FIRE SAFETY STRATEGY

ON BEHALF OF

THE RICHMOND CHARITIES

DEMOLITION OF EXISTING GARAGES AND ERECTION OF FIVE ONE-BED SINGLE-STOREY DWELLINGS

AT

ST MARY'S GROVE GARAGES SITE,
RICHMOND

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1. INTRODUCTION

This Fire Safety Strategy has been prepared by Clive Chapman Architects to support a full planning application for a new residential development of 5 no. single storey almshouses for the over 65s, at St Mary's Grove garage site, Richmond TW9 1UX.

The existing site comprises 17 garages, owned and rented out by The Richmond Charities, and is a cul-de-sac with an access road from St Mary's Grove.

The proposed development is for the demolition of the existing garages, and erection of 5 no. 1 bed, 2 person, single-storey dwellings (Use Class C3 (a)) with associated landscaped amenity, providing self-contained, 100% affordable housing for the over 65s.

The scheme will be car free, but will provide one disabled parking space and two bays for visitor and deliveries at the entrance to the site.

2. POSITION & ASSESS OF EXTERNAL FIRE APPLIANCES

The closest fire station, Richmond H42, is located 940m from the site.

The existing access road forms the entrance point for external fire appliances, and has a width of circa 8.9m. The development proposes re-surfacing the access road to demark footpaths on either side, with a change of surface colour and texture, whilst keeping it a shared surface with the road. A pinch point will be by the two visitor parking bays and the proposed footpath, with a width of 3.7m.

As the site is a cul-de-sac, and that there is no turning facility for a fire engine, the strategy is to install a 'dry riser' fire main. A fire engine would be able to stop 20m into the site, with the dry riser position within 15m of the stopping point. The inlet would be positioned adjacent to a planter, in clear view of the Fire Brigade. The riser would run under the footpath, into the development, with four outlets along a run of 52.4m. These outlets are located adjacent to planters and the front doors to each of the dwellings.

From the dry riser outlets, the distance to the furthest point within each of the dwellings is a maximum of 11.8m.

As the dwellings are single storey, all habitable rooms open directly onto a hall leading to the final exit. They are also provided with escape doors and windows.

A drawing has been provided that outlines the fire strategy and travel distances discussed, together with locations of smoke and heat detectors, reference SMGG21-07 Fire Strategy Plan.

3. EVACUATION ASSEMBLY POINT

In the event of a fire, the evacuation assembly point will be at the front of The Mitre public house at No.20 St Mary's Grove, which is under the ownership of the charity.

4. FIRE SAFETY FEATURES

Fire detection and fire alarm systems are to be installed to category LD1, the highest level of protection of all occupants who might occupy the dwelling over the lifetime of the fire detection and fire alarm system. They will be installed throughout the premises, incorporating detectors in all circulation areas that form part of the escape routes from the premises, and in all rooms and areas, other than those with negligible sources of ignition, such as toilets, bathrooms and shower rooms (hallway, living room, kitchen, bedroom, airing / meter cupboards).

A 1 litre water mist fire extinguisher will be provided for each dwelling, with a two year replacement programme. Almshouse charities do not have fire blankets in almshouses due to the difficulty of the elderly using them and the potential danger they put themselves in by staying in their almshouse and trying to tackle the fire. If there is a fire in their almshouse, they need to be evacuated asap.

5. CONSTRUCTION METHODS

The construction will be structural insulated timber panel (SIPs) with external brick wall envelope, with plasterboard internal lining. Glazing will be aluminium/timber composite, double glazed. The roof will be an extensive green roof over posi-joists, with plasterboard lining.

All surface linings of walls and ceilings will meet classification C-s3,d2, as per Approved Document B, Volume 1.

All separating walls (party walls) will be 'compartment walls', whilst cavity barriers will be provided at the edges of cavities, around openings, and at the junction between external / internal cavity walls. The cavity barriers are to have 30 minutes integrity (E 30) and 15 minutes insulation (I 15). Any openings in the cavity barriers are to be minimum E 30 rating, as per Approved Document B, Volume 1.

Compartmentation will be provided between the dwellings, to achieve a minimum of REI 30, as per Approved Document B, Volume 1.

Cooking facilities will be electric and heating will be via underfloor heating with air source heat pumps.

6. FIRE SAFETY MANAGEMENT & INFORMATION

A responsible person will be appointed by the applicant for the information management of fire safety. They will have access and maintain all information to enable them to:

- Understand and implement the fire safety strategy of the building.
- Maintain any fire safety system provided in the building.
- Carry out an effective fire risk assessment of the building.

Fire safety information will be provided at the completion of the development and at first occupation. It will incorporate:

- Location of fire protection measures.
- An as-built plan of the building showing all of the following:

- Escape routes.
- Location of fire-separating elements (including cavity barriers in walk-in spaces).
- Fire doorsets, fire doorsets fitted with a self-closing device and other doors equipped with relevant hardware.
- Locations of fire and/or smoke detector heads, alarm call points, detection/alarm control boxes, alarm sounders, fire safety signage, emergency lighting, fire extinguishers, dry or wet fire mains and other firefighting equipment, and hydrants outside the building.
- Any sprinkler systems, including isolating valves and control equipment.
- Any smoke control systems, or ventilation systems with a smoke control function, including mode of operation and control systems.
- Any high risk areas (e.g. heating machinery).

Details will be provided of all of the following:

- Specifications of fire safety equipment provided, including routine maintenance schedules.
- Any assumptions regarding the management of the building in the design of the fire safety arrangements.
- Any provision enabling the evacuation of disabled people, which can be used when designing personal emergency evacuation plans.