

Secured by Design - Hospitals

(April 2005)

CONTENTS:

1.	SBD & OTHER DESIGN GUIDANCE.....	3
2.	PRINCIPLES	3
3	ROLE OF THE ARCHITECTURAL LIAISON OFFICER (ALO) / CRIME PREVENTION DESIGN ADVISER (CPDA)	3
4	THE CONCEPT OF SECURED BY DESIGN	4
5	CRIME PATTERN ANALYSIS	4
6	INTRODUCTION	5
7	ASSESSMENT GUIDANCE.....	5
8	GENERAL COMMENT.....	5
9	Boundary Treatment	5
10	Public Entrances to Hospital Site.....	6
11	Signs.....	6
12	Vehicular Access	6
13	Pedestrian Access	6
14	Parking for cars, motorcycles and bicycles.....	7
15	Landscaping	7
16	Surveillance	8
17	CCTV Systems.....	8
18	Lighting	8
19	Access to drainage/services.....	9
20	Site & Building layout	9
21	BUILDING SHELL SECURITY	10
23	Windows.....	10
24	Perimeter doors.....	11
25	Roller shutters.....	11
26	INTERNAL LAYOUT	12
27	Hospital entrance & visitor control	12
28	ACCIDENT & EMERGENCY	12
29	Reception area	13
30	Waiting area.....	13
31	W.C. facilities.....	14
32	Treatment rooms.....	14
33	MATERNITY & PAEDIATRICS.....	14
34	PHARMACY	15
35	LABORATORIES	15
36	CASH OFFICE.....	15
37	RETAIL OUTLETS	16
38	POLICE OFFICE	16
39	SECURITY OFFICE	16
40	PATIENT RECORDS OFFICE	16
41	GENERAL WARDS / ACCESS CONTROL.....	17
42	GENERAL OFFICE SECURITY	17
43	MORTUARY	17
44	CORRIDORS & CIRCULATION	17
45	W.C FACILITIES & CHANGING FACILITIES	17
46	SECURITY MANAGEMENT	17
47	COMPUTERS.....	18
48	STAFF ACCOMMODATION	18
49	NEEDLE EXCHANGE.....	18
50	SECURED BY DESIGN CHECKLIST - HOSPITALS.....	19
51	Appendix A - Security Measures.....	22

1 SBD & OTHER DESIGN GUIDANCE

- 1.1 Good design must be the aim of all those involved in the development process and should be encouraged everywhere. For example reference to 'Planning Out Crime - Good Practice Guidance', and Planning Advice Notes PAN 46 and PAN 67 can make a major contribution to both the prevention of crime and reducing the fear of crime.
- 1.2 'Secured by Design' aims to achieve a good overall standard of security for buildings and the immediate environment. It attempts to deter criminal and anti-social behaviour within hospital grounds by introducing appropriate design features that enable natural surveillance and create a sense of ownership and responsibility for every part of the development. These features include secure vehicle parking, adequate lighting of common areas, control of access to individual and common areas, defensible space, and a landscaping and lighting scheme, which when combined, enhances natural surveillance and safety.
- 1.3 Experience shows that incorporating security measures during a hospital new build or refurbishment reduces crime, fear of crime and disorder. The aim of the police service is to assist in the design process to achieve a safe and secure environment for patients, staff and visitors, without creating a 'fortress environment'.

2 PRINCIPLES

- 2.1 The primary role of hospitals is to provide medical support for the community. The Secured By Design Hospitals Guide seeks to create a safe and secure working environment for patients, medical professionals and visitors, the provision of which should significantly reduce the opportunity for crime.
- 2.2 Crime costs the NHS £600M every year. The open access of hospital environments can render them particularly vulnerable to crime, it is therefore important to design out opportunities for crime to occur in new build, refurbishment and extensions to hospitals.
- 2.3 The safety of patients, employees and visitors is of utmost importance. Crimes may include the following: burglary, vandalism, theft, drug taking, violence to staff, kidnap, vehicle related crime and anti social behaviour.
- 2.4 The open accessibility of hospital sites, otherwise known as permeability, means that they are difficult environments to secure.
- 2.5 However, the vulnerability of people and property to crime can be reduced significantly if the following advice and measures are incorporated.

3 ROLE OF THE ARCHITECTURAL LIAISON OFFICER (ALO) / CRIME PREVENTION DESIGN ADVISER (CPDA)

- 3.1 Police forces throughout the country employ architectural liaison officers (ALO) or crime prevention design advisor (CPDA) to advise on designing out the opportunity for crime to occur during the design process. The main mechanism for delivery is the *Secured By Design* initiative and award scheme, which uses the principles of crime prevention through environmental design (CPTED).

4 THE CONCEPT OF SECURED BY DESIGN

- 4.1 One of the Government's key objectives for planning is to secure quality, sustainable environments where people choose to live, work and play. To achieve this, more emphasis needs to be placed on the design and on the need to encourage higher standards. Designing for community safety is a central part of this.
- 4.2 Secured by Design' (SBD) is a police initiative to encourage the building industry to adopt crime prevention measures in development design to assist in reducing the opportunity for crime and the fear of crime, creating a safer and more secure environment. 'Secured by Design' is endorsed by the Association of Chief Police Officers (ACPO), and has the backing of the Home Office Crime Reduction Unit. It has been drawn up in consultation with the Department of Transport, Local Government and the Regions (DTLR, formerly DTLR).
- 4.3 Once a development has been completed, the main opportunity to incorporate crime prevention measures is gone. It is the responsibility of NHS Boards etc. to instruct the designers to liaise with the ALO/CPDA, preferably at sketch scheme stage. This allows the designer to incorporate advice at the earliest opportunity, rather than make adjustments at the planning application stage, which often results in a delay.

5 CRIME PATTERN ANALYSIS

- 5.1 The ALO/CPDA's starting point should be to assess risk and problems likely to be encountered in hospitals. They will contact the local Crime Pattern Analyst who will provide a record of local crime trends and patterns. To gather an accurate picture of crime, it is necessary to combine records held by both police and individual hospitals.
- 5.2 The ALO/CPDA will give site-specific advice, commensurate with the perceived risk, which will be based on local crime trends. Careful design need not cost more when considered at the outset and will quickly show sustainable benefits.

6 INTRODUCTION

- 6.1 The purpose of this document is to provide guidance on how to establish and maintain a safe and secure environment on hospital sites. It is aimed at helping all those involved in the design, development, procurement and management of hospitals and similar developments. The objective is to reduce the opportunity for crime and anti social behaviour and reduce the fear of crime in hospitals.
- 6.2 A further aim is to provide a system of self-assessment of new proposals or existing premises, in order to establish changes necessary to the proposed design or existing environment to achieve 'Secured by Design' status. This guidance includes the process by which accreditation can be achieved.
- 6.3 This document is issued by the Association of Chief Police Officers as part of their 'Secured by design' initiative and is supported by the Home Office.

7 ASSESSMENT GUIDANCE

- 7.1 The following features are the minimum required for Secured by Design accreditation and appropriate in low risk areas i.e. where crime is not seen as a significant problem.
- 7.2 Additional security features may need to be added in medium risk areas i.e. where crime is a problem. If the development is judged to be high risk i.e. where crime and antisocial behaviour are a significant problem with inevitable serious disruption, then additional security features will be required.
- 7.3 Advice on these important features is added in Appendix A. These must be considered with the overall proposals and included in the standard to be met for Secured by Design Accreditation at the outset of the project.
- 7.4 Note - As with all Secured By Design approvals, the standard to be achieved and the features to be employed will be agreed between the applicant and the ALO CPDA at the outset. The features listed in Appendix A are not intended or to be used as a 'bolt on'.

8 GENERAL COMMENT

- 8.1 The entire hospital site perimeter must be enclosed in order to control access by pedestrians and vehicles. There should be no structures or physical features that compromise the security of the perimeter.
- 8.2 Fragmented hospital sites together with remote sites pose real security management problems and must be avoided where possible.
- 8.3 Buildings should be arranged in an efficient planning style in such a way as to avoid, long distances between buildings, hidden areas that are difficult to overlook, isolated buildings remote to the centre.

9 Boundary Treatment

- 9.1 Boundary fencing will commonly abut public space; therefore aesthetics must be taken into account. It should be a minimum of 2m in height, robust, grounded on

- a hard surface, pointed and difficult to scale and interfere with. An anti-climb topping may be included. It should also be clearly defined and allow clear natural surveillance.
- 9.2 Local conditions may require certain boundary treatments, but all shall restrict unauthorised access and exit as far as possible, particularly where natural surveillance of the boundary is difficult to achieve. Railings, expanded metal and weld mesh fencing (to BS.1722) are examples that achieve the above. Chain link and similar low security fencing is boundary demarcation only and should not be used.
- 9.3 Gate specification should match the fencing, be lockable, have anti-lift hinges and avoid features that assist climbing.
- 9.4 The use of thorny shrubs planted adjacent to the perimeter fence enhances security by providing a visual deterrent, yet still succeeds in softening the image of the physical barrier. Examples of this type of planting include pyracantha, berberis and hawthorn.
- 9.5 Signage shall be employed at appropriate points to direct the public to main entrances, prohibit dog fouling and unauthorised access.

10 Public Entrances to Hospital Site

- 10.1 The number of entrances to hospital sites should be reduced to the minimum practicable and preferably direct vehicles and pedestrians through one main entrance. The appropriate citing of car parks and bus stops can help achieve this. A security gatehouse should be located adjacent to the main entrance; thereby controlling public movement Signs should clearly direct visitors to their destination. Mechanical barriers may be required, dependent upon additional risks identified through crime analysis.

11 Signs

- 11.1 Signs from the site entrance through to the destination ward should be clear and multi-lingual as appropriate.
- 11.2 Consider using a departmental colour way finding system. A wall and floor colour scheme guide could be incorporated which enables visitors, who are often confused by medical terms, to follow the appropriate colour to the required department.

12 Vehicular Access

- 12.1 Vehicular access within the hospital site should be restricted to the minimum possible and only to those areas necessary i.e. parking and service areas. Physical features to enforce this restriction may include bollards, double curbs, walls and substantial landscaping.

13 Pedestrian Access

- 13.1 Casual intrusion by the general public should be discouraged, therefore footpaths should be designed to serve the development rather than provide unnecessary access and the number of footpaths should be kept to a minimum. Problems can

arise when residents in local housing developments identify hospital grounds as an area to exercise dogs or allow their children to play.

- 13.2 The footpath layout shall provide clear defined routes between site entrance(s), main receptions and other facilities. Footpaths shall be wide, enjoy natural surveillance and follow as direct a route as possible, be clear of hiding places and well lit.
- 13.3 Footpaths should be designed to prevent offenders from familiarising, searching, offending and escaping. Landscaping with thorn content can be used to encourage pedestrians to use designated footpaths. There should be no congregation points as these can lead to disturbance and nuisance to legitimate users.

14 Parking for cars, motorcycles and bicycles

- 14.1 Hospital grounds will often allow cars to park along vehicle routes. This should be discouraged as it disrupts the field of view across the site and provides further opportunities for vehicle crime. Car parking should be restricted to designated areas where vehicles are more readily supervised.
- 14.2 All parking areas shall incorporate the physical and management measures required by the Safer Parking Award scheme detailed on the *Secured By Design* website 'www.securedbydesign.com'
- 14.3 Some of the features of the scheme include limited and controlled access a defined perimeter, natural surveillance over the whole parking area, lighting to BS5489 Part 9, low level defensive planting, traffic calming measures, one-way systems and separate footpath/vehicle routes etc.
- 14.4 Secured and managed motorcycle and cycle provision must be provided to encourage their use. Bicycles require an enclosed store that provides natural surveillance that can be locked when necessary and motorcyclists require level ground and secure frames to which their bikes can be attached.

15 Landscaping

- 15.1 Landscaping shall not prevent natural surveillance from occurring between the perimeter and the building shell, nor shall it reduce the effectiveness of any CCTV system. Future landscape growth and maintenance must be taken into account at the design stage.
- 15.2 All shrubs and hedges shall generally have a maximum growth height of 1m, whilst all trees should be pruned up to a minimum height of 2.2m, thereby maintaining a clear field of vision around the site. Mature trees shall not mask lighting columns nor become climbing aids. All hard landscaping and street furniture shall be robust and securely fixed to prevent removal, vandalism and use as potential ammunition.
- 15.3 A landscape management regime shall be implemented as part of the hospital maintenance policy to maintain natural surveillance. This creates the impression of a well cared for environment which helps to discourage crime and anti-social behaviour.

16 Surveillance

- 16.1 There shall be no accessible areas of the hospital grounds that don't benefit from passive surveillance i.e. overlooked by windows from used rooms, or CCTV. Areas providing concealment and therefore opportunities for crime shall be fenced off.

17 CCTV Systems

- 17.1 CCTV systems should be registered with the Information Commissioner as per legal requirement and should be compliant with the Commissioner's guidelines. See www.informationcommissioner.gov.uk for further information.
- 17.2 The development of an Operational Requirement Statement is essential; this document is unique to each system and will be used for the design and performance specification of the system. It is a statement of problems, not solutions, highlighting areas covered by the system and the times and description of activities giving cause for concern.
- 17.3 It is also important to decide the standard of image required i.e. close up or general view. The proposed use of the system and whether it is intended to monitor activity or detect offenders dictate this. Clear facial recognition is essential to recognise or identify any offender. Vehicle number plate recognition is necessary where they are monitored.
- 17.4 The provision and use of CCTV fits well within the overall framework of security management and is most effective when it forms a part of an overall security plan.
- 17.5 Main entrances and circulation areas shall be covered by CCTV surveillance.
- 17.6 A well-designed and properly managed CCTV system can be a powerful security tool. In order to justify cost, systems must be relevant to the situation and security risk.
- 17.7 Early discussions with the police CCTV Liaison Officer together with reputable suppliers are strongly recommended to achieve this aim. These companies should also be recognised by either NSI or SSAIB in respect of the installation and maintenance of the systems. Decisions that need to be properly resolved include, monitoring or recording, activation in association with an intruder alarm, requirements of general surveillance or facial recognition, areas to be monitored, use of pictures taken, maintenance and quality of equipment, management of recording or monitoring. These are all key issues in the selection of an effective system, which can not only deter crime but also be crucial in reacting effectively to criminal acts or anti-social behaviour.

18 Lighting

- 18.1 A successful lighting scheme requires good but not oppressive levels of light that is evenly distributed and allows clear colour rendition. Well-positioned lighting deters and reveals potential intruders and reduces the fear of crime.

- 18.2 Security lighting, such as metal halide units, should be installed in all areas where surveillance is considered important, such as entrances, main pedestrian access routes, car parks and other facilities. Other areas should use vandal resistant perimeter lighting, operated by photoelectric cells, which should illuminate all elevations and recesses of the building. All fittings shall be vandal resistant and positioned out of reach.
- 18.3 The lighting design and layout shall support natural surveillance and the operation of CCTV and shall not be restricted by trees, shrubs or other landscaping features.

19 Access to drainage/services

- 19.1 Access to telephone junction points and manhole covers shall be secured to prevent interference and / or removal.

20 Site & Building layout

- 20.1 Building site lines should be kept as simple as possible. Complex building shapes create hiding places, which reduce both natural surveillance and the effectiveness of CCTV systems. Recesses create congregation points, which are a focal point for crime and anti-social behaviour, possibly leading to littering, graffiti, vandalism and arson.
- 20.2 Where possible, buildings should be orientated to maximise natural and formal surveillance opportunities.

21 BUILDING SHELL SECURITY

- 21.1 The design of the building should take into account the need to prevent features, which aid scaling, or climbing.
- 21.2 Composite panels and profiled metal cladding are vulnerable to forced entry. The first 2m in height of all walls should be masonry or materials of similar strength.
- 21.3 High-risk sections of the building (e.g. drug stores, pharmacy etc.) may require reinforcement, for example expanded metal, to be fitted within the cavity wall. Consult the ALO/CPDA for further advice.
- 21.4 Low or flat roofs shall be avoided. The security of roofs is improved by using deep eaves; however, care should be taken to avoid the creation of sheltered congregation points. Attempts to gain access to roof voids by removing a few tiles may be prevented by fixing expanded metal to the topside of rafters.
- 21.5 Place waste disposal areas and oil tanks away from buildings, as they can be a target for arson or provide access to roofs and windows.
- 21.6 All grilles should use security screws or bolts.
- 21.7 Rainwater down pipes can provide a convenient scaling aid onto roofs or to reach windows above ground floor level. Rain water pipes should be either flush fitting (i.e. square profile) or concealed within the cavity. Consider umbrella spikes on existing vulnerable down pipes.
- 21.8 Existing cast iron pipes may also be coated with anti-climb paint above 2250mm over ground level. A sign indicating the use of this paint must be erected. A further alternative is a flush metal guard can be fitted over the down pipe from ground level to a height of 3m above ground level.
- 22.9 Any skylights fitted should have either steel bars or expanded metal beneath them, which is securely fixed to the building fabric.

23 Windows

- 23.1 All windows should be independently certificated to BS 7950 *Windows of Enhanced Security* or LPS 1175 SR 2 or 3 as well as the relevant performance standard i.e. BS 644 for timber windows, BS 4873 for aluminium, BS 7412 for PVC U or BS 6510 for steel windows. All ground floor and vulnerable windows should use minimum 6.8mm laminated glazing.
- 23.2 Higher risk locations will require greater protection commensurate with risk. Sills should be steeply angled to prevent them being used as climbing aids, seats or litter points. All windows should be fitted with restrictors.
- 23.3 Windows to pharmacies, record rooms etc. may use either barred protection or steel shutters certificated to LPS 1175 grade SR 2 or 3.
- 23.4 Glazing and glazing sizes shall to be kept to the minimum compatible with requirements of lighting, surveillance and visibility.

24 Perimeter doors

- 24.1 The suitable security standard for external hospital doors is LPS 1175 SR 2 or 3. The key point in assessing doors is independent testing and certification to the relevant security standard. Consider an alarm or warning facility for external doors, where appropriate, so a signal on opening can be transmitted to the security office. All glazing to doors shall be minimum 7.5mm thick.
- 24.2 Emergency escape doors and frames should be manufactured from steel and designed without visible external ironmongery. Fire doors should be fitted with door contacts programmed into a 24 hours alarm circuit. Audible alarms on opening and/or relayed to security may also be included on fire doors.

25 Roller shutters

- 25.1 Roller shutters shall comply with LPS 1175 grade 2. Locks may be applied internally if possible; otherwise a close-shackled padlock to be used. All shutters should have contacts fitted and be linked to the alarm system.

26 INTERNAL LAYOUT

- 26.1 Efforts should be made by the architect to group the following functions; outpatients, intensive care, accident and emergency, radiography, operating theatres and MRI scanners; thereby ensuring patients visiting the hospital find the treatment required within easy reach of one another.
- 26.2 The obstetrics, gynaecology, anti-natal clinic, labour ward, special care baby unit and maternity beds should be adjacent to one other thereby enabling easy movement of both visitors and staff. The security measures discussed in this document should be applied to all wards.

27 Hospital entrance & visitor control

- 27.1 The number of public entrances into the building should be reduced to the minimum practicable. It should be possible to reduce the number to two, namely the main entrance and that to the Emergency and Accident (A&E) Ward. Both entrances should be clearly signed and well illuminated.
- 27.2 The reception desk serving the main public entrance should have full surveillance of everyone entering the hospital. A high, wide reception desk increases the distance between the receptionist and caller, which offers a minimal level of protection. Local conditions may require additional protection such as a glazed screen. Facility must also be made to ensure that wheelchair users can use the reception desk.
- 27.3 The placement of a security office adjacent to the main entrance can have a salutary effect on potential troublemakers.
- 27.4 Automated doors are recommended, fitted with a manual override, which should comply with LPS 1175 Grade 2 or 3. Any glazing must be minimum 6.4mm laminated glass.
- 27.5 Consider installing rising or retractable bollards in front of high-risk perimeter doors.
- 27.6 A separate staff entrance may be applicable which uses access control, preferably in the form of proximity readers for practicality.
- 27.7 Loading areas should benefit from natural surveillance and consideration should be given to creating a safe area by fencing and gating the parking zone.

28 ACCIDENT & EMERGENCY

- 28.1 The reception area in A&E wards is often a flash point for crimes, which range from violence and aggressive incidents, to abuse of patients and staff. Vandalism and theft are also particularly prevalent within A&E.
- 28.2 The entrance to A&E should have an access control system fitted for use at nighttime. Experience shows that fights often continue in A&E wards after the initial fight resulted in someone going to hospital. When night security staff grants entry, it has proved very effective in preventing further trouble within the hospital.

It is recommended that the access control system operate between 11pm and 6am.

28.3 The various features detailed below, if incorporated in A&E ward design, can lead to significant reductions in crime:

28.4 CCTV should cover the ambulance entry point. Several hospitals have reported theft from ambulances whilst ambulance crews take patients into the hospital.

29 Reception area

29.1 The design of the desk is important in ensuring the safety and confidence of staff. High, wide reception desks increase the distance between the receptionist and potentially aggressive patients, thereby providing some defense. Local conditions may require additional protection from a laminated glass screen (minimum 7.5mm). A personal attack alarm should be provided at the reception desk, which signals the security office and activates a loud alarm at the scene. The floor behind the counter may be raised if deemed appropriate. The activation of the alarm may well shock and disorientate some aggressive patients and clearly signals that assistance has been requested. It is therefore essential that staff be fully trained in its use. In addition, consider providing a direct link to Police where incidents commonly occur and are of a violent nature.

29.2 Reception staff should have surveillance of all parts of the ward, including the whole waiting area, toilets and, where possible, corridors to treatment room. The reception and waiting areas should be open to allow the CCTV system to gain full surveillance.

29.3 The Triage area ought to be capable of becoming a secure area. Doors shall be capable of being locked and panic alarms etc. fitted. It may be prudent to post a security guard at the door of triage on Friday and Saturday nights.

30 Waiting area

30.1 The waiting area of A&E wards should be open to surveillance and be well lit. All furniture should be fixed to prevent their being used as weapons. Fire hoses should also be properly housed and locked.

30.2 The provision of public telephones together with food and drink dispensing machines should be located in view of the reception counter.

30.3 Furniture design should prevent patients and their friends from stretching out and sleeping, therefore smaller grouping of seats is preferable.

30.4 It is an accepted fact that people's behaviour is directly affected by their immediate surroundings and this includes colour schemes. Pale green or blue, for example, have a calming effect on people and are therefore considered appropriate for waiting rooms. It may also be appropriate to play low level, light classical background music, which has also proved to have a calming influence and can deter potentially violent persons from loitering. An alternative to the above is to use a TV, securely fixed to the wall, permanently tuned to a news/documentary channel.

30.5 Consideration should be given to preventing easy access from the A&E waiting area to the rest of the hospital for people using the waiting area.

30.6 Segregating arrested and intoxicated patients requiring medical attention should be considered. The formation of secure holding units is now commonplace and these should have soft furnishings, fixed tables, panic alarms etc.

31 W.C. facilities

31.1 All service pipes and fittings, including lights, should be fully enclosed to prevent vandalism. Non-return screws and hidden fixings should also be employed. The use of an anti graffiti coating will aid the removal of any marking. Access control is required after 11pm.

32 Treatment rooms

32.1 The layout of treatment rooms should omit obstacles between the doctor/nurse and the door. Patients should not be positioned between staff and the main entrance door. Additional doors should be located between treatment rooms, which allow an alternative method of entry into the room should a patient try to bar staff an exit via the main entrance door. Panic alarms should be installed and connected to the security office. The décor in these rooms should also have a calming effect to ease the patient.

33 MATERNITY & PAEDIATRICS

33.1 Maternity and paediatric wards should not be located on the ground floor of the hospital. The deeper within the hospital and the more layers of access control between public areas and those containing babies the better

33.2 Consideration should be given to creating a standalone maternity and paediatric unit. The ability for alarm systems linked to baby tagging would be much easier to control and more importantly the ability to arrive at the incident would be enhanced.

33.3 Great care in citing alarm sensors is vital. Tests at hospitals have shown that by holding a child aloft the sensors at lower level were easily bypassed. Tags must also be placed on the arm rather than ankles because baby grows were found to block the signal.

33.4 Double entry doors with a vacuum area and audio/visual access control ought to be used and doors should auto lock in case of emergency. If located on the ground floor level, defensive planting at ground floor window levels would help prevent an intruder from passing a baby/child out to an accomplice.

33.5 Nursing station staff should control all visitors entering wards. Entrances should be covered by CCTV and natural surveillance. CCTV aiming for an identification level of coverage should be included at the most appropriate door. The glazing to entrance doors should be designed to allow visitors to be viewed before entry. All glazing to doors and windows should be minimum 6.8mm laminated glass and windows should be fitted with opening restrictors. CCTV operating procedures should be strictly followed.

- 33.6 All babies and children should be tagged to activate an alarm in the event of an attempted abduction. All visitors should wear passes and be challenged if not displaying a pass. Play areas should be monitored with CCTV.

34 PHARMACY

- 34.1 The pharmacy is a vulnerable part of the building, which can attract all forms of drug dependent people. It should have a separate alarm zone within the main alarm system.
- 34.2 The pharmacy should not form any part of the external structure, but be located within easy reach of the main entrance. The pharmacy walls should be masonry in construction and be built up to the underside of the floor above.
- 34.3 If the pharmacy does form part of the shell, expanded metal should be fitted interstitially and against the brickwork.
- 34.4 The staff entrance should have access controlled and be located from an area inaccessible to the public.
- 34.5 The counter should be high and wide to prevent staff from coming into direct contact with customers. The floor behind the counter may be raised. Any screen should use minimum 7.5mm laminated glass. A personal attack alarm should be fitted behind the counter.
- 34.6 The pharmacy counter should benefit from both natural surveillance and CCTV coverage. In addition no toilets should be located in or near pharmacy areas.
- 34.7 Controlled drugs should be secured in a BS 2881 storage cabinet. Regular drug audit trails should take place together with secure deliveries to other departments.

35 LABORATORIES

- 35.1 Hospitals and other Health Service establishments operating Containment Level 3 laboratories must register with the HSE. There is a statutory requirement for such laboratories to comply with the 'Security Standards for Laboratories' document published by the National Counter Terrorism Security Office (NaCTSO), in accordance with Part 7 of the Anti-Terrorism Crime and Security Act 2001.
- 35.2 The Counter Terrorism Security Adviser (CTSA) should be contacted in each case where laboratory security is being examined. When visiting a laboratory it is essential that local protocols and health and safety requirements are followed. For further information contact NaCTSO on 020 7931 7142 or nactso@btopenworld.com.

36 CASH OFFICE

- 36.1 The cash office is a vulnerable part of the building that should have a separate alarm zone within the main alarm system.

- 36.2 The cash office should not form any part of the external structure, but be located within easy reach of the main entrance. The walls should be masonry in construction and be built up to the underside of the floor above.
- 36.3 If the cash office forms part of the external shell, expanded metal should be fitted interstitially and against the brickwork.

37 RETAIL OUTLETS

- 37.1 Retail outlets benefit patients, staff and visitors, but are likely to attract thieves. The layout of shelves should be arranged to enable staff to have clear surveillance of the shop. The till should be close to the entrance, thereby ensuring customers pass it on leaving.
- 37.2 Automatic Telling Machine's (ATM) are becoming a common feature in hospital shops and care in citing them must be made. Any installed ATM should comply with either LPS 183 or EN 1143-1. Cash delivery distances must be kept to a minimum.

38 POLICE OFFICE

- 38.1 The local police service should be approached to ascertain whether they would like a police office within the hospital, and if so a commitment from them to staff the office must be gained. Alternatively the provision of a dedicated hospital beat bobby could prove useful.
- 38.2 Should the hospital incorporate a police office, it ought to be located close to the A&E ward and the main entrance.

39 SECURITY OFFICE

- 39.1 All hospitals should employ dedicated security staff giving 24 hours covers. Dual role security/porter staff is not recommended as the security element usually suffers.
- 39.2 Where possible a security office should be located close to the main entrance and A&E ward. Security staff should make regular patrols and pro-actively check staff identity.

40 PATIENT RECORDS OFFICE

- 40.1 The main entrance should use a door to LPS 1175 SR 2 or 3. The office should be alarmed and an access control system employed.
- 40.2 The majority of patient records are allegedly stolen in transit from office to consultation areas, so consideration must be given to secure means of transit. Secure drug type trolleys may be used.

41 GENERAL WARDS / ACCESS CONTROL

- 41.1 Access control should be incorporated in wards and other areas where the general public should not roam freely. The nursing stations should have surveillance over the main entrance in all wards. Staff locker / changing areas should benefit from controlled access and all lockers should be fitted with locks. Non-medical staff e.g. cleaners and porters etc. should have secured changing rooms and locker facilities.

42 GENERAL OFFICE SECURITY

- 42.1 General Offices should have a separate alarm zone, but link with the main alarm system.
- 42.2 Doors should be 44mm solid core, have 3 heavy-duty hinges and have a Kite marked BS 3621 5 lever mortice deadlock fitted.
- 42.3 Stores should employ 44mm solid core doors, 3 heavy-duty hinges and Kitemarked BS 3621 five lever mortice deadlocks. If stores contain valuable products, access control should be used, thereby indicating which staff has used the store.
- 42.4 High impact gypsum boards significantly strengthen stud partitions walls.

43 MORTUARY

- 43.1 The mortuary should have a separate alarm zone, but linked to the main alarm system.
- 43.2 Doors should be 44mm solid core, have 3 heavy-duty hinges and have controlled entry.

44 CORRIDORS & CIRCULATION

- 44.1 Corridors should be as straight as possible, well lit, have no recesses and where possible chamfer the corners where corridors cross to improve surveillance. Straight corridors also aid any CCTV system. Clear signs should indicate routes throughout the hospital. Access control to non-public areas should be installed.

45 W.C FACILITIES & CHANGING FACILITIES

- 45.1 WC facilities should be kept to a minimum. All service pipes and fittings should be fully enclosed to prevent vandalism. Anti vandal light fittings should be fitted, together with non-return screws and hidden fixings. Access control should be fitted to all w.c.s.

46 SECURITY MANAGEMENT

- 46.1 Key distribution should be kept to a minimum and stored in an LPS 1228 or EN 1143 key security cabinet located in the main office. Keys should not be marked with vehicle registration numbers.

- 46.2 Ideally an automatic monitoring system that denies access to unauthorised staff and records identify of staff members who have taken keys should be installed.
- 46.3 A public address system should be installed to cover all floor levels. It is a useful management tool and acts as an early warning system should staff require assistance.
- 46.4 All hospital staff should wear identity badges. This measure should be rigidly adhered to.
- 46.5 Hospitals should become involved in local Crime & Disorder/Community Safety Partnerships as appropriate.

47 COMPUTERS

- 47.1 Computers and office equipment are vulnerable to theft. Careful siting of power trunking is required to ensure they are kept away from windows. Computers should be fitted in individual steel cases to LPS 1214. Mark the post code and hospital name on the outer casing of all office equipment. High risk and main frame computers should be secured in a purpose built room in individual cabinets.

48 STAFF ACCOMMODATION

- 48.1 The standard *Secured By Design* domestic and refurbishment principles apply in respect of on-site staff accommodation. Safe routes to and from the hospital must be designed.

49 NEEDLE EXCHANGE

- 49.1 Research shows that dwellings located on the routes which intravenous drug users take from their homes to the needle exchange facility usually suffer an increase in burglaries. This should be taken into account when offering such a service and advice should be obtained from the local crime prevention officer.
- 49.2 All police services operate the 'Secured By Design' initiative. If the advice given by the ALO is incorporated, a SBD certificate will be awarded to show that the police have approved the security and the SBD logo may be used for advertising purposes. A Secured By Design application form must be completed by the agent or client prior to site works commencing.

Further information on the Secured By Design initiative may be found on www.securedbydesign.com

Crime prevention advice is given free without the intention of creating a contract. The Police Service does not take any legal responsibility for the advice given. However, if the advice is implemented, it will reduce the opportunity for crimes to be committed.

50 SECURED BY DESIGN CHECKLIST - HOSPITALS

Please tick appropriate boxes

Campus Layout

- A secure boundary equivalent to 2m high paladin, weldmesh or similar. Note - Unless particularly dense and well-developed soft landscaping (i.e. hedging) is not acceptable. (Defensive planting in addition to secure fencing is encouraged)
- Entrances to be strictly limited.
- Entrances controlled by gates of similar construction or security rating to boundary treatment. There shall be no unobserved access or escape routes to or from the hospital.
- All access points clearly signed including clear directional information to key areas (i.e. Reception)
- Reception area and main entrance shall be in close proximity with the route between clearly signed and controlled.
- Direct access to children by visitors to be monitored. Babies and children should be tagged.
- The site arranged to maximise natural surveillance of all external spaces including entrances, car parks, cycle storage and main circulation routes.
- Buildings arranged on the site to avoid creation of unobserved areas. Recesses and complicated plan shapes that can conceal criminal activity from surveillance shall be avoided.
- External lighting and landscaping proposals considered together to maximise natural surveillance and avoiding hidden, shaded areas.
- Landscaping materials and external furniture i.e. litter bins and seating, to be robust so as not contribute to the crime risk.
- Avoid climbing features that provide unauthorised access to roofs or vulnerable windows
- Secure bin store area away from buildings.

Lighting

- Lighting provided to all entrances, recesses, movement routes and car parks.
- External lighting levels to be to BS 5489 Part 9.
- Light fittings shall be vandal resistant and easily maintained
- Lighting mounted at a height that allows best spread of light, without shadows and reduces vulnerability to vandalism.
- Lighting to be compatible with landscaping

CCTV System

- Designed fit for purpose - facial identification, general surveillance or management, quality of pictures checked to ensure suitability.
- Monitored on site or by remote station.
- Cameras, wiring and recording or monitoring equipment secured.
- Robust with easy to maintain components.
- Designed in coordination with external lighting and landscaping.

Building Design Generally

- Low or flat roofs to be avoided, use simple roof shapes that do not provide hiding places as seen from the ground and are not accessible to unauthorised persons.
- Roof materials and construction to provide a robust and secure construction with roof glazing, service openings and plant rooms protected.
- No climbing aids. (Check rainwater down pipe design, low canopies over entrances and roof eaves details).
- Simple plan shape is without recesses.
- Entrances kept to minimum number (preferably one).
- Fire escapes secured and controlled - see fire doors below.
- Avoid surfaces vulnerable to graffiti that are difficult to maintain and keep clean.

Entrance Doors

- All door sets to BSI. PAS 24. Specialist entrances using composite sets to achieve equivalent standard.
- Glazed panels in and adjacent to doors to be minimum 6.4mm laminated glass. Solid doors giving access to the public shall have a door viewer fitted at 1500mm above floor level.
- Fire doors without external door furniture. Each fire exit must be protected by an intruder alarm.

Letter Boxes

- Letterboxes shall be installed 'through the wall' to discharge into a secure and fireproof chamber. Installation shall comply with Post Office recommendations.

Windows

- Windows shall comply with BS 7950. 6.4mm laminated glass shall be used in all ground floor windows and vulnerable, easily accessible windows at other levels.

- Locking devices and opening restrictors shall be fitted to all ground floor and other vulnerable windows.

Roof Lights

- Roof lights shall be robust and use polycarbonate materials and where necessary with internally fitted steel mesh or grill.

Intruder Alarms

- An intruder alarm system shall be installed in compliance with ACPO Security policy.

Management practice

- A security file shall be created and maintained. Policy Statement in respect of hospital security should be put in place and displayed in a prominent position.
- Visitor Control procedures to be established.
- Contractors working procedures established and activities logged.
- Surveillance including CCTV and patrolling procedures established and recorded.
- Property marking record maintained.
- Crime Log and Police Contact Records maintained.
- Cleaning and repairs recorded.

NB Developers/architects should liaise at the earliest opportunity with the ALO / CPDA, who can provide useful advice from the outset in respect of Secured By Design – Hospitals, the potential crime risks and recommendations to constitute an approved design.

Plans to accompany each SBD application form:

Location Plan to minimum 1:2500 scale.
Site Layout to minimum 1:200 scale.
Elevations & floor plans.
External lighting layout and specification.
Landscape and boundary details.
Schedule of security fittings as appropriate.

51 Appendix A - Security Measures

The selection of the most appropriate measures will depend on:

- the perceived hazard, the risk and the likelihood of incidents arising
- who is at risk and the value of property at risk
- cost of installing measures
- likely reduction in risk.

It should be noted that the standards discussed in this document are a minimum level required to obtain Secured By design accreditation. High-risk sites may require additional measures to be implemented.