MECHANICAL SERVICES DRAWINGS

COUNTDOWN GREENLANE ONLINE EXTENSION GREENLANE AUCKLAND

CONSENT / TENDER 15/12/2023







PROJECT No.223435

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LEGEND OF PIPING SYMBOLS

LEGEND OF PI	PING SYMBOLS
∑ DC	DRAIN COCK
	ISOLATING VALVE (GENERAL)
-]	BLIND FLANGE / CAPPING
⋈ IR	ISOLATION & REGULATING VALVE
IRO	IR VALVE WITH FIXED ORIFICE (COMMISSIONING VALVES)
ABV	AUTOMATIC BALANCING VALVE
Дм∨	MOTORISED 2-PORT VALVE
₩v	MOTORISED 3-PORT VALVE
PIMV	PRESSURE INDEPENDENT MOTORISED VALVE
⋈PD	PRESSURE DIFFERENTIAL CONTROL VALVE
ВС	BRANCH CONTROLLER
PP	
XXI PRV	PRESSURE REDUCING VALVE
NRV	NON-RETURN / CHECK VALVE
DRV	DOUBLE REGULATING VALVE
	LOCK SHIELD VALVE
DCV	DOUBLE CHECK VALVE
\$	PRESSURE RELIEF / SAFETY VALVE
\bigcirc	PUMP
₩ st	STRAINER
<u>T</u> TP	BINDER TESTPOINT
TD	TUNDISH (BY PLUMBER)
XXA	ANCHOR
	EXPANSION LOOP
 	EXPANSION JOINTS
hvy	FLEXIBLE CONNECTION
X D MAV	MANUAL AIR VENT
X AAV	AUTOMATIC AIR VENT
CON	CONDENSER WATER PIPE
———— CHW	CHILLED WATER PIPE
——— НТС	HEATING WATER PIPE
RFRC	REFRIGERANT PIPE
CD	CONDENSATE DRAIN PIPE
	BELOWGROUND PIPEWORK
LL	LOW LEVEL PIPEWORK
HL	HIGH LEVEL PIPEWORK
	ABOVE CEILING PIPEWORK
• Ø	VERTICAL PIPEWORK
F&R	FLOW & RETURN

FLOW & RETURN

SEISMIC JOINT & MIN MOVEMENT

LEGEND O	F DUCTING SYMBOLS
~	FLEXIBLE DUCTWORK
\longrightarrow BDD	BACKDRAFT DAMPER
VCD	VOLUME CONTROL DAMPER (CIRCULAR)
VCD	VOLUME CONTROL DAMPER (RECTANGULAR)
FD	FIRE DAMPER
FSD	FIRE AND SMOKE DAMPER
FC	FIRE COLLAR
MD	MOTORISED DAMPER
☑ AP	ACCESS PANEL AP4 = 450 x 450 AP6 = 600 x 600 AP12 = 1200 x 600
☑ DAP	DUCT ACCESS PANEL
	INSECT SCREEN / VERMIN PROOF MESH
<u></u>	COOING COIL
+	HEATING COIL
W)	ELECTRIC ELEMENT
[XXXX] G4	PANEL FILTER & GRADE
[////] F6	BAG FILTER & GRADE
ATS	TURNING VANES
M	SILENCER
10	OUTDOOR AIR VOLUME (L/S)
(55)	NOMINAL AIR VOLUME (I/s)
\$	VERTICAL DUCT (CIRCULAR)
	VERTICAL DUCT (RECTANGULAR)
ζ	CONTINUATION LINE (CIRULAR)
Z	CONTINUATION LINE (RECTANGULAR)
NAT	NATURALLY VENTILATED
SU	SET UP
SD	SET DOWN
<-\-	AIR INLTAKE/OUTLET
(DUC)	DOOR UNDERCUT 30mm
FA	FROM ABOVE
FB	FROM BELOW
TA	TO ABOVE
ТВ	TO BELOW
HTG/LTHW	HEATING / LOW TEMPERATURE HOT WATER
UFH	UNDERFLOOR HEATING
TYP	TYPICAL
EXTG	EXISTING
TBC	TO BE CONFIRMED
SS	STAINLESS STEEL
Gl	GALVANISED STEEL

LEGEND OF GRILLES SYMBOLS

	CEILING GRILLE/DIFFUSER (SQUARE)
	CEILING GRILLE/DIFFUSER (CIRCULAR)
↓	CEILING DIFFUSER (DIRECTIONAL)
	CEILING SWIRL SUPPLY DIFFUSER
R	CEILING RETURN/EXHAUST GRILLE
	TRANSFER GRILLE
	SIDEWALL GRILLE/DIFFUSER
\boxtimes	FLOOR GRILLE/DIFFUSER
500x300	DOOR/WALL TRANSFER DIFFUSER
6 <u>00x60</u> 0	EXTERNAL LOUVRE

LEGEND OF FAN SYMBOLS

	<u> </u>
<u></u>	FAN (DUCT CENTRIFUGAL)
8	FAN (DUCT AXIAL)
	FAN (ROOF DOWNFLOW)
	FAN (ROOF UPFLOW)
	ROTARY ROOF VENT

EQUIPMENT REFERENCES

S2 200	GRILLE REFERENCE AIR VOLUME (I/s)
FCU-101	FAN COIL UNIT REFERENCE
IU-101	VRF/SPLIT INDOOR UNIT REF
0U-101	VRF/SPLIT OUTDOOR UNIT REF
HU-101	HYDRONIC UNIT REF
VAV-101	VAV BOX REF
EF-101	EXTRACT FAN REF
SF-101	SUPPLY FAN REF
JF-101	IMPULSE JET FAN
RC-101	ROOF COWL REF
AHU-101	AIR HANDLING UNIT REF
SIL-101	ATTENUATOR / SILENCER UNIT REF
P-1	PUMP REF
CH-1	CHILLER REF
CT-1	COOLING TOWER REF
EH-1	ELECTRIC HEATER REF
KRH-1	RANGE HOOD REF
L/S M/S PA/M Ø	FLOW VELOCITY PRESS. DROP DUCT/PIPE SIZE
+	POSITIVE PRESSURISED ZONE
<u></u>	NEGATIVE PRESSURISED ZONE

LEGEND OF CONTROLS AND SENSOR SYMBOLS

T	TEMPERATURE GAUGE
P	PRESSURE GAUGE
VSD	VARIABLE SPEED DRIVE
SC	SPEED CONTROLLER (SINGLE PHASE)
EC	ELECTRONICALLY COMMUTATED MOTOR
АН	AFTER HOUR OVERRIDE CONTROLLER
NV	NATURAL VENTILATION CONTROLLER
Р	DIFFERENTIAL PRESSURE SENSOR
FS	FLOW SENSOR
EM	ENERGY METER
Т	TEMPERATURE SENSOR
RH	RELATIVE HUMIDITY SENSOR
EP	ENTHALPY SENSOR
CO2	CARBON DIOXIDE SENSOR
co	CARBON MONOXIDE SENSOR
NO	NITRIC OXIDE AND NITROGEN DIOXIDE SENSOR
A-	AVERAGING SENSOR
-W	WALL MOUNTED SENSOR
-C	CEILING MOUNTED SENSOR
TC	TIME CLOCK
C	WALL CONTROLLER
CC	CENTRAL CONTROLLER
MF	MANUAL FAN SWITCH
PIR	PASSIVE INFRARED SENSOR
cs	CURRENT SENSOR
SC	SPEED CONTROLLER
SD	SMOKE DETECTOR
	AUDIBLE ALARM
R ○	RUN/FAULT INDICATORS
A⊗M	AUTO/OFF/MANUAL SWITCHES

o— EH →o	ELECTRIC HEATER
MSSB	MECHANICAL SERVICES SWITCH BOARD
	KITCHEN RANGE HOOD

GENERAL NOTES:

- ARCHITECTURAL BACKGROUND BASED ON NOV 2023 ISSUE. THESE DRAWINGS SHALL NOT BE USED FOR INSTALLATION PURPOSES, AND DO NOT NECESSARILY INDICATE ALL CONSTRUCTION DETAILS (E.G. ACCESS PANELS AND SUPPORTS). THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS INDICATING ALL NECESSARY CONSTRUCTION DETAILS AND COORDINATION FOR ENGINEER APPROVAL PRIOR TO PLACING EQUIPMENT ORDER AND COMMENCING INSTALLATION.
- THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH TENDER SPECIFICATIONS, CONTRACT PRELIMINARY CONDITIONS, ARCHITECTURAL AND ALL OTHER TRADES CONTRACT DOCUMENTATION.
- REFRIGERANT & CONDENSATE DRAIN PIPE ROUTES SHALL BE DETERMINED ON SITE BY THE CONTRACTOR SUBJECT TO ENGINEER APPROVAL. MAX PIPE LENGTH SHALL BE WITHIN MANUFACTURER RECOMMENDATIONS.
- THE CONTRACTOR SHALL CONFIRM ALL WALL SENSORS AND WALL CONTROLLERS WITH THE ARCHITECT AND CLIENT, PRIOR TO MAIN CONTRACTOR INSTALLING WALL LININGS.
- 6. ALL FLEXIBLE DUCT SHALL BE COMPLETED WITH MIN 40mm ACOUSTIC LINING, AND MIN/MAX 3/5m IN
- CEILING GRILLE LOCATION TO BE CO-ORDINATED WITH ELECTRICAL AND FIRE SERVICES IN THE NEXT DESIGN STAGE.
- 8. ROOF FANS, PENETRATIONS & DUCTWORK IN ROOF SPACE TO BE CO-ORDINATED WITH PURLINS & STEELWORK LAYOUT AS PART OF SHOP DRAWINGS DESIGN DEVELOPMENT. THE CONTRACTOR SHALL ALLOW FOR ADDITIONAL DUCTWORK, ACOUSTIC & FIRE PROTECTION.

STANDARD DUCTWORK NOTATIONS AND LEGEND

DUCT CONSTRUCTION CODE
400x200 S4 🗘
DUCT AIRSTREAM SIZE SERVICE AIRFLOW ARROW
DUCT CONSTRUCTION TYPE:-

- 1. PLAIN.
- 25mm INTERNAL ACOUSTIC LINING.
- 50mm INTERNAL ACOUSTIC LINING.
- 4. EXTERNAL THERMAL INSULATION.
- 5. INTERNAL THERMAL INSULATION.
- 6. FIRE RATED DUCTING.
- 7. COMMERCIAL KITCHEN RATED DUCT.
- STAINLESS STEEL.

SERVICES TYPE:-

- E EXHAUST AIR DUCT
- KE KITCHEN / KITCHENETTE / RANGEHOOD EXHAUST AIR DUCT
- OA OUTSIDE AIR DUCT
- R RETURN AIR DUCT
- S SUPPLY AIR DUCT
- SP SPILL AIR DUCT
- TE TOILET EXHAUST AIR DUCT
- T TRANSFER AIR DUCT

FLEXIBLE DUCT SIZING

MAX AIR FLOW - MIN DUCT SIZE 50 Ø150 100 Ø200 150 Ø250 200 Ø300 300 Ø350 400 Ø400 500 Ø450

NOTE: THIS IS NOT A SHOP DRAWING **CONSENT / TENDER**

15/12/2023

THESE DRAWINGS ARE A RESULT OF ELECTRONIC PROCESSING AND MAY NOT BE TRUE TO SCALE. DO NOT SCALE THIS DRAWING. CONTRACTORS MUST VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCING ANY WORK OR MAKING ANY SHOP DRAWINGS. THE DESIGN SHOWN ON THIS DRAWING MUST NOT BE REPRODUCED OR ALTERED WITHOUT WRITTEN AUTHORITY.

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F&R

↑ SJ±125

ENG CAD DATE *AMENDMENTS* N.K. K.M. 30/11/23 A 60% DETAILED DESIGN C.D. K.M. 08/12/23
C.D. K.M. 15/12/23
C.D. K.M. 15/12/23
CONSULTING LTD B 95% DETAILED DESIGN CONSENT / TENDER

COMPLETE WITH

CLIENT WOOLWORTHS New Zealand



ARCHITECT

PROJECT MANAGER

PROJECT TITLE COUNTDOWN GREENLANE ONLINE EXTENSION GREENLANE AUCKLAND

SHEET TITLE LEGEND

DESIGNED N.K. DRAWN K.M. CHECKED DISCIPLINE

MECHANICAL SERVICES

PROJECT 29/11/23 223435 29/11/23 DRAWING M-001 29/11/23

SCALE (A1) | REVISION

ENG CAD DATE **AMENDMENTS** N.K. K.M. 30/11/23 A 60% DETAILED DESIGN B 95% DETAILED DESIGN CONSENT / TENDER

CLIENT New Zealand

ARCHITECTS LTD

ARCHITECT

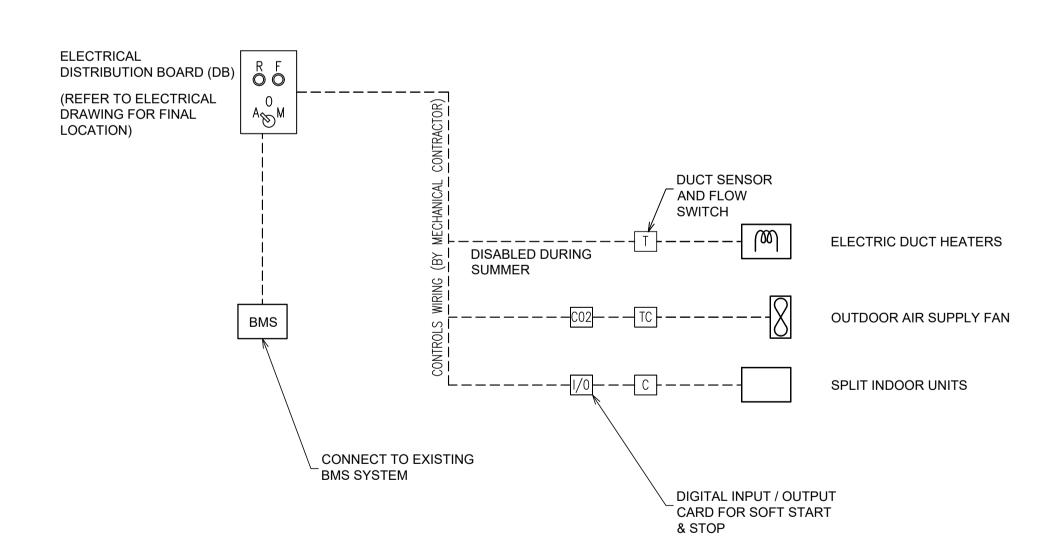
PROJECT TITLE COUNTDOWN GREENLANE ONLINE EXTENSION GREENLANE AUCKLAND

PROJECT 29/11/23 DESIGNED N.K. DRAWN 29/11/23 K.M. DRAWING CHECKED 29/11/23 DISCIPLINE

ACOUSTIC TREATMENT FILTER BOX WITH SLIDING RAIL & LOCKABLE HINGED ACCESS SEALED DOOR SIZE FIRST DUCT RUN, FILTER & DUCT HEATER AT MAX 2.5 m/s VELOCITY ELECTRIC DUCT HEATER—

IMPORTANT NOTES: REFER TO ACOUSTIC ENGINEER REPORT FOR ANY ADDITIONAL

OUTDOOR AIR ROOF SUPPLY FAN Not to Scale





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C.D. K.M. 08/12/23
C.D. K.M. 15/12/23
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TOP HAT ROOF PENETRATION - SEALANT / EXPANSION FOAM

FLEXIBLE DUCT FOR REFRIGERANT

REFRIGERANT PIPES, ALL ROOF

- PENETRATION SHALL BE VIA SWAN

NECKS. GROUP REFRIGERANT PIPES

TO RUN THROUGH COMMON SWAN

PIPE PROTECTION UP TO OUTDOOR UNIT

NECKS AS APPROPRIATE.

- INSECT SCREEN

∕-Ø150 GI

REFRIGERANT PIPE ROOF PENETRATION (SWAN NECK)

Not to Scale

ROOF SEAL, MODEL DEKTITE AS MANUFACTURED BY DLM

(TEL: 09 622 9100). -

SILICONE SEAL

SHALL NOT BE

ACCEPTABLE.

BACK FLASHING -

INSULATION TAPE OR

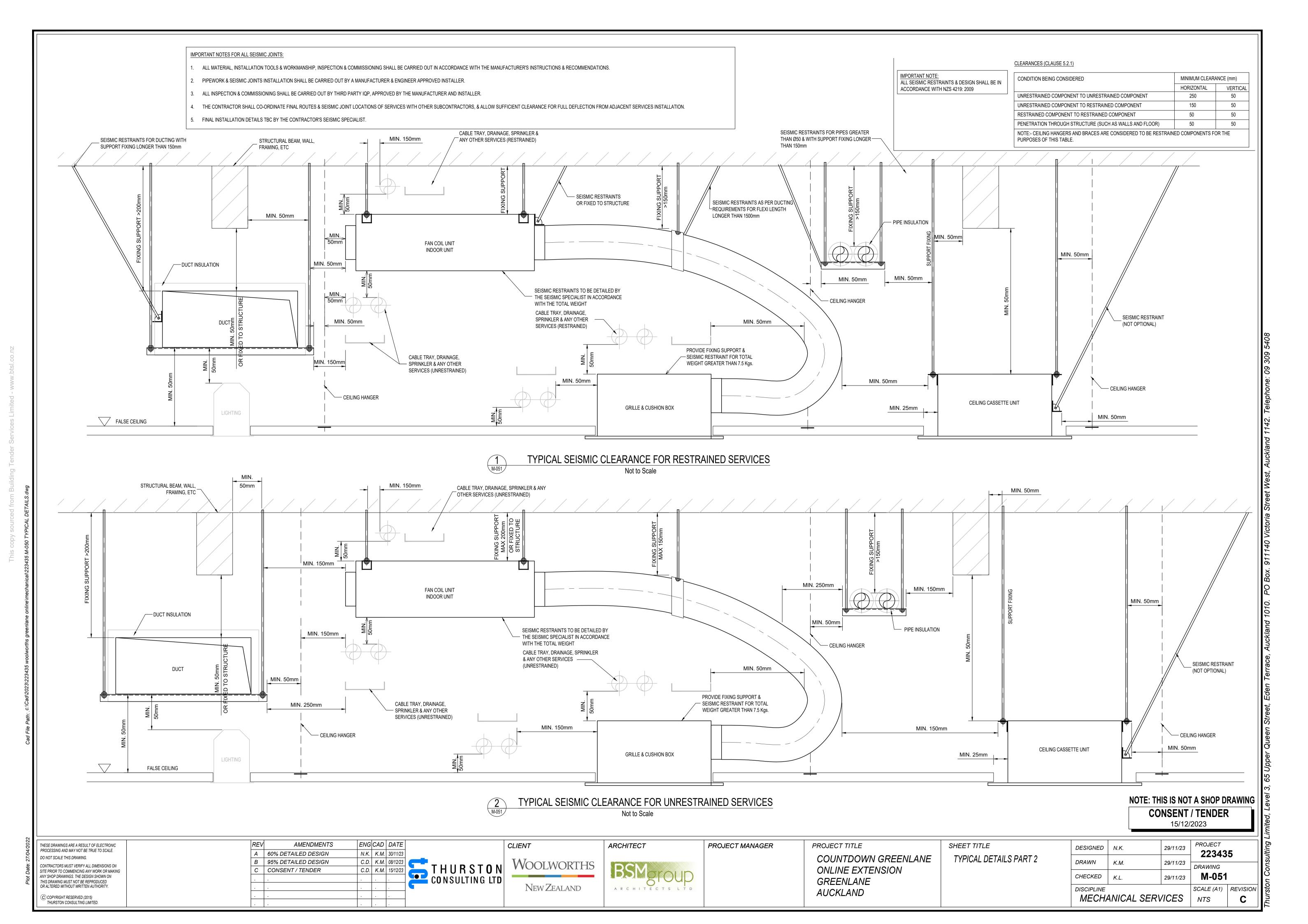
Woolworths

PROJECT MANAGER

SHEET TITLE

223435 M-050 SCALE (A1) | REVISION MECHANICAL SERVICES

TYPICAL DETAILS PART 1



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MECHANICAL SERVICES

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