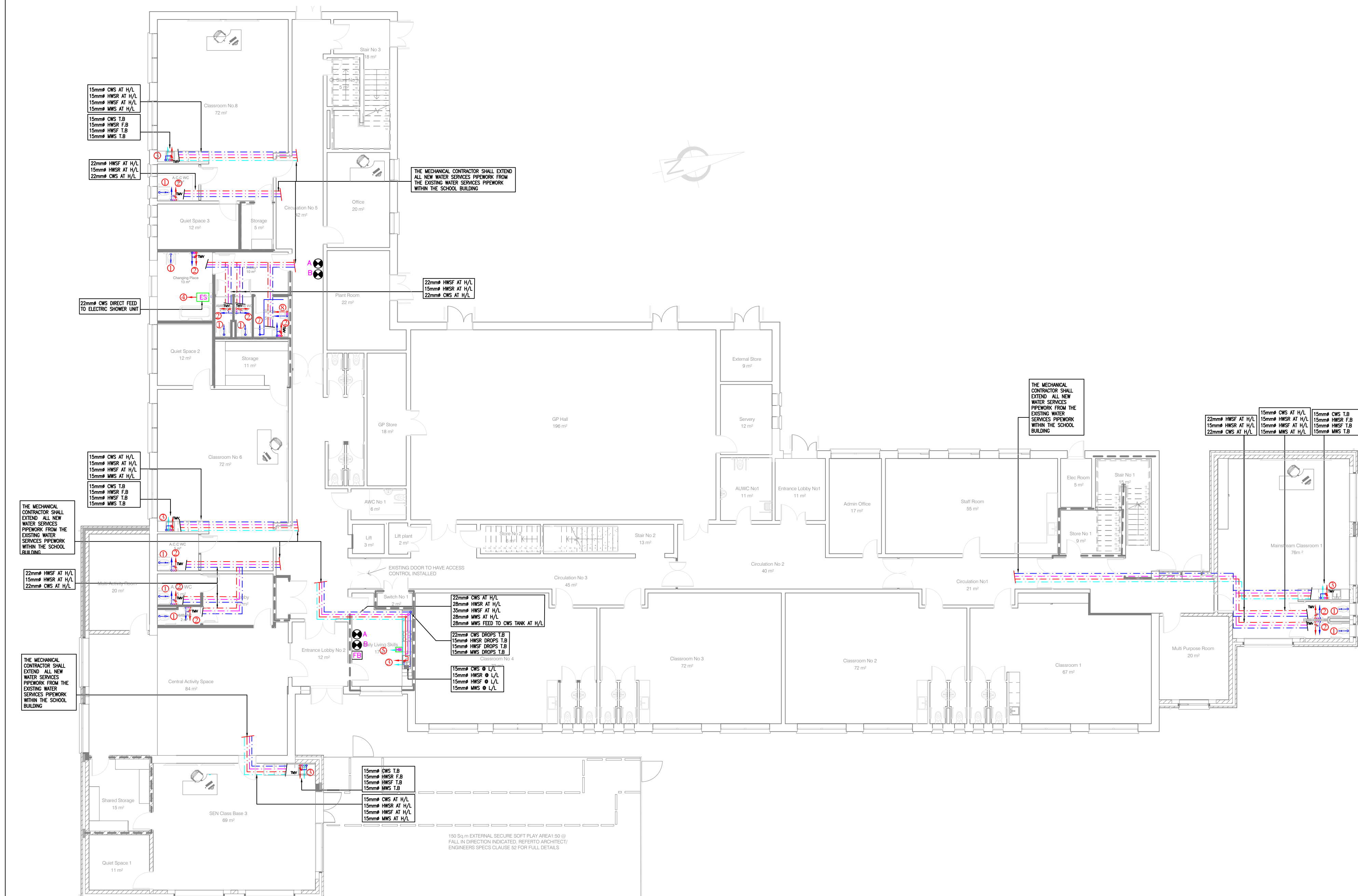




GROUND FLOOR WATER SERVICES LAYOUT

## WATER SYMBOLS

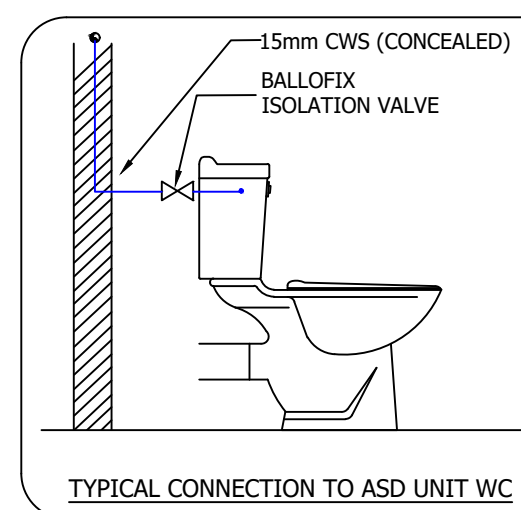
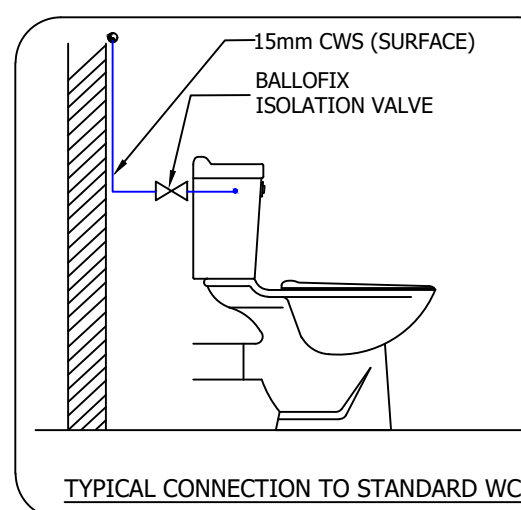
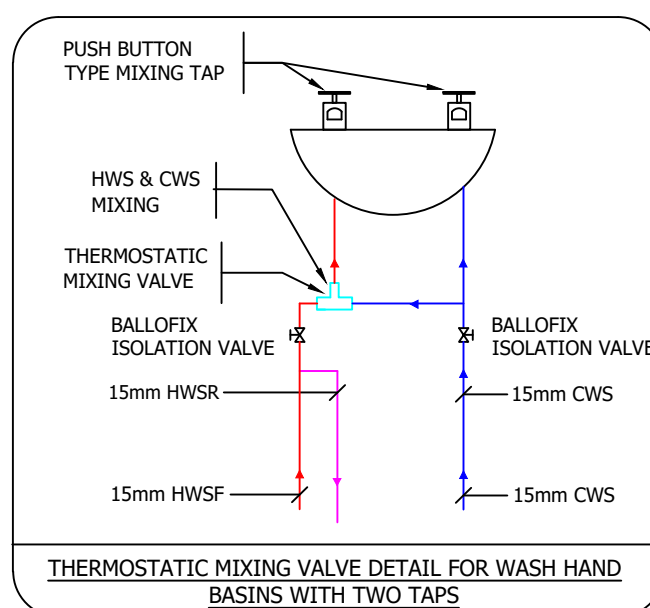
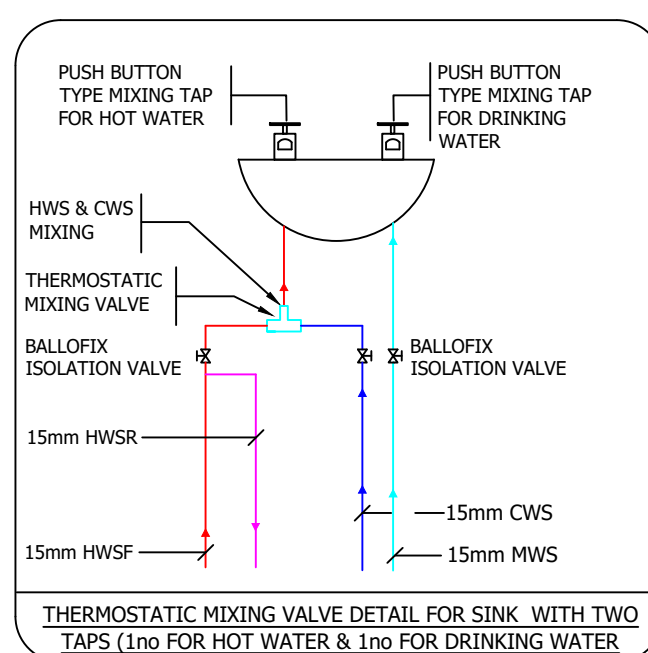
- ① 15mm CWS to WC. PIPEWORK SHALL BE CONCEALED WITHIN THE WALL.
  - ② 15mm CWS, 15mm HWSF & 15mm HWSR to WHB C/W THERMOSTATIC MIXING VALVE (TMV). PIPEWORK SHALL BE CONCEALED WITHIN THE WALL.
  - ③ 15mm MWS, 15mm CWS, 15mm HWSF & 15mm HWSR TO SINK C/W THERMOSTATIC MIXING VALVE (TMV). PIPEWORK SHALL BE CONCEALED WITHIN THE FURNITURE/WALL.
  - ④ 22mm CWS DIRECT FEED FROM COLD WATER STORAGE TANK TO SERVE ELECTRIC SHOWER UNIT. PIPEWORK SHALL BE CONCEALED WITHIN THE WALL.
  - ⑤ 15mm MWS TO HOT WATER BOILER. PIPEWORK SHALL BE CONCEALED WITHIN THE FURNITURE/WALL.
  - ⑥ 15mm CWS TO DISHWASHER UNIT. PIPEWORK SHALL BE CONCEALED WITHIN THE FURNITURE/WALL.
  - ⑦ 15mm CWS TO WASHING MACHINE. PIPEWORK SHALL BE CONCEALED WITHIN THE FURNITURE/WALL.
  - ⑧ 15mm CWS, 15mm HWSF & 15mm HWSR TO CLEANERS SINK. PIPEWORK SHALL BE SURFACE MOUNTED.
- SURFACE RUN PIPEWORK  
— DROP/RISE IN PIPEWORK  
- - - PIPEWORK AT HIGH LEVEL ABOVE CEILING (NOT VISIBLE)  
- - - PIPEWORK UNDERGROUND
- ✂ ISOLATION VALVE  
← ES → ELECTRIC SHOWER
- TMV THERMOSTATIC MIXING VALVE FOR WHB AND SINKS
- WC WATER CLOSET  
T.B. TO BELOW  
T.A. TO ABOVE  
L/L LOW LEVEL  
MWS MAINS WATER SERVICE  
WHB WASH HAND BASIN  
F.B. FROM BELOW  
F.A. FROM ABOVE  
H/L HIGH LEVEL  
CWS COLD WATER SUPPLY  
HWSF HOT WATER SERVICE FLOW  
HWSR HOT WATER SERVICE RETURN
- A PORTABLE FIRE EXTINGUISHER FOAM (6 LITRE)  
B PORTABLE FIRE EXTINGUISHER CARBON DIOXIDE (2KG)  
FB FIRE BLANKET  
HB NEW HOT WATER BOILER.

## GENERAL NOTES:

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL MECHANICAL, ELECTRICAL, ARCHITECTURAL AND STRUCTURAL DRAWINGS & SPECIFICATIONS.
2. THE CONTRACTOR SHALL CO-ORDINATE FULLY WITH ALL OTHER TRADES BEFORE COMMENCING WORK. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL THE NECESSARY INFORMATION TO ALLOW THE MAIN CONTRACTOR CO-ORDINATE ALL SERVICES.
3. THE MECHANICAL CONTRACTOR SHALL ALLOW FOR CO-ORDINATING THE MECHANICAL INSTALLATION WITH THE ELECTRICAL CONTRACTOR ON SITE. EXTRA COSTS INCURRED DUE TO THE CO-ORDINATION EXERCISE NOT BEING COMPLETED WILL NOT BE ACCEPTED BY THE ENGINEER.
4. DO NOT SCALE THIS DRAWING. ALL DIMENSIONS TO BE TAKEN ON SITE.
5. THE CONTRACTOR SHALL ALLOW FOR THE SUPPLY AND INSTALLATION OF ALL MECHANICAL SERVICES INDICATED ON THIS DRAWING.
6. THE CONTRACTOR SHALL BE RESPONSIBLE TO IDENTIFY SUITABLE FINAL ROUTES FOR PIPEWORK, MECHANICAL SERVICES, ETC. AS INDICATED ON THE DRAWINGS.
7. NEW MAINS RUN OF MECHANICAL PIPEWORK SHALL BE INSTALLED IN THE AREAS AS INDICATED. THIS IS INDICATIVE ONLY AND IF THE CONTRACTOR FINDS A MORE CONVENIENT ROUTE FOR THE MECHANICAL SERVICES ON SITE THEN THAT WILL BE ACCEPTABLE.
8. FINAL LOCATION OF ALL ITEMS OF PLANT/EQUIPMENT/PIPEWORK, ETC. SHALL BE AGREED ON SITE WITH THE EMPLOYERS REPRESENTATIVE AND THE CLIENT.
9. ALL SERVICES THROUGH FIRE BARRIERS SHALL BE SLEEVED EACH SIDE OF THE BARRIER. THE MAIN CONTRACTOR SHALL ALLOW FOR FIRE PROOFING THE OPES AFTER SERVICES IS INSTALLED.
10. THE CONTRACTOR SHALL ALLOW FOR ALL NECESSARY LABOUR, WIRING AND ATTENDANCES IN COMPLETING ALL THE MECHANICAL WORKS AS INDICATED ON THE DRAWINGS AND SPECIFICATIONS.
11. ASD UNIT: ALL MECHANICAL SERVICES BELOW CEILING LEVEL FOR THE MECHANICAL INSTALLATION IN THE ASD UNIT SHALL BE RECESSED/CONCEALED AND FINISHED FLUSH WITH THE FINISHED WALL, UNLESS STATED OTHERWISE. LIAISE WITH THE MAIN CONTRACTOR FOR ALL NECESSARY CHASES OR BOXING OUT TO CONCEAL SERVICES IN THE UNIT.
12. GENERAL AREAS (EXCLUDING ASD UNIT): THE MECHANICAL INSTALLATION IN THESE AREAS SHALL BE GENERALLY SURFACE MOUNTED.

## WATER SERVICES NOTES:

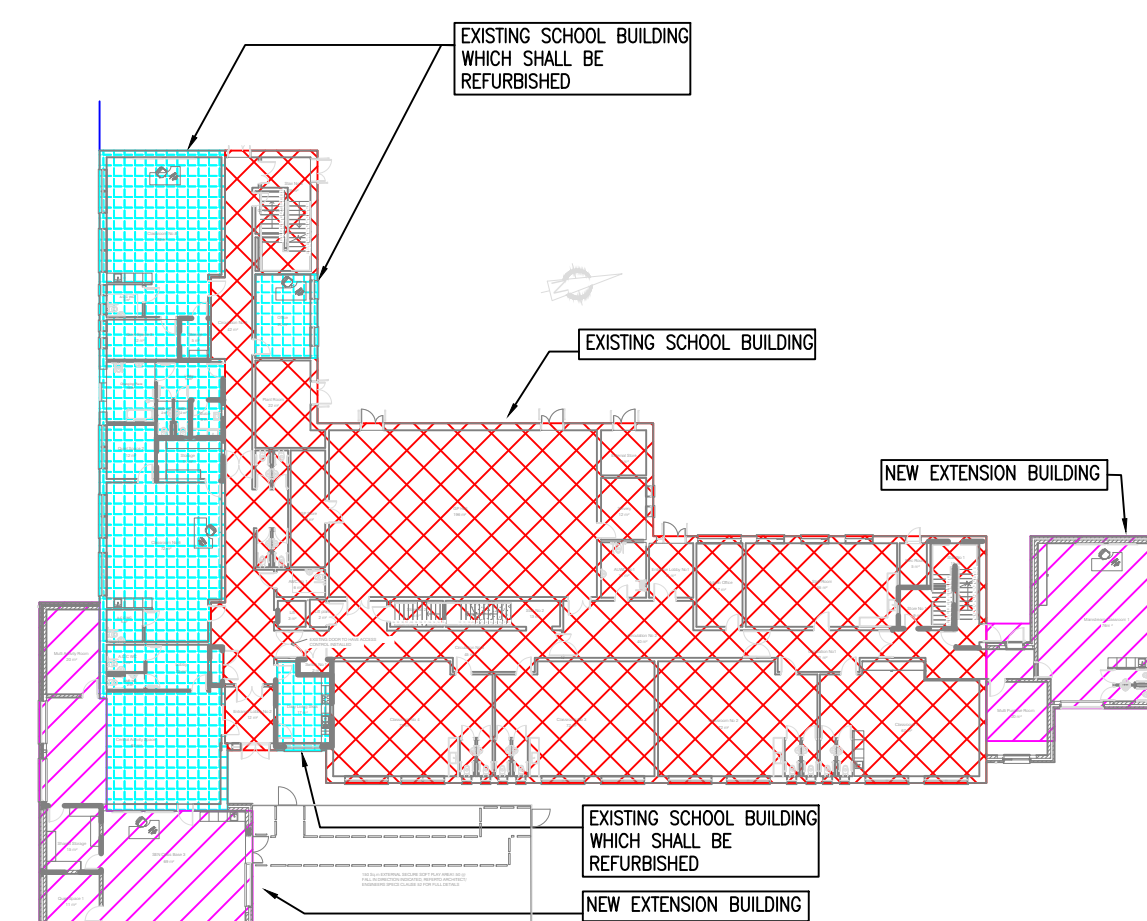
13. PROVIDE BALL-O-FIX VALVES ON ALL FINAL CONNECTIONS TO FITTINGS. VALVES SHALL BE PROVIDED IN AN ACCESSIBLE LOCATION ON ALL INTERNAL WATER SERVICES OUTLETS WITHIN 1 METER OF THE FINAL CONNECTION. BALL-O-FIX VALVES FOR EXTERNAL TAPS SHALL BE FITTED INTERNALLY WITH EASY ACCESS.
14. DEAD LEG DISTRIBUTION PIPEWORK SHALL BE IN ACCORDANCE WITH CURRENT STANDARDS AND IS EN 805:2000. CONNECT HWSR TO HWS WITHIN 500mm OF ALL OUTLETS.
15. ALL SANITARY WARE & TMV's TO BE TMW3 D08 COMPLIANT. ALL HOT WATER OUTLETS SHALL BE PROVIDED WITH FAIL-SAFE LOCKABLE THERMOSTATIC BLENDING VALVES LIMITING MAXIMUM TEMPERATURE TO 43°C. BACK-TO-BACK OR GROUPS OF WASH HAND BASINS SHALL BE SERVED BY A SINGLE BLENDING VALVE. ALL THERMOSTATIC BLENDING VALVES ON THE HOT WATER SERVICES ARE TO BE CONNECTED TO THE COLD WATER DISTRIBUTION SERVICE.
16. ALL NEW WATER SERVICES PIPEWORK SHALL BE COPPER.
17. ALL EQUIPMENT & SINKS SHALL BE SUPPLIED FREE. ISSUE BY OTHER. THE MECHANICAL CONTRACTOR SHALL ALLOW FOR THE FITTING, INSTALLATION AND CONNECTION TO ALL THE UNITS.
18. ALL WATER SERVICES PIPEWORK IN THE CEILING VOID, ABOVE THE CEILING, IN VOIDS, CHASED IN WALLS, ETC. SHALL BE INSULATED AS DESCRIBED IN THE SPECIFICATIONS. IT IS NOT REQUIRED TO INSULATE THE SURFACE MOUNTED PIPEWORK BELOW CEILING LEVEL. ALL HIGH LEVEL PIPEWORK SHALL BE INSTALLED ABOVE THE CEILING AND ALL LOW LEVEL PIPEWORK SHALL BE INSTALLED IN VOIDS OR BOX-OUTS.
19. AUTOMATIC AIR VENTS TO BE FITTED AT ALL HIGH POINTS THROUGHOUT THE PIPEWORK SYSTEM. DRAIN COCKS TO BE FITTED AT ALL LOW POINTS THROUGHOUT THE SYSTEM.
20. ALL PIPEWORK WITHIN THE ATTICS, CONCEALED IN WALLS, PLANT ROOMS & CEILING VOIDS SHALL BE INSULATED AS PER THE TENDER SPECIFICATION.
21. FINAL LOCATION OF ALL SERVICES SHALL BE AGREED WITH THE CLIENT ON-SITE.
22. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL THE NECESSARY INFORMATION TO ALLOW THE MAIN CONTRACTOR TO CO-ORDINATE THE SERVICES.
23. ALL WATER SERVICES PIPEWORK WITHIN THE ASD UNIT SHALL BE CONCEALED WITHIN WALLS. IN ANY LOCATION THAT IT CAN'T BE CONCEALED, ANOTHER APPROACH WILL HAVE TO BE CONSIDERED I.E. BOXING OUT PIPEWORK.



- THE CONTRACTOR SHALL ALLOW FOR THE FOLLOWING CONNECTIONS TO ALL APPLIANCES WITHIN THE BUILDING WHETHER INDICATED OR NOT. IN GENERAL, THE CONTRACTOR SHALL ALLOW FOR THE FOLLOWING CONNECTIONS TO THE FOLLOWING APPLIANCES:
- WHB - 15mm CWS, 15mm HWSF & 15mm HWSR C/W THERMOSTATIC MIXING VALVE (TMV).
  - SINK - 15mm MWS TO WHB, 15mm CWS, 15mm HWSF & 15mm HWSR TO SINK C/W THERMOSTATIC MIXING VALVE (TMV).
  - WC - 15mm CWS TO WC
  - SLUICE SINK - 15mm MWS TO WHB, 15mm CWS, 15mm HWSF & 15mm HWSR TO SINK C/W THERMOSTATIC MIXING VALVE (TMV).
  - DISHWASHER - 15mm CWS TO DISHWASHER
  - WASHING MACHINE - 15mm CWS TO WASHING MACHINE

READ SERVICES FROM TOP TO BOTTOM

READ SERVICES FROM LEFT TO RIGHT



GROUND FLOOR KEYPLAN 1:500

|                                                                                                                                                                                             |            |                              |                   |             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------------------------|-------------------|-------------|
| T1                                                                                                                                                                                          |            | 22.07.2028                   | K. DAVITT         | G. BENNDORF |
| REV                                                                                                                                                                                         | DATE       | PREPARED BY/PROJECT ENGINEER | QUALITY CHECK BY: |             |
| M&E CONSULTANT                                                                                                                                                                              |            |                              |                   |             |
|                                                                                                        |            |                              |                   |             |
| <b>GALILEO ENERGY SERVICES</b><br>UNIT A6, M4 BUSINESS PARK, MAYNOOTH<br>ROAD, CELBRIDGE, CO. KILDARE.<br>Tel: 01-6274103<br><a href="http://www.galileoenergy.ie">www.galileoenergy.ie</a> |            |                              |                   |             |
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| Drawing Status                                                                                                                                                                              |            |                              |                   |             |
| TENDER                                                                                                                                                                                      |            |                              |                   |             |
| Job Title                                                                                                                                                                                   |            |                              |                   |             |
| ST. CATHERINE'S NATIONAL SCHOOL, RUSH, CO. DUBLIN.                                                                                                                                          |            |                              |                   |             |
| Drawing Title                                                                                                                                                                               |            |                              |                   |             |
| WATER SERVICES LAYOUT GROUND FLOOR                                                                                                                                                          |            |                              |                   |             |
| Architect MCOUGHLIN ARCHITECTURE                                                                                                                                                            |            |                              |                   |             |
| Unit A6, Elm House                                                                                                                                                                          |            | Tel. 045 854 900             |                   |             |
| Millennium Park, Naas                                                                                                                                                                       |            | Co.Kildare, Ireland          |                   |             |
| Scale:                                                                                                                                                                                      | 1:150 @ A1 | Drawn By:                    | K. DAVITT         |             |
| Job No.                                                                                                                                                                                     | 21-093     | Drawing No.                  | 53(M001)          | Rev.        |
|                                                                                                                                                                                             |            |                              |                   | T1          |