

Secured by Design

COMMERCIAL DESIGN GUIDE 2025

Edition 1

Secured by Design



Official Police Security Initiative

Preface

The Secured by Design Commercial Design Guide for 2025 has been written by Police Crime Prevention Initiatives (Police CPI) in consultation with Designing Out Crime Officers (DOCOs) and industry partners, such as the National Protective Security Authority and UKAS accredited test houses.

It is our intention to periodically update this guide as a result of further consultations with partners, signalling new iterations of standards and improved styles of applying designing out crime methods.

The police service places great importance upon the need to build sustainable and inclusive communities and to raise awareness of the significant impact that low crime makes to the ongoing and long-term sustainability of good business and commerce.

Constructing well-designed places, buildings and environments that promote both sustainable communities and health and well-being is an objective that the Secured by Design Initiative widely supports; however, it is imperative that they must also be safe, secure, and accessible. Mitigating the opportunities for crime is not only about reducing and preventing injury and crime, but it is also about building strong, cohesive, vibrant, and participatory communities.

Crime, the fear of crime and the unhappiness and disorder they create significantly damages communities. There is an expectation that all those with responsibility for the built environment from local authorities and the police to architects, builders and developers, include crime prevention measures and practices within their design; creating environments that reduce opportunities to commit crime with design led solutions is a cost effective, resource efficient and highly impactful means of improving the health and well-being and quality of life for all.

Secured by Design works to deter criminal and anti-social behaviour through the design, layout and specification of buildings and the spaces around and between them. Academic research shows that crimes are more likely to be committed where a criminal feels more comfortable committing them, for instance where a physical environment offers easy unrestricted or at least uncontrolled access, where clear messages of ownership are absent, where either natural and formal surveillance are absent or where wrong doers feel free to move within an area assured of their anonymity.

Design-led solutions to prevent crime include, but are not limited to, natural surveillance, high quality lighting, clearly defined and well-overlooked defensible spaces, the eradication of unnecessary pedestrian routes and see these routes concentrated together with busier traffic routes, the sensible and sensitive positioning of play and leisure areas, the provision of clear and appropriate boundary treatments and the careful removal of any chances to hide unseen to create ambush points.

For example, an obvious advantage of creating spaces with clear sight lines across and around them that do not provide places where anyone can hide, is the fact that people can see for themselves that they're safe moving through an area that reassures them.

Police CPI is aware that due consideration should be given to not creating additional barriers for disabled and/or older users. Taking an inclusive design approach which aims to remove barriers that create undue effort and separation will ensure that buildings, places and surrounding spaces can be easily and comfortably accessed and used by everyone.

This guide incorporates the latest security standards, developed to address emerging criminal methods of attack, and includes references to the Building Regulations and other statutory requirements across the United Kingdom.

The National Design Guide sets out the characteristics of well-designed places and demonstrates what good design means in practice. Detailed guidance is provided by the National Model Design Codes Parts 1 and 2. The purpose of the National Model Design Code is to provide detailed guidance on the production of design codes, guides and policies to promote successful design. It expands on the ten characteristics of good design set out in the National Design Guide, which reflects the government's priorities and provides a common overarching framework for design.

The National Design Guide says that 'the long-standing, fundamental principles for good design are that it is: fit for purpose; durable; and brings delight.' This concept embodies the places where we live, work and spend our leisure time.

Accessible and inclusive design should be seen as a material consideration specifically for occupation by disabled and/or older users so as to ensure that these members of our community are not subsequently made less secure. For example, if door locking systems are complex and difficult to operate, some people may leave their door insecure because of their inability to operate such a locking system.

The standards contained within this document are based upon those developed by SBD with various standards owners and trade associations. Should you wish to contribute to this or any of the SBD guides, please contact Secured by Design at: sbdconsultations@police-cpi.co.uk

This iteration of the Secured by Design Commercial Design Guide is applicable to all SBD applications made after 1st March 2025.

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1 Introduction

- 1.1 Secured by Design (SBD) is a crime prevention initiative operated by the Police Services of the United Kingdom. Secured by Design Commercial 2025 is one of several SBD Design Guides all of which aim to reduce crime and the fear of crime in the built environment. SBD continues to evaluate the effectiveness of its guidance and periodically amends the guides to take account of new research findings and standards. This guidance for commercial developments incorporates new security standards that have been developed to address new and emerging methods of criminal attack.
- 1.2 SBD Commercial provides a practical level of risk commensurate and sustainable security measures which are compatible and sympathetic to successful business. The majority of crimes committed on commercial premises are property related. Among other crime types to be considered when designing commercial properties are vandalism, graffiti, robbery, assaults on staff members, violence against women and girls, HGV theft, and cyber crime, including the Internet of Things which is covered in the Silver section of this guide under the heading 'Cyber Crime and the Internet of Things.'
- 1.3 **National Planning Policy Framework 2023**

The National Planning Policy Framework (NPPF) states that 'Planning policies and decisions should aim to achieve healthy, inclusive and safe places and beautiful buildings which:

- are safe and accessible, so that crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion – for example through the use of beautiful, well-designed, clear and legible pedestrian and cycle routes, and high quality public space, which encourage the active and continual use of public areas; and
- enable and support healthy lifestyles, especially where this would address
- identified local health and well-being needs – for example through the provision of safe and accessible green infrastructure, sports facilities, local shops, access to healthier food, allotments and layouts that encourage walking and cycling.

Planning policies and decisions should ensure that developments:

- create places that are safe, inclusive and accessible and which promote health and well-being, with a high standard of amenity for existing and future users and where crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion and resilience.'



- 1.4 Creating a sense of place where businesses and their users are able to go about their daily routine without fear of crime or insecurity is a key element of the Secured by Design initiative. Crime and anti-social behaviour are much less likely to occur if the following seven attributes of sustainable communities taken from ‘Safer Places – The Planning System and Crime Prevention’ (Home Office 2004) are incorporated:
1. **Access and movement:** places with well-defined and well-used routes with spaces and entrances that provide for convenient movement without compromising security.
 2. **Structure:** places that are structured so that different uses do not cause conflict.
 3. **Surveillance:** places where all publicly accessible spaces are overlooked.
 4. **Ownership:** places that promote a sense of ownership, respect, territorial responsibility and community.
 5. **Physical protection:** places that include necessary, well-designed security features.
 6. **Activity:** places where the level of human activity is appropriate to the location and creates a reduced risk of crime and a sense of safety at all times.
 7. **Management and maintenance:** places that are designed with management and maintenance in mind, to discourage crime in the present and the future, encouraging businesses and legitimate business users to feel a sense of ownership and responsibility for their surroundings can make an important contribution to community safety and crime prevention. Clarity in defining the use of space can help to achieve a feeling of well-being and limit opportunities for crime.
- 1.5 The police service of the United Kingdom continues to support these key attributes and it is essential that when applying for SBD certification, developers demonstrate that these attributes have been carefully integrated into the overall scheme wherever the development is located.
- 1.6 If you would like to apply for a Secured by Design Award, please use the SBD Commercial Design Guide application form which is available at: www.securedbydesign.com/guidance/design-guides
- 1.7 The Police Service places great importance on the need to build sustainable developments which use environmentally friendly materials and construction methods and promotes the concept that preventing crime is in itself a positive gain in sustainability.
- 1.8 Crime committed in 2011 in England and Wales is estimated to have given rise to over 4 million tonnes CO₂e, equivalent to emissions of around 900,000 UK homes. Burglary resulted in the largest proportion of the total footprint (30%) due to large volume of offences and the carbon associated with replacing stolen or damaged goods.
- Source: “Addressing the Carbon-Crime Blind Spot - A Carbon Footprint Approach” (2016). Helen Skudder, Professor Angela Druckman, Jon Cole, Alan McInnes, Dr Ian Brunton-Smith, Dr Gian Paolo Ansalon.*
- 1.9 It is vital that the benefits of a new Secured by Design commercial development is complemented with a clear management and maintenance programme together with a business continuity and resilience plan which will further promote a safe working environment. More information about risk management in both new and existing commercial buildings can be obtained from the SBD partner initiative ‘Secured Environments’ at: <https://www.securedenvironments.com>
- 1.10 Effective Command and Control is critical to mitigating the impact of terrorist attacks. More information can be found at: <https://www.npsa.gov.uk/system/files/documents/responding-to-terrorist-incident-effective-command-and-control-npsa-march-23.pdf>

Violence Against Women and Girls (VAWG)

- 1.11 The harm caused to victims and society by violence against women and girls (VAWG) in all its forms, including but not limited to, harassment, stalking, rape, sexual assault, murder, honour-based abuse and coercive control is incalculable. While men and boys also suffer from many of these forms of abuse, they disproportionately affect women. In spring 2023, the Home Secretary announced Violence Against Women and Girls as a national threat and included it within the Strategic Policing Requirement (SPR) alongside terrorism, serious and organised crime and child sexual abuse.
- 1.12 Secured by Design can assist with ensuring that the built environment in all its forms is designed to reduce the opportunity of Violence Against Women and Girls (VAWG) and contribute to such places feeling safe, to live, work and socialise, for all. The importance of this is outlined within the National Police Chiefs' Council's (NPCC) 'Policing Violence Against Women and Girls – The National Framework for Delivery: 2024 – 2027' under the 'Prevent' element of the strategy; outlining the need for building safer spaces and places. Further information is available at: www.npcc.police.uk/SysSiteAssets/media/downloads/our-work/vawg/vawg-framework-for-delivery.pdf
- 1.13 The reader of this document is advised to liaise with the DOCO throughout the process to ensure that the development takes into account all opportunities to reduce the potential for VAWG related offences. The importance of this, is that it highlights the role that everyone involved in shaping the built environment can play, emphasising the importance of collaboration and joined-up thinking. The benefits of embedding the lived experiences of women and girls through engagement, and ensuring that spaces are designed with women and girls in mind, creates more sustainable and inclusive environments for all.

Note: Please consult with the handbook - 'Creating Places that Work for Women and Girls', which was developed by the London Legacy Development Corporation and outlines gender informed processes and tools that can be incorporated into organisations and projects. It provides essential resources for local authorities, developers, design teams and all other stakeholders to ensure gender-informed considerations are embedded from project inception through to post-occupancy evaluations, including the RIBA Plan of Works. Further information is available at: <https://www.queenelizabetholympicpark.co.uk/about-us/how-we-work/handbook-creating-places-work-women-and-girls>

Other publications include the 'Green Flag – Safer Park Improving access for women and girls' documentation produced in collaboration with the University of Leeds and the 'Make Space for Girls' campaign resources library.

These are available at:

[Safer Parks Pdf Link](#)

[Make Space For Girls Resources Library Webpage Link](#)

2 The designing out crime process

- 2.1 This edition of the Commercial Guide is effective from 1st March 2025. It applies to all types of commercial premises from small storage units to multi-use business parks and since the crime risks associated with commercial premises can range from low to high value crimes, there can be no 'one size fits all' solution applicable to all development.
- 2.2 The advice given by the police Designing Out Crime Officer (DOCO) will be provided directly from the content of this guide and will be dependent on a crime risk analysis, which will take into account how and where crimes occur and the local crime trends. Where justified by the results of a crime risk analysis, some sections of this guide allow for the adoption of enhanced measures that are appropriate and commensurate with an increased risk and these will be specified by the DOCO.
- NB. The National Police Chiefs' Council (NPCC) designated the DOCO role as a specialist role within policing in October 2021.
- 2.3 If SBD approval is required for a development, applicants should follow the application process by familiarising themselves with the relevant parts of this guide and consulting the DOCO for site specific information at the earliest opportunity, ideally at the preplanning stage, and in any case prior to submitting for planning approval on a new development or commencing work to refurbish an existing one.

3 How to apply for an SBD award

- 3.1 To apply for an SBD award, please complete the checklist and application form which can be downloaded by visiting: <https://www.securedbydesign.com>. Completed application forms should be sent to the relevant DOCO whose details can also be found on the contacts page of the SBD website.
- 3.2 The application form must be read in conjunction with the full SBD Commercial Design Guide to ensure that your application will comply. The development will be measured against the requirements of the SBD award scheme current at the time the application was made. Developments that have not started on site within 3 years of the original SBD application shall be subject to a new application – which includes developments where only a phase of building begins more than 3 years from the original application date.
- 3.3 The SBD Commercial Design Guide will now be published in 'Editions' to allow for updates throughout the year, i.e standards changes, etc. This is reflected in the application form, so that DOCOs and applicants will have a record of the SBD Commercial Design Guide publication 'Year' and 'Edition' that applies to their development, i.e. SBD Commercial Design Guide 2025 Edition 2, etc.
- 3.4 Developers wishing to apply for Secured by Design approval should contact their local Designing Out Crime Officer at: <https://www.securedbydesign.com/contact-us>

4 Scope of SBD Commercial

- 4.1 The SBD Commercial Award ranges from new schemes to refurbishments of existing buildings. The scheme encompasses both commercial developments where the public have no formal access, such as industrial units, factories, warehouses and office buildings, and those where public access is integral to the commercial use, such as retail premises, leisure centres and public service buildings. Such developments may range in size from a single unit with a defined use to a group of buildings with multiple uses.
- 4.2 Secured by Design provides design guidance and specification requirements for commercial premises so as to reduce the risks of crimes against the person or property such as burglary, theft, arson, vehicle crime and assault; there is often an accompanying reduction in the fear of crime and anti-social behaviour.

- 4.3 As the UK's National Technical Authority for physical and personnel protective security, the National Protective Security Authority (NPSA) worked with Secured by Design to provide an input for this document only regarding Counter Terrorism and State Threat security measures and guidance. The latest NPSA advice and guidance is available at: <https://www.npsa.gov.uk>.
- 4.4 If the development is at risk of terrorism, espionage, sabotage or other malicious threats, this matter should be brought to the attention of the DOCO at the earliest opportunity to ensure that the proposed design, layout and physical security measures appropriately mitigate the risk. If the police service identifies vulnerable buildings or activities that require detailed counter terrorism advice, a referral will be made to the Counter Terrorism Security Advisor.
- 4.5 The National Protective Security Authority (NPSA) in collaboration with the Royal Institute of British Architects (RIBA) and Police Crime Prevention Initiatives (Police CPI), have created the Security Overlay to the RIBA Plan of Work which is for everyone involved in the safe and secure design, construction, and operation of any building. This process will support better long-term security outcomes for everyone involved in the lifecycle of a building. The following link will provide access to the document: <https://www.architecture.com/knowledge-and-resources/resources-landing-page/security-overlay-to-the-plan-of-work>

5 Phased or speculative developments

- 5.1 Some commercial or mixed use (residential and commercial) developments can be either phased – where the land is developed when the market allows – or speculative – where a developer provides the infrastructure, with no specific building designs or potential occupants. SBD certification can be achieved in both these circumstances provided the relevant DOCO's approval is obtained.
- 5.2 Where a mixed use development has both residential and commercial elements, separate applications will be required for each use. SBD certification can only be gained for the residential development once the commercial development has been secured in compliance with the SBD Commercial Design Guide. Further information about SBD residential developments is available at: <https://www.securedbydesign.com/images/HOMES%20GUIDE%20May%202024.pdf>
- 5.3 Mixed use developments will require separate application forms to be completed for the residential and commercial elements.

6 Explanation of graded security levels

6.1 SBD Commercial **BRONZE** Award

To achieve the Bronze Award, applicants must have complied with as many elements of the Silver Award as is possible and all the relevant recommendations detailed in the Bronze Award section.

6.2 SBD Commercial **SILVER** Award

To achieve the Silver Award, applicants must have complied with all the relevant recommendations detailed in the Silver Award section.

6.3 SBD Commercial **GOLD** Award

To achieve the approval of our highest award for security in development design, the Gold Award, applicants must have first complied with all the relevant recommendations detailed in both the Silver and Gold Award sections.

7 Construction phase security – advisory note

- 7.1 Unfortunately, there are many crimes which occur during the construction phase (including enabling works) of a development; the most significant include theft of plant equipment, materials, tools and diesel fuel.
- 7.2 Secured by Design recommend that security should be considered throughout the life cycle of the development and be in place prior and during the construction phase. For example, this should include robust perimeter fencing of the site and (where appropriate) a monitored alarm system (by a company or individual who can provide a response) for site cabins and those structures facilitating the storage of materials and fuel.
- 7.3 The developer is advised that signage should be displayed across the development (i.e. on the perimeter fencing) and should contain the emergency contact details and point of contact. This will allow both the public and staff members to report suspicious behaviour and circumstances.
- 7.4 Mobile or part-time video surveillance systems (VSS) can be used as an effective aid to the security of a site and can act as a deterrent to criminal activity.
- 7.5 The developer should consult the DOCO regarding the impact that any perimeter fencing or hoarding may have on public safety. Particular attention should be paid to the nature and surveillance of adjoining footpaths and/or roads bordering the site. The British Transport Police DOCO must be consulted if the proposed perimeter fence or hoarding borders a railway or tube line.
- 7.6 Further advice on construction site security can be obtained from the Secured by Design website: https://www.securedbydesign.com/images/CONSTRUCTION_SITE_SECURITY_GUIDE_A4_8pp.pdf

8 Planning Policy, Design Codes and Guidance

- 8.1 Policy and strategic guidance in support of Secured by Design reflects the established principles of designing out crime. The application of these principles, the design details and specifications for the particular development, must be agreed between the developer and/or the developer's agent and the police DOCO.
- 8.2 Local planning conditions, crime risk assessment and other statutory provisions such as national and local planning policies that may influence the measures to be adopted should be appropriately considered. Further information is available as follows:
- The National Planning Policy Framework (NPPF) and accompanying National Planning Practice Guidance (NPPG) in England
 - For Scotland, PAN 77 Designing Safer Places applies, available at: <https://www.scotland.gov.uk>
 - In Wales TAN 12 Design applies, available at: <https://www.gov.wales>
 - In Northern Ireland, Secured by Design is referenced in the government guidance for new buildings
- 8.3 In England and Wales, the National Design Guide sets out the characteristics of well-designed places and demonstrates what good design means in practice. Detailed guidance is provided by the National Model Design Codes Parts 1 and 2. The purpose of the National Model Design Code is to provide detailed guidance on the production of design codes, guides and policies to promote successful design. It expands on the ten characteristics of good design set out in the National Design Guide, which reflects the government's priorities and provides a common overarching framework for design.

9 Design and Access Statements

- 9.1 Proposed commercial developments may require a Design and Access Statement (DAS). A Design and Access Statement is a report accompanying and supporting a planning application that enables those responsible for the design of new developments to demonstrate their approach to designing out opportunities for crime within their planning proposals. Compliance with the Secured by Design award scheme criteria can be a major indication that a proposal has adequately addressed the crime prevention component required to be included in the DAS.
- 9.2 As 'crime' has a potentially adverse economic, social and environmental impact upon a development, and the National Planning Policy Framework requires that crime and the fear of crime should not undermine quality of life or community cohesion, 'crime' should be afforded due consideration within the DAS. Insufficient or inadequate crime prevention information within the DAS may hinder the application.
- 9.3 Advice given by a DOCO will be dependent upon the outcome of a crime risk analysis and an understanding of local crime context and other dynamics. As a consequence, there may be specifically targeted crime preventative design measures that are relevant to one site but not another. Importantly, national SBD guidelines are minimum requirements and in areas of higher risk, greater crime resistance will be required to achieve an SBD award.

10 Levels of security standards

- 10.1 Physical security should be integral to the design and commensurate with the risk.
- 10.2 Where justified by the results of a crime risk analysis, some sections of this guide allow for commensurate enhanced measures to be specified by the DOCO, the details of which are contained within each relevant section.
- 10.3 SBD operates an accreditation scheme on behalf of the UK police for products or services that have met recognised security standards. Such products or services must be capable of deterring or preventing crime and are known as being of a 'Police Preferred Specification'. Further information about the SBD security standards can be found at: <https://www.securedbydesign.com/guidance/standards-explained>

11 Unknown occupiers and risk

- 11.1 This guide details the minimum level of police preferred security for commercial developments. If during the design process the intended end use changes, the DOCO must be advised of this fact to ensure that the security measures remain commensurate with the risk.



BRONZE Award



BRONZE AWARD

12 Introduction

- 12.1 If doors or windows are being replaced, new and refurbished commercial developments will be expected to achieve the SBD Silver Award, as a minimum. However, some bespoke developments may not be able to achieve SBD Silver compliance due to planning or specification restrictions owing to their listed building status, or their position within a designated conservation area, or they are determined to be of national importance, or of special architectural or historical interest; this said every effort shall be made to achieve compliance with as many elements of the Silver Award as possible, following consultation with the DOCO.
- 12.2 Where there is a requirement for Secured by Design accreditation, the SBD Bronze Award offers bespoke commercial developments a route to compliance with door and window components that have been tested to published security standards.
- 12.3 The term 'doorset' refers to a door, frame, locks, fittings and glazing as one combined unit.
- 12.4 Where there is a requirement for a doorset to be security, fire and/or smoke rated, it is the responsibility of the developer or the developer's agent to ensure compliance with all applicable Building Regulations.

13 Doorset and window materials

- 13.1 All bespoke window and doorsets constructed from common materials such as timber, PVCu, aluminium, steel and composite shall meet the minimum material specific requirements as follows:

Timber products

- 13.2 Doorsets and windows shall be manufactured from solid or laminated timber with a minimum density of 600kg/m³.
- 13.3 **Dimensions (doorsets):**
- Door rails, stiles and muntins shall be at least 44mm thick. After rebating, frame components shall retain at least 32mm of timber
 - Any panel within the doorset shall be at least 15mm thick. The panel shall be securely held in place. Beading should be mechanically fixed and glued in position
 - The smaller dimension of each panel, which can be either the width or height of the panel, should be 230mm or less
- 13.4 **Dimensions (windows):**
- Casement window frame components (head, sill, jamb, transom & mullion) shall be a minimum of 67mm deep and 56 mm wide, rebated and moulded to retain a minimum section of 25mm
 - Casement and sash components (stiles and rails) shall be a minimum of 56mm deep, rebated and moulded to retain a minimum section of 25mm
- 13.5 **Maximum length and height dimensions by window type:**
- Casement Windows – maximum mullion length 1350mm, maximum transom length 1200mm
 - Side hung casement (hinged and fully reversible) open out – 700mm wide by 1350mm high
 - Top hung casement (hinged and fully reversible) – 1200mm wide by 1200mm high
 - Tilt and turn casement, open in – 900mm wide by 1350mm high
 - Vertical sliding sash – maximum mullion length 1500mm, maximum transom length 900mm, maximum sash size 750mm high by 900mm wide
- 13.6 Further guidance for the construction of good quality timber windows and doorsets can be sought from BS 644:2012 'Timber windows and doorsets. Fully finished factory-assembled windows and doorsets of various types. Specification.'



Aluminium products

- 13.7 All windows and doorsets shall be constructed from aluminium profile fabricated from designated alloys 6060 or 6063 in tempers T5 or T6 conforming to BS EN 12020-2:2022 or equivalent standard.
- 13.8 Aluminium profiles used in the construction of the frames excluding glazing beads, nibs, interlocks and similar features shall be not less than 1.2 mm thick.
- 13.9 Bespoke aluminium products e.g. those falling outside the scope of PAS 24, would benefit from being constructed from a profile that has already been proven by test to meet the security requirements of PAS 24, as a minimum, in other window styles within the profile manufacturers or fabricators range.
- 13.10 Further guidance for the construction of good quality bespoke aluminium windows and doorsets can be sought from BS 4873:2016 'Aluminium alloy windows and doorsets. Specification.'

Composite products

- 13.11 The Association of Composite Door Manufacturers has advised SBD that it is unwise to produce a specification for a 'bespoke' application. This is because of the myriad of differing materials used and indeed the numerous combinations of composite products found in doorset products in more recent times. Therefore, it is not possible to create a bespoke composite commercial doorset that complies with the SBD Bronze Award.

Steel products

- 13.12 Guidance for the construction of good quality bespoke steel windows and doorsets can be sought from BS 6510:2010 'Steel-framed windows and glazed doors. Specification.'

PVCu products

- 13.13 All windows and doorsets shall be constructed from profile meeting the requirements of BS EN 12608-1:2016+A1:2020 Unplasticized polyvinylchloride (PVCu) profiles for the fabrication of windows and doors. Classification, requirements and test methods.
- 13.14 Bespoke PVCu products e.g. those falling outside the scope of PAS 24, would benefit from being constructed from a profile that has already been proven by test to meet the security requirements of PAS 24: in other window styles within the profile manufacturers or fabricators range.
- 13.15 All window and door profiles shall incorporate reinforcement to cater for the secure fixing of hardware and to provide additional strength to the profile.

- 13.16 Further guidance for the construction of good quality bespoke PVCu windows and doorsets can be sought from BS 7412 'Specification for windows and doorsets made from unplasticized polyvinyl chloride (PVCu) extruded hollow profiles.'
- 13.17 Doorsets and windows must also be fit for purpose and certified to the relevant material standard:
- BS EN 14351-1:2006+A2:2016, or
 - BS EN 14351-2:2018, or
 - BS EN 16034:2014, or
 - BS 8214:2016, or
 - BS 644:2012 (Timber), or
 - BS 4873:2016 (Aluminium), or
 - BS 6510:2010 (Steel), or
 - BS 7412:2024 (PVCu), or
 - BS 8529:2017 (Composite)

14 Doorset hardware and locking systems

- 14.1 The primary entrance doorset shall be fitted with a multi-point locking system that meets the requirements of:
- PAS 3621:2011 (key locking both sides), or
 - PAS 8621:2011 (non-key locking on the internal face), or
 - PAS 10621:2011 (non-key locking on the internal face – with an external locking override facility)
- 14.2 Alternative lock configuration for a primary doorsets (usually the front doorset) can be achieved by the installation of a mortice or surface mounted lock conforming to one of the below standards and fitted one third of the way up the lock stile:
- BS 3621:2017+A1:2024 (key locking both sides), or
 - BS 8621:2017+A1:2024 (non-key locking on the internal face), or
 - BS 10621:2017+A1:2024 (non-key locking on the internal door face, but with an external locking override facility)
- 14.3 The above mortice locks shall be supplemented with a surface mounted rim lock conforming to the same standard, fitted one third of the way down the lock stile.
- 14.4 Non-primary doorsets (side or rear) may be fitted with a multi-point locking system conforming to the standards in [paragraph 14.1](#) above. Alternatively, single-point locks conforming to the standards in [paragraph 14.2](#) above are acceptable when supplemented with two mortised bolts with a minimum projection of 20mm (located a minimum of 100mm from the top and bottom corners of the door, avoiding any door construction joints).
- 14.5 All bespoke doorsets shall be installed with hinge bolts or specialist interlocking hinges. Hinges accessible from outside the building shall not have removable pins.
- 14.6 Electronic locking systems that form part of the access control system and are controlled by access codes and key cards, etc. shall not prevent emergency egress.
- 14.7 Electronic locks for a primary doorsets should be certified to one of the following minimum standards:
- BS EN 14846:2008, or
 - BS EN 16867:2020+A1:2021, or
 - TS621:2018
- 14.8 See [Section 36](#) for information about Internet of Things devices.
- 14.9 Further advice on doorset hardware and locking systems from a suitably qualified locksmith is available at: <https://www.locksmiths.co.uk>

15 Window hardware and locking systems

- 15.1 Windows shall be installed with multi-point espagnolette locking systems that have been shown by test to meet the security requirements of PAS 24, as a component part of a window of the same material. There shall be locking points within 100mm from the corner of the casement.
- 15.2 Where a multi-point espagnolette locking system is not compatible or desirable e.g. listed building application, then there shall be a minimum of two locking points per opener.
- 15.3 All hinges and pivots installed within bespoke windows shall incorporate an interlocking detail and be shown by test to meet the security requirements of PAS 24, as a component part of a window of the same material.
- 15.4 Heritage hinges (untested as a component part of PAS 24) shall be supplemented with hinge bolts.
- 15.5 Tilting window pivots and top retaining bolts shall be enhanced to resist increased loads.
- 15.6 Sash fasteners (fitch catches) shall also be enhanced to resist increased loads.
- 15.7 Further advice on window hardware and locking systems from a suitably qualified locksmith is available at: <https://www.locksmiths.co.uk>

16 Glazing within and adjacent to doorsets

- 16.1 Any glazing within PAS 24 or STS 201 certified doorsets, including glazed panels/side lights adjacent to doors installed within an integral door frame and windows adjacent to doorsets (within 400mm), must incorporate one pane of laminated glass certificated to BS EN 356:2000 Class P1A, or above (*Note 16.1*). NB. This is a specific requirement within PAS 24.
- Note 16.1: There is no specific requirement to install laminated glazing on the inner or outer face of a double glazed unit. However, specifiers may wish to take into consideration the fact that toughened glass is usually more resistant to accidental damage by blunt objects such as a football and therefore may be best placed on the external face of the double glazed unit. It is recognised however that there are many other factors that may also need to be considered such as thermal efficiency, aesthetics and the requirement for privacy or obscured glazing, which will influence the specifier's decision.*
- 16.2 The above requirement is not necessary for doorsets certificated to LPS 2081, STS 222, LPS 1175, STS 202 or LPS 1673 as glazing security requirements are significantly more stringent within these standards, even at the lowest levels. However, if there is an adjacent window then the glazing must be certified to BS EN 356:2000 Class P1A, or above.
- 16.3 If glazed panels/windows adjacent to doors are installed as an integral part of the door frame, then they must be shown to be part of the manufacturer's certified range of doorsets and be specifically referenced within the Scope of Certification. Alternatively, where they are manufactured separately from the door frame, they must meet the requirements of a 'window,' see [Section 28](#). In such cases the window shall be securely fixed to the doorset (in accordance with the manufacturer's specifications).
- 16.4 Where vision panels are required, they shall form part of the doorset testing.
- 16.5 In some circumstances, such as in a remote building with no surveillance over an external, unglazed door, it is recommended that a door viewer is installed between 1200mm and 1500mm from floor level.

17 Security glazing

- 17.1 All ground floor and easily accessible (*Note 17.1*) glazing must incorporate one pane of laminated glass or glass tested to BS EN 356:2000 (Glass in building. Security glazing. Testing and classification of resistance against manual attack) to category P1A, or above, unless it is protected by a roller shutter or that meets the security standards within [section 39](#).

Note 17.1: Easily accessible is defined as:

A window or doorset, any part of which is within 2 metres vertically of an accessible level surface such as a ground or basement level, or

An access balcony, or a window within 2 metres vertically of a flat roof or sloping roof (with a pitch of less than 30°) that is within 3.5 metres of ground level.

- 17.2 Occasionally, when large laminated glazed panels are used on south facing elevations, there have been incidents of glazing failure, or cracking, due to thermal stress. Whilst the use of toughened glass would seem to be a simple solution to the problem of thermal stress, ordinary toughened glass offers no security resistance. It is therefore recommended that the inner pane of glass used in a double glazed unit is 'laminated toughened'. This combination of the two sheets of toughened glass and the interlayer offers both resistance to intrusion and thermal stress associated with large glazed areas. Specifiers are reminded that the minimum requirement for SBD is BS EN 356:2000 P1A, or above.

18 Secondary glazing

- 18.1 Where existing windows cannot be replaced, owing to their listed building status, their locality within a designated conservation area or because they are determined to be of national importance, of special architectural or historical interest and there is a sufficient internal reveal, secondary glazing certified to one of the following minimum standards, or above:

Current standards:

- PAS 24:2022+A1:2024*, or
- STS 204 (certified to PAS 24:2022+A1:2024*), or
- LPS 2081 Issue 1 Security Rating A, or
- STS 222 Issue 4 Burglar Resistance BR1(S), or
- LPS 1175 Issue 8 Security Rating A1, or
- STS 202 Issue 12 Burglar Resistance BR1, or
- LPS 1673 Issue 1 Attack Rating AR.A60

Standards which remain acceptable until the dates published below:

- PAS 24:2016*, or
- PAS 24:2022*, or
- STS 204 (certified to PAS 24:2016*), or
- STS 204 (certified to PAS 24:2022*), or
- STS 222 Issue 1, 2 or 3** Burglar Resistance BR1(S), or
- LPS 1175 Issue 7*** Security Rating 1, or
- STS 202 Issue 9, 10 or 11** Burglar Resistance BR1

*PAS 24:2022+A1:2024 has now been published and supersedes PAS 24:2022. To allow for this transition to the new standard, PAS 24:2022 will continue to be an acceptable route to SBD compliance for applications made before 1st January 2027. PAS 24:2016 will also continue to be an acceptable route to compliance until 31st December 2025.

**STS 222 Issue 4 will replace STS 222 Issue 3 and STS 202 Issue 12 will replace STS 202 Issue 11 as the minimum standards required for SBD applications from (TBC in conjunction with WF at a future date). STS 222 Issues 1, 2 and 3 and STS 202 Issues 9, 10 and 11 will continue to be acceptable routes to SBD compliance for applications made before (date TBC).

***LPS 1175 Issue 8 will replace LPS 1175 Issue 7 as the minimum standard required for SBD applications from (TBC in conjunction with the LPCB at a future date). LPS 1175 Issue 7 will continue to be an acceptable route to SBD compliance for applications made before (date TBC).

Roof construction

19.1 Roofs are potentially vulnerable to criminal intrusion and damage through vandalism, if criminals gain access to them and therefore careful consideration must be given to their construction.

19.2 Roofing systems shall be certified to one of the following minimum standards, or above:

Current standards:

- LPS 2081 Issue 1 Security Rating A, or
- STS 222 Issue 4 Burglar Resistance BR1(S), or
- LPS 1175 Issue 8 Security Rating A1, or
- STS 202 Issue 12 Burglar Resistance BR1, or
- LPS 1673 Issue 1 Attack Rating AR.A60

Standards which remain acceptable until the dates published below:

- STS 222 Issue 1, 2 or 3* Burglar Resistance BR1(S), or
- LPS 1175 Issue 7** Security Rating 1, or
- STS 202 Issue 9, 10 or 11* Burglar Resistance BR1

*STS 222 Issue 4 will replace STS 222 Issue 3 and STS 202 Issue 12 will replace STS 202 Issue 11 as the minimum standards required for SBD applications from (TBC in conjunction with WF at a future date). STS 222 Issues 1, 2 and 3 and STS 202 Issues 9, 10 and 11 will continue to be acceptable routes to SBD compliance for applications made before (date TBC).

**LPS 1175 Issue 8 will replace LPS 1175 Issue 7 as the minimum standard required for SBD applications from (TBC in conjunction with the LPCB at a future date). LPS 1175 Issue 7 will continue to be an acceptable route to SBD compliance for applications made before (date TBC).

19.3 Roofing systems must be installed using the manufacturers approved fixing system that they were tested with.

19.4 Where traditional roof installations (*Note 19.4*) are used that cannot meet the above requirements, additional security measures, such as a monitored intruder and hold-up alarm system to protect a vulnerable ceiling void, may be required by the DOCO to mitigate against criminal acts. For further information about intruder and hold-up alarm systems see [Section 54](#).

Note 19.4: Typically constructed on site from timber using a series of sloping timber rafters, fixed at the top to the ridge board, and at the bottom to the wall plate, supported by ceiling joists to prevent the rafters from spreading.

Roof access and aids to climbing

19.5 Unauthorised access to roofs can make a range of crimes from burglary to arson easier to commit. Some buildings have a common roof covering that extends across different rooms, areas or even occupying businesses; therefore from a single breach point all of these spaces are potentially at risk from intruders.

19.6 External rainwater pipes can be used for climbing and shall be specified as square or rectangular in section, be fitted flush against walls or within wall cavities or covered recesses.

Pipes shall be made of fire-resistant material with bends and horizontal runs kept to a minimum; existing roofs can be fitted with an appropriate obstructive barrier to prevent access.

19.7 Flat roofs, particularly those at a low level, can be easily accessed and depending on materials, may be more vulnerable to intrusion either by cutting through the deck or forcing open roof lights and other openings.

- 19.8 Attention is drawn to relevant legislation (including the Occupiers' Liability Act) concerning the responsibilities and liabilities of building owners/occupiers for the safe use of roof areas and relevant signage.
- 19.9 Designers shall take care not to inadvertently create climbing aids to upper windows and flat roofs via structures such as boundary walls, living walls, other adjacent buildings, handrails or external staircases. It is advised that care is taken to design a means of routine or emergency escape that will avoid the installation or deployment of external staircases.

Roof windows, roof lights and roof lanterns

- 19.10 The security requirements for easily accessible roof lights and roof windows differ depending on the crime risk.

Low crime risks require roof windows, roof lights and roof lanterns to be certified to one of the following minimum standards, or above:

Current standards:

- PAS 24:2022+A1:2024*, or
- STS 204 (certified to PAS 24:2022+A1:2024, or
- LPS 2081 Issue 1 Security Rating A, or
- STS 222 Issue 4 Burglar Resistance BR1(S), or
- LPS 1175 Issue 8 Security Rating A1, or
- STS 202 Issue 12 Burglar Resistance BR1, or
- LPS 1673 Issue 1 Attack Rating AR.A60

Standards which remain acceptable until the dates published below:

- PAS 24:2016*, or
- PAS 24:2022*, or
- STS 204 (certified to PAS 24:2016*), or
- STS 204 (certified to PAS 24:2022*), or
- STS 222 Issue 1, 2 or 3** Burglar Resistance BR1(S), or
- LPS 1175 Issue 7*** Security Rating 1, or
- STS 202 Issue 9, 10 or 11** Burglar Resistance BR1

*PAS 24:2022+A1:2024 has now been published and supersedes PAS 24:2022. To allow for this transition to the new standard, PAS 24:2022 will continue to be an acceptable route to SBD compliance for applications made before 1st January 2027. PAS 24:2016 will also continue to be an acceptable route to compliance until 31st December 2025.

**STS 222 Issue 4 will replace STS 222 Issue 3 and STS 202 Issue 12 will replace STS 202 Issue 11 as the minimum standards required for SBD applications from (TBC in conjunction with WF at a future date). STS 222 Issues 1, 2 and 3 and STS 202 Issues 9, 10 and 11 will continue to be acceptable routes to SBD compliance for applications made before (date TBC).

***LPS 1175 Issue 8 will replace LPS 1175 Issue 7 as the minimum standard required for SBD applications from (TBC in conjunction with the LPCB at a future date). LPS 1175 Issue 7 will continue to be an acceptable route to SBD compliance for applications made before (date TBC).

High crime risks require roof windows, roof lights and roof lanterns to be certified to one of the following minimum standards, or above:

Current standards:

- PAS 24:2022+A1:2024*, or
- STS 204 (certified to PAS 24:2022+A1:2024*), or
- LPS 2081 Issue 1 Security Rating B, or
- STS 222 Issue 4 Burglar Resistance BR2(S), or
- LPS 1175 Issue 8 Security Rating A3, or

- STS 202 Issue 12 Burglar Resistance BR2, or
- LPS 1673 Issue 1 Attack Rating AR.A180

Standards which remain acceptable until the dates published below:

- PAS 24:2016*, or
- PAS 24:2022*, or
- STS 204 (certified to PAS 24:2016*), or
- STS 204 (certified to PAS 24:2022*), or
- STS 222 Issue 1, 2 or 3** Burglar Resistance BR2(S), or
- LPS 1175 Issue 7*** Security Rating 2, or
- STS 202 Issue 9, 10 or 11** Burglar Resistance BR2

*PAS 24:2022+A1:2024 has now been published and supersedes PAS 24:2022. To allow for this transition to the new standard, PAS 24:2022 will continue to be an acceptable route to SBD compliance for applications made before 1st January 2027. PAS 24:2016 will also continue to be an acceptable route to compliance until 31st December 2025.

** STS 222 Issue 4 will replace STS 222 Issue 3 and STS 202 Issue 12 will replace STS 202 Issue 11 as the minimum standards required for SBD applications from (TBC in conjunction with WF at a future date). STS 222 Issues 1, 2 and 3 and STS 202 Issues 9, 10 and 11 will continue to be acceptable routes to SBD compliance for applications made before (date TBC).

***LPS 1175 Issue 8 will replace LPS 1175 Issue 7 as the minimum standard required for SBD applications from (TBC in conjunction with the LPCB at a future date). LPS 1175 Issue 7 will continue to be an acceptable route to SBD compliance for applications made before (date TBC).2

- 19.11 Alternatively, an easily accessible roof light or roof window that does not meet the above requirements must be protected with an internal grille certified to one of the following minimum standards, or above (listed here alphanumerically):

Current standards:

- LPS 2081 Issue 1 Security Rating A, or
- STS 222 Issue 4 Burglar Resistance BR1(S), or
- LPS 1175 Issue 8 Security Rating A1, or
- STS 202 Issue 12 Burglar Resistance BR1, or
- LPS 1673 Issue 1 Attack Rating AR.A60

Standards which remain acceptable until the dates published below:

- STS 222 Issue 1, 2 or 3* Burglar Resistance BR1(S), or
- LPS 1175 Issue 7** Security Rating 1, or
- STS 202 Issue 9, 10 or 11* Burglar Resistance BR1

*STS 222 Issue 4 will replace STS 222 Issue 3 and STS 202 Issue 12 will replace STS 202 Issue 11 as the minimum standards required for SBD applications from (TBC in conjunction with WF at a future date). STS 222 Issues 1, 2 and 3 and STS 202 Issues 9, 10 and 11 will continue to be acceptable routes to SBD compliance for applications made before (date TBC).

**LPS 1175 Issue 8 will replace LPS 1175 Issue 7 as the minimum standard required for SBD applications from (TBC in conjunction with the LPCB at a future date). LPS 1175 Issue 7 will continue to be an acceptable route to SBD compliance for applications made before (date TBC).

- 19.12 The DOCO must be supplied with proof of certification including the technical schedule, prior to the SBD certificate being awarded, unless the supplier is a member of the Secured by Design Licensing Scheme and the roof light can be identified on the SBD website.

- 19.13 Roof windows, roof lights and roof lanterns must be fitted in accordance with the manufacturer's specifications or, in accordance with BS 8213-4:2016.

Sun tubes/tunnels

- 19.14 To prevent a sun tube being used as an access point into a commercial building, the maximum diameter recommended is 350mm. Where larger diameters of sun tube are required, the specification of alternative means of protection shall be agreed with the DOCO.

Lightweight wall construction

- 19.15 Where lightweight wall construction is being considered and a crime risk analysis identifies that such a construction may be vulnerable to an attack, the use of insulated sheet cladding and a reinforced lining such as welded steel mesh can enhance the security of the building fabric.
- 19.16 Lightweight wall systems shall be installed by approved contractors, in compliance with the manufacturer's instructions and shall be certified to one of the following minimum standards, or above (listed here alphanumerically):

Current standards:

- LPS 2081 Issue 1 Security Rating A, or
- STS 222 Issue 4 Burglar Resistance BR1(S), or
- LPS 1175 Issue 8 Security Rating A1, or
- STS 202 Issue 12 Burglar Resistance BR1, or
- LPS 1673 Issue 1 Attack Rating AR.A60

Standards which remain acceptable until the dates published below:

- STS 222 Issue 1, 2 or 3*, or
- LPS 1175 Issue 7** Security Rating 1, or
- STS 202 Issue 9, 10 or 11* Burglar Resistance BR1

*STS 222 Issue 4 will replace STS 222 Issues 3 and STS 202 Issue 12 will replace STS 202 Issues 11 as the minimum standards required for SBD applications from (TBC in conjunction with WF at a future date). STS 222 Issues 1, 2 and 3 and STS 202 Issues 9, 10 and 11 will continue to be acceptable routes to SBD compliance for applications made before (date TBC).

**LPS 1175 Issue 8 will replace LPS 1175 Issue 7 as the minimum standard required for SBD applications from (TBC in conjunction with the LPCB at a future date). LPS 1175 Issue 7 will continue to be an acceptable route to SBD compliance for applications made before (date TBC).

SILVER Award



SILVER AWARD

20 Introduction

- 20.1 The Secured by Design Silver Commercial Award is available for new and refurbished developments that include the relevant security features contained in this section; all doorset and window component parts must form part of the manufacturer's certified range to comply with the requirements of the SBD Silver and Gold Awards.

21 Doorsets and windows and their fitness for purpose

- 21.1 BS 6375-2:2009 defines the resilience and operational characteristics of both doorsets and windows which, in simple terms, means to test a doorset or a window to ensure that it will withstand the demands of repeatedly being opened and closed over a significant period of time.
- 21.2 From a Secured by Design perspective, doorsets and windows must meet the security requirements of either PAS 24, STS 201, STS 204, LPS 2081, LPS 1175, STS 202 or LPS 1673 and be able to survive many cycles of repeated use. The design team, in consultation with the DOCO, shall specify the class of BS 6375 – 2:2009 for doorsets and windows that is commensurate with their intended location and estimated number of cycles. Further information about the classification cycles is available at: <https://www.bsigroup.com>
- 21.3 For instance, Class 4 (moderate use) of BS 6375 means that a doorset has been through in excess of 50,000 cycles of closing and opening and been found not to have failed.
- 21.4 As an approximate guide, in many SBD applications the BS 6375 'moderate' level of qualification will suffice for approval (*Note 21.4*). It should be borne in mind that communal doorsets can often have a high volume of use and this is especially true when they service primary entrances to for instance, large office blocks or shopping centres. It is important that SBD approved developments have the correct level of security specification for the doorsets and windows but just as important is the durability of these units as tested against the requirements of BS 6375.
- Note 21.4: The 'moderate' classification is extracted from BS EN 12400.*
- 21.5 Doorsets and windows shall be classified according to their intended use, for example, if an opening in a building is intended to be walked through, a doorset will be required. It follows that a doorset will have more use than a window and a door is therefore subject to 5 times more testing at the moderate classification level under BS 6375 than a window is.
- 21.6 The minimum requirement of the 'moderate' for classification under BS 6375 for both doorsets and windows are:
- Doorsets – 50,000 cycles (Classification extracted from BS EN 12400)
Windows – 10,000 cycles (Classification extracted from BS EN 12400)
- 21.7 The design team's specification can always flex between the classifications of 'normal' and 'frequent', dependent on projections for the volume of foot traffic through doors or how many times a window might be opened and closed. As an example, where the projected use for primary doorsets is going to be 'severe' for doors (in excess of 1 million cycles) or, 'heavy' for windows (in excess of 20,000 cycles) then it would be reasonable to expect that the specification in such circumstances be for a Class 8 door or, a Class 3 window. In all cases, the projected levels of use for doors and windows and their compliance to police preferred standards will require documented evidential proof.
- 21.8 To explain in more detail the SBD requirement for BS 6375 equipment and taking a primary doorset on an office development as an example, it can be reasonably assumed that each employee attending a commercial site will put the doorset through at least 2 cycles per day (upon their arrival and then their departure) with potentially 2 more cycles of use should they leave the building for a break during the working day. On this basis, an office block with 1000 employees could have a primary doorset being opened and closed in excess of 436,000¹ times per year whereas a business with only 100 employees could see these projective volumes reduce to 43,600 cycles per year.

2. The average UK employee works 218 days per year.

- 21.9 With regards to secondary doorsets, a level of site specificity will be employed with regards to their projected use and where significantly lower cycles of use are projected, a lower BS 6375 classification may be appropriate.
- 21.10 Specifiers are to supply proof to the DOCO that doorsets and windows meet the duty of rating that is commensurate with their intended location and use. Further information about the classification cycles is available at: www.bsigroup.com

22 External doorsets

- 22.1 External doorsets shall be certified to one of the following minimum standards, or above:

Current standards:

- PAS 24:2022+A1:2024*, or
- STS 201 (certified to PAS 24:2022+A1:2024*), or
- LPS 2081 Issue 1 Security Rating B+, or
- STS 222 Issue 4 Burglar Resistance BR2(S), or
- LPS 1175 Issue 8 Security Rating A3+, or
- STS 202 Issue 12 Burglar Resistance BR2, or
- LPS 1673 Issue 1 Attack Rating AR.A180+

Standards which remain acceptable until the dates published below:

- PAS 24:2016*, or
- PAS 24:2022*, or
- STS 201 (certified to PAS 24:2016*), or
- STS 201 (certified to PAS 24:2022*), or
- STS 222 Issue 1, 2 or 3** Burglar Resistance BR2(S), or
- LPS 1175 Issue 7*** Security Rating 2, or
- STS 202 Issue 9, 10 or 11** Burglar Resistance BR2

*PAS 24:2022+A1:2024 has now been published and supersedes PAS 24:2022. To allow for this transition to the new standard, PAS 24:2022 will continue to be an acceptable route to SBD compliance for applications made before 1st January 2027. PAS 24:2016 will also continue to be an acceptable route to compliance until 31st December 2025.

** STS 222 Issue 4 will replace STS 222 Issue 3 and STS 202 Issue 12 will replace STS 202 Issue 11 as the minimum standards required for SBD applications from (TBC in conjunction with WF at a future date). STS 222 Issues 1, 2 and 3 and STS 202 Issues 9, 10 and 11 will continue to be acceptable routes to SBD compliance for applications made before (date TBC).

***LPS 1175 Issue 8 will replace LPS 1175 Issue 7 as the minimum standard required for SBD applications from (TBC in conjunction with the LPCB at a future date). LPS 1175 Issue 7 will continue to be an acceptable route to SBD compliance for applications made before (date TBC).

- 22.2 It is possible that neither the DOCO nor the developer will know who the occupier of a commercial unit will be or the nature of their business. In these circumstances, the DOCO will advise on the preferred security standard, which may be an increase from the minimum, based on their knowledge of the area and local crime trends, supported by a crime risk analysis.
- 22.3 Due to the nature of some commercial building uses and locations there may be an expectation that the security exceeds these minimum standards when the building is unoccupied. A requirement for external doorsets to be certified to a higher standard of security will be supported by crime risk analysis provided by the DOCO or specific insurance requirements. Additional security may be gained by utilising protection such as a certified roller shutter or grille or a doorset certified to a higher security standard.

- 22.4 If the crime risk indicates that additional security measures are necessary for doorsets, these will be agreed with the DOCO.
- 22.5 Doorsets must be certified by one of the following United Kingdom Accreditation Service (UKAS) accredited certification bodies:

Bluesky Certification	https://www.blueskycert.com
BM TRADA	https://www.bmtrada.com
BRE Global	https://www.redbooklive.com
British Board of Agrément (BBA)	https://www.bbacerts.co.uk
British Standards Institution (BSI)	https://www.bsigroup.co.uk
ER Certification	https://www.er-certification.com
Warringtonfire	https://www.warringtonfire.com
IFC Certification Ltd	https://www.ifccertification.com
RISE Research Institutes of Sweden AB	https://www.ri.se
UL Solutions	https://www.ul.com
British Woodworking Federation (BWF)	https://www.bwf.org.uk

- 22.6 Further information about the certification bodies and test houses is available at:
[SBD Certification Bodies Webpage Link](#)
[SBD Test Bodies Webpage Link](#)
- 22.7 Certified products undergo continuous assessment to ensure that product standards are maintained.
- 22.8 Alternatively, third party accreditation to the above standards via a Notified Certification Body that has signed the EA MLA (European cooperation for accreditation multi-lateral agreement) may be acceptable if this body is also specifically accredited to conduct such activities. The DOCO may refer such cases to Police CPI for verification.
- 22.9 All doorset configurations (inward, outward, sliding, pivot) must form part of the manufacturer's certified product range.
- 22.10 Doorsets must also be fit for purpose and certified to the relevant material standard:
- BS EN 14351-1:2006+A2:2016
 - BS EN 14351-2:2018
 - BS EN 16034:2014
 - BS 8214:2016
 - BS 644:2012 (Timber)
 - BS 4873:2016 (Aluminium)
 - BS 6510:2010 (Steel)
 - BS 7412:2024 (PVCu)
 - BS 8529:2017 (Composite)
- 22.11 The DOCO must be provided with proof of certification through one of the above bodies, including the scope of certification, prior to the SBD certificate being awarded, unless the supplier is a member of the Secured by Design police preferred licensing scheme and the doorset can be identified on the SBD website.
- 22.12 Doorsets must be securely fixed and installed in accordance with the manufacturer's specifications or, in accordance with BS 8213-4:2016. The DOCO will require a copy of the manufacturer's installation specification.

23 Security, fire and/or smoke rated doorsets including those with adjacent glazing

- 23.1 It is important that doorsets are installed by a UKAS third party certified installer. There is a requirement for manufacturers to demonstrate that their fire doors, and associated products such as fixings, side and over panels, etc. are able to resist the passage and spread of fire and smoke for a specified time, depending on the certification requirements. Doorsets that are not properly installed may fail to achieve their required performance characteristics under fire resistance certification. Appropriate doorsets, correctly installed, will assist building management and the requirements of: <https://www.gov.uk/government/publications/fire-safety-england-regulations-2022>
- 23.2 Where there is a requirement for a doorset to be security, fire and/or smoke rated and/or meet a building regulation requirement, the manufacturer or fabricator supplying the finished product to site is required to present independent third party certification from a single UKAS accredited certification body satisfying all the performance elements. This is in order to minimise the likelihood of a doorset being presented in varying configurations for separate fire, smoke and security tests and then later being misrepresented as one product meeting all requirements. It is recognised that there are occasions where a doorset may only be required to be fire and security rated (not smoke). Again, in such circumstances the manufacturer or fabricator supplying the finished product to site is required to present independent third party certification from a single UKAS accredited certification body satisfying both performance elements. All door styles and components will need to be adequately described within the scope of certification and accompanying Technical Schedule.
- 23.3 Any component part of the doorset that is changed for any reason must be assessed by the certification body to ensure compliance that the certified performance requirements are maintained.
- 23.4 Where a doorset incorporates a number of performance characteristics i.e. enhanced security, fire performance and smoke control, and its construction includes the addition of, but is not limited to, a vision panel, top light, side panel and or fan light, then these features must be fitted in accordance with the manufacturer's instructions and be referenced within the approved scope of the 3rd party certification of the doorset.
- 23.5 Alternatively, where such glazed panels are fitted adjacent to a doorset (within 400mm) but are not part of doorset construction they shall be certified to one of the following minimum standards, or above, at a security rating to match the doorset:
- PAS 24
 - STS 204
 - LPS 2081
 - STS 222
 - LPS 1175
 - STS 202
 - LPS 1673
- 23.6 The responsibility for the specification and location of security, fire and/or smoke rated doorsets lies with the developer or the developer's agent (or whoever is designated as a responsible person as defined by The Regulatory Reform (Fire Safety) Order 2005).
- 23.7 The role of such a doorset should not be underestimated in the event of a fire. It is therefore imperative that fire and smoke resistance is professionally assessed/measured. The doorset shall be installed by a competent person who possesses the appropriate qualifications.
- 23.8 Fire doors shall be alarmed to prevent them being left open for ventilation or regularly used as part of a short cut route for staff.



24 Avoiding door recesses

- 24.1 Recessed doorways should, where possible, be avoided as they provide venues where crimes such as graffiti, arson and burglary are committed. If recessed doorways are unavoidable, other mitigating measures will be required such as higher security rated doorsets, fire retardant surfaces or anti-graffiti treatments. In addition to the aforementioned measures, lighting and video surveillance may also be added to make the recessed area safe.

25 Locking systems for doorsets and gates

- 25.1 Locking mechanisms incorporating cylinders (Euro or oval profile) must be certified to BS EN 1303:2015. The minimum requirements are:
- Key related security (Digit 7): Grade 5
 - Attack resistance (Digit 8): Grade A (3/5 minute resistance against drilling)
 - Durability (Digit 2): Grade 5 (50,000 cycles)
- 25.2 In addition to the above requirement, the cylinder certification scheme must include cylinder 'snapping' and 'anti-bump' assessments (DHF TS 007). The following cylinder certification schemes are available and the hardware combination must be tested to the certification scheme for the cylinder and must include an assessment against the 'General Vulnerability Assessment' contained within BS 3621:2017+A1:2024 Thief resistant lock assembly.
- 25.3 The following certification schemes for lock cylinders are currently recognised for use in SBD developments:
- British Standard Institute 'Kitemark'
 - BM Trada 'Q' Mark
 - Loss Prevention Certification Board LPS 1242: Issue 2
 - A lock certified to BS 3621:2017+A1:2024, BS 8621:2017+A1:2024 or BS 10621:2017+A1:2024
 - Certisecure STS217
 - Sold Secure – SS312 Gold, SS312 Diamond or SS504*

* SS504 is the specification for smart locks for domestic and similar buildings. It ensures that the physical, technical and connectivity security are thoroughly tested, approved for both IoT security and physical attack.

See [Section 36](#) for advice on secure connected devices.

- 25.4 The British Standard (BS) references have been developed from BS EN 12209:2016, which is the European standard for single-point locking devices and BS EN 1303:2015, which is the European standard for lock cylinders and which incorporates an additional General Vulnerability Assessment, which is unique to the UK. These British Standards reflect the elements of BS EN 12209:2016 and BS EN 1303:2015 and are considered to be the minimum level required for insurance cover with the UK.
- 25.5 The only difference between these British Standards is the level of security offered from the internal face of the door:
- BS 3621 offers the same level of security to the internal and external face of the lock
 - BS 8621 allows the use of a non-key operated release mechanism (e.g thumb turn)
 - BS 10621 offers the same functionality as BS 8621, but has an external override facility, which disables the internally operated release mechanism (e.g thumb turn). This type of lock must only be specified for use within buildings that have an alternative means of escape
- 25.6 In addition to the above requirements, doorsets designated as 'emergency' or 'panic' exits must be fitted with the hardware appropriate to the specific use:
- BS EN 179:2008 (Emergency exit devices)
 - BS EN 1125:2008 (Panic exit devices)
 - BS EN 13637:2015 (Electronically controlled exit systems)
- 25.7 Doorsets must be supplied with a suitable (easily removed) label outlining the operational instructions for the locking system. The label shall be applied to the internal face of the door at the time of installation and remain in place until handover to the end user. A separate instruction leaflet for the locking system shall also be supplied to the occupier.
- 25.8 If a crime risk assessment justifies it, these emergency exit doors can be fitted with a localised alarm.
- 25.9 Further advice on locking systems for doorsets and gates from a suitably qualified locksmith is available at: <https://www.locksmiths.co.uk>

26 Glazed vision panels, top lights, side panels and fan lights

- 26.1 Where a doorset incorporates a number of performance characteristics i.e. enhanced security, fire performance and smoke control, and its construction includes the addition of, but is not limited to, a vision panel, top light, side panel and or fan light, then these features must be fitted in accordance with the manufacturer's instructions and be referenced within the approved scope of the 3rd party certification of the doorset.
- 26.2 Alternatively, where glazed panels are fitted adjacent to a doorset (within 400mm) but are not part of doorset construction they shall be certified to one of the following minimum standards, or above, at a security rating to match the doorset:
- PAS 24
 - STS 204
 - LPS 2081
 - STS 222
 - LPS 1175
 - STS 202
 - LPS 1673
- 26.3 In some circumstances, such as in a remote building with no surveillance over an external, unglazed door, it is recommended that a door viewer is installed between 1200mm and 1500mm from floor level.

27 Security glazing

- 27.1 All ground floor and easily accessible (*Note 27.1*) glazing must incorporate one pane of laminated glass or glass tested to BS EN 356:2000 (Glass in building. Security glazing. Testing and classification of resistance against manual attack) to category P1A, or above, unless it is protected by a roller shutter or grille that meets the security standards within [Section 39](#).

Note 27.1a: Easily accessible is defined as:

A window or doorset, any part of which is within 2 metres vertically of an accessible level surface such as a ground or basement level, or

An access balcony, or a window within 2 metres vertically of a flat roof or sloping roof (with a pitch of less than 30°) that is within 3.5 metres of ground level.

- 27.2 Occasionally, when large laminated glazed panels are used on south facing elevations, there have been incidents of glazing failure (cracking) due to thermal stress. Whilst the use of toughened glass would seem to be a simple solution to the problem of thermal stress, ordinary toughened glass offers no security resistance. It is therefore recommended that the inner pane of glass used in a double glazed unit is 'laminated toughened'. This combination of the two sheets of toughened glass and the interlayer offers both resistance to intrusion and thermal stress associated with large glazed areas. Specifiers are reminded that the minimum requirement for SBD is BS EN 356:2000 P1A.

28 Windows

- 28.1 All easily accessible (*Note 28.1*) windows shall be certified to one of the following minimum standards, or above):

Current standards:

- PAS 24:2022+A1:2024*, or
- STS 204 (certified to PAS 24:2022+A1:2024, or
- LPS 2081 Issue 1 Security Rating A, or
- STS 222 Issue 4 Burglar Resistance BR1(S), or
- LPS 1175 Issue 8 Security Rating A1, or
- STS 202 Issue 12 Burglar Resistance BR1, or
- LPS 1673 Issue 1 Attack Rating AR.A60

Standards which remain acceptable until the dates published below:

- PAS 24:2016*, or
- PAS 24:2022*, or
- STS 204 (certified to PAS 24:2016*), or
- STS 204 (certified to PAS 24:2022*), or
- STS 222 Issue 1, 2 or 3** Burglar Resistance BR1(S), or
- LPS 1175 Issue 7*** Security Rating 1, or
- STS 202 Issue 9, 10 or 11** Burglar Resistance BR1

*PAS 24:2022+A1:2024 has now been published and supersedes PAS 24:2022. To allow for this transition to the new standard, PAS 24:2022 will continue to be an acceptable route to SBD compliance for applications made before 1st January 2027. PAS 24:2016 will also continue to be an acceptable route to compliance until 31st December 2025.

**STS 222 Issue 4 will replace STS 222 Issue 3 and STS 202 Issue 12 will replace STS 202 Issue 11 as the minimum standards required for SBD applications from (TBC in conjunction with WF at a future date). STS 222 Issues 1, 2 and 3 and STS 202 Issues 9, 10 and 11 will continue to be acceptable routes to SBD compliance for applications made before (date TBC).

***LPS 1175 Issue 8 will replace LPS 1175 Issue 7 as the minimum standard required for SBD applications from (TBC in conjunction with the LPCB at a future date). LPS 1175 Issue 7 will continue to be an acceptable route to SBD compliance for applications made before (date TBC).

Note 28.1: Easily accessible is defined as:

A window or doorset, any part of which is within 2 metres vertically of an accessible level surface such as a ground or basement level, or

An access balcony, or a window within 2 metres vertically of a flat roof or sloping roof (with a pitch of less than 30°) that is within 3.5 metres of ground level.

- 28.2 See **Section 43** for information on roof windows, roof lights and roof lanterns.
- 28.3 It is possible that neither the DOCO nor the developer will know who the occupier of a commercial unit will be or the nature of their business. In such circumstances, the DOCO will require the minimum level of SBD police preferred window security, as above.
- 28.4 Due to the nature of some commercial building uses and locations there may be an expectation that the security exceeds these minimum standards when the building is unoccupied. A requirement for windows to be certified to a higher standard of security will be supported by crime risk analysis provided by the DOCO or specific insurance requirements. Additional security may be gained by utilising protection such as a certified roller shutter or grille or a window certified to a higher security standard.
- 28.5 Windows must be certified by one of the following UKAS accredited certification bodies:

Bluesky Certification	https://www.blueskycert.com
BM TRADA	https://www.bmtrada.com
BRE Global	https://www.redbooklive.com
British Board of Agrément (BBA)	https://www.bbacerts.co.uk
British Standards Institution (BSI)	https://www.bsigroup.co.uk
ER Certification	https://www.er-certification.com
Warringtonfire	https://www.warringtonfire.com
IFC Certification Ltd	https://www.ifccertification.com
RISE Research Institutes of Sweden AB	https://www.ri.se
UL Solutions	https://www.ul.com
British Woodworking Federation (BWF)	https://www.bwf.org.uk

- 28.6 Further information about the certification bodies and test houses is available at:
[SBD Certification Bodies Webpage Link](#)
[SBD Test Bodies Webpage Link](#)
- 28.7 Certified products undergo continuous assessment to ensure that product standards are maintained.
- 28.8 Alternatively, third party accreditation to the above standards via a Notified Certification Body that has signed the EA MLA (European cooperation for accreditation multi-lateral agreement) may be acceptable if this body is also accredited to conduct such activities. The DOCO may refer such cases to Police CPI for verification.
- 28.9 All glazing in windows that are easily accessible (*Note 28.1*) must include one pane of laminated glass certified to BS EN 356:2000 Class P1A, or above, securely fixed in accordance with the manufacturer's instructions.
- 28.10 Windows must also be fit for purpose and certified to the relevant material standard:
- BS EN 14351-1:2006+A2:2016
 - BS EN 16034:2014
 - BS 644:2012 (Timber)
 - BS 4873:2016 (Aluminium)



- BS 6510:2010 (Steel)
- BS 7412:2024 (PVCu)
- BS 8529:2017 (Composite)

- 28.11 The DOCO must be provided with proof of certification through one of the above bodies, including the scope of certification, prior to the SBD certificate being awarded, unless the supplier is a member of the Secured by Design police preferred licensing scheme and the window can be identified on the SBD website.
- 28.12 Windows must be securely fixed and installed in accordance with the manufacturer's specifications or, in accordance with BS 8213-4:2016. The DOCO may require a copy of the manufacturer's installation specification.
- 28.13 Windows must meet the requirements of the Building Regulations with regard to safety glazing and emergency egress. The following additional specific SBD requirements must be complied with:
- Security glazing in windows below 800mm (from floor level) or 1500mm, if within 300mm of a doorframe
 - Non-key locking hardware on designated emergency egress windows together with security glazing
- 28.14 Further advice on window hardware and locking systems from a suitably qualified locksmith is available at: <https://www.locksmiths.co.uk>

Automatic opening window systems and vents

- 28.15 Many sustainable industrial and warehouse buildings being proposed require an automatic building management control system in order to ventilate the building and regulate the temperature, including at night to pre-cool the building during hot weather. This can cause security problems and the following issues may need to be addressed:
- Automatic opening window systems, vents and pressure relief panels that operate when the building is unoccupied shall be positioned and specified in such a way so that they do not pose a security risk
 - Care should be taken to ensure that any bars or grilles that are used to secure a building aperture associated with one of the mechanisms do not interfere with their operation
 - The fitting of bars or grilles to protect the building apertures associated with one of the mechanisms may affect the airflow requirements and advice shall be sought from the relevant air management experts

- It is recommended that an automatic opening window or vent system incorporates a fail-safe mechanism to notify building management that a window or vent has failed to close
- 28.16 Automatic opening window systems and vents shall meet the requirements within **paragraph 28.1**.
- 28.17 DOCOs shall be consulted at the earliest opportunity to ensure that the proposed automatic building control management system does not compromise security.

29 Hostile Vehicle Mitigation

- 29.1 Where there is a risk of motor vehicles being used to attack premises or an ATM etc, the following standards for vehicle security bollards are:
- ISO 22343-1, or
 - IWA 14-1, or
 - PAS 68, or
 - PAS 170
- 29.2 ISO 22343-2 provides guidance on the appropriate selection, installation and use of such bollards and shall be referenced in the first instance.
- 29.3 Other measures may be considered to address the use of vehicles to commit crimes in commercial settings, for example utilising placement of existing street furniture, planting boxes or raised kerbs.
- 29.4 Further information on impact rated vehicle security barriers (VSB) and current standards can be found on the National Protective Security Authority website at: <https://www.npsa.gov.uk/hvm-impact-rated>

30 Underground car parking

- 30.1 Every effort must be made to prevent unauthorised access into the underground car park. Therefore, an electronic access control system is required for all pedestrian and vehicular entrances which can be operated by access codes or key cards; the security levels shall be checked after installation and should be strictly managed so that codes and cards can be added and deleted as necessary. The means by which access is gained to a car park – entering a code on a keypad or using a key cards– shall also be used when egressing a car park.
- 30.2 Inward opening automatic gates, roller shutters or grilles shall be located as close to the building line as possible to avoid the creation of a recess. Such products shall be certified to one of the following minimum standards, or above:

Current standards:

- LPS 2081 Issue 1 Security Rating B+, or
- STS 222 Issue 4 Burglar Resistance BR2(S), or
- LPS 1175 Issue 8 Security Rating B3+, or
- STS 202 Issue 12 Burglar Resistance BR2, or
- LPS 1673 Issue 1 Attack Rating AR.A180+

Standards which remain acceptable until the dates published below:

- STS 222 Issue 1, 2 or 3* Burglar Resistance BR1(S), or
- STS 202 Issue 9, 10 or 11* Burglar Resistance BR1, or
- LPS 1175 Issue 7** Security Rating 1

*STS 222 Issue 4 will replace STS 222 Issue 3 and STS 202 Issue 12 will replace STS 202 Issue 11 as the minimum standards required for SBD applications from (TBC in conjunction with WF at a future date). STS 222 Issues 1, 2 and 3 and STS 202 Issues 9, 10 and 11 will continue to be acceptable routes to SBD compliance for applications made before (date TBC).



**LPS 1175 Issue 8 will replace LPS 1175 Issue 7 as the minimum standard required for SBD applications from (TBC in conjunction with the LPCB at a future date). LPS 1175 Issue 7 will continue to be an acceptable route to SBD compliance for applications made before (date TBC).

See [Section 29](#) for advice on Hostile Vehicle Mitigation.

- 30.3 Gates, shutters and grilles must be installed with safety detection systems to avoid personal injury or damage. These systems must afford access for disabled drivers and will satisfy the requirements of the Highways Agency regarding obstructing footways and highways whilst the driver is unlocking a gate.
- 30.4 Automated gates supplied and installed must meet the relevant statutory safety standards and be either UKCA (*Note 30.4a*)* or CE marked (*Note 30.4b*)* accordingly. Specifiers must satisfy themselves that installers of powered gates are appropriately qualified, trained and follow recognised industry guidance. The following organisations provide guidance and training for installers:
- **Door Hardware Federation** – the DHF has a revised Code of Practice (DHF TS 011) designed to raise standards of powered gate safety. Gates installed to this Code of Practice will be inspected by the National Security Inspectorate
 - **Gate Safe** – Gate Safe are a registered charity, founded specifically to improve the standard of safety for the installation and maintenance of automated gates and barriers. They produce operational good practice guidance designed to raise standards in this industry sector
 - A gate should not be capable of falling through single point failure, such as one hinge breaking. Gate Safe recommend that gates have three hinges, although a suitably sized tether for the size of the gate could be used to prevent the gate from falling if the hinge fails. In the event that a gate has an inverted hinge to prevent it being lifted off the post, two tethers must be fitted to the top and bottom of the gate, as an inverted hinge is no longer load bearing. Further information is available at: www.gatesafe.org or BS EN 12604.

Note 30.4a: The UKCA marking is the product marking used for products being placed on the market in Great Britain (England, Scotland and Wales) and the UKCA marking applies to most products for which the CE marking could be used.

Note 30.4b: The letters CE appear on many products that are traded on the single market in the European Economic Area. The CE marking shows that manufacturers have checked that products meet EU safety, health or environmental requirements.

- 30.5 The lighting scheme must be certified to BS 5489-1:2020.
- To demonstrate compliance, the DOCO shall be provided with written confirmation from a competent lighting design professional (see Note 30.5) that the street lighting scheme conforms to BS 5489-1:2020. Additionally, a Construction (Design and Management) Regulations (CDM) risk assessment must be completed.
- Note 30.5: To be deemed 'competent' to be able to design under CDM regulations, the lighting design professional must provide written evidence that they are either IEng or CEng qualified, and that they are either a 'Member' or 'Fellow' of the Institution of Lighting Professionals (MILP or FILP) and have achieved at least ILP competency level 3. A manufacturer designed scheme cannot achieve CDM compliance.*
- 30.6 The lighting system can either be time activated by the driver or pedestrian as they enter or be activated by passive infra-red switches, or similar. Lamps with slow strike-up rates are not acceptable in circumstances where immediate illumination is required.
- 30.7 Using pale colours on walls and ceilings increases luminance and may therefore produce higher levels of illumination with fewer lamps.
- 30.8 If a crime risk analysis identifies that a higher level of security is required, such as a video surveillance system (see [Section 35](#)), this will be agreed between the applicant and the DOCO at the earliest opportunity.
- 30.9 It is important to consult with the Fire and Rescue Service at the design stage to ensure that their access requirements are incorporated into the overall specification.
- 30.10 The design criteria for car parks should follow the principles laid down in the police owned 'Park Mark' initiative. Full registration to 'Park Mark' is not a requirement of this guide.
- The DOCO will be able to offer additional advice. Further information can be found at: <https://www.parkmark.co.uk>
- 30.11 The purpose of 'Park Mark' is to:
- Reduce crime and the fear of crime in parking facilities
 - Provide guidance to owners/operators and developers of parking facilities, both new and existing, on how to establish and maintain a safe and secure environment through the introduction of proven management processes, physical measures and site security systems, having considered the crime risk in the immediate vicinity
 - Raise awareness with staff and visitors when parking their car, bicycle, motorcycle, etc. that the owner/ operator has considered, and where appropriate, has taken action to reduce crime and the fear of crime within the parking facility they have chosen to use
 - Provide a design framework for architects and developers of new parking facilities

31 Emergency egress doorsets from underground car parks

- 31.1 Doorsets providing access to and emergency egress from underground car parking areas must meet the relevant building regulations in relation to fire safety and the security requirements set out in this guide. In practice this provides a dilemma as both these requirements can be diametrically opposed to one another and problematic if not dealt with appropriately at the design stage. As a result of detailed discussions with the Fire and Rescue Service, Police CPI have agreed the following requirements as a possible alternative design solution for such a scenario.
- 31.2 Doorsets allowing emergency egress directly from the car park to the street, or any area that allows for the rapid dispersal of persons from the vicinity of the building, other than into common internal areas, are not required by the Building Regulations (England and Wales) to be secure doorsets. However, SBD requires all such doorsets to meet the requirements within [Section 22](#).



- 31.3 Emergency egress from underground parking areas can be managed in one of two ways:
1. Emergency egress from the car park into a protected secure area, such as common or shared stairwells, or other communal areas of a building, should be avoided as it can compromise the security of a building. However, where this is unavoidable due to the location or design of the building, it shall be facilitated via the use of a:
 - Mechanical exit lever handle or push pad complying to BS EN 179: 2008, or
 - Mechanical exit horizontal bar complying to BS EN 1125:2008, or
 - Electrically controlled exit system complying with BS EN 13637:2015 (Incorporating corrigendum September 2022)
 2. Emergency egress doorsets/gates designed to provide an exit from an underground parking area into a public space (roadway or ground level parking area) must also be provided with mechanical or electrically controlled exit systems (see the specification required in 31.3).
- 31.4 All such doorsets/gates must also be equipped with an audible warning which shall form part of a security alarm system. Clear signage should also be installed to both encourage the use of the assigned access route and to deter such doorsets being used as a short cut or other means of accessing the building.
- 31.5 If this is not possible due to the design constraints of the building then emergency egress shall be afforded at the earliest possible opportunity and provision shall be made to restrict access to the common or shared stairwell beyond the ground floor, or first available floor level. Access must also be restricted to any other communal area of the building. All doorsets affording restricted access into the communal areas of the building, and all emergency egress doorsets exiting on to the street, shall meet the requirements within [Section 22](#).
- 31.6 It is vital that these recommendations are discussed in full and agreed with the Fire and Rescue Service at the design stage, including the question of whether or not a fail-safe open facility is required.
- 31.7 Automated access control systems on all doors allowing access to communal areas of the building shall meet the requirements within [Section 48](#).

32 Internal bicycle stores

- 32.1 Internal bicycle parking facilities will be accessed via a security, fire and/or smoke rated doorset compliant with [Section 23](#); (specifically addressing concerns over storage of e-bikes).

- 32.2 The bicycle parking facility shall be well-lit and constructed of dividing walls that extend from floor to ceiling with no windows set in them.
- 32.3 Bicycle parking access doors shall be fitted with internal crash bars, or other emergency furniture, on the inside face to facilitate emergency egress and to avoid locking people inside the store.
- 32.4 In England and Wales, doorsets providing access from the bicycle parking facility into communal parts of the building (including emergency egress doorsets) are required to meet Part B and Part M of Building Regulations.
- 32.5 Bicycle parking facilities shall be incorporated into any existing access control and monitoring systems.
- 32.6 Bicycle parking will comprise of bicycle stands, anchor points, single and two-tier rack systems and dedicated lockers, etc. The bicycle stands and rack systems, single or two tier, shall be certified to one of the following minimum standards, or above:

Current standards:

- STS 225 Issue 2 Burglar Resistance BR1(S), or
- STS 205 Issue 8 Burglar Resistance BR1, or
- STS 225 Issue 2 Burglar Resistance BR1(S), or
- LPS 1175 Issue 8 Security Rating A1, or
- Sold Secure SS104 Bronze, or
- STS 501 Security Rating TR1, or
- STS 503 Security Rating TR1

Standards which remain acceptable until the dates published below:

- STS 225 Issue 1* Burglar Resistance BR1(S), or
- STS 205 Issue 6 or 7* Burglar Resistance BR1, or
- LPS 1175 Issue 7** Security Rating 1

*STS 225 Issue 2 will replace STS 225 Issue 1 and STS 205 Issue 8 will replace STS 205 Issues 6 and 7 as the minimum standards required for SBD applications from (TBC in conjunction with WF at a future date). STS 225 Issue 1 and STS 205 Issues 6 and 7 will continue to be acceptable routes to SBD compliance for applications made before (date TBC).

**LPS 1175 Issue 8 will replace LPS 1175 Issue 7 as the minimum standard required for SBD applications from (TBC in conjunction with the LPCB at a future date). LPS 1175 Issue 7 will continue to be an acceptable route to SBD compliance for applications made before (date TBC).

N.B. Careful consideration must be given to cater for sections of the community who may find vertical bicycle racks difficult to use.

- 32.7 Bicycle parking facilities shall be limited to the storing of no more than seventy bikes; if larger numbers need to be stored at the same location, the facilities shall be separated into discreet units and be subject to extra mitigating security measures as agreed with the DOCO.
- 32.8 When recommending appropriate security measures in this regard, DOCOs will make use of the information contained within the Standards for Public Cycle Parking, which is available at: <https://www.securedbydesign.com/images/05132-Cycle-Parking-and-Security-Standards-June-2021-REV-6.pdf>
- 32.9 DOCOs may require extra security measures to be put in place at bicycle parking facilities should an analysis of local crime rates indicate that they are necessary to ensure that security remains commensurate with the risk.
- 32.10 The Responsible Person(s), Fire and Rescue Service and Building Control of any bicycle storage facilities and/or other areas that may require the charging and storage of Lithium-ion powered vehicles or devices, within the building or the wider site footprint, to ensure that the necessary fire suppression measures for the charging and storage of lithium-ion powered vehicles have been considered and specified.

- 32.11 The National Fire Chiefs' Council have produced fire safety guidance for e-bikes and e-scooters, which is available at: <https://nfcc.org.uk/our-services/campaigns/e-bikes-and-e-scooters-fire-safety-guidance/>
- 32.12 The Bicycle Association and Cycle Rail Working Group, including Secured by Design, have published a UK quality and security standard for public cycle parking which is available at: <https://www.securedbydesign.com/images/05132-Cycle-Parking-and-Security-Standards-June-2021-REV-6.pdf>

33 Telecommunications and utility access covers

- 33.1 Telecommunication cables shall enter buildings below ground and be protected by secure access covers certified to a minimum of LPS 1175 Issue 8 Security Rating A3 or STS 202 Issue 12 Burglar Resistance BR2 and be positioned in highly visible locations. Increased security measures may be required if a crime risk analysis identifies that such measures are necessary and commensurate with the risk. This will help to delay or prevent the occurrence of burglaries where the perpetrators cut the VSS or alarm signal prior to committing an offence.

34 Internal lighting

- 34.1 It is recommended that most internal office lighting is operated by detection devices which will automatically switch lights on and off due to movement or the absence of movement in each room. Apart from being a considerably more efficient method for reducing energy consumption (does not require a deliberate and remembered action by the user) such a system will identify the presence and progress of intruders in the building when it is closed. It therefore follows that the controlling mechanisms for the system shall be contained securely.
- 34.2 In critical movement areas, such as corridors and staircases, the use of two stage lighting (a constant low-level lighting level supplemented by activity switched lighting mode) may be utilised.
- 34.3 Emergency lighting will be required when there is a mains supply failure to ensure continued on-site safety and security.
- BS EN 1838 specifies the escape and standby lighting requirements for businesses in the event of a power failure.

35 Video Surveillance Systems

- 35.1 Although video surveillance systems (VSS) are not a solution to all security problems it can help deter criminals and assist with the identification of offenders after a crime has been committed. If a VSS has a recording facility only, it can be a useful investigative tool whereas a monitored system allows a real-time reaction to criminal activity. Video surveillance systems are also often very useful in mitigating against risk where other forms of security are not feasible.
- 35.2 It is important that an operational requirement for VSS is drawn up for commercial premises in accordance with their specific use and that the objectives for the VSS are clearly established before a tendering process is started.
- 35.3 The VSS must record at a minimum of 25 frames per second to allow security staff to actively watch, monitor and review events easily. Staff shall be sufficiently trained to operate the system and be able to make recordings available to police on request and an operational requirement must take account of this fact.
- 35.4 Ideally, VSS should be monitored live 24/7, giving the ability to react to a situation as it occurs. However, most VSS are designed for recording images and for the post event investigation only, in which case nobody is required to monitor the activities live. Images should be stored for as long as is necessary, but the system should have the capacity to store images for at least 30 days.

- 35.5 Whilst the location of cameras is a site-specific matter it would be normal practice for the system to observe all vehicular and pedestrian entrances, as a minimum. Early discussions with an independent expert and potential installers can resolve a number of matters including:
- monitoring and recording requirements
 - activation in association with the intruder alarm
 - requirements for observation and facial recognition/identification
 - areas to be monitored and field of view
 - activities to be monitored
 - the use of recorded images
 - maintenance of equipment and the management of recording
 - subsequent ongoing training of operatives
- 35.6 Video surveillance systems must be installed to BS EN 62676 (*Video surveillance systems for use in security applications*).
- 35.7 The VSS shall be compatible with the existing or planned lighting system and landscaping proposals.
- 35.8 In high crime areas, or when advised by the DOCO, VSS installations shall be protected with vandal-resistant housings.
- 35.9 Video surveillance systems shall be registered with the Information Commissioner's Office (ICO) and be compliant with guidelines in respect to Data Protection and Human Rights legislation. Further information is available at this website: <https://www.ico.org.uk>
- 35.10 Specifiers are reminded that there will be a requirement for a data controller to ensure compliance with the GDPR. The data controller must ensure that all VSS images that can be used to identify individuals are used, stored and disclosed in line with the GDPR principles.
- 35.11 For guidance on the use of video surveillance images as legal evidence, see BS 7958:2015 *Closed circuit television (CCTV). Management and operation. Code of practice*. This document provides guidance and recommendations for the operation and management of video surveillance systems within a controlled environment where data that may be offered as evidence is received, stored, reviewed or analysed. It assists owners of video surveillance systems to follow best practice when gathering information of evidential quality. Remotely monitored detector activated VSS must be installed in accordance with BS 8418:2021 *Design, Installation, Commissioning and Maintenance of Detection-Activated Video Surveillance Systems (VSS). Code of practice*.
- 35.12 The Biometrics and Surveillance Camera Commissioner has updated the Surveillance Camera Code of Practice which is available at: www.gov.uk/government/publications/update-to-surveillance-camera-code
- 35.13 In addition, the passport to compliance, which is aimed at large public-space surveillance camera systems such as town centre schemes operated by local authorities is available at: www.gov.uk/government/collections/surveillance-camera-guidance-tools-and-templates.
- 35.14 The recommended standards for the surveillance camera industry can be found at: www.gov.uk/guidance/recommended-standards-for-the-cctv-industry

36 Cyber crime and the Internet of Things

- 36.1 Internet of Things (IoT) and smart devices that enable data to be exchanged, combined and analysed must have achieved SBD's Secure Connected Device accreditation and demonstrate that they have achieved the appropriate and relevant level of IoT standards and certification conducted by an SBD recognised certification body. In December 2022, the UK Government introduced legislation, the Product Security and Telecommunications Infrastructure Act 2022 (PSTI Act) which sets a benchmark for security for manufacturers to follow when developing IoT products for the UK market. This is now being influenced by ETSI EN 303 645 and other IoT related standards. The PSTI Act requires manufacturers, importers and distributors of internet

and network connected devices to meet a minimum security requirement. Compliance with the legislation is now mandatory.

- 36.2 The 'Secure Connected Device' accreditation scheme is for companies providing IoT connected products and services, which was developed in consultation with the Department for Science, Innovation & Technology (DSIT). Working closely with certifying bodies who assess IoT products against all 13 provisions of the ETSI standard, the SBD's IoT Device assessment framework identifies the level of risk associated with an IoT device and its ecosystem, providing recommendations on the appropriate certification routes. Once third-party testing and independent certification for a product has been achieved, the company can apply to become SBD members, with the product receiving the SBD 'Secure Connected Device' accreditation, a unique and recognisable accreditation that will highlight products as having achieved the relevant IoT standards and certifications.

37 Building shell

Lightweight wall construction

- 37.1 Where lightweight wall construction is being considered and a crime risk analysis identifies that such a construction may be vulnerable to an attack, the use of insulated sheet cladding and a reinforced lining such as welded steel mesh can enhance the security of the building fabric.
- 37.2 Lightweight wall systems shall be installed by approved contractors, in compliance with the manufacturer's instructions and shall be certified to one of the following minimum standards, or above:

Current standards:

- LPS 2081 Issue 1 Security Rating A, or
- STS 222 Issue 4 Burglar Resistance BR1(S), or
- LPS 1175 Issue 8 Security Rating A1, or
- STS 202 Issue 12 Burglar Resistance BR1, or
- LPS 1673 Issue 1 Attack Rating AR.A60

Standards which remain acceptable until the dates published below:

- STS 222 Issue 1, 2 or 3*, or
- LPS 1175 Issue 7** Security Rating 1, or
- STS 202 Issue 9, 10 or 11* Burglar Resistance BR1

*STS 222 Issue 4 will replace STS 222 Issues 3 and STS 202 Issue 12 will replace STS 202 Issues 11 as the minimum standards required for SBD applications from (TBC in conjunction with WF at a future date). STS 222 Issues 1, 2 and 3 and STS 202 Issues 9, 10 and 11 will continue to be acceptable routes to SBD compliance for applications made before (date TBC).

**LPS 1175 Issue 8 will replace LPS 1175 Issue 7 as the minimum standard required for SBD applications from (TBC in conjunction with the LPCB at a future date). LPS 1175 Issue 7 will continue to be an acceptable route to SBD compliance for applications made before (date TBC).

38 Glazed curtain walling and window walls

- 38.1 Specifiers should be aware that due to their size and configuration, it is common for glazed curtain walling and window walls to fall outside the scope of traditional testing or certification procedures. Consequently, in some circumstances, an alternative method may be required to demonstrate that their security is commensurate with the risk.
- 38.2 SBD recognises four distinct types of glazed wall systems. These are:
- i Large glazed units connected by a 'spider clamp' system
 - ii Glazed units directly retained within a framing system (usually aluminium)

- iii Framed windows installed within a separate framing system
- iv Framed windows connected to other framed windows to create a 'window wall'

38.3 Glazed curtain walling (i and ii above) must be installed using a secure glazing retention system. This may be achieved by utilising the specific glazing retention test within PAS 24 or by an indicative test on the retention system certified to one of the following minimum standards, or above:

Current standards:

- LPS 2081 Issue 1 Security Rating A, or
- LPS 1175 Issue 8 Security Rating A1, or
- STS 202 Issue 12 Burglar Resistance BR1, or
- LPS 1673 Issue 1 Attack Rating AR.A60

Standards which remain acceptable until the dates published below:

- LPS 1175 Issue 7* Security Rating 1, or
- STS 202 Issue 9, 10 or 11** Burglar Resistance BR1

*LPS 1175 Issue 8 will replace LPS 1175 Issue 7 as the minimum standard required for SBD applications from (TBC in conjunction with the LPCB at a future date). LPS 1175 Issue 7 will continue to be an acceptable route to SBD compliance for applications made before (date TBC).

**STS 202 Issue 12 will replace STS 202 issue 11 as the minimum standard required for SBD applications from (TBC in conjunction with WF at a future date). STS 202 Issue 11 will continue to be an acceptable route to SBD compliance for applications made before (date TBC).

38.4 Easily accessible (*Note 38.4a*) glazing shall incorporate one pane of laminated glass certified to BS EN 356:2000 Class P1A, or above (*Note 38.4b*).

Note 38.4a: Easily accessible is defined as:

A window or doorset, any part of which is within 2 metres vertically of an accessible level surface such as a ground or basement level, or

An access balcony, or a window within 2 metres vertically of a flat roof or sloping roof (with a pitch of less than 30°) that is within 3.5 metres of ground level.

Note 38.4b: There is no specific requirement to install laminated glazing on the inner or outer face of a double glazed unit. However, specifiers may wish to take into consideration the fact that toughened glass is usually more resistant to accidental damage by blunt objects such as a football and therefore may be best placed on the external face of the double glazed unit. It is recognised however that there are many other factors that may also need to be considered



such as thermal efficiency, aesthetics and the requirement for privacy or obscured glazing, which will influence the specifier's decision.

- 38.5 For information only, the following British Standard 'Codes of Practice' are relevant:
- BS 5516-1:2004 *Patent glazing and sloping glazing for buildings. Code of practice for design and installation of sloping and vertical patent glazing*
 - BS 5516-2:2004 *Patent glazing and sloping glazing for buildings. Code of practice for sloping glazing*
- 38.6 The National Protective Security Authority (NPSA) have produced guidance on glazed facades, in alignment with The Security Overlay to the RIBA Plan of Work, which is for everyone involved in the safe and secure design, construction, and operation of any building. This information is available at: <https://www.npsa.gov.uk/glazed-facades>

39 Roller shutters and grilles

- 39.1 Roller shutters and grilles can provide additional protection to both internal and external doors and windows. They shall be certified to one of the following minimum standards, or above:

Current standards:

- LPS 2081 Issue 1 Security Rating A+, or
- STS 222 Issue 4 Burglar Resistance BR1(S), or
- LPS 1175 Issue 8 Security Rating A1+, or
- STS 202 Issue 12 Burglar Resistance BR1, or
- LPS 1673 Issue 1 Attack Rating AR.A60+

Standards which remain acceptable until the dates published below:

- STS 222 Issue 1, 2 or 3* Burglar Resistance BR1(S), or
- STS 202 Issue 9, 10 or 11* Burglar Resistance BR1, or
- LPS 1175 Issue 7** Security Rating 1

*STS 222 Issue 4 will replace STS 222 Issue 3 and STS 202 Issue 12 will replace STS 202 Issue 11 as the minimum standards required for SBD applications from (TBC in conjunction with WF at a future date). STS 222 Issues 1, 2 and 3 and STS 202 Issues 9, 10 and 11 will continue to be acceptable routes to SBD compliance for applications made before (date TBC).

**LPS 1175 Issue 8 will replace LPS 1175 Issue 7 as the minimum standard required for SBD applications from (TBC in conjunction with the LPCB at a future date). LPS 1175 Issue 7 will continue to be an acceptable route to SBD compliance for applications made before (date TBC).

- 39.2 In new build developments roller shutters shall be integrated into the fabric of the building. The above minimum security ratings are generally sufficient where:

- a roller shutter or grille is required to prevent minor criminal damage and glass breakage
- the roller shutter or grille is alarmed and the building is located within a secure development with access control and security patrols
- the roller shutter or grille is intended to prevent access into a recess
- the door or window to be protected is of a high security standard in it's own right

- 39.3 Security ratings higher than the minimum may be required and will be dictated by one or more of the following security considerations:

- Type of crime risk
- Level of crime risk
- Location of the building
- Security level of the door or window being protected

In the event of an emergency, it must be possible to secure electrically operated roller shutters and grilles quickly from a safe location within the premises. For example, the ability to operate a closing mechanism for shop front roller shutters from a safe area at the rear of the premises.

- 39.4 Such requirements will be justified and communicated to the applicant by the DOCO in writing.

40 Doors providing vehicular access

- 40.1 Doors providing vehicular access for deliveries and other entrances where no other door is present shall be certified to one of the following minimum standards, or above:

Current standards:

- LPS 2081 Issue 1 Security Rating B+, or
- STS 222 Issue 4 Burglar Resistance BR2(S), or
- LPS 1175 Issue 8 Security Rating B3+, or
- STS 202 Issue 12 Burglar Resistance BR2, or
- LPS 1673 Issue 1 Attack Rating AR.A180+

Standards which remain acceptable until the dates published below:

- STS 222 Issue 1, 2 or 3* Burglar Resistance BR1(S), or
- STS 202 Issue 9, 10 or 11* Burglar Resistance BR1, or
- LPS 1175 Issue 7** Security Rating 1

*STS 222 Issue 4 will replace STS 222 Issue 3 and STS 202 Issue 12 will replace STS 202 Issue 11 as the minimum standards required for SBD applications from (TBC in conjunction with WF at a future date). STS 222 Issues 1, 2 and 3 and STS 202 Issues 9, 10 and 11 will continue to be acceptable routes to SBD compliance for applications made before (date TBC).

**LPS 1175 Issue 8 will replace LPS 1175 Issue 7 as the minimum standard required for SBD applications from (TBC in conjunction with the LPCB at a future date). LPS 1175 Issue 7 will continue to be an acceptable route to SBD compliance for applications made before (date TBC).

- 40.2 Should a higher level of security in this regard be required by the DOCO because of crime risks, this will be agreed between the applicant and the DOCO at the earliest opportunity.
- 40.3 In new build developments roller shutter doors should be integrated into the fabric of the building.
- 40.4 If the minimum free air movement as calculated by designers in respect of smoke, etc. is not compatible with minimum security requirements in respect of gates or railings, etc. the applicants must seek to achieve the required free air movement by alternative means, such as forced ventilation and other open apertures.

41 Roof construction

- 41.1 Roofs are potentially vulnerable to criminal intrusion and damage through vandalism, if criminals gain access to them and therefore careful consideration must be given to their construction.

- 41.2 Roofing systems shall be certified to one of the following minimum standards, or above:

Current standards:

- LPS 2081 Issue 1 Security Rating A, or
- STS 222 Issue 4 Burglar Resistance BR1(S), or
- LPS 1175 Issue 8 Security Rating A1, or
- STS 202 Issue 12 Burglar Resistance BR1, or
- LPS 1673 Issue 1 Attack Rating AR.A60

Standards which remain acceptable until the dates published below:

- STS 222 Issue 1, 2 or 3* Burglar Resistance BR1(S), or
- LPS 1175 Issue 7** Security Rating 1, or
- STS 202 Issue 9, 10 or 11* Burglar Resistance BR1

*STS 222 Issue 4 will replace STS 222 Issue 3 and STS 202 Issue 12 will replace STS 202 Issue 11 as the minimum standards required for SBD applications from (TBC in conjunction with WF at a future date). STS 222 Issues 1, 2 and 3 and STS 202 Issues 9, 10 and 11 will continue to be acceptable routes to SBD compliance for applications made before (date TBC).

**LPS 1175 Issue 8 will replace LPS 1175 Issue 7 as the minimum standard required for SBD applications from (TBC in conjunction with the LPCB at a future date). LPS 1175 Issue 7 will continue to be an acceptable route to SBD compliance for applications made before (date TBC).

- 41.3 Roofing systems must be installed using the manufacturers approved fixing system that they were tested with.
- 41.4 Where traditional roof installations (*Note 41.4*) are used that cannot meet the above requirements, additional security measures, such as a monitored intruder and hold-up alarm system to protect a vulnerable ceiling void, may be required by the DOCO to mitigate against criminal acts. For further information about intruder and hold-up alarm systems see [Section 54](#).

Note 41.4: Typically constructed on site from timber using a series of sloping timber rafters, fixed at the top to the ridge board, and at the bottom to the wall plate, supported by ceiling joists to prevent the rafters from spreading.

42 Roof access and aids to climbing

- 42.1 Unauthorised access to roofs can make a range of crimes from burglary to arson easier to commit. Some buildings have a common roof covering that extends across different rooms, areas or even occupying businesses; therefore from a single breach point all of these spaces are potentially at risk from intruders.
- 42.2 External rainwater pipes can be used for climbing and shall be specified as square or rectangular in section, be fitted flush against walls or within wall cavities or covered recesses. Pipes shall be made of fire-resistant material with bends and horizontal runs kept to a minimum; existing roofs can be fitted with an appropriate obstructive barrier to prevent access.
- 42.3 Flat roofs, particularly those at a low level, can be easily accessed and depending on materials, may be more vulnerable to intrusion either by cutting through the deck or forcing open roof lights and other openings.
- 42.4 Attention is drawn to relevant legislation (including the Occupiers' Liability Act) concerning the responsibilities and liabilities of building owners/occupiers for the safe use of roof areas and relevant signage.
- 42.5 Designers shall take care not to inadvertently create climbing aids to upper windows and flat roofs via structures such as boundary walls, living walls, other adjacent buildings, handrails or external staircases. It is advised that care is taken to design a means of routine or emergency escape that will avoid the installation or deployment of external staircases.

43 Roof windows, roof lights and roof lanterns

- 43.1 The security requirements for easily accessible (*Note 43.1*) roof windows, roof lights and roof lanterns differ depending on the crime risk.

Note 43.1: Easily accessible is defined as:

A window or doorset, any part of which is within 2 metres vertically of an accessible level surface such as a ground or basement level, or

An access balcony, or a window within 2 metres vertically of a flat roof or sloping roof (with a pitch of less than 30°) that is within 3.5 metres of ground level.

Low crime risks require roof windows, roof lights and roof lanterns to be certified to one of the following minimum standards, or above:

Current standards:

- LPS 2081 Issue 1 Security Rating A, or
- STS 222 Issue 4 Burglar Resistance BR1(S), or
- LPS 1175 Issue 8 Security Rating A1, or
- STS 202 Issue 12 Burglar Resistance BR1, or
- LPS 1673 Issue 1 Attack Rating AR.A60

Standards which remain acceptable until the dates published below:

- STS 222 Issue 1, 2 or 3* Burglar Resistance BR1(S), or
- LPS 1175 Issue 7** Security Rating 1, or
- STS 202 Issue 9, 10 or 11* Burglar Resistance BR1

*STS 222 Issue 4 will replace STS 222 Issue 3 and STS 202 Issue 12 will replace STS 202 Issue 11 as the minimum standards required for SBD applications from (TBC in conjunction with WF at a future date). STS 222 Issues 1, 2 and 3 and STS 202 Issues 9, 10 and 11 will continue to be acceptable routes to SBD compliance for applications made before (date TBC).

**LPS 1175 Issue 8 will replace LPS 1175 Issue 7 as the minimum standard required for SBD applications from (TBC in conjunction with the LPCB at a future date). LPS 1175 Issue 7 will continue to be an acceptable route to SBD compliance for applications made before (date TBC).

High crime risks require roof windows, roof lights and roof lanterns to be certified to one of the following minimum standards, or above:

Current standards:

- LPS 2081 Issue 1 Security Rating B, or
- STS 222 Issue 4 Burglar Resistance BR2(S), or
- LPS 1175 Issue 8 Security Rating B3, or
- STS 202 Issue 12 Burglar Resistance BR2, or
- LPS 1673 Issue 1 Attack Rating AR.A180

Standards which remain acceptable until the dates published below:

- STS 222 Issue 1, 2 or 3* Burglar Resistance BR2(S), or
- LPS 1175 Issue 7** Security Rating 2, or
- STS 202 Issue 9, 10 or 11* Burglar Resistance BR2



*STS 222 Issue 4 will replace STS 222 Issue 3 and STS 202 Issue 12 will replace STS 202 Issue 11 as the minimum standards required for SBD applications from (TBC in conjunction with WF at a future date). STS 222 Issues 1, 2 and 3 and STS 202 Issues 9, 10 and 11 will continue to be acceptable routes to SBD compliance for applications made before (date TBC).

**LPS 1175 Issue 8 will replace LPS 1175 Issue 7 as the minimum standard required for SBD applications from (TBC in conjunction with the LPCB at a future date). LPS 1175 Issue 7 will continue to be an acceptable route to SBD compliance for applications made before (date TBC).

- 43.2 Alternatively, an easily accessible roof light or roof window that does not meet the above requirements must be protected with an internal grille certified to one of the following minimum standards, or above:

Current standards:

- LPS 2081 Issue 1 Security Rating A, or
- STS 222 Issue 4 Burglar Resistance BR1(S), or
- LPS 1175 Issue 8 Security Rating A1, or
- STS 202 Issue 12 Burglar Resistance BR1, or
- LPS 1673 Issue 1 Attack Rating AR.A60

Standards which remain acceptable until the dates published below:

- STS 222 Issue 1, 2 or 3* Burglar Resistance BR1(S), or
- LPS 1175 Issue 7** Security Rating 1, or
- STS 202 Issue 9, 10 or 11* Burglar Resistance BR1

*STS 222 Issue 4 will replace STS 222 Issue 3 and STS 202 Issue 12 will replace STS 202 Issue 11 as the minimum standards required for SBD applications from (TBC in conjunction with WF at a future date). STS 222 Issues 1, 2 and 3 and STS 202 Issues 9, 10 and 11 will continue to be acceptable routes to SBD compliance for applications made before (date TBC).

**LPS 1175 Issue 8 will replace LPS 1175 Issue 7 as the minimum standard required for SBD applications from (TBC in conjunction with the LPCB at a future date). LPS 1175 Issue 7 will continue to be an acceptable route to SBD compliance for applications made before (date TBC).

- 43.3 The DOCO must be supplied with proof of certification including the technical schedule, prior to the SBD certificate being awarded, unless the supplier is a member of the Secured by Design Licensing Scheme and the roof light can be identified on the SBD website.
- 43.4 Roof windows, roof lights and roof lanterns must be fitted in accordance with the manufacturer's specifications or, in accordance with BS 8213-4:2016.

44 Sun tubes/tunnels

- 44.1 To prevent a sun tube being used as an access point into a commercial building, the maximum diameter recommended is 350mm. Where larger diameters of sun tube are required, the specification of alternative means of protection shall be agreed with the DOCO.

45 Internal layout

Entrances into the building – main public/visitor entrance

- 45.1 Unless a commercial development is intended to allow large numbers of the public to gather inside, it would be better that public access is restricted to one main visitor entrance. For high risk commercial premises this entrance shall be electronically access controlled from a reception desk or security office. Audio-visual links to the reception will be determined by local crime risks but in any event, the external and internal areas adjacent to the entrance shall be efficiently illuminated during the hours of darkness.
- 45.2 Reception staff shall have a clear view of the approaches to the entrance.

- 45.3 At night, the external and internal lighting regime must be appropriately balanced to avoid the staff only being able to see a reflection of themselves when trying to look outside the building from within.
- 45.4 Where a separate automatically opening door is required for disabled access, the door opening system shall have a suitably located vandal resistant proximity reader.
- 45.5 In some circumstances – where the crime risk is high and such arrangements are commensurate with that risk, for instance a high-value jewellers, an air-lock door system may be advisable which can be manually controlled from the reception area or security point. This can be combined with a draft lobby/unheated transition space for energy conservation.

46 Staff or additional entrances

- 46.1 There may be circumstances where multiple entrance doors are required for staff convenience or building functionality and all such doorsets must be SBD compliant. Criminal opportunities are reduced by controlling these doorsets in a variety of ways including access codes and key cards, etc.
- 46.2 An integrated access control system of this type will maintain a record of attendance whilst being capable of selectively preventing any unwanted access, such as by current staff members to restricted areas or by ex-staff members to the entire building.
- 46.3 Biometric and voice recognition systems are also available, which can be used in conjunction with traditional means to support the management of access to especially sensitive areas of the building.
- 46.4 These arrangements must not prevent emergency egress.
- 46.5 See [Section 36](#) for information on Internet of Things devices.

47 Reception area and visitor control

- 47.1 Where a business manages large visitor numbers, access beyond the reception area to other parts of the building, including stairs and lifts, shall be controlled by staff preferably on a raised dais using automatic locking doors or barriers and/or by the use of proximity reader technology. All doors or barriers must allow emergency egress and be integrated into the fire/smoke alarm system for fail safe opening during the hours of occupation. When the building is not occupied, doors and barriers shall be secured in accordance with the relevant fire authority's advice.
- 47.2 As a result of the business sector's recent experience during global pandemic lockdowns, the physical shape of a reception area is best thought of in terms of adapting it to social distancing recommendations and separating out from each other the routes in and out of the space.



- 47.3 Reception areas shall be designed so as to provide staff with a clear view of the entrance doors, the approaches to the entrances and the public waiting area within. Reception desks shall be constructed so that they are of sufficient height and depth to afford protection against attack, and where crime risks dictate, staff shall have the facility to remotely secure entrance doorsets from the reception area.
- 47.4 The needs of staff or visitors using wheelchairs must be considered during the design process.
- 47.5 An escape route to a place of safety, such as a lockable office behind the reception area, shall be provided where there is an increased risk of assaults on staff. This place of safety room must have a 'slam to lock' door with a facility to view the public area from within.
- 47.6 In addition, where the risks of assault are higher, an audible personal attack alarm shall be located at the reception desk so that the receptionist can use it to summon assistance from trained staff if confronted by an aggressive visitor. Consideration shall be given to an additional alarm sounder located in nearby offices where other members of staff can be alerted. In some cases, an automated means of summoning a police response may be required such as a public address system.
- 47.7 Staff shall be trained on how to use deliberately operated devices and how to respond if they are activated. False activations may result in limited provision or complete withdrawal of police response.
- 47.8 Where the risk dictates, video surveillance may be required to support the reception area.

48 Automated access control systems

- 48.1 Automated access control systems (AACS) is likely to be required at the main entrance to commercial developments and may also be required on some internal doorsets, such as those that lead from an entrance lobby or reception into offices and production and warehouse floors. Therefore, an electronic access control system is required for all pedestrian and vehicular entrances, which can be operated by access codes or key cards; the security levels shall be checked after installation and shall be strictly managed so that codes and cards can be added and deleted as necessary. The requirement for an AACS will be influenced by some of the following factors:
- The need to protect a lone worker or vulnerable persons working in a reception area
 - To prevent access into parts of the building beyond the reception to prevent crime and maintain health and safety
 - To prevent trespass onto the production or warehouse floors, especially where the offices and the reception are located on an upper floor
 - Type of business or business practices
 - Local crime risk factors
 - Where two or more businesses are served by a common entrance
- 48.2 In all such cases the doors must incorporate an automated access control system, with an electronic lock release and (for the main entrance) an audio link to the individual businesses, offices or receptions. In some cases visual verification by a video surveillance system, incorporated into the call panel or separately located, may be required. Specifiers are reminded that changing the lock specification of a certified security doorset will require further testing. It is therefore important to discuss such changes with the manufacturer and the DOCO.
- 48.3 An intrusion detection system (IDS) will detect and signal the presence of an intruder, or an intrusion attempt, into a secured area. A secured area can be a selected room, an entire building, or group of buildings. Further information is available from the NPSA at: <https://www.npsa.gov.uk/intrusion-detection>
- 48.4 Automated access control systems shall have a data logging facility.
- 48.5 Systems shall comply with BS EN 60839 - Alarm and Electronic Security Systems.

- 48.5 Systems shall comply with BS EN 60839 – Alarm and Electronic Security Systems.
- 48.6 The National Security Inspectorate and the Door and Hardware Federation have both produced relevant Codes of Practice. Further information is available at:
- <https://www.nsi.org.uk/nsi-publishes-3rd-edition-of-access-control-systems-code-of-practice-ncp-109/>
- <https://www.firecode.org.uk>

49 Automated access control standards

- 49.1 Specifiers are advised to make reference to guidance published by the British Security Industry Association (BSIA) 'A specifiers guide to the security classification of access control systems': [www.bsia.co.uk/zappfiles/bsia-front/pdfs/132-specifiers-guide-access-control-systems\[1\].pdf](http://www.bsia.co.uk/zappfiles/bsia-front/pdfs/132-specifiers-guide-access-control-systems[1].pdf)
- 49.2 All systems shall comply with UL293 and where applicable the Internet Protocol security shall meet the requirements and become accredited with the SBD 'Secure Connected Device' accreditation scheme by being tested and certified with an SBD approved certification body: <https://www.securedbydesign.com/internet-of-things>

50 Automated access control systems and security staff

- 50.1 Where security officers are to be employed at the entrance, an automated access control system access control will still be required, and therefore should be discussed with the DOCO at the earliest opportunity.

51 Secure internal doorsets

- 51.1 Specifiers shall contact the DOCO if there are any internal doorsets that may require additional security e.g. computer server room. The security standards applicable will vary dependent upon the risk but secure internal doorsets shall be certified to one of the following minimum standards, or above:

Current standards:

- LPS 2081 Issue 1 Security Rating A+, or
- STS 222 Issue 4 Burglar Resistance BR1(S), or
- LPS 1175 Issue 8 Security Rating A1+, or
- STS 202 Issue 12 Burglar Resistance BR1, or
- LPS 1673 Issue 1 Attack Rating AR.A60+

Standards which remain acceptable until the dates published below:

- STS 222 Issue 1, 2 or 3* Burglar Resistance BR1(S), or
- LPS 1175 Issue 7** Security Rating 1, or
- STS 202 Issue 9, 10 or 11* Burglar Resistance BR1

*STS 222 Issue 4 will replace STS 222 Issue 3 and STS 202 Issue 12 will replace STS 202 Issue 11 as the minimum standards required for SBD applications from (TBC in conjunction with WF at a future date). STS 222 Issues 1, 2 and 3 and STS 202 Issues 9, 10 and 11 will continue to be acceptable routes to SBD compliance for applications made before (date TBC).

**LPS 1175 Issue 8 will replace LPS 1175 Issue 7 as the minimum standard required for SBD applications from (TBC in conjunction with the LPCB at a future date). LPS 1175 Issue 7 will continue to be an acceptable route to SBD compliance for applications made before (date TBC).

- 51.2 High crime risk doorsets shall be certified to one of the following minimum standards, or above:

Current standards:

- LPS 2081 Issue 1 Security Rating B+, or

- STS 222 Issue 4 Burglar Resistance BR2(S), or
- LPS 1175 Issue 8 Security Rating A3+, or
- STS 202 Issue 12 Burglar Resistance BR2, or
- LPS 1673 Issue 1 Attack Rating AR.A180+

Standards which remain acceptable until the dates published below:

- STS 222 Issue 1, 2 or 3* Burglar Resistance BR2(S), or
- LPS 1175 Issue 7** Security Rating 2, or
- STS 202 Issue 9, 10 or 11* Burglar Resistance BR2

*STS 222 Issue 4 will replace STS 222 Issue 3 and STS 202 Issue 12 will replace STS 202 Issue 11 as the minimum standards required for SBD applications from (TBC in conjunction with WF at a future date). STS 222 Issues 1, 2 and 3 and STS 202 Issues 9, 10 and 11 will continue to be acceptable routes to SBD compliance for applications made before (date TBC).

**LPS 1175 Issue 8 will replace LPS 1175 Issue 7 as the minimum standard required for SBD applications from (TBC in conjunction with the LPCB at a future date). LPS 1175 Issue 7 will continue to be an acceptable route to SBD compliance for applications made before (date TBC).

- 51.3 It is not possible for SBD Guides or the DOCO to specify the specific security requirements for internal doorsets unless the risks and future users are known. In situations where the risks and end users are not known at the point of application, the DOCO will only be able to issue a Secured by Design award for the building shell and this will be recorded on the certificate.
- 51.4 Should future risks and users be subsequently established and a higher specification be required to achieve an award, this can only be achieved by fresh dialogue with the DOCO, who subject to the requirements of this scheme being met, may then be able to issue a Silver or Gold Award.

52 Lift security

- 52.1 BS EN 81 is a multi-part document detailing safety rules for the construction and installation of passenger lifts and passenger goods lifts.
- 52.2 BS EN 81-71:2022 refers to the vandal resistance qualities of passenger lifts and passenger goods lifts.
- 52.3 The three categories below set out the testing parameters in terms of vandal resistance. Each lift car fixture, part and supply must remain functional after typical acts of vandalism.
- 52.4 As an approximate guide, in many SBD applications Category 1 qualification will suffice for approval. However, in high crime areas the DOCO may require Category 2 qualification.
- **Category 0** – To meet ‘Cat 0’, fixtures need to comply with the requirements of BS EN 81-20:2014 and will cover strength requirements for both landing and car doors, as well as car walls. The strength requirement of the car walls is such that they must be capable of withstanding forces that are equivalent to a person pushing against them
 - **Car and shaft lighting** – In-car lighting must now provide an illumination intensity of 100 lux instead of 50 lux, and emergency in-car lighting 5 lux for one hour instead of 1W for one hour
 - **Category 1** – In addition to the requirements of Cat 0, all car fixtures must be secured with tamperproof fixings
 - Fixtures must be able to withstand three impacts from a 1kg impactor, from a height of 0.2m at the weakest point of the lift component (as defined by the manufacturer)
 - Fixtures must be able to withstand a flame being applied to the area most likely to be affected by flame for 60 seconds
 - **Category 2** – In addition to the requirements of Cat 0 all car fixtures must be secured with fixings which are not visible to lift users
 - Fixtures must be able to withstand **three** impacts from a 1kg impactor from a height of 1.0m at the weakest point of the lift component (as defined by the manufacturer)



- Fixtures must be able to withstand a flame being applied to the area most likely to be affected by flame for 120 seconds
- In order to pass the impact and flame tests, the elevator lift parts must also remain safe to use after vandal tampering (i.e. no sharp edges after a vandal's attempt to break or pry something open) and functional
- In addition to enduring flame-exposure, the material of the lift component or fixture shall self-extinguish, and any resulting discolouration cannot obliterate any of the lift part's written instructions or symbols

53 Mail delivery

- 53.1 For the majority of commercial buildings, it is expected that mail delivery will take place during business hours and that the mail will be handed in at reception.
- 53.2 Where parcel drop and dedicated mail rooms are employed, video surveillance coverage shall be considered to ensure visitor and staff integrity.
- 53.3 Communal mail and parcel delivery facilities should incorporate the following:
- External delivery facilities shall be positioned adjacent to the entrance area
 - Internal delivery facilities shall be positioned within an entrance area with automated access control
 - Automated access control to this area shall have a data logging facility
 - An air-lock entrance arrangement as part of the access control strategy would meet the Secured by Design criteria
 - Both internal and external delivery areas shall be comprehensively covered by a VSS
 - Mail and parcel delivery drop boxes shall be equipped with high security cylinders that are not subject to master key access
 - Mail and parcel delivery drop boxes shall be of robust construction, shall incorporate an anti-fishing design and be fire resistant Individual letter boxes shall have a maximum aperture size of 260mm x 40mm
 - All delivery drop boxes must be installed in accordance with the manufacturer's specification
 - A secure system of depositing parcels, such as the smart parcel drop boxes used by the major internet shopping companies, shall be considered where appropriate

- 53.4 Letter plates and letter boxes must meet one of the following requirements:
- A robust external letter box securely fixed to the external face of the building in accordance with the manufacturer's specifications with fire retardation and anti-fishing attributes
 - A letter plate located within the wall, providing 'through the wall' delivery via a sloping chute into a secure internal letter box with fire retardation and anti-fishing attributes
- 53.5 Letter plates for the above must comply with BS EN 13724:2013 and must have a maximum aperture size of 260mm x 40mm (DHF TS 008).
- 53.6 Letter boxes certified to Door & Hardware Federation Technical Specification 009 (TS 009) offer reassurance that all of the above attributes have been met. In high crime areas, TS 009 provides the safest means by which mail can be delivered, whilst eliminating the risks associated with mail delivery i.e. arson, 'phishing' for personal mail.

54 Intruder and hold-up alarm systems

- 54.1 Intruder and hold-up alarm systems shall meet the requirements of BS EN 50131 (Intrusion and hold-up systems) and EN 50136 (Alarm transmission systems and equipment). All installations shall be in accordance with the current electrical regulations.
- 54.2 If an immediate police response is required then installers must meet the requirements of the National Police Chiefs' Council (NPCC) policy document – Guidelines on Police Requirements & Response to Security Systems are available at:
www.policesecuritysystems.com/national-police-chiefs-council-security-systems-policy
www.policesecuritysystems.com/secured-by-design-alarm-standard
- 54.3 Specifiers should be aware that a Secured by Design Alarm Standard exists for intruder and hold-up alarm installations. Its creation is due to our work with the national alarm inspectorate bodies and trade organisations with the aim of improving the performance of security systems and increasing the preventative impact and detection rate emanating from them. Whilst meeting the requirements of the Secured by Design Alarm Standard is not necessary, details of it should be shared with those charged with responsibilities in this sector. Further information is available at: www.policesecuritysystems.com/secured-by-design-alarm-standard/sbd-technical-guide

55 Security fogging devices

- 55.1 Security fogging devices can be incorporated within the intruder alarm system to disorientate the intruder when the alarm system is activated. They must conform to BS EN 50131-8:2019 (Alarm systems. Intrusion and hold-up systems - Security fog devices).

56 Public address systems

- 56.1 In large commercial buildings a public address system is recommended to provide instant, effective communication to all staff members particularly in emergency situations where a prearranged and rehearsed response to particular situations can be initiated.

57 Physical security standards for computers and server rooms

- 57.1 Consideration must be given to the structure of the internal walls, floors and ceilings of computer server rooms to provide appropriate security and to prevent damage by fire, smoke or from fire fighting (water) from other parts of the building. Due to varying construction methods and materials it is not possible to be prescriptive, however combinations of different materials, such as high impact gypsum boards, expanded metal sheets, plywood, and masonry have proved to be effective.

- 57.2 Where it is impractical to secure a room housing a computer server, there are two alternative solutions i.e. secure cabinets for individual computers, or small server units, and security caging for large or multiple servers. In both cases the SBD requirement is for full product certification to one of the following minimum standards, or above:

Current standards:

- LPS 1175 Issue 8 Security Rating B3+, or
- STS 202 Issue 12 Burglar Resistance BR2, or
- Sold Secure SS314 Gold

Standards which remain acceptable until the dates published below:

- LPS 1175 Issue 7* Security Rating SR2, or
- STS 202 Issue 9, 10 and 11* Burglar Resistance BR2

*LPS 1175 Issue 8 will replace LPS 1175 Issue 7 as the minimum standard required for SBD applications from (TBC in conjunction with the LPCB at a future date). LPS 1175 Issue 7 will continue to be an acceptable route to SBD compliance for applications made before (date TBC).

**STS 202 Issue 12 will replace STS 202 Issue 11 as the minimum standard required for SBD applications from (TBC in conjunction with WF at a future date). STS 202 Issue 11 will continue to be an acceptable route to SBD compliance for applications made before (date TBC).

58 Safes and strongrooms

- 58.1 SBD recommends commercial safes and strongrooms are certified to one of the following minimum standards, or above:

Current standards:

- BS EN 1143-1:2019, or
- LPS 1183 Part 1 Issue 4.3

- 58.2 The required resistance grade for a safe is determined by the value of the contents of the safe. The ratings in the table below should only be used as a guide as insurers will define their own ratings depending on the performance of the safes and the situation in which the safes and strongrooms are to be used. It is therefore very important that specifiers talk to insurers prior to selecting a safe or strongroom.

- 58.3 There are reported variations in some safes certified to BS EN 1143-1:2019, however testing quality and consistency by VDS (Germany), SBSC (Sweden), CNPP (France) and LPCB (UK) is generally recognised by the UK insurance industry.

Self-storage centres

- 58.4 Self-storage centres shall comply with the relevant security measures in this guide, as is expected of any other commercial development applying for SBD certification. However, the one significant difference is that self-storage centres contain individual secured storage units.
- 58.5 Individual storage units shall be connected to a monitored intruder alarm system and will either be secured with an integral lock or padlock.
- 58.6 An integral lock shall be certified to one of the following minimum security standards:

- PAS 8621:2011 (non-key locking on the internal face), or
- BS EN 1303:2015 (locking mechanisms incorporating cylinders – Euro or oval profile).

The minimum requirements for these are:

- Key related security (Digit 7): Grade 5
- Attack resistance (Digit 8): Grade A (3/5 minute resistance against drilling)
- Durability (Digit 2): Grade 5 (50,000 cycles)



- 58.7 In addition to the above requirement, the cylinder certification scheme must include cylinder 'snapping' and 'anti-bump' assessments (DHF TS 007).
- 58.8 A padlock shall be certified to one of the following minimum standards, or above:
- BS EN 12320:2021 Grade 4, or
 - LPS 1654 Issue 1 Security Rating 2, or
 - Sold Secure – SS303 Silver
- 58.9 A metal shroud will also prevent the padlock from being easily tampered with. The shroud shall be designed so that needles and other sharp objects cannot be concealed within it.

59 Security guards and guard houses

- 59.1 The provision of security guards may require additional design features to be built into the buildings and grounds at the outset in order to reduce overall costs.
- 59.2 An electronic control monitoring system will ensure a consistent and comprehensive patrolling regime is maintained.
- 59.3 BS 7499:2020 *Static site guarding and mobile patrol services. Code of practice* offers guidance for the operation of a security control room.
- 59.4 A security control room (or guard house) acting as a key holding facility and first response to an activated alarm system consideration, shall comply with BS 7984-3:2020 *Key holding and response services. Code of practice*.
- 59.5 Doors, windows and glazing in permanent guard houses must comply with the police preferred standards as shown in the above relevant paragraphs.
- 59.6 It is recommended that purpose built modular build guard houses or other prefabricated buildings used for the purpose are certified to either LPS 1175 Issue 8 Security Rating A1, STS 202 Issue 12 Burglar Resistance BR1, or above, depending on local risks.

60 Arson and fire protection

- 60.1 If arson is identified as a crime risk factor in an area, the commercial developments must be designed with arson prevention in mind. Architects must consult with a Fire Risk Assessment Consultant Service to ensure that appropriate fire suppression measures are in place.
- 60.2 Conformation of such a consultation and compliance with any recommendations are matters that fall outside of the scope of this guide and process.

61 Buildings with undercrofts

61.1 Depending upon the nature of the building, its location and use, undercroft car parking can assist in the commission of a terrorist attack and therefore it is important to recall advice given in the section entitled 'Scope of the development' as follows:

'If the development is at risk of terrorism, espionage, sabotage or other malicious threats, this matter should be brought to the attention of the DOCO at the earliest opportunity to ensure that the proposed design, layout and physical security measures appropriately mitigate the risk. If the police service identifies vulnerable buildings or activities that require detailed counter terrorism advice, a referral will be made to the Counter Terrorism Security Advisor.'

GOLD Award



GOLD AWARD

62 Introduction

- 62.1 The Secured by Design Gold Commercial Award is available for new and refurbished developments that include the relevant security features contained in the Gold and Silver Award sections of this guide.

63 Urban Design and Planning Policy

Creating a sense of place

- 63.1 Creating an easily legible sense of place is a key element of SBD developments. A sense of place describes a relationship between people and the physical spaces around them. Crime and the fear of crime are reduced where spaces are clearly defined, obviously owned and easily overlooked.

64 Location and adjoining land use

- 64.1 A major factor influencing the security of a development is the nature of the surrounding land use and its location, whether in a city centre, urban, suburban, semi-rural or rural setting. Some other factors to consider are the crime risk, business type, business hours, size of business, number of employees, visitor numbers and transport links, etc.
- 64.2 A good example of where the security of a commercial development is adversely affected by the general surroundings is where there is little or no natural surveillance or there are woods or open grounds adjacent to the commercial development, making it easier for criminals to gain access without being seen. Conversely, domestic developments, whether of individual housing or blocks of apartments, often facilitate higher levels of natural surveillance which can deter criminals by making them feel more vulnerable to detection.
- 64.3 A crime risk analysis will be decisive in ensuring that security arrangements are commensurate with the risks and the DOCO should be consulted as soon as possible to ensure that this process can be undertaken at an early stage of the design process.

65 Building and site layout

- 65.1 A prudent site layout, including the location and design of buildings, car parks and footpaths will maximise natural surveillance and deter criminals. However, outside normal business hours, with fewer users of the site present, a development will suffer from lower levels of natural surveillance. In these circumstances, more formal methods of security and surveillance, such as onsite security guards, locked gates or remote VSS monitoring will be appropriate. Any constraining site conditions that adversely affect natural surveillance must be discussed with the DOCO so that other security solutions can be agreed.

66 External amenity spaces

- 66.1 External amenity spaces shall be carefully planned so that they benefit from natural surveillance but they may require additional security measures such as fencing which can be agreed in consultation with the DOCO.
- 66.2 It is also important to acknowledge that well-designed amenity spaces promote sustainable communities, health and well-being which in turn build strong, cohesive, vibrant and participatory communities.

- 66.3 Poorly designed and specified communal areas, such as playgrounds, toddler play areas, seating facilities have the potential to generate crime, the fear of crime and anti-social behaviour. The design and layout of play spaces will vary depending on the age requirements. The various types of play spaces are referred to as:
- Local Areas of Play (LAP) – primarily for the under 6 year olds
 - Local Equipped Area for Play (LEAP) – primarily for children who are starting to play independently
 - Neighbourhood Equipped Area of Play (NEAP) – primarily for older children
 - Multi-Use Games Areas (MUGA) – primarily for older children
- 66.4 Facilities shall be designed to allow natural surveillance from nearby buildings with safe and accessible routes for users to come and go. Boundaries between public and private space shall be clearly defined and open spaces must have features which prevent unauthorised vehicular access. Communal spaces as described above, should not immediately abut residential buildings.

67 Roads and footpaths

Vehicular and pedestrian routes

- 67.1 Poorly designed vehicle and pedestrian routes can provide criminals with the opportunity to anonymously tour an area when searching for a target, to access it when one is identified and to make their escape from the area after a crime is committed. To combat these issues, such routes must take the most direct passage from their origin to their destination, shall not undermine the defensible space of commercial units and remain open to natural surveillance. To define defensible space and create the impression that an area is private, even for legitimate users, design features such as narrowed carriageways, rumble strips, road surface colour and texture changes and the positioning of pillars at the edge of a thoroughfare can be used.
- 67.2 It is important when designing roads and footpaths to maximise the benefits of passive surveillance, and furthermore, when addressing safety and security of street layouts, public realm, and footpaths, that designing out crime is adopted as a broader package of works. This includes landscape design, lighting, layout of buildings, etc. to ensure that all roads and footpaths (including public rights of way) are safe, secure, and accessible for all, in support of the Violence Against Women and Girls (VAWG) agenda.
- 67.3 Active Travel England, is an executive agency, sponsored by the Department for Transport. They are:
- investing in and improving standards for active travel schemes across England
 - integrating active travel in the planning and development system
 - focusing on inclusivity and accessibility and giving people from all walks of life the opportunity to try active travel
 - helping councils to access state of the art data and analysis to use in active travel planning and design
- Further information is available at: [Gov UK – Active Travel England – Planning Active Places Webpage Link](#)
- 67.4 A secure emergency vehicle access point must be provided on larger sites, which may require a service road layout that includes turning points and space between buildings for large vehicles to operate. As this will necessary include access for large emergency vehicles operated by the Fire and Rescue Service, it is important that they are consulted at the design stage and the practical requirements folded into the overall site specification.

68 Through-roads and cul-de-sacs

- 68.1 Road layouts that frustrate the searching patterns of criminals will deny them reasonable excuses for their presence whilst limiting any potential access and escape routes to and from their intended targets. Where a through route must be incorporated into a development, care must be taken to avoid excessive permeability around a site to deny criminals excuses to trespass.
- 68.2 It is generally accepted that to facilitate natural surveillance by responsible guardians, routes for pedestrians, cyclists and vehicles shall run alongside one another rather than be segregated. Movement frameworks based upon 'primary routes' and shared spaces remove the need for little used alleyways, shortcuts, footpaths and large numbers of minor access points that may become ambush points and are often environmental factors in promoting the fear of crime.

69 Footpath design

- 69.1 Routes for pedestrians, cyclists and vehicles shall run alongside one another and not be segregated. All planned routes shall have a rational purpose, follow natural desire lines, be subject to natural surveillance and have a functional requirement. In this way, criminal opportunities will not be created through unrestricted movement along quiet alleyways, informal shortcuts or through unnecessary access points.
- 69.2 Preferably, public footpaths shall run at the front of properties to allow for higher values of natural surveillance. However, where this is not possible and footpaths are poorly positioned, the DOCO may require mitigation through a variety of strategic choices from improved lighting and VSS coverage to physical cycle restrictors, etc.
- 69.3 Private footpaths that are gated but also serve as emergency exit routes must be the subject of detailed consultation between the designer, the DOCO and the appropriate fire authority.
- 69.4 Segregated footpaths, including subways, footbridges and underpasses, can facilitate crime and it is therefore important to include the following design aspects in these types of foot routes:
- The routes shall be as straight and as short as possible with a minimum width of 3m to avoid potential physical conflict points as pedestrians pass each other
 - Where possible, there shall be a 2m verge either side of the footpath with low maturing, prickly defensive planting. This will avoid the crime generating canyon effect created when high boundaries are positioned at the very edge of a path
 - When planting at the sides of footpaths, taller shrubs shall be to the rear of the beds with no plants located close to the edges of the path as these could create places of concealment, reduce visibility and increase maintenance costs
 - Good lighting will facilitate natural surveillance and enable people to identify a specific risk but for the most part and in a very reassuring way it also serves to enable people to see that they are safe
 - Subway, footbridge and underpass access points shall have chamfered edges to reduce the potential for offenders to conceal themselves there

70 Planting next to footpaths

- 70.1 Ideally, low maturing shrubs shall be planted at the edges of a footpath with taller plants positioned towards the rear as this avoids overgrown vegetation creating pinch points and areas of concealment. Where possible, public footpaths shall be routed away from building facades but, where unavoidable, a buffer zone should be created using defensive planting to keep pedestrians away from windows and to protect walls from graffiti.

- 70.2 These landscaped buffer zones will distance potential offenders away from vulnerable areas of a building and reduce the opportunities for crime, damage and anti-social behaviour. Correctly specifying shrubs in these circumstances will reduce opportunities for crime and create planting regimes that require lower levels of maintenance.

71 Lighting of roads and footpaths

- 71.1 All roads and footpaths within Secured by Design developments must comply with BS 5489-1:2020. However, if this requirement conflicts with local conditions such as in a conservation area or where there is a dark sky policy, the implications should be discussed with the DOCO and the local lighting authority. A variable lighting system, which increases and decreases lighting levels in accordance with local circumstances, is preferred to any total switch off policy employed to reduce CO2 emissions. The Institution of Lighting Professionals does not encourage switch off unless a full risk assessment has been carried out and, in any case, it should never be implemented purely on the grounds of cost savings.
- 71.2 Bollard lighting is purely for wayfinding and can be easily obscured as it does not project sufficient light at an appropriate height which makes it difficult to recognise facial features and can increase the fear of crime.
- 71.3 Landscaping and lighting designs must be complementary and priority given to the lighting regime over new or existing tree planting positioning.
- 71.4 To demonstrate compliance, the DOCO shall be provided with written confirmation from a competent lighting design professional (see Note 71.4) that the street lighting scheme conforms to BS 5489-1:2020. Additionally, a Construction (Design and Management) Regulations (CDM) risk assessment must be completed.

Note 71.4: To be deemed 'competent' to be able to design under CDM regulations, the lighting design professional must provide written evidence that they are either IEng or CEng qualified, and that they are either a 'Member' or 'Fellow' of the Institution of Lighting Professionals (MILP or FILP) and have achieved at least ILP competency level 3. A manufacturer designed scheme cannot achieve CDM compliance.

72 Phased developments and footpaths

- 72.1 Where the completion of a footpath is to be delayed because of the phased introduction of elements within a development or other long-term planning policy considerations, it is recommended that footpaths are not constructed until its interaction with the local environment can be properly understood. This avoids creating underused footpaths that lead to undesirable areas, even if only in the short to medium-term.

73 Perimeter security and site access

Enclosed commercial developments – industrial and office use

- 73.1 Secured by Design recommends that single and multiple unit developments are contained within secure perimeters with access controlled entrances.
- 73.2 SBD recommends the use of one main entrance into an enclosed commercial development serving both vehicles and pedestrians. If vehicle and pedestrian entrances must be separated, these access points shall be adjacent to each other so as to promote mutual supervision. There shall be clear demarcation between the roadway and the footway with a safety barrier positioned to protect pedestrians from vehicles. Where additional entrances are required to provide emergency access and egress, these can be controlled by electronic access and video surveillance systems.

- 73.3 For extensive sites and where there are identifiably high-risk security considerations, a staffed gatehouse with remotely operated, powered vehicle and pedestrian gates may be required at the entrance. A crime risk analysis will be decisive in ensuring that security arrangements are commensurate with the risks and the DOCO should be consulted as soon as possible to ensure that this process can be undertaken at an early stage of the design process.

74 Open Commercial developments – office and industrial use

- 74.1 Ideally, public footpaths, roads and other public areas shall be kept at a distance from commercial buildings which will prevent, among other things, vehicles being used to ram and breach the ground floor of a building or, drawing a vehicle close up to a building in order to use it as a climbing platform to access windows and flat roofs that are higher up but potentially less secure.
- 74.2 In open plan developments, where there is no choice but to have public space adjacent to public footpaths or roads, an area of defensible space shall be created. Designated staff parking, low walls, raised curbs, hostile vehicle mitigation, street furniture, trees, moats and steps are all examples of design elements which, whilst remaining aesthetically valuable, will also serve to keep vehicles away from buildings. Where entry for pedestrians and vehicles is controlled by fencing and gates at the rear or along the sides of buildings, consideration must be given to emergency access and means of escape.
- 74.3 Soft landscaping to the front of commercial units is good design practice provided that it is set away from footpaths and is not allowed to become overgrown to the extent where doors, windows and other access points become obscured. An area of hard paving in front of a unit can reduce the likelihood of overgrown plants providing cover for criminal behaviour.
- 74.4 Casual and unwanted approaches to windows which can be troubling for occupants and provide criminals with information about the premises can also be deterred by the use underfoot of uneven hard surfaces such as cobbles or angled brick sets. Care must be taken to avoid inadvertently providing projectiles if gravel or other hard landscaping aggregates be specified.

75 Perimeter and external areas

Boundary types

- 75.1 Boundaries fall into three main categories:
- **Secured:** These could be a wall, hedge or other boundary treatment which is intended to physically prevent climbing and/or access to restricted parts of a site. A good secure boundary around the entire site and, in the case of an open plan development, to the rear and/or side of a building, will frustrate an intruder intent on breaking in and will also serve to limit the size and quantity of goods that can be easily removed.
 - **Controlled:** These can often be a low fence, wall, hedge or other boundary treatment that is intended to help staff manage a site by physically restricting casual intrusion onto or around a site whilst directing visitors to a formal entrance point in the perimeter or reception area. These types of control boundaries are generally not high enough or sufficiently resistant to intrusion to be classified as secure boundaries.
 - **Psychological:** These boundary types can be created with for instance, surface rumble strips, differing coloured road surfaces and textures, the placement of portals or other landscaping measures. All of these tactics suggest that an area past a given point, is private and is not to be entered by those without lawful authority or reasonable excuse.
- 75.2 When boundaries are protected by fences, gates or barriers they shall be certified to one of the following minimum standards, or above:
- Current standards:**
- LPS 1175 Issue 8 Security Rating B3, or

- STS 202 Issue 12 Burglar Resistance BR2, or
- Sold Secure SS323 Silver, or
- LPS 1673 Issue 1 Attack Rating AR.A180

Standards which remain acceptable until the dates published below:

- LPS 1175 Issue 7* Security Rating 2, or
- STS 202 Issue 9, 10 or 11** Burglar Resistance BR2

*LPS 1175 Issue 8 will replace LPS 1175 Issue 7 as the minimum standard required for SBD applications from (TBC in conjunction with the LPCB at a future date). LPS 1175 Issue 7 will continue to be an acceptable route to SBD compliance for applications made before (date TBC).

**STS 202 Issue 12 will replace STS 202 Issue 11 as the minimum standard required for SBD applications from (TBC in conjunction with WF at a future date). STS 202 Issues 9, 10 and 11 will continue to be an acceptable route to SBD compliance for applications made before (date TBC).

76 Security fencing

- 76.1 Security fencing is effective at delaying or deterring intrusion because of the need to climb over or penetrate through the fence. It is therefore important that there are no structures close to or protruding over the fence that will act as climbing aids e.g. trees, lamp columns or the edges of other structures.
- 76.2 A variety of materials can be used to fabricate security fencing from welded mesh and expanded metals to hybrid specifications of metal and timber and all of these are available in any number of colours and treatments. Railings of various designs can also be used to good effect and each fencing type available can be fitted with toppings to deter climbing. Whilst SBD recommends that security fencing should be effective without creating a 'fortress' impression, it is accepted that certain business locations or business operations may actively seek to promote the security of their premises by using a boundary treatment that sends a strong visually deterring signal.
- 76.3 It should be borne in mind when thinking of what type of boundary to create that potential offenders would always prefer to remain anonymous and to be able to access and later escape from the property as quickly as possible and also to do all this in as noiseless and as physically safe way as possible.
- 76.4 Surveillance of and over the site from any surrounding streets, footways and occupied buildings can help to deter potential offenders who may fear that their presence on the site will be reported to the police. It is therefore recommended that, where appropriate, security fencing systems are visually permeable to facilitate observation from outside the site and efforts are made by the occupiers to develop good relationships with their neighbours. The use of dark coloured coatings on metal fencing systems reduces light reflection thereby making it easier for passers-by to observe activity through the fencing.
- 76.5 Although aesthetic considerations are a matter for the developers, there are many attractive security boundary products available but certification will depend on whether a boundary treatment is commensurate with the local crime risk.
- 76.6 There may be circumstances where consideration could be given to installing a secure inner fence line within a less secure outer perimeter.
- 76.7 Security fencing shall be at least 1.8m in height and certified to one of the following minimum standards, or above:

Current standards:

- LPS 1175 Issue 8 Security Rating B3, or
- STS 202 Issue 12 Burglar Resistance BR2, or
- Sold Secure SS323 Silver, or
- LPS 1673 Issue 1 Attack Rating AR.A180



Standards which remain acceptable until the dates published below:

- LPS 1175 Issue 7* Security Rating 2, or
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- 76.8 Public footpaths that lie just outside and adjacent to the boundaries of commercial developments can have a detrimental effect on security and, if it is not possible to have them re-routed away from the site, measures such as defensive planting, video surveillance and/or secondary fence lines may need to be considered. However, none of these measures should be allowed to obstruct any natural surveillance that the footpath affords so long as this is thought to be an advantage in the specific circumstances of the site.
- 76.9 The condition and specification of a boundary that is shared with another property shall not be allowed to compromise security. To maintain protection levels for the SBD application site, it is sometimes advisable to erect a separate security fence inside the original party boundary. It is important to consider the amenity of others in the choice of this secondary structure so as not to alienate neighbours as they will need to be relied upon to act as vigilant guardians invested in the best interests of surrounding properties.

77 Gates

- 77.1 The height and length of gates shall be consistent with the dimensions of the boundary fence into which they are set and shall close any gap beneath them to ground level, to account for the change in road or pavement levels and/or camber.
- 77.2 Whatever the physical appointment of the boundary and whenever the site is occupied by employees, either fully or partially, or the site is entirely unoccupied, the perimeter gates shall only be operable by using the appropriate means of secure access control.
- 77.3 Gates shall be at least 1.8m in height and certified to one of the following minimum standards, or above:

Current standards:

- LPS 1175 Issue 8 Security Rating B3, or
- STS 202 Issue 12 Burglar Resistance BR2, or

- Sold Secure SS323 Silver, or
- LPS 1673 Issue 1 Attack Rating AR.A180

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77.4 See [paragraph 30.4](#) for information on automated gates.

78 Defensive hedging

78.1 In some locations it may be a planning requirement to use or retain a defensive hedge, such as hawthorn, as a means of protecting the site perimeter or to further bolster the security of an existing or proposed fence. As it can often take a considerable length of time for a newly planted hedge to mature and become an effective barrier, a fence that meets the minimum security requirements in [paragraph 72](#), would be required to ensure that security integrity is in place from the commissioning of the site onwards.

79 Signage and unit identification

- 79.1 The building's reception area and car park shall be clearly signposted from the entrances and further on into the site. People found wandering around the forecourts of industrial buildings will often use the excuse that they could not find their way to the reception and the presence of clear signs will go some way to dismiss this excuse and help security staff and the police establish the legitimacy of the claim. Likewise, signs that identify areas that are not open to public access can act as a reminder that unauthorised persons should be challenged.
- 79.2 Site maps for industrial estates that identify road names and unit numbers should be correctly orientated for the visitor and be protected from graffiti using a replaceable or cleanable transparent cover if the risk is present. Alternatively, they can be located at a height that reduces the risk of damage or treated with an anti-graffiti coating to allow easy removal. Site maps shall be located adjacent to a lay-by to reduce the impact on industrial estate traffic.
- 79.3 Clear numbering of individual units, which can be seen from the estate roads (too often absent in existing industrial estates), is essential to assist users, customers, postal workers and the attendance of emergency services.

80 Parking and Access

- 80.1 The routes from the site entrance to the reception and to the car parks and delivery points should be clearly defined and benefit from as much natural surveillance from the reception area and other occupied offices as possible.
- 80.2 A new industrial estate road system will be designed to allow the functional operation of emergency vehicles and may include turning points and or spaces between buildings to allow large vehicles to operate. These arrangements may need to be matched with security measures to reduce criminal opportunities.
- 80.3 Identifiable parking for staff shall be provided in view of occupied offices and, where possible, identified visitor parking shall be similarly located. In areas of high crime or where there are special security considerations or there is the potential for anti-social behaviour, it may be prudent to secure the parking facility with appropriate fencing (see [paragraph 75.2](#) for

information about secure fencing.) and an automatic access-controlled gate (see [paragraph 30.4](#) for information about automated gates.).

- 80.4 It is good practice to ensure that commercial buildings are designed to allow secure deliveries and collections of material and goods. This will dictate the height of the bay delivery floor and its overall dimensions/design. Depending on risk, monitoring by VSS may be necessary together with other security measures such as the provision of a secure delivery compound. It is recommended that this matter is further discussed with the DOCO.

81 Vehicle parking and access

- 81.1 Local infrastructure will often determine the location of vehicular and pedestrian routes and entrances. This must therefore be taken into consideration when designing site layout, in order to ensure that the security of the site can be easily and effectively controlled.
- 81.2 The main site entrance is the first line of defence against trespass and shall be the focus for directing and controlling all access. Other entrances onto the site shall be kept to a minimum, and all shall be controlled.
- 81.3 A secure emergency vehicle access point must be provided on larger sites, which may require a service road layout that includes turning points and space between buildings for large vehicles to operate. It will be necessary to include access for large emergency vehicles operated by the Fire and Rescue Service. This should be discussed with the DOCO at the design stage and the practical requirements included in the overall site design.
- 81.4 Likewise, such roadways may also be required for delivery vehicles. These can be blocked by retractable bollards or gated to stop unlawful access as long as the Fire and Rescue Service has a key (there are specific locally agreed key types for such use).

82 Vehicle parking and deliveries

- 82.1 The area forming the route from the public site entrance to the reception and to the visitor car parks and delivery points shall be as short as possible, open to view from the reception area and secured from the rest of the site. This will help to deter trespass into other parts of the grounds and channel all visitors through reception.
- 82.2 Separate parking for staff shall be provided in view of occupied offices. In areas of higher crime, it may be prudent to secure this facility with appropriate fencing (see [paragraph 75.2](#) for information about secure fencing.) and an automatic access-controlled gate (see [paragraph 30.4](#) for information about automated gates.).
- 82.3 There shall be parking provision for emergency vehicles, such as ambulances.
- 82.4 The design of the site shall incorporate appropriate means to allow for secure deliveries, without interfering with the day-to-day running of business. This may include a secure external compound or easy access to delivery doors.
- 82.5 Vehicle parking facilities should comply with the 'Park Mark' criteria for safer car parks. Whilst full registration to 'Park Mark' is not a requirement of SBD Commercial Design Guide, the design criteria of the scheme should be adopted wherever appropriate. The DOCO will be able to offer additional advice. Further information can be found at: <https://www.saferparking.com>
- 82.6 The purpose of 'Park Mark' is to:
- Reduce crime and the fear of crime in parking facilities
 - Provide guidance to owners/operators and developers of parking facilities, both new and existing, on how to establish and maintain a safe and secure environment through the introduction of proven management processes, physical measures and site security systems, having considered the crime risk in the immediate vicinity



- Raise awareness with staff and visitors when parking their car, bicycle, motorcycle, etc. that the owner/ operator has considered, and where appropriate, has taken action to reduce crime and the fear of crime within the parking facility they have chosen to use
- Provide a design framework for architects and developers of new parking facilities

83 Electric vehicle charging in secure commercial parking areas for employees only

- 83.1 To avoid the potential for conflict, electric vehicle charging points (EVCPs), provided for employee use only, shall be located in parking bays that are subject to natural surveillance. A management strategy shall ensure that charging bays are only used for their intended purpose and that steps are taken to prevent vehicles overstaying after a charge has been completed.
- 83.2 Security could be compromised in circumstances where non-employees are allowed to use pay-as-you-go EVCPs within secured car parks and is therefore not advised.

84 Electric vehicle charging in covered car parks

- 84.1 It is important that when considering the location of EVCPs, the provisions of any relevant Building Regulations are complied with and that consultation is undertaken with the relevant Fire Strategy Authority, be this a local authority appointment or a Fire and Rescue Service officer, to ensure that appropriate advice is incorporated into designs and specifications; this is particularly the case when locating EVCPs in 'covered car parks'.
- 84.2 Confirmation of such a consultation and compliance with any recommendations are matters that fall outside of the scope of this guide and process.

85 External bicycle parking for employees and visitors in public areas

- 85.1 External bicycle parking facilities will be designed for secure storage using bicycle lockers, hangers or dedicated storage devices and shall be certified to one of the following minimum standards, or above:
 - Current standards:**
 - LPS 2081 Issue 1 Security Rating B, or
 - STS 225 Issue 2 Burglar Resistance BR2(S), or
 - STS 205 Issue 8 Burglar Resistance BR2, or

- LPS 1175 Issue 8 Security Rating B3, or
- Sold Secure SS104 Silver, or
- STS 501 Security Rating TR2, or
- STS 503 Security Rating TR2

Standards which remain acceptable until the dates published below:

- STS 225 Issue 1* Burglar Resistance BR2(S), or
- STS 205 Issue 6 or 7* Burglar Resistance BR2, or
- LPS 1175 Issue 7** Security Rating 2

*STS 225 Issue 2 will replace STS 225 Issue 1 and STS 205 Issue 8 will replace STS 205 Issues 6 and 7 as the minimum standards required for SBD applications from (TBC in conjunction with WF at a future date). STS 225 Issue 1 and STS 205 Issues 6 and 7 will continue to be acceptable routes to SBD compliance for applications made before (date TBC).

**LPS 1175 Issue 8 will replace LPS 1175 Issue 7 as the minimum standard required for SBD applications from (TBC in conjunction with the LPCB at a future date). LPS 1175 Issue 7 will continue to be an acceptable route to SBD compliance for applications made before (date TBC).

- 85.2 External bicycle parking facilities will be located as close to the primary entrance as possible, and in any case within 50m of it and be subject to natural surveillance by building occupants where feasible. Current video surveillance systems shall be extended to ensure that the bicycle parking facility is within view of the cameras.
- 85.3 During the hours of darkness the facilities shall be well-lit, using energy efficient lamps.
- 85.4 DOCOs may require extra security measures to be put in place at bicycle parking facilities should an analysis of local crime rates indicate that they are necessary to ensure that security remains commensurate with the risk.
- 85.5 It is the developer or developer's agent's responsibility to inform the Responsible Person(s), Fire and Rescue Service and Building Control of any bicycle storage facilities and/or other areas that may require the charging and storage of Lithium-ion powered vehicles or devices, within the building or the wider site footprint, to ensure that the necessary fire suppression measures for the charging and storage of lithium-ion powered vehicles have been considered and specified.
- 85.6 The National Fire Chiefs' Council have produced fire safety guidance for e-bikes and e-scooters, which is available at: <https://nfcc.org.uk/our-services/campaigns/e-bikes-and-e-scooters-fire-safety-guidance/>
- 85.7 The Bicycle Association and Cycle Rail Working Group, including Secured by Design, have published a UK quality and security standard for public cycle parking which is available at: <https://www.securedbydesign.com/images/05132-Cycle-Parking-and-Security-Standards-June-2021-REV-6.pdf>

86 Motorcycle, scooter and moped parking

- 86.1 The theft of motorcycles, scooters and mopeds (the term motorcycle will refer to all powered two wheelers) is a major problem in many parts of the country, especially in urban areas. When stolen, the vehicles are either broken up for the value of their parts or alternatively are used in further crimes, such as snatch theft of personal property or robbery. This secondary use is causing a rise in crime.

Dedicated motorcycle parking facilities

- 86.2 Parking for motorcycles is often provided in small on street bays, delineated by a simple painted line. These bays often attract high rates of theft owing to the opportunities they offer criminals. Motorcycle parking bays can be made more secure by the installation of ground anchors, or robust metal support stands running at the side of adjacent paving. They provide a firm and immovable object to affix the rear wheel of a motorcycle. Ground anchors shall be installed at the rear of motorcycle parking bays near to the kerb line and relatively flush to the road surface to prevent



them being a trip hazard. They shall be certified to one of the following minimum standards, or above:

Current standards:

- LPS 1175 Issue 8 Security Rating B3, or
- Sold Secure SS101 Gold, or
- STS 501 Security Rating TR2

Standards which remain acceptable until the dates published below:

- LPS 1175 Issue 7* Security Rating 2

*LPS 1175 Issue 8 will replace LPS 1175 Issue 7 as the minimum standard required for SBD applications from (TBC in conjunction with the LPCB at a future date). LPS 1175 Issue 7 will continue to be an acceptable route to SBD compliance for applications made before (date TBC).

- 86.3 Bike covers are also part of the nationally agreed advice document which can be found at the following link: <https://www.securedbydesign.com/guidance/crime-prevention-advice/vehicle-crime/motorcycles-scooter-security>
- 86.4 Signage shall be used to alert riders and advise them to use the ground anchors or support stands provided along with their own security hardware. All of the above issues could also be considered at dedicated parking facilities if a motorcycle bay is installed into an existing site.

British Parking Association – Park Mark Safer Parking Award Scheme

- 86.5 The British Parking Association operates the Park Mark Safer Parking Award Scheme, working in partnership with public and private sector parking facility managers and DOCOs to reduce the opportunity for crime. A site that successfully meets the required standards can apply to join, and if successful, receive a Park Mark award. This will be reassessed over time to ensure standards are maintained after consideration of crime rates. Membership of the scheme is not a requirement but should be considered for larger parking facilities. For more information contact: <https://www.britishparking.co.uk>

87 External security issues

Landscaping

- 87.1 The planting of trees and shrubs in new developments to create attractive environments for commercial sites is encouraged and entirely supported by Secured by Design provided that the following simple matters are addressed:

- Landscaping layouts must allow sufficient space to accommodate the planting choice
- Future maintenance requirements shall be considered at the design stage
- Landscaping must be maintained to ensure it does not blind the VSS or obscure lighting
- Planting designs must mitigate against crime rather than contribute towards opportunities to commit it

88 External furniture and litterbins

- 88.1 External furniture such as benches and planters shall be of a robust vandal and graffiti resistant design. Benches should be divided along their length to create individual seating to prevent street sleeping. Planters should be designed to ensure there is no space underneath for the storage of drugs or weapons. Furniture shall be fixed into the ground in order to prevent its theft and reduce the possibility of it being used as either a climbing aid or as a tool to break through the shell of a building. External furniture shall not be located at or close to a building line or a boundary if there is a possibility of it being used as a climbing aid.
- 88.2 Litterbins can sometimes be used to assist climbing and/or the contents used to start fires. It is preferable that these bins are of a type that can be locked onto a fixed base some distance from the buildings. Under no circumstances must litterbins be wall mounted beneath windows or on walls that are themselves covered in combustible material.

89 Natural surveillance and recessed doorways

- 89.1 Wherever possible, it is important to avoid the creation of areas or building features (such as recessed doorways) that cannot be overlooked from occupied parts of a development. Recessed doorways will obstruct natural surveillance whilst collecting wind-blown litter that can be used to start fires. It is best to avoid designing unobservable areas rather than having to provide expensive VSS coverage in an attempt to compensate for the problem.
- 89.2 Where the recessing of a doorway is unavoidable, such as an emergency exit onto a footpath, it would be prudent to use a secure doorset with emergency exit hardware and an integral secure vision panel.

90 Temporary buildings

- 90.1 Temporary buildings, such as portable buildings, are notoriously difficult to secure due to their construction and the fact that they are outside the secure envelope of the permanent building structures. For the purposes of assessing SBD compliance, buildings are to be classified as temporary up to 6 months occupation or use and after this point will be considered in terms of security requirements as permanent. Temporary buildings being used as classrooms long past their originally intended lifespan is a good example of these circumstances and the intention here is to ensure appropriate security for such units from the outset.
- 90.2 Wherever possible temporary buildings shall be located together and physically linked together forming a larger continuous structure and thus avoiding the creation of unused and unseen areas between the buildings where criminal opportunities could exist. It is expected that the use of non-security rated temporary buildings will be discontinued on any site as soon as possible after the main development work is complete.
- 90.3 Temporary buildings should not be used for the storage of high value equipment such as computers or cash unless the building is security rated and constructed of non-combustible materials. Any voids beneath them shall be secured to prevent the collection of litter which can be used as kindling in the case of arson.
- 90.4 Most importantly, structures that are intended as limited lifespan buildings, together with those that ultimately have longer periods of utility, must be included in the intruder and fire alarm regimen of the main buildings.

- 90.5 The location of temporary buildings must be discussed with the local fire authority to ensure that the spread of fire to other buildings is minimised and that the Fire and Rescue Service's access is not hampered.
- 90.6 Further advice from a suitably qualified locksmith on temporary building hardware and locking systems is available at: <https://www.locksmiths.co.uk>

91 Wind turbines and photovoltaic installations

- 91.1 Consideration must be given to protecting wind turbines, photovoltaic installations (PVs) and biomass boilers from vandalism or theft through the use of access control, appropriate fencing and the removal of any climbing facility that may aid access.
- 91.2 PVs shall be located on roofs that are difficult to access, other than by legitimate means, and shall be secured onto the roof with theft resistant fastenings. Landscape design should never include the use of loose pebbles in case they be used as missiles to damage the panels.

92 Storage facilities

Equipment storage

- 92.1 Heavy plant and building equipment shall be protected from theft and criminal damage by using secure storage areas on site, within the main building where possible but, failing this, within a compound with high security fencing. Video surveillance coverage may also be required if the value or nature of the stored items suggests a heightened crime risk. The DOCO will advise on the best way to protect this equipment.

93 External waste storage

- 93.1 Waste and rubbish containers, particularly wheelie bins, can be re-positioned and used to aid climbing to vulnerable parts of buildings whilst their contents can be used as fuel for arson attacks. To combat these two risks the bins shall be retained in a lockable roofed store set apart from the main buildings and the containers themselves fitted with lockable lids. Advice in respect of a safe stand-off distance, fire and smoke detection devices and fire sprinkler systems shall be sought from the appropriate fire authority.
- 93.2 In general, combustible materials shall not be stored within 10 metres of the building.
- 93.3 Adequate secure provision (as above) for temporary storage of all recyclable materials awaiting collection or other processing shall be provided.
- 93.4 Bin stores for kitchen waste in large catering and other business operations shall be located away from the building, as above, although it is accepted that for practical and operational reasons it may be necessary during business hours to have bins temporarily located closer to the kitchen areas.

94 Fuel storage

- 94.1 Fuel, such as central heating oil, but including such things as petrol stores for maintenance and plant machinery, shall be kept in a secured building located a good distance away from the main buildings. These measures will help prevent theft of the fuel or its use in arson attacks. However, where site constraints lead to fuel being stored inside the main buildings, advice must be obtained from the appropriate fire authority. It may also be desirable to store biomass fuel close to the boiler plant in which case again the appropriate fire authority shall be consulted.



95 Cleaning equipment storage

- 95.1 A secure store, or stores, inside the building must be provided for the safe storage of cleaning equipment and cleaning fluids as many of these materials are flammable and toxic. Advice shall be sought from the appropriate fire authority.

96 Utility services

Telecommunications access covers, ducting and utility meters

- 96.1 Utility access covers, protecting access to drains, sewers, telephone cables, electricity cables and other services, must be secured to prevent access and damage by unauthorised persons.
- 96.2 It is important to remember that often business continuity may rely on the intruder and fire alarm's ability to signal an alarm receiving centre via a secure telephone line. Therefore, it is vitally important that sufficient secure ducting is supplied to the site with an appropriate number of secure access covers to cater for both the current requirements and any future site expansion.
- 96.3 Smart utility meters are now ubiquitous and are a safe and secure way of accounting for energy consumption by customers. Where individual utility meters are still to be used, they shall be located in a secure building such as a plant room and allow for meter reading without having to enter the main building. Alternatively, instructions should be given to utility providers to carry out their readings during business hours or by special appointment so as to reduce any security risk. Smart meters that automatically send readings along a data line and read remotely are the much preferred option.

97 Windowless building elevations

- 97.1 A common feature of many industrial units and warehouses are long runs of elevations, often found to the rear and side, that have no windows for potential observation over the site. These same elevations will usually have at least one windowless emergency exit doorway (often recessed) which can present opportunities for crimes such as graffiti, burglary, arson, together with inappropriate loitering.
- 97.2 When considering the wisdom of introducing fenestration into an otherwise blank elevation it is firstly advisable to calculate whether there is the potential to create natural surveillance over an area of activity or interest. The provision of at least one window above ground floor level, where possible, will offer additional surveillance over the public area. If there is no activity to be observed or no security interest served and, as windows and doors are often targeted by criminals, it may be that a wall should be left blank with no openings.

97.3 It is clearly sensible to keep trespassers away from buildings in the interests of preventing unauthorised entry, graffiti, arson or other criminal damage. The best way to achieve this will alter from one site to another and will depend on factors such as the number and size of individual units and their orientation to each other. Common problems and potential solutions are discussed below:

- Where there are pathways between buildings that are intended to service emergency exits it is important to place gates at the leading edge of the building line. During times when the building is occupied it must be possible to exit through these gates without the use of a key.
- Where a commercial unit's blank elevation adjoins a public footpath or road, the creation of a separating verge is recommended. Such a verge shall be at least 1m wide and have a 1.8m high fence on it preferably of a welded mesh or expanded metal construction so as to facilitate natural surveillance. It may also be possible to use a 'defensive' hedge like hawthorn in such circumstances but, unless mature plants are used from the outset, a fence will be required to perform the function of the defensive barrier until the hedge has matured.
- Where there is insufficient space for a verge or a defensive barrier as described above then the application of anti-graffiti coatings and video surveillance shall be discussed with the DOCO.
- Professional or community led artwork can not only look more attractive, but it is less likely to suffer from graffiti/reduce the fear of crime and could also be used as a wayfinding point e.g. arrow and design directing people to important locations.

98 Walls – facades, apertures, recesses and graffiti

- 98.1 Facades of buildings shall be designed so that the opportunity to hide along them or climb up them is minimised; the latter is most important when access to vulnerable windows or flat roofs is possible. Clean straight building lines free of unnecessary accessible ledges, parapets, recesses or overhanging structures will reduce opportunities for burglary.
- 98.2 It is important to consider the potential for unauthorised entry to goods lifts, fuel delivery points or ventilation ducts. Wherever possible these facilities shall not be made readily accessible to unauthorised persons.
- 98.3 Grilles, air ventilation apertures and shutters shall be fitted so that they cannot be removed to permit access. Reinforced mounting and fixing points for internal and external grilles, shutters and their roller boxes shall be designed-in as part of the fabric of the structure.
- 98.4 Graffiti tends to attract more graffiti and therefore the police always advise that it is removed as soon as possible. Designers shall consider wall finishes that make this task easier to perform, particularly in areas where graffiti has proven to be a problem before. Surfaces shall be coated with either an anti-graffiti glaze or sacrificial coating, or, alternatively, be designed for ease of repair by re-painting following an attack. Other means of deterring graffiti attacks can also be considered such as growing climbing plants along vulnerable facades.

99 External lighting

- 99.1 The need for lighting will be determined by local circumstances. For example, in an inner city environment the lighting of a footpath is generally only effective in reducing crime levels if it is matched with a high degree of natural surveillance from surrounding buildings, where reaction to an identified incident can be expected. The lighting of an isolated and little used footpath may give the user a false sense of security and shall be avoided. If there is a history of crime along an existing footpath, or where the additional connectivity due to the development could attract criminal or anti-social behaviour, consideration shall be given to closing the path at night rather than lighting it. It is accepted that this would only be an option in exceptional circumstances.
- 99.2 In terms of security, the objective of lighting commercial units after dark is to deter or detect an intruder.



- 99.3 Lighting design shall be co-ordinated with a video surveillance system (when specified) and the landscape designed to avoid any conflicts and to ensure that the lighting is sufficient to support a VSS. Light fittings shall be protected where vulnerable to vandalism.
- 99.4 A lighting scheme shall provide uniformed lighting levels with good colour rendition and be sufficient to cater for lawful after dark activity around the industrial or warehouse unit and site. It shall not cause glare or light pollution and shall support both formal and informal surveillance of the site.
- 99.5 External illumination when the building is unoccupied is recommended for entrance gates and routes to the main entrance and doors, car parks (if occupied by vehicles) and observable building elevations.
- 99.6 Bollard lighting is purely for wayfinding and can be easily obscured as it does not project sufficient light at an appropriate height which makes it difficult to recognise facial features and can increase the fear of crime.

Revisions to text

Preface

Introduction

Sections: 2, 12, 13, 14, 15, 16, 18, 19, 21, 22, 23, 24, 25, 26, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 51, 52, 53, 57, 58, 59, 60, 66, 67, 68, 69, 70, 71, 73, 74, 75, 76, 77, 79, 80, 81, 82, 83, 85, 86, 87, 88, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99

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Sold Secure

We trust that by the application of the design principles and security standards described within this guide, that communities will be protected from crime for years to come.

Secured by Design



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