



## Access for the Fire & Rescue Service

### 1. Introduction

The information contained in this Guidance Note has been taken from the requirements detailed in The Building Regulations 2010, 2019 edition of Approved Document 'B' (ADB), Volume 1 for Dwellings and Volume 2 for Buildings other than dwellings, incorporating 2020 and 2022 amendments.

The information regarding specific fire appliance technical data has been modified, where necessary, to relate to the actual fire appliances in use within Bedfordshire Fire and Rescue Service.

This guidance note specifically deals with fire appliance access, if full details regarding access and facilities for the fire service are required as detailed in section B5 of ADB then the latest versions can be accessed online via the following link: [Approved Document B](#)

### 2. Buildings Not Fitted with Fire Main

For buildings other than dwellings, small buildings (upto 2000m<sup>2</sup> with a top occupied storey that is a maximum of 11m above ground level), vehicle access for a pump appliance should be provided to whichever is the less onerous of the following:

- 15% of the perimeter.
- Within 45m of every point of the footprint of the building.

For all other buildings that are not dwellings, vehicle access should be in accordance [Approved Document B](#).

For dwelling houses access should be provided to within 45m of all points inside the dwelling house. For flats, either of the following provisions should be made:

- Access for a pumping appliance to within 45m of all points inside each flat of a block measured along the route of the hose.
- Provide fire mains as detailed in Section 3 below.

Every elevation to which vehicle access is provided should have a door, not less than 750 mm wide, giving access to the interior of the building. There should be no more than 60m between each door and/or the end of that elevation.

### Notes

1. The sum of the area of all storeys in the building (excluding basements).
2. For storage buildings [Approved Document B](#)

### 3. Buildings Fitted with Fire Mains

For buildings fitted with dry fire mains, the following applies:

- Access should be provided for a pumping appliance to within 18m of each fire main inlet connection point, Inlets should be on the face of the building.
- The fire main inlet connection point should be visible from the parking position of the appliance.
- If private fire hydrants are provided, they should be clearly indicated by a plate, fixed nearby in a conspicuous position, in accordance with **BS 3251**.

For buildings fitted with wet fire mains, access for a pumping appliance should comply with both of the following:

- Within 18m, and within sight of, an entrance giving access to the fire main.
- Within sight of the inlet to replenish the suction tank for the fire main in an emergency.

Where fire mains are provided in buildings for which Sections 16 (Provision of mains and hydrants) and Section 17 (Access to buildings for firefighting personnel) make no provision, then vehicle access should be in accordance with the above.

#### 4. Vehicle Access Design Requirements

Access routes and hardstanding should comply with the guidance [Approved Document B](#). Requirements can only apply to the site of the works. It may not be reasonable to upgrade the route across a site to a small building. The building control body, in consultation with the fire and rescue service, should consider options from doing no work to upgrading certain features, such as sharp bends.

Where access to an elevation is provided in accordance with [Approved Document B](#), the following requirements should be met, depending on the building height.

Buildings up to 11m, excluding small buildings pump appliance access should be provided adjacent to the building for the specified percentage of the total perimeter.

Buildings over 11m, access routes should comply with the guidance in table [Approved Document B](#).

Fire service appliances must be able to operate as close to the building as possible, as such:

- There should be no overhead obstructions when using a high reach appliance that would impede their use (see diagram [Approved Document B](#) non-dwellings).
- In order to accommodate jacks, a working area at least 6.2 metres wide capable of taking a vehicle with an overall distributed weight of 26 tonnes, should be available along the required perimeter of the building.

#### Notes

- a) Fire appliances are not standardised. The building control body may, in consultation with the local fire and rescue service use other dimensions.
- b) Hard standing for high reach appliances should be as level as possible with a maximum gradient of 1 in 12.
- c) The road base can be designed to 12.5 tonne capacity, structures such as bridges should have the full 17 tonne capacity. Whilst some emergency appliances within Bedfordshire FRS exceed these weights, the weight for instance of a high reach appliance is distributed over a number of axles so infrequent use of a route designed to accommodate 12.5 tonnes should not cause damage.

Turning facilities should be provided in any dead end access route that is more than 20m long. This can be by hammer head or turning circle [Approved Document B](#).

**Appendix A provides full vehicle dimensions of appliances used within Bedfordshire Fire & Rescue Service.**

#### 5. Compensatory Features if Fire Appliance Access cannot be met

If the criteria for fire appliance access to within 45 metres as set out in [Approved Document B](#) Vol 1 Dwellings cannot be reached, the Building Control and Fire Authority should be consulted at an early stage, as alternative arrangements may be acceptable.

An inability to meet the requirements detailed in [Approved Document B](#) B5 is either because the new site is land locked or because the new access is too narrow to get an appliance close enough. Where this is the case the following options may be adopted subject to Bedfordshire FRS approval.

Access of a fire engine to within:-

- **45 - 65 metres:** Domestic/residential sprinklers required.
- **65 - 90 metres:** Domestic/residential sprinklers and a fire hydrant installed immediately by the access driveway.
- **Over 90 metres:** Not acceptable.

## **6. Further Advice**

Email [firesafetyadmin@bedsfire.gov.uk](mailto:firesafetyadmin@bedsfire.gov.uk)

### **References**

The Building Regulations 2010, Approved Document B Vol 1: Dwellings (2019 edition)

The Building Regulations 2010, Approved Document B Vol 2: Buildings other than Dwellings. (2019 edition)

## **Appendix A**

### **Dimensions of Fire Appliances used within Bedfordshire Fire and Rescue Service.**

#### **Ariel Appliance**

The vehicle is a Volvo rear steer 26 Tonne Chassis, details are as follows:-

- Overall length 11 metres
- Overall width 3.0 metres mirror to mirror
- Height 3.6 metres
- Wheelbase - front axle to first rear axle 4.62 metres. (This vehicle has a third axle rear steer)
- Turning circle 18.5 metres (swept width)
- Working area for extended jacks 6.2 metres
- Operational total mass weight 22.5 Tonnes
- Front axle 6.8 Tonne
- Second axle 9.4 Tonne
- Third axle 6.5 Tonne

#### **Rescue Pump**

The vehicle is a Scania 18 Tonne chassis with two axles, details are as follows:-

- Overall length 8.5 metres
- Overall width 3.0 metres – mirror to mirror
- Height 3.2 metre
- Wheelbase 4.3 metres
- Turning circle 17.5 metres (swept width)
- Operational total mass weight 13.5 Tonnes
- Front axle 6 Tonne
- Rear axle 8 Tonne