

HVAC SYMBOLS

RECTANGULAR DUCT

EXTERIOR DUCT INSULATION

RECTANGULAR DUCT
(WITH ACOUSTIC INSULATION)

ROUND DUCT

PARALLEL BLADE DAMPER

OPPOSED BLADE DAMPER

DOUBLE LINE DUCT INCLINE

SQUARE ELBOW TURN
(SUPPLY UP/DOWN)

SQUARE ELBOW TURN
(RETURN UP/DOWN)

SQUARE ELBOW TURN
(EXHAUST UP/DOWN)

SQUARE ELBOW TURN
(INTAKE UP/DOWN)

ELBOW, ROUND, SMOOTH RADIUS
(UP/DOWN)

TEE, 45 DEG., RECTANGULAR
MAIN AND BRANCH

TEE, 45 DEG., RECTANGULAR MAIN AND BRANCH,
SQUARE TO ROUND

TEE, 45 DEG., ROUND MAIN AND BRANCH

CONICAL WYE, 45 DEG.,
ROUND MAIN AND BRANCH

ELBOW, RECTANGULAR, SMOOTH RADIUS WITH
SPLITTER VANES (0.25 R/W DEFAULT)

ELBOW, RECTANGULAR, SMOOTH RADIUS WITHOUT
VANES (1.5 R/W DEFAULT)

ELBOW, ROUND, SMOOTH RADIUS
(1.5 R/W DEFAULT)

ELBOW, RECTANGULAR,
MITERED WITH TURNING VANES

ELBOWS, 90 DEG., RECTANGULAR TEE

ELBOW, 90 DEG., RECTANGULAR WYE

45 DEG. WYE, CONICAL
MAIN AND BRANCH, ROUND

TRANSITION, RECTANGULAR, PYRAMIDAL (30°
CONTRACTUAL ANGLE DEFAULT)

TRANSITION, RECTANGULAR, SIDE (30°
CONTRACTUAL ANGLE DEFAULT)

FIRE SMOKE DAMPER

FIRE DAMPER

SMOKE DAMPER

DUCT MOUNTED SMOKE SENSOR

SINGLE-LINE DUCT INCLINE

SINGLE-LINE DUCT BRANCH

SINGLE-LINE DUCT TAKEOFF

DUCT CAP

DUCT BREAK

SINGLE-LINE SUPPLY OR RETURN DUCT

SINGLE-LINE EXHAUST DUCT

THERMOSTAT

HUMIDISTAT

FLEX DUCT (DOUBLE LINE)

FLEX DUCT (SINGLE LINE)

WALL MOUNTED GRILLE/REGISTER

LINEAR DIFFUSER

SINGLE SLOT TROFFER

DOUBLE SLOT TROFFER

CEILING DIFFUSER 600x600/300x300

AIR FLOW ARROWS

SINGLE LINE CRITICAL ENVIRONMENT TERMINAL AIR UNIT

200mm CRITICAL ENVIRONMENT TERMINAL AIR UNIT

250mm CRITICAL ENVIRONMENT TERMINAL AIR UNIT

300mm CRITICAL ENVIRONMENT TERMINAL AIR UNIT

2-250mm CRITICAL ENVIRONMENT TERMINAL AIR UNIT

2-300mm CRITICAL ENVIRONMENT TERMINAL AIR UNIT

3-300mm CRITICAL ENVIRONMENT TERMINAL AIR UNIT

4-300mm CRITICAL ENVIRONMENT TERMINAL AIR UNIT

QUANTITY

TYPE

SIZE (mm)

VOLUME (L/s)

AIR OUTLET TAG
(REFER TO SCHEDULE)

QUANTITY

TYPE

LENGTH (mm)

CAPACITY (kW)

DOOR GRILLE TAG
(REFER TO SCHEDULE)

QUANTITY

TYPE

LENGTH (mm)

CAPACITY (kW)

RADIATION
HEATING TAG
(REFER TO SCHEDULE)

DOMEXHAUST FAN
(ROOF OR WALL MOUNTED)

CEILING FAN

HEATING/COOLING COIL TAG
(REFER TO SCHEDULE)
HC - HEATING COIL
CC - COOLING COIL
RHC - REHEAT COIL
PHC - PREHEAT COIL
HRC - HEAT RECLAIM

HORIZONTAL HOT WATER UNIT
HEATER TAG (REFER TO SCHEDULE)

PROJECTION HOT WATER UNIT
HEATER TAG (REFER TO SCHEDULE)

NEW FINNED TUBE RADIATION

EXISTING FINNED TUBE RADIATION

RADIANT PANEL

A
M1 PARTIAL SITE PLAN
1:400

EXISTING GOOSE NECK O/A INTAKE

NEW CONDENSING UNIT
INSTALLED ON ROOF

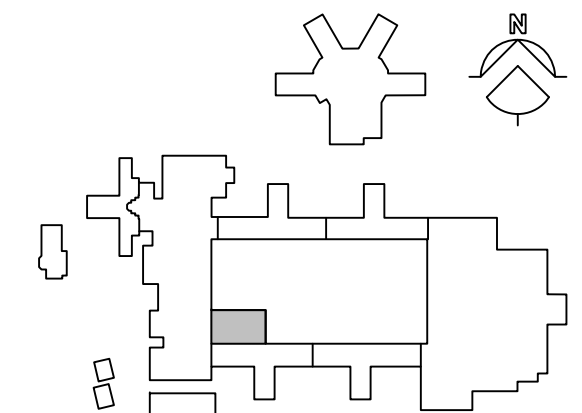
CU-1 CU-2

DRAWING LIST

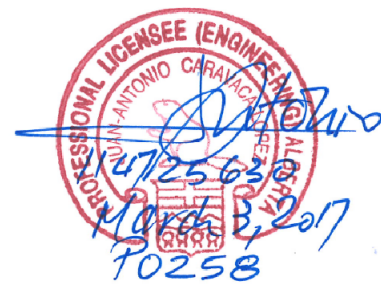
M1	DRAWING LIST, LEGEND AND SITE PLAN
M2	HVAC DEMOLITION PLAN - COOLING
M3	HVAC CONSTRUCTION PLAN - COOLING
M4	HEATING PLAN - CONTROLS
M5	SCHEMATICS & SCHEDULES



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KEY PLAN



Stantec project number
114725630

4	ISSUED FOR TENDER	03/03/2017
3	ISSUED FOR PRE-TENDER	06/13/2016
2	99% QA/QC REVIEW	03/18/2016
1	50% REVIEW	02/03/2016
0	PROGRESS REVIEW	01/15/2016
revision		date

A C	A detail no. no. du detail B location drawing no. sur dessin no. C drawing no. dessin no.	A B C
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project projet
EDMONTON, ALBERTA
MAXIMUM SECURITY
INSTITUTION
PROGRAMS BUILDING
AIR CONDITIONING

drawing dessin
DRAWING LIST, LEGEND
AND SITE PLAN

designed by conçu par
RB

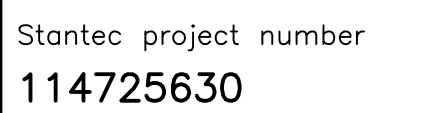
drawn by dessiné par
BN



approved by approuvé par
TCL

PWGC project manager
JAMES PATTISON

project number num. du projet
R011214.001

drawing number num. du dessin
M1 OF 5



A detail no.
no. du detail
 B location drawing no.
sur dessin no.
 C drawing no.
dessin no.

MAXIMUM SECURITY
INSTITUTION
PROGRAMS BUILDING
AIR CONDITIONING

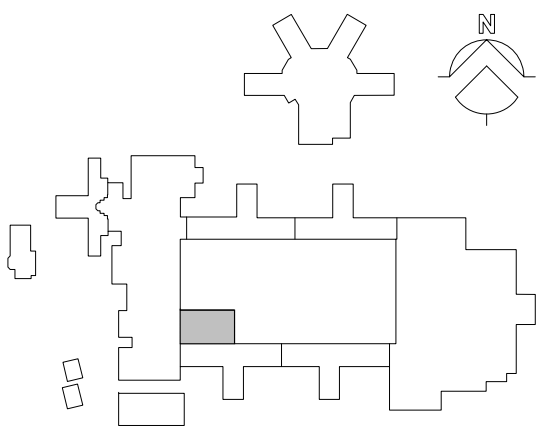
HYAC DEMOLITION PLAN -
COOLING

M2 OF 5

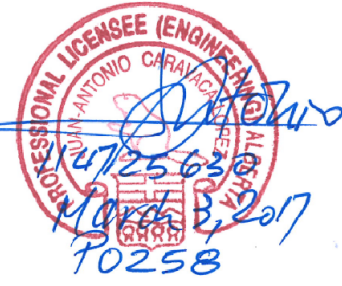




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	C drawing no. dessin no.	C

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PROGRAMS BUILDING
AIR CONDITIONING

drawing dessin
HVAC CONSTRUCTION PLAN -
COOLING

designed by conçu par

RB

drawn by dessiné par

BN

approved by approuvé par

TCL

PWOSC project manager

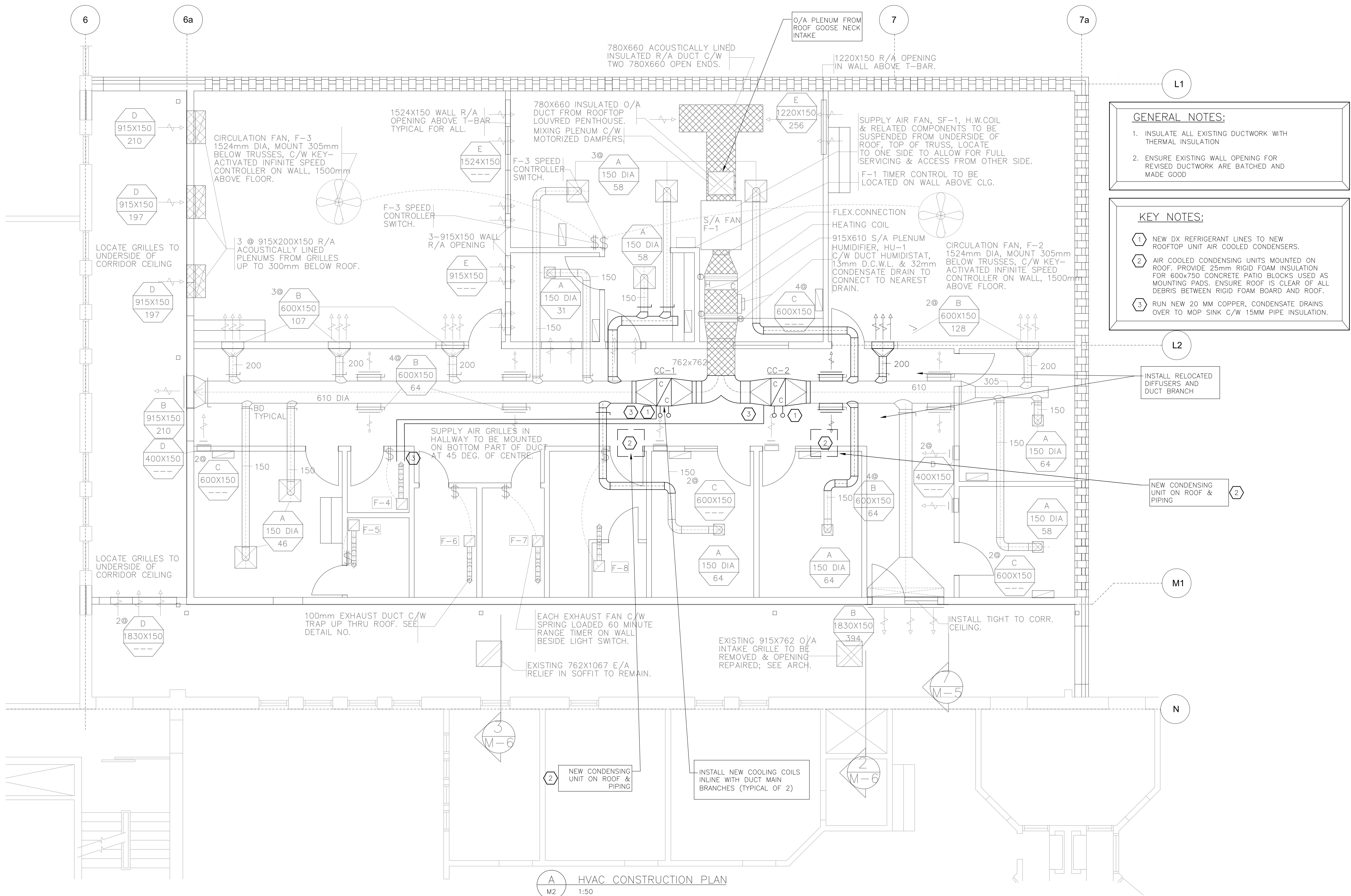
JAMES PATTISON

project number num. du projet

R01724.001

drawing number num. du dessin

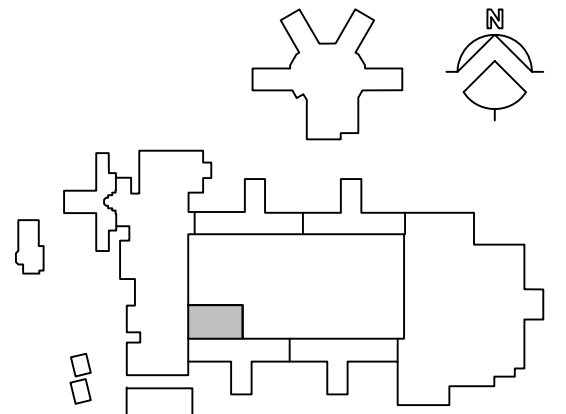
M3 OF 5



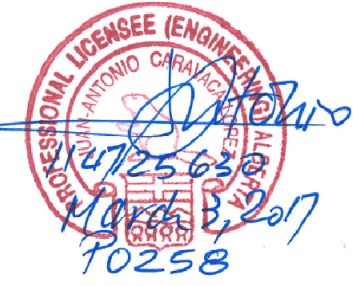
A HVAC CONSTRUCTION PLAN
M2 1:50



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	C drawing no. dessin no.	C

project
EDMONTON, ALBERTA
MAXIMUM SECURITY
INSTITUTION
PROGRAMS BUILDING
AIR CONDITIONING

drawing
HEATING PLAN -
CONTROLS

designed by
RB

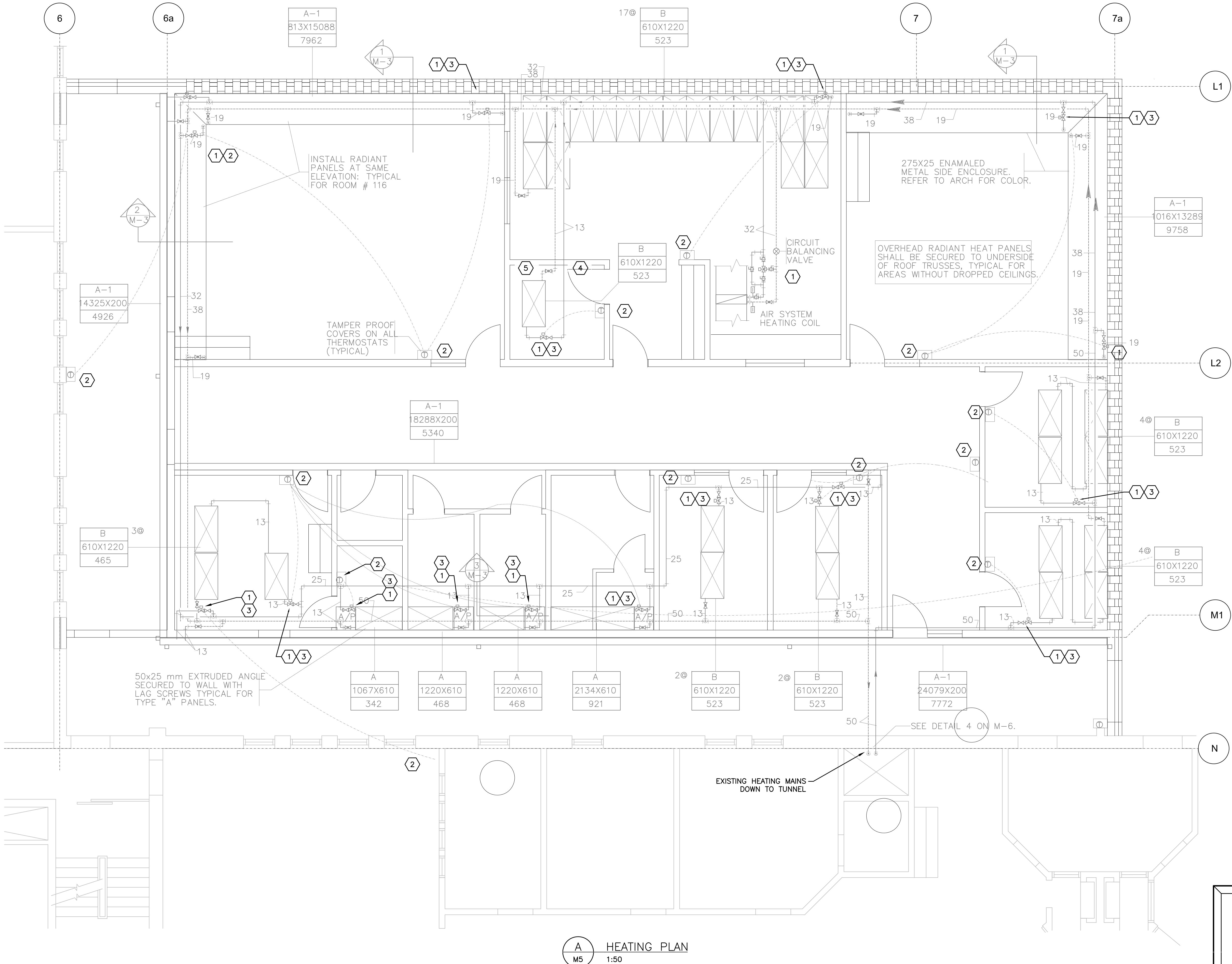
drawn by
BN

approved by
TCL

PWGSC project manager
JAMES PATTISON

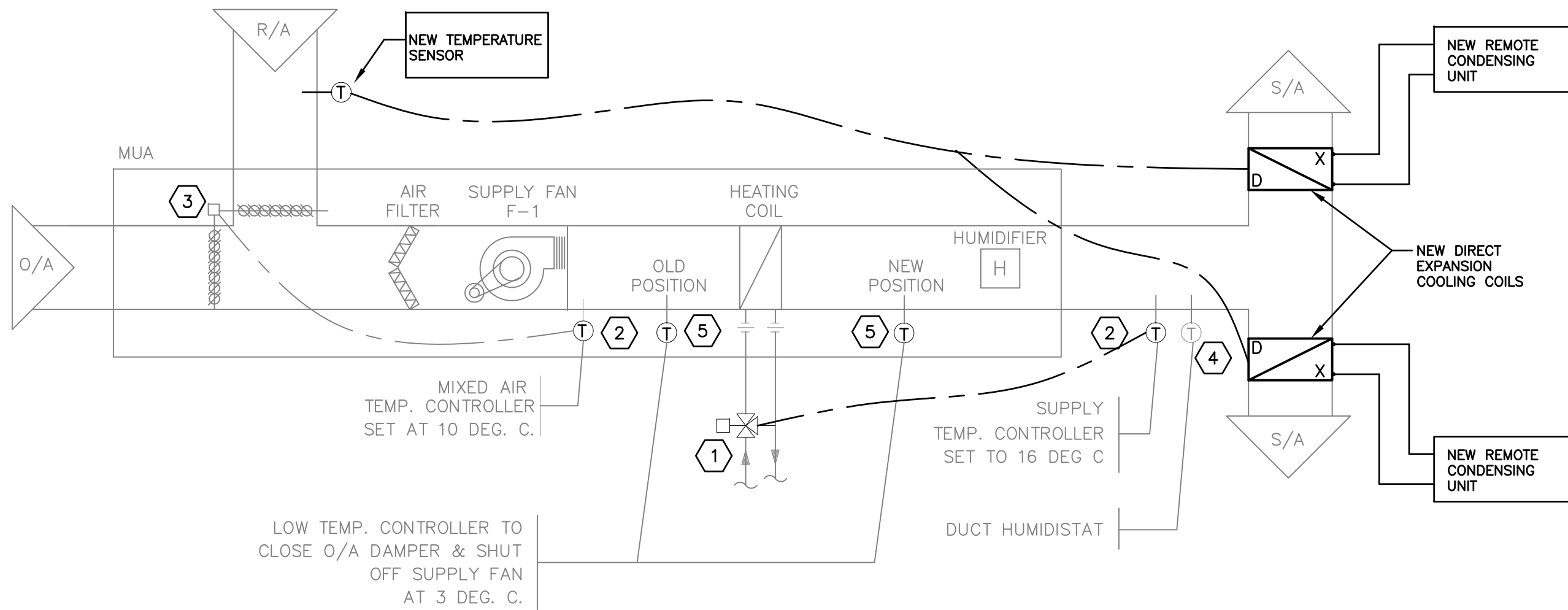
project number
R011214.001

drawing number
M4 OF 5



KEY NOTES:

- 1 REMOVE EXISTING PNEUMATIC CONTROL VALVE AND ASSOCIATED PNEUMATIC TUBING - REPLACE WITH NEW ELECTRONIC CONTROL VALVE AND WIRING
- 2 REMOVE EXISTING PNEUMATIC THERMOSTAT AND REPLACE WITH NEW ELECTRONIC THERMOSTAT
- 3 ENSURE ALL PIPE INSULATION DAMAGED DURING PIPING REVISIONS IS MADE GOOD TO ORIGINAL CONDITIONS.
- 4 EXISTING CONTROL PANEL.
- 5 LOCATION FOR NEW ISMS CONTROL PANEL



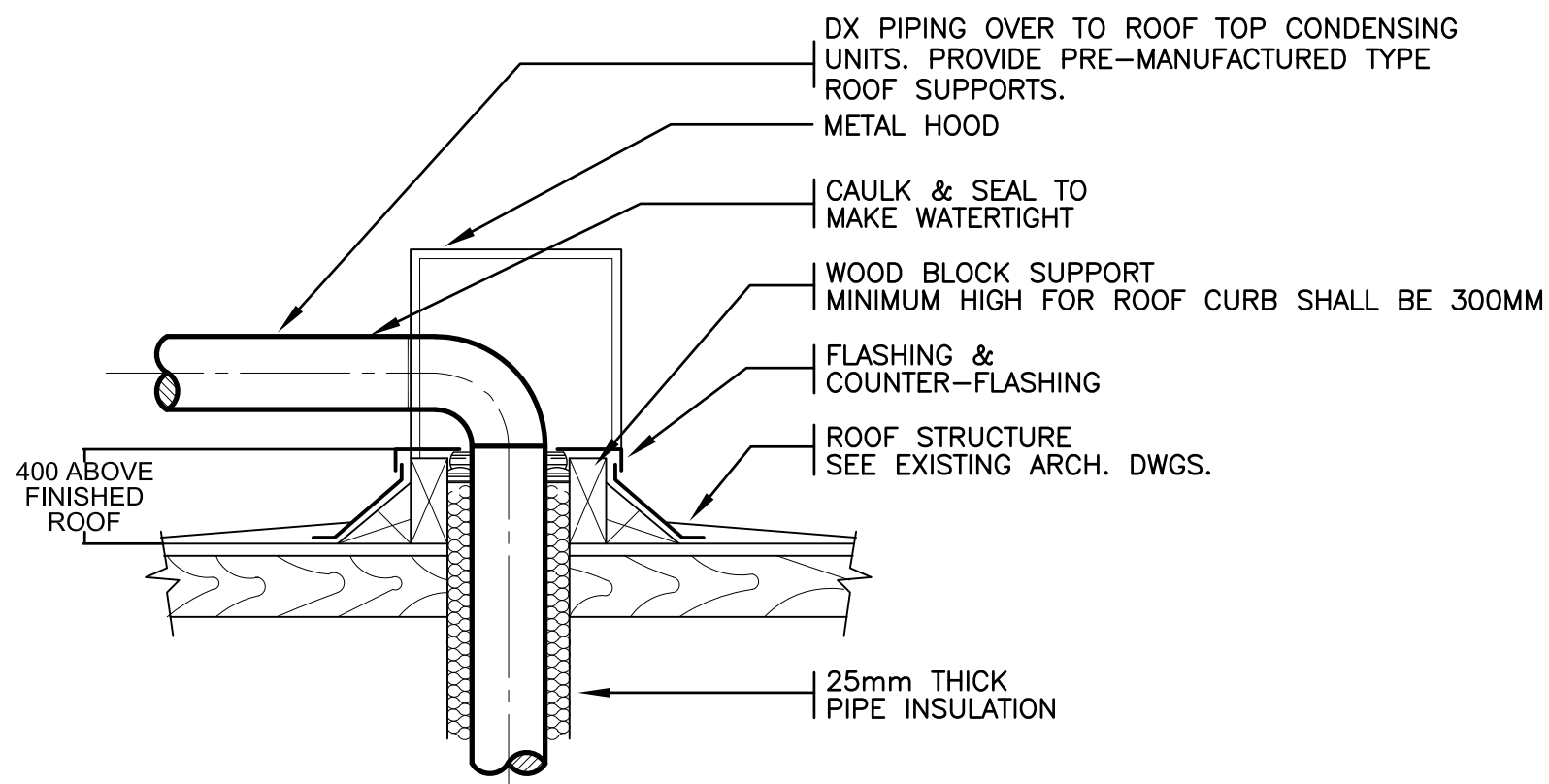
A
M6 HVAC SYSTEM CONTROLS
NTS

- KEYNOTES:**
- 1 REMOVE PNEUMATIC CONTROL VALVE AND ASSOCIATED PNEUMATIC TUBING – REPLACE WITH ELECTRONIC CONTROL VALVE AND WIRING
 - 2 REMOVE PNEUMATIC TEMPERATURE CONTROLLER AND REPLACE WITH ELECTRONIC TEMPERATURE CONTROLLER
 - 3 REPLACE PNEUMATIC DAMPER ACTUATOR WITH ELECTRONIC ACTUATOR
 - 4 REPLACE EXISTING HUMIDISTAT WITH NEW ELECTRONIC HUMIDISTAT
 - 5 RELOCATE AND REPLACE EXISTING FREEZESTAT WITH A NEW ONE

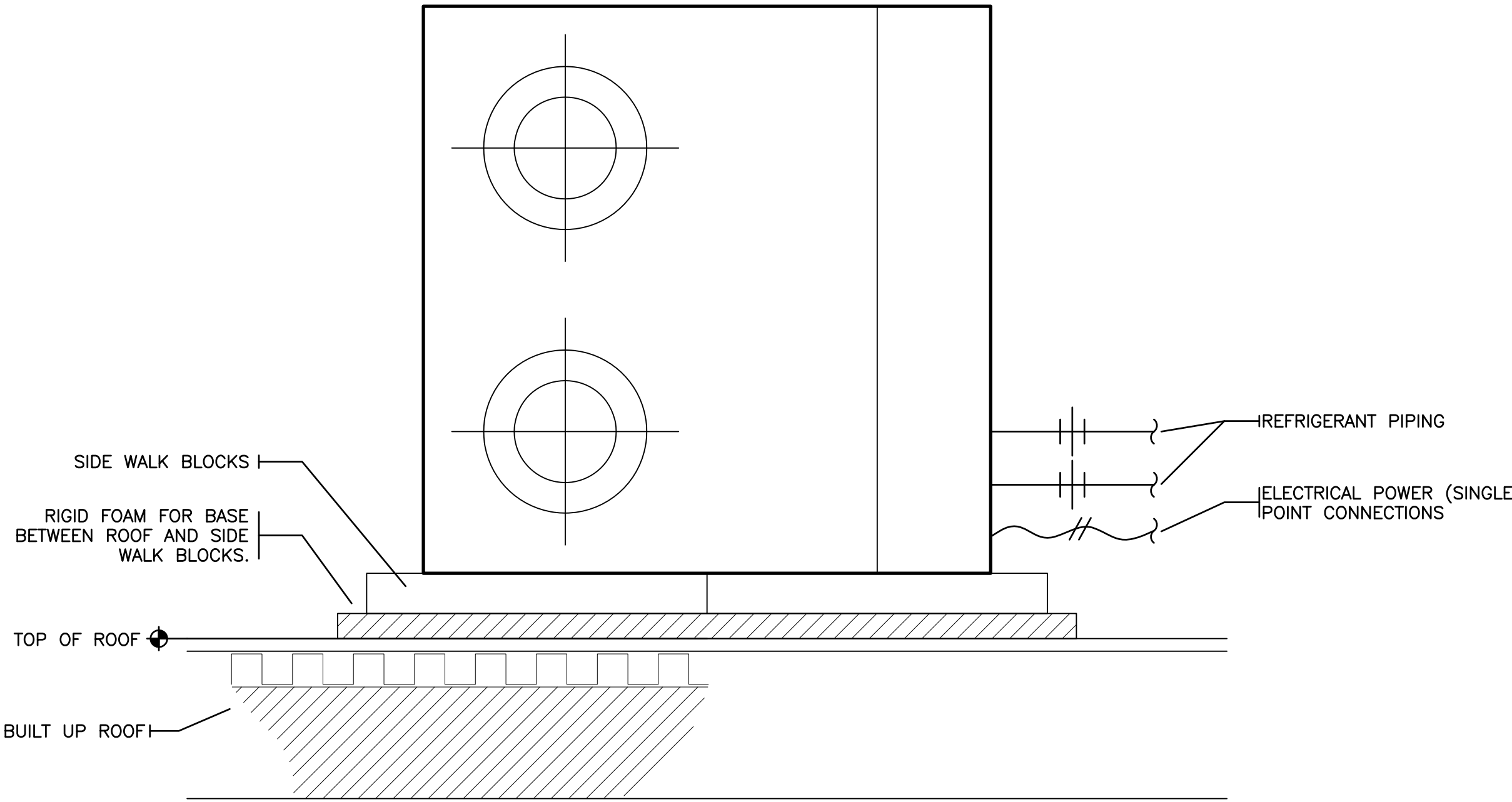
- GENERAL NOTES:**
- 1 EXISTING CONTROL SYSTEM FUNCTION SHALL BE MATCHED BY NEW ELECTRONIC SYSTEM.
 - 2 CONTROL SEQUENCES ARE IDENTIFIED IN SPEC SECTION 25 90 01.01
 - 3 ALL REQUIRED CONTROL POINTS ARE IDENTIFIED IN SPEC SECTION 25 90 01.02

CONDENSING UNIT SCHEDULE								
TAG	MANUFACTURER	MODEL	TYPE	CAPACITY (kW)	DIMENSIONS – W/D/H (mm)	VOLTAGE (V)	MINIMUM CIRCUIT AMPACITY (A)	COMMENTS
CU–1	TRANE	4TTA3060D3000	COOLING ONLY – DIRECT EXPANSION	17.6	870/946/946	208/230	21	
CU–2								

COOLING COIL SCHEDULE							
TAG	MANUFACTURER	MODEL	TYPE	TOTAL CAPACITY (kW)	SENSIBLE CAPACITY (kW)	DIMENSIONS – W/D/H (mm)	AR PRESSURE DROP (Pa)
CC–1	TRANE	DFDB24	DIRECT EXPANSION	19.9	14.6	610/241/648	130.5
CC–2							



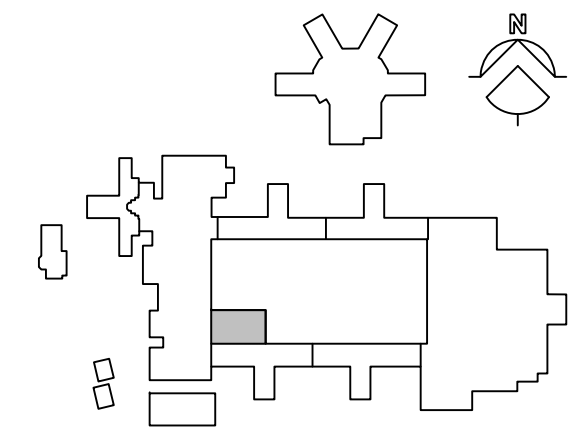
B
M6 TYPICAL PIPE THRU ROOF
c/w GUM BOX DETAIL
NTS



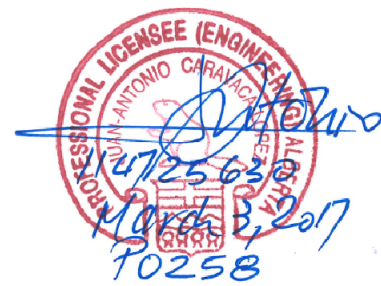
C
M6 DETAIL FOR AIR COOLED
CONDENSING UNIT AND ROOF SUPPORT
NTS



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M5 OF 5