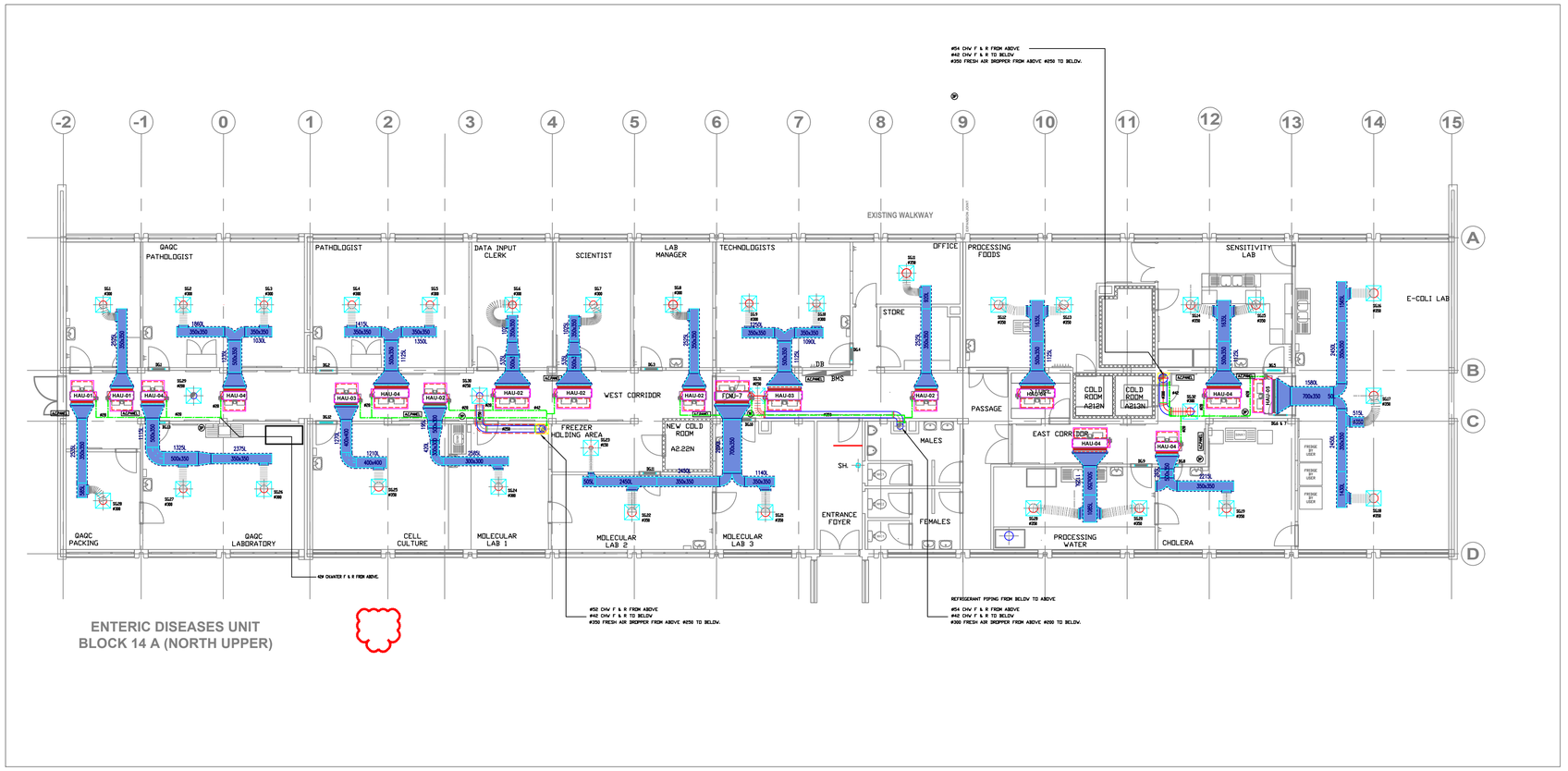
A/C NOTES:-

1. ALL NEW DUCTWORK IN CEILING VOIDS TO BE INSULATED 40mm STI.
2. ALL SPIGOTS TO HAVE BUTTERFLY DAMPERS TO DETAIL.
3. FCU DUCTWORK TO BE S & DRIVE.



ENTERIC DISEASES UNIT
BLOCK 14 A (NORTH UPPER)

EQUIPMENT SCHEDULE - Hide Away Units

Symbols MCA: Minimum Circuit Amps; FLA: Full Load Amps; IFM: Indoor Fan Motor; Output: Fan Motor Rated Output

ITEM	DESCRIPTION	AREA / LOCATION	QTY	COOLING CAPACITY (kW)	POWER SUPPLY	SIZE - Indoor Unit (HWD) (mm)	WEIGHT (kg)	NOTES
HAU-01	Hide Away Unit (Ceiling Concealed)			2.8 kW	220-240V / 50Hz, Max 264V & Min 198V; MCA = 0.59A; IFM: Output = 0.096kW, FLA = 0.47A	292x790x700	19	
HAU-02	Hide Away Unit (Ceiling Concealed)			3.6 kW	220-240V / 50Hz, Max 264V & Min 198V; MCA = 0.59A; IFM: Output = 0.096kW, FLA = 0.47A	292x790x700	20	
HAU-03	Hide Away Unit (Ceiling Concealed)			4.9 kW	220-240V / 50Hz, Max 264V & Min 198V; MCA = 1.21A; IFM: Output = 0.08kW; FLA = 0.97A	380x690x900	44	
HAU-04	Hide Away Unit (Ceiling Concealed)			5.8 kW	220-240V / 50Hz, Max 264V & Min 198V; MCA = 1.21A; IFM: Output = 0.08kW; FLA = 0.97A	380x690x900	45	
HAU-05	Hide Away Unit (Ceiling Concealed)			11.2 kW	220-240V / 50Hz, Max 264V & Min 198V; MCA = 0.46A; IFM: Output = 0.096kW; FLA = 0.37A	380x1200x900	70	
Outdoor Units								

Notes:

This drawing is not to be used as a construction/installation drawing.

Routes and zones have been allocated to this service, location dimensions are indicative of these.

To prepare his construction/installation drawing, the subcontractor must adhere to this co-ordination principle and must inspect all the architect's drawings, including structural and other consultants' drawings, before he starts. He must familiarise himself with the general arrangement of all other services and ensure that in fixing his work it will not obstruct the fixing of future maintenance of other services.

The subcontractor is responsible for correct field dimensions; clearances and heights, quantities, fabrication processes and techniques of construction co-ordination of his work with that of the other trades; and satisfactory and safe operation and satisfactory operation. Detailed drawings, typical sections, typical weight including all typical details as well as the legend can be read off drawing number MA -100

- All installation should be carried out as per Part IV of the tender specification.
- Duct sizes shown are sheet metal sizes.
- All ducting to be manufactured & installed in accordance with the SANS standards.
- All A/C shaft to be fitted with mentis grid platform on floors with access door.
- All exposed ducting to be painted to an approved colour.
- All take-offs from supply & exhaust air ducting to be 45° boots.
- AC equipment to be fitted with anti-vibration mountings as per specification.
- HVAC contractor to ensure that all condensate drains are trapped and slope adequately. All drains to be tested for leaks and operation.

0. All ducting to be flat on top and installed hard-up to the underside of the slab above.
1. HVAC Contractor is responsible for connecting the condensate drains to the drain stack or the nearest drain. The connection must be a solid connection to prevent leakage.
2. Thermostat positions are provisional. Final positions shall be determined on site in conjunction with Client/Engineer. Where full height partitioning is not available for mounting the thermostat, it must be mounted on the brick wall.
3. All refrigerant piping, electrical and control wiring between indoor and units must run in trunking/on cable trays with cover plate securely fitted against wall.
4. Condenser must be mounted on galvanised cantilever frame.
5. All supply air ducting must be externally insulated.
6. All BMS wiring must be installed in PVC conduit by BMS controller.

DIVISION OF WORK

Work by Main Contractor

- Openings in doors for door grilles.
- Openings in ceiling for air terminals and/or fans.
- Openings in structure complete with timber frames (in non-fire walls) and making good after installation of HVAC equipment.
- Concrete bases for fan sets, etc.
- Enclosures around HVAC openings
- Mentis grid platform in AC shafts.
- Building in and sealing of fire dampers.

Work by Electrical Subcontractor

- Power supply terminating in Distribution boards.
- Heater interlocking safeties with the air pressure switch.
- Stop/Start interlocking of toilet exhaust fans.
- Fire interlocking signal to each AHU.

Work by Plumbing Subcontractor

- Fullbore outlets on roof.
- Water outlet points for Chiller Units

Legend

- 500x300 1200L – Externally insulated supply ducting
- 500x300 1200L – Externally insulated return ducting
- 600x400 1200L – Uninsulated extract ducting
- 600x400 1200L – Cladded extract ducting
- 600x400 – Fresh Air Duct
- 600x600 SUPPLY – 600x600 Constant Volume Supply Air diffuser with flow rate.
- – A32 galvanised condensate/drain piping
- – Refrigerant piping
- SE – Duct stop end
- – Single phase isolator by electrician
- – Three phase isolator by electrician
- 28.1kW – Ceiling cassette with Cooling capacity
- FD 600x600 – Fire damper with fusible link
- UC(25mm) – Under Cut door (25mm)
- 394/s 500(600x600) – Door Grille with size and flow rate
- DVD1 25 394/s – Disc valve with flow rate
- RAG 50% – Return Air Grille (600x600) with flow rate
- VRF-01 – Variable refrigerant Volume Condensers
- – Mid wall unit
- – Hide Away (Concealed) Unit
- – Axial Fan
- SA 600x600 – Sound Attenuator (1.5D)
- WL(1500x450) 600x600 – Weather Louvre with size and flow rate
- – Condenser
- – Supply Air diffuser with

REVISIONS		
TD	03.10.25	ISSUED FOR TENDER
A	26.03.25	ISSUED FOR INFORMATION
Rev No.	DATE	DESCRIPTION

CLIENT

NATIONAL HEALTH LABORATORY SERVICE

CONSULTING

POTENT Engineering Projects

Project:	NHLS BLOCK 14
Master plan reference:	BLOCK 14 A
Drawing:	NORTH UPPER PLAN
Status:	TENDER

Drawn by:	T.M	
Designed by:	J.M	
Checked by:	M.M	Pr no: 2019300446
Signature	2025-03-07 Date	
Scale:	1:50	Revision No.: TD
Date:	FEB-2025	
Drawing No:	P2407-MA-102	