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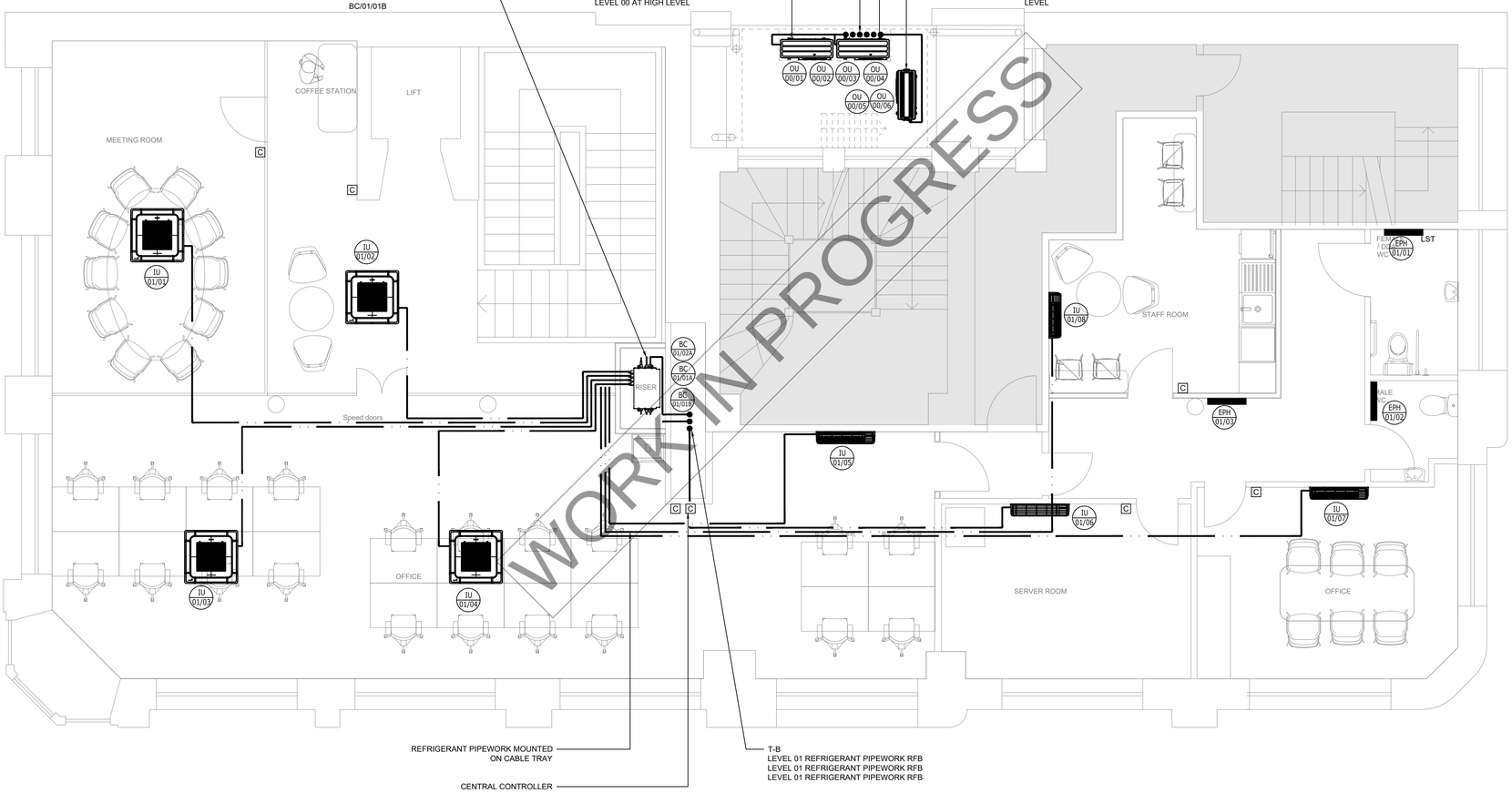
DO NOT SCALE FROM THIS DRAWING.
CHECK ON SITE AND REPORT ALL DISCREPANCIES TO CLARK DEGNAN LIMITED.

LEGEND

- PIPEWORK BELOW GROUND
- PIPEWORK AT LOW LEVEL
- PIPEWORK AT HIGH LEVEL
- PIPEWORK IN CEILING VOID
- LTHW FLOW PIPE
- LTHW RETURN PIPE
- PIPEWORK RISES/ DROP
- PIPEWORK RISES/ DROP C/W
- IV (NC) ISOLATION VALVE (NORMALLY CLOSED)
- IV ISOLATION VALVE
- NRV NON RETURN VALVE
- DRV DOUBLE REGULATING VALVE
- 3-PORT CONTROL VALVE C/W ACTUATOR
- 2-PORT CONTROL VALVE C/W ACTUATOR
- DRAIN
- CS COMMISSIONING SET WITH ORIFICE PLATE
- TRV THERMOSTATIC RADIATOR VALVE (TRV)
- LSV LOCKSHIELD VALVE
- PICV PRESSURE INDEPENDENT CONTROL VALVE
- SV SAFETY VALVE AND DISCHARGE PIPE TO DRAIN
- STR STRAINER
- FC FLEXIBLE CONNECTION
- A ANCHOR POINT
- EXPANSION BELLOW
- G EXPANSION GUIDE
- P PRESSURE GAUGE
- T TEMPERATURE GAUGE
- T TEMPERATURE SENSOR
- P PRESSURE SENSOR
- Pd DIFFERENTIAL PRESSURE SWITCH
- M METER
- BMS BMS LINK
- C SPACE CONTROLLER
- LTHW RADIATOR
- LST LOW SURFACE TEMPERATURE (LST) RADIATOR
- TOWEL RAIL
- ELECTRIC PANEL HEATER
- LST LST ELECTRIC PANEL HEATER
- DIRECTION OF FLOW
- UNDER FLOOR HEATING MANIFOLD

ROOM HEATED BY INDIVIDUAL UNDERFLOOR ROOM HEATING CIRCUITS WITH LOCAL THERMOSTATIC CONTROL

- RTHL RISE TO HIGH LEVEL
- RTA RISE TO ABOVE
- RFB RISE FROM BELOW
- DTLL DROP TO LOW LEVEL
- DFA DROP FROM ABOVE
- DFB DROP TO BELOW
- CV CEILING VOID
- HL HIGH LEVEL
- LL LOW LEVEL



WORK IN PROGRESS

NOTES - LTHW HEATING SYSTEMS

1. THE CONTRACTOR SHALL ALLOW FOR THE FIXING, TAKING DOWN FOR DECORATION AND RE-FIXING OF ALL RADIATORS (WHERE APPLICABLE).
2. ALL PIPEWORK SHALL BE FULLY INSULATED IN ACCORDANCE WITH THE TIMSA BUILDING SERVICES COMPLIANCE GUIDE. INSULATION SHALL BE APPLIED TO ALL CONCEALED SERVICES (I.E. IN SERVICE VOIDS, OR BOXED IN) AND IN PLANTROOMS.
3. THE INSULATION SHALL BE KINGSPAN KOOLTHERM OR EQUAL AND APPROVED.
4. PRIOR TO THE APPLICATION OF INSULATION, ALL NEW LTHW PIPEWORK SHALL BE HYDRAULICALLY PRESSURE TESTED FOR NOT BE LESS THAN 30

NOTES - GENERAL

1. DO NOT SCALE FROM THIS DRAWING.
2. THIS IS NOT AN INSTALLATION DRAWING.
3. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE MECHANICAL AND ELECTRICAL PERFORMANCE SPECIFICATIONS, AND ALL ACCOMPANYING TENDER DRAWINGS AND SPECIFICATIONS, INCLUDING ARCHITECTURAL, STRUCTURAL ENGINEERING, CIVIL ENGINEERING, MEP AND OTHER THIRD PARTY DESIGNERS.
4. ALL SERVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE RELEVANT STANDARDS AND WORKMANSHIP CLAUSES DETAILED WITHIN THE ACCOMPANYING SPECIFICATION (WHERE PROVIDED).
5. THE DESIGN AND INSTALLATION SHALL COMPLY WITH THE BUILDING REGULATIONS, BRITISH STANDARDS, EU LEGISLATION, STATUTE, CIBSE GUIDES, CIBSE COMMISSIONING CODES, B&ES, H&S GUIDANCE AND ACOP'S, THE GAS REGULATIONS AND ALL OTHER APPLICABLE REGULATIONS.
6. PRIOR TO ANY WORKS, THE CONTRACTOR SHALL REQUEST A COPY OF THE ASBESTOS REGISTER/REPORT DETAILING THE LOCATION OF ANY EXISTING ASBESTOS. SHOULD THE CONTRACTOR COME ACROSS ANY SUSPICIOUS MATERIALS, THEY SHOULD STOP WORK IMMEDIATELY AND INFORM THE SITE AGENT.
7. THE CONTRACTOR SHALL ALLOW FOR SPECIALIST COMMISSIONING OF ALL MECHANNICAL AND PUBLIC HEALTH SYSTEMS BY THE MANUFACTURER OR MANUFACTURERS APPOINTED AGENT.
8. FOLLOWING COMPLETION OF THE INSTALLATION, THE SYSTEMS SHALL BE TESTED AND COMMISSIONED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
9. ALL EQUIPMENT SHALL BE INSTALLED, TESTED AND COMMISSIONED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
10. THE CONTRACTOR SHALL INCLUDE FOR ALL NECESSARY FIRE STOPPING, SLEEVES AND DAMPERS TO SUIT THE PROPOSED FIRE STRATEGY.
11. PRIOR TO COMMENCING THE WORKS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR SEEKING APPROVAL OF THE PROPOSALS BY THE GAS AND WATER AUTHORITIES.
12. PRIOR TO INSTALLATION, THE CONTRACTOR SHALL SEEK CONFIRMATION OF ACCEPTANCE OF THE PROPOSALS BY THE BUILDING CONTROL OFFICER.
13. A FINAL SITE MEASURE SHALL BE CARRIED OUT BY THE CONTRACTOR PRIOR TO ORDERING OF PLANT OR EQUIPMENT.
14. ACCESS PANELS SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR TO ALLOW ELECTRICAL ISOLATORS, CONTROLLERS, ETC. TO BE EASILY ACCESSED AND MAINTAINED.

ACTIVITY	⚠ RESIDUAL RISKS ⚠	CONTROL MECHANISM & COMMUNICATION
SITE DELIVERY OF MATERIALS, PLANT, SWITCHGEAR, CONTAINMENT, LUMINAIRES	- VEHICLE TO PERSON COLLISIONS - MANUAL HANDLING	NOTIFY ALL PARTIES CONCERNED OF DELIVERY DATES AND TIMES. BE AWARE OF THE RESTRICTIONS ON SIZE OF SITE LIMITS IN PARTICULAR LIMITED SPACE FOR UNLOADING AND RESTRICTED ACCESS TIMES.
TEMPORARY ELECTRICAL SERVICE INSTALLATIONS TO SITE AND SITE COMPOUNDS	- ELECTRIC SHOCK	ENSURE ALL SUPPLIES ARE INSTALLED IN ACCORDANCE WITH IET REGULATIONS, REC REQUIREMENTS AND IN LOCATIONS THAT ARE ONLY ACCESSIBLE FOR QUALIFIED AND SUITABLY TRAINED STAFF.
EXTERNAL WORKS AND POSSIBLE PRESENCE OF EXISTING UNDERGROUND SUPPLIES	- DAMAGE TO EXISTING SUPPLIES/ELECTRIC SHOCK	OBTAIN DETAILS OF LOCAL UNDERGROUND SERVICES INFORMATION FROM PROVIDERS CARRY OUT SUB-SCAN SURVEY OF THE PROPOSED ROUTES. SURVEY PROPOSED ROUTES NOTING OBSTRUCTIONS. HAND DIG ANY AREAS IDENTIFIED AS CONTAINING UNKNOWN ELEMENTS.
ON SITE USE OF TEMPORARY ELECTRICITY SUPPLIES TO PORTABLE EQUIPMENT	- TRIPPING FROM TRAILING LEADS	MANAGE THE LENGTH OF TRAILING LEADS. LEADS TO BE ROUTED, AND CLIPPED TO WALLS AT HIGH LEVEL WHERE POSSIBLE. ROUTES TO BE IDENTIFIED ON SITE PLANS AND HELD BY THE MAIN CONTRACTOR.
DRILLING/CHASING OF WALLS ETC. FOR CONTAINMENT FIXINGS.	- DUST/INJURY TO EYES. INHALATION OF DUST	APPROPRIATE PPE TO BE USED, E.G. EYE PROTECTION AND DUST MASKS
HANDLING OF HEAVY EQUIPMENT	- INJURY - MUSCLE STRAIN - BONE FRACTURE	ENSURE ADEQUATE LABOUR/MECHANICAL HANDLING EQUIPMENT IS AVAILABLE AND ADHERE TO GOOD PROCEDURES AND WORKING PRACTICES FOR LIFTING OPERATIONS.
GENERAL WORKING	- INJURY TO SITE PERSONNEL AND VISITORS	SITE ACCESS TO BE RESTRICTED AND CONTROLLED. ALL SITE PERSONNEL AND VISITORS TO BE INDUCTED BY THE MAIN CONTRACTOR. ALL VISITORS TO BE ACCOMPANIED BY SITE VISITING SITE TO HAVE APPROPRIATE PPE FOR THE ENVIRONMENT THEY ENTER OR PASS THROUGH.

ARCHITECT'S DRAWING REFERENCE	REVISION
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00	COMMENT ISSUE	30.08.24	BH
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Drawing Title: MECHANICAL SERVICES HEATING SERVICES FIRST FLOOR LAYOUT

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HD	CD	CD

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