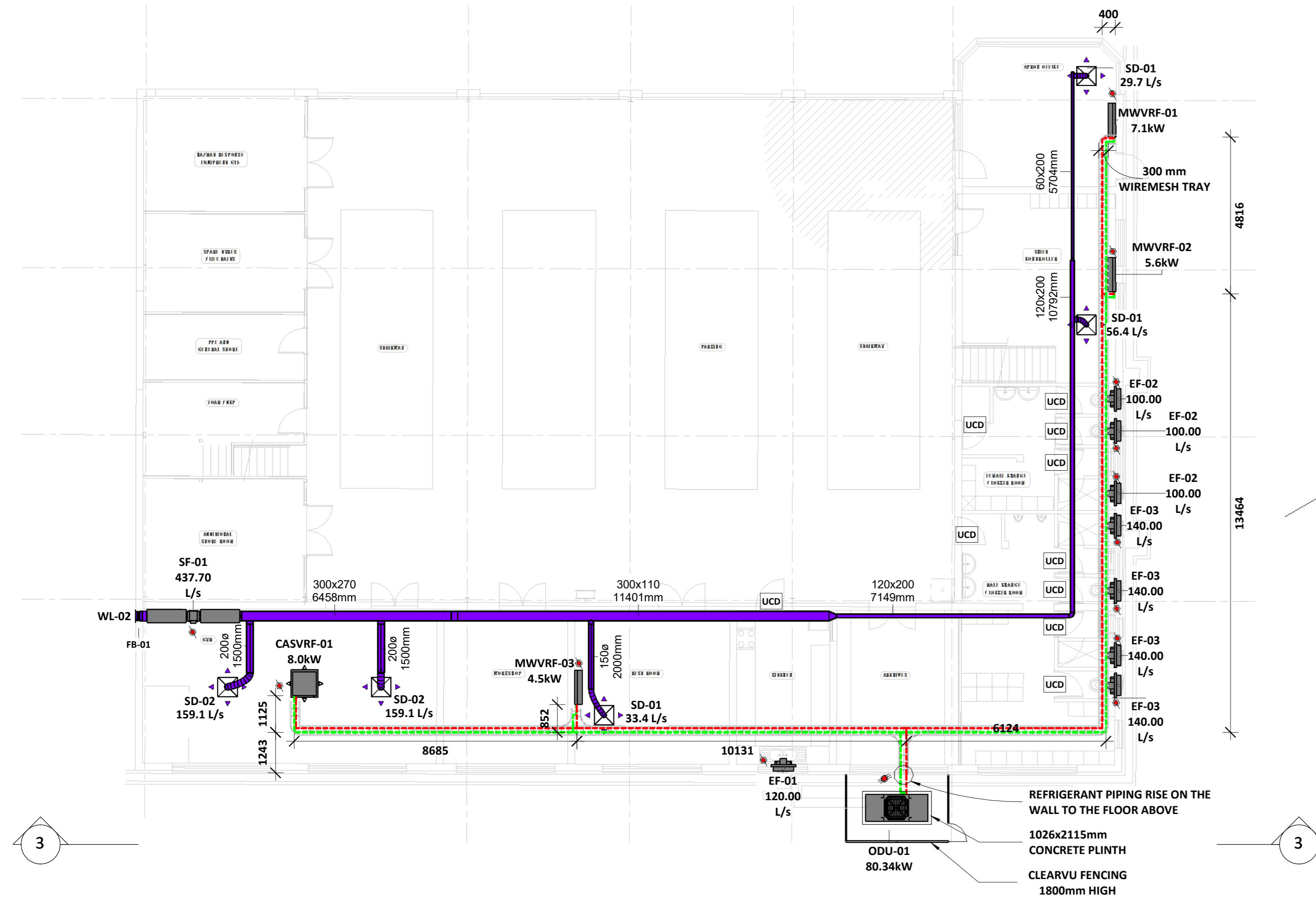
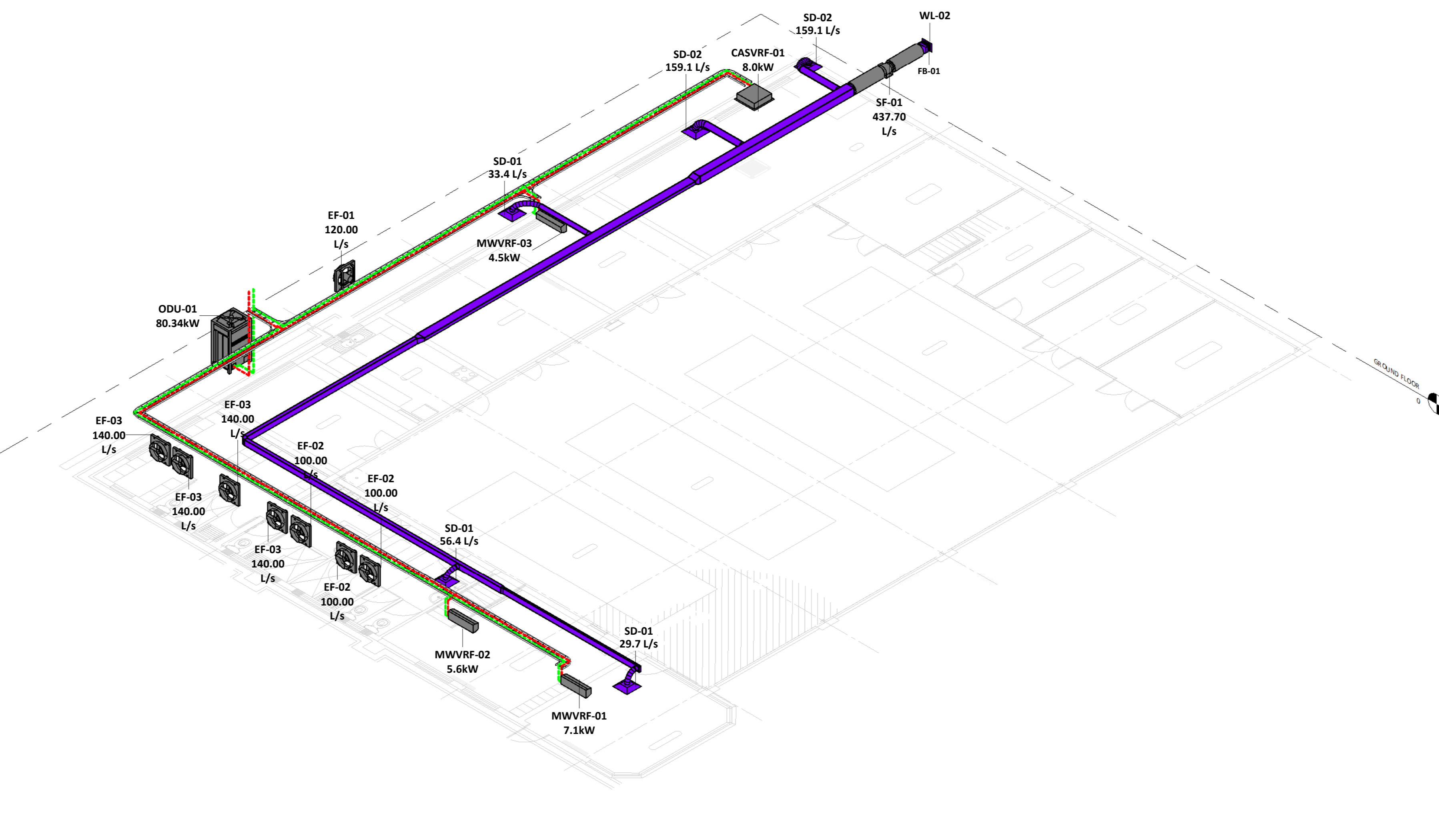


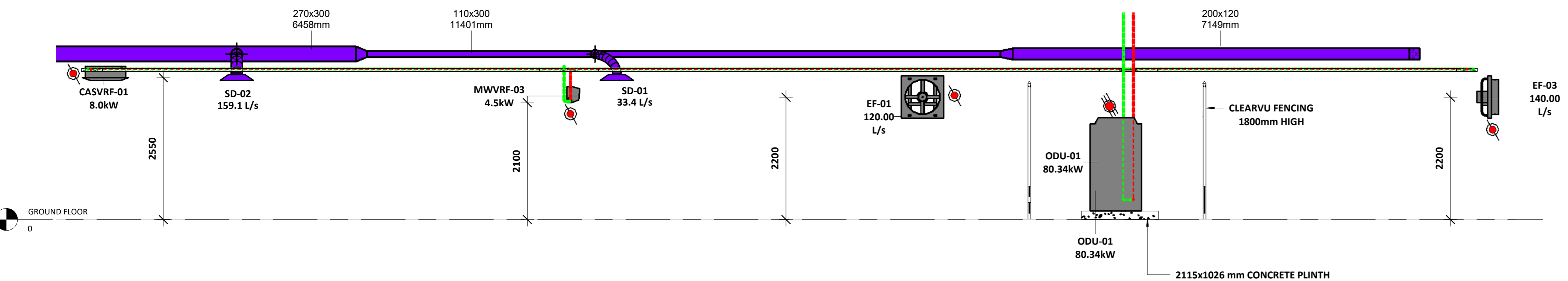
Note: Condensate to be piped to nearest waste water connection point



1 GROUND FLOOR SCALE 1 : 100



2 GROUND FLOOR 3D VIEW SCALE

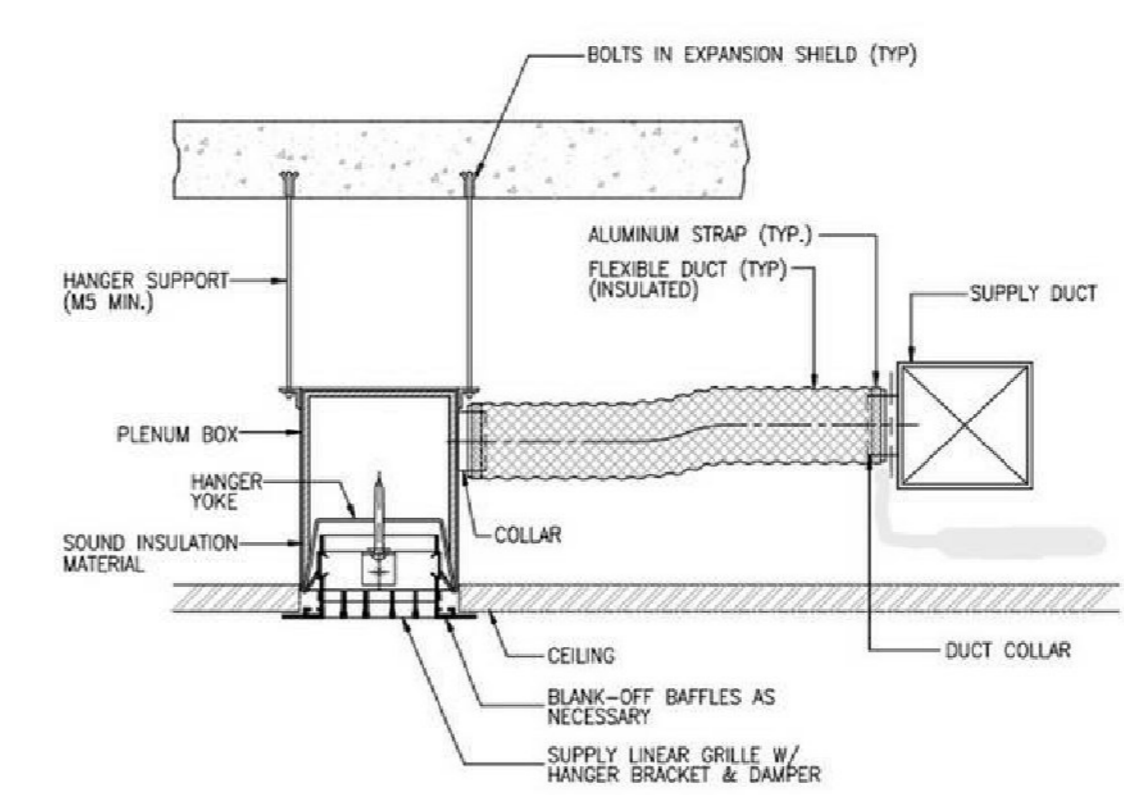


3 Section 1 SCALE 1 : 50

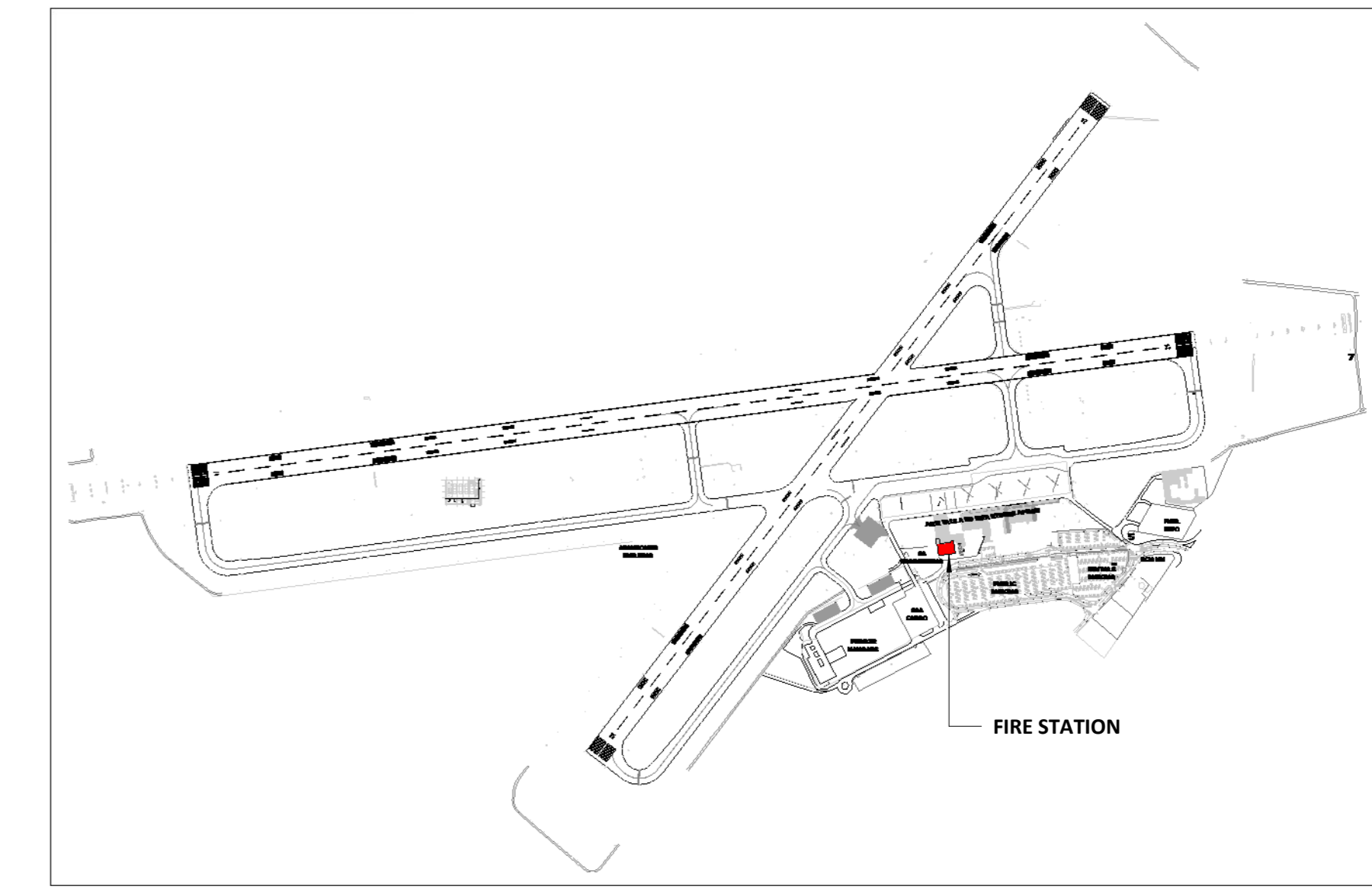
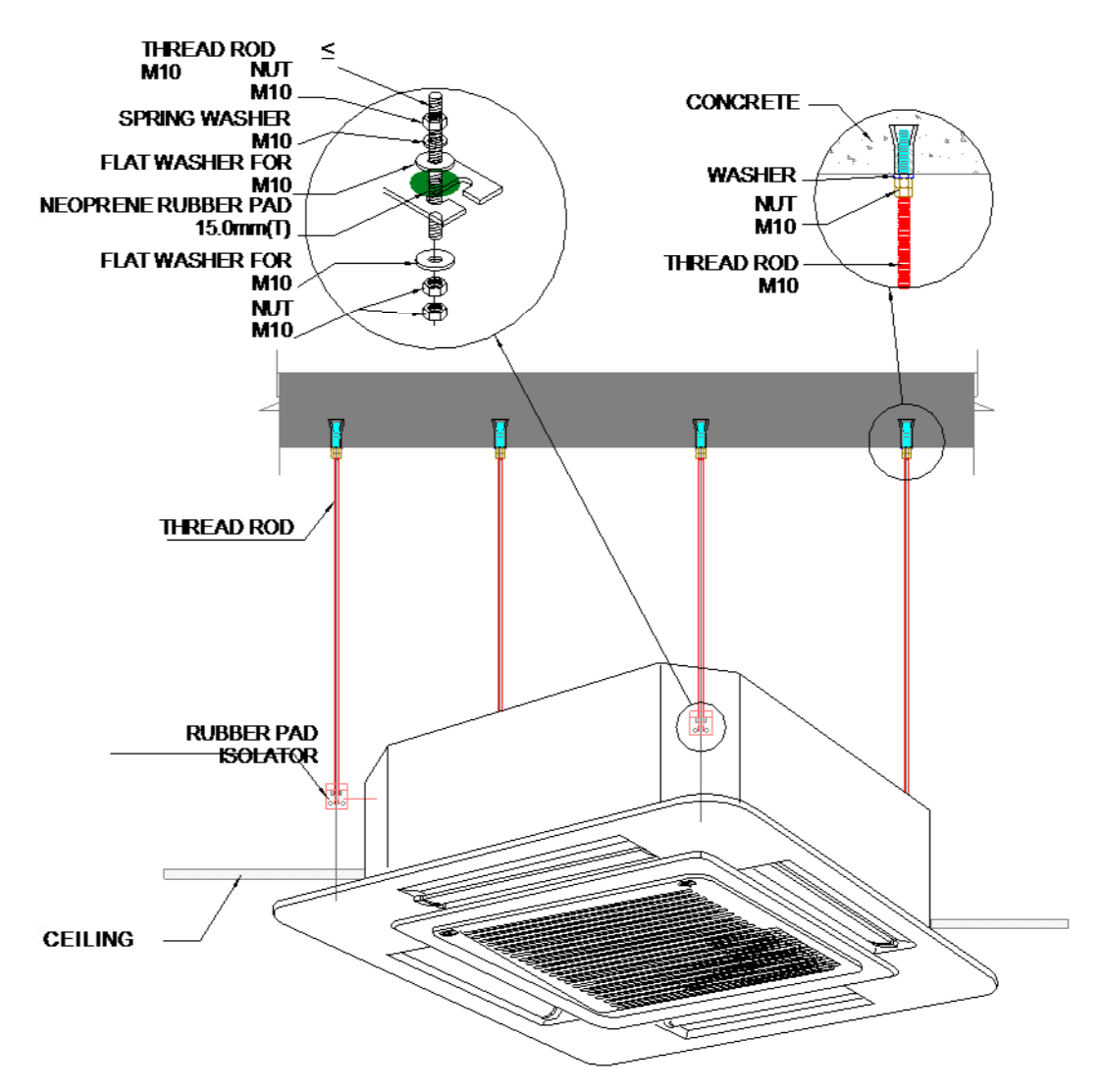
| LEGEND | |
|----------------------|-------------------------------------------|
| GENERAL | ISOLATOR (3 PHASE) |
| | ISOLATOR (1 PHASE) |
| AIR TERMINALS | DISC VALVE (EXHAUST) |
| | WEATHER LOUVER |
| | Ø250mm CRD SUPPLY DIFFUSER |
| | RETURN GRILLE |
| MECHANICAL EQUIPMENT | ODU (CONDENSOR UNIT) |
| | ODU (VRF UNIT) |
| | AXIAL FAN |
| | MIDWALL SPLIT UNIT |
| | CEILING CASSETTE UNIT |
| | THERMOSTAT (AC UNIT) |
| REFRIGERANT PIPING | GAS LINE |
| | LIQUID LINE |
| | CONDENSATE |
| DUCTING | SUPPLY AIR |
| | RETURN AIR |
| | FRESH AIR |
| | EXHAUST AIR |
| | INDICATES EXISTING DUCTS & TO BE RETAINED |

- NOTES:**
- ALL WORKS TO BE EXECUTED STRICTLY IN ACCORDANCE WITH THE HEALTH AND SAFETY ACT, ACT 85 OF 1993 AS AMENDED.
 - THE CONSTRUCTION REGULATIONS SHALL BE ADHERED TO IN THE EXECUTION AND PLANNING OF WORKS
 - WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH APPROVED SHOP DRAWINGS
 - 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.
 - THIS DRAWING SHALL NOT BE SCALED, FIGURED DIMENSIONS ONLY SHALL BE USED.
 - THE PROVISION OF SIGNAGE AND INSTALLATION OF EXPOSED SERVICES SHALL BE IN ACCORDANCE WITH ARCHITECTS DRAWINGS.
 - EXPOSED SERVICES COLORS SHALL BE TO ARCHITECTS SPECIFICATION, CLIENT SPECIFICATION AND NATIONAL STANDARDS.
 - 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.
 - PIPING SHALL BE SABS 02 MEDIUM WEIGHT. PIPING DIAMETER 200 AND LARGER MAY BE SABS 719 4.5L.
 - PIPING Ø65mm AND ABOVE SHALL BE WELDED, FLANGED OR CLAMSON COUPLED, PIPING BELOW Ø65mm SHALL BE BS SCREWED; ALL IN ACCORDANCE WITH PROJECT SPECIFICATIONS, NATIONAL REGULATIONS AND GOOD ENGINEERING PRACTICE.
 - 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, 15mm THICK.
 - MYLAR SHEATH VAPOUR BARRIER TO BE EMPLOYED.
 - ALL CHILLED PIPING IN ACCESS FLOOR VOID AND CEILING VOID TO BE INSULATED AND CLAD IN GALVANISED SHEET 0.6mm t
 - ALL EXPOSED CHILLED WATER PIPE AND CONDENSATE DRAINS IN CORRIDORS AND PASSAGES TO BE IN A BRUSHED STAINLESS STEEL CONDUIT
 - ALL PIPING AND TO BE INSULATED AND CLAD IN SHINY STAINLESS STEEL 0.6mm t
 - PIPING SUPPORTS SHALL BE PROVIDED AT ALL CHANGES IN PIPING DIRECTION AND AT A MAXIMUM SPACING AS INDICATED IN THE PIPING SUPPORT TABLE BELOW.
 - "ROUGH-IN" (TACK AND LOOSELY SUPPORT) ALL PIPING AND FITTINGS FOR THE APPROVAL OF THE ENGINEER PRIOR TO FULL WELDING AND FIRM FIXING.
 - ALL DISCREPANCIES BETWEEN THIS DRAWING AND ACTUAL SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE RESPONSIBLE ENGINEER.
 - FIRE STOPPING SHALL BE PROVIDED AT ALL FIRE BARRIERS AND FIRE WALLS BY THE RESPONSIBLE FIRE PROOFING CONTRACTOR.
 - THE APPROVAL OF THE STRUCTURAL ENGINEER SHALL BE SOUGHT FOR ALL PIPING SUPPORT METHODS WHERE STRUCTURAL FIXING IS EMPLOYED.

TYPICAL CEILING DIFUSSER DETAIL



TYPICAL CEILING CASSETTE UNIT MOUNT DETAIL



4 KEY PLAN SCALE 1 : 5000

| Mechanical Equipment Schedule | | | | | |
|-------------------------------|--------------------------------------------|------------------|-------------|---------------|-----|
| ITEM | DESCRIPTION | COOLING CAPACITY | INPUT POWER | POWER SUPPLY | QTY |
| CASVRF-01 | MIDWALL UNIT | 8000 W | 0.10 kW | 230V/1Ph/50Hz | 2 |
| CASVRF-02 | MIDWALL UNIT | 11200 W | 0.20 kW | 230V/1Ph/50Hz | 2 |
| MWVRF-01 | MIDWALL UNIT | 7100 W | 0.10 kW | 230V/1Ph/50Hz | 3 |
| MWVRF-02 | MIDWALL UNIT | 5600 W | 0.10 kW | 230V/1Ph/50Hz | 1 |
| MWVRF-03 | MIDWALL UNIT | 4500 W | 0.10 kW | 230V/1Ph/50Hz | 3 |
| MWVRF-04 | MIDWALL UNIT | 3600 W | 0.10 kW | 230V/1Ph/50Hz | 4 |
| ODU-01 | VRF | 80340 W | 7.60 kW | 400V/3Ph/50Hz | 1 |
| SF-01 | Fan Kit (WJ-200) Fan and Circular Silencer | | | | 1 |
| Grand total: 17 | | | | | |

| Fan Schedule | | | | | |
|-----------------|----------------------------------|-----------|-------------|---------------|-----|
| ITEM | DESCRIPTION | AIR FLOW | INPUT POWER | POWER SUPPLY | QTY |
| EF-01 | Propeller Wall Fan, Fixed Blades | 120.0 L/s | 0.30 kW | 230V/1Ph/50Hz | 3 |
| EF-02 | Propeller Wall Fan, Fixed Blades | 100.0 L/s | 0.30 kW | 230V/1Ph/50Hz | 3 |
| EF-03 | Propeller Wall Fan, Fixed Blades | 140.0 L/s | 0.30 kW | 230V/1Ph/50Hz | 4 |
| Grand total: 10 | | | | | |

| Air Terminal Schedule | | | |
|-----------------------|----------------|------|-----|
| MARK | DESCRIPTION | SIZE | QTY |
| UCD | UNDER CUT DOOR | 22mm | 12 |

| | | | | |
|-----------------------------------------------------------------------------------------------|-------------------|----------------------|-------|-------------------|
| NO. | DATE | PG. | BY | ISSUED FOR TENDER |
| | | | | |
| REVISIONS: | | | | |
| | | | | |
| 101 MANDEL STREET PORT ELIZABETH TEL: 041-390 8000 E-MAIL: PEG@CARIFRO.COM | | | | |
| 4 BELLEVUE ROAD SOUTHERNSIDE EAST LONDON TEL: 041-743 8000 E-MAIL: EL@CARIFRO.COM | | | | |
| CLIENT: | | | | |
| PROJECT TITLE: ACSA EAST LONDON HVAC | | | | |
| DISCIPLINE: MECHANICAL | | | | |
| DRAWING TITLE: FIRE STATION: GROUND FLOOR HVAC LAYOUT | | | | |
| DESIGNED: | PG | DRAWN: | HK | APPROVED: |
| PG | | | | PG |
| SCALE: | As indicated | COPYRIGHT PROTECTED: | DATE: | 2024-06-18 |
| drawing number: | 2413-M-HVAC-FS-01 | REV: | T | |
| project status: TENDER | | | | |