

PIPE SIZES UNLESS OTHERWISE STATED:  
SPRINKLER RISER = Ø40mm CPVC  
CORRIDOR DISTRIBUTION = Ø32mm CPVC  
PIPE TO INDIVIDUAL FLATS = Ø20mm CPVC

ANY CHANGES THAT INCLUDES A CEILING MOUNTED  
ITEM CLOSER THAN 1000MM TO A SPRINKLER MUST  
HAVE APPROVAL FROM THE SPRINKLER DESIGNER.

| APPROVAL CHART                                                                          |                                   |
|-----------------------------------------------------------------------------------------|-----------------------------------|
| RESIDENTIAL CONCEALED SIDE-WALL SPRINKLER VK480 K=57.7 (4.0), INSTALLED (112-162mm B.C) |                                   |
| MAXIMUM AREA OF COVERAGE                                                                | MINIMUM WATER SUPPLY REQUIREMENTS |
| 3.7m x 3.7m                                                                             | 41.7 l/min@0.52 bar               |
| 4.3m x 4.3m                                                                             | 49.3 l/min@0.73 bar               |
| 4.9m x 4.9m                                                                             | 60.6 l/min@1.1 bar                |
| 4.9m x 5.5m                                                                             | 64.4 l/min@1.25 bar               |

| APPROVAL CHART                                             |                                   |
|------------------------------------------------------------|-----------------------------------|
| RESIDENTIAL CONCEALED PENDANT SPRINKLER RD208 K=70.6 (4.9) |                                   |
| MAXIMUM AREA OF COVERAGE                                   | MINIMUM WATER SUPPLY REQUIREMENTS |
| 3.7m x 3.7m                                                | 49.2 l/min@0.48 bar               |
| 4.3m x 4.3m                                                | 49.2 l/min@0.48 bar               |
| 4.9m x 4.9m                                                | 49.2 l/min@0.48 bar               |
| 5.5m x 5.5m                                                | 64.4 l/min@0.83 bar               |
| 6.1m x 6.1m                                                | 75.7 l/min@1.27 bar               |

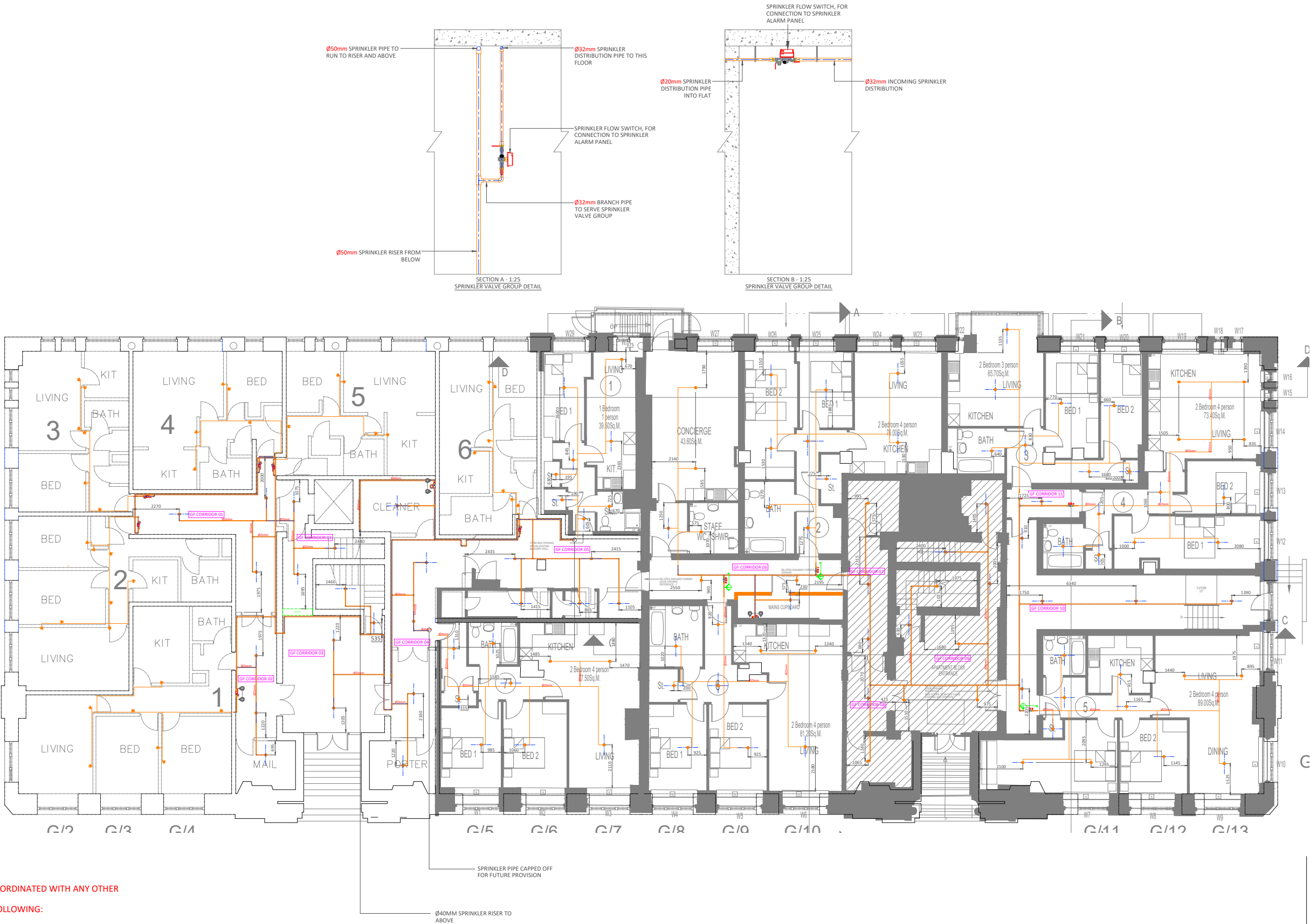
PROJECT ID: 9380

| DESIGN CRITERIA:               |                         |
|--------------------------------|-------------------------|
| SYSTEM DESIGN RULES            | BS9251:2021             |
| CATEGORY (BS9251:2014 TABLE 1) | 2                       |
| DENSITY mm/min (l/min/M2)      | 2.80mm                  |
| SPRINKLER PIPEWORK             | CPVC                    |
| SOURCE & DURATION OF SUPPLY    | T.B.C                   |
| MINIMUM SPRINKLER PRESSURE     | 0.50 BAR                |
| MINIMUM SPRINKLER SPACING      | 2.4M                    |
| DEPARTURES FROM RULES          | YES OR NO (IF YES LIST) |
| CLAUSES USED                   | -                       |
| COMPENSATORY FEATURES          | -                       |
| ALARM                          | -                       |

| DRAWING LEGENDS & NOTES |                                                     |
|-------------------------|-----------------------------------------------------|
|                         | SIDEWALL SPRINKLER HEAD (REFER TO APPROVAL CHART)   |
|                         | SPRINKLER HEAD (REFER TO APPROVAL CHART)            |
|                         | SPRINKLER RISER (FLATS)                             |
|                         | SPRINKLER RISER (COMMUNAL AREAS)                    |
|                         | CPVC SPRINKLER PIPE (FLATS)                         |
|                         | CPVC SPRINKLER PIPE (COMMUNAL AREAS)                |
|                         | GALVANISED STEEL SPRINKLER PIPE (COMMUNAL AREAS)    |
|                         | SPRINKLER PIPE ENCASED BY TRACE HEATING AND LAGGING |
|                         | SPRINKLER VALVE GROUP                               |

| HANGERS AND SUPPORTS SPACING - FOR CPVC PIPEWORK |                              |
|--------------------------------------------------|------------------------------|
| NOMINAL PIPE SIZE:<br>(MILLIMETERS)              | SUPPORT SPACING:<br>(METERS) |
| (20)                                             | (1.7)                        |
| (25)                                             | (1.8)                        |
| (32)                                             | (2.0)                        |
| (40)                                             | (2.1)                        |
| (50)                                             | (2.4)                        |
| (65)                                             | (2.7)                        |
| (80)                                             | (3.0)                        |

| HANGERS AND SUPPORTS SPACING - FOR MEDIUM WEIGHT STEEL PIPEWORK |                              |
|-----------------------------------------------------------------|------------------------------|
| NOMINAL PIPE SIZE:<br>(MILLIMETERS)                             | SUPPORT SPACING:<br>(METERS) |
| (20)                                                            | (2.4)                        |
| (25)                                                            | (2.4)                        |
| (32)                                                            | (2.7)                        |
| (40)                                                            | (3.0)                        |
| (50)                                                            | (3.0)                        |
| (65)                                                            | (3.0)                        |
| (80)                                                            | (3.6)                        |



SPRINKLERS NOT COORDINATED WITH ANY OTHER  
SERVICE.  
PLEASE NOTE THE FOLLOWING:

- PENDANTS, SMOKE AND HEAT DETECTORS TO BE  
MINIMUM 500MM AWAY FROM SPRINKLER HEAD
- EXTRACTS AND SUPPLIES TO BE MINIMUM 300MM  
AWAY FROM SPRINKLER HEAD



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DRAWING TITLE:  
SPRINKLER LAYOUT  
GROUND FLOOR



PROJECT:  
INDIA HOUSE  
MANCHESTER

CLIENT:  
WATES

DRAWN:  
K.E.D

CHECKED:  
J.P.C

APP:  
J.R.R

DATE:  
18/12/20

DATE:  
18/12/20

DATE:  
18/12/20

CLIENT INFORMATION:

PLEASE REVIEW THIS DRAWING AND ADVISE TRIANGLE FIRE SYSTEMS LTD BY RETURN IF YOU WISH TO MAKE  
ANY COMMENTS, OR ARE AWARE OF ANY FACTORS THAT MAY AFFECT OUR DESIGN LAYOUT OR INSTALLATION.  
N.B. POSITIONING OF SPRINKLERS IS CRITICAL TO ENSURE COMPLIANCE WITH DESIGN STANDARD  
PLEASE FORWARD THIS DRAWING TO ALL PARTIES INVOLVED IN THE DESIGN APPROVAL PROCESS INCLUDING  
THE AUTHORITY HAVING JURISDICTION E.G. FIRE OFFICER, BUILDING CONTROL ETC.  
INFORMATION THAT EFFECTS THE TIMELY COMPLETION OF OUR DESIGNS OR RESULT IN CHANGES TO THE  
ORIGINAL SCOPE OF WORK WILL BE RECORDED AND PROCESSED AS A VARIATION TO THE ORIGINAL  
CONTRACT.  
SPRINKLERS & COVER PLATES MUST NOT BE PAINTED.  
SPRINKLER PIPE ROUTES HAVE BEEN CO-ORDINATED WITH THE INFORMATION PROVIDED PIPE ROUTES MAY  
VARY ON SITE.

| HANGERS AND SUPPORTS SPACING     |                           |
|----------------------------------|---------------------------|
| NOMINAL PIPE SIZE: (MILLIMETERS) | SUPPORT SPACING: (METERS) |
| (20)                             | (1.7)                     |
| (25)                             | (1.8)                     |
| (32)                             | (2.0)                     |
| (40)                             | (2.1)                     |
| (50)                             | (2.4)                     |
| (65)                             | (2.7)                     |
| (80)                             | (3.0)                     |

EXTERNAL DRAWING REFERENCE:

ARCH: -  
ELECTRICAL: -  
MECHANICAL: -

|      |                                                        |       |       |          |
|------|--------------------------------------------------------|-------|-------|----------|
| A07  | DRAWING BACK FOR APPROVAL                              | K.D   | L.J.C | 01/08/22 |
| C04  | DRAWING UPDATED                                        | K.D   | L.J.C | 27/04/22 |
| C03  | DRAWING UPDATED TO BS9251:2021<br>REQUIREMENTS         | K.D   | L.J.C | 29/11/21 |
| R01  | CORRIDOR DISTRIBUTION AND FLATS UP<br>ISSUED TO RECORD | K.D   | C.P.M | 04/10/21 |
| C02  | RISER POSITION AMENDED                                 | C.P.M | K.D   | 07/07/21 |
| C01  | DRAWING UP-ISSUED TO CONTRUCTION                       | C.P.M | K.D   | 08/06/21 |
| A06  | HEADS AMENDED TO AVOID LIVING<br>SPACE WHERE POSSIBLE  | C.P.M | K.D   | 18/05/21 |
| A05  | RISER AMENDED                                          | C.P.M | K.D   | 07/05/21 |
| A04  | VALVE GROUP PER APARTMENT ADDED                        | C.P.M | K.D   | 25/04/21 |
| A03  | LAYOUT AMENDED                                         | K.E.D | T.B.R | 21/04/21 |
| A02  | GROUND FLOOR LAYOUT AMENDED                            | K.E.D | T.B.R | 04/01/21 |
| REV. | REVISION DETAIL                                        | DRN.  | CHK'D | DATE     |

|                   |        |       |
|-------------------|--------|-------|
| DRAWING STATUS:   | SCALE: | SIZE: |
| FOR APPROVAL      | 1:75   | A1    |
| DRAWING NUMBER:   | REV:   |       |
| TFS-RS-9380-0L001 | A07    |       |