RP05

Hampshire & Isle of Wight FIRE & RESCUE SERVICE

Fire and Rescue Service Guidance for Commercial and Domestic Planning Applications

Together We Make Life Safer

Foreword

When a planning application is submitted to the local Planning Department the Fire and Rescue Service are consulted and where relevant, invited to make comment on the appropriate fire service requirements for the application.

This handbook provides an easy reference guide to the requirements and recommendations of Hampshire and the Isle of Wight Fire and Rescue Services.

This reference guide is designed to provide general information and guidance in relation to your application. However, in some circumstances the minimum requirements of the building regulations may not be sufficient to meet the fire risk profile of the building (i.e. where the Regulatory Reform (Fire Safety Order) 2005 applies).

It is important that this advice is built into the project at an early stage.

Dependent upon the type and size of the project our advice will concentrate on four key factors:

1. Access and Facilities for the Fire Service

2. Water Supplies for Firefighting

3. Regulatory Reform (Fire Safety Order) 2005

4. Goodwill Advice (including housing developments)

Hampshire County Council

ISLE of WIGHT COUNCIL

1. Access and Facilities for the Fire Service

If the application involves the construction of a building you will be required to provide reasonable facilities for the Fire Service. In most circumstances this will mean providing vehicular access for fire appliances.

It is important to remember that failure to do so may prevent the applicant from obtaining a completion certificate under the Building Regulations but more importantly, the lives of the occupiers will be put at risk.

Appliance Type	Pump	High Reach
Minimum width of road between kerbs	3.7m	3.7m
Minimum width of gateways	3.1m	3.1m
Minimum turning circle between kerbs	16.8m	26.0m
Minimum turning circle between walls	19.2m	29.0m
Minimum clearance height	3.7m	4.0m
Minimum carrying capacity	12.5t	17.0t

Table 1: Typical fire service route access specifications

Vehicle	Test Weight
Volvo Rescue Appliance	15.0t
Volvo Light Rescue Appliance	12.0t
ALP (High Reach Vehicle)	26.0t
Water Carriers – New Style	26.0t
Water Carrier – Old Style	18.0t

Table 2: Hampshire and the Isle of Wight Fire and Rescue appliances that exceed typical Fire Service route access specifications

Design of access routes and hard standings

A vehicle access route may be a road or other route which, including any manhole covers and the like, meets the standards in Tables 1 and 2 (page 2).

Where access is provided to an elevation for high reach appliances in accordance with Table 1, overhead obstructions such as cables and branches that would interfere with the use of ladders etc. should be avoided.

Domestic Dwelling Houses

There should be vehicle access for a pumping appliance to within 45m reach to the furthest point in the dwelling and measured from the rear of the fire appliance along a suitable hose laying path. Every elevation to which vehicle access is provided should have a suitable door, not less than 750mm wide, giving access to the interior of the building.

Flats or Maisonettes

There should be vehicle access for a pumping appliance to blocks of flats or maisonettes to within 45m reach to the furthest point in the dwelling and measured from the rear of the fire appliance along a suitable hose laying path.

Other Buildings

The access requirements for other buildings will depend upon the total floor area and the height. Further detailed guidance can be found in Building Regulations Approved Document B Volume 2 - 2019 edition, Section 15: Vehicle Access.

Buildings with Dry Risers

Building that have a Dry Riser should have access for a pumping appliance within 18m of all inlet boxes.

2. Water Supplies for Firefighting

Recommended Minimum Flow Rates and Location of Fire Hydrants

The Local Government Association (LGA) / Water UK National Guidance Document details the following flow rates as the minimum necessary for firefighting, in particular risk categories where new developments are under construction, the minimum water main size for Fire Hydrants is 90mm to be able to obtain minimum flow rates, unless stated otherwise.

The Recommended Minimum Flow Rates and Location of Fire Hydrants are:

1. Housing

Minimum of 8 l/sec (480 l/min) for detached or semi-detached of not more than two floors up to 35 l/sec (2100 l/min) for units of more than two floors, from any single hydrant on the development. A hydrant should be no more than 150m from any property.

2. Transportation

Minimum of 25 l/sec (1500 l/min) for lorry/coach parks, multi-storey car parks and service stations from any hydrant on the development or within a vehicular distance of 90 metres from the complex.

3. Industry (industrial estates)

It is recommended that the water supply infrastructure should provide as follows with the mains network on site normally being at least 150mm nominal diameter:

- Up to one hectare, 2.47 acres or 10,000m²
  - Minimum of 20 l/sec (1200 l/min)
- One to two hectares, 2.47-4.94 acres or 10,000m²-20,000m²
  - Minimum of 35 l/sec (2100 l/min)
- Two to three hectares, 4.94-7.41 acres or 20,000m²-30,000m²
  - Minimum of 50 l/sec (3000 l/min)
- Over three hectares, 7.41 acres or 30,000m²
  - Minimum of 75 l/sec (4500 l/min)

Note: High risk areas may require greater flow rates.

4. Shopping, offices, recreation and tourism

Minimum of 20 l/sec (1200 l/min) to 75 l/sec (4500 l/min) depending on the nature and extent of the development.

5. Education, health and community facilities

a. Village halls

Minimum of 15 l/sec (900 l/min) through any single hydrant on the development or within a vehicular distance of 100 metres from the complex.

b. Primary schools and single storey health centres

Minimum of 20 l/sec (1200l/min) through any single hydrant on the development or within a vehicular distance of 70 metres of the complex.

c. Secondary schools, colleges, large health centres and community facilities

Minimum of 35 l/sec (2100 l/min) through any single hydrant on the development or within a vehicular distance of 70 metres from the complex.

6. Buildings with Dry Risers

The highest outlet should provide 750 l/min +/- 75 l/min, the hydrant should ideally be within 50m and a maximum of 90m from the appliance and a pumping appliance should be within 18m of the dry riser inlet.

7. Caravan sites - caravans/chalets

Roads, gateways and paths are designed to provide adequate access to fire appliances. No caravans standing shall be more than 2 metres from a site road and 50 metres from a public road.

No caravan standing shall be more than 30 metres from a fire point.

Standpipes with hoses housed in a box and clearly marked **“HOSE REEL”**, or else fire hydrants installed within 100 metres of every caravan standing, or else water extinguishers or a 500-litre water tank and fire buckets stationed at each fire point.

Building Size

It is important to note that the current Building Regulations require an adequate water supply for firefighting. If the building has a compartment of 280m^2 or more in area and there is no existing fire hydrant within 100 metres to the entrance of the buildings, a new hydrant is required to within 90m of the entrance to the building(s) or a reasonable water supply must be available.

Failure to comply with this requirement may prevent the applicant from obtaining a final certificate.

An example of an acceptable open water supply being used for firefighting operations.

Where no piped water supply is available, or there is insufficient pressure and flow in the water main, or an alternative arrangement is proposed, the alternative water supply can be one of the following:

- A spring, river, pond or canal which is capable of storing or providing at least 45,000 litres of water at all times of the year
- A charged static tank of at least 45,000 litres capacity

With both of the above options, suitable access, space and hard standing for a pumping appliance must be provided as specified in tables 1 and 2. (see page 2)

3. Regulatory Reform (Fire Safety) Order 2005

The Regulatory Reform (Fire Safety) Order applies to all premises apart from single private dwellings.

Once the buildings are in use, they become subject to the Fire Safety Order, imposing requirements that may be additional to those of the Building Regulations.

General Guidance:

General Fire Precautions

The Responsible Person must take such General Fire Precautions that will ensure, so far as is reasonably practicable, the safety of his/her employees and relevant persons who are not his/her employees. The term ‘General Fire Precautions’ means:

- Measures to reduce or eliminate the risk of fire on the premises and the risk of the spread of fire on the premises.
- The provision of suitable means of escape from the premises.
- Measures for ensuring that the means of escape can always be safely and effectively used.
- The provision of suitable and adequate firefighting equipment.
- The provision of suitable means for detecting and giving warning of a fire on the premises.
- Measures for ensuring the maintenance and testing of fire precautions and equipment.
- The provision of suitable arrangements for the action to be taken in the event of a fire including:
    - Instruction and training for employees.
    - Measures to mitigate the effects of a fire.

Fire Risk Assessment

The Responsible Person must carry out a suitable and sufficient assessment of the risks to which persons are exposed to, for the purposes of identifying the general fire precautions measures to be taken in order to comply with 'the Order'.

A series of guidance booklets have been published by Central Government to assist Responsible People with this process, and these can be downloaded from the following web links: -

www.gov.uk/workplace-fire-safety-your-responsibilities/ fire-safety-advice-documents

Particular attention should also be paid to the following advice:

Holiday Let and Guest House Accommodation

If the proposed use of the premises is as a Holiday Let or Guest Accommodation, then the premises would fall within the scope of The Regulatory Reform (Fire Safety) Order and as such may require additional fire precautions to be incorporated into the design of the building.

Although this issue will be dealt with at the Building Regulations stage of the development, the Fire Service advise that early consideration is given to this matter. Approved Document B Volume 1 - 2019 edition or paying guest guide for general guidance provides more information and the applicant is also requested to consider the following goodwill advice that may go some way to alleviating any issues that may arise.
www.gov.uk/government/publications/do-you-have-paying-guests

4. Goodwill Advice

Safeguarding people from the danger of fire in their homes and places of work is an emotive subject and unfortunately the fire services experience the consequences of failure on a regular basis.

Generally, through the application of approved guidance documents and the enforcement of regulations it is reasonable to assume that acceptable levels of fire safety within Hampshire and The Isle of Wight are being provided. However, there are some factors particularly at the planning stage where the minimum standards fall short of what we consider being adequate.

Common areas of concern are:

- Planning applications in some rural areas where the response time of the nearest fire appliance can be up to 20 minutes.
- Buildings where the ability of the occupants to respond to the effects of fire and successfully evacuate is compromised by their circumstances (i.e. restricted mobility, etc.).
- The access and facilities for the fire service requirements cannot be met.
- The risk profile of the building will be unknown until occupation takes place.
- Planning and building control do not talk to each other where they are linked to each other as one authority i.e. local authority building control and planning authority.

In circumstances where the above areas of concern exist, the fire service recommends the installation of an automatic water fire sup-pression system, i.e. automatic sprinkler system.

An example of a commercial automatic water fire suppression system, (left), and a concealed residential automatic water fire suppression system (right).

It has been said “that a building with a suppression system is like having the fire service in the premises 24 hours a day”. But don’t take our word for it! Here are the facts.

Effective

Automatic water fire suppression system (AWFSS) are by far the most efficient and effective safety devices available, having a better than 97% success rate world-wide.

Life Safety Record

In the UK, statistics show that there has never been a multiple loss of life in a fully (AWFSS) building.

Early alarm

More than 50 per cent of all fire casualties are either young or old, or physically incapacitated. In conjunction with smoke alarms, (AWFSS) sound the alarm when they go off, so they increase the time people have to escape or be rescued.

Inexpensive

Residential (AWFSS) cost less than two per cent of an average new house – or about the price of good carpeting.

Reliability

They are designed to last for 50 years and the chance of accidental operation, due to manufacturers’ defects, in service is (one in sixteen million). Less than your chance of winning the lottery!

Operational facts

Each head is individually triggered by the heat of the fire and the system will gain control of the fire long before the Fire and Rescue Service is called. Only the head near to the fire goes off - NOT all of them.

Limited water damage

(AWFSS) use much less water than the Fire and Rescue Service. Because the system tackles the fire immediately, it only has a small fire to deal with. In the event of a fire, the use of (AWFSS) will help minimise water damage.

Easy to install

Modern residential (AWFSS) are small, neat and unobtrusive and visitors are seldom able to spot them – concealed versions are now available.

Construction trade-offs

Proposals should be discussed with the building control body and fire service.

Environmental impact

(AWFSS) can reduce greenhouse gas emissions by up to 98% and can also reduce fire damage, which ultimately means that less goes into our landfill sites.

Further guidance on residential (AWFSS) can be obtained by contacting:

The British Automatic Fire Sprinkler Association Ltd
Telephone: 01353 659 187
Website: www.bafsa.org.uk

Housing Developments

With reference to planning applications for housing developments (usually 5 or more properties on the development) the following advice should be noted:

During the early stages of the planning process the identification of a suitable road infrastructure around the county will help in allowing the Fire Service to gain access to any property as and when required and should be considered as an integral part of any planning application for housing.

Hampshire and the Isle of Wight Councils have identified that a common need for all areas is investment in housing including affordable and social housing and this remains an area that is identified as priority for most of our towns and villages.

As you will be aware, any commitment to housing developments should be low carbon, sustainable and energy efficient, consistent with Government policy on climate change, the environment and sustainability. In some instances, these houses are likely to be occupied by some of those in our society most at risk to the effects of fire and as such we believe a unique opportunity presents itself.

By incorporating (AWFSS) into the design and subsequent construction, we can ensure new homes are not only consistent with Government policy but also safe for their occupants.

In addition to reducing fire risk amongst some of the most vulnerable members of society, we would like to take this opportunity to draw your attention to further benefits that would arise should these new houses be constructed with (AWFSS) installed.

It is estimated that fires in the United Kingdom release over two million tons of carbon dioxide into the atmosphere every year. This is excluding further emissions resulting from constructing replacement buildings and in recycling the fire damaged materials.

Where a (AWFSS) has been installed there is less damage to the environment both in respect of the products of combustion released into the atmosphere and the volume of contaminated water generated from tackling the fire.

Furthermore, in this challenging economic environment, mitigating loss would be far more prudent than paying for and replacing damaged properties. We would therefore ask the question, is it sustainable to build new homes without the inclusion of (AWFSS)?

Communities and Local Government already recognises the value of (AWFSS) in significantly reducing damage to property from fire, the saving of lives and reducing injuries. We would also point out that Hampshire and the Isle of Wight is mainly rural and the Fire Service response times to some areas of our county can be up to 20 minutes. Therefore, we would strongly recommend that automatic fire suppression is properly considered as part of this planning proposal for new homes within Hampshire and the Isle of Wight.

Where can I go for help?

If you require further guidance on the contents of this booklet, please contact:

Community Safety Protection

Email: csprotection.admin@hantsfire.gov.uk

Hydrants and Firefighting Water Supplies

Email: hydrants@hantsfire.gov.uk

Hampshire & Isle of Wight
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