

# MECHANICAL SERVICES

## 28 DRAGE ROAD, WODONGA VIC PROPOSED HUDSON BUILDING

### ABBREVIATIONS

AHU	AIR HANDLING UNIT
AP	ACCESS PANEL
ATT	ATTENUATOR
BMS	BUILDING MANAGEMENT SYSTEM
cw	COMPLETE WITH
CH	CHILLER
COWF	CONDENSER WATER FLOW
COWR	CONDENSER WATER RETURN
CHWF	CHILLED WATER FLOW
CHWR	CHILLED WATER RETURN
CT	COOLING TOWER
CP	CONTROL PANEL
CU	CONDENSING UNIT
E/A	EXHAUST AIR
EF	EXHAUST FAN
FCU	FAN COIL UNIT
FD	FIRE DAMPER
FW	FLOOR WASTE
HEX	HEAT EXCHANGER
HHWF	HEATING HOT WATER FLOW
HHWR	HEATING HOT WATER RETURN
K/E	KITCHEN EXHAUST
KEF	KITCHEN EXHAUST FAN
MSB	MECHANICAL SERVICES SWITCH BOARD
O/A	OUTSIDE AIR
OAF	OUTSIDE AIR FAN
RC	ROOF COWL
R/A	RETURN AIR
S/A	SUPPLY AIR
SAF	SUPPLY AIR FAN
SEF	SMOKE EXHAUST FAN
SP	SOAKAGE PIT
T/A	TRANSFER AIR
TD	TUNDISH
TEF	TOILET EXHAUST FAN
U/S	UNDERSIDE
VAV	VARIABLE AIR VOLUME BOX

### GENERAL NOTES

- ALL DUCT SIZES NOTED ARE INTERNAL AIRWAY SIZES; FIRST SIZE NOTED DENOTES SIDE OF DUCT VIEW.
- ACCESS PANELS TO BE SUITABLE SIZE FOR EQUIPMENT SERVICING & DAMPER ADJUSTMENT & SHALL BE CO-ORDINATED WITH ALL TRADES WITH FINAL LOCATIONS & QUANTITIES APPROVED BY THE ARCHITECT PRIOR TO INSTALLATION.
- CONFIRM ALL DIMENSIONS ON SITE PRIOR TO THE MANUFACTURE OF ANY DUCTWORK & INSTALLATION OF EQUIPMENT.
- INTERNAL SURFACES OF ALL REGISTER BOXES & RETURN AIR BOXES TO BE PAINTED WITH MATTE BLACK, UNLESS NOTED OTHERWISE.
- MECHANICAL SERVICES DRAWINGS TO BE READ IN CONJUNCTION & COORDINATED WITH ALL OTHER SERVICES DOCUMENTS, ARCHITECTURAL DRAWINGS & SPECIFICATION.
- ALL SERVICES ARE TO BE CONCEALED UNLESS NOTED OTHERWISE.
- THERMOSTATS / SENSORS / CONTRAL PANELS TO BE MOUNTED @ 1500 AFL UNLESS NOTED OTHERWISE. FINAL LOCATIONS TO BE APPROVED BY THE PRINCIPAL ON SITE.
- ANY DISCREPENCIES OR OMISSIONS BETWEEN THE DRAWINGS & SPECIFICATIONS SHALL BE ADDRESSED TO BSG FOR CLARIFICATION PRIOR TO CLOSE OF TENDER.

### DUCTWORK LEGEND

- SUPPLY AIR DUCTWORK
- RETURN AIR DUCTWORK
- OUTSIDE AIR DUCTWORK
- EXHAUST AIR DUCTWORK
- RIGID RAW RECTANGULAR DUCTWORK
- MINIMUM R1.0 INTERNALLY INSULATED RECTANGULAR DUCTWORK, FOIL FACED WITH PERFORATED FOIL.
- MINIMUM R1.5 INTERNALLY INSULATED RECTANGULAR DUCTWORK, FOIL FACED WITH PERFORATED FOIL.
- MINIMUM R2.0 INTERNALLY INSULATED RECTANGULAR DUCTWORK, FOIL FACED WITH PERFORATED FOIL.
- MINIMUM R3.0 INTERNALLY INSULATED RECTANGULAR DUCTWORK, FOIL FACED WITH PERFORATED FOIL.
- MINIMUM R1.0 EXTERNALLY INSULATED RECTANGULAR DUCTWORK.
- MINIMUM R1.5 EXTERNALLY INSULATED RECTANGULAR DUCTWORK.
- MINIMUM R2.0 EXTERNALLY INSULATED RECTANGULAR DUCTWORK.
- EXTERNALLY INSULATED FIRE RATED RECTANGULAR DUCTWORK
- RIGID SPIRAL DUCTWORK
- FIRE DAMPER
- FLEXIBLE DUCTWORK CONNECTION
- FLEXIBLE DUCTWORK
- ROUND TAKE-OFF c/w BUTTERFLY DAMPER
- LOCAL CONTROL PANEL
- TEMPERATURE SENSOR
- OVERIDE SWITCH
- HUMIDITY SENSOR
- DUCT MTD. PRESSURE SENSOR
- CARBON DIOXIDE SENSOR
- TUNDISH POINT
- SOAKAGE PIT
- FLOOR WASTE
- DOOR GRILLE

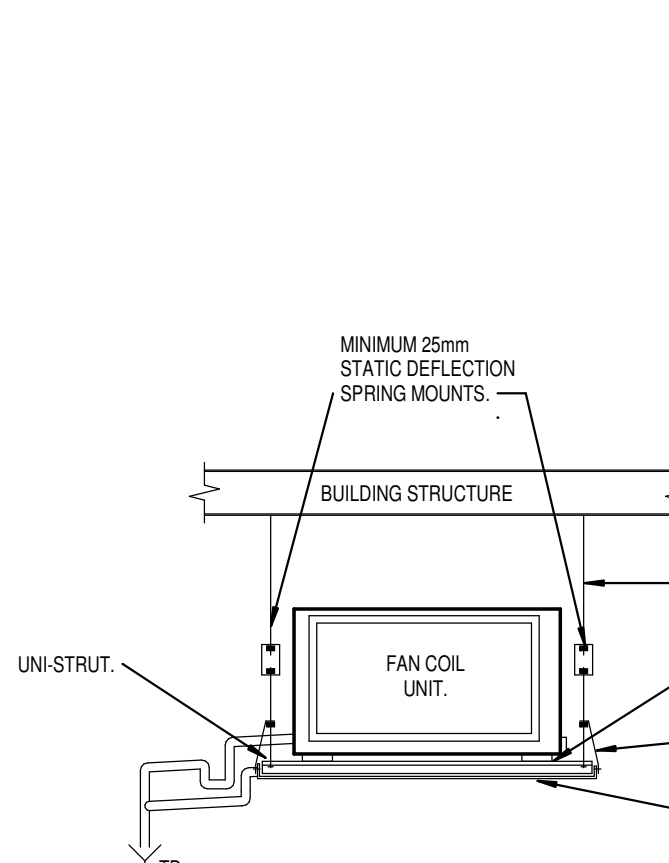
### DOOR GRILLE SIZING CHART

NOM. SIZE (mm)	AIR QTY (L/s)
25 U/C	< 20
35 U/C	< 30
450x200	< 155
600x200	< 200
600x250	< 255
600x300	< 305
600x450	< 465
600x600	< 620

### FLEXIBLE DUCT SCHEDULE

SIZE (mm)	AIR QTY (L/s)
ø 150	0 - 40
ø 200	41 - 85
ø 250	86 - 140
ø 300	141 - 230
ø 350	231 - 320
ø 400	321 - 440
ø 450	441 - 560
ø 500	561 - 970

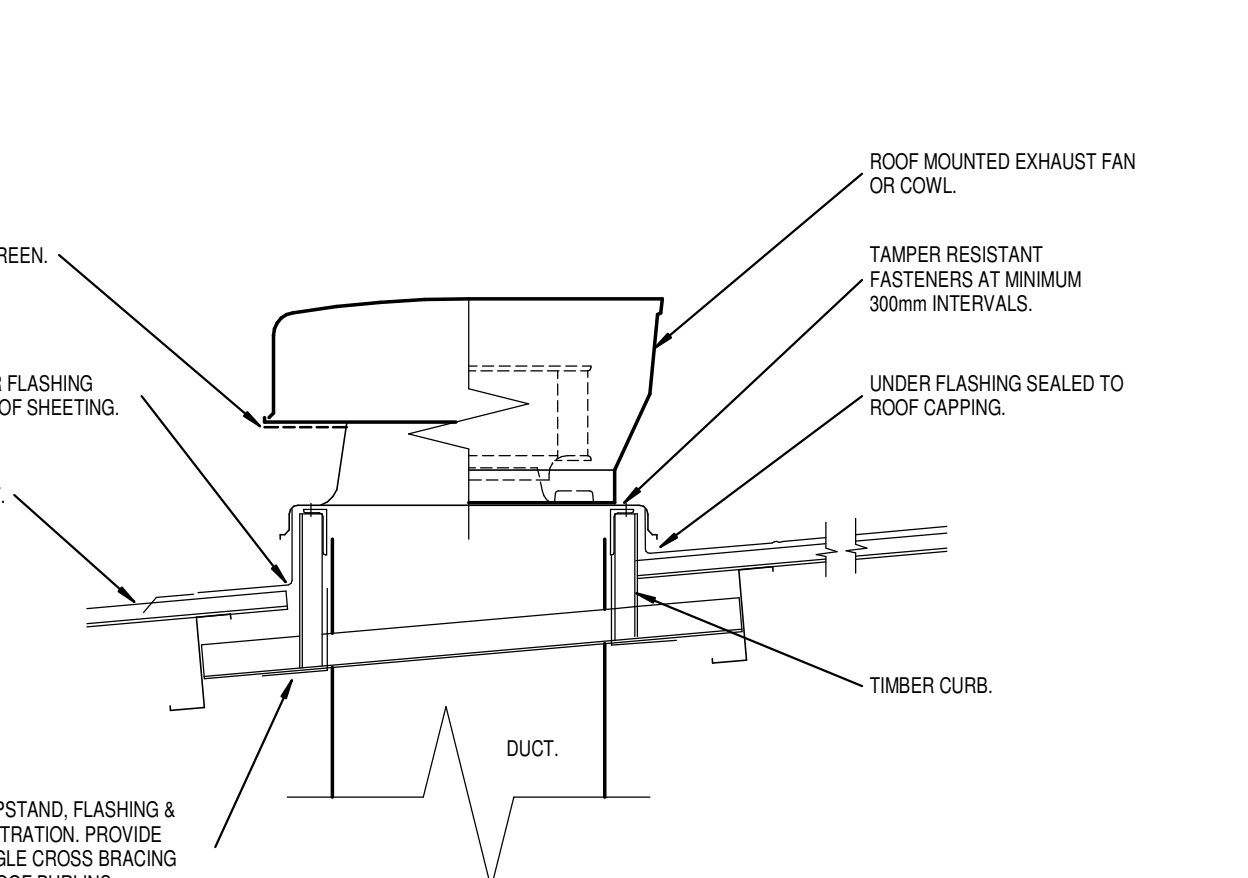
### FAN COIL ARRANGEMENT



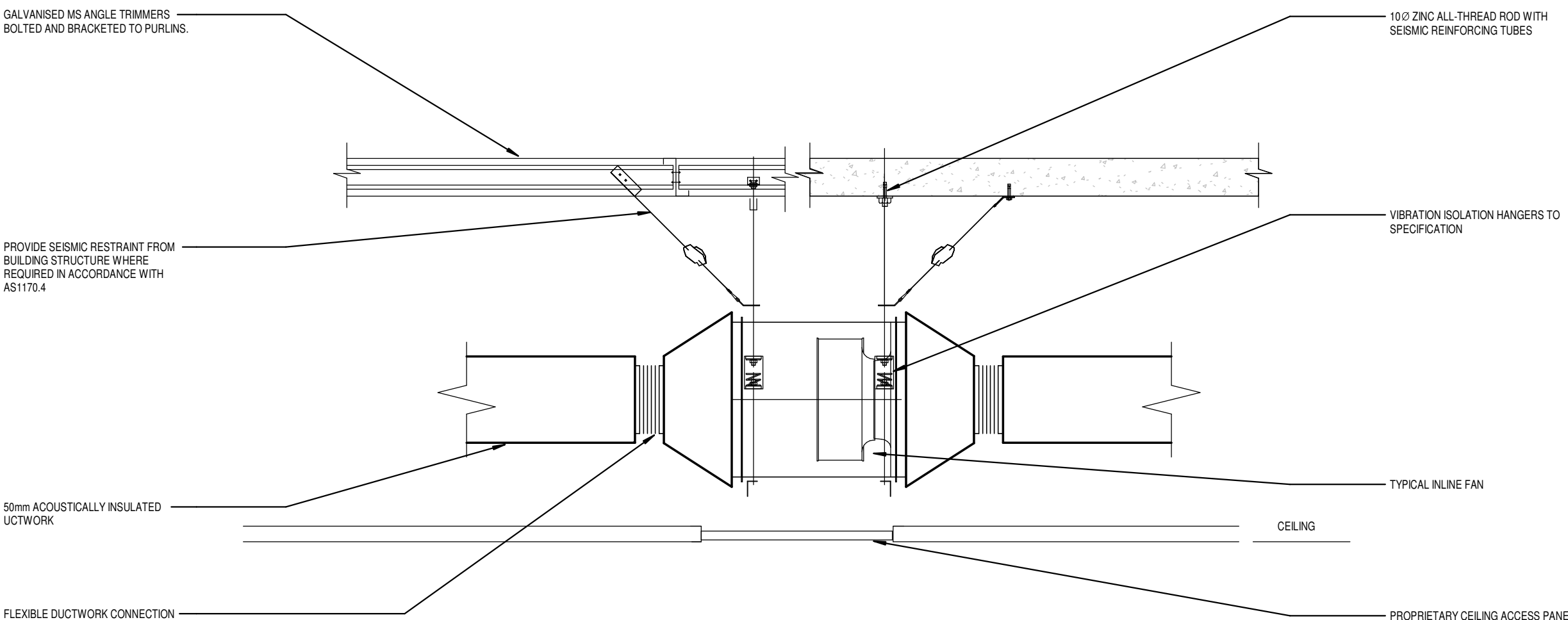
### TYPICAL DUCT MOUNTING DETAIL



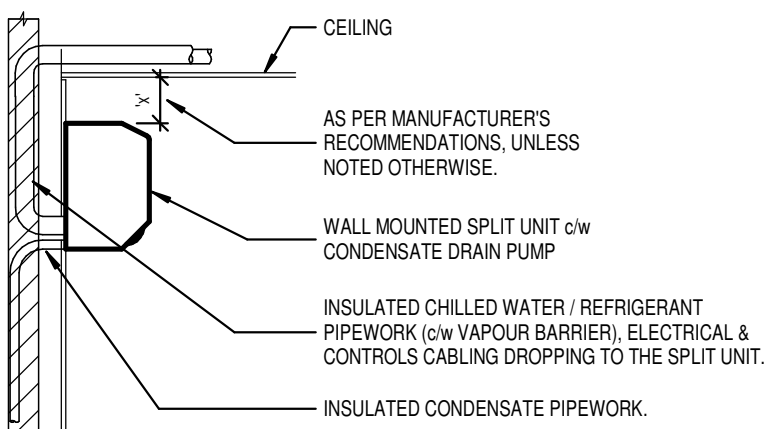
### TYPICAL AIR CONDITIONING CASSETTE UNIT INSTALLATION



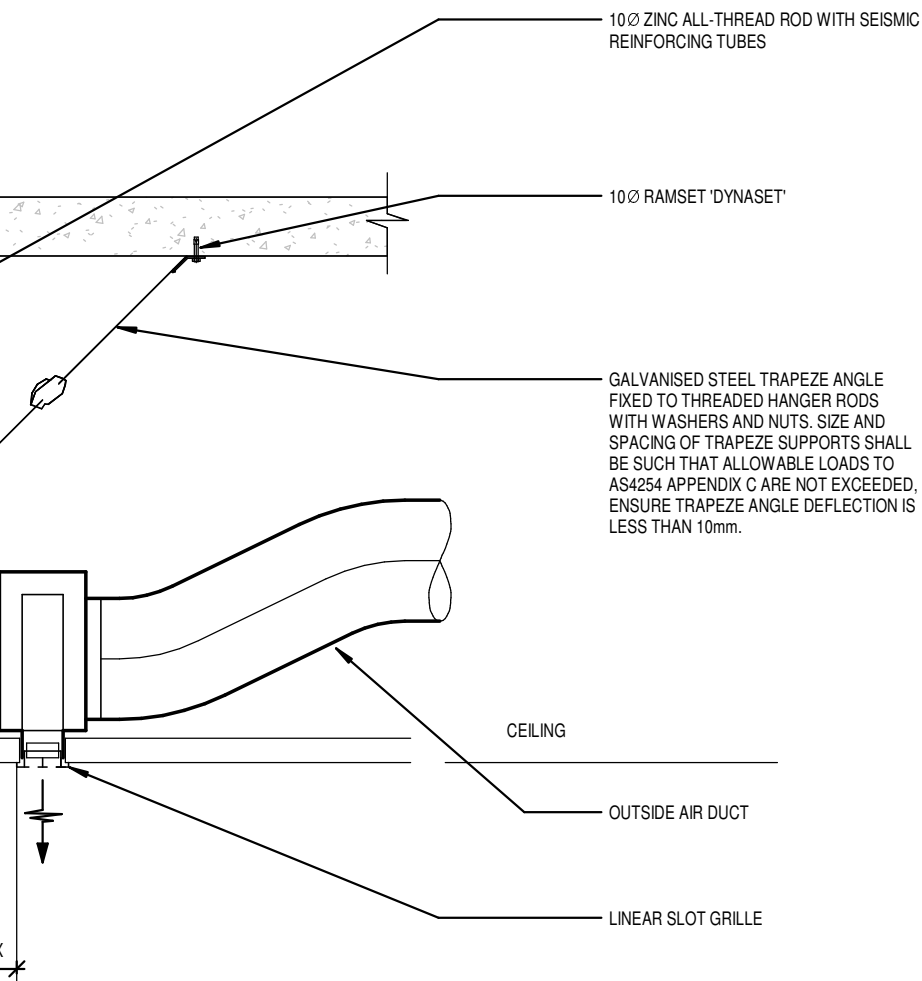
### ROOF PENETRATION FOR ROOF MTD. FAN/COWLS



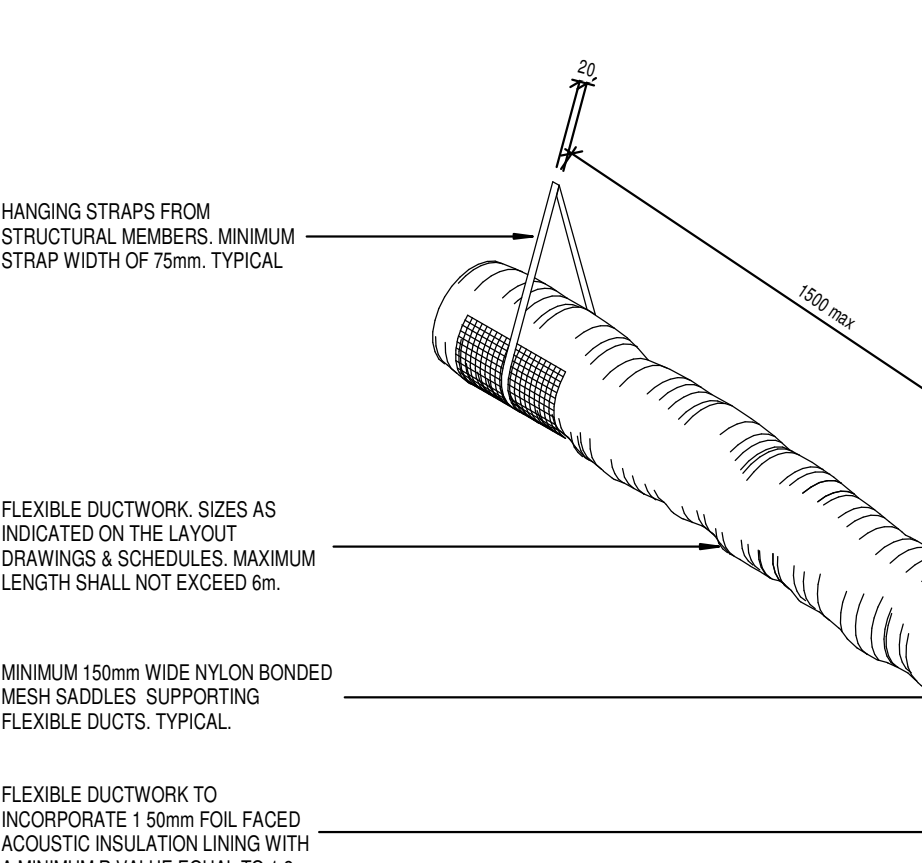
### TYPICAL INLINE DUCT MOUNTED FAN SUPPORT DETAIL




### HI-WALL AC UNIT INSTALLATION



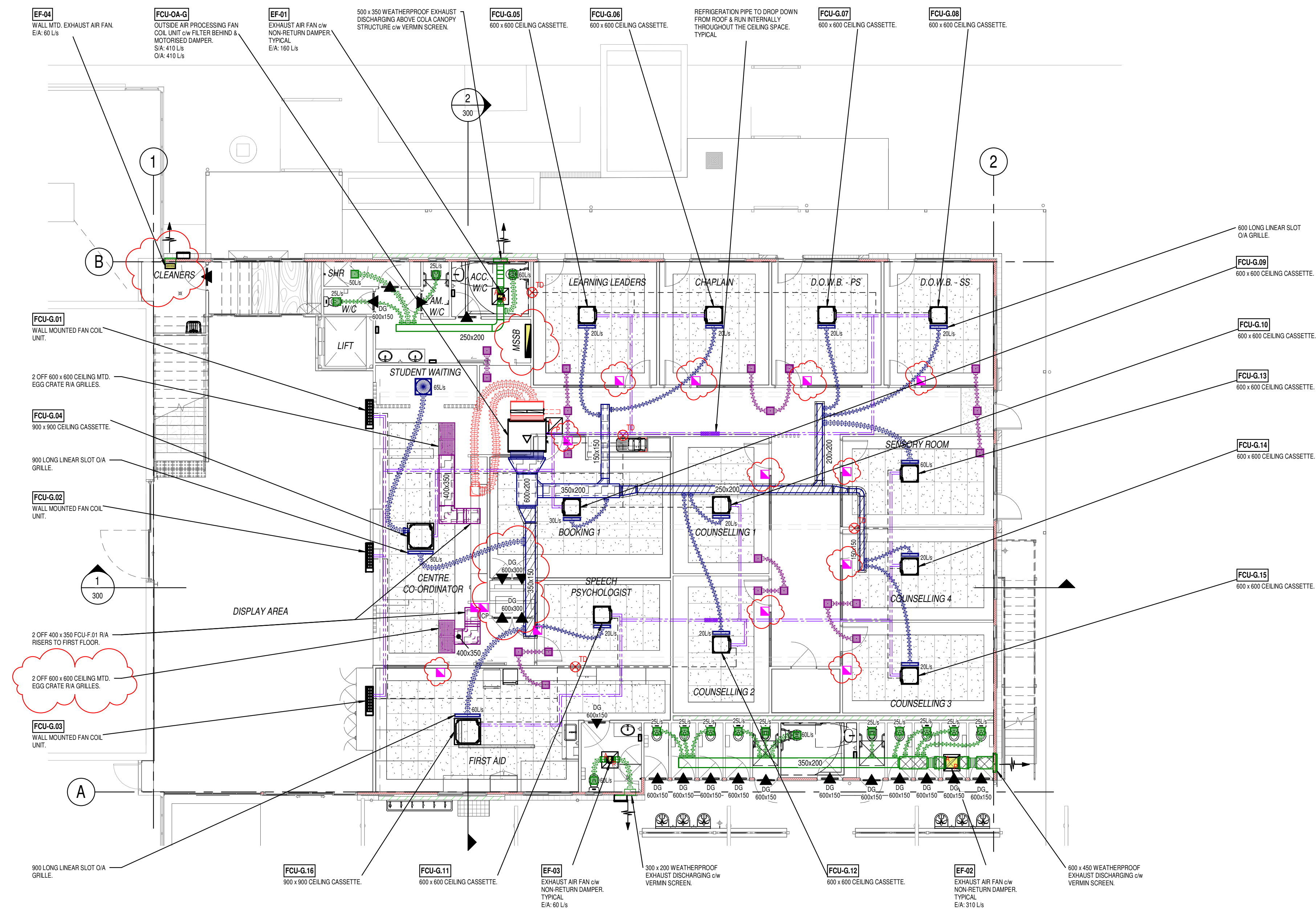
### FLEXIBLE DUCT SUPPORT DETAIL



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T1	TENDER ISSUE	01-04-2025	LC
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ABN: 98 951 924 766			
Albury			
558 Hume Street, Albury NSW 2640			
Ph: 02 6021 4580		Fax: 02 6023 5489	
Darwin			
Suite 4, 60 Winnellie Road, Winnellie NT 0821			
Ph: 08 8984 4246		Fax: 08 8984 3847	
BUILDING SERVICES CONSULTING ENGINEERING GROUP			
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Client			
ROB PICKETT DESIGN			
Project			
PROPOSED HUDSON BUILDING 28 DRAGE ROAD, WODONGA VIC			
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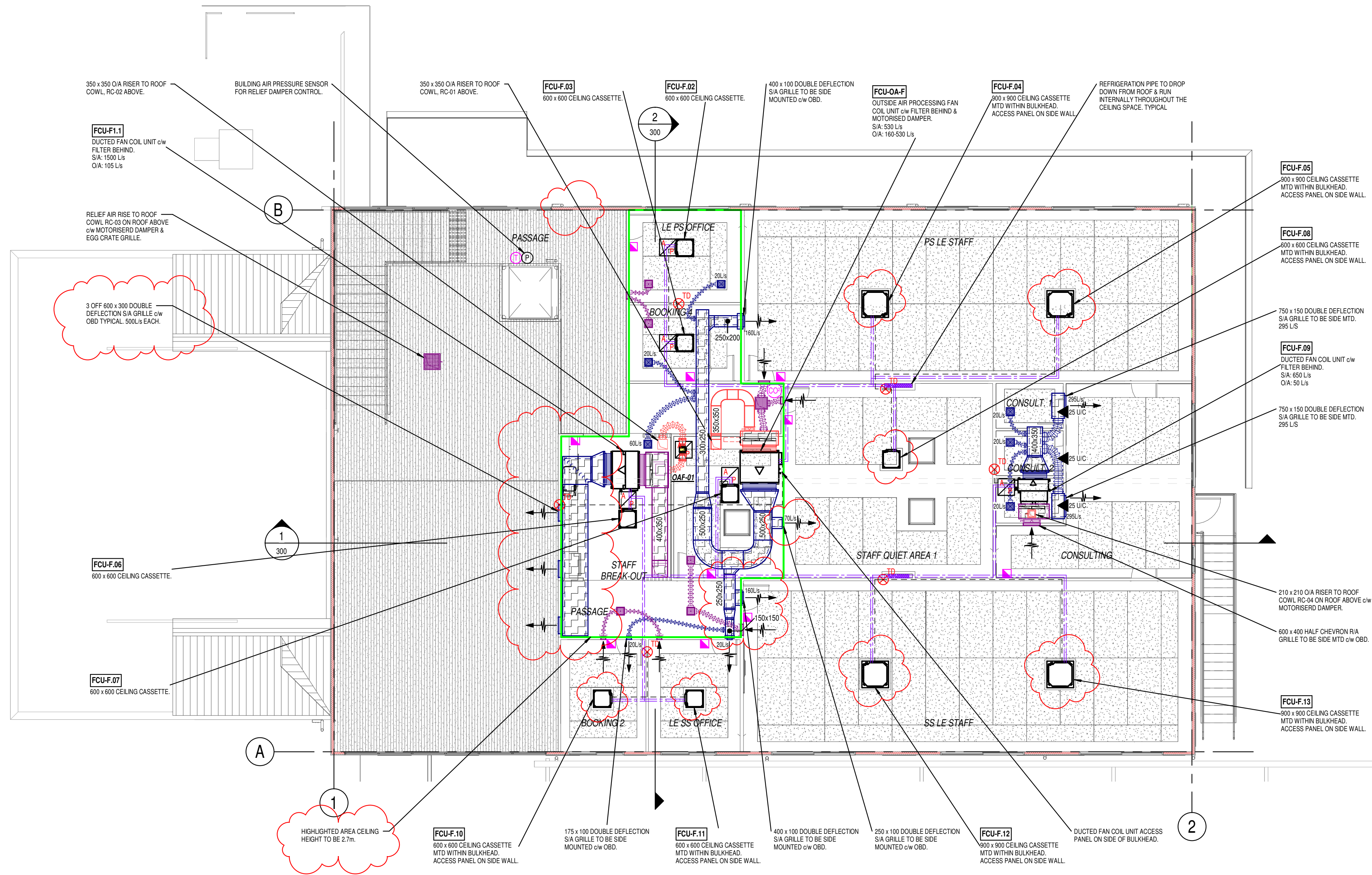


**GROUND FLOOR PLAN**  
1 : 100

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Client			
<b>ROB PICKETT DESIGN</b>			
Project			
PROPOSED HUDSON BUILDING 28 DRAGE ROAD, WODONGA VIC			
Title			
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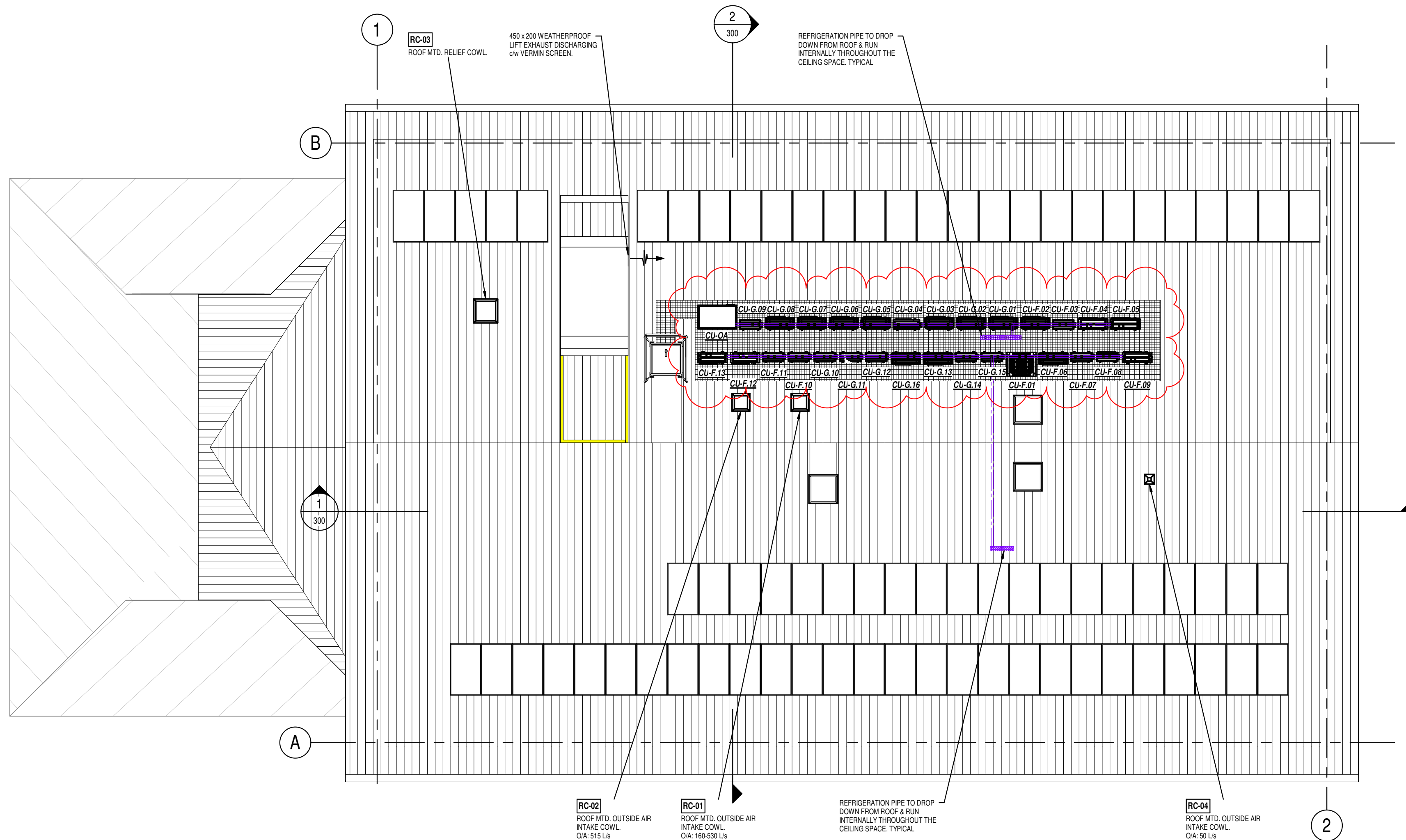




FIRST FLOOR PLAN  
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Client ROB PICKETT DESIGN			
Project PROPOSED HUDSON BUILDING 28 DRAGE ROAD, WODONGA VIC			
Title MECHANICAL SERVICES DUCTWORK & EQUIPMENT LAYOUT FIRST FLOOR PLAN			
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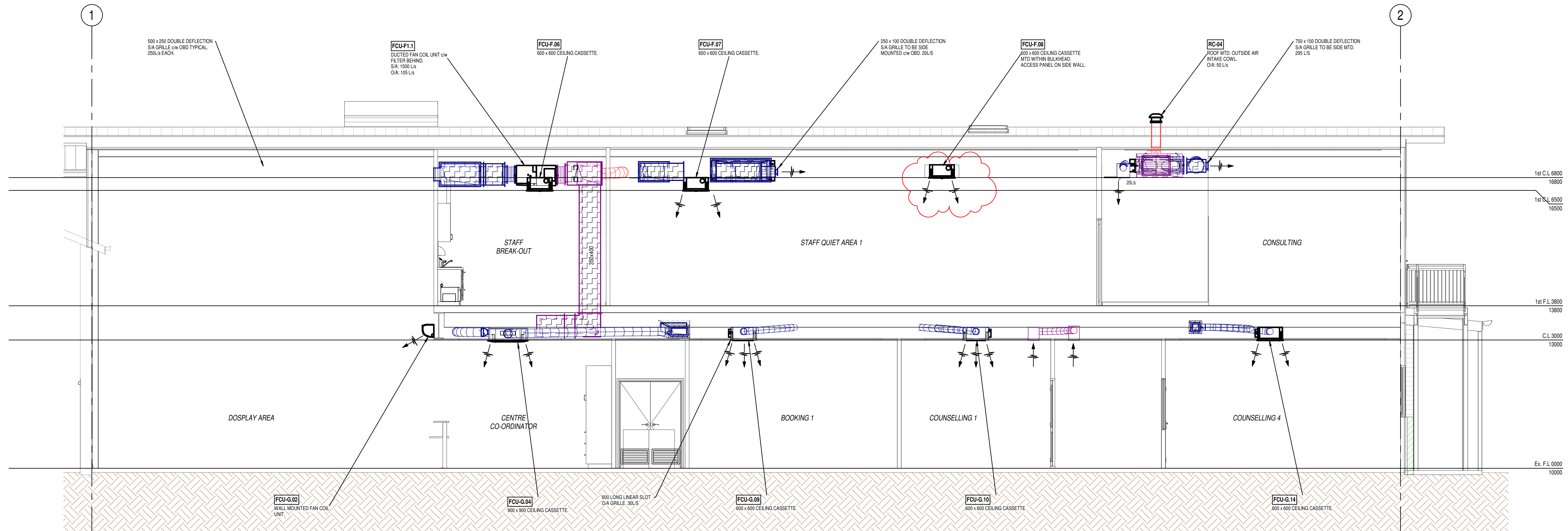


Roof Plan  
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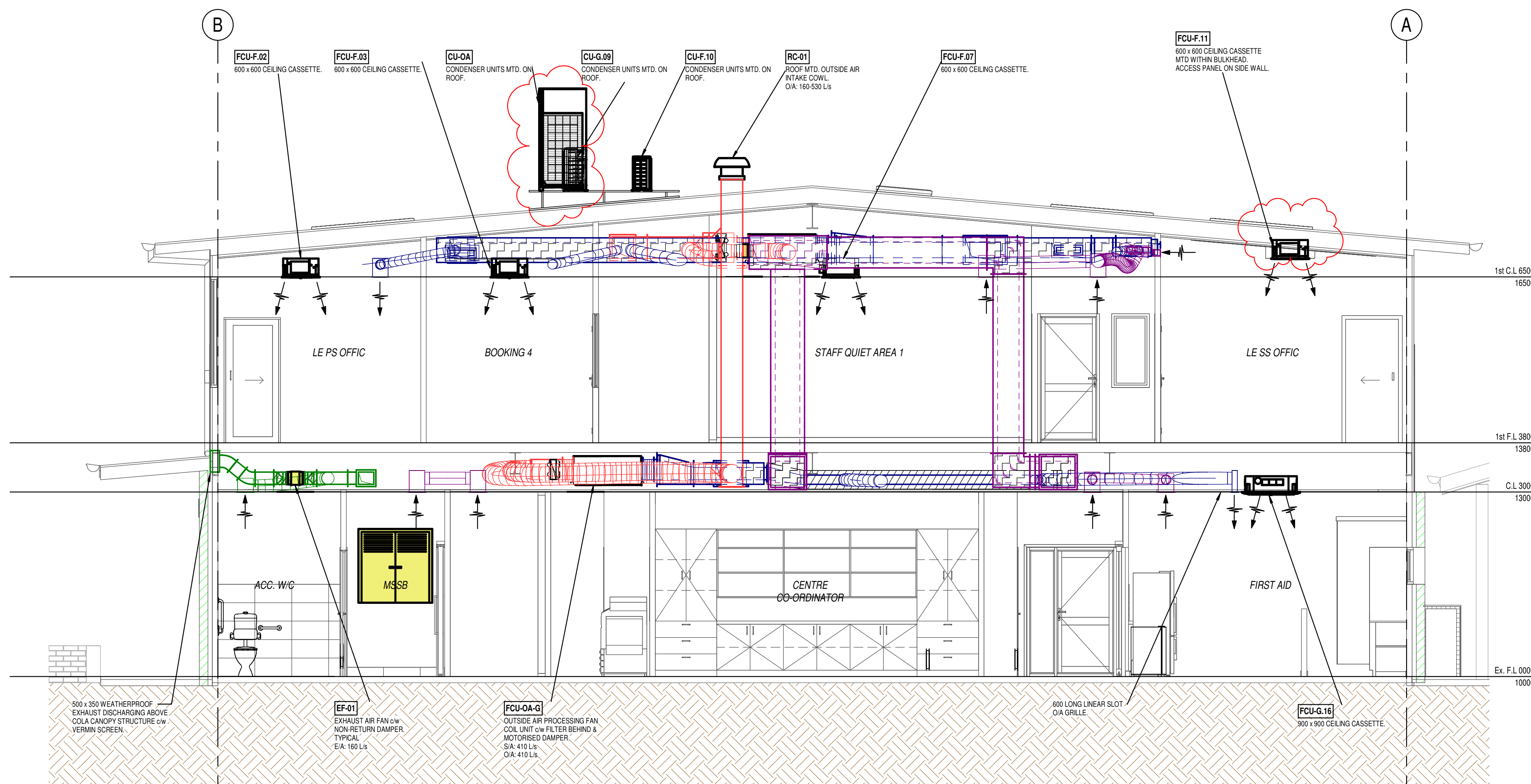
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**SECTION 1**  
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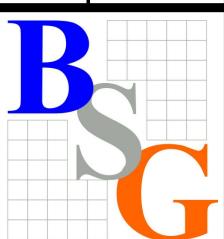


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**BUILDING SERVICES CONSULTING ENGINEERING GROUP**

MECHANICAL ELECTRICAL HYDRAULIC FIRE OTHER

Client  
**ROB PICKETT DESIGN**

Project  
**PROPOSED HUDSON BUILDING**  
**28 DRAGE ROAD, WODONGA VIC**

Title  
**MECHANICAL SERVICES**  
**SECTION PAGE**

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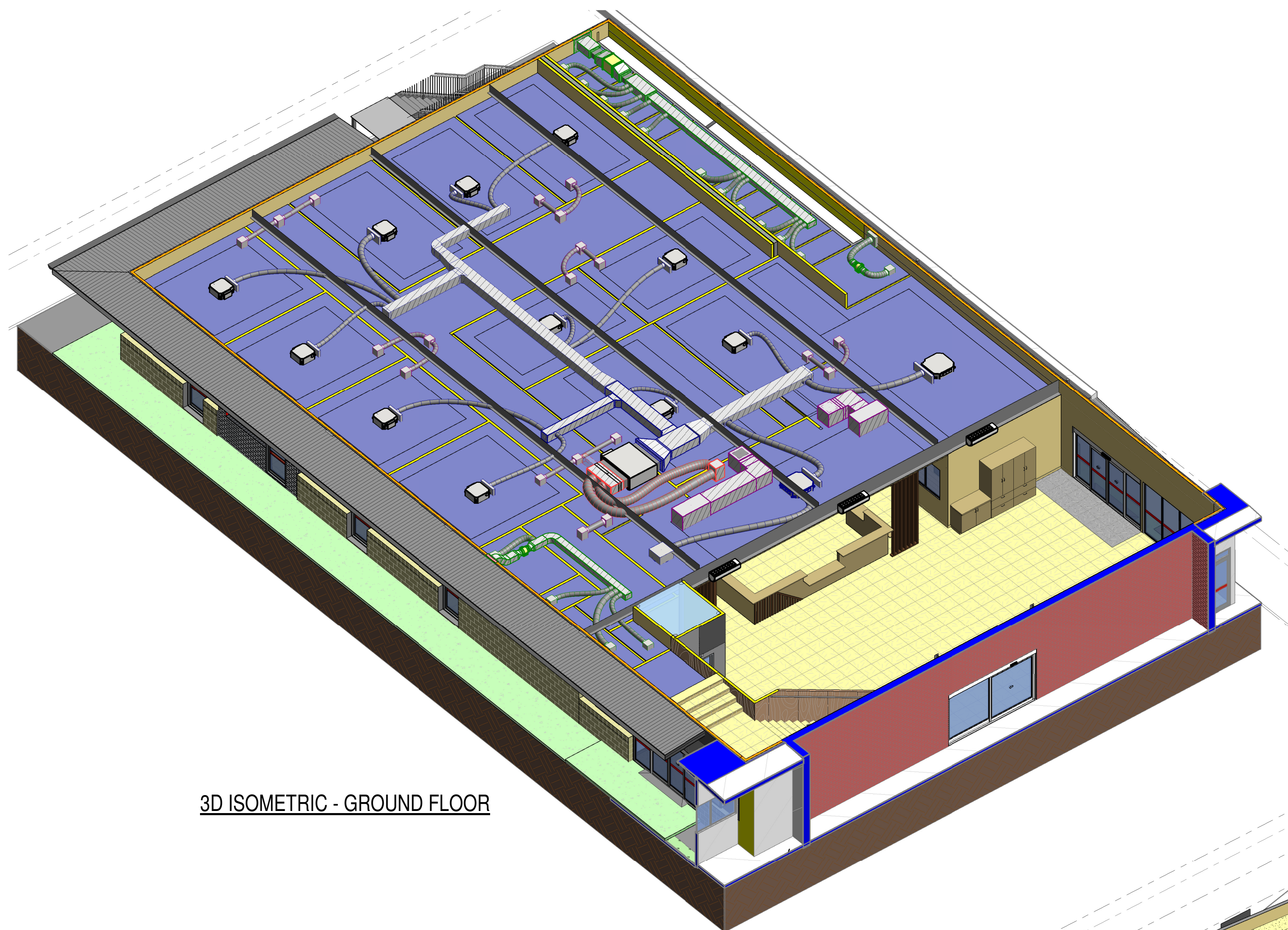
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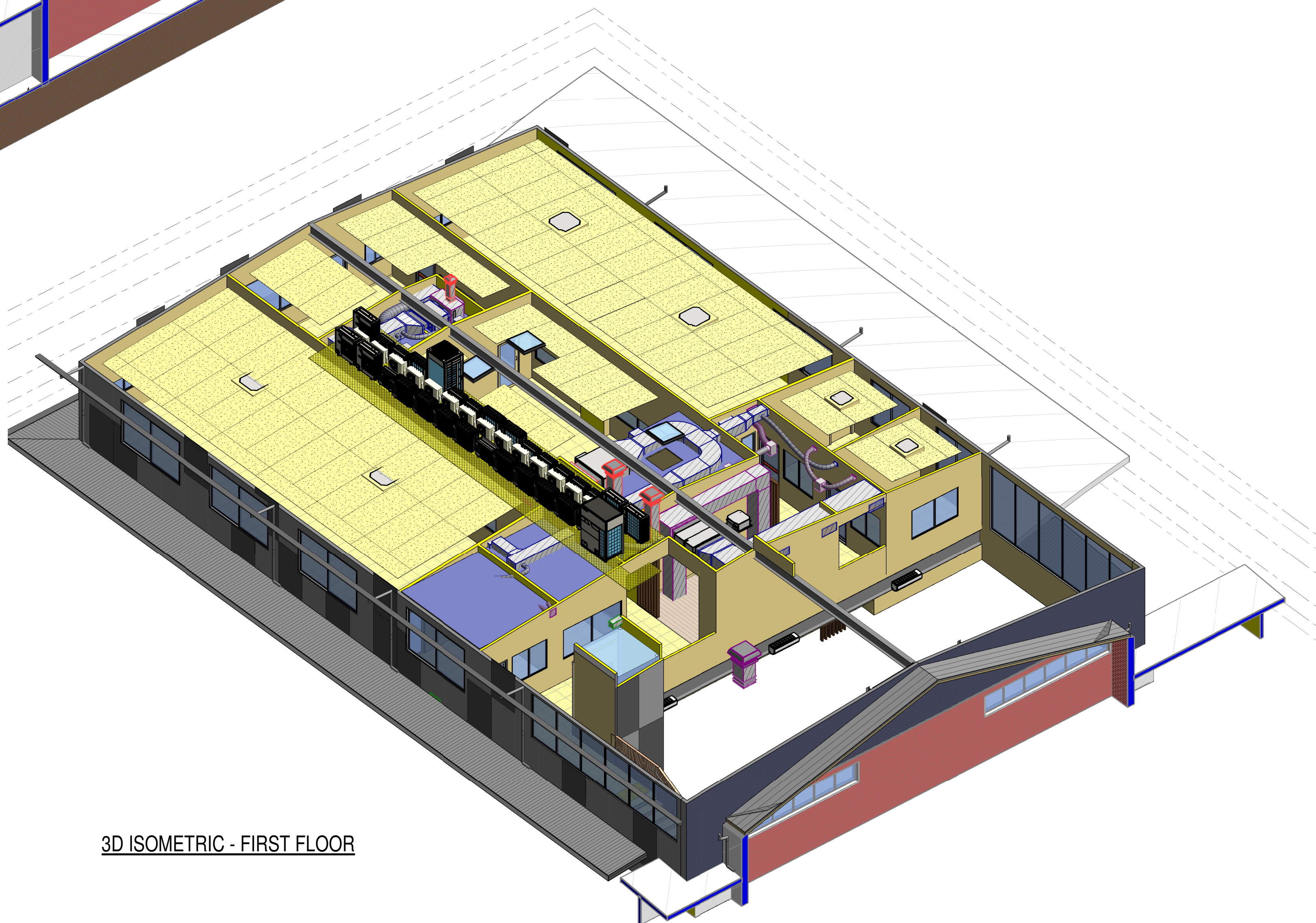
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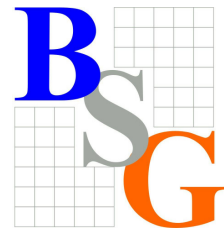


3D ISOMETRIC - GROUND FLOOR



3D ISOMETRIC - FIRST FLOOR

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28 DRAGE ROAD, WODONGA VIC			
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MECHANICAL SERVICES			
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