METHOD STATEMENT FOR THE INSTALLATION OF THE
NEW FIRE ALARM SYSTEM IN B BLOCK

(To be read in conjunction with company generic safety documentation however in areas of conflict this document takes precedence)

Client: Lymm High School.
Site Address: Oughtrington Lane, Lymm WA13 0RB
Project: Replacement of Fire Alarm System with New

Grainger Contract No: CO3134SIC
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Refer to Drawings: M0497_E803, M0497_E804, M0497_E805 & M0497_E806
Document Written By: Ian Ditchfield on behalf of Grainger Fire & Security
Grainger Contact: Ian Ditchfield. landitch@grainger-fire.co.uk tel: 0161 7776700
Revisions

Any revisions required will be recorded in the register below. Approval must be gained prior to working to the revision.

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Section 1 – Overview

This method statement serves to provide detail of how the new fire alarm system is to be installed into the listed building, B Block, Lymm High School and has been created to help highlight any changes to our procedures to meet the requirements of Warrington Borough Councils building control department.

This project is for the installation of a category L1 system installed to meet the requirements of BS5839-1:2013 and will involve the installation of fire detection into every room over 1m², manual call points to fire exits/corridors and interfaces to release fire doors/bms etc. Please refer to design drawings M0497_E803, M0497_E804, M0497_E805 & M0497_E806.

The new fire alarm sounders are incorporated into the automatic detectors, however, it may be required to install wall mounted sounder/beacons units into the main kitchen and dining room areas to overcome the possibility of a high level of background noise caused by kitchen cooking activities/processes and students when the dining block is full. We will also have to install wall mounted sounders into the staff room areas and main staircase to avoid wiring cables past the ornate ceilings.

The existing fire alarm system is very sparse and mainly only includes call points to the final exit doors and some corridors, automatic heat detectors in the main kitchen and wall mounted sounders throughout the building. This existing installation is very tired with sections seemingly just cabled tied to existing services – see fig 5.4 below. The existing installation is also wired in sections of wall mounted trunking which also contains 230v ac cables supplying power and lighting around the building, this is not allowed to BS5839.

Where possible, we will install our fire alarm cabling inside new ‘YT2’ type white mini trunking screwed directly to the building structure. White circular ceiling rose adapters will be used to mount the detectors and wall sounders. Up to 100mm x 100mm white trunking will be required to route cables between A block, through the atrium in B block and continued into E block. The more cabling contained in each section of trunking will dictate the size of trunking used. To meet the requirements of BS5839, all cables will be clipped inside the trunking itself using either metal ‘P’ clips or perforated banding.

There is a cable riser in the atrium of B Block. This will be used to route cables between the different floor levels.

Loop cabling being installed is 1.5mm FP200 Gold with RED sheaving.

Network cabling being installed is 1.5 FP200 Enhanced with RED Sheaving.

Please note: The issued specification lists red trunking to be installed. To produce a ‘tidier’ installation, we propose to use white PVC trunking. This is yet to be confirmed.

No fire alarm cabling or devices will be mounted on the outside of the building.

Once the new system has been handed over, the existing installation will be stripped out.
Section 2 – Basement

The basement walls and ceiling are exposed brick. New fire alarm cabling will be clipped directly to the building structure where possible. Where multiple cables need to be installed at the same location, light grade galvanised tray will be installed to contain these cables. Metal ‘P’ clips, saddles or metal ties will be used to secure the cables. Devices will be mounted on galvanised ‘U’ boxes.

Section 3 – Ground Floor

The Ground floor walls and ceilings are mostly of a painted plastered finish over structural walls or lath and plaster. White trunking will be installed around this floor to contain cables.

There are areas of this floor where we will be required to install wall mounted smoke detection technology due to the ornate ceilings. These rooms include the staff rooms and main stair case. In these areas we propose to install wall mounted beam units ( Apollo part number 55000-268APO ).

There is a small corridor with an ornate ceiling in the atrium area which will require smoke detection. See Fig.3.1 below. This corridor is too small for a beam unit to operate correctly and will require a point type smoke detector. Here, we propose that the cables be installed in trunking mounted near the top of the wall, about 100mm below the decorative cornice. We would then exit the trunking and run the soft sheaved cables past the ornate cornice, plastic cable ties will be used to hold cables together. These cables will then be clipped to the ceiling using red metal saddles. We do have the option of using 20mm conduit here but, in my opinion, this would produce an ‘industrial’ look and will result in a less tidy installation.

The rest of this floor will be trunked as required.

We propose to install a smoke detector at the top of the central atrium. This will be mounted to one corner of the roof, as far away from the fan as possible. Cables will run up the cable riser in this area until they exit at roof level. A minimum amount of cable will be seen once this has been installed.
Fig 3.1 – Corridor with ornate ceiling which will require a point type detector.

Fig 4.1 – Cornice on 1st & 2nd floors

Section 4 – 1st & 2nd Floors

The 1st & 2nd floor walls and ceilings are mostly of a painted plastered finish over structural walls or lath and plaster. White trunking will be installed around this floor to contain cables.

As only loop cables need to be installed on these floors, only YT2 type mini trunking will be required.

There are less ornate cornice on these floors which will also need to be protected during our works. We propose that the same technique as detailed above is used here. See fig 4.1 above.
Section 5 – Notes

There are areas of this building where the cornice have been damaged by others when installing equipment. See fig. 5.1 below. There are also areas of the building where the decoration is of a low standard and has been damaged or paint is flacking.

Fig 5.1 – Damaged Cornice

Fig 5.2 – Poor installation of YT2 trunking.
Fig 5.3 – Flaking paint in computer room
Fig 5.4 – Poor installation of existing fire alarm cabling

Method statement produced by Ian Ditchfield 21/12/14

End.