# FIRE SAFETY STRATEGY

#### ON BEHALF OF

## MURARI TRADING LTD.

CHANGE OF USE FROM RETAIL (USE CLASS E) ON FIRST AND SECOND FLOORS AT NO 19 TO CREATE A NEW, THREE BED, FIVE PERSON MAISONETTE (USE CLASS C3).

&

CHANGE OF USE AND EXTENSION OF ROOF SPACE (USE CLASS E) AT NO. 19A TO CREATE A NEW 1BED, 1 PERSON FLAT (USE CLASS C3).

PLUS ADDITION OF FACILITIES AT NO. 19A RETAIL UNIT

19 & 19A KING STREET, RICHMOND, TW9 IND

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## CLIVE CHAPMAN ARCHITECTS

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#### I. INTRODUCTION

This Planning Fire Safety Strategy (PFSS) has been prepared by Clive Chapman Architects following London Plan Policy D12 to support a full planning application for change of use from retail to 2no. new residential units on King Street, Richmond.

The existing Grade II Listed building at no.19 King Street comprises a three-storey building plus basement, currently in use as a retail store (Use Class E), with the basement, first and second floors being used for storage and meeting rooms, and the ground floor for the shop. No.19a is a single-storey retail unit (Use Class E), Building of Townscape Merit, with courtyard to the rear.

## 2. POSITION OF EXTERNAL FIRE APPLIANCES

The strategy identifies a suitably positioned unobstructed outside space where fire and rescue service pumping appliances can be sited on King Street (in the same location as the existing property). Suitable access routes into and out of the development will be provided both during construction phase and occupation through the front door on King Street.

As the proposed is a low rise building (less than 18m and without deep basements), access for firefighting personnel is achieved in accordance with the Building Regulations Part B Vol I Section B5 13.1. There is no lift and no requirement for a fire-fighting shaft. For dwelling houses, fire service vehicle access for a pumping appliance should be provided to within 45m of all points inside the dwelling house - the proposed dwelling fronts onto the public road to the Southwest where a pumping appliance can be positioned. The maximum distance from the furthest point in the rooms in the top floor of the maisonette to the fire service vehicle parking spot is 27m.

### 3. EVACUATION ASSEMBLY POINT

The proposed dwelling is a 2 unit development. The evacuation assembly point will be on the pavement of King Street near the corner of No. 20. The size of the evacuation assembly point would be agreed with Highways. Staff and visitors during construction will be required to sign in and out of site and be aware of all safety requirements in accordance with HSE requirements.

#### 4. FIRE SAFETY FEATURES

The development is designed to incorporate appropriate features which reduce the risk to life and serious injury in the event of a fire; including appropriate fire alarm systems and passive and active fire safety measures.

The proposed dwellings spread across two storeys at No. 19 and three storeys at No. 19A, with one upper storey above 4.5m from ground level. In compliance with the Building Regulations Part B Vol.1 Section 2.2 and 2.3, all habitable rooms in No. 19 and 19A have direct access to a protected stairway separated by fire resisting construction (REI 30mins – see Approved Document Part B for the definition) at all storeys that extends to a final exit. Cavity barriers and a fire resisting ceiling (EI 30mins – see Approved Document Part B for the definition) are provided above the protected stairway enclosure. In accordance with Building Regulations Part B Vol I Section 1 the new dwellings will have a fire detection and alarm system, minimum Grade D2 Category LD3 standard, in accordance with BS 5839-6.

Passive measures applied include compartment walls, fire doors and fire-resistant glazing as elementary parts of the building that do not require a reaction or human intervention during a fire.

There will be mains operated smoke alarms installed in all corridors and staircases and heat detectors in the residential kitchens of no.19 and 19a and kitchenette in the retail unit., that conform to BS EN 14604 and BS 5446-2 respectively, with a standby power supply, such as a battery (rechargeable or non-rechargeable) or capacitor. They are installed in an appropriate way to minimise the risk of fire spread. Both the roof and walls of the existing dwellings No. 19 and 19A are non-combustible brick and natural slate.

The doors from the maisonette and the studio flat will be a one hour self-closing fire doors to the common stair. The ceiling and walls between the basement and the maisonette staircase will achieve 60min fire protection (see drawing KSR-16). The ceiling to the retail shop will be upgraded to achieve 60min fire protection between the ground and first floor.

Site access, safety and the storage of flammable materials will be monitored at all times during the construction stage, in accordance with the CDM Regulations, HSE requirements and Construction Risk Registers.

#### 5. CONSTRUCTION METHODS

The construction method for the development will be of solid masonry walls without any works to the basement or to existing foundations, to secure minimal fire safety risks to the area. Further fire control measures will be implemented if necessary including the provision of construction materials' register and fire safety information. Although this is not a major development, following Fire Safety D12 (A) London Plan Guidance 12, it is not intended to use combustible materials in the external walls of the building. Clay pantiles and facing brick have been specified.

#### MEANS OF ESCAPE AND ASSOCIATED EVACUATION STRATEGY

### 6.1 EVACUATION STRATEGY AND MEANS OF ESCAPE

A robust 'stay put' evacuation strategy has been developed for the flats which would be updated at different stages and provided to the building users. This means that in the event of a fire within one of the flats, only the occupants within the flat of fire origin will be expected to evacuate. All other residents within the building can remain within their flats, however, they are still able to evacuate at any time if they wish to do so. As this is a listed building, the evacuation strategy is limited and cannot provide an inclusive strategy for people with disabilities.

Means of escape from No. 19 (the maisonette) is down two flights of a ventilated staircase to the first floor onto a combined single staircase serving both the maisonette and studio flat. This common staircase exits directly onto the street.

No. 19A is a dwelling house with upper storeys more than 4.5m above ground level. It has one internal stair and should therefore comply with both paragraphs 2.5 and 2.6. Following para. 2.5, the stairway will be protected by fire resisting construction (minimum REI 30 – see Approved

Document Part B for the definition) at all storeys and extending to a final exit (as per Diagram 2.2b) onto King Street.

#### 6.2 INTERNAL FLAT LAYOUT AND COMMON WAYS

No. 19A opens up directly onto the stairway while No. 19 has a protected entrance hallway, which provides direct access to all habitable rooms. The travel distance within the protected entrance hall is 4.5m (less than the 9 metre limit outlined within BS 9991) and is therefore deemed to comply.

The building can be classed as a 'small single stair building' because it does not have a storey at a height greater than 11 metres, has no more than three storeys above ground storey, has a single stair and does not connect to a covered car park. As such, the following recommendations should be followed:

- The limitation on travel distance in common areas of flats is met. The distance in No. 19 is 4.5m which is the limit if escape is in one direction. The distance to the second floor habitable rooms is more (within the 7.5m maximum), therefore, a smoke control will be provided in the lobby as per Diagram 3.7b.
- A single openable rooflight vent with a free area of Im2 at the head of the stair, operable remotely at the fire and rescue service access level.

## 7. ACCESS AND EQUIPMENT FOR FIREFIGHTING

Suitable access and equipment for firefighting to both residential units, appropriate for the size and use of the development, is via No. 19A front door through the common staircase. In Accordance with the Building Regulations Part B Vol.1 Section B5 13.2, for flats, access for a pumping appliance should be provided to within 45m of all points inside each flat, measured along the route of the hose. The proposed dwelling is directly on the public road where a pumping appliance can be positioned. There is no lift and no requirement for a fire-fighting shaft. The strategy applies for both the refurbishment phase of the development and for the occupation phase. If the completed units are sold on the open market, there will be no prescriptive Fire Safety Management Plan.