

FIRE STATEMENT

MARKET STREET
HUDDERSFIELD



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Introduction and Site Address

30 Market Street, Huddersfield.

The Development at Kirklees House comprises the conversion of an existing 10 Storey Building into Student Units.

The building has a height of approximately 35m when measured from the external ground level to the top storey.

The floors of the building span from Basement, Ground Floor to 1-9 plus roof plant area as existing.

The proposal changes this to add two extra floors in the area of the plant area.

The building will provide student studios with ancillary spaces such as study space, gy, laundry etc

At the roof level there is an external roof terrace proposed with external seating.

To date there has been no consultation with the approving authorities. These will take place in the next stages of design.

Specific Technical Complexities

The fire safety design of the building will follow the guidance of Approved Document B (Volumes 1 and 2, where appropriate), 2022 Edition.

The building will be designed around the typical principles for a large student residential development with a "stay-put" strategy. This is intended to minimise the disruption of false alarms and reduces the risk of residents of the building becoming complacent and ignoring a real fire alarm.

All of the non-residential areas of the building will operate a simultaneous evacuation strategy. The ground floor and basement level will evacuate on detection of a fire anywhere on each of the levels independently.

The roof garden will evacuate on detection of smoke in any of the lobbies adjacent to the two stairs providing the means of the escape from the roof.

The building will be provided with a comprehensive fire detection and alarm system.

This will allow for a configuration of the cause and effects to support the evacuation strategy of the different areas of the building.

The two stairs will exit to external ground level.

Each stair is provided with a fire sterile ventilated lobby at all levels to minimise the risk of smoke from a fire entering the stair and compromising the means of escape. Each ventilated lobby will be provided with a smoke shaft and an automatically opening vent (AOV) that opens on the floor of fire origin. Due to the height of the building, the smoke shafts will be mechanically ventilated. Each stair will also be provided with an AOV at the head of the stair.

On account of the height of the building, the required period of structural fire resistance will be to 120 minutes fire resistance (REI 120).

All floors will be constructed as compartment floors and all studios will be designed as fire compartments.

Additionally, the two ground floor areas will be fire separated to minimise size of a fire at this level. Fire separation of other areas in the building will also be provided in line with best practice guidance, for example fire rated construction surrounding the laundry, plant rooms and stores.

The enclosures to the firefighting facilities will be in accordance with the guidance and therefore stairs and lifts will be enclosed in 120 minutes fire resisting construction. Similarly, service risers and the protected stairs (south stair) will also be enclosed in 120 minutes fire rated construction.

The building will be provided with a Category 4 residential sprinkler system to the above ground levels in accordance with BS9251:2021. All of the non-residential areas (on the Ground Floor and Basement Floor) will be provided with a commercial sprinkler system in accordance with BS EN 12845:2015+A1:2019.

Issues which Might Affect the Fire Safety of the Development

In the studios, the travel distances will be limited to within 9m from the front door to the most remote point.

Additionally, the cooking facilities will be located remote from the escape route.

At first floor of the development, there are two green roofs which are accessible from each of the stair cores. The green roofs are to comply with the best practice guidance of Fire Performance of Green Roofs and Walls published by the Department for Communities and Local Government (DCLG).

The buildings external wall construction as existing is a non-combustible material and the proposed external cladding to the extra floors shall also be non-combustible cladding with at least a classification of A2-s1,d0 to EN 13501-1 in accordance with the building regulation's 2010 (as amended)

Emergency Road Vehicle Access and Water Supplies for Firefighting Purposes

10) Fire Service Site Plan Details

The following provisions are made for the building order to assist Fire Service personnel:

Provision of a fire fighting shaft equipped with:

120-minute fire rated enclosed stair.

Dry rising fire main with an outlet on each floor including basement, ground and roof level.

1.0m² automatically opening vent (AOV) at the head of stair.

Firefighting lift accessed from a ventilated firefighting lobby.

Fire service access is provided through the lobby directly into the firefighting stair. From here, access can be made into the firefighting lobby.

The dry riser will be located adjacent to the main entrance on the ground floor and can be accessible within 18m of the fire engine parking.

Water supplies for firefighting purposes will be provided by local fire hydrants located within close proximity to the building.

Emergency Road Vehicle Access

The road network providing access to the development is existing and no works are proposed to the surrounding roads.

Vehicular access to the development is from Market Street.

Siting of Fire Appliances

There is sufficient space for a fire engine to park within 18m of the dry riser inlet which is within the entrance lobby.

The main entrance offers a reception area which provide access to the firefighting stairs.

Suitability of Water Supply for the Scale of Development Proposed

There are existing fire hydrants that are well within the 90m from the dry riser inlet points to the stair. Operation of the fire hydrant should be confirmed by the utilities provider.