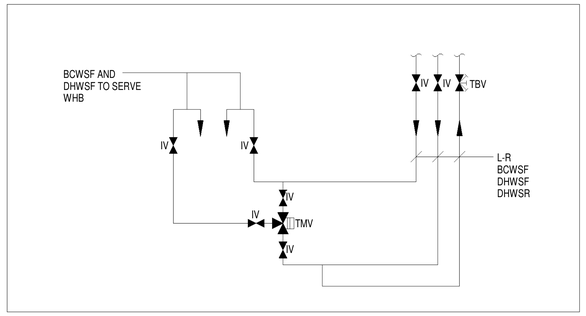
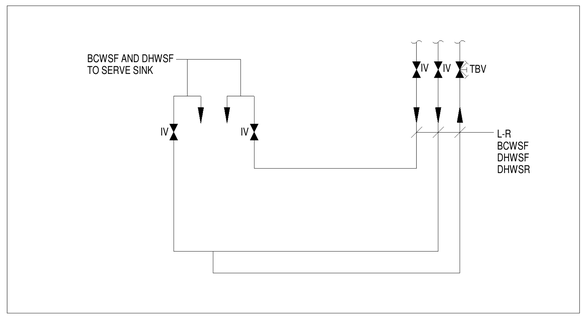
NOTE: IN ADDITION TO THE VALVES INDICATED BELOW, THE CONTRACTOR SHALL INCLUDE FOR AND INSTALL ALL NECESSARY VALVE ARRANGEMENTS REQUIRED BY THE CATERING MANUFACTURERS.

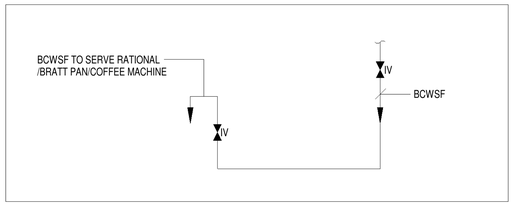


DETAIL A: TYPICAL HOT & COLD WATER DISTRIBUTION PIPEWORK (WHB)

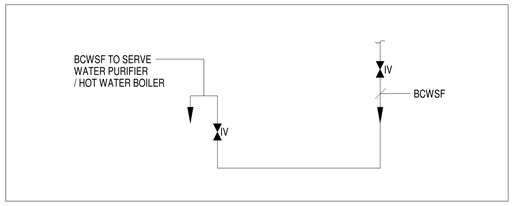


DETAIL C: TYPICAL HOT & COLD WATER DISTRIBUTION PIPEWORK (SINK)

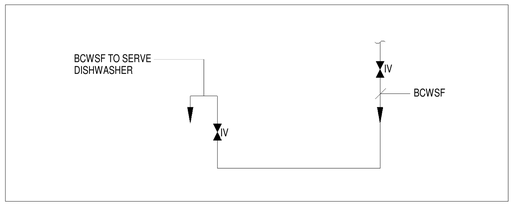
NOTE: REFER TO LAYOUT DRAWINGS FOR SIZE INFORMATION TO INDIVIDUAL ITEMS OF EQUIPMENT



DETAIL B: TYPICAL COLD WATER DISTRIBUTION PIPEWORK (RATIONAL/BRATT PAN/COFFEE MACHINE)



DETAIL D: TYPICAL COLD WATER DISTRIBUTION PIPEWORK (WATER PURIFIER/HOT WATER BOILER)



DETAIL E: TYPICAL COLD WATER DISTRIBUTION PIPEWORK (DISHWASHER)

HK-N-50-General Notes

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT PROJECT DRAWINGS AND INFORMATION FROM THE WHOLE PROJECT TEAM AS AVAILABLE ON ACONEX. THIS IS INCLUSIVE OF, BUT NOT LIMITED TO, ALL AVAILABLE 3D REVIT MODEL INFORMATION FROM HULLEY & KIRKWOOD, TAYLOR DESIGN, PURCELL, RAMBOLL AND ARUP.
2. ALL ELECTRICAL INSTALLATION WORKS SHALL BE UNDERTAKEN IN ACCORDANCE WITH BS 7671 INCORPORATING AMENDMENTS.
3. THE CONTRACTOR SHALL ALLOW FOR DISJOINTED WORKS INVOLVED WITH THE PROJECT IN REGARD TO COORDINATION WITH ALL OTHER TRADES.
4. ALL MECHANICAL INSTALLATIONS TO BE UNDERTAKEN IN ACCORDANCE WITH THE PRINCIPAL CONTRACTORS PROGRAMME OF WORKS.
5. FINAL POSITIONS OF ALL EQUIPMENT SHALL BE AS PER THE SETTING OUT IN ACCORDANCE WITH THE ARCHITECTURAL INFORMATION.
6. ALL BMS CONTROLS, MECHANICAL CONTROL PANELS AND TESTING AND COMMISSIONING OF THE AUTOMATIC CONTROLS BY OTHERS. THE CONTRACTOR SHALL ALLOW FOR ALL REQUIRED LIAISON/COORDINATION WITH THE AUTOMATIC CONTROLS SPECIALIST AS PART OF THEIR WORKS TO ACCOMMODATE THE SETTING TO WORK OF ALL RESPECTIVE EQUIPMENT AND PLANT. FINAL INSTALLATIONS TO BE IN ACCORDANCE WITH THE ARUP PROJECT SPECIFICATION(S).
7. THE CONTRACTOR SHALL UNDERTAKE ALL WORKS IN ACCORDANCE WITH THE ARUP PROJECT SPECIFICATION(S). IF NOT PROVIDED AT THE TIME OF TENDER, THE CONTRACTOR SHALL REQUEST SAID DOCUMENT(S) AND ENSURE THEIR TENDER COMPLIES FULLY WITH THE OUTLINED REQUIREMENTS.
8. ALL INSTALLATIONS SHALL BE IN FULL ACCORDANCE WITH THE PROJECT ACOUSTIC REPORT.
9. ALL INSTALLATIONS SHALL BE IN FULL ACCORDANCE WITH THE PROJECT FIRE ENGINEERING REPORT.
10. THIS DRAWING IS DIAGRAMATIC ONLY AND SHOWS DESIGN INTENT. THE MECHANICAL SERVICES CONTRACTOR SHALL PROVIDE WORKING DRAWINGS FOR FINAL APPROVAL BY THE ARCHITECT PRIOR TO INSTALLATION, ALLOWING SUFFICIENT TIME FOR REVIEW AND COMMENT, AS NECESSARY, SUCH THAT IT DOES NOT IMPACT UPON THE PRINCIPAL CONTRACTORS PROGRAMME OF WORKS.
11. THE CONTRACTOR SHALL CONFIRM THEIR BUILDERSWORK REQUIREMENTS TO THE PRINCIPAL CONTRACTOR, ALLOWING SUFFICIENT TIME FOR THE WORKS TO BE UNDERTAKEN SUCH THAT IT DOES NOT IMPACT UPON THE PRINCIPAL CONTRACTORS PROGRAMME OF WORKS.

HK-N-53-Domestic Water Services Notes

1. THE WATER SERVICES SHALL BE INSTALLED IN FULL ACCORDANCE WITH THE WATER SUPPLY (WATER FITTINGS) REGULATIONS 1999, CURRENT BRITISH STANDARDS E.G. BS EN 806, CIBSE TM13, ACoP L8 AND HSG 274.
2. ALL POINT OF USE EQUIPMENT SHALL BE COMPLETE WITH LEVER HANDLE 'BALL-O-FIX' TYPE VALVES ON SINKS, WHB'S AND CATERING APPLIANCES.
3. ALL CATERING EQUIPMENT INSTALLATIONS TO INCLUDE ALL ADDITIONAL VALVES REQUIRED IN FULL ACCORDANCE WITH THE MANUFACTURERS REQUIREMENTS.
4. PIPEWORK CIRCUITS SHALL BE PROVIDED WITH THE FACILITIES FOR VENTING AND DRAIN DOWN IN ACCORDANCE WITH THE ARUP PROJECT SPECIFICATION(S).
5. ALL SERVICES SHOWN ON THIS DRAWING INCLUDING PIPEWORK SUPPORT BRACKETS AND SECONDARY STEELWORK SHALL BE PROVIDED BY THE MECHANICAL SERVICES CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE. INSTALLATIONS TO BE IN FULL ACCORDANCE WITH THE ARUP PROJECT SPECIFICATION(S).
6. ALL PIPEWORK SHALL BE INSULATED AS PER THE ARUP PROJECT SPECIFICATION(S).
7. ALL ISOLATION VALVES LOCATED WITHIN CEILING VOIDS AND AT HIGH LEVEL TO BE EXTENDED HANDLE BALL VALVES.
8. ALL WATER FITTINGS SHALL BE WRAS APPROVED. FINAL CONNECTIONS SHALL NOT BE MADE WITH FLEXIBLE CONNECTIONS DUE TO THE DEGRADATION OF THE MATERIAL OVER TIME CAUSING A POTENTIAL LEGIONELLA COLONY FORMATION.
9. TMV 2 FITTINGS ARE TO BE INSTALLED ON ALL WASH HAND BASINS. TMV'S SHALL COMPLY WITH THE STANDARDS OF THE MODEL ENGINEERING SPECIFICATION D08 - THERMOSTATIC MIXING VALVES. SUFFICIENT ACCESS SHALL BE PROVIDED TO ENABLE REGULAR TEMPERATURE MONITORING TO TAKE PLACE WITH MINIMAL DISRUPTION TO THE OPERATION OF THE CATERING OPERATION.
10. FINAL SETTING OUT OF SANITARY WARE TO BE AS PER THE REQUIREMENTS OF THE ARCHITECTURAL INFORMATION.
11. FINAL SETTING OUT OF CATERING EQUIPMENT TO BE AS PER THE REQUIREMENTS OF THE ARCHITECTURAL INFORMATION.
12. THE WATER SERVICES PIPEWORK SHALL BE CONCEALED WITH A PLUMBING CONCEALMENT SYSTEM OR PIPE BOXING, AS DETAILED BY THE ARCHITECT. FINAL INSTALLATION TO ALLOW ACCESS TO PIPEWORK FOR THE MAINTENANCE/REPLACEMENT AS NECESSARY.
13. HOT WATER DEADLEGS DOWN STREAM FROM A TMV SHALL NOT EXCEED 2M AND THE COMPLETE LENGTH OF ANY SPUR BRANCH SHOULD NOT EXCEED 3M. THESE LENGTHS ARE MEASURED FROM THE CENTRE OF THE CIRCULATION PIPEWORK TO THE POINT OF DISCHARGE, ALONG THE CENTRE LINE OF THE PIPEWORK.
14. ALL PIPEWORK AND FITTINGS, MATERIALS AND INSTALLATION METHOD, TO BE AS PER THE REQUIREMENTS OF THE ARUP PROJECT SPECIFICATION(S).
15. ALL ITEMS OF EQUIPMENT SHALL BE PROVIDED WITH A DOUBLE CHECK VALVE FOR MINIMUM BACK FLOW AND BACK PRESSURE PROTECTION. THE EQUIPMENT SUPPLIER/INSTALLER SHALL ENSURE THAT THIS LEVEL OF PROTECTION COMPLIES WITH THE REQUIREMENTS OF THE WATER SUPPLY (WATER FITTINGS) REGULATIONS 1999. WHERE NECESSARY, THE SUPPLIER/INSTALLER IS REQUIRED TO INSTALL/REPLACE AN ADDITIONAL BACK FLOW PREVENTION DEVICE RAISING THE PROTECTION LEVEL IN ACCORDANCE WITH THE BYE LAWS.
16. ALL VALVES SHALL BE ACCESSIBLE AND SHALL BE FITTED WITH IDENTIFICATION LABELS AS PER THE ARUP PROJECT SPECIFICATION(S). THE MECHANICAL SERVICES CONTRACTOR IS TO PROVIDE VALVE SCHEDULES AS PART OF THE O&M MANUALS, ALL AS AGREED WITH THE CONTRACT ADMINISTRATOR.
17. A SPECIALIST SUB-CONTRACTOR SHALL BE RESPONSIBLE FOR THE STERILISATION OF THE NEW WATER SERVICES. THE NEW PIPEWORK SHALL BE STERILISED VIA LOCAL INJECTION PRIOR TO CONNECTION TO THE BASE BUILD INSTALLATIONS.

LEGEND

TMV	THERMOSTATIC MIXING VALVE
	ISOLATING / BALL VALVE
TBV	THERMOSTATIC BALANCING VALVE
BCWSF	BOOSTED COLD WATER SYSTEM FLOW
DHWSR	DOMESTIC HOT WATER SYSTEM RETURN
DHWSF	DOMESTIC HOT WATER SYSTEM FLOW

Date	Revision Description	Rev.	By
08/11/2023	ISSUED FOR CONSTRUCTION	C01	S Math
23/04/2021	ISSUED FOR TENDER	P04	J Slatery
05/11/2020	ISSUED FOR WORK STAGE 5	P03	D Piercy
30/08/2019	ISSUE FOR TENDER	P02	S Lu
23/08/2019	ISSUE FOR COMMENT	P01	S Lu

Revision Description

Manchester Office

2 Commercial Street
Castlefield
Manchester
M15 4RQ

T: 0161 832 2030
E: hk.manchester@hulley.co.uk

...Making Buildings Work

Project:
Manchester Town Hall Catering Works

Drawing Title:
HOT & COLD WATER SCHEMATIC

Drawing Number:
OTH-HAK-TH-ZZ-DWG-V-5301

Revision:	C01	**Rev Date:**	08/11/2023
Scale:	1 : 20		
Drawn By:	S Lu	**Checked By:**	R Beagan
		Approved By:	R Beagan
Arch Rev:	-		
Struct Rev:	-		

Issue Status:
CONSTRUCTION

A0