

**TECHNICAL GUIDANCE DOCUMENT PART 2: VOLUME 2:  
BUILDINGS OTHER THAN DWELLING HOUSES.**

CONSULTATION FINDINGS AND RESPONSE.

**Table 1: Responses by type of respondent.**

Type of Organisation	Number of responses.
Architect	1
House / property developer	1
States Department	1
<b>Total</b>	<b>3</b>

**Table 2: Numerical response to questionnaire.**

Questions	Yes	No	Don't know
1. Do you think that the proposals in respect of requirement 2.1 (means of escape) are reasonable?	1	1	1
2. Do you think that the proposals in respect of requirement 2.2 (internal fire spread -linings) are reasonable?	2		1
3. Do you think that the proposals in respect of requirement 2.3 (internal fire spread -structure) are reasonable?	1	1	1
4. Do you think that the proposals in respect of requirement 2.4 (external fire spread) are reasonable?	2		1
5. Do you think that the proposals in respect of requirement 2.5 (access and facilities for fire service) are reasonable?	2	1	
6. General suggestions or observations		0	

**Response to comments received with the questionnaire returns.**

No	Respondent	Comments made.	Department response	Minister's decision
1.	Architect.	Separating documents into domestic and non-domestic is a good idea. Both documents have been improved with better descriptions and diagrams.	Support noted.	No change
2.0	House / property developer	<p>Clarification required in relation to the provision of sprinklers in basement car parks. Are they required in:</p> <ol style="list-style-type: none"> <li>1. Basement car parks serving apartment blocks where the height to the top floor is less than 18m;</li> <li>2. Basement car parks which have a floor level is less than 1.2m below ground level.</li> </ol>	The proposal is for any basement storey used for car parking to be protected throughout by an automatic sprinkler system. This includes basement car parks in apartment blocks where the height to the top floor is less than 18m, but does not include basement car parks with a floor less than 1.2m below ground, or any car park constructed in connection with a single dwelling.	No change
2.1		Clarification required as to whether a residential sprinkler system would be acceptable for a care home.	A sprinkler system designed to BS 9251:2005 <i>Sprinklers systems for residential and domestic occupancies</i> is acceptable for aged persons homes and nursing homes not exceeding 20m in height.	No change.

2.2		Clarification required as to whether or not sprinkler systems require two water supplies. This doubles the cost of water provision to the building.	Guidance in respect of water supplies is given in paragraph 0.17 on page 11 of the TGD 2 (Building other than Dwelling Houses). This states that water supplies for non-residential sprinkler systems should consist of either two single water supplies, where each is independent of each other, or two stored water supplies. This is a higher level of provision than recommended for life safety systems in BS EN 12845 which states that a life safety system should have at least one single superior single supply. For the purposes of the building bye-laws it is considered a superior single supply as defined in BS EN 12845 would achieve an acceptable level of reliability and at the same time has the potential to reduce installation costs.	Paragraph 0.17 to be revised to reflect the recommendations given in BS EN 12845.
2.3		Clarification required in respect of using other design codes. Can these be used as an alternative to incorporating sprinklers.	Other design codes or guides can be adopted as an alternative to following the guidance given the TGD 2. However, where sprinkler systems are specifically recommended in the TDG 2 these will need to be provided to supplement the provisions called for under the design code used.	No change.
2.4		Clarification required with regard to the provision of sprinklers in semi-	See comments in 2 above. A basement storey is defined as a storey with a floor	No change.

		basement construction.	which at some point is more than 1200mm below the highest level of ground adjacent to the outside walls.	
2.5		Clarification required regarding fire service vehicle access to flats in low rise blocks.	For apartment blocks not fitted with fire mains there should be access for a pump appliance to within 45m of all points within each flat. For apartment blocks fitted with fire mains there should be access for a pump appliance to within 18m of each fire main inlet connection point.	No change.
2.6		Has consideration been given to the possible demands that sprinkler systems could have on the existing Jersey water network.	Jersey Water was consulted on the proposals and no concerns have been raised.	No change.
2.7		Jersey water is limiting pressures that will generally require a break tank and booster set for sprinkler systems. These will put pressure on and compromise dwelling space provisions.	The proposals regarding the provision of sprinklers in dwellings only affect high rise apartment buildings (those with a floor over 18m) and dwellings to which fire service vehicle access cannot be achieved. In those cases, it is very likely that space will be available somewhere within the site for any water storage facility or booster pumps that may be required and as such is unlikely to compromise dwelling space. One of the benefits of sprinklers in flats is that it allows a greater degree of open planning by negating the need for protected	No change.

			entrance halls. This has the potential to improve the quality of the dwelling space	
2.8		Water supply rates for sprinkler systems can be greater than that for normal domestic provision and will put additional demand on the water supply infrastructure.	See comment under 2.6	No change.
2.9		Sprinklers will have an ongoing maintenance cost for the building owner.	As with all fire safety measures sprinkler systems will require maintenance and inspection over the lifetime of the building.	No change
2.10		Sprinklers in domestic situations could be perceived as a risk item for purchasers, because as with all plumbing systems, they have the potential to fail.	The advent of sprinklers that operate at an early stage in the development of a fire have led to the introduction of sprinkler systems that are very effective in controlling fires in domestic premises. It is very unlikely that purchasers will disregard this benefit because of concerns about water leaks. Leakage testing forms part of the test and commissioning works required for all sprinkler systems so there is no reason to assume that problems with water leakage will be any greater than that for other plumbing works in dwellings.	No change
		Strongly feel that alternatives to the provision of sprinklers should be permitted. For example improved fire	While the examples given will contribute to the overall fire safety measures in a building, they would not sufficiently	No change

		<p>detection and alarms, better fire compartmentation and smoke ventilation systems which are more cost effective to deliver, do not compromise spatial arrangements, are more sustainable and cost effective to maintain.</p>	<p>compensate for the omission of sprinkler systems in the types of building where sprinklers are called for in the TGD2. The provisions relating to sprinklers apply to high rise buildings where escape takes longer and where access for fire fighting and rescue purposes is more difficult due to the height of the building. In such cases suppression of a fire by sprinklers has significant benefits over the examples given.</p>	
3.0	States of Jersey Fire Service	<p>Reference should be made to the revised regulations which are proposed in respect of the Fire Precautions (Designated Premises) (Jersey) Regulations 1979.</p>	<p>Comments noted.</p>	<p>Interaction with other legislation guidance to be revised.</p>
3.1		<p>The proposals in respect of fitting sprinklers in all buildings with a floor over 18m are welcomed. We have a finite resource and this restricts the amount of personnel, appliances and equipment that can be mobilised to a high rise incident. Fire and Rescue Services in the UK are able to mobilise greater resources and call for over border assistance which assists with their planning and attendance at high rise incidents. The provisions contained in the</p>	<p>Comments noted.</p>	<p>No change</p>

		current approved guidance have been written with UK resources in mind. This change takes account of local resources and as such is welcomed.		
3.2		The proposals for the provision of fire mains in all buildings over 11m are welcomed. This allows for a more rapid delivery of water to the scene and removes difficulties with finding suitable routes through a building for laying hoses. Fire mains provide a better water supply than can be normally achieved by laying hoses which can become obstructed or kinked as they are taken through taller buildings. Fire mains also remove the need to hold open fire doors during the fire fighting process which means there is less risk of escape routes for fire fighters becoming compromised.	Comments noted.	No change
3.3		We support the provisions in respect of private fire hydrants. These will provide important assistance in terms of securing an adequate supply of water at the point of need.	Comments noted.	No change

3.4		There should be a requirement for all schools to be fitted with sprinkler systems because fires in schools can lead to disruption to students and teachers, a huge financial loss and have a devastating effect on the local community who utilise schools for a whole range of activities.	Property protection and economic loss are not matters for the building bye-laws, and as such it is not considered appropriate to require sprinkler systems simply based on those grounds.	No change
3.5		There should be a requirement for all sheltered housing which is are designed and constructed specifically for people who need assistance to live independently to be fitted with sprinkler systems.	Fire safety in sheltered housing designed specifically for residents who need assistance to live independently could be improved by having sprinklers installed. The types of unit most likely to benefit are those designed for residents who are not very mobile or are otherwise vulnerable to emergency situations. Some guidance is given in the TGD in relation to sheltered housing and this could be extended to provide information regarding the circumstances when it would be appropriate to install a sprinkler system.	Recommendations for sprinklers to be installed in certain types of sheltered housing to be included in the TGD.
3.6		Smoke alarms should be fitted in all bedrooms, not just the principal bedroom, because the principal bedroom may not be occupied at the time of a fire, and fire loading in children's bedrooms can be extremely high.	The proposals regarding the provision of smoke alarms in dwellings already introduce some significant changes. Previously smoke alarms were only required in circulation spaces, whereas the revised TGD calls for smoke alarms to be fitted in all circulation spaces, the	Provisions for smoke alarms to be extended.



			<p>principal living room and principal bedroom and a heat detector in the kitchen. Changing the proposals to include smoke alarms in all bedrooms would add to what is already a significant change and this could arguably be said to have additional cost implications. However, bearing in mind this change is linked to the removal of the requirement for fire doors to be fitted with automatic closers in flats and three storey houses, the net cost of this proposal is unlikely to be significant taking into account the potential benefit.</p>	
3.7		<p>Emergency egress windows are not accepted by the fire service in tourist accommodation due to the fact that people may be unfamiliar with the premises and because of potential difficulties in the use of windows for escape purposes. This should be made clear in the technical guidance document.</p>	<p>Emergency egress windows are only permitted in dwelling houses and flats up to first floor level. Above this height they are not considered appropriate. This approach has been recognised for many years in British Standards relating to the design of fire safety in dwelling houses and flats. It is unclear as to why this should be seen as a problem in dwelling houses and flats used as tourist accommodation. However, it is accepted it would be helpful to draw attention to this matter in the TGD in order to avoid any confusion for designers.</p>	<p>Note regarding emergency egress windows to be added.</p>

3.8		Disagree with the commentary given in the TGD which states that buildings or parts of buildings used for parking cars and other light vehicles are unlike other buildings in certain respects which merit some departures from the usual measures to restrict fire spread within buildings, in particular, the department doesn't agree that the fire load in car parks is well defined.	The key findings of recent research into fire in car parks state that most fires in car parks do not spread from one car to another, but if this happens, it can result in significant structural damage. Those findings also concluded that sprinklers are effective in limiting a fire to a single car. In view of this, and the proposal for sprinklers to be installed in basement car parks it is considered the commentary given is appropriate.	
3.9		Provision for access for high reach fire service appliances should be shown in Table 19	Agreed.	Table 19 to be altered.