

QCTO Hatfield  
Fire Engineering Services  
Office Fire Protection Systems  
256 Glyn Street, Hatfield, Pretoria

Project: QCTO Hatfield  
Address: 256 Glyn Street, Hatfield, Pretoria

| Item No. | Description                              |       |
|----------|------------------------------------------|-------|
| 1        | Section 01 - Preliminaries and General   | R     |
| 2        | Section 02 - Sprinkler Installation      | R     |
| 3        | Section 03 - Equipment & Sigmage         | R     |
| 4        | Section 04 - Detection & Gas Suppression | R     |
| 5        | Section 05 - Builder's Work              |       |
| 6        | Sub - Total                              | R     |
| 7        | VAT                                      | 15% R |
| 8        | Total                                    | R     |

Tendering Company:

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Address:

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Date:

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Signature:

| QCTO Hatfield<br>Fire Engineering Services<br>Office Fire Protection Systems<br>Section 01 - Preliminaries and General |                                                                                                                     |      |     |      |       |
|------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|------|-----|------|-------|
| ITEM                                                                                                                   | QCTO Hatfield                                                                                                       | UNIT | QTY | RATE | TOTAL |
| 1                                                                                                                      | <u>SECTION 1 - PRELIMINARIES AND GENERAL</u>                                                                        |      |     |      |       |
| 1,01                                                                                                                   | Site establishment, mobilisation direct costs                                                                       | Item | 1   |      | R     |
| 1,02                                                                                                                   | Site destablishment, demobilisation direct costs                                                                    | Item | 1   |      | R     |
| 1,03                                                                                                                   | Project engineering and management<br>Project Manager                                                               | Item | 1   |      | R     |
| 1,04                                                                                                                   | Full Time Site Manager                                                                                              | Item | 1   |      | R     |
| 1,05                                                                                                                   | Full Time Health and safety                                                                                         | Item | 1   |      | R     |
| 1,06                                                                                                                   | Commissioning / handover / training sessions                                                                        | Item | 1   |      | R     |
| 1,07                                                                                                                   | Four year maintenance/service contract on handheld equipment and fire systems and from date of practical completion | Item | 1   |      | R     |
| 1,08                                                                                                                   | Safety file and contractors pack                                                                                    | Item | 1   |      | R     |
| 1,09                                                                                                                   | Operating and maintenance manual as per specifications                                                              | Item | 1   |      | R     |
| 1,10                                                                                                                   | Workshop drawings as per specifications                                                                             | Item | 1   |      | R     |
| 1,11                                                                                                                   | As-built drawings as per specifications to include evacuation plans                                                 | Item | 1   |      | R     |
| 1,12                                                                                                                   | Scaffolding and lifitng equipment                                                                                   | Item | 1   |      | R     |
|                                                                                                                        | <u>Any other items not specifically mentioned in this bill for this section (specify below)</u>                     |      |     |      |       |

| 1,13                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Rate Only | Rate Only |      |       |
|-------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|------|-------|
|                                                                                                                                                 | SECTION 1 TOTAL CARRIED TO SUMMARY                                                                                                                                                                                                                                                                                                                                                                                                                                        |           |           |      | R     |
| <b>QCTO Hatfield</b><br><b>Fire Engineering Services</b><br><b>Office Fire Protection Systems</b><br><b>Section 02 - Sprinkler Installation</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |           |           |      |       |
| ITEM                                                                                                                                            | QCTO Hatfield                                                                                                                                                                                                                                                                                                                                                                                                                                                             | UNIT      | QTY       | RATE | TOTAL |
| <u>2</u>                                                                                                                                        | <b><u>SECTION 2 - SPRINKLER INSTALLATION</u></b><br><br>All items in this section shall include all necessary consumables for installation.<br><br><u>Sprinkler Piping and Fittings</u><br><br>Supply and install SANS 62 Medium Wall black steel piping and fittings complete with all pipe supports and hangers<br><br>Descriptions of pipes and fittings shall include red paint with a single coat primer and 2 coats enamel paint with a minimum thickness of 25 µm. |           |           |      |       |
| 2,01                                                                                                                                            | 25 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | m         | 500       |      | R     |
| 2,02                                                                                                                                            | 32 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | m         | 380       |      | R     |
| 2,03                                                                                                                                            | 40 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | m         | 80        |      | R     |
| 2,04                                                                                                                                            | 50 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | m         | Rate      |      | R     |
| 2,05                                                                                                                                            | 65mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | m         | Rate      |      | R     |
| 2,06                                                                                                                                            | 80 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | m         | Rate      |      | R     |
| 2,07                                                                                                                                            | 100 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | m         | 150       |      | R     |
| 2,08                                                                                                                                            | 150 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | m         | 25        |      | R     |

|      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |     |      |  |   |
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| 2,09 | 200 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | m   | Rate |  | R |
|      | <u>Sprinkler Heads</u><br>Sprinkler heads to be installed as indicated on drawing, including ranges, flanges, connections, fittings, hangers, brackets, threaded rod, etc.                                                                                                                                                                                                                                                                                                                                                                                                                            |     |      |  |   |
| 2,10 | Ordinary hazard, 93°C, K80, 15mm brass conventional, standard response with a design density of 5mm/min                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | No. | 350  |  | R |
| 2,11 | High hazard with a design density of 7,5mm/min and activation temperature of 93°C for sprinklers in pump house                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | No. | 6    |  | R |
|      | <u>ICV Chamber</u><br><br>Supply and installation control valve assembly as per typical detail in accordance with SANS 10287, complete with rack and roof sprinklers arrangement, fittings, water alarm and test arrangement.<br><br>Provision to be made for construction of ICV chamber from double brick masonry walls with concrete screed finish and concrete roof.<br><br>Workshop drawings shall be provided by the contractor and submitted for approval prior to ordering of any materials or beginning construction.<br><br>Item rate shall include all necessary fittings and consumables. |     |      |  |   |

QCTO Hatfield (Bokamoso Thuthuka)

| <b>QCTO Hatfield</b><br><b>Fire Engineering Services</b><br><b>Office Fire Protection Systems</b><br><b>Section 02 - Sprinkler Installation</b> |                                                                                                                                                                                                                                                     |      |     |      |       |
|-------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----|------|-------|
| ITEM                                                                                                                                            | QCTO Hatfield                                                                                                                                                                                                                                       | UNIT | QTY | RATE | TOTAL |
| 2,12                                                                                                                                            | Construction of ICV Chamber                                                                                                                                                                                                                         | Item | 1   |      | R     |
| 2,13                                                                                                                                            | 100 mm ICV arrangement                                                                                                                                                                                                                              | No.  | 1   |      | R     |
| 2,14                                                                                                                                            | 100 mm flow switch                                                                                                                                                                                                                                  | No.  | 1   |      | R     |
| 2,15                                                                                                                                            | Manifold for 3 ICVs                                                                                                                                                                                                                                 | Item | 1   |      | R     |
| 2,16                                                                                                                                            | All statutory signage including fixing.                                                                                                                                                                                                             | Item | 1   |      | R     |
|                                                                                                                                                 | <u>Water Supplies &amp; Pumphouse</u>                                                                                                                                                                                                               |      |     |      |       |
| 2,17                                                                                                                                            | New sectional steel water storage tank, 258m³ minimum effective capacity including flanges, connections, fittings, hangers, brackets, vortex inhibitors, water level indicator, water inlets, water outlets to sprinklers pump, valves, drain, etc. | No.  | 1   |      | R     |
| 2,18                                                                                                                                            | New Ø200 suction piping including flanges, isolation valves, connections, fittings, hangers & brackets or stands, etc. complete                                                                                                                     | m    | 25  |      | R     |
| 2,19                                                                                                                                            | New Ø100 test return piping including flanges, isolation valves, connections, fittings, hangers, brackets, etc. complete                                                                                                                            | No.  | 25  |      | R     |
| 2,20                                                                                                                                            | New Ø100 infill piping including flanges, isolation valves, connections, fittings, hangers, brackets, water mains connection at street, etc. complete consisting of uPVC class 16 underground pipe and painted black medium pipe surface.           | No.  | 25  |      | R     |

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|                                                                                                                         |                                                                                                                                                                                                               |           |           |      |       |
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| 2,21                                                                                                                    | Ø150 main u/ground steel piping from pump house to connection in ICV chamber, including flanges, non-return check valves, connections, fittings, brackets, thrust blocks, Denso wrap, end-cap, etc. complete. | No.       | 25        |      | R     |
| 2,22                                                                                                                    | Complete pump room piping including auto start arrangement, GVI Test flow meter, etc. (Pump room to be constructed by others)                                                                                 | Item      | 1         |      | R     |
| 2,23                                                                                                                    | Complete diesel and electric Driven pumps to ASIB Standards; 4 262,3 L/min @ 5.043 bar operating capacity as per specification, complete with control panels                                                  | No.       | 2         |      | R     |
| 2,24                                                                                                                    | Complete jockey or make-up pump                                                                                                                                                                               | No.       | 1         |      | R     |
| 2,25                                                                                                                    | Complete enunciator panel                                                                                                                                                                                     | Item      | 1         |      | R     |
| 2,25                                                                                                                    | Complete electrical installation including electrical cable from nearest suitable DB, electrical distribution board suitable for jockey pump and battery chargers, main power supply make-off in panel, etc   | Item      | 1         |      | R     |
| 2,26                                                                                                                    | 3-Phase 380 VAC DB in pump house fed from 60A CB mains supply.                                                                                                                                                | Item      | 1         |      | R     |
| 2,26                                                                                                                    | All statutory signage including fixing.                                                                                                                                                                       | Item      | 1         |      | R     |
|                                                                                                                         | <u>Any other items not specifically mentioned in this bill for this section (specify below)</u>                                                                                                               | Rate Only | Rate Only |      |       |
|                                                                                                                         | SECTION 2 TOTAL CARRIED TO SUMMARY                                                                                                                                                                            |           |           |      |       |
| <b>QCTO Hatfield</b><br>Fire Engineering Services<br>Office Fire Protection Systems<br>Section 03 - Equipment & Simgage |                                                                                                                                                                                                               |           |           |      |       |
| ITEM                                                                                                                    | QCTO Hatfield                                                                                                                                                                                                 | UNIT      | QTY       | RATE | TOTAL |
| 3                                                                                                                       | <u>SECTION 3 - EQUIPMENT &amp; SIGNAGE</u>                                                                                                                                                                    |           |           |      |       |
|                                                                                                                         | <u>Fire Equipment</u>                                                                                                                                                                                         |           |           |      |       |
|                                                                                                                         | Supply and install equipment as listed below complete with wooden mounting board                                                                                                                              |           |           |      |       |
| 3,01                                                                                                                    | 4.5 kg DCP Fire extinguisher                                                                                                                                                                                  | No.       | 15        |      | R     |
| 3,02                                                                                                                    | 9.0 kg DCP Fire extinguisher                                                                                                                                                                                  | No.       | 10        |      | R     |
| 3,03                                                                                                                    | 30 m fire hose reel                                                                                                                                                                                           | No.       | 15        |      | R     |

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|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------|---|
| 3,04 | 80mm hand wheel hydrant valve                                                                                                                                                      | No. | 15   | R |
|      | <u>Piping and Fittings</u>                                                                                                                                                         |     |      |   |
|      | Supply and install SANS 62 Medium Wall black steel piping and fittings complete with all pipe supports and hangers                                                                 |     |      |   |
|      | Descriptions of pipes and fittings shall include red paint with a single coat primer and 2 coats enamel paint with a minimum thickness of 25 µm.                                   |     |      |   |
| 3,05 | 25 mm                                                                                                                                                                              | m   | 40   | R |
| 3,06 | 32 mm                                                                                                                                                                              | m   | 80   | R |
| 3,07 | 40 mm                                                                                                                                                                              | m   | Rate | R |
| 3,08 | 50 mm                                                                                                                                                                              | m   | 245  | R |
| 3,09 | 65mm                                                                                                                                                                               | m   | Rate | R |
| 3,10 | 80 mm                                                                                                                                                                              | m   | Rate | R |
| 3,11 | 100 mm                                                                                                                                                                             | m   | 130  | R |
| 3,12 | 150 mm                                                                                                                                                                             | m   | Rate | R |
|      | <u>Signage - 190 x 190 mm</u>                                                                                                                                                      |     |      |   |
|      | Supply and install framed photoluminescent safety and equipment signage fixed to walls using screws or cantilevers or suspended from trusses/ceilings using stainless steel cables |     |      |   |
|      | <u>Single Sided Fixed to Wall/Suspended</u>                                                                                                                                        |     |      |   |
| 3,13 | E1 / E2 / E10 - Exit right / left / ahead                                                                                                                                          | No. | 25   | R |
| 3,14 | E6 - Exit here                                                                                                                                                                     | No. | 7    | R |
| 3,15 | F4 / F5 / F6 - FE and HR here / left / right                                                                                                                                       | No. | 15   | R |
| 3,16 | F45 - Fire exit keep clear                                                                                                                                                         | No. | 7    | R |
| 3,17 | F1 / F2 / F3 - HYD, FE, HR here / left / right                                                                                                                                     | No. | 20   | R |
| 3,18 | E16 / E17 / E18 / E19                                                                                                                                                              | No. | Rate | R |
| 3,19 | E25                                                                                                                                                                                | No. | 5    | R |
| 3,20 | E15                                                                                                                                                                                | No. | 5    | R |
|      | <u>Double-Sided Suspended</u>                                                                                                                                                      |     |      |   |
| 3,21 | E1 / E2 / E10 - Exit right / left / ahead                                                                                                                                          | No. | 17   | R |
| 3,22 | E6 - Exit here                                                                                                                                                                     | No. | Rate | R |
| 3,23 | F4 / F5 / F6 - FE and HR here / left / right                                                                                                                                       | No. | 5    | R |
| 3,24 | F45 - Fire exit keep clear                                                                                                                                                         | No. | Rate | R |
| 3,25 | F1 / F2 / F3 - HYD, FE, HR here / left / right                                                                                                                                     | No. | 8    | R |

|      |                                    |     |   |  |   |
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| 3,26 | E16 / E17 / E18 / E19              | No. | 8 |  | R |
|      | SECTION 3 TOTAL CARRIED TO SUMMARY |     |   |  | R |

QCTO Hatfield (Bokamoso Thuthuka)

| <b>QCTO Hatfield</b><br><b>Fire Engineering Services</b><br><b>Office Fire Protection Systems</b><br><b>Section 04 - Detection &amp; Gas Suppression</b> |                                                                                                                                                                             |      |     |      |       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----|------|-------|
| ITEM                                                                                                                                                     | QCTO Hatfield                                                                                                                                                               | UNIT | QTY | RATE | TOTAL |
| 4                                                                                                                                                        | <u>SECTION 4 - DETECTION &amp; GAS SUPPRESSION</u>                                                                                                                          |      |     |      |       |
|                                                                                                                                                          | <u>Analogue Addressable Fire Alarm Panel</u>                                                                                                                                |      |     |      |       |
| 4,01                                                                                                                                                     | Allow for the procurement, delivery, installation, connection, testing and commissioning of a four loop analogue addressable fire detection and alarm system control panel. | No   | 2   |      | R     |
| 4,02                                                                                                                                                     | Wireless repeater fire alarm panel c/w transmitters, recivers and sms communication including power supply unit                                                             | No   | 1   |      | R     |
| 4,03                                                                                                                                                     | Allow for 220VAC isolator located above FAP to be done by registered electrician.                                                                                           | No.  | 3   |      | R     |
|                                                                                                                                                          | <u>Network Card</u>                                                                                                                                                         |      |     |      |       |
| 4,04                                                                                                                                                     | Allow for the procurement, installation, testing and commissioning of fault tolerant network card. <u>Stand By Batteries</u>                                                | No   | 2   |      | R     |
| 4,04                                                                                                                                                     | Allow for the procurement, delivery, installation, connection, testing and commissioning of stand by batteries for 24 hour back up and 30 minutes under full alarm load.    | No   | 6   |      | R     |
|                                                                                                                                                          | <u>PSU Units</u>                                                                                                                                                            |      |     |      |       |
| 4,05                                                                                                                                                     | Allow for procurement and installation 24vdc PSU units.                                                                                                                     | No   | 10  |      | R     |
|                                                                                                                                                          | <u>Lightning Protection Units</u>                                                                                                                                           |      |     |      |       |
| 4,06                                                                                                                                                     | Allow for procurement and installation of lightning protection units on the mains power supply to the panel                                                                 | No.  | 2   |      | R     |
|                                                                                                                                                          | <u>Logbook</u>                                                                                                                                                              |      |     |      |       |
| 4,07                                                                                                                                                     | A log book to be Installed in a holder and installed adjacent to master fire panel                                                                                          | No   | 2   |      | R     |
|                                                                                                                                                          | <u>Block Plan</u>                                                                                                                                                           |      |     |      |       |
| 4,08                                                                                                                                                     | Provide zone diagram and associated signage, laminated and framed behind glass for the fire panel                                                                           | No   | 2   |      | R     |
|                                                                                                                                                          | <u>Analogue Addressable Fire Detectors And Bases</u>                                                                                                                        |      |     |      |       |
|                                                                                                                                                          | Allow for the procurement, installation, testing and commissioning of analogue addressable fire detectors and bases as follows:                                             |      |     |      |       |
| 4,09                                                                                                                                                     | Optical smoke detectors with intergrated sounder and beacon                                                                                                                 | No   | 180 |      | R     |
| 4,10                                                                                                                                                     | Optical heat detectors with intergrated sounder and beacon                                                                                                                  | No   | 5   |      | R     |
|                                                                                                                                                          | <u>Analogue Addressable Manual Call Points</u>                                                                                                                              |      |     |      |       |

|      |                                                                                                                                                                          |    |    |   |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|---|
| 4,11 | Allow for the procurement, installation, testing and commissioning of analogue addressable manual fire alarm call points with re-settable elements and protective covers | No | 20 | R |
| 4,12 | <u>Analogue Addressable Siren/Strobe</u><br>Allow for the procurement, installation, testing and commissioning of analogue addressable fire siren and strobe units.      | No | 55 | R |



## QCTO Hatfield

### Fire Engineering Services

#### Office Fire Protection Systems

#### Section 04 - Detection & Gas Suppression

| ITEM | QCTO Hatfield                                                                                                                                                                    | UNIT | QTY   | RATE | TOTAL |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------|------|-------|
|      | <u>Addressable I/O Units</u>                                                                                                                                                     |      |       |      |       |
| 4,13 | Allow for the procurement, installation, testing and commissioning of I/O units to interface the flow switches in the ICV chamber to the loop and report fire and fault signals. | No   | 2     |      | R     |
|      | <u>Line Isolators</u>                                                                                                                                                            |      |       |      |       |
| 4,14 | Allow for the procurement, installation, testing and commissioning of line isolators                                                                                             | No   | 5     |      | R     |
|      | <u>Fire Resistive Cabling</u>                                                                                                                                                    |      |       |      |       |
| 4,15 | PH30, 2 core, 1.5mm                                                                                                                                                              | m    | 6 000 |      | R     |
|      | <u>Conduit And Couplings</u>                                                                                                                                                     |      |       |      |       |
| 4,16 | Allow for procurement and installation of galvanised metal conduit (with necessary couplings, junction boxes, etc.)                                                              |      |       |      |       |
|      | Conduit to be fixed every 1m with steel saddles. 25mm                                                                                                                            | m    | 3 000 |      | R     |
|      | <u>Gas Suppression</u>                                                                                                                                                           |      |       |      |       |
|      | Supply and install clean gas agent (FM200) and detection panel for protection of below listed volumetric enclosures                                                              |      |       |      |       |
| 4,17 | Server room-Bokamoso (97m <sup>3</sup> )                                                                                                                                         | Item | 1     |      | R     |
| 4,18 | Existing registry-Bokamoso (525m <sup>3</sup> )                                                                                                                                  | Item | 1     |      | R     |
| 4,19 | Existing registry-Bokamoso (525m <sup>3</sup> )                                                                                                                                  | Item | 1     |      | R     |
| 4,19 | Server room-Thuthuka (60m <sup>3</sup> )                                                                                                                                         | Item | 1     |      | R     |
| 4,20 | Existing archive-Thuthuka (740m <sup>3</sup> )                                                                                                                                   | Item | 1     |      | R     |
| 4,21 | Allow for 220VAC isolator located above ECP to be done by registered electrician.                                                                                                | No   | 4     |      | R     |
|      | <u>Output Relay/Fire signal</u>                                                                                                                                                  |      |       |      |       |
| 4,22 | Lift connection to fire alarm systems including cable length. Lifts to home to ground floor in the event of an emergency                                                         | Item | 2     |      | R     |
| 4,23 | HVAC output relay                                                                                                                                                                | Item | 12    |      | R     |

|  |                                                                                                 |           |           |  |   |
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|  | <u>Any other items not specifically mentioned in this bill for this section (specify below)</u> | Rate Only | Rate Only |  |   |
|  | SECTION 4 TOTAL CARRIED TO SUMMARY                                                              |           |           |  | R |

| <b>QCTO Hatfield</b><br><b>Fire Engineering Services</b><br><b>Office Fire Protection Systems</b><br><b>Section 05 - Builder's Work</b> |                                                                                                                                                                          |      |     |      |       |
|-----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----|------|-------|
| ITEM                                                                                                                                    | QCTO Hatfield                                                                                                                                                            | UNIT | QTY | RATE | TOTAL |
| 5                                                                                                                                       | <u>SECTION 5 - BUILDER'S WORK</u>                                                                                                                                        |      |     |      |       |
|                                                                                                                                         | <u>Fire rated doors</u>                                                                                                                                                  |      |     |      |       |
| 5,01                                                                                                                                    | Supply and install standard single leaf Class A wooden fire rated door c/w frame, self closer and make good (refer to fire protection plans)                             | No   | 2   |      | R     |
| 5,02                                                                                                                                    | Supply and install standard single leaf Class A glass fire rated door c/w frame, self closer and make good (refer to fire protection plans)                              | No   | 4   |      |       |
| 5,03                                                                                                                                    | Supply and install 1500mm wide Class A glass fire rated door c/w frame, self closer & make good (refer to fire protection plans)                                         | No.  | 4   |      | R     |
| 5,04                                                                                                                                    | Supply and install standard single leaf Class B fire rated door c/w frame, self closer and make good (refer to fire protection plans)                                    | No.  | 5   |      | R     |
|                                                                                                                                         | <u>Standard doors</u>                                                                                                                                                    |      |     |      |       |
| 5,05                                                                                                                                    | Supply and install 1500mm wide glass standard doors & make good (refer to fire protection plans)                                                                         | No   | 9   |      | R     |
|                                                                                                                                         | <u>Smoke Barriers</u>                                                                                                                                                    |      |     |      |       |
| 5,05                                                                                                                                    | Supply and install 30 minutes fire rated smoke barriers or smoke curtain @ maximum 800mm depth as indicated in fire protection plans c/w supports                        | m2   | 110 |      | R     |
|                                                                                                                                         | <u>Fire rated walls</u>                                                                                                                                                  |      |     |      |       |
| 5,06                                                                                                                                    | Supply and construct 60 minutes dry wall fire rated walls @ height of 3500mm as indicated in fire protection plans c/w structural supports, finishing and to make good.  | m2   | 70  |      | R     |
| 5,07                                                                                                                                    | Supply and construct 120 minutes dry wall fire rated walls @ height of 3500mm as indicated in fire protection plans c/w structural supports, finishing and to make good. | m2   | 295 |      | R     |
|                                                                                                                                         | <u>Fire stopping /sealing</u>                                                                                                                                            |      |     |      |       |
| 5,08                                                                                                                                    | Supply and application of 60 minutes fire rated Nullfire intumescent expansion foam for any penetration at fire rated walls (refer to fire protection layouts)           | Sum  | 1   |      | R     |

|      |                                                                                                                                                                                                                                                               |           |   |  |   |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---|--|---|
| 5,09 | Supply and application of 60 minutes fire rated Nullfire intumescant coating for any penetration at fire rated walls (refer to fire protection layouts)                                                                                                       | Sum       | 1 |  | R |
| 5,10 | <u>Demolishing</u><br>Demolish/retrofit and clear existing dry walls to accomodate new replacemnet doors and make good. (refer to fire protection layouts)<br><u>Any other items not specifically mentioned in this bill for this section (specify below)</u> | Sum       | 1 |  | R |
|      |                                                                                                                                                                                                                                                               | Rate Only |   |  | R |
|      | SECTION 5 TOTAL CARRIED TO SUMMARY                                                                                                                                                                                                                            |           |   |  | R |