAU-1  
SCALE \_\_\_\_\_ NTS



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Revision	Description	Date
Client		client

Public Services and  
Procurement Canada

Project **Bowden Institution**  
Bowden, Alberta

**CSC BOWDEN  
CORCAN A28  
AHU REPLACEMENT**

Designed by AF	Conçu par
Drawn by AF	Dessiné par
Approved by AF	Approuvé par
PWGSC Project Manager YB	Administrateur de Projets TPSGC
Drawing title	Titre du dessin

**Mechanical Schedules  
and Unit Details**

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
672201	<b>M4</b> OF 4	<b>0</b>