

## **MEANS OF ESCAPE**

Under Section 352 of the Housing Act 1985  
Kimmel Hall, St George, Abergele

The following works which are identified on the enclosed plans are to be implemented in conjunction with the works which were identified under Section 10 of the Fire Precautions Act 1971 served on 9th August 1995.

All works which are of a structural nature or could require approval under the Planning (Listed Buildings and Conservation Areas) Act 1990, approval must be sought via the Planning and Building Control Department before the commencement of the work.

### Works Specification

#### 1. Fire Doors S.C.

All doors outlined in red and marked S.C. on plan, must be half hour fire resisting to comply with BS 8214: 1990 (ie. FD30, FD30S or previously 30:30 doors).

A purpose made half hour door and frame certified to be in accordance with BS 476 Part 8 or Part 22.

An upgraded door and frame constructed to half hour fire resistance in accordance with TRADA specification.

All fire doors must be fitted with intumescent strips and a smoke seal either fitted in groove in the door jambs and heads or in a groove in the door frame.

Self closing devices should be of the overhead type and to comply with BS 6459 Part 1 Specification.

#### 2. Existing doors which are to be retained because of their part of the Listed Building

The oak doors located on the ground floor marked (B) on plan are to be upgraded by the fitting of heavy duty floor type door closers and the fitting of intumescent heat and smoke stop seals, either fitted in a groove in the door frame or grooved into the door edge.

The doors are to be coated with a clear intumescent coating (for example, Nullifire) or any other product that can achieve the same standard of half hour fire resistance required.

#### 3. Doors Marked N4

All doors marked N4 on plan and outlined in red on plan must be half hour fire resisting, fitted with heat and smoke stop seals and must be kept locked. Boiler room doors to be one hour fire resisting (I.E F.O 60, FD60S or previously 60:60 doors).

#### 4. Means of escape - window, library and drawing room

Window marked (C) on plan ground floor - each window must have a minimum opening area of 850mm high x 500mm wide.

A panic lock or panic bar is to be fitted on the opening windows.

Access steps are to be constructed complete with handrails which should comply with Building Regulations.

The library window will require an extension of the existing metal fire escape platform to accommodate the means of escape.

5. Voids

Areas which are shown as void on the plan and are hatched in red access must be gained into these areas if the void extends through the floor levels.

A floor must be installed at each floor level which will achieve a 60 minute fire separation, in the larger void areas a smoke detector is to be installed.

6. Fire separation above ceiling space in areas of suspended ceilings

The area above the ceilings in rooms which have suspended ceiling tiles must be checked for fire separation room to room.

Partitions which are terminated at ceiling level must be extended to structural floor above or structural roof as the case may be the extended partition must afford half hour fire resistance.

All service pipes, cables and ducts must be adequately sealed or bushed using material which affords half hour fire resistance.

7. Proposed new partition and doors

The proposed erection of new partitions and access doors shown in red on plan must be half hour fire resisting and erected from structural floor to structural ceiling and comply with BS 476 areas of glazing must comply with BS 476.

8. Lift shaft

Ventilation must be provided at the head of the lift shaft to the outside air to prevent smoke logging the vent should be equivalent of not less than 0.1m<sup>2</sup> surface area of ventilation, a smoke detector should be installed at the head of the shaft.

9. Automatic fire detection and alarms

Provide a fire alarm system of type L\* 1 in accordance with BS 5839: Part 1: 1988 Fire detection and alarm systems for buildings. The plans have been annotated to show manual call point locations and areas requiring detectors.

\* 2  
It should be noted that the symbols used on the plans for detectors are intended only to identify the areas where provision is required and should not be construed as indicating the exact position.

a) Location

The siting and spacing of detectors is of critical importance when an effective automatic fire detection system is being designed.

Smoke detector heads should be located at the highest point on a staircase and all intervening landings leading to the ground floor.

A smoke detector should also be sited near to the head of any basement staircase. However location will be dependent on individual property requirements. If the cellars of a property comprise several compartments then each of these may need detector coverage, cross ventilation at high level may reduce the number of detectors which would provide adequate coverage.

A suitable detector shall be positioned in the room or space of a letting which opens directly onto the common route of escape. Further detectors may be required in high risk parts of the letting.

b) Detectors

Ionization chamber or optical smoke detectors complying with BS 5446 Part I 1977 shall be required for the purposes of this guide.

Consideration should be given to the type of head to be installed so as to minimise the risk of false alarms. The smoke detectors may be of the ionization or photoelectrical type, with heat detectors provided as appropriate.

Heat detectors are required in rooms where cooking takes place and consideration should also be given to the installation of heat detectors in boiler rooms.

Where rooms where cooking takes place immediately communicate with a room which contains a smoke detector then it is recommended that the room containing the cooking facilities be provided with mechanical extraction.

c) Sounders

The fire alarm sounders should be wired in accordance with Paragraph (f) below and sited in adequate numbers to achieve a minimum sound pressure level of 75 dB(A) at each bedhead when all doors are closed and attain 65dB(A) above background levels throughout the remainder of the property whichever is the greater.

d) Manual Alarm Activation Point

Manual alarm activation points of the 'break glass type' shall be provided on all floors as shown on plan.

e) Power Supply

The power supply equipment for a smoke alarm system shall be located adjacent to the mains intake position and shall be exclusive to the fire alarm with provision made for a normal mains supply and a standby supply capable of maintaining the system in normal operation for at least 24 hours after which sufficient capacity should remain to provide an evacuation alarm to all zones for at least 30 minutes in accordance with BS 5839.

The connection to the mains supply should be via a switched fuse painted red and labelled 'Fire Alarm - do not switch off', alternatively a mains circuit breaker may be incorporated.

f) Wiring

All wiring shall be in accordance with BS 5839, Clause 17:2 ie. heating resisting wiring. The wiring installation shall be undertaken by a member of the Institute of Electrical Engineers or National Inspection Council of Electrical Installation Contractors. The cable should be neatly run and securely fixed.

g) Testing

The whole installation shall be tested upon completion by a member of the Institute of Electrical Engineers or the National Inspection Council of Electrical Installation Contractors. A certificate should be issued certifying the installation to be in accordance with BS 5839.

h) Maintenance

The whole installation shall be directed and tested in accordance with BS 5839 by a member of the Institutions above. A log book shall be duly completed and retained for examination by the inspecting officer at the time of re-inspection.

10. Emergency Lighting

The emergency lighting should be provided on all the escape routes and must comply with BS 5266 Part I Code of Practice for the Emergency Lighting of Premises 1988.

Emergency lighting should be provided in accordance with BS 5266 Part I Code of Practice for the Emergency Light of Premises 1988.

The horizontal illuminance at floor level along the centre line of escape route should not be less than 0.2 lux. Additionally, for escape routes up to 2m wide, 50% of the route width should be lit to a minimum of 0.1 lux.

The number and positioning of luminaires will be dependent on the layout of the premises and the product chosen.

In addition to providing the minimum illuminance as above, the lighting should indicate clearly the exit route and highlight any hazards such as staircases, changes in floor level or changes in direction.

There are many different emergency lighting systems available. However, generally a maintained, self-contained system which provides lighting for a minimum of one hour will be acceptable.

The wiring of emergency luminaires should be in accordance with normal wiring practice, (IEE Regulations). Specific requirements will depend upon the system chosen and will be detailed with the product.

The whole system shall be tested and maintained regularly in accordance with the requirements of BS 5266.

The external lighting on the escape routes and fire escapes must operate on a dual system, on the main lighting circuit via a switch and on the emergency lighting system in event of power failure.

11. Fire Blanket - B

A fire blanket should be provided in each kitchen, mounted adjacent to the cooking point.

12. Fire Extinguisher - W

A 9 litre water type fire extinguisher which is wall mounted on metal brackets should be installed in areas shown on plan in accordance with BS 5306 Part 3 (1985) and they should conform with BS 5423.

13. Notices and Signs

All fire safety signs, notices and graphic symbols should conform as far as practicable with BS 5499: Part 1: Specification for Fire Safety Signs and where applicable British Standard 2560: Specification for Exit Signs (internally illuminated). Existing signs and notices need not be replaced immediately if they are fulfilling their purpose effectively. They should, however, be examined and be replaced if they are found to be inadequate.

A door fitted with a panic bolt or panic latch should have the words 'Push bar to open' in conspicuous lettering of appropriate size printed on the door immediately above the push-bar.

A sign with the words 'Fire Door-Keep Shut' should be permanently displayed at above eye level on both faces of all fire doors except doors which are kept open and which will close automatically on the operation of fire sensors. Doors of the latter kind should be marked in lettering in appropriate size 'Automatic Fire Door-Keep Clear' - 'Close at night' as appropriate. 'Fire Door' signs need not be displayed on the entrance doors to each individual occupied room in hostels or on the doors to or within self-contained units.

A sign with the words 'Fire Door-Keep Locked' should be permanently displayed on the outside of all fire doors to cupboards and boiler rooms.

A sign with the words 'Fire Escape-Keep Clear' should be permanently displayed at about eye level on each face of all doors which are provided solely as means of escape in case of fire and which, because they are not

normally used, are liable to be obstructed. This is particularly relevant in the case of communicating or by-pass doors used as fire exits which pass through habitable rooms.

14. Fire separation mezzanine floors

A one hour fire separation must be provided at ceiling level within the window reveals.

The proposed method of fire separation must satisfy the Building Control Officer before these rooms can be brought back into use. The Planning Officer must also be consulted to ensure that the proposed works comply with the listed building requirement.

15. Undersize bedrooms

As some of the bedrooms do not meet our minimum standards on room sizes, and the Trust wish to retain the use of these rooms, the existing partitions between the undersize rooms are to be removed as shown on Plan.

The entrance doors which will not be required must be infilled with materials which afford half hour fire resistance. The windows to these rooms are to comply with our minimum standards for ventilation and natural light as follows:-

**Natural lighting**

The clear glazing situated in the window must be equivalent to one tenth of the floor area.

**Ventilation**

The openable area of window must be equivalent to one twentieth of the floor area.

16. Bathrooms, shower rooms and toilets

Provide mechanical ventilation to the external air to all bathrooms, shower rooms and toilets which do not at present have openable windows or mechanical ventilation.

The mechanical ventilation must provide a minimum of three air changes per hour, such an installation should be fitted with an over run device for a minimum of twenty minutes and shall be connected to the lighting circuit of the room.

17. Fire protection to external steel fire escape

All windows which are in area of the fire escape must be upgraded to afford half hour fire resistance by the fitting of secondary glazing in fire retardant glazing.

18. Fire routine procedures

Printed instructions informing guests on the action necessary in the event of fire to be displayed in each bedroom, private suite and public room. In addition, a layout showing the means of escape from that room to the outside of the building.

19. Team leaders

The team leaders of the parties which visit Kinmel Hall should be instructed by the Manager on what action that he or she should take in the event of the discovery of a fire or should the fire alarm system be activated.

The Manager should keep a written record of all the fire drills that have been undertaken, also a record should be kept of any incident that has lead to the fire alarm to be activated. The Manager as part of his duties, should test the alarm system once a week and record the date and time of the test.

Officers visiting the hall could request that you disclose the records which are kept on the fire alarm system.

20. Store rooms

Large quantities of combustible materials eg. mattresses, soft furnishings etc. must not be stored in large quantities within the confines of the building.

21. Maximum number of sleeping spaces per room

A sign giving the maximum number of persons per bedroom must be displayed in each room as per total shown on plan.



## SCHEDULE OF WORKS

### 1. **BASEMENT**

#### A. North & South ends

Provide means of escape from areas marked (B) on Plan by the erection of steps and means of access to the ground level.

- B. Either upgrade existing doors and frame marked (A) on Plan to half hour fire resistance fitted with a positive self closer,  
or, provide new purpose made fire door and frame.

### 2. **GROUND FLOOR**

#### A. The close kitchen and dining room

Provide fire doors and frames in areas marked (A) on Plan to half hour fire resistant standards.

#### B. Means of escape - library

Provide means of escape from window in area marked (C) on Plan as per item 4 Specification.

#### C. Doors marked (B) on Plan - library, drawing room, dining room and salon

Upgrade existing doors as per item 2 Specification to afford half hour fire resistance.

### 3. **FIRST FLOOR**

#### A. Bedroom No. 279

Remove existing door frame and erect new partition and door frame as shown on Plan. Partition and door to afford half hour fire resistance.

#### B. Under size bedrooms - 270 (433-435) (264-265-266)

Remove existing partition as shown on Plan and extend room size and infill door openings.

#### C. Bathroom, shower, toilets

Provide mechanical ventilation to bathroom by room 209, Clarendon Flat bathroom and bathroom by bedroom 249. Repair fan bathroom in bedroom 205.

#### D. Bedrooms without wash basin

Provide wash hand basin in the following rooms connected onto drainage and a constant hot and cold water supply in bedrooms 204, 265, 271 and 270.



- E. Fire separation at ceiling level window reveals in bedrooms 264-266, 279, 280, 281

Provide one hour fire separation which complies with Building Regulations and Listed Building Regulations.

- F. Fire protection to external fire escape

Provide half hour fire resistance to windows and sky light shown in red on Plan as per item 17 on the Specification.

#### 4. **SECOND FLOOR**

- A. Proposed new section of staircase marked as (B) on plan and highlighted in red

Remove bottom section of existing staircase below half landing; form opening in wall into existing bathroom; form access from bathroom to hallway side of lift entrance.

Remove existing bathroom door and infill doorway; erect new section of staircase which complies with Building Regulation; erect partition to form new stairwell to comply with half hour resistance.

Provide handrails to staircase.

Erect fire door and frame alongside existing staircase entrance and infill existing staircase access point.

- B. Undersize bedrooms (507-508) (509-510) (515-517) (524-525) (415-418) (409-412) (519-520)

Remove existing partition and extend room size and infill door opening.

- C. Fire separation room to room

Provide half hour fire separation between rooms 415 and 417 as per item 6 on Specification.

- D. Bathrooms, shower rooms and toilets

Provide mechanical ventilation to the external air to bathrooms in rooms 152, 156, 169, 171, 120, 102, bathroom adjacent room 503, 513, 514, 516, 522, 523.

- E. Bedrooms without wash basins

Provide wash hand basins in following rooms, connected onto drainage and hot and cold constant water supply: rooms 134, 120, 118, 507, 510, 512, 519 and 524.

- F. Fire protection to external fire escape

Provide half hour fire resistance to windows in areas shown in red on Plan.

G. Means of escape route onto fire escape North end

Reverse existing sashes to open outwards onto flat roof area and fit panic bar.

5. **MEZZANINE FLOORS**

A. The fire separation at ceiling level in window reveals in the bedrooms and store room No. 458 in The Link and The Close

The fire separation details in the window reveals would not achieve the one hour fire separation required.

An acceptable method must be designed which complies with Building Regulations and the Listed Building requirements and which afford the one hour fire separation.

B. Partly constructed accommodation above rooms 475 to 480

An access point must be formed at the bottom of the staircase leading to the partly constructed area. A half hour fire door and frame must be installed at the point and a smoke detector installed within the space.

6. **THIRD FLOOR**

A. Proposed staircase to second floor (B)

The area of void left after alteration of staircase must be floored over to offer one hour fire resistant separation.

B. Boiler room

The boiler room door and partition marked red on Plan must be upgraded to afford one hour fire resistant separation.

C. Undersize bedrooms (22-24) (28-29) (47-49) (55-56) (57-58) (62-63) (65A, 65B, 66) (3-4) 71-72)

Remove existing partition as shown on Plan and extend room size and infill door openings.

D. Room 3

Erect partition above stair well to half hour fire resistance.

E. Games room 80

Provide protection to low level glazing by fixing 150mm x 25mm timber boards hit and miss pattern.

F. Bathroom, showers, toilets, kitchen

Provide mechanical ventilation to the external air to bathroom Nos. 41, 67, 68, 83 and 25.

G. Bedrooms without wash basin

Provide wash hand basin in all following bedrooms:- 35, 36, 38, 47, 55, 57, 62, 65, 71, 74, 81, 83, 22, 28 and 4, connected onto drainage and constant hot and cold water supply.

7. **FOURTH FLOOR**

A. The View  
Bedrooms 10-13 and 2 Bathrooms

An undertaking has been given by the Trust that these rooms will be used for storage of archived material only.