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Sanitary installations

Part 4: Code of practice for the provision of public toilets

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Contents

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List of tables

Summary of pages

This document comprises a front cover, an inside front cover, pages i to iv, pages 1 to 56, an inside back cover and a back cover.

Foreword

Publishing information

This part of BS 6465 is published by BSI and came into effect on 30 November 2010. It was prepared by Panel B/209/-/2, *Draft BS 6465-4*, under the authority of Technical Committee B/209, *General building codes*.

Relationship with other publications

BS 6465 is published in four parts as follows:

- *Part 1: Code of practice for the design of sanitary facilities and scales of provision of sanitary and associated appliances;*
- *Part 2: Code of practice for space requirements for sanitary appliances;*
- *Part 3: Code of practice for the selection, installation and maintenance of sanitary and associated appliances;*
- *Part 4: Code of practice for the provision of public toilets.*

Part 1 gives recommendations for the design of sanitary facilities and for the scale of provision of sanitary and associated appliances in buildings, and for portable toilets.

Part 2 gives recommendations on the space requirements around all sanitary appliances to ensure convenience in use and to facilitate maintenance and cleaning.

Part 3 gives recommendations on the selection, installation and maintenance of various types of sanitary and associated appliances.

Use of this document

As a code of practice, this part of BS 6465 takes the form of guidance and recommendations. It should not be quoted as if it were a specification and particular care should be taken to ensure that claims of compliance are not misleading.

Any user claiming compliance with this part of BS 6465 is expected to be able to justify any course of action that deviates from its recommendations.

Presentational conventions

The provisions in this standard are presented in roman (i.e. upright) type. Its recommendations are expressed in sentences in which the principal auxiliary verb is "should".

Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.

Contractual and legal considerations

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard cannot confer immunity from legal obligations.

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Introduction

Research and feedback from community groups has shown that public toilet provision is essential in creating accessible and sustainable cities, and meeting the needs of commuters, tourists, visitors, and residents. To meet these needs, and those of people in towns, villages and rural areas, it is essential that there are adequate numbers of public toilets and that they are in the correct locations, accessible, well designed and suitable for user needs.

From the environmental viewpoint, public toilets are often the missing link in creating sustainable cities, as people are more likely to leave their cars at home and travel on public transport, on foot, or by bicycle if they know that public toilets are readily available within walking distance of their destination.

From the social point of view, public toilet provision benefits all sectors of society, men and women, disabled people, older people, families and children.

From the economic point of view, public toilet provision, rather then being a burden on resources, can encourage people to visit a location, stay longer and spend more money in the area.

This part of BS 6465 provides recommendations and guidance intended for those responsible for the surveying, assessing, planning, commissioning, designing, managing and use of public toilets. The recommendations and guidance in this standard are intended to cover public toilet provision for the full range of users and in all locations including towns and cities, rural areas and villages and in relation to main transport routes and termini.

The recommendations in this part of BS 6465 are applicable to new public toilet installations. They are also applicable to the upgrading of existing public toilets. However, it is accepted that it might not be possible to upgrade existing toilets to be in accordance with all the recommendations in this standard, for example for physical or economic reasons. It is important to note that it is not intended that any public toilet be closed just because it is not entirely in accordance with this standard, as any public toilet provision is considered to be better than none.

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Section 1: General

1 Scope

This part of BS 6465 gives recommendations on the location, numbers, siting, design and management of public toilets. It is applicable to the provision of new facilities and to the retention and refurbishment of existing facilities.

This standard is applicable to the following types of public toilet facilities:

a) municipal public on-street toilets;

b) off-street publicly available toilets (e.g. in shopping malls);

c) automatic public conveniences (APCs);

d) street urinals;

e) facilities for disabled people, from the point of view of scale of provision and location;

f) baby changing and ancillary toilet facilities.

This part of BS 6465 is not applicable to the following:

1) toilet facilities in buildings open to the public such as theatres, libraries, hospitals and hotels, (see BS 6465-1 for these), unless the toilets in these buildings are made available to the general public as off-street publicly available toilets as part of an overall public toilet availability strategy;

2) sanitary provision on vehicles, such as aeroplanes, trains and coaches (although it is applicable to public toilets in transport termini and interchanges);

3) detailed space requirements in public toilet facilities (see BS 6465-2);

4) the selection and installation of appliances and fittings (see BS 6465-3).

This part of BS 6465 does not give detailed recommendations for the layout of, and fixtures and fittings in, accessible toilet facilities. This standard does give recommendations for the provision of accessible toilets and Changing Places toilet facilities from the point of view of scale of provision and location. For detailed layout it is essential for the user to consult BS 8300. References to BS 8300 are given for particular items where these are covered in the present standard with respect to public toilets in particular, however this is not a substitute for following the provisions of BS 8300 with respect to accessible toilets and Changing Places toilet facilities.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

BS 6465-1, *Sanitary installations – Part 1: Code of practice for the design of sanitary facilities and scales of provision of sanitary and associated appliances*

BS 6465-2, *Sanitary installations – Part 2: Code of practice for space requirements for sanitary appliances*

BS 6465-3:2006, *Sanitary installations – Part 3: Code of practice for the selection, installation and maintenance of sanitary and associated appliances*

BS 7958, *Closed circuit television (CCTV) – Management and operation – Code of practice*

BS 8300, *Design of buildings and their approaches to meet the needs of disabled people – Code of practice*

BS EN 1036-1, *Glass in building – Mirrors from silver-coated float glass for internal use – Part 1: Definitions, requirements and test methods*

BS EN 1036-2, *Glass in building – Mirrors from silver-coated float glass for internal use – Part 2: Evaluation of product conformity; product standard*

3 Terms and definitions

For the purposes of this part of BS 6465 the following terms and definitions apply.

3.1 24-hour toilet
toilet facilities that are available at any time of day

3.2 accessible toilet
toilet designed for wheelchair users, or for ambulant disabled users

NOTE Ambulant disabled users include people who are blind or partially sighted and people with invisible disabilities such as arthritis, colostomies and incontinence.

3.3 activity space
area needed, in addition to the appliance space (see **3.4**), for the user to carry out the activity normally associated with the appliance and to enable the provider to undertake cleaning and maintenance

3.4 appliance space
area required for a sanitary appliance and, where applicable, any associated pipework and fittings

3.5 Authority
provider responsible for the public toilet strategy and provision of public toilets in an area

NOTE This will normally be the Local Authority, but may be another provider.

3.6 automatic public convenience
APC
stand alone public toilet with WC and washbasin that cleans automatically after use

NOTE These are sometimes known as "automatic public toilets" (APTs).

3.7 Changing Places toilet
toilet designed for use by people with severe disabilities who require the help of up to two assistants

NOTE The space is fitted with a changing bench and fixed tracked hoist system so that assistants can fit the user's slings to the hoist and move the person to the various items in the facility.

3.8 circulation space
area free of obstructions required for the user to gain access to an appliance without interference to users of other appliances

3.9 community toilet
toilet facilities in business premises made available to non-customers through an agreement between a Local Authority and the business owners

3.10 customer toilet
toilet on private property provided solely for the use of customers visiting the property

3.11 family toilet
toilet containing a WC, washbasin and baby changing facilities, that can be used by parents with young children and babies

3.12 portable toilet
movable structure containing sanitary appliances, either temporarily connected to drainage and/or water supply systems, or with self-contained supply and waste collection systems

3.13 public toilet
toilet for use by the public in a public area which can be on or off-street, and which is usually provided and maintained by a Local Authority or other corporate body

3.14 publicly available toilet
off-street toilet on private property to which the general public (other than customers) may have access (e.g. in a shopping mall)

3.15 sanitary appliance
fixed appliance, normally connected to a water supply and to a drain, used for the provision of water, or for cleaning, or for wastewater disposal

NOTE Sanitary appliances include WCs, urinals and washbasins. They also include appliances that are not connected to a water supply or a drain, for example waterless urinals.

3.16 self-contained toilet
ventilated toilet compartment which contains one WC and washbasin

3.17 squat toilet
WC pan set into the floor which can be used as a urinal or which the user squats down to use

3.18 street urinal
structure containing urinals provided in a public place

3.19 sunpipe
pipe lined with light reflecting material which is used to transmit daylight from the outside of a building to the inside

3.20 toilet
room in which a WC or WCs are installed and which is used solely for excretory purposes and associated washing

3.21 unisex toilet
toilet that can be used by either sex

3.22 urinal
sanitary appliance used by men for the reception and disposal of urine

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3.23 washbasin
basin for washing hands

3.24 waterless urinal
urinal that is not connected to a water supply

3.25 WC (water closet)
pan receptacle for faecal matter, urine and toilet paper plus any associated flushing device, plumbing and fittings

Section 2: Public toilet strategy

*COMMENTARY ON SECTION **2***
It is very important that public toilet provision is seen as a strategic, high-level urban spatial policy, as part of the normal work of city planning departments, and as a key component alongside other economic, social and urban design considerations. It is important that those administering public toilet provision have effective communication with strategy policy departments, and are well acquainted with user needs and with higher level government policy. Although public toilet provision is declining, demand from the general public remains high, and government policy has endorsed their importance.

NOTE *See* Improving access to better quality toilets – A strategic guide *CLG, 2008 [1].*

4 Strategy contents

A public toilet strategy should include the following.

a) *Identification of the Authority in charge of the strategy*.

This will be needed where two or more Authorities might overlap in an area.

b) *Identification of the department within the Authority in charge of the strategy*.

It should be determined which department within the Authority is in charge of the strategy, and which other departments and outside agencies need to be involved in determining and implementing the strategy (see Clause **5**).

c) *Consultation with relevant parties*.

Consultation should be carried out before determining the strategy (see Clause **5**).

d) *A survey of existing facilities*.

A survey of current provision should be undertaken. The current toilet situation in the area should be recorded on maps, and survey data retained for future reference and updating (see Clause **6**).

e) *A survey of users and their needs*.

See Clause **7**.

f) *A spatial strategy*.

A strategy should be drawn up to show where toilets are needed, and the number and level of facilities required (see Clause **8**).

g) *Identification of deficiencies*.

Following surveys of users and existing facilities, it should be determined where toilet provision is non-existent, or inadequate, in terms of numbers, range or quality of facilities.

h) *Determination of types of facilities to be provided*.

There are different types of toilets and methods of provision (see Clause **9**).

i) *Identification of priorities for upgrading*.

The Authority should then determine priorities for upgrading provision as necessary (see **8.6**). A policy and timescale for upgrading should be produced.

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j) *A financial planning and charging policy*.

Financial planning and charging policies are outside the scope of this standard, except in as far as they involve access and accommodation requirements (see **19.2.3** and **19.4.2**).

NOTE The Public Health Act 1936 [2] prohibited Local Authorities from charging for the use of urinals. This restriction was removed by Section 22 of the Sex Discrimination Act 1975 (Amendment) Regulations 2007 [3], and Local Authorities can now charge for both WC and urinal use.

k) *A management policy*.

Toilets will need attendance, cleaning and maintenance (see Section **5**).

l) *User information*.

Overall public toilet provision in the whole Authority area should be included in one place on the Authority's website for use by the public. This should include a map showing where public toilets (and other toilets available for use by the public) are situated, the facilities available, and nearby parking if necessary. This information should also be held in council offices, tourist information centres, etc. Ideally paper copies should also be available for the public.

Local area signboards and paper maps may also be produced, showing toilet provision (and possibly other facilities) in more detail. This is particularly suitable for busy areas, and those areas frequented by visitors.

Brief information about toilet availability should be given on road signs on major roads coming into towns and cities or areas of population or of special interest to visitors.

m) *Regular review and updating of the strategy*.

The strategy should be reviewed at least annually to record progress.

Overall strategies should be reviewed and updated at least at five yearly intervals to take account of new developments, population changes, toilet closures, etc.

5 Liaison and exchange of information

5.1 The scale of provision of public toilets, and their location, should always be determined in consultation with the local planning authority, toilet user groups, local businesses and developers, and police, and with transport providers in the area in question.

5.2 In order to do this, a database should be established giving details of all transport operators, health and disability groups, businesses and national interest groups that have a role to play in public toilet provision.

5.3 Liaison should also be established with other governmental and Local Authority departments whose work has a bearing on toilet provision and relevant policies of these bodies should be identified, in particular town and country planning, public health, licensing, transportation planning, police and social services.

5.4 Strong links should also be established between all public and private sector providers of public toilets in the area in question, including retail, car parking, sport and leisure organizations.

5.5 Throughout the development of the toilet strategy for the area in question, and as an ongoing process in respect of toilet management, all these organizations and groups should be kept informed of progress, public participation should be encouraged, and significant toilet provision proposals should be put out to consultation in the same way as any other major spatial planning policy.

5.6 It can also be of value to consult manufacturers on product availability and technological developments.

5.7 Current toilet provision maps (with upgrading priorities shown as necessary) should be available to all departments of the Authority for reference.

6 Survey of existing toilet provision

6.1 In order to maximize the effectiveness of toilet provision (for good toilet provision can be wasted in a poor location), and to develop a toilet strategy and hierarchy of provision, the Authority should first undertake a survey to ascertain what is already available in terms of current levels of provision. This should include their appropriateness to user needs, footfall and transport routes.

6.2 The following information should be recorded.

a) Number of existing facilities, including:
   1) toilet blocks;
   2) sanitary appliances for men (WCs and urinals), and sanitary appliances for women (WCs), in each block;
   3) accessible toilets;
   4) adult and child changing facilities (including Changing Places toilets);
   5) baby changing facilities;
   6) street urinals;
   7) APCs;
   8) squat toilets.

b) Accessibility, including:
   1) opening hours, both daily and seasonal;
   2) location, including distance from users, visibility, signage and environmental factors that might affect use, such as toilets in particularly vulnerable locations in terms of crime and vandalism;
   3) physical factors, including steps, underground toilets, pushchair access, circulation space and cubicle size;

      NOTE 1 People are taller and heavier than they were in the past, and the adequacy of cubicle sizes, also the heights and strengths of fixtures and fittings, should be considered as necessary.

   4) availability of nearby parking, including facilities for disabled people and for bicycles.

c) Features, both positive and negative, which can influence use, e.g. vandalism, disrepair, privacy, safety, cleanliness, and facilities for securing dogs and bicycles.

d) Facilities, including rooms for attendants, cleaning facilities, and other sanitary and associated appliances in the toilet block including washbasins, sanitary disposal units, mirrors and coat hooks.

e) Users, including the numbers of men, women, children, babies and disabled people, likely to use the facilities.

f) Usage and length of queues, including any daily, weekly or seasonal changes in numbers of users (especially important in tourist areas).

NOTE 2 CCTV and electronic people counters can be helpful in determining numbers using the facility, but might not reflect demand.

*NOTE 3 The views of users are also of importance (see Clause **7**).*

6.3 In areas where toilets have been closed, if possible data should also be gathered on previous levels of provision, where public toilets were previously located and when they were closed. It should be determined whether the closures were because of lack of funding, lack of demand, or social problems (e.g. vandalism, drug use or other antisocial behaviour) and whether the previous pattern might provide a good starting point for restoring public toilet provision to areas where it is still needed.

6.4 Data on all toilet providers should be collected, especially in areas where the Authority is not the main public toilet provider, so that there is clear information on who is providing toilets for use by the public, and where.

6.5 A map should be produced showing the distribution and location of all public toilets across the administrative area in question, with a key showing the different sorts of public toilet available. If a map already exists, this should be checked and updated if necessary.

6.6 Liaison should be established with Local Authorities in adjacent areas to facilitate seamless provision of public toilets across administrative boundaries.

6.7 If an Authority has a centralised GIS (geographic information system) the data collected on public toilet location, distribution and types of facilities should be uploaded onto this system so that all departments can access this information.

7 Identifying user groups and user needs

*COMMENTARY ON CLAUSE **7***
Toilet users and toilet providers can have very different perspectives on public toilet provision. Therefore it is very important to identify all the different user groups so that their views can be taken into account. This is particularly important at the local level.

NOTE On average within the UK population, around 18% are disabled people, 40% do not have driving licences, 10% are members of an ethnic minority community, nearly 40% are over the retirement age and 52% are female. These figures will vary according to location, for example seaside towns might have much higher proportions of older people, and some urban areas, for example London, have much higher levels of ethnic minority communities.

7.1 Qualitative data should also be collected on types of users and their particular needs. A database of user groups representing different users should be compiled so that they can be engaged in public participation and consultation on toilet provision policies (see Clause **5**). Different user types to be taken into account should include

women and men, members of ethnic minority communities, religious groups, disabled people, older people, and those responsible for babies and young children.

7.2 The user types should include both people resident in the area in question, and people coming into the area from elsewhere such as tourists, visitors, commuters and other workers.

NOTE 1 The number of non-resident users varies according to location. For example, in central London non-resident groups comprise the majority of public toilet users.

*NOTE 2 Other workers include people who are mobile workers, for example traffic wardens, police officers, delivery staff and bus drivers. These people particularly need toilet facilities in the areas where they are working, which might include suburban areas (see **8.2**).*

7.3 It is extremely important that women's as well as men's toilet needs, experiences and requirements are taken into account fully (see **10.1**).

NOTE Examples of how to mainstream gender considerations into policy making are given in the Royal Town Planning Institute (RTPI) Gender mainstreaming toolkit *[4] and Planning advice note PAN 7 [5].*

7.4 Users should be asked for their opinions on the number and positioning of toilets, facilities within the toilets and cleaning, maintenance and security issues.

7.5 All complaints, comments and suggestions received from the general public regarding public toilet provision in the area in question should be logged and collated, and key issues that are frequently raised should be highlighted and fed into the policy making process.

NOTE It is important that this is done even-handedly without prejudgements being made and that no issue raised is discounted.

7.6 Determining the numbers of people using existing toilets will be helpful in determining required provision. See **11.2.2** for further information.

8 Public toilet spatial strategy

8.1 General

8.1.1 Having undertaken the survey of the existing overall toilet situation (see Clause **5** and Clause **6**), the Authority should then develop a strategy for public toilet provision in their area in accordance with the hierarchy of centres and key locations as given in this clause, so that provision is appropriate, but not excessive, and suitable for the area in question.

8.1.2 The importance of the spatial strategy is to ensure that there are adequate toilet facilities throughout the whole area, rather than just at a few major locations. However, the scale of provision will need to be greatest in the busiest areas, and recommendations for the three levels of the toilet hierarchy given in **8.3.2**, **8.3.3** and **8.3.4** should be followed, as applicable.

8.1.3 In order to develop an effective toilet strategy with adequate provision, distribution and coverage at all levels and localities within the area in question, Authorities should firstly identify those areas where toilet provision is needed.

8.2 Identification of areas needing public toilet provision

8.2.1 The provision of public toilets should be determined according to local need. An assessment of need should be made of areas such as:

a) city and town centres;

b) public transport interchanges and termini;

c) car parks and park and ride facilities;

d) tourist attractions and resort areas;

e) parks, allotments, cemeteries;

f) sports grounds;

g) shopping centres and market places;

h) suburban areas and villages, where toilet facilities might be needed by mobile workers;

i) beaches;

j) cycle paths;

k) rural footpaths;

l) occasionally used areas, e.g. fairgrounds.

8.2.2 This list is not exhaustive, and toilet need should be considered anywhere people are likely to congregate. Toilet provision should also be considered for people in transit, e.g. on trunk roads, and busy thoroughfares in towns and cities. Where toilets are intended for use by motorists, nearby parking facilities should be available.

8.2.3 Even in less busy places, people should be able to access public toilets where other toilet facilities will not be available to them. Although priority should be given to providing toilets in the areas listed in **8.6**, an assessment should also be made of need for public toilets in less busy areas. Examples of different areas are shown in **8.3.2**, **8.3.3** and **8.3.4**, but the scale of provision should be judged on usage rather than location, for example, some parks will come into the medium use category and some into the low use category.

NOTE Railway stations and central area car parks, for example, are likely to be the main gateways to a city for large numbers of commuters, tourists, shoppers and other visitors and so a high level of public toilet provision is needed. However, local area toilets can be important to significant numbers of residents. For example, many older people might take a bus to their local shopping centre and need a toilet there, even though they might not have travelled very far, because of the infrequency of bus services and because of the urinary problems that can be associated with old age.

8.3 Hierarchy of toilet locations

8.3.1 General

Once the areas needing toilets have been identified, a hierarchy based on usage should be determined. Usage, and hence facilities provided, should be based on numbers, type of users, pattern of use, etc.

8.3.2 Heavy use areas

8.3.2.1 Examples of heavy use areas are city centres, major transport termini and major tourist areas.

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8.3.2.2 Large centres should have the highest level of toilet provision, with attendants if possible, and the widest range of facilities, including facilities such as accessible toilets and baby changing areas, and possibly shower facilities. A Changing Places toilet for severely disabled people should also be included. (See BS 8300 for additional suggested locations.)

8.3.2.3 The Authority should take into account off-street toilets that are provided in association with retail premises such as shopping malls, and community toilets. However, it should be checked whether the opening and closing times of these toilets are appropriate to local demand and activity patterns, and ensured that alternative on-street provision is available at other times. There should always be toilets available that people can access without having to enter private premises.

8.3.2.4 In city centres, fully operational 24-hour toilet facilities should be available to provide for the day-time shoppers, night-time drinkers, shift workers, commuters, etc. going through the centre at all times. Where it is not feasible to keep all main facilities open for 24 hours, these can be supplemented by APCs if necessary, but adequate facilities at reasonable distances apart should always be available.

8.3.2.5 In town and city centres and tourist areas, toilets should be within a short walking distance, and should ideally be at 300 m centres in the busiest areas, and at 500 m centres generally in town centres.

8.3.3 Medium use areas

8.3.3.1 Examples of medium use areas are small town centres, suburban shopping centres, busy public transport termini, major car parks, large public parks, beaches, sports grounds and leisure areas.

8.3.3.2 District centres and specific areas of activity should have a level of toilet provision appropriate to the size and likely usage of the areas. This might necessitate 24-hour toilets. Accessible toilet facilities and baby changing facilities should be available.

8.3.3.3 Spacing should depend on intensity of use.

8.3.4 Low use areas

8.3.4.1 Examples of low use areas are local shopping centres with neighbourhood and passing-through catchment, and more dispersed and remote locations, including villages and hamlets, locations served by rural transport networks, allotments, out of town office developments and industrial and retail parks.

8.3.4.2 The needs of small local centres should be served on a more modest scale. Public toilets should also be available to serve the dispersed residential suburban areas that surround local centres, some of which have substantial populations. Where there are no identifiable centres in large residential areas, toilets should be made available near major road junctions or by busy bus stops.

8.3.4.3 At more remote locations, for example villages, wayside lay-bys and beauty spots, at least minimum facilities should be provided, such as an APC (if services are available). These should be suitable for disabled people and contain a baby changing facility.

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8.3.4.4 It is recommended that at least one toilet facility should be provided in every settlement with a population over 5000.

8.3.4.5 However, toilet providers should make sure, through their initial survey and investigations (see Clause **6** and Clause **7**) that they do not underestimate the necessary provision, because there might be days, or times, at which use is greatly intensified, for example when a weekly market takes place.

8.3.4.6 Only in locations where there is very occasional use, or there is a "one off", infrequent, or sudden rise in toilet demand should portable toilets be used e.g. fairgrounds and festivals.

8.3.4.7 Public toilets should be made available in parks, playing fields, allotments and similar areas where private facilities do not exist. In some cases these can be combined with changing rooms, visitor centres, cafe and car park facilities.

8.3.4.8 Public toilets should be provided at out-of-town and decentralized employment locations. At least one toilet should be provided on the main road approach to out-of-town business parks, possibly with a short term lay by.

8.4 Toilets for motorists

8.4.1 Toilet facilities should generally be available 28 miles (or 30 minutes driving) apart on motorways, and 14 miles (or 30 minutes driving) apart on main trunk roads. This is to enable HGV (heavy goods vehicle) drivers in particular to take the regular breaks required by law. Full details of the requirements for toilets and rest areas on major roads are included in *Policy for service areas and other roadside facilities on motorways and all-purpose trunk roads in England* (Department for Transport 2008) [6].

8.4.2 Toilet facilities on main roads do not have to be exclusively for motorists, but they should be close to the main road, well signposted, and have parking facilities nearby. Toilets in less busy locations should be clearly visible from the road, and be well lit, both for identification by motorists, and for surveillance which can reduce antisocial behaviour. Individual direct access self-contained toilets which open directly to the footpath can also be used if necessary to reduce fear of antisocial behaviour.

8.5 Remote locations

8.5.1 The need for public toilet provision in remote areas should not be overlooked. These include public footpaths and cycle paths, beauty spots and picnic areas. On walking and cycling paths, toilets should ideally be no more than 30 minutes walk (1.5 miles) or 30 minutes cycle ride (5 miles) apart. Where plumbing facilities are not practicable, portable toilets or waterless toilets should be considered.

8.5.2 The recommendations in **8.4.2** on surveillance might also apply to these areas.

8.6 Priority of provision

8.6.1 It might not be possible to provide adequate toilets immediately in all necessary locations. It is therefore recommended that where people will not be using customer or publicly available toilets, priority should be given to providing public toilets in areas where:

a) people are likely to remain for an hour or more;

b) people embark on, or disembark from, a journey lasting an hour or more;

c) takeaway food and drink are consumed out of doors.

8.6.2 In these areas, the general public should not have to depend on customer toilets where a purchase might be necessary to use the facilities, e.g. licensed premises and cafes.

8.7 Future provision

The Authority should determine planning policy applicable to new developments so that public toilet needs are always considered.

NOTE Town Planning consents can incorporate agreements made under Section 106 of the Town and Country Planning Act 1990 [7] which could include the provision of public toilets to be incorporated into a scheme by developers.

9 Types of toilet provision

The different types of public toilet provision and the advantages and disadvantages of each are listed in Table 1.

Table 1 **Types of public toilet provision**

Type	Advantages	Disadvantages
Toilet blocks These are the traditional solution. They consist of a building, or a facility within a building, provided to contain more than one toilet and associated facilities. The men's generally include WCs, washbasins and urinals; the women's WCs and washbasins.	Most useful form of provision for busy areas. Can incorporate attendant's room, cleaning facilities, baby change, accessible toilets etc. Freely available to everyone; no vetting of users. Can incorporate advertising and vending machines to generate revenue.	Most expensive to provide and maintain.
Automatic public conveniences (APCs) These are individual stand alone toilets with hand washing facilities, which are accessed by coins, and the whole compartment is washed after use.	Relatively easy to site. Economic way of providing public toilets in lower use areas. Unisex, so only one toilet is needed. Can incorporate facilities for disabled people and baby changing. 24-hour availability.	Not suitable for areas of heavy use. Some people might be frightened to use them. In spite of the fact that they are automatic they need regular servicing in the same way as other toilet facilities. Any malfunction is likely to put the facility totally out of use.

Table 1 **Types of public toilet provision** *(continued)*

Type	Advantages	Disadvantages
Community toilets This is a relatively recent scheme. It involves the Authority paying owners of local business premises a fee to open their toilet facilities to the general public as well as to customers. (See Note 1.)	Allows Authority to provide toilets less expensively. No maintenance required by Authority. Might provide a wider distribution of toilets. Makes toilets available in places they might not otherwise be provided.	Only available during opening hours of premises. Might not provide facilities for all user groups (e.g. disabled people, babies). Persons under 18 are not generally allowed into licensed premises. Could be withdrawn at any time. Not suitable for heavy use. Users might be embarrassed to ask for use, or be reluctant to use toilets in licensed premises, etc., for cultural reasons. Owners can bar undesirable users. Need to be well signed and publicised (see Clause **16**).
Street urinals These are provided by Local Authorities. They can be permanent, or recessed into the ground, only emerging when needed.	Can deal with peak time-related use. Can be hidden away when not needed.	Only cater for men's urination. Do not provide facilities for women. Additional toilet provision will be required.
Publicly available toilets These are toilet facilities provided by other providers, mainly for the use of their customers, but which may also be used by members of the general public. These can include toilets in shopping malls, stations, etc. (See Note 2 and Note 3.)	Toilet provision at no cost to the Authority. Usually well maintained and supervised.	Providers might resent use by non-customers. Might not provide adequate provision for additional numbers of users. Might only be open for limited periods. Might not include accessible toilets. Could be withdrawn at any time.
Customer toilets These are toilet facilities provided solely for use by customers in cafés, bars, places of entertainment, etc. Although they are not strictly public toilets, they do provide some provision for the public, and can supplement other provision. (See Note 2.)	Toilet provision at no cost to the Authority. Usually well maintained and supervised.	Cater only for paying customers. Might only be open for limited periods. Might not include accessible toilets. Could be withdrawn at any time. Should be considered only as a supplement that might help extend coverage, or reduce the numbers of sanitary appliances needed in public toilets, not as a substitute for public toilets.

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Table 1 **Types of public toilet provision** *(continued)*

Type	Advantages	Disadvantages
Portable toilets (See Note 4.)	Can be hired for specific periods. No long term maintenance. Provide provision for areas that are used only occasionally. Give additional provision for occasional increased use of an area (e.g. carnivals). Might be the only solution for sites without water and drainage.	Hire charges. Suitable site has to be found for them. Site has to be accessible to vehicles for delivery and maintenance. Higher maintenance costs than plumbed toilets.

NOTE 1 The publication Improving public access to toilets: Guidance on community toilet schemes and Satlav *(CLG 2008) [8] gives more information on this scheme.*

NOTE 2 The Local Authorities (Miscellaneous Provisions) Act 1972 [9] gives Local Authorities the power to require toilets for customers in restaurants, bars and various places of assembly and entertainment.

NOTE 3 The provision of toilets in shopping malls is covered in BS 6465-1.

NOTE 4 It should be ensured that hand washing facilities are provided with portable toilets wherever a water supply is provided.

10 Equality and meeting the needs of different user groups

*COMMENTARY ON CLAUSE **10***
Attention is drawn to the Equality Act 2010 [10], and the regulations made under it.

The Public Sector Equality Duty contained in this Act places statutory duties on Local Authorities and other bodies providing services to the public to take due regard to the need to eliminate discrimination in the provision of services to the public.

10.1 Men and women

10.1.1 Women generally need a higher level of public toilet provision than men. This is because women take longer to use the toilet for a variety of biological and clothing reasons, and also have more reasons to use the toilet including menstruation, pregnancy, and the fact that they suffer from a higher level of urinary incontinence than men. Women always have to use WCs, whereas men may use urinals or WCs.

10.1.2 In making a calculation of the numbers of appliances required, one urinal should be counted as equivalent to one WC. Women generally require twice as many appliances as men to achieve equal waiting time. Women have often been underprovided with toilets in the past, and it should not be assumed that existing facilities for women are necessarily adequate in terms of numbers.

10.1.3 Every male toilet should have at least one WC, and at least one WC per 4 urinals or part thereof.

NOTE Some men suffer from paruresis (inability to urinate in a public place), and prefer to use WCs for urination, as do some men for religious reasons. For these reasons the ratio of WCs to urinals might need to be increased.

10.1.4 When collecting data on the profile of toilet users in the area in question (see Clause **7**) the Authority should give particular attention to the male:female ratio. For example, in a typical shopping centre 60% to 80% of the shoppers are female, and toilet provision in retail centres (and therefore in city centres) should embody this difference. Likewise, there might be a greater need for men's toilets in some areas, e.g. outside football grounds. See Clause **11** for calculation methods.

10.1.5 In some areas the gender ratio is likely to vary greatly on different occasions. In such areas a larger number of smaller toilet blocks should be provided so that the male/female designation can be changed as required.

10.2 Children and babies

10.2.1 Adequate baby changing facilities should be provided in all public toilets. These are particularly important at locations frequented by families, for example seaside and tourist venues.

10.2.2 Both men and women, including disabled parents, should have access to baby changing facilities, and unisex facilities should be considered. Details of accessible baby changing facilities are included in BS 8300. These require a room which is a minimum of 2 m × 2 m.

10.2.3 Some possible baby changing options are as follows, listed in order of preference.

a) *A family toilet*. This is the preferred option for baby changing. Parents or carers might be reluctant to use the WC themselves if this means that they must leave a child and pushchair outside. A family toilet cubicle will allow a parent or carer, young child and baby all to use the same facility. It should contain a screened WC, washbasin and baby changing unit. The inclusion of an additional, smaller, WC for children could be considered if sufficient space is available. The cubicle and door should be large enough to accommodate a double pushchair. The door should be a minimum of 850 mm wide.

b) *A separate baby changing room*. This should contain one or more baby changing units and a washbasin. The room and door should be large enough to accommodate a double pushchair. The door should be a minimum of 850 mm wide.

c) *An enlarged toilet cubicle 1 200 mm wide*. If it is not possible to incorporate baby changing facilities in another area, such a cubicle [see **10.3.2**d)] can incorporate a baby changing unit. This cubicle can also be used by people who need more space and by people with luggage (see **10.4**). However, in existing toilets it might only be possible to provide an enlarged cubicle by combining two existing cubicles. In such a case it should be determined whether the loss of a cubicle or the absence of an enlarged cubicle would be preferable.

d) *A baby changing unit in the circulation area*. This option would be applicable to smaller or existing toilets where there is sufficient space and the changing unit when in use would not block access or circulation routes.

*NOTE Details of fittings needed in baby changing facilities are given in **19.11**.*

10.2.4 Baby changing units should not normally be placed in accessible toilets (apart from stand alone toilets). However, in existing toilet blocks they may be placed in accessible toilets, but only if there is absolutely no other alternative, as this might result in unacceptable waiting times.

10.2.5 Where there is likely to be only occasional use, one baby changing unit may be provided. Where there is likely to be regular use, two or more units might be required to limit waiting times. Provision should be assessed on the basis of local demand (see Clause **6** and Clause **7**) and increased if required.

10.2.6 The provision of small WCs for children under 5 years old may be considered, particularly in areas where there are a lot of young children, such as playgrounds. These can be either in family toilets or in main toilet areas. However, parents will generally accompany a young child in a public toilet and assist them if necessary, therefore small WCs should not be provided unless there are also an adequate number of full sized WCs which can be used by older children and adults as well.

*NOTE Guidance on children's WC pans is given in BS 6465-3:2006, **8.2.3**.*

10.2.7 The Authority might wish to consider the need for breast feeding areas for women. If provided, these should be separated from the main toilet area and from the baby changing facilities.

10.3 Disabled people

NOTE Full details on the design of accessible toilets are given in BS 8300.

10.3.1 With the increased mobility of disabled people and the growing number of older people, public toilet blocks should contain accessible provision.

10.3.2 New public toilet accommodation should include the following provisions.

a) If only one toilet cubicle is provided, it should be a unisex accessible toilet cubicle. (This will allow a disabled person to be assisted by a member of the opposite sex.)

b) In toilet blocks, at least one unisex accessible toilet cubicle should be provided at each location where sanitary facilities are provided.

c) In addition to item b) at least one toilet cubicle should be provided in separate-sex toilet accommodation for use by ambulant disabled people.

d) Where there are four or more WC cubicles in separate-sex toilet accommodation, one of these should be an enlarged cubicle (1 200 mm wide) for use by people who need extra space, (e.g. pregnant women, older people, people with luggage or shopping, people with children) in addition to any provision under item c) (see also **10.4**).

*NOTE 1 There is no standard pictogram for indicating enlarged cubicles, so a sign saying "Larger toilet" or similar, should be displayed on the door (see Clause **16**).*

e) In heavy use areas, (see **8.3.2**) an additional Changing Places toilet should be provided.

NOTE 2 Further details of the minimum requirements for new accessible toilets can be found in the Building Regulations Approved Document M [11] for England and Wales. Attention is also drawn to Scottish Building Standards Technical Handbook Non-domestic (Section 3.12 Sanitary

facilities) [12] and the Building Regulations (Northern Ireland) Technical Booklet R. [13].

NOTE 3 Requirements for accessible toilets at railway stations are included in Accessible train station design for disabled people: A code of practice *Department for Transport 2010 [14].*

NOTE 4 An accessible toilet may be included as part of a facility provided under the Shopmobility scheme.

NOTE 5 Provision of accessible toilets may be modified if the toilet site is wholly or partially inaccessible to disabled people, e.g. some mountain or moorland sites.

10.3.3 Wheelchair users take longer to use the WC than non-disabled people. Hence, in some busy areas more than one wheelchair accessible toilet will be needed. The number of wheelchair accessible toilets required should be assessed on the basis of local needs (see Clause **6** and Clause **7**).

10.3.4 Ideally, all toilet cubicles should contain handrails for the assistance of the increasing number of older users. However, if handrails are provided, it should be ensured that they do not impinge on the activity space or the circle of clearance within the cubicle, which should still be in accordance with **19.8.1**.

10.3.5 Existing toilets should not be closed just because they do not include facilities for disabled people; however, the Equality Act 2010 [10] requires that "reasonable adjustments" be carried out to make facilities accessible for disabled people. A recent Parliamentary Select Committee on public toilet provision found that it was not reasonable to close existing toilets because they did not have access for disabled people as this would not improve facilities for disabled people and would only disadvantage other users. However, providing accommodation for disabled people should always be a priority. Where it would be difficult to provide it in existing toilets, facilities for disabled people should be provided close by if possible.

NOTE Attention is drawn to Select Committee Report The provision of Public Toilets*, HCH 636 2007-8 [15], and* Government Response to the Communities and Local Government Committee Report on the provision of public toilets *Cm 7530 2009 [16].*

10.3.6 Incontinence is classed as a disability, and is often called a hidden disability because people are reluctant to admit to it. It is particularly relevant because of the increasing numbers of older people in the population who are more prone to this disability. It makes the provision and distribution of public toilets of prime importance in ensuring that older people in particular are able to travel and participate in community life.

NOTE Attention is drawn to the report Lifetime homes, lifetime neighbourhoods: A national strategy for housing in an aging society, *Communities and Local Government, 2008 [17].*

10.4 People with luggage, shopping etc.

In relevant transport facilities and other areas where people are likely to be carrying luggage, step-free access and extra space in the toilet will be required. Space requirements for cubicles suitable for people with luggage are given in BS 6465-2. In areas where people are occasionally carrying luggage, or where the toilet cubicles were not designed to those space standards, an enlarged cubicle 1 200 mm wide may be

provided [see **10.3.2**d)]. This can be combined with baby changing if necessary (see **10.2**). The provision of lockers should be considered.

NOTE Requirements for appliance space, activity space and circulation space are given in BS 6465-2.

10.5 Facilities for other user groups

10.5.1 Squat toilets

Members of ethnic minority communities in Britain will generally be using standard toilet facilities in their homes, workplaces and hotels, and might not require squat toilets, but areas with large ethnic minority communities or large numbers of overseas visitors should be surveyed to see if such facilities are required. If squat toilets are provided, they should be in addition to, rather than replacements for, standard WCs and urinals.

10.5.2 Showers

These may be provided in some public toilets. They are recommended at beaches. Where public toilets are used by cyclists and travellers, the need for showers and lockers should be considered. If showers are provided, there should be at least one accessible shower (see BS 8300 for details).

10.6 Innovative products

When considering innovative approaches to toilet provision, issues of gender equality, accessibility, social inclusion and sustainability should always be taken into account. For example, provision of retractable urinals could be expected to reduce street fouling by men, but might leave women and other user groups without toilet facilities, and these will need to be provided. Any innovative products should be tested on a small scale initially, to ensure that maintenance requirements and user satisfaction are acceptable.

11 Determining numerical levels of public toilet provision

11.1 General

Sufficient numbers of toilets and/or urinals should be provided:

- to meet the requirements of the locality;
- to meet the requirements of the expected gender ratio.

Therefore the Authority should determine:

- the likely population;
- the length of stay;
- the arrival rate;
- the gender ratio;
- peak times, including daily, weekly and seasonal variations;

and decide on the number of units required.

11.2 Determining numbers of appliances

11.2.1 General

11.2.1.1 Determining the number of toilets needed will depend upon the number of people in the area, the length of their stay, their arrival rate, and the proximity of other toilets in the area. People should be able to access the toilet fairly quickly, and except in exceptional circumstances a queuing time of longer than two minutes should be considered unacceptable.

11.2.1.2 It is difficult to determine the number of facilities required without having data on current usage. The methods given in **11.2.2** and **11.2.3** for determining numbers to be provided, may be used.

11.2.2 Local knowledge

11.2.2.1 The survey information (see Clause **6**) can be expected to give some indication of usage of existing toilet provision, and where this is adequate or inadequate. When data are available these can be used when similar new toilet facilities are being provided. For this reason the data collected on existing facilities should be as complete as possible and should be retained for future use. Using the measurement criteria outlined below when carrying out the survey can help. Other toilet providers might have already surveyed toilet usage in their location, and might be willing to share this information.

11.2.2.2 More complete information and greater accuracy of numbers is likely to be obtained where electronic people counters have been used. These can accurately determine numbers over a long period, taking into account daily, weekly and seasonal variations, which should be measured.

11.2.2.3 The British Toilet Association recommends that "*a Local Authority should provide no fewer than one cubicle per 550 women and girls and one cubicle or one urinal per 1 100 men and boys dwelling in the area*". Any large number of people visiting the area regularly would have to be added to these population numbers. These figures might not apply to every situation, but they can be used as a guideline when assessing whether overall toilet provision is likely to be adequate or not.

11.2.3 Calculation

11.2.3.1 General

11.2.3.1.1 An alternative is to use measurement techniques and calculate likely numbers. This requires an "area" to be determined. If the area is large, it might be that more than one toilet block will be needed, as pedestrians in particular need to be within a short walking distance of a toilet, and they might be needed at 300 m centres in busy areas. When calculating the numbers, some deductions can be made for customer toilets and publicly available toilets, depending on the likelihood of their being open and generally accessible for use.

11.2.3.1.2 If washbasins are included within the toilet cubicle, an additional 30 seconds should be added when calculating WC usage time.

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11.2.3.1.3 The following equation may be used:

$$N = \frac{U \times A \times T}{P}$$

where

N is the number of WCs or urinals needed;

U is the number of potential users (number of persons in the area);

A is the arrival rate, i.e. the percentage (as a decimal fraction) of the number of potential users (*U*) likely to use the facilities in a given period (*P*);

T is the time a person takes to use the facilities (in minutes);

P is the period of time used for measurement (in minutes).

11.2.3.2 Number of potential users

The number of potential users in an area will vary, and the number should be measured at a normal peak time, e.g. on a Saturday afternoon in a shopping centre. As well as the number of potential users, the gender of users will also need to be determined. If possible, the numbers of older people, disabled people, and young children in the area should be determined so that numbers of accessible toilets and baby changing facilities required can be more accurately assessed (see also **10.2.5** and **10.3.3**).

11.2.3.3 Arrival rate

11.2.3.3.1 Where *P* is 15 minutes (the length of time most commonly used for the calculation), and where people have a limited time to use the facilities or have arrived from a journey of an hour or more, the arrival rate, *A*, could be 80% of the number of persons in the area. Where use is spread evenly over long time periods e.g. in local parks, the arrival rate, *A*, could be about 5% of the number of persons in the area. This needs to be measured in each case. Most arrival rates can be expected to be somewhere between these two figures.

11.2.3.3.2 The arrival rate at a public toilet will be different for short stay locations to that for medium and long term stay locations. It should be noted that female arrival rates can be up to 30% higher than male arrival rates, and male and female arrival rates should be measured separately wherever possible.

11.2.3.3.3 The following is an indication of likely arrival rates.

a) *Short term stay*.

These are places where there is a stay of less than an hour.

This is the most variable. For example, if people have arrived from a long journey, or are breaking a journey, or have a long journey ahead, the arrival rate will be very high. If it is a local shopping centre, and people are a short walk from home, the arrival rate could be very low.

Typical locations are scenic areas, local shopping centres and bus stations.

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b) *Medium term stay*.

These are places where people will spend one to two hours. The average arrival rate is normally 5% to 10% of the number of persons in the area.

Typical locations are town centres, tourist sites and large transport interchanges.

c) *Long term stay*.

These are areas where people will stay longer than two hours. The average arrival rate is 10% to 15% of the number of persons in the area.

Typical locations are large shopping centres, beaches and sports grounds.

11.2.3.3.4 The arrival rates above may be used where no other data exists, but they cannot replace the accuracy of actual measurement at a location.

11.2.3.4 Time a person takes to use the facilities

*NOTE These times do not refer to disabled people or people using baby change facilities who often take much longer to use the facilities. Provision of separate facilities (see **10.2.4** and **10.3.3**) means that this is less likely to be a problem.*

11.2.3.4.1 The average time that a woman spends in a toilet cubicle is 90 seconds.

11.2.3.4.2 The average time a man spends in a toilet cubicle is 210 seconds, and the average time a man spends at a urinal is 35 seconds. As most male toilet use will be for urination, the overall average time for a man to use the facilities can be taken as 45 seconds.

11.2.3.4.3 Therefore, for the purposes of the calculation, the average time a person takes to use the facilities should be taken as 1.5 minutes for a woman and 0.75 minutes for a man.

11.2.3.4.4 These figures are for WC and urinal use only, and do not include time spent at washbasins. Therefore, if washbasins are included within toilet cubicles, an additional 0.5 minutes should be added to the occupancy time.

11.2.3.5 Period of time used for measurement

11.2.3.5.1 The period of time used for measurement is important. This is the period of time over which the number of people using the facilities is measured. The busiest 15 minutes is normally used, and the arrival rates given in **11.2.3.3** assume a 15 minute time period. However, where the "surge" effect takes place a shorter time period might be necessary. A surge is a large number of people wanting to use the facilities in a very short space of time – typically arriving all at the same time. This can be from an unloading coach, people leaving a football ground or nightclub, etc. To avoid long queues and an unacceptable waiting time, a shorter time period may be used.

11.2.3.5.2 Where use is intermittent throughout a long period of time, a longer period may be used. This might occur in a park, for example.

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EXAMPLE
An example of the equation given in **11.2.3.1.3** in use is where 500 women (i.e. 500 potential female users in the area) and 600 men (i.e. 600 potential male users in the area) are leaving a late night entertainment venue. It is assessed that 10% of the women (i.e. 0.1 of 500 women, which is 50 women) and 10% of the men (i.e. 0.1 of 600 men, which is 60 men) will wish to use the toilets in a 15 minute period.

The calculation for the women would be:

$$N = \frac{500 \times 0.1 \times 1.5}{15} = 5$$

i.e. 5 WCs would be needed.

The calculation for the men would be:

$$N = \frac{600 \times 0.1 \times 0.75}{15} = 3$$

i.e. 3 appliances would be needed, including at least 1 WC.

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Section 3: Siting of toilets

*COMMENTARY ON SECTION **3***
This section gives detailed recommendations on where to put public toilets at the district/local level, and where to site them within a particular locality.

12 Principles of siting of public toilets at the local area level

12.1 General

12.1.1 Local Authorities should ensure that public toilets can easily be found by users. Toilets should be sited on frequently used routes, for the benefit of pedestrians, cyclists, public transport passengers and car users. Public toilets should be sited in open well lit areas where they are visible and accessible to users.

12.1.2 Toilet providers should ensure that recycling bins, refuse bins or skips are not sited alongside public toilets.

NOTE Where this recommendation is ignored, access and visibility might be restricted and unhygienic conditions created. In addition, there might be an implication that the toilets are "rubbish" too and encourage vandalism.

12.1.3 Cultural and religious considerations might need be taken into account in deciding where to site public toilets. Public toilets, and especially open street urinals, should not be sited where they could cause offence, congestion or a nuisance to pedestrians. For example, they should not be sited directly alongside bus-stops, in front of, or close to, building entrances or on narrow footpaths or pavements.

12.1.4 Separate facilities for men and for women should be provided in preference to unisex facilities, wherever possible. The exception is that at least one unisex accessible toilet needs to be provided (see **10.3.2**).

NOTE Many men and women seek privacy, and many women and children feel safer when using single sex facilities.

12.1.5 For toilets in parks and playing fields, consideration should be given to locating them close to an adjacent road where there might be easier access for maintenance, greater use by passers-by and increased surveillance which can offer greater personal safety.

12.2 Siting to combat crime and antisocial behaviour

12.2.1 Public toilets should be located close to footpaths and roads. In built up locations, toilet entrances should face onto the main street and should be visible from the road.

NOTE Increased foot flow past the toilets is likely to reduce loitering and increase overall surveillance.

12.2.2 Public toilets can benefit from being located alongside other public buildings to provide increased surveillance, so the Local Authority should weigh up the advantages and disadvantages of locating public toilets in the vicinity of other buildings. Lists of the advantages and disadvantages are given in Table 2.

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Table 2 **Advantages and disadvantages of locating public toilets in the vicinity of other buildings**

Advantages	Disadvantages
Good security through surveillance from other buildings	Might attract toilet users who will not benefit the local businesses
Likely to be close to existing services	Toilet users could add to any congestion
Can provide useful facilities for users of nearby buildings	Could duplicate facilities for users of nearby buildings
Might draw users to also patronise businesses in the vicinity	If and when closed, could lead to fouling of adjacent buildings by desperate users

12.2.3 The option of locating public toilets within public buildings such as libraries, town halls, or even police stations should be evaluated as an alternative to "stand-alone" toilets.

12.2.4 Siting 24-hour public toilets close to other 24-hour facilities, such as police stations, hospitals, all night supermarkets and petrol stations, could provide facilities in a location where they will be needed, and could also provide the necessary surveillance to deter antisocial behaviour.

13 Relationship to public transport, parking and footpaths

*COMMENTARY ON CLAUSE **13***
All public toilet users, who include pedestrians, cyclists, public transport users and car drivers, need to be able to access the public toilets. Car drivers, for example need a parking space within a reasonable distance of the toilets if they are to be able to use them.

13.1 Liaison with highways and road safety representatives is an essential part of the design process.

NOTE Traffic calming schemes and "red route" no-stopping designations can restrict people's access to roadside public toilets.

13.2 In most urban situations, existing car parking facilities may be utilised for users of public toilets. However, where it is appropriate to provide dedicated parking facilities for public toilets, a short-term parking bay, which also is suitable for use by disabled motorists, should be provided (see BS 8300).

13.3 Where cyclists are likely to use the toilets, a bicycle rack may be provided on an outside wall of the toilet block. The rack should provide one space for every two cubicles in the toilet block, but should not create an obstruction to other toilet users or passers-by.

13.4 If existing toilet block entrances and circulation areas are not large enough to provide easy access for pushchairs and mobility scooters, then alternative covered, lockable parking places outside the toilet block should be considered.

13.5 Access to toilets should be as unimpeded as possible. The following design features should be avoided on approaches: high kerbs, abrupt changes in level, excessive pavement obstacles such as bollards and other street furniture.

13.6 Where facilities for disabled people are located within the main toilet block, the entrance and approaches should be suitable for wheelchair users (see BS 8300).

13.7 Good footpath links should be provided between toilets and frequently used local destinations such as car parks, bus stops, pedestrian crossings and tourist coach pickup points.

13.8 Ideally toilets should not be located where access requires people to cross heavily trafficked streets. If this is unavoidable, a suitable crossing point should be provided.

14 Principles of site analysis

*COMMENTARY ON CLAUSE **14***
After it has been decided where the toilets should be located and how they are to be linked to the surrounding area, a detailed site analysis needs to be undertaken including both natural and man made features of the proposed site(s).

14.1 The slope of the site needs to be noted, not only with regard to drainage constraints, but also with regard to accessibility (see Clause **15**).

14.2 A flood risk assessment of the site should be carried out.

14.3 Where possible, windy locations should be avoided to prevent doors being blown open or shut and to limit the accumulation of wind borne debris.

NOTE The orientation of the building and passage-ways is important otherwise these can act as wind-tunnels. However, controlled air movement and natural ventilation might be improved by careful siting in relation to the predominant wind direction.

14.4 Attention should be given to seasonal temperature variations. While open sunlit locations increase the natural lighting and attractiveness of the building sites, they might need to be avoided where there is too much direct sunlight as this can cause overheating and lead to hygiene problems and unwanted odours. Sheltered sites, particularly in a hollow or depression might also need to be avoided, as such sites can have lower winter temperatures which can result in frozen pipes.

14.5 Careful investigation should be made of the availability and capacity of services on the site, such as water supply and the sewerage system or wastewater treatment plants. The availability of fibre-optic and broadband connections should also be investigated before APCs which need to communicate to a base are installed.

14.6 A survey of the site should be undertaken, when appropriate, to ascertain the soil type, the load-bearing capacity of the site, and the likelihood of subsidence and any existing services in the ground.

NOTE This is particularly important in mining areas and on reclaimed land.

14.7 A local search might need to be undertaken to ascertain details of outstanding planning applications, tree preservation orders, boundary clarification and any legal easements, restrictive covenants etc.

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15 Access to and circulation around the building

*COMMENTARY ON CLAUSE **15***
*Whilst it is important to deter crime through the siting (see **12.2**) and design of public toilets, a balance needs to be struck. Public toilets should be designed to be accessible, not as fortresses aimed at discouraging people from using them. Frequent use by the general public is one of the best ways of deterring antisocial behaviour.*

NOTE For detailed recommendations on access to and circulation around the building for disabled people see BS 8300.

15.1 Where external boundaries need to be provided, open railings, low planting or walls may be used but they should not reduce surveillance. If existing gates, fences, walls and other townscape features are to be incorporated in the design, care should be taken that access is not impeded. Well placed shrubs and ground cover plants can keep people on footpaths and help to deter vandalism. Dense plant cover can discourage weeds and dogs.

15.2 Space outside the toilet block should also offer a safe, open waiting area for people, whilst other members of their party use the toilet.

15.3 Provision may be made for dogs to be temporarily tethered while the owners use the toilet.

15.4 Toilets should ideally be located at ground level. Where possible, toilets should not be located on steep slopes, or rendered inaccessible by steps, steep ramps or high thresholds. Where the use of ramps or steps is unavoidable, they should be in accordance with BS 8300.

NOTE It is not just people using wheelchairs who need easy access, but also those with pushchairs, luggage or shopping, small children, older people, ambulant disabled people, blind and partially sighted people and those with temporary mobility problems.

15.5 Lifts should only be installed as a last resort as they are expensive to maintain, can be difficult to use and are vulnerable to vandalism.

15.6 In areas where CCTV surveillance is provided, consideration should be given to including the monitoring of toilet entrances. This can be an effective deterrent to antisocial behaviour. CCTV coverage should be in accordance with BS 7958.

16 Signage and information

*NOTE See Clause **4** item l) for recommendations on public toilet information. It is essential that this information is kept up to date (see also **6.5**).*

16.1 Good street signage should be provided, pointing the way to the toilets and indicating how far away the nearest toilet is, and in which direction. The signs should indicate the availability of both toilets for non-disabled people and toilets for disabled people.

NOTE Signs which indicate only the latter can be confusing.

16.2 Where community toilets are provided, there should be clear signage in the immediate area to indicate how the scheme works and where the toilets are located.

16.3 Where applicable, information on availability of baby changing, Changing Places facilities and other facilities should be also be shown on the direction signs. The availability of these facilities, together with

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the availability of accessible toilets, should also be indicated on signs by the entrance to the toilets. Where necessary, the type of facility should also be indicated by a sign on the cubicle door.

NOTE Suitable signs are given in BS 8501 and are reproduced in Annex A for the convenience of users of this standard.

16.4 All signage should be of an appropriate size to ensure that it can be easily read by would-be users. Adequate contrast between the symbol and its background is essential and the symbol should be given a sufficiently large surrounding area to ensure readability. Guidance on the use of colour and contrast is given in the *Sign design guide* [18].

16.5 Accessible toilets are not only for wheelchair users, but this is not always recognized by members of the public. A notice should be displayed adjacent to the cubicle indicating the range of likely users of these facilities who might have hidden disabilities including, for example, older people, blind and partially sighted people, people with artificial limbs, people with colostomies, people with arthritis and people who have incontinence problems.

16.6 Signs giving the opening and closing times should be clearly displayed outside the toilets with directions to the nearest 24-hour toilet that is available to users if the toilet in question is closed.

16.7 In locations where people may gather whose first language is not English, toilet signage might also need to be provided in other languages as appropriate; for example, French, German and Japanese in tourist areas, and perhaps appropriate additional languages in areas with large ethnic minority communities.

16.8 Careful thought should be given to signage for blind and partially sighted people. Whilst some local authorities now provide Braille signs these can be difficult to locate if placed high up on a wall with no sensory or tactile trail provided to guide users to the facilities in the first place.

NOTE See BS 8300 for further guidance.

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Section 4: Design of toilet blocks

COMMENTARY ON SECTION 4
This section is concerned with the design of the exterior and the interior of the toilet block with respect to user needs, in terms of ergonomic and social factors. It is particularly concerned with how the different components within the toilet cubicles should inter-relate spatially to make the toilets easier to use. It does not give detailed recommendations on the design of sanitary facilities that are already covered in BS 6465-1, -2 and -3.

Attention is drawn the Building Regulations[19][20][21] and in particular to Approved Documents M, and G and H, of the Building Regulations of England and Wales [11][22][23]. Attention is also drawn to Scottish Building Standards Technical Handbook Non-domestic (Section 3.12 Sanitary facilities) [12] and the Building Regulations (Northern Ireland) Technical Booklets R [13], P [24] and N [25].

17 External design

17.1 The block should be constructed of robust materials. Low maintenance and graffiti resistant materials should be considered. The design should not include features that would assist people to scale walls or climb onto the roof.

17.2 Natural light should be used to light the interior wherever possible. The design should ensure that cubicles as well as the main circulation areas are adequately lit.

17.3 Use of high level windows or rooflights is preferable as this provides privacy, and can help to reduce vandalism and improve security. Sunpipes can also be used to provide natural light.

17.4 Non-opening windows or restrictors on openable windows can be used to prevent illegal entry. However, natural ventilation should also be incorporated wherever possible.

17.5 Translucent or obscured glass should be used for privacy where necessary. Suitably robust glazing should used where there is a risk of vandalism or illegal entry. A classification of security glazing is given in BS EN 356.

17.6 Good lighting should be provided outside the toilet entrance.

18 Security

18.1 Ideally, all toilets should be open and available to all users at all times. However, this might not always be possible.

18.2 In areas where there is concern that people will loiter in the toilet circulation area, direct access self-contained toilets which open directly to the pavement might be preferable.

18.3 In the case of APCs and direct access toilets, provision of a one way spy hole in the door should be considered to enable the user to see if there is anyone outside.

18.4 Accessible toilets can present greater potential for misuse owing to their size. However, except where there is actual evidence of repeated vandalism or misuse, accessible toilets should not be kept locked. Where these toilets have to be locked at some point

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for security, there should be a sign giving directions on obtaining access. The use of the RADAR (Royal Association for Disability and Rehabilitation) National Key Scheme (NKS) could allow independent access for disabled people to these toilets. However, not all disabled people have RADAR keys and this should be considered as a last resort. All attendants at such facilities should be provided with a RADAR key.

18.5 Changing Places toilets are normally situated in areas where there is supervision. If these toilets are kept locked for security reasons, there should be clear instructions outside on where to obtain the key, which should be close by. Where an electronic building management system is in place, an entry phone at the door, and possibly also CCTV, should be considered. These should be linked to the control room. Remote locking would allow the control room to allow entry without an attendant being close by.

19 Internal design

19.1 General

19.1.1 The number and type of appliances and fittings required, i.e. WCs, urinals, washbasins, showers, and facilities provided for baby changing, disabled people etc. (see Clause **10**), and for attendants, cleaners, and maintenance personnel, should be determined. Drainage positions, water supply requirements and waste storage facilities also need consideration.

19.1.2 All toilet designs should aim to minimize the need for maintenance and cleaning.

19.1.3 The design should avoid long dark corridors, blind ends, and spaces to hide within the toilet block. Everything should be light, well-lit and open and the whole interior of the building should be as visible as possible to reduce the incidence of, and also the fear of, antisocial behaviour. This is also important to enable users to view the availability of cubicles.

19.1.4 The general design recommendations given in BS 6465-1 should be used. The recommendations given in **19.2** to **19.16** relate to the special requirements of public toilets.

19.2 Entrances to the toilet block

19.2.1 Entrances to the toilet block should be a minimum of 850 mm clear width to facilitate entry of people with assistance dogs, wheelchairs and pushchairs. In larger toilets, the entrance should be a minimum of 1 600 mm clear width to ensure people entering and leaving can do so without congestion. Alternatively, a separate entrance and exit could be provided.

19.2.2 Where possible, users should not have to open doors to enter the toilet area. Doorless designs are preferred, but noise, privacy and prevention of smells also need to be taken into account. The toilet cubicles and urinals should be screened from the view of people outside the toilet area.

19.2.3 If payment is required, the method of collecting this should be determined. Turnstiles are not allowed in public toilets managed by Local Authorities, but mechanical gates may be used provided that these give unimpeded access to all users following payment.

NOTE 1 Attention is drawn to the Public Lavatories Turnstiles Act 1963 [26].

NOTE 2 The Public Health Act 1936 [2] prohibited Local Authorities from charging for the use of urinals. This restriction was removed by Section 22 of the Sex Discrimination Act 1975 (Amendment) Regulations 2007 [3], and Local Authorities can now charge for both WC and urinal use.

19.2.4 There has to be suitable access to the facilities for disabled people, and people with assistance dogs, children, luggage and shopping, etc. Further guidance is included in BS 8300.

19.2.5 If payment is required, consideration should be given to installing a machine that will change money for the relevant coins or tokens.

19.3 Circulation space

19.3.1 General space requirements for use of fittings are given in BS 6465-2. However, adequate circulation space and waiting space is needed in public toilets, particularly those which are busy.

19.3.2 Space for waste disposal bins, vending machines, hand drying facilities, and any other fixtures and fittings will need to be considered at an early design stage to ensure there is adequate appliance and user space for them, and also that they do not block circulation areas.

19.3.3 Where possible, layout of the different components relative to each other and to the circulation space and the entrance(s) and exit(s) should be designed so that toilets, washbasins and hand drying facilities are provided in a logical sequence. In particular, it is important that hand drying facilities are close to the washbasins and also close to the exits to prevent congestion and not impede movement of users through the toilet block.

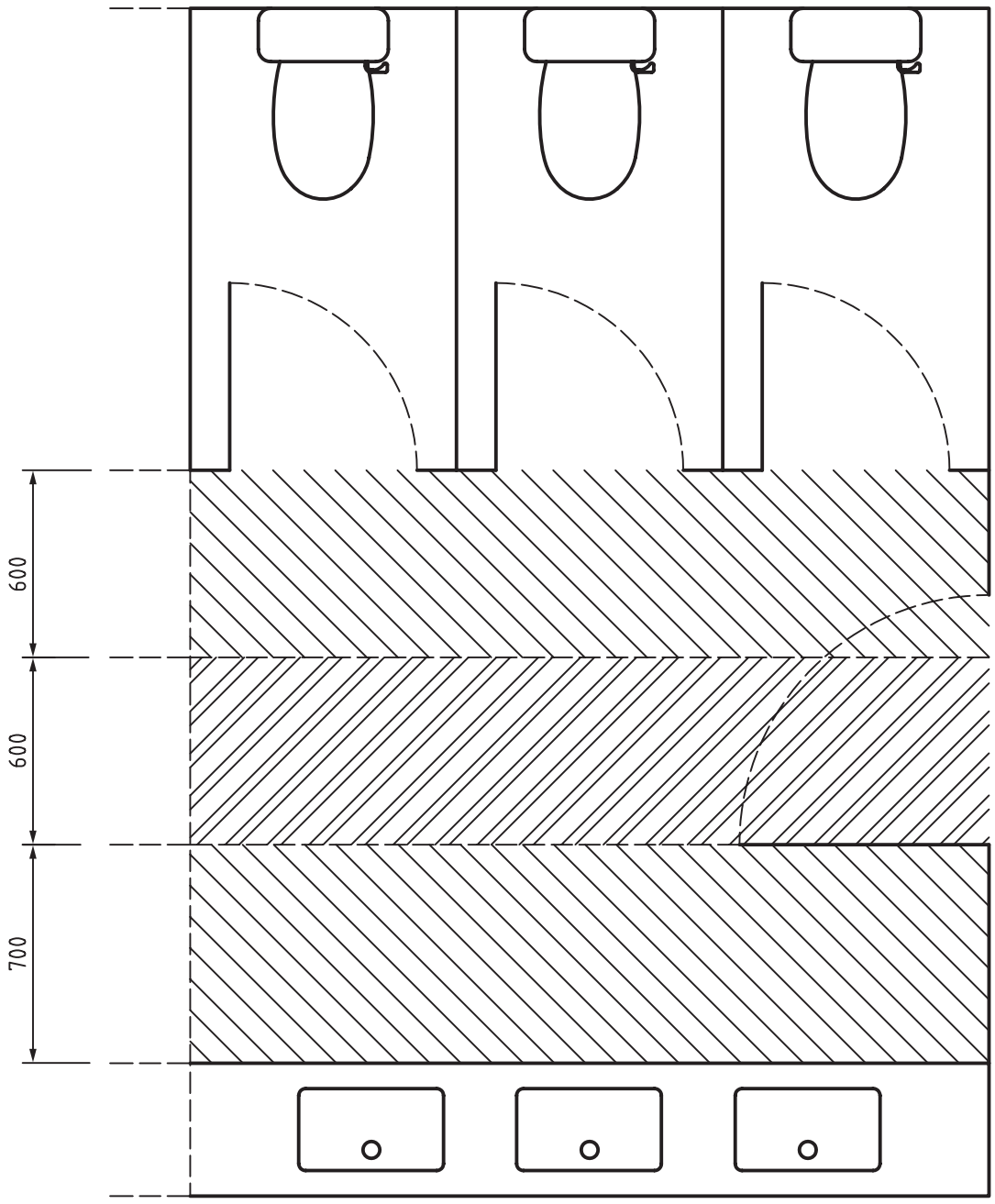
19.3.4 An activity space of 700 mm should be provided in front of each washbasin, 600 mm in front of each cubicle and 500 mm in front of each urinal. These should not impinge on the general circulation space, and the activity spaces should not overlap.

19.3.5 An additional circulation space of 600 mm minimum should be provided as well as the activity spaces. For example, WC cubicles in a corridor would require 1 200 mm in front of the cubicles. If appliances face each other, e.g. cubicles face washbasins, a 600 mm activity space would be required in front of the cubicles and a 700 mm activity space in front of the washbasins, plus one 600 mm circulation space, giving a total space of 1 900 mm (see Figure 1). The circulation space of 600 mm is suitable for runs of up to 6 appliances, and should be increased to 900 mm or greater for longer runs. Where a short run of cubicles (up to 4) face washbasins, the 600 mm activity space may be omitted to save space. If accessible toilets are included within the main toilet area, see BS 8300 for relevant circulation space requirements.

19.3.6 Where pushchairs are likely to be brought into the main toilet area, there should be space to park them without blocking the circulation space.

Figure 1 **Activity spaces and circulation space where cubicles face washbasins**

Dimensions in millimetres



Key

Activity space

Circulation space

NOTE 1 This drawing is not to scale.

NOTE 2 Where a short run of cubicles (up to 4) face washbasins, the 600 mm activity space may be omitted to save space.

19.4 Facilities for attendant

19.4.1 If there is an attendant, he or she should have access to a space with a seat, coat hook, secure storage for personal belongings, drinking water and facilities to make hot drinks.

19.4.2 If the attendant is handling money, secure cash handling facilities need to be considered.

NOTE Attention is drawn to the Workplace (Health, Safety and Welfare) Regulations [27].

19.5 Cleaner's sink and cleaner's store

19.5.1 A low level cleaner's sink with bucket grid should be provided. Ideally this should be sited separately from the toilet facilities.

19.5.2 When cleaning equipment is kept on site, a lockable ventilated storage area should be provided.

19.5.3 Lockable storage should be provided where necessary for towels, toilet rolls, soap, cleaning supplies and other consumables.

19.6 Facilities for dealing with waste

Provision of space for storing waste should be considered. Apart from general waste, e.g. dust, litter and consumables, there will be sanitary waste (see **19.8.3**), and in certain areas needle disposal might need consideration.

NOTE Sanitary waste includes used tampons, sanitary towels, incontinence pads and disposable nappies.

19.7 Service corridors

Where possible, service corridors should be provided behind fitments for access to, and maintenance of, sanitary appliances, fittings and associated pipework, and the emptying of sanitary waste bins. These corridors should be wide enough to allow easy access for maintenance and repair and waste removal and should be accessed via a lockable entrance.

19.8 Cubicles

NOTE This clause does not cover cubicles suitable for disabled people. Full details of sizing and of the sanitary appliances, fixtures and fittings, including their heights, required in these cubicles can be found in BS 8300.

19.8.1 Size

19.8.1.1 Most problems with cubicle design originate from the cubicle being too small. The necessary size of the cubicle will depend on the size of the appliances, fixtures and fittings.

19.8.1.2 It is essential that there is a circle of clearance within the cubicle not less than 450 mm in diameter as recommended in BS 6465-2 to enable the user to enter the cubicle, turn round and close the door. In a normal rectangular cubicle this should allow a minimum distance of 250 mm between the front edge of the toilet pan and the path of the door swing (see Figure 2). No items either on the floor or attached

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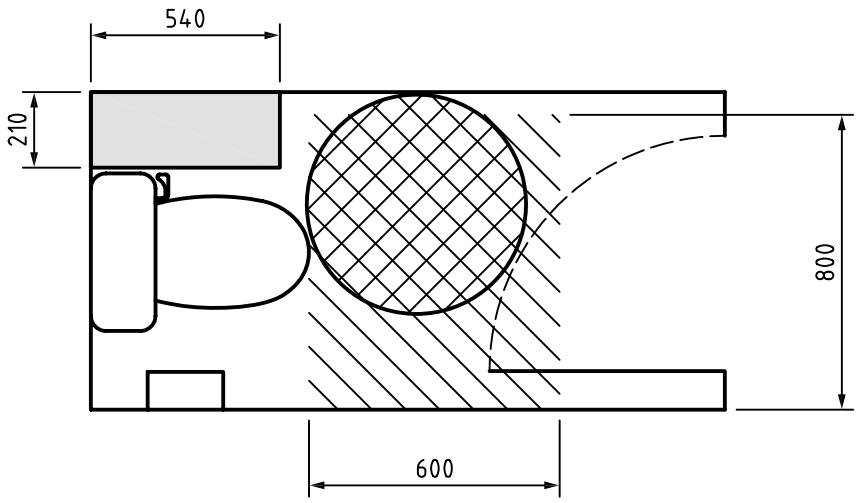
to the wall (for example toilet paper dispensers) should encroach on the circle of clearance and the space above it. It is unlikely that a normal rectangular cubicle narrower than 800 mm wide and less than 1 700 mm long will be satisfactory. (The length may be reduced by approximately 200 mm if the cistern is outside the cubicle). If the cubicle is shorter than this it will probably need to be wider. However, other shapes and sizes of cubicles should not be ruled out, as long as the critical dimensions of the circle of clearance and the activity space can be included in the layout.

19.8.1.3 Women's toilet cubicles where a floor standing sanitary disposal bin is to be provided should have a clear space of 210 mm × 540 mm to one side of the pan. This might mean a wider cubicle is necessary.

19.8.1.4 An example of a general cubicle layout is shown in Figure 2. More diagrams giving spatial requirements for appliances are included in BS 6465-2.

Figure 2 **Example of a normal rectangular cubicle layout**

Dimensions in millimetres



Key

Circle of clearance. Minimum 450 mm diameter

Activity space

Disposal bin space

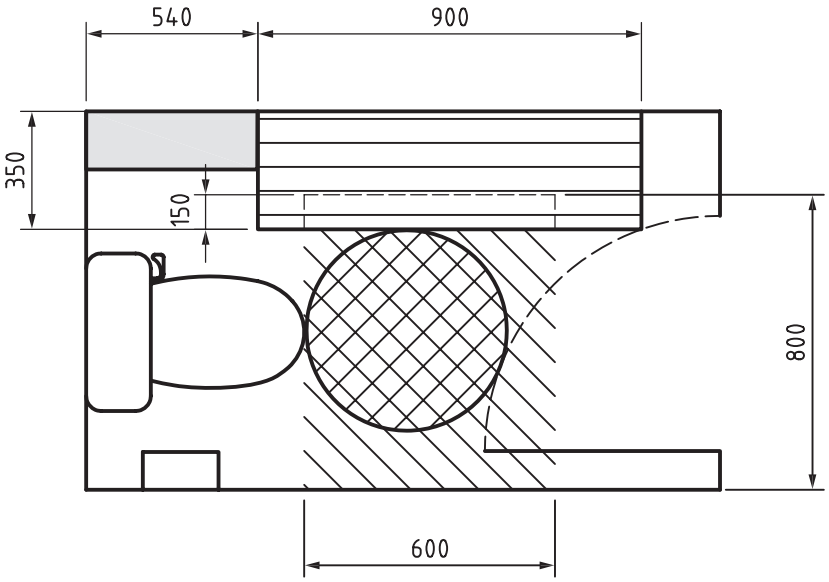
Toilet paper dispenser (can be in any reasonable position outside the circle of clearance)

NOTE This drawing is not to scale.

19.8.1.5 Cubicles in public toilets need to be larger than domestic toilets as they might contain a sanitary disposal bin, a large toilet paper dispenser, and hooks for outdoor clothing, and might also need to accommodate the user's shopping or baggage. These factors need to be taken into account when determining the cubicle size. Where people are likely to be carrying luggage, larger cubicles as shown in BS 6465-2 should be provided (see Figure 3 for an example). See also **10.3.2**d) for recommendations regarding provision of a larger cubicle for use by people who need extra space, (e.g. pregnant women, older people, people with luggage or shopping and people with children).

Figure 3 **Example of a cubicle layout with a luggage zone**

Dimensions in millimetres



Key

Luggage zone

Circle of clearance. Minimum 450 mm diameter

Activity space

Disposal bin space

Toilet paper dispenser (can be in any reasonable position outside the circle of clearance)

NOTE 1 This drawing is not to scale.

NOTE 2 The 150 mm dimension indicated in the drawing is the maximum distance by which the luggage zone may overlap the activity space. It is essential that the luggage zone does not impinge upon the circle of clearance.

NOTE 3 Other configurations which include a luggage zone are shown in BS 6465-2.

19.8.2 Cubicle walls and doors

19.8.2.1 Cubicle wall and door design should incorporate the use of robust materials and fitments. Finishes should be considered that allow ease of maintenance to remove graffiti.

19.8.2.2 Gaps above and beneath walls and doors are not recommended for privacy reasons. However, there might be a need for a gap to be incorporated in some instances to aid ventilation or cleaning. The height of a cubicle wall or door should be not less than 1 900 mm, and any gaps beneath walls and doors should not exceed 150 mm.

19.8.2.3 Doors should ideally be hung to fall open, so that vacancies are clearly visible. Doors should be designed to be openable from outside in an emergency, and should be removable if necessary. Outward opening doors should only be used if there is adequate circulation space for people to pass without being hit by an opening door.

19.8.2.4 Toilet doors should incorporate locks and catches that are easily operable by people with limited manual dexterity. Locks should incorporate clearly visible colour coded signage identifying whether a cubicle is occupied (red = engaged, green = vacant). The coloured area should be large enough to be clearly visible. It is also helpful if the words "Engaged"/"Vacant" are also shown for people who are red/green colour blind.

19.8.3 Sanitary disposal facilities

19.8.3.1 There should be a sanitary disposal facility in every woman's toilet cubicle. In new facilities, integral recessed ducted systems are preferred as they give protection against vandalism and allow more circulation space within the cubicle. If ducted provision is incorporated, sufficient space for emptying the unit and carrying out maintenance is required.

19.8.3.2 If a sanitary disposal bin is used, the cubicle should be large enough to accommodate the bin without restricting access (see **19.8.1.3** for space needed). In no case should the bin touch or overhang the toilet seat.

19.8.3.3 A notice may be placed adjacent to, or on, the sanitary bin defining its use, to encourage visitors to use the bins and not to attempt to flush away sanitary waste, which could cause blockages.

19.8.3.4 Larger bins for sanitary waste should be provided in accessible toilets and in baby changing areas.

19.8.4 Toilet paper dispensers

19.8.4.1 Toilet paper dispensers should be positioned within easy reach of the seated person and should ideally be able to be operated using one hand only.

19.8.4.2 Toilet paper dispensers should be enclosed to prevent theft and contamination of paper in areas where this is likely to be a problem.

19.8.4.3 Toilet roll paper might be easier for the user to access than flat sheets which can jam in the dispenser or cause a litter problem.

19.8.4.4 The main cost of toilet paper is the labour needed to refill the dispensers, therefore large dispensers should be considered. However, large dispensers can restrict the space inside a cubicle and their size

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should be taken into account when choosing or positioning them, to ensure they do not adversely affect the user's ability to use the toilet.

19.8.5 Support rails

Support rails are incorporated in accessible toilets, and recommendations for these are covered in BS 8300. If support rails are installed in other toilets, it should be ensured that they do not restrict the circle of clearance or user activity space. See **19.8.1**.

19.8.6 WC flushing devices

NOTE For the positioning, location and type of WC flushing mechanisms (cisterns and flushing valves) refer to BS 6465-3.

19.8.6.1 Flushing devices should be clearly visible and accessible to users. Fittings should be vandal resistant, and should be minimal touch for ergonomic and hygiene reasons.

19.8.6.2 Where siphon flush WCs are installed, the flush should be operated manually by a suitable lever. In an accessible toilet, and elsewhere where the WC flush might be operated by disabled people, a spatula type lever should be used, and positioned on the open or transfer side of the pan for ease of access.

19.8.6.3 Where valve flush WCs are installed, the manual operation buttons should be unambiguously marked and located so that they are readily visible and easily operated.

NOTE Where dual flush options are used the Water Supply (Water Fittings) Regulations 1999 [28] apply. These regulations require a discernible method of actuating and clear permanently marked operating instructions.

19.8.6.4 Where exposed cisterns are installed, the manual operation buttons should be mounted on the top of the cistern. Where concealed cisterns are installed, the manual operation buttons should be installed at a height of between 800 mm to 1 000 mm above the floor, in a position such that they are not obscured by an open WC seat lid and are readily visible to the user when standing in front of the pan. The buttons should be easily operable by people with limited manual dexterity and when pressed should not create any finger traps or difficult to clean areas.

NOTE For a button to be easily operable by people with limited manual dexterity it should be able to be operated by the user using a closed fist and with less than 30 N force.

19.8.6.5 Alternatively, if automatic flushing is used, it should be operated by sensor activation (e.g. infra-red or ultrasonic), with the sensor located at a height of between 800 mm to 1 000 mm above the floor. In an accessible toilet, and elsewhere where the WC flush might be operated by disabled people, the sensors or flush buttons should be positioned on the open or transfer side of the pan for ease of access. Infra-red and ultrasonic flushing devices have the advantage that they are non-touch and there are no accessible moving parts within the toilet cubicle. However, they rely on the continuity of the electrical supply and might therefore not be suitable for unattended facilities.

19.8.6.6 Where pressure flushing valves are installed it is recommended that manual operation is not normally used, as the valves could easily be jammed open and waste large volumes of water. Remote electronic controlled flushing should be utilized where practicable and the sensor location should be as for other automatic flushing equipment.

19.8.7 Shelves and hooks

19.8.7.1 Every toilet cubicle should be fitted with a hook, firmly attached, at a height of approximately 1 500 mm above the floor to hold outer clothing and bags. The hook should be securely fixed to reduce the potential for vandalism.

19.8.7.2 Shelving is not recommended within toilet cubicles as it can be subject to vandalism and misuse. However, accessible toilets should be provided with shelving in accordance with BS 8300.

19.9 Urinals

19.9.1 Bowl urinals should be spaced a minimum of 700 mm apart. If privacy screens between urinals are used the urinals should be a minimum of 800 mm apart. If a trough urinal is used a 700 mm run per user should be provided. Consideration should be given to screening urinals from the hand washing area.

19.9.2 Where bowl urinals are used, at least one urinal should be situated at a lower level suitable for use by men of smaller stature and by boys.

19.9.3 Waterless urinals are acceptable and can contribute to reducing water consumption. The type of waterless urinal should be considered carefully, especially where permanent maintenance staff are not based on site. See BS 6465-3 for further details.

19.10 Hand washing and drying

19.10.1 Hand washing

19.10.1.1 It is recommended that one washbasin is provided for every two WCs and one washbasin for every five urinals.

19.10.1.2 Washbasins should be placed at a minimum of 700 mm centres in accordance with BS 6465-2. Selection and installation of washbasins should be in accordance with BS 6465-3.

19.10.1.3 Where there are more than two washbasins, at least one washbasin and a soap dispenser should be situated at a lower level (720 mm to 750 mm above the floor) for use by children and people of short stature.

19.10.1.4 Wherever possible, hot water should be provided as well as cold water. Hot water should be provided in baby changing facilities and in accessible toilets.

19.10.1.5 Hot and cold taps should be clearly colour coded. Hot water should be supplied via a temperature control device to avoid the potential for scalding. (See also BS 6465-3 and BS 8300.)

19.10.1.6 Users should be able to wash their hands with minimal contact with fittings, therefore lever taps or automatic electronic taps should be installed where possible.

NOTE *If automatic electronic taps are installed it is important to ensure that the flow of water delivered is adequate for hand washing.*

19.10.1.7 Self-closing taps are recommended with either an aerated or spray flow, set at the correct pressure, to help reduce water consumption.

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19.10.1.8 If drinking water is provided the supply and associated drinking water outlet should be marked as such.

19.10.1.9 Soap should be provided in a dispenser. Ideally there should be a dispenser for each washbasin, but at least one dispenser for every two basins. These should be placed a sufficient distance above the washbasin or counter for the user to be able to get their hand under the dispenser and should be either automatic or easy to operate. Soap dispensers should be positioned such that any excess soap does not drip onto the floor.

19.10.1.10 Where space permits, in women's toilets a separate vanity area with shelves and mirrors should be provided so that access to the washbasins is not restricted by people doing their hair and make-up. This will also reduce loose hairs getting into washbasins, with the associated maintenance costs.

19.10.2 Hand drying

19.10.2.1 A variety of hand drying methods are suitable for use in public toilets.

NOTE A table giving more detail on the advantages and disadvantages of various hand drying methods is given in BS 6465-3:2006, Table 6.

19.10.2.2 Air dryers use electricity, which might rule them out for some locations. They do not create any waste. The air intake filters need to be cleaned regularly.

19.10.2.3 Paper towel dispensers generally do not require electricity; however storage space is required, re-stocking is needed, and the disposal of waste towels will be necessary. Bins need to be large enough so that they do not overflow. The use of paper towels for hand drying is more suitable in toilet areas where the facility is regularly serviced.

19.10.2.4 Linen roller towels do not create any waste, or use electricity. They do require regular maintenance and need a reliable laundry service. They should not be used in areas that might be subject to vandalism.

19.10.2.5 Paper towel dispensers should be fitted at a height of approximately 950 mm above the floor. Air dryers should be fitted at the height recommended by the manufacturer.

19.10.2.6 One towel dispenser should be provided per four washbasins or one warm air dryer per three washbasins.

19.11 Baby changing

19.11.1 Baby changing facilities should be an integral part of all public toilet block design. (See **10.2** for general recommendations.)

19.11.2 A baby changing surface 900 mm in depth should be provided, but if this is impractical in retrofitted toilets a fold-down baby changing unit with security straps or safety barriers should be provided.

19.11.3 Where possible changing surfaces or units should be mounted 750 mm above the floor or a height-adjustable unit should be provided. Further guidance on accessible baby changing facilities is given in BS 8300.

19.11.4 A wall mounted toddler seat with restraints may be placed near the changing surface or unit if space permits.

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19.11.5 A clearly labelled nappy disposal bin with lid should be provided.

19.11.6 Nappy dispensing machines should be considered in public toilets where high usage is expected.

19.12 Other design issues

19.12.1 Materials and surfaces

19.12.1.1 Exposed surfaces inside the toilet block need to be robust, hygienic and easy to clean, however they should also be resistant to graffiti and vandalism. Reflective surfaces should not be used where these could compromise privacy.

19.12.1.2 Toilet areas should be designed to allow for easy cleaning and maintenance and should, where practical, avoid gaps and crevices which can have an adverse affect on hygiene and also provide places where people can dispose of, or hide, items.

19.12.1.3 Sharp edges and corners should be avoided to reduce the risk of people injuring themselves.

19.12.2 Walls

19.12.2.1 Wall should be constructed of impact resistant materials and should be capable of supporting any grab rails or fittings that might be attached to them. Wall finishes should be impervious. Walls should be tiled or stippled to discourage graffiti. However, bacteria and mould can be harboured on irregular textured surfaces so longer term maintenance of the finishes should be considered as part of the design process.

NOTE White and pale/pastel colours provide better light and a cleaner appearance but can also encourage graffiti.

19.12.2.2 To meet the needs of blind and partially sighted people there should be a colour contrast between doors and walls, and grab rails. BS 8300 gives further details.

19.12.3 Floors

19.12.3.1 Floors should be slip resistant to reduce the chances of people slipping and falling. Continuous waterproof flooring should be used in preference to material with joins and the flooring should be continued up the walls to provide a waterproof skirting.

19.12.3.2 Where there is a risk of water collecting on the floor this could be reduced by sloping the floor to a drain. A gradient of 1:80 is recommended. Drainage outlets should be compatible with the floor finish and should incorporate a flooring membrane clamping device where necessary.

19.12.3.3 Wherever possible, all facilities within the toilet should be at the same level with no steps, thresholds or slopes.

NOTE Attention is drawn to the requirements for all stairs and ramps in the Building Regulations [19][20][21] and Approved Document M to the Building Regulations for England and Wales [11]. Attention is also drawn to Scottish Building Standards Technical Handbook Non-domestic (Section 3.12 Sanitary facilities) [12] and the Building Regulations (Northern Ireland) Technical Booklet R [13].

19.12.4 Ceilings

Demountable ceilings should be avoided to prevent misuse, for example hiding drugs or stolen goods. High ceilings can help to reduce vandalism to ceiling finishes.

19.12.5 Fittings

19.12.5.1 General

19.12.5.1.1 All hardware, fixtures and fittings should be easily accessible for repair and maintenance.

19.12.5.1.2 All sanitary appliances should be in accordance with BS 6465-3.

19.12.5.1.3 Consideration should be given to using aluminium, stainless steel or pre-fabricated polymer materials instead of traditional porcelain for WC pans, urinals and washbasins, as these can be more resistant to vandalism.

19.12.5.1.4 Where vandalism could be a problem, use of sanitary fittings specially designed to be resistant to deliberate damage should be considered.

19.12.5.1.5 Wall hung WC pans should be used in preference to pedestal WC pans to aid long term maintenance and cleaning.

19.12.5.1.6 Notices giving a contact name, contact point or telephone number in the event of complaints or problems are recommended. These should be clearly displayed. The notices can also be used for recording the cleaning regime.

19.12.5.2 Mirrors

Mirrors should conform to BS EN 1036-1 and -2, and should be shatter resistant. Mirrors should not be placed where they could compromise privacy. Mirrors should be flush fitted to avoid gaps where items could be left.

19.12.5.3 Dispensers

Dispensers for female sanitary protection, nappies and condoms should be provided where possible.

NOTE 1 Consideration should be given to providing such dispensers in accessible toilets.

NOTE 2 Dispensers for other items e.g. toothbrushes, tights and aspirin, may be considered.

19.12.5.4 Drinking water

Where drinking water provision is made, this should be clearly labelled and located away from other sanitary appliances.

19.13 Plumbing

NOTE 1 Attention is drawn to the Building Regulations Approved Documents G and H [22][23] for England and Wales, and the Water Supply (Water Fittings) Regulations 1999 [28] which specify requirements for water supply and drainage systems. Attention is also drawn to Scottish

Building Standards Technical Handbook Non-domestic (Section 3.12 Sanitary facilities) [12] and the Building Regulations (Northern Ireland) Technical Booklets P [24] and N [25].

NOTE 2 Requirements for the design of water supply systems are given in BS 6700 and BS EN 806.

19.13.1 Cold water storage tanks should be well insulated to ensure that the water temperature is kept well below 20 °C to avoid the risk of Legionella bacteria.

19.13.2 Frost protection measures are recommended for use with all water services piping distribution and storage in unheated public toilets to prevent freezing.

19.13.3 All water pipes (hot and cold) should be insulated and long pipe runs should be avoided.

19.13.4 Where mains pressure or flow rate are insufficient to allow the sanitary facilities to function, cold water storage might need to be considered. If cold water storage is used, depending on the available pressure head from the storage cistern (i.e. height above water outlets) a pump might also be necessary to achieve the required pressures for system operation.

19.13.5 WC refill times are critical where the facilities are busy or water pressure is low. System design should take this into account.

NOTE Flow regulators on taps and other outlets, plus low flush cisterns, can reduce water consumption. Flow regulators can also help balance pressures.

19.13.6 The method of energy supply used for the heating of hot water for use within the public toilet should be considered carefully. Options such as solar powered water heaters, gas fired water heaters and electric point of use or storage type heaters can all be considered. If solar water heating is being considered, orientation of the roof, vulnerability to vandalism and appropriateness in the context of historic buildings and conservation areas should be taken into account.

19.13.7 Any stored water heating system needs appropriate time controls to take account of the normal opening hours, days and seasons.

19.13.8 Factory insulated hot water storage cylinders should be used.

19.13.9 Hot water from any source (whether point of use or stored) should, ideally, be automatically blended at the tap to 43 °C, which is a suitable temperature for hand washing.

NOTE Where hot water is provided in toilets for disabled people a blended supply is a requirement of the Building Regulations [19][20][21].

19.13.10 Where water supply from the tap is hotter than 43 °C, a warning notice should be displayed to indicate that there is a risk of scalding.

19.13.11 Sediment traps might be required, particularly for toilet blocks on sandy beaches where visitors wash out swimming costumes etc.

19.13.12 Pipework and cisterns should be enclosed in ducts where possible to reduce the risk of vandalism. Access panels and ducts should be made as vandal resistant as possible while still permitting access for maintenance and repair work.

19.14 Lighting

19.14.1 Natural light should be incorporated wherever possible in all areas, including cubicles. (See Clause **17** for guidance on designing for daylight.)

19.14.2 The design should ensure that cubicles are adequately lit.

19.14.3 Where electric lighting is provided, movement activated lighting, or automatic lighting that comes on at dusk, should be considered. Alternatively, where there is an attendant, manual light switches under the attendant's control may be used. Light pulls and light switches that need to be operated by the user should be avoided where possible for hygiene reasons.

19.14.4 Provision of electric lighting should be in accordance with the CIBSE *Code for lighting* [29]. Particular attention should be paid to the positioning of lights over toilet cubicles to ensure they are not in shadow.

19.14.5 Light sensitive PIR (passive infra-red) detectors can be used to allow artificial lighting to supplement natural light where needed.

19.14.6 Energy efficient lamps should be used to help to minimize the use of electricity. Halogen and spot lamps are not recommended as they use more electricity and cost more to run.

19.14.7 Light bulbs should not be accessible to toilet users. This can be achieved by the use of high level lighting or secure covers.

19.14.8 Consideration should be given to the need for access to change light bulbs.

19.14.9 Photovoltaic panels may be considered to supplement the electricity supply for lighting, particularly in remote locations.

19.14.10 Ultraviolet light is sometimes used to deter drug users. However, this is not effective and should not be used as it reduces visibility for all toilet users, especially visually impaired people.

19.15 Ventilation

19.15.1 Natural ventilation should be used wherever possible.

19.15.2 Natural ventilation can be achieved by the positioning of entrance and exit doors, air vents in walls and windows, and openable windows. (See Clause **17** for guidance on window design.) If natural ventilation is used, there should be the facility to increase ventilation in summer months to prevent overheating and smells.

19.15.3 If mechanical ventilation is used it should be activated by a passive infra-red (PIR) movement detection system so that extract fans are not running continuously. However, it is recommended that they incorporate minimum run timers to ensure adequate air change rates are achieved.

NOTE For minimum air change rates refer to the Building Regulations [19][20][21].

19.15.4 Good ventilation is essential to help to prevent condensation.

19.15.5 Air fresheners should not be used as a substitute for proper ventilation and cleaning.

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19.16 Heating

19.16.1 Measures should be taken to prevent pipes freezing.

19.16.2 Where practicable, the ambient temperature of the toilets should be maintained at a minimum of 10 °C to reduce condensation. Higher temperatures are preferred by users but could be unsustainable and might encourage loitering.

Section 5: Management of toilet blocks

20 Management and staffing

*COMMENTARY ON CLAUSE **20***
Public toilets are major investments, so it is important that they are watched over and cared for. A toilet attendant can provide on-the-spot security and management which can save money that would otherwise be spent repairing the effects of vandalism. They can also initiate or complete prompt maintenance or repairs and provide reassurance to users that assistance is readily available if needed.

20.1 Attendants and toilet cleaning staff may be the responsibility of the Authority responsible for providing the toilets or a specialist toilet provider (contractor) that completes cleaning (and possibly maintenance) of the toilets. The standards described apply equally to all staff engaged in the cleaning and maintenance of public toilets. Service level agreements (SLAs) will provide the basis by which contractors provide service and against which they are measured.

20.2 Toilet facilities with more than 12 cubicles should ideally have an attendant.

20.3 Wherever possible, and budgets are available, toilet attendants and cleaners should be employed who are of the same sex as the users of the facility for which they are responsible. Where this is not possible, a sign should be displayed at the entrance to the toilets advising users that an opposite sex attendant might be present within the toilets. Staff should be advised to announce that they are intending to enter an opposite sex toilet to perform their duties before entering, to alert occupiers and to give them time to leave if they wish.

20.4 Higher standards of cleaning are achieved by having clear cleaning specifications and properly trained staff. Attention should be given to the training of toilet attendants and cleaners through, for example, the BICS (British Institute of Cleaning Science) NVQ courses.

20.5 It is essential that training includes the special care needed when cleaners remove any sharps and other potentially contaminated items, e.g. soiled nappies, incontinence pads. Personal protective equipment (PPE) should be provided as required, including pickers and protective gloves.

20.6 It is essential that there are policies and procedures laid down on dealing with emergencies, for example major leaks, fires, people having accidents or being taken ill or people pulling the alarm cord. Staff should be trained in how to respond in case of such emergencies.

20.7 Consideration should be given to making each attendant and cleaner responsible for a particular toilet or set of toilets as they are then more likely to take a pride in their work than if they share responsibility for many toilets.

20.8 Attendants and cleaners should be included in toilet management and liaison meetings so that they understand why certain things are required. For example, it should be explained to them that if they shorten the length of the emergency pull cord in the toilet for disabled people by tying it up to make cleaning easier, then if someone falls down on the floor they won't be able to reach it.

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20.9 Attendants and cleaners should have a chance to give their views on a new toilet design before it is approved, as they can tell if it will be easy to clean and whether there will be other, otherwise unforeseen, problems.

20.10 Toilet providers should consider participating in award schemes for the facilities and for attendants. This will provide the opportunity for the facilities and the attendants to be recognized and rewarded for their high standards of public toilet provision.

20.11 Public toilets require a higher level of quality measurement and overall management than historically provided, due to the low level of priority normally allocated to this essential public service.

20.12 There should be a telephone number, an e-mail address and/or a website, and a postal address displayed so that users can report any problems, particularly where there is no attendant.

21 Cleaning

*COMMENTARY ON CLAUSE **21***
The importance of a high standard of cleanliness cannot be overstated and is the best way to prevent misuse and minimize the infection risks that un-hygienic facilities present.

21.1 Cleaning equipment and consumable products should be stored in a designated lockable space which is well organized to avoid clutter. (See **19.5**.) It is important that cleaning equipment, such as mops and buckets, and maintenance equipment is not left lying around where toilet users could fall over it. All chemicals should be safely and securely stored when not in use.

21.2 In high usage, attended toilets the toilets should be cleaned every hour, and in low usage locations four times daily by mobile cleaners. It is recognized that this requirement will be impractical in some remote locations, and in these instances facilities should be checked and cleaned at least once or twice a day where possible.

21.3 Monitoring of cleaning activities through daily or weekly inspections is considered good practice to help maintain high standards. Inspections by senior provider management should take place once per week in high usage locations and once a month in low usage locations, to ensure that proper standards of hygiene [and service level agreements (SLAs)] are being adhered to by local operatives.

21.4 When toilet paper is topped up (which needs to be done regularly) the highest levels of cleanliness should be observed when putting toilet paper into dispensers as this paper touches intimate parts of the user's body.

21.5 Sanitary protection bins should be emptied regularly, by the cleaning staff or contracted washroom service providers. Sanitary waste, used incontinence pads and nappies should be placed in the appropriate colour coded disposal bags prior to removal to a certified Waste Transfer Station.

21.6 All cleaning materials should be compatible with the sewerage system and sewage treatment system in place.

21.7 It is essential that a good cleaning regime is established for all urinals, whether waterless or not.

22 Maintenance

*COMMENTARY ON CLAUSE **22***
Clean and well maintained toilets are less likely to be abused than toilets that are neglected. Overall costs of toilet provision will also be reduced by effective management of reactive and proactive maintenance whilst ensuring continuity of provision to users.

22.1 All maintenance equipment allocated for use in the toilet should be locked up in the dedicated area provided for it. (See **19.5**.)

22.2 Prompt reactive maintenance is essential for all toilets. Any broken or defective fixtures and fittings should be repaired or replaced to ensure usability and the safe use of the facilities.

22.3 Dripping taps and overflowing cisterns should be repaired as quickly as possible to avoid wastage of water and potential slipping hazards caused by wet floors.

NOTE Remote monitoring and automatic leak detection devices are available.

22.4 There should be a preventative maintenance schedule, e.g. to ensure that in hard water areas (where water softeners are not fitted), taps and appliances can be de-scaled regularly, lights are working effectively, and surfaces can be cleaned to hygienic levels.

22.5 Graffiti removal from various surfaces can be a tedious and frustrating process. The best solutions lie in effective prevention, together with the use of building materials and finishes which resist the application of graffiti, as well as removal of graffiti at the earliest opportunity.

22.6 Regular checks should be made for illicit spy holes, viewing equipment, and other holes made for the purposes of illegal activities, which should be dealt with promptly.

22.7 Use of CCTV monitoring equipment adjacent to toilets helps members of the public feel more secure when approaching and entering the toilet building and might reduce the incidence of antisocial behaviour, particularly when clear signage has warned of legal action against identifiable offenders. The use of overt CCTV monitoring within the toilet washing or cubicle access areas may also be considered necessary, and beneficial, for the same reasons as external CCTV, in toilets which are regularly vandalized or used for antisocial purposes. CCTV coverage should be in accordance with BS 7958.

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Annex A (informative) Examples of signs for public toilets and associated facilities

Examples of signs for public toilets and associated facilities are given in Figure A.1 to Figure A.10.

NOTE These signs (with the exception of Figure A.10) have been copied from BS 8501 for the convenience of users of this standard.

Figure A.1 **Direction arrow**

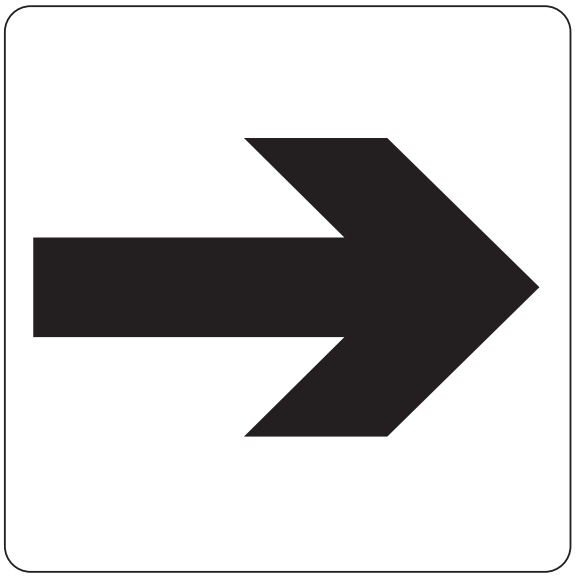

Figure A.2 **Ladies' toilet**

Figure A.3 **Gentlemen's toilet**

Figure A.4 **Unisex toilet**

Figure A.5 **Accessible toilet facilities**

Figure A.6 **Ladies' and accessible toilet facilities**

Figure A.7 **Gentlemen's and accessible toilet facilities**

Figure A.8 **Baby changing facilities**

Figure A.9 **Showers**

Figure A.10 **Changing Places toilet facilities**

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