

PRELIMINARY

01-GF-ELECTRICAL-BY OTHERS			
SYMBOL	REFERENCE	TYPE	QTY
AC		AIRCON CONTROLLER	15
	E1	5A HVAC SOFFIT PLUG	10
	E2	16 A SINGLE PHASE WEATHERPROOF LOCKABLE ISOLATOR	29
	E3	60 A 3 PHASE WEATHERPROOF LOCKABLE ISOLATOR	6

01-GF-MECHANICAL INDOOR UNITS SCHEDULE						
TAG	TYPE	SIZE (kW)	ELEC. AMPS	OUTDOOR	COMMENTS	QTY
AHU1.0.58	AIR HANDLING UNIT	33.5kW	28.5A		SA: 1336 L/s FA: 285 L/s RA: 821 L/s	1
AHU2.0.60	AIR HANDLING UNIT	23.5kW	18.3A		SA: 780 L/s FA: 374 L/s RA: 199 L/s	1
MW1.0.19	MIDWALL UNIT	3.65kW	6.6A	OU1.0.19		1
MW1.0.20	MIDWALL UNIT	3.65kW	6.6A	OU1.0.20		1
MW1.0.21	MIDWALL UNIT	3.65kW	6.6A	OU1.0.21		1
MW1.0.31	MIDWALL UNIT	3.65kW	6.6A	OU1.0.31		1
MW1.0.32	MIDWALL UNIT	3.65kW	6.6A	OU1.0.32		1
MW2.0.22	MIDWALL UNIT	4.2kW	7.2A	OU2.0.22		1
MW2.0.23	MIDWALL UNIT	4.2kW	7.2A	OU2.0.23		1
MW3.0.15	MIDWALL UNIT	7.2kW	11A	OU3.0.15		1
MW4.0.17	MIDWALL UNIT	9kW	9.1A	OU4.0.17		1
MW4.0.18	MIDWALL UNIT	9kW	9.1A	OU4.0.18		1

01-GF-DUCT ACCESSORIES SCHEDULE				
REFERENCE	TYPE	SIZE	QTY	
BD01	BALANCING DAMPER	#100	6	
BD02	BALANCING DAMPER	#150	22	
BD03	BALANCING DAMPER	#200	13	
BD04	BALANCING DAMPER	#250	26	
BD05	BALANCING DAMPER	#300	6	
FD01	ROUND FIRE DAMPER	#150	1	
FD02	ROUND FIRE DAMPER	#200	1	
FD03	ROUND FIRE DAMPER	#300	1	
FD04	ROUND FIRE DAMPER	#400	1	
FD05	ROUND FIRE DAMPER	#450	2	
FP01	FILTER PANEL	TO SLIT	3	
NR01	NON RETURN DAMPER	#150	1	
SA01	SOUND ATTENUATOR	#150	2	
SA02	SOUND ATTENUATOR	#200	6	
SA03	SOUND ATTENUATOR	#300	13	
SA04	SOUND ATTENUATOR	#450	1	
SA05	SOUND ATTENUATOR	#550	1	
SA06	SOUND ATTENUATOR	#630	6	

01-GF-MECHANICAL FANS SCHEDULE							
REFERENCE	TYPE	SIZE	AIR VOLUME	ELEC. AMPS	ELEC-POWER	PRESSURE	QTY
EF1.0.24	AMS HOM 300 EXTRACTION WALL FAN	#300	180 L/s	0.5A	220V / 1P / 50Hz	75.0 Pa	1
EF1.0.25	AMS HOM 300 EXTRACTION WALL FAN	#300	180 L/s	0.5A	220V / 1P / 50Hz	75.0 Pa	1
EF2.0.26	AMS FUTURE 300 S EXTRACTION WALL MOUNT FAN	#300	15 L/s	0.15A	220V / 1P / 50Hz	75.0 Pa	1
EF2.0.27	AMS FUTURE 300 S EXTRACTION WALL MOUNT FAN	#300	85 L/s	0.15A	220V / 1P / 50Hz	75.0 Pa	1
EF2.0.28	AMS FUTURE 300 S EXTRACTION WALL MOUNT FAN	#300	45 L/s	0.15A	220V / 1P / 50Hz	75.0 Pa	1
EF2.0.29	AMS FUTURE 300 S EXTRACTION WALL MOUNT FAN	#300	60 L/s	0.15A	220V / 1P / 50Hz	75.0 Pa	1
EF2.0.34	AMS FUTURE 300 S EXTRACTION WALL MOUNT FAN	#300	75 L/s	0.15A	220V / 1P / 50Hz	75.0 Pa	1
EF3.0.33	HIT 250 B EXTRACTION WALL FAN INCLUDING FIRE DAMPER	#333	300 L/s	0.65A	220V / 1P / 50Hz	75.0 Pa	1
EF3.0.65	HIT 250 B VERTICAL MOUNTED EXTRACTION FAN	#300	150 L/s	0.65A	220V / 1P / 50Hz	150.0 Pa	1
EF4.0.37	HIT 250 B EXTRACTION FAN	#333	210 L/s	0.65A	220V / 1P / 50Hz	150.0 Pa	1
EF4.0.38	HIT 250 B EXTRACTION FAN	#333	150 L/s	0.65A	220V / 1P / 50Hz	150.0 Pa	1
EF4.0.39	HIT 250 B EXTRACTION FAN	#333	150 L/s	0.65A	220V / 1P / 50Hz	150.0 Pa	1
EF4.0.50	HIT 250 B EXTRACTION FAN	#333	150 L/s	0.65A	220V / 1P / 50Hz	150.0 Pa	1
EF5.0.54	AMS HIT 315 B EXTRACTION FAN	#400	310 L/s	1.1A	220V / 1P / 50Hz	150.0 Pa	1
EF5.0.55	AMS HIT 315 B EXTRACTION FAN	#400	360 L/s	1.1A	220V / 1P / 50Hz	150.0 Pa	1
EF5.0.56	AMS HIT 315 B EXTRACTION FAN	#400	360 L/s	1.1A	220V / 1P / 50Hz	150.0 Pa	1
EF5.0.58	TO 6000400 EXTRACTION FAN	#400	425 L/s	3.0A	220V / 1P / 50Hz	150.0 Pa	1
EF5.0.59	TO 6000400 EXTRACTION FAN	#400	250 L/s	3.0A	220V / 1P / 50Hz	150.0 Pa	1
EF7.0.64	AP 560/250/14 EXTRACTION AIR AXIAL FAN	#560	2400 L/s	2.7A	400V / 3PH / 50Hz	2000.0 Pa	1
EF8.0.30	AMS FUTURE 300 S EXTRACTION WALL MOUNT FAN	#300	45 L/s	0.15A	220V / 1P / 50Hz	75.0 Pa	1
EF8.0.35	AMS FUTURE 300 S EXTRACTION WALL MOUNT FAN	#300	85 L/s	0.15A	220V / 1P / 50Hz	75.0 Pa	1
FA1.0.63	AP 560/250/14 FRESH AIR AXIAL FAN	#560	912 L/s	2.7A	400V / 3PH / 50Hz	3000.0 Pa	1
FA2.0.61	AP 560/250/14 FRESH AIR AXIAL FAN	#560	1012 L/s	2.7A	400V / 3PH / 50Hz	3000.0 Pa	1
FA3.0.62	AP 560/250/14 FRESH AIR AXIAL FAN	#560	1608 L/s	1.5A	400V / 3PH / 50Hz	3000.0 Pa	1

HVAC LEGEND	
	EXTRACTION AIR DUCT
	RETURN AIR DUCT
	SUPPLY AIR DUCT
	FRESH AIR DUCT
	CONDENSATE PIPE ROUTE
	REFRIGERANT PIPE ROUTE

APPROVED \_\_\_\_\_

NAME \_\_\_\_\_ SIGNATURE \_\_\_\_\_

PR. NO. \_\_\_\_\_ DATE \_\_\_\_\_

**NOTES**

**INSTALLATION NOTE**

- ALL HIDDEN DUCTED SPLIT UNITS TO HAVE 25mm ISOLATION AROUND SUPPLY DUCTWORK.
- ALL EXPOSED DUCTWORK SHOULD BE PAINTED TO ARCHITECTS FINISH DETAIL.
- ALL EXPOSED DUCTWORK SHOULD BE SPIRAL DUCTING AND INTERNALLY INSULATED.
- CEILING LAYOUT TO BE CONFIRM AND COORDINATED BETWEEN SERVICE. NO SILICONE OR SILICONE CONTAINING PRODUCTS TO BE USED ON SITE.
- ALL PRODUCTS INCLUDING GASKETS, WIRING AND SEALANT TO BE TESTED AT LABORATORIES FOR CONFORMANCE.
- P1 = CONDENSATE TO CONNECT TO NEAREST DRAIN POINT WITH P-TRAP
- M = MASTER
- S = SLAVE

**LEGEND**

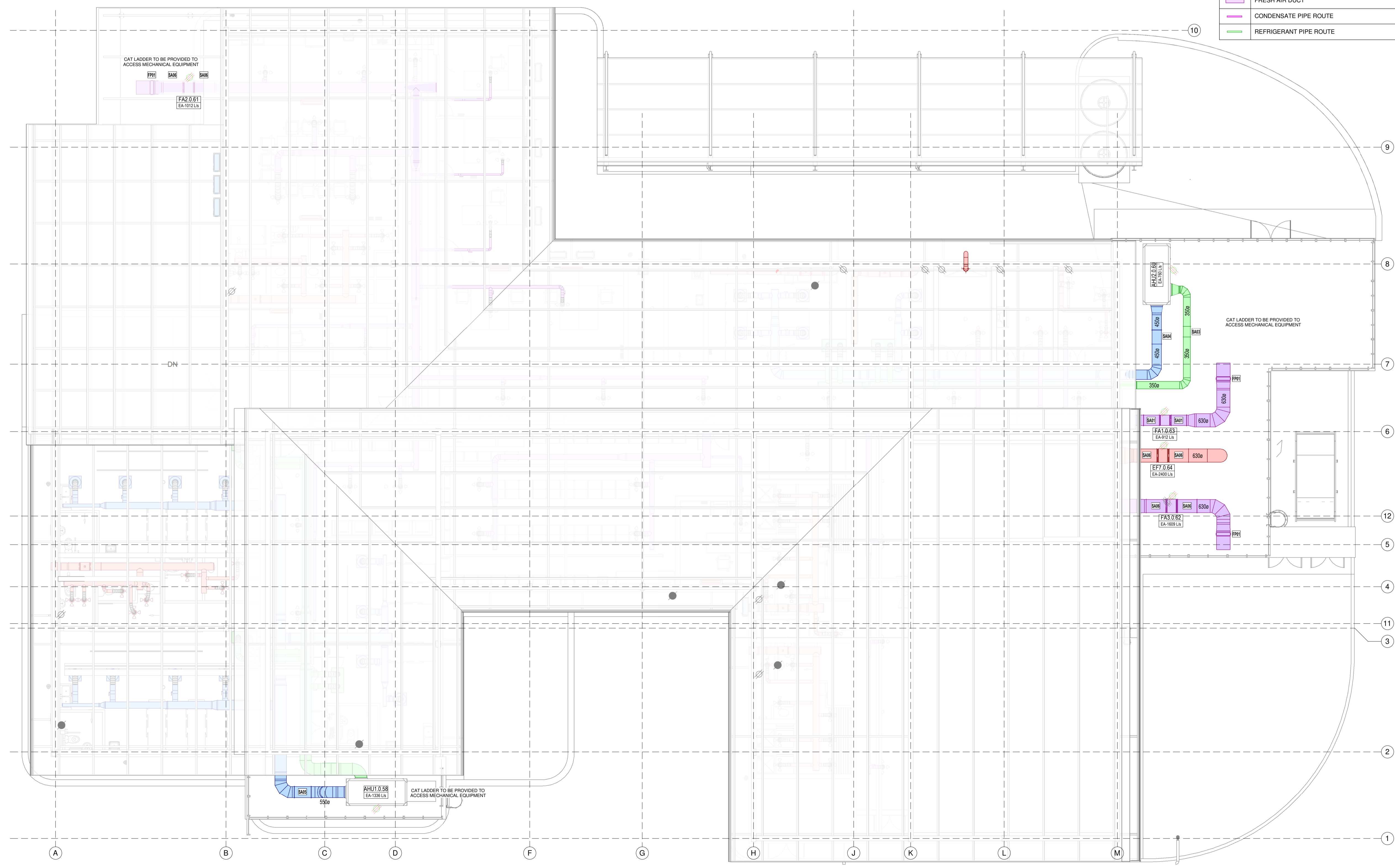
FLOOR NUMBER: HA1.0.01

MECHANICAL EQUIPMENT TYPE NUMBER: HA1.0.01

UNIQUE MECHANICAL EQUIPMENT IDENTIFICATION NUMBER: HA1.0.01

**DUCTWORK NOTES:**

- ALL DUCT WORK TO BE MANUFACTURED TO THE LATEST S.M.A.C.N.A STANDARDS WITH FLANGED JOINTS ON DUCTS EXCEEDING 600 SEMI PERIMETER OR ONE SIDE EXCEEDS 750 AND S&D JOINTS ON SMALLER DUCTS.
- ALL A.C. DUCTING TO BE INTERNALLY INSULATED WITH 25mm SONIC INSULATION UNLESS OTHERWISE SHOWN.
- ALL VENTILATION DUCTING TO BE UNINSULATED.
- ALL FLEXIBLE DUCTING TO BE FACTORY PRE-INSULATED. ALL FLEXIBLE DUCTING TO BE FIXED TO SPIGOTS WITH JUBILEE CLAMPS AND STRAPPED WITH DUCT TAPE.
- SPIGOTS TO BE EXTERNALLY INSULATED WITH 25 FOIL FACED FIBREGLASS.
- ALL HANGERS AND BRACKETS TO BE GALVANISED.
- ALL DUCTWORK TO BE HUNG ON 30x50x1.6 G.S.M. CHANNEL TRAPEZE HANGERS WITH Ø8 RODS.
- FLEXIBLE CONNECTIONS TO BE FITTED TO ALL DUCTING BETWEEN AIRHANDLING AND PACKAGE UNITS, FANS, ETC.
- ALL GRILLE BRANCHES TO HAVE STRAIGHTENING VANES AS DETAILED.



**PRELIMINARY REVISIONS**

REV	DATE	DESCRIPTION	BY
0A	2021-10-10	PRELIMINARY DESIGN	RN
0B	2022-04-04	UPDATED FOLLOWING COMMENTS	RN
0C	2022-04-11	UPDATED ARCH MODEL	RN
0D	2022-05-03	CO-ORDINATED LAYOUT	RN
0E	2022-05-24	UPDATED LAYOUTS TO COMMENTS	RN

CLIENT: **health** Department: Health PROVINCE OF KWAZULU-NATAL

ARCHITECT: **UKUZA CONSULTING**

CLIENT: **public works** Department: Public Works PROVINCE OF KWAZULU-NATAL

CONSULTANT: **ADQ** AFRICAN DYNAMIC QUALITY ENGINEERING PROJECTS

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PROJECT DESCRIPTION: **NGWELEZANA HOSPITAL: NEW ORTHOTICS AND PROSTHETICS CENTRE**

DRAWING TITLE: **ROOF FLOOR HVAC LAYOUT**

DATE: 2022-05-24	DRAWN BY: R NIEMANN
CHECKED BY: J. HILL / D.DE WIT	DESIGNED BY: J. HILL / D.DE WIT
DRAWING SIZE: A1	SCALE: 1 : 100
DRAWING NUMBER: P21051-PD-MEC-102	REV: 0E