

LEGEND:

- Balancing valve with flow tappings
- Pressure Port
- Shut-off valve
- Pressure gauge
- Strainer
- Flow switch
- Pump
- Expansion Vessel
- Safety Valve
- Drain Valve
- Fill Valve
- Temp sensor
- Buffer Tank
- 3-Way motorised cooling valve
- Pressure Regulated Valve
- Pressure Gauge
- Bypass Valve
- Pressure Ports
- Pressure Ports
- Blender test point
- Thermometer
- Thermostat
- Flexible connection
- Excess/Deficit control meter
- 2-Way motorised cooling valve
- Non-return valve
- Isolating valve
- Variable speed drive
- Magnetic maximum flow meter

PCHWP# - Primary chilled water pump  
SCHWP# - Secondary chilled water pump  
CHWS - Chilled water supply  
CHWR - Chilled water return  
AHU - Variable volume air handling unit  
- Chilled water supply piping  
- Chilled water return piping

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 the construction/installation drawing, the subcontractor must refer to the co-ordination package and must inspect all the architect's drawings, including structural and other services. Design drawings pertaining to the work must be reviewed and approved by the client before any work is carried out. The subcontractor must ensure that in doing the work, it will not obstruct the fixing of future installations 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 all other trades, providing all devices necessary for safe and satisfactory operation. Detailed drawings, typical sections and all other drawings must be submitted to the client for approval. The subcontractor must ensure that in doing the work, it will not obstruct the fixing of future installations of other services.

All installation should be carried out as per Part IV of the tender specification.

- All 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 merits 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.

1. All ducting to be flat on top and installed hard-up to the underside of the slab above.
2. 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.
3. All refrigerant piping, electrical and control wiring between indoor and units must run in lightning/rod cable tray with cover plate securely sealed against wall.
4. Condenser must be mounted on galvanneal coilover frame.
5. All supply air ducting must be externally insulated.
6. All BMS wiring must be installed in PVC conduit by BMS contractor.

- DIVISION OF WORK
- Work by Main Contractor
- Openings in slabs for door grilles.
  - Openings in ceiling for air terminals and/or fans.
  - Openings in structure complete with border frames (in non-fire walls) and making good after installation of HVAC equipment.
  - Concrete bases for fan sets, etc.
  - Enclosures around HVAC openings.
  - Merits grid platform in AC shafts.
  - Building in and sealing of fire dampers.
- Work by Electrical Subcontractor
- Power supply terminating in Distribution boards.
  - Heater interfacing safeties with the air pressure switch.
  - Stay/Start interfacing of solenoid without fans.
  - Fire interfacing signal to each AHU.
- Work by Plumbing Subcontractor
- Fullbore outlets on roof.
  - Water outlet points for Chiller Units

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



Project:		
REFURBISHMENT & UPGRADE OF NHL'S BLOCK 14		
Master plan reference:		
BLOCK 14		
Drawing:		
SCHEMATIC LAYOUT		
Status:		
TENDER		
Drawn by:	J.M.	
Designed by:	J.M.	
Checked by:	M.M.	
Signature	2025-03-07	
Scale:	1:50	Revision No.:
Date:	FEB-2025	TD
Drawing No:	P2407-MA-114	