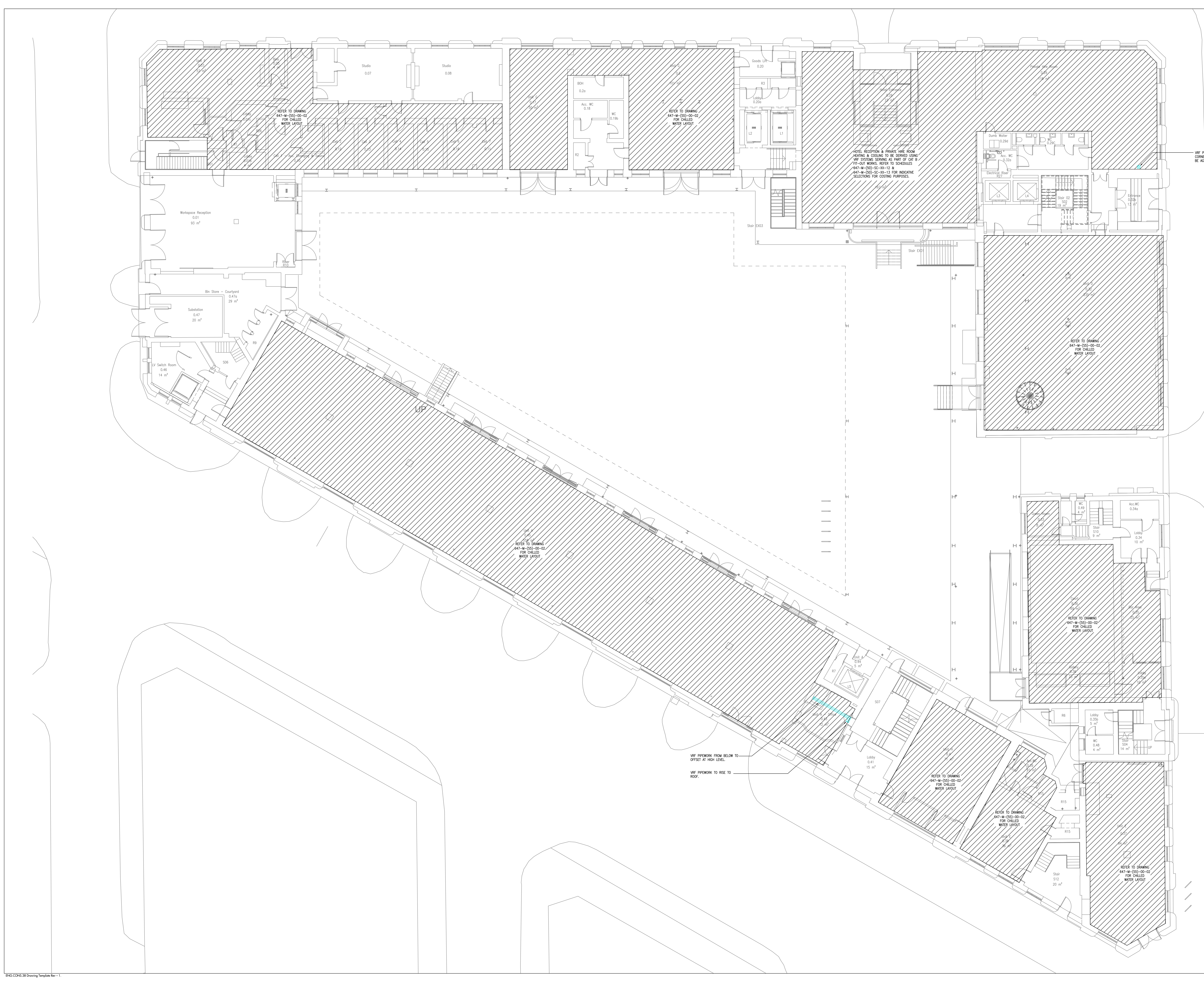




LEGEND

- REFRIGERANT FLOW
- REFRIGERANT RETURN
- INDOOR FAN COIL UNIT
- OUTDOOR UNITS
- SUPPLY DIFFUSER
- EXTRACT DIFFUSER
- PIPEWORK IN CEILING VOID
- PIPEWORK AT LOW LEVEL
- PIPEWORK IN FLOOR VOID
- DFA: DROP FROM ABOVE
- RTA: RISE TO ABOVE
- AVA: ACCESS HATCH

NOTES

- DO NOT SCALE FROM THIS DRAWING.
- ALL DIMENSIONS TO BE CHECKED ON SITE BY THE CONTRACTOR PRIOR TO PREPARATION OF SHOP DRAWINGS. FABRICATION OF PARTS, ORDERING MATERIALS OF DIMENSIONS WORKS.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER CONSULTANTS DRAWINGS, SPECIFICATIONS AND SCHEDULES.
- ANY PENETRATION THROUGH FLOORS, CEILS, STRUCTURAL, CONNECTED APPROVAL, BEFORE COMMENCEMENT.
- ALL PLANT AND EQUIPMENT SHALL BE INSTALLED FULLY IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

REGENERATION INSTALLATION

- THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF THE VRF SYSTEM IN ACCORDANCE WITH BS EN 1258. THE SYSTEM DESIGN IS INDICATIVE TO CONVEYANCE DESIGN INTENT ONLY. THE SYSTEM SIZES AND PIPEWORK ROUTES ARE SUBJECT TO THE CONTRACTOR'S DESIGN DECISION.
- MECHANICAL CONTRACTOR'S AIR CONDITIONING SPECIALIST TO VERIFY, RETAIL, TEST AND COMMISSION ALL INTERCONNECTING REFRIGERATION PIPEWORK BETWEEN THE OUTDOOR AND INDOOR UNITS.
- ALL PIPEWORK TO BE COMPLETED IN REGENERATION QUALITY. CONTRACTOR SHALL DRAW COVERED TO BE INSTALLED PART 2. 1932 COMPLETE WITH THE APPROPRIATE JOINT PIPES FOR TWIN AND TRIPLE SYSTEMS.
- PIPEWORK SHOULD BE CARRIED OUT BY AN APPROVED CONTRACTOR. APPROVAL MUST BE SUBMITTED PRIOR TO INSTALLATION. COMMENCEMENT REFRIGERANT ENGINEER AND IN ACCORDANCE TO BS EN 1258. SPECIFICATION. HALLS TOOLS REQUIRED FOR ALL PIPEWORK, TORQUE SPANNERS, FLARING BLOCKS ETC.
- LONGEST POSSIBLE LENGTHS OF COPPER PIPE SHOULD BE UTILIZED. BUT INTERSECTIONS MUST BE UTILIZED AT ALL TIMES IN THE SYSTEM DURING BRAZING.
- APPROPRIATE REFRIGERATION INSTALLATION TOOLS MUST BE UTILIZED. BUT INTERSECTIONS MUST BE UTILIZED AT ALL TIMES IN THE SYSTEM DURING BRAZING.
- ALL PIPEWORK (SUCTION AND LIQUID LINES) TO BE INSULATED WITH SUP ON CLOSE CELL ELASTOMERIC PIPE INSULATION (AS MANUFACTURED BY BRANIFFER OR EQUAL AND APPROVED) WITH A FIRE PERFORMANCE CLASS 0 OF THE FIRE BUILDING REGULATIONS, HAVING A WALL THICKNESS OF NOT LESS THAN 13mm.
- AFTER INSTALLATION OF PIPEWORK, AND PRIOR TO SEALING OF INSULATION JOINTS AND STARTING OF EQUIPMENT, PIPEWORK SHOULD BE PRESSURE CHECKED. PRESSURE CHECKED AT 35 BAR AND HOLD FOR 24 HOURS AND CHECKED FOR LEAKS. THEN VACUUMED/DEGASIFIED TO (-750MM HG) 2 TORR, AND HELD AT THAT SETTING FOR 12 HOURS (MINIMUM). THIS DOCUMENT GOAL SHOULD BE FOLLOWING DURING PRESSURE TESTING PERIOD.
- REFRIGERANT (R32) CHARGE WEIGHT MUST BE CALCULATED, TO THE ACTUAL INSTALLED LENGTH OF PIPEWORK IN ACCORDANCE TO MANUFACTURER'S RECOMMENDATIONS.
- THE CHARGING SHOULD BE CARRIED OUT WITH AN APPROPRIATE CHARGING STATION.
- PIPEWORK TO BE PROPERLY FIXED AND SUPPORTED AT A MINIMUM OF 1.5 METRE CENTRES AND WHERE REQUIRED SHOULD BE RUN ON GALVANIZED TRAYS. ALL PIPEWORK TO BE LABELLED WITH ID NUMBER (CONDENSING UNITS REF.) AT 3 METRE INTERVALS.
- JOINTS IN COPPER PIPE SHALL BE BRAZED. BRAZING SHALL BE CARRIED OUT TO THE REQUIREMENTS OF THE HVCA CODE OF PRACTICE - BRAZING AND WROTE WELDING OF COPPER PIPE AND SHEET.
- WHERE VRF AND VENTILATION PLANT IS INSTALLED ABOVE SOLID CEILING (E. PLASTERBOARD SUITABLY SIZED) ACCESS HATCHES ARE TO BE INSTALLED TO ALLOW ACCESS FOR INSTALLATION, COMMISSIONING, MAINTENANCE, CLEANING AND REMOVAL.
- DUCTED VRF UNITS SHALL BE SUPPLIED WITH AN EXTENDED RETURN AIR TEMPERATURE SENSOR WHICH SHALL EXTEND FROM THE UNIT TO PROVIDE SLIGHTLY FROM THE FACE OF THE ROOM RETURN AIR GRILLE.
- A CONDENSATE LINE SHALL BE INSTALLED TO EACH FAN COIL UNIT. THIS SHALL BE INSTALLED AND INSULATED ALL AS PER THE STANDARD SPECIFICATION. MINIMUM SIZE OF CONDENSATE PIPES TO BE 25mm COPPER OR PLASTIC, INSULATED AND PLUMBED OR BY GRAVITY FROM EACH FAN COIL. CASSETTE, DRAINING TO RUN 1-80 MM FALLS.
- CONDENSATE PIPEWORK FROM VRF UNITS SHALL RUN WITHIN THE CEILING VOID TO THE NEAREST BELOW GROUND DRAINAGE POINT AND SHALL BE COMPLETE WITH IN LINE SELF SEALING TRAP.
- THE MECHANICAL CONTRACTOR'S AIR CONDITIONING SPECIALIST SHALL BE RESPONSIBLE FOR THE INTERCONNECTING CONTROL WIRING BETWEEN THE INDOOR AND OUTDOOR UNITS AND CONTROLS WIRING BETWEEN REMOTE CONTROLLER AND RELEVANT COMPONENTS. THIS WORK SHALL BE CO-ORDINATED WITH THE ELECTRICAL SITE CONTRACTOR FOR THE ROUTING AND TRUNKING OF THE CABLES.
- CONTROL WIRING SHALL NOT BE RUN NEXT TO POWER WIRING. A MINIMUM SPACE OF 100mm BETWEEN BOTH CONTROL AND POWER CABLES SHALL APPLY.

FOR COMMENT NOT FOR SITE USE

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2003

Date	Description	Rev	Rev
11.04.23	TENDER ISSUE	14	14
07.02.23	TENDER ISSUE	13	14
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1	Issue for Tender

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Project:
LONDON ROAD FIRE STATION
FIRE STATION, LONDON ROAD,
MANCHESTER, M1

Drawing Title:
MECHANICAL SERVICES
GROUND FLOOR
COMFORT COOLING LAYOUT

Date	Design By	Drawn By	Scale
APR 21	GT	GT	1:100

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ENX CONS 38 Drawing Template Rev 1

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