INDOOR UNIT SCHEDULE

ITEM	QTY	DESCRIPTION	COOLING CAPACITY	POWER SUPPLY	SYSTEM SERVED
CCU-01	2	4Way Ceiling Cassette Unit	3.60 kW	230V/1Ph/50Hz	AHU
CCU-02	2	4Way Ceiling Cassette Unit	5.35 kW	230V/1Ph/50Hz	AHU
CCU-03	4	4Way Ceiling Cassette Unit	7.10 kW	230V/1Ph/50Hz	AHU
CCU-04	7	4Way Ceiling Cassette Unit	10.50 kW	230V/1Ph/50Hz	AHU
CCU-A-01	2	4Way Ceiling Cassette Unit	3.90 kW	230V/1Ph/50Hz	VRF
CCU-C-01	1	4Way Ceiling Cassette Unit	2.00 kW	230V/1Ph/50Hz	VRF
CCU-C-02	3	4Way Ceiling Cassette Unit	3.90 kW	230V/1Ph/50Hz	VRF
CCU-D-01	2	4Way Ceiling Cassette Unit	5.60 kW	230V/1Ph/50Hz	VRF
CCU-D-02	3	4Way Ceiling Cassette Unit	3.90 kW	230V/1Ph/50Hz	VRF
CCU-D-03	1	4Way Ceiling Cassette Unit	13.40 kW	230V/1Ph/50Hz	VRF
CCU-D-04	1	4Way Ceiling Cassette Unit	16.10 kW	230V/1Ph/50Hz	VRF
CCU-FAA-01	1	4Way Ceiling Cassette Unit	3.90 kW	230V/1Ph/50Hz	DX
CCU-RCR-01	1	4Way Ceiling Cassette Unit	3.90 kW	230V/1Ph/50Hz	DX
CCU-RR-01	1	4Way Ceiling Cassette Unit	3.90 kW	230V/1Ph/50Hz	DX
CCU-TR-01	1	4Way Ceiling Cassette Unit	2.60 kW	230V/1Ph/50Hz	DX
HAU-01	2	Ceiling Concealed Unit	10.60 kW	230V/1Ph/50Hz	AHU
HAU-02	1	Ceiling Concealed Unit	14.10 kW	230V/1Ph/50Hz	AHU
MWU-01	6	Midwall AC Unit	2.90 kW	230V/1Ph/50Hz	AHU
MWU-02	3	Midwall AC Unit	3.60 kW	230V/1Ph/50Hz	AHU
MWU-03	1	Midwall AC Unit	6.70 kW	230V/1Ph/50Hz	AHU
MWU-A-01	1	Midwall AC Unit	4.80 kW	230V/1Ph/50Hz	VRF
MWU-A-02	1	Midwall AC Unit	6.70 kW	230V/1Ph/50Hz	VRF
MWU-A-03	1	Midwall AC Unit	4.80 kW	230V/1Ph/50Hz	VRF
MWU-AM-01	1	Midwall AC Unit	4.80 kW	230V/1Ph/50Hz	DX
MWU-AO-01	1	Midwall AC Unit	6.70 kW	230V/1Ph/50Hz	DX
MWU-B-01	3	Midwall AC Unit	6.70 kW	230V/1Ph/50Hz	VRF
MWU-B-02	1	Midwall AC Unit	6.70 kW	230V/1Ph/50Hz	VRF
MWU-C-01	4	Midwall AC Unit	3.60 kW	230V/1Ph/50Hz	VRF
MWU-COU-01	1	Midwall AC Unit	6.70 kW	230V/1Ph/50Hz	DX
MWU-D-01	1	Midwall AC Unit	4.80 kW	230V/1Ph/50Hz	VRF
MWU-D-02	5	Midwall AC Unit	6.00 kW	230V/1Ph/50Hz	VRF
MWU-DC-01	1	Midwall AC Unit	3.60 kW	230V/1Ph/50Hz	DX
MWU-FO-01	1	Midwall AC Unit	6.70 kW	230V/1Ph/50Hz	DX
MWU-FS-01	1	Midwall AC Unit	6.70 kW	230V/1Ph/50Hz	DX
MWU-OF-01	1	Midwall AC Unit	3.60 kW	230V/1Ph/50Hz	DX
MWU-R-01	1	Midwall AC Unit	4.80 kW	230V/1Ph/50Hz	DX
MWU-RRR-01	1	Midwall AC Unit	6.70 kW	230V/1Ph/50Hz	DX
MWU-T-01	1	Midwall AC Unit	3.60 kW	230V/1Ph/50Hz	DX
MWU-UR-01	1	Midwall AC Unit	6.70 kW	230V/1Ph/50Hz	AHU
UCU-B-01	1	Underceiling Indoor Unit	7.10 kW	230V/1Ph/50Hz	VRF

Grand total: 74

OUTDOOR UNIT SCHEDULE(DX SYSTEM)

ITEM	QTY	DESCRIPTION	POWER SUPPLY
ODU-AM-01	1	Heat Pump	230V/1Ph/50Hz
ODU-AO-01	1	Heat Pump	230V/1Ph/50Hz
ODU-COU-01	1	Heat Pump	230V/1Ph/50Hz
ODU-DC-01	1	Heat Pump	230V/1Ph/50Hz
ODU-FAA-01	1	Heat Pump	230V/1Ph/50Hz
ODU-FO-01	1	Heat Pump	230V/1Ph/50Hz
ODU-FS-01	1	Heat Pump	230V/1Ph/50Hz
ODU-OF-01	1	Heat Pump	230V/1Ph/50Hz
ODU-R-01	1	Heat Pump	230V/1Ph/50Hz
ODU-RCR-01	1	Heat Pump	230V/1Ph/50Hz
ODU-RR-01	1	Heat Pump	230V/1Ph/50Hz
ODU-RRR-01	1	Heat Pump	230V/1Ph/50Hz
ODU-T-02	1	Heat Pump	230V/1Ph/50Hz
ODU-TR-01	1	Heat Pump	230V/1Ph/50Hz
ODU-UR-01	1	Heat Pump	230V/1Ph/50Hz

Grand total: 15

VRF OUTDOOR UNITS SCHEDULE

ITEM	QTY	DESCRIPTION	Model	Weight	POWER SUPPLY
VRF-A	1	V8 PRO VRF	MW8-615WV2GN1(PRO)	195kg	400V/50Hz/3Ph
VRF-B	1	V8 PRO VRF	MW8-280WV2GN1(PRO)	195kg	400V/50Hz/3Ph
VRF-C	1	V8 PRO VRF	MW8-280WV2GN1(PRO)	213kg	400V/50Hz/3Ph
VRF-D	1	V8 PRO VRF	MW8-450WV2GN1(PRO)	213kg	400V/50Hz/3Ph
VRF-D.1	1	V8 PRO VRF	MW8-615WV2GN1(PRO)	295kg	400V/50Hz/3Ph

Grand total: 5

AIR HANDLING UNITS SCHEDULE

ITEM	QTY	DESCRIPTION	Model	Weight	POWER SUPPLY
AHU-01	1	Air Handling Unit	EC-H-H-L-1	152Skg	400V/50Hz/3Ph
AHU-02	1	Air Handling Unit	EC-H-H-L-4.5	673kg	400V/50Hz/3Ph
AHU-03	1	Air Handling Unit	EC-H-H-L-6	849kg	400V/50Hz/3Ph
AHU-04	1	Air Handling Unit	EC-H-H-L-3.75	582kg	400V/50Hz/3Ph
AHU-05	1	Air Handling Unit	EC-H-H-L-6	850kg	400V/50Hz/3Ph

Grand total: 5

AIR TERMINAL SCHEDULE

Mark	Count	Description	Size	Flow
Disc Valve				
DV-01	1	Disc Valve	200ø	20.0 L/s
DV-01	1	Disc Valve	200ø	45.0 L/s
DV-01	10	Disc Valve	200ø	50.0 L/s
DV-01	2	Disc Valve	200ø	55.0 L/s
DV-01	2	Disc Valve	200ø	60.0 L/s
DV-01	5	Disc Valve	200ø	65.0 L/s
DV-01	9	Disc Valve	200ø	70.0 L/s
DV-01	10	Disc Valve	200ø	71.0 L/s
Extract Air Diffuser				
EAD-01	1	Extract Air Diffuser	200ø	65.0 L/s
EAD-01	1	Extract Air Diffuser	200ø	70.0 L/s
EAD-01	3	Extract Air Diffuser	200ø	73.0 L/s
EAD-01	1	Extract Air Diffuser	200ø	90.0 L/s
EAD-01	2	Extract Air Diffuser	200ø	92.0 L/s
EAD-01	4	Extract Air Diffuser	200ø	94.0 L/s
EAD-01	3	Extract Air Diffuser	200ø	128.0 L/s
Extract Air Grille				
EAG-01	1	Extract Air Grille	200ø	30.0 L/s
EAG-01	1	Extract Air Grille	200ø	35.0 L/s
EAG-01	1	Extract Air Grille	200ø	50.0 L/s
EAG-01	1	Extract Air Grille	200ø	60.0 L/s
EAG-01	1	Extract Air Grille	200ø	65.0 L/s
EAG-01	2	Extract Air Grille	200ø	70.0 L/s
EAG-01	1	Extract Air Grille	200ø	100.0 L/s
Return Air Grille				
RG-01	1	Return Air Grille	200ø	247.0 L/s
RG-01	1	Return Air Grille	200ø	309.0 L/s
RG-02	1	Return Air Grille	1200x600	0.0 L/s
Supply Air Diffusser				
SAD-01	1	Supply Air Diffusser	150ø	15.0 L/s
SAD-01	1	Supply Air Diffusser	150ø	20.0 L/s
SAD-01	1	Supply Air Diffusser	150ø	80.0 L/s
SAD-01	4	Supply Air Diffusser	150ø	106.0 L/s
SAD-01	9	Supply Air Diffusser	150ø	110.0 L/s
SAD-02	3	Supply Air Diffusser	150ø	106.0 L/s
Supply Air Valve				
SV-01	5	Supply Air Valve	150ø	15.0 L/s
SV-01	2	Supply Air Valve	150ø	20.0 L/s
SV-01	3	Supply Air Valve	150ø	25.0 L/s
SV-01	1	Supply Air Valve	150ø	30.0 L/s
Weather Lourve				
WL-01	4	Weather Lourve	500x500	0.0 L/s
WL-01	1	Weather Lourve	600x500	0.0 L/s
WL-02	8	Weather Lourve	300x200	0.0 L/s
WL-03	8	Weather Lourve	600x500	0.0 L/s
WL-04	3	Weather Lourve	500x500	0.0 L/s

Grand total: 120

PUMP SCHEDULE

ITEM	QTY	DESCRIPTION	INPUT POWER	POWER SUPPLY
PUMP-01	1	Flexible Coupled Regenerative Turbine Process Pump		230V/1Ph/50Hz
PUMP-02	1	Flexible Coupled Regenerative Turbine Process Pump		230V/1Ph/50Hz

Grand total: 2

EXTRACTION FANS SCHEDULE

ITEM	QTY	DESCRIPTION	AIR FLOW	POWER SUPPLY
EF-01	1	Fire Rated Cased Axial Fan		
EF-02	1	Fire Rated Cased Axial Fan		
EF-03	1	Fire Rated Cased Axial Fan		
EF-04	2	Propeller Wall Fan Size 18	50.0 L/s	
EF-05	1	Fire Rated Cased Axial Fan		
EF-06	1	Fire Rated Cased Axial Fan		
EF-07	1	Fire Rated Cased Axial Fan		
EF-08	1	Fire Rated Cased Axial Fan		
EF-09	1	Fire Rated Cased Axial Fan		
EF-10	1	Fire Rated Cased Axial Fan		
EF-11	1	Fire Rated Cased Axial Fan		
EF-12	1	Fire Rated Cased Axial Fan		
EF-13	1	Fire Rated Cased Axial Fan		

Grand total: 14

VENTILATION FANS SCHEDULE

ITEM	QTY	DESCRIPTION	AIR FLOW	POWER SUPPLY
SF-01	2	Fire Rated Cased Axial Fan		
SF-02	1	Fire Rated Cased Axial Fan		
SF-03	1	Fire Rated Cased Axial Fan		
SF-05	1	Fire Rated Cased Axial Fan		
SF-06	1	Fire Rated Cased Axial Fan		
SF-07	1	Fire Rated Cased Axial Fan		
SF-08	1	Fire Rated Cased Axial Fan		
SF-09	1	Fire Rated Cased Axial Fan		
SF-10	1	Fire Rated Cased Axial Fan		
SF-11	1	Fire Rated Cased Axial Fan		
SF-12	1	Fire Rated Cased Axial Fan		
SF-13	1	Fire Rated Cased Axial Fan		

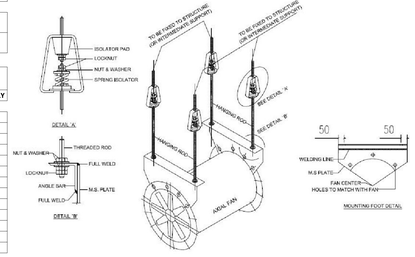
Grand total: 13

CHILLER UNITS SCHEDULE

ITEM	QTY	Description	POWER SUPPLY
CHILLER-01	1	AQUASNAP 30RB	400V/50Hz/3Ph
CHILLER-02	1	AQUASNAP 30RB	400V/50Hz/3Ph

Grand total: 2

TYPICAL INSTALLATION OF ROOF SUSPENDED AXIAL FAN



LEGEND

GENERAL
- ISOLATOR (3 PHASE)
- ISOLATOR (1 PHASE)

AIR TERMINALS
- DISC VALVE (EXHAUST)
- WEATHER LOUVER
- Ø250mm CRD SUPPLY DIFFUSER
- RETURN GRILLE

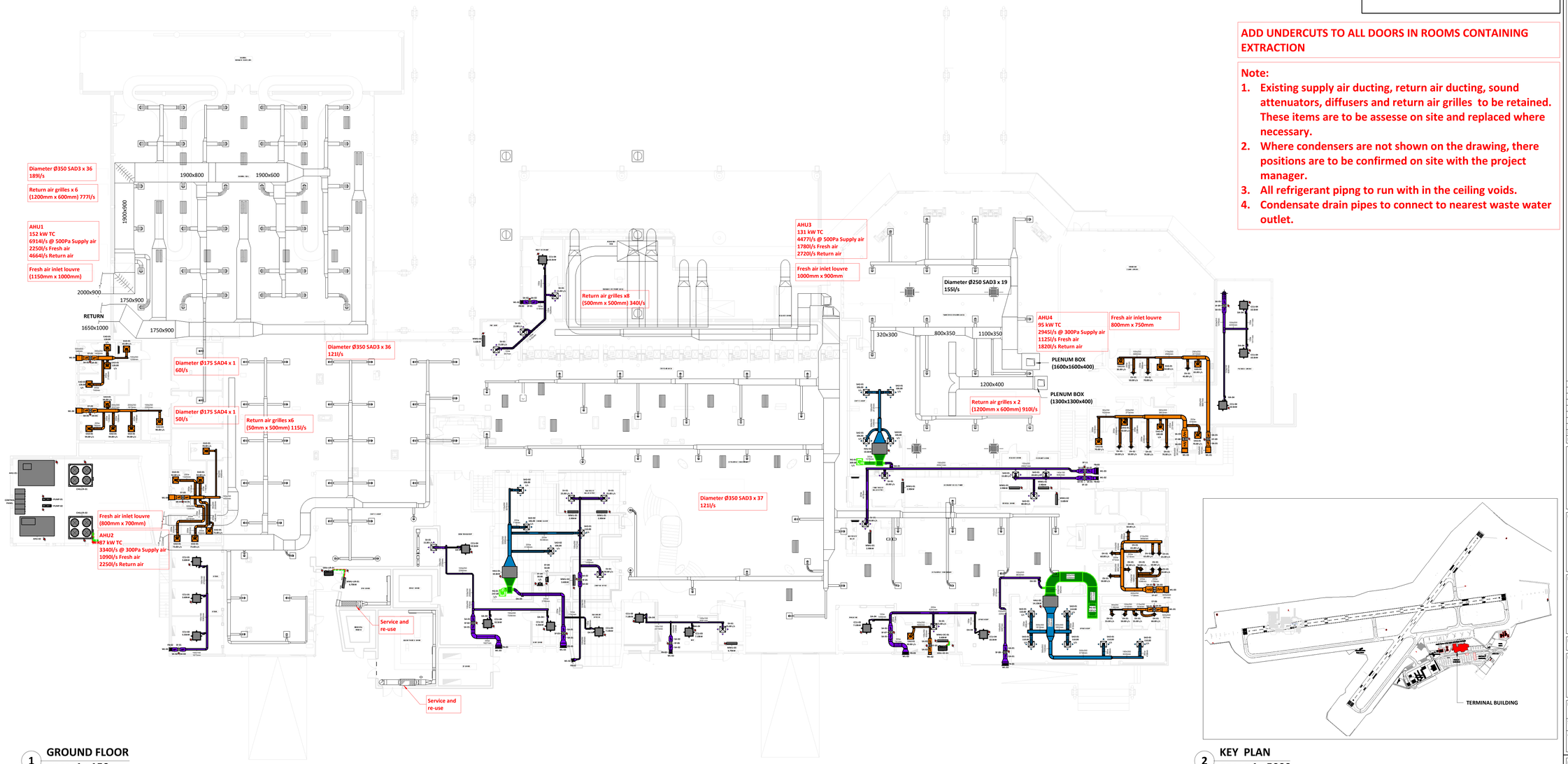
MECHANICAL EQUIPMENT
- ODU (CONDENSOR UNIT)
- ODU (VRF UNIT)
- AXIAL FAN
- MIDWALL SPLIT UNIT
- CEILING CASSETE UNIT

REFRIGERANT PIPING
- GAS LINE
- LIQUID LINE

DUCTING
- SUPPLY AIR
- RETURN AIR
- FRESH AIR
- EXHAUST AIR
- INDICATES EXISTING DUCTS & TO BE RETAINED

ADD UNDERCUTS TO ALL DOORS IN ROOMS CONTAINING EXTRACTION

Note:
1. **Existing supply air ducting, return air ducting, sound attenuators, diffusers and return air grilles to be retained. These items are to be assesse on site and replaced where necessary.**
2. **Where condensers are not shown on the drawing, there positions are to be confirmed on site with the project manager.**
3. **All refrigerant pipng to run with in the ceiling voids.**
4. **Condensate drain pipes to connect to nearest waste water outlet.**



1 **GROUND FLOOR**
SCALE 1 : 150

2 **KEY PLAN**
SCALE 1 : 5000

NOTES:

1. ALL WORKS TO BE EXECUTED STRICTLY IN ACCORDANCE WITH THE HEALTH AND SAFETY ACT, ACT 85 OF 1993 AS AMENDED.
2. THE CONSTRUCTION REGULATIONS SHALL BE ADHERED TO IN THE EXECUTION AND PLANNING OF WORKS
3. WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH APPROVED SHOP DRAWINGS.
4. SHOP DRAWINGS SHALL BE ISSUED FOR APPROVAL A MINIMUM OF 14 DAYS PRIOR TO CONSTRUCTION COMMENCEMENT, SUCH SHOP DRAWINGS SHALL BE COMPILED WITH THE ASSISTANCE OF THE MAIN CONTRACTOR AND VARIOUS TRADES AS REQUIRED TO ENSURE CO-ORDINATION PROVISIONS ARE MADE.
5. THIS DRAWING SHALL NOT BE SCALED, FIGURED DIMENSIONS ONLY SHALL BE USED.
6. THE PROVISION OF SIGNAGE AND INSTALLATION OF EXPOSED SERVICES SHALL BE IN ACCORDANCE WITH ARCHITECTS DRAWINGS.
7. EXPOSED SERVICES COLORS SHALL BE TO ARCHITECTS SPECIFICATION, CLIENT SPECIFICATION AND NATIONAL STANDARDS.
8. THIS DRAWING IS TO BE READ AND WORKS ARE TO BE EXECUTED IN ACCORDANCE WITH THE RELEVANT PROJECT SPECIFICATIONS, ENGINEERING CODES AND GOOD ENGINEERING PRACTICE.
9. PIPING SHALL BE SABS 62 MEDIUM WEIGHT. PIPING DIAMETER 200 AND LARGER MAY BE SABS 719 4.5t.
10. PIPING Ø65mm AND ABOVE SHALL BE WELDED, FLANGED OR CLAMBON COUPLED, PIPING BELOW Ø65mm SHALL BE BS SCREWED; ALL IN ACCORDANCE WITH PROJECT SPECIFICATIONS, NATIONAL REGULATIONS AND GOOD ENGINEERING PRACTICE.
11. PIPING INSULATION ON PIPING Ø200mm AND ABOVE SHALL BE HIGH DENSITY POLYSTYRENE, 30mm THICK, PIPING INSULATION ON PIPING BELOW Ø200mm SHALL BE HIGH DENSITY POLYSTYRENE, 25mm THICK.
12. MYLAR SHEATH VAPOUR BARRIER TO BE EMPLOYED.
13. ALL CHILLED PIPING IN ACCESS FLOOR VOID AND CEILING VOID TO BE INSULATED AND CLAD IN GALVANISED SHEET 0.6mm t
14. ALL EXPOSED CHILLED WATER PIPE AND CONDENSATE DRAINS IN CORRIDORS AND PASSAGES TO BE IN A BRUSHED STAINLESS STEEL CONDUIT
15. ALL PIPING AND TO BE INSULATED AND CLAD IN SHINY STAINLESS STEEL 0.6mm.
16. PIPING SUPPORTS SHALL BE PROVIDED AT ALL CHANGES IN PIPING DIRECTION AND AT A MAXIMUM SPACING AS INDICATED IN THE PIPING SUPPORT TABLE BELOW.
17. "ROUGH-IN" (TACK AND LOOSELY SUPPORT) ALL PIPING AND FITTINGS FOR THE APPROVAL OF THE ENGINEER PRIOR TO FULL WELDING AND FIRM FIXING.
18. ALL DISCREPANCIES BETWEEN THIS DRAWING AND ACTUAL SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE RESPONSIBLE ENGINEER.
19. FIRE STOPPING SHALL BE PROVIDED AT ALL FIRE BARRIERS AND FIRE WALLS BY THE RESPONSIBLE FIRE PROOFING CONTRACTOR.
20. THE APPROVAL OF THE STRUCTURAL ENGINEER SHALL BE SOUGHT FOR ALL PIPING SUPPORT METHODS WHERE STRUCTURAL FIXING IS EMPLOYED.

NO.	DATE:	BY:	DESCRIPTION:
T	2025-09-19	PG	ISSUED FOR TENDER

REVISIONS:

CARIFRO
Electrical & Mechanical Consulting Engineers
Green Building Consultants
100 MANGOLD STREET
NEWTON PARK
PORT ELIZABETH
TEL: 041 - 392 9800
E-MAIL: PE@CARIFRO.COM
GREEN BUILDING COUNCIL SOUTH AFRICA
CESA
4, BELGRAVE ROAD
SOUTHERNWOOD
EAST LONDON
TEL: 043 - 743 8266
EMAIL: EL@CARIFRO.COM

CLIENT:
KING PHALO AIRPORT
AIRPORTS COMPANY SOUTH AFRICA

PROJECT TITLE:
ACSA EAST LONDON HVAC

DISCIPLINE: MECHANICAL

DRAWING TITLE:
TERMINAL BUILDING GROUND FLOOR HVAC LAYOUT

DESIGNED:	DRAWN:	APPROVED:
PG	MK	PG

SCALE: As indicated
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DATE: 2024-06-18
drawing number: 2413-M-HVAC-TB-01
REV: T

project status: TENDER