



Independence and Healthy Living: the need for accessible loos

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Evidence Based Research

- EPSRC funded research, within a wider Sustainable Urban Environments (SUE) Consortium, VivaCity 2020, (2003-2008).
- VivaCity's focus is on urban regeneration and conflict resolution in the twenty-four hour city.
- The Consortium's aim is to provide tools to support socially responsible design of the urban built environment.
- Our specific contribution to VivaCity is to research the 'inclusive' - i.e., accessible to all - design of public toilets in city centres.
- Located in two multi-disciplinary Faculties of the Built Environment, at UCL (myself + Jo-Anne Bichard) and at UWE (Clara Greed). Ongoing research, 18 months in, 12 to go.



'Butterfly' urinal from L.B. of Westminster, for active males only.

Why do research on toilets?

- At a practical level, good ‘away from home’ toilet provision is essential to urban sustainability because it:
 - Makes cities accessible to a wide range of users, including women, children, disabled and older people;
 - Caters for pedestrians and public transport users as well as the motorist, a key factor in relation to government policy;
 - Improves the visual and sensory urban realm and reduces environmental degradation.
- To be sustainable, provision needs to be located so as to fit into the way the city is actually used, and in ways that support:
 - Environmental balance, sewerage, pollution, water conservation etc. and by eliminating street urination;
 - Economic vitality, by making cities more attractive to visitors;
 - Social equity, through ensuring access is provided for all.

Conflict Resolution 24/7

- Toilets house an apparently mundane activity, but the public toilet is a highly contested 'site'. Private activity in public space.
- Public toilet provision provides a graphic illustration at a scale that can be grasped, of how conflicting issues can impact on design within the context of the 24 hour city:
 - Differential provision for men and women;
 - Late night 'binge' drinkers and daytime shoppers;
 - Planned and unplanned uses (vandalism, drugs, sex);
 - Access (users) v. fortress (providers);
 - Domestic (fluffy rugs) v. clinical (stainless steel) design of the interior.



Vandalised toilet compartment



Used needles bin in public loo

Landscapes of Exclusion

- Public toilets offer a remarkably clear example of how the actual design of the built environment can either 'enable' or 'exclude' individuals and groups from city centres.
- 'Access for all' has its own conflicts, in respect of whether an 'inclusive design' or 'special needs' approach is adopted;
 - larger ordinary cubicles v. an enlarged, accessible cubicle;
 - separate sex toilets v. unisex toilet 'for the disabled';
 - adults v. children, adult + baby room, locating the changing mat;
 - wheelchair users v. others, people with a 'hidden disability'.

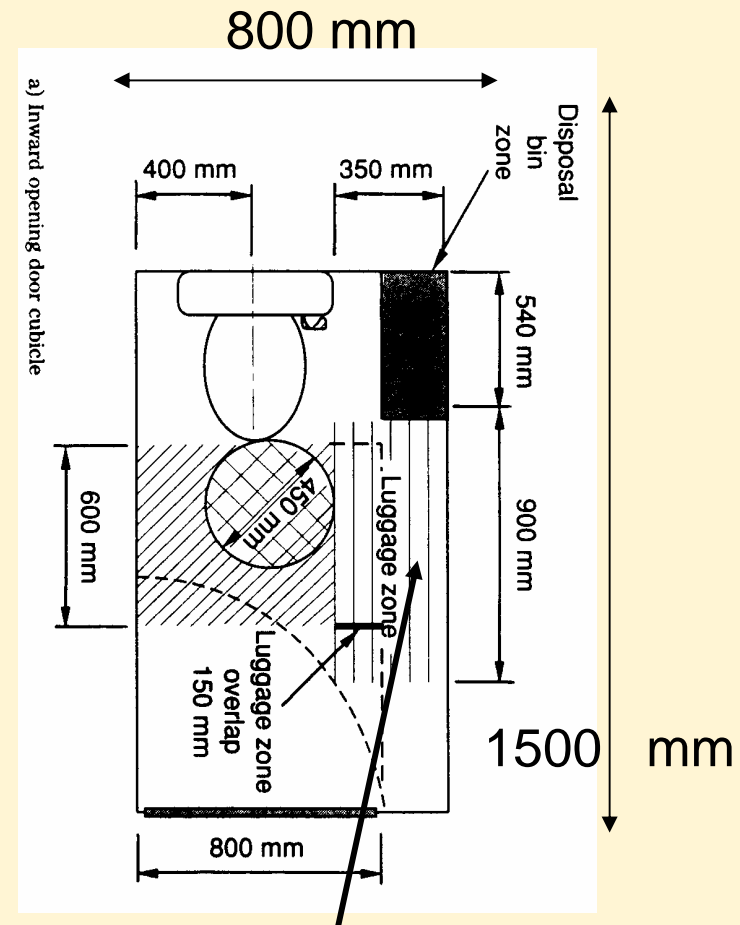


Many disabled people are assisted by a carer of the opposite sex, and so prefer a 'unisex' cubicle to an enlarged cubicle in a separate sex loo.

Ordinary Provision for the Public

- Local Authorities are not obliged to provide public toilets.
- For those buildings that do have 'customer' toilets, design guidance on provision for members of the public is set through, BS6465 (1996)
Sanitary Installations :

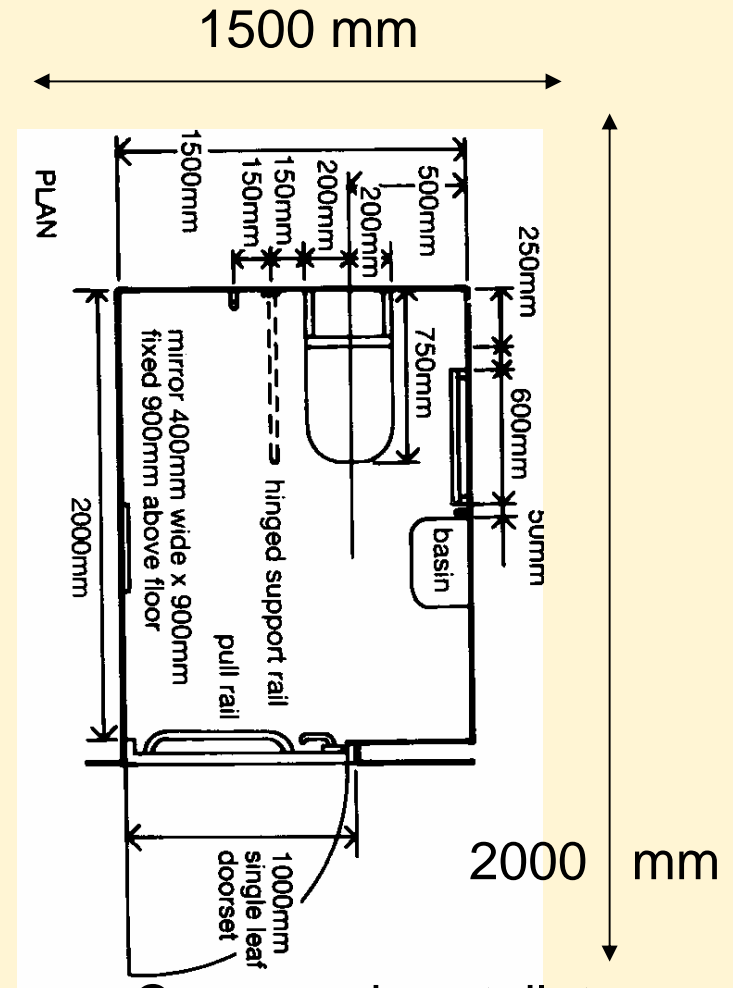
- Part 1 sets standards for the location and numbers of toilets in different building types;
- Part 2 guides detailed design.
- Proposes that toilets in public places need to be larger than in homes / workplaces, but are the same in other respects.
- Cubicle size of about 800 mm x 1500 mm. Many are smaller!



Zone for luggage but no special fitting, other than a disposal bin in female WCs

RADAR Key Scheme

- Before 1979, disabled people (especially in a wheelchair) were not catered for. Even if the public toilet was at pavement level, most ordinary cubicles were far too small for the wheelchair to access.
 - Royal Association for Disability and Rehabilitation (RADAR) key scheme. Special locked WC.
 - Linked to BS5810 (1979) and now BS8300 (2001) unisex disabled persons' toilet, described as the 'icon' of disability rights groups for the last 20 years.
 - Local Authorities built these in city centres. Mainstream public toilets need not be accessible.



Corner unisex toilet
for wheelchair users

Redefining the Accessible Loo

- Previous research (Feeney,2003) has already established the design standard for access, with respect to wheelchair users (BS 5810, BS 8300).
- Current Building Regulations (ADM 2004) draw heavily on this work to specify the precise layout of all new unisex corner accessible toilets for use by disabled members of the public.
- We are conducting user-centred research with a much wider constituency of disabled people, including people with physical, sensory and cognitive impairments.
- What design features make a toilet accessible for them.
- Also talking to able-bodied people, older people, parents and children, partners and carers, people from ethnic minorities, toilet attendants.



DDA 2004

- This research is taking place in 'real time' as we track the impact of the impact of Part 3 of the Disability Discrimination Act on city centre toilets:
 - From October 2004, service providers have had to make 'reasonable adjustments' to the 'physical features of all buildings' to overcome barriers to access;
 - Includes design and construction, entry and exit, fixtures, fittings and furnishings;
 - The Act does not just apply to wheelchair users;
 - Greater social inclusion can be achieved through inclusive design of the built environment.



ADM, 2004, the model for 'reasonable adjustments' to 'accessible toilets', sets the standard in respect of adequate space, correctly installed fittings, good colour contrast, non-slip surfaces, etc.

The DDA Dilemma

- Heirs to a tradition where a RADAR unisex toilet somewhere in the city centre catered for 'the disabled', and so 'normal' provision did not need to be accessible.
- Public toilets provided by Local Authorities are already closing due to high maintenance costs.
- 40% of public toilets have closed within the last ten years.
- 10,000 still exist in the UK, of which just 3,500 (about 1/3) were originally designed to be accessible to wheelchair users.
- 20% of people are 'disabled' but less than 5% of these are wheelchair users.
- The DDA is further accelerating toilet closures, as most public toilets are not accessible and many were built underground, 60% were in London.



Disused underground toilets at Kentish Town, London.

Automatic Public Conveniences

- Many more public toilets are now closing, to avoid a legal challenge under the terms of the DDA.
- Adapting them to meet the new access standards would be very expensive for Local Authorities.
- Closing all public toilets does not discriminate against anyone, but it reduces provision for everyone!
- Alternatively, Local Authorities may replace conventional toilet blocks by an Automatic Public Convenience (APC).
- Many UK citizens deeply mistrust these facilities and will not use them except as a 'last resort'.
- Not all APC designs are accessible to wheelchair users, let alone to people with more complex needs.



'Accessible' APC at Russell Square, London, but is it truly accessible?

Shifting Responsibilities

- Disabled users are sensitive to being made a 'scapegoat' for the recent spate of public toilet closures.
- They are at pains to point out that many private providers are upgrading their toilet provision to make it accessible, in line with the DDA, so as not to discriminate against disabled customers.
- The spending power of the UK disabled lobby has been estimated as £45 – 50 bn.
- It makes sense for commercial firms to provide accessible toilet facilities for their customers, but this will not solve the problem for visitors to city centres who are not customers.



This sign on a local pub door in Clerkenwell, London, is to deter visitors to the area from asking to use their 'customer toilets'.

Auditing Existing Provision

- Just before the DDA came into effect, we audited 60 premises in our field site in Clerkenwell, London.
 - We have shown that private providers simply do not have a clue about what is entailed in the design of an ‘accessible’ toilet compartment.
 - Nor do they realise that the precise technical specification is critical for wheelchair users.
 - All of the so-called ‘accessible toilets’ we surveyed had major design flaws in respect of the new ADM.
 - Grab rails used as a ‘token gesture’.



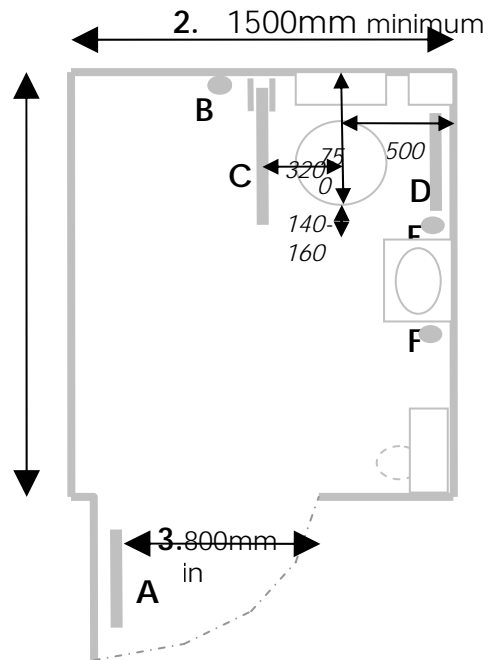
Design errors like these seriously compromise wheelchair users' ability to use the 'accessible' provision.

Toilet Audit Tool

Place: _____

Date: _____

Auditor name: _____



Dimensions:

1. Depth 2200mm min? y/n _____
2. Width 1500mm min? y/n _____
3. Door 800mm min? y/n _____
4. Grab rail heights:

A (horiz. Door)	680mm	y/n? _____
B (vertical)	800mm	y/n? _____
C (drop down)	680mm	y/n? _____
D (horizontal)	680mm	y/n? _____
E (vertical)	800mm	y/n? _____
F (vertical)	800mm	y/n? _____
5. Grab rail lengths:

A,B,D,E & F	600mm long? y/n? _____
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6. WC pan height (top of seat) 480mm y/n? _____
7. Basin height: 720 -740? y/n _____--____
8. WC pan from side wall? 500? y/n? _____
8. WC pan from back wall? 750? y/n? _____
9. Drop down to WC pan? 320? y/n? _____
10. WC pan - basin 140-160mm y/n? _____
11. Height of basin mirror 1600mm min (to top) y/n? _____
12. Height of wall mirror 600mm - 1600mm y/n? _____

- We have produced an Audit Tool based on ADM 2004 to enable providers to check the accessibility of their toilets, and users to evaluate toilet performance, on the basis of their needs. Building a database matching what is out there in the 'real world' to users' actual needs.

Personas

- Within this highly-charged problematic, we are using focus groups to develop about 40 male / female 'personas' based on the collective biographies of disabled users to capture and describe user needs. Way of communicating sensitive personal data in a neutral voice.
- A persona is an idealised portrait of a fictional person, based upon the shared experiences of real people, in this case that describes what it is like to have a particular disability in a way that is socially situated, so that we avoid reducing the person to a label that announces their disability. Disabled people welcome this approach as up to now they have had to refer design issues to their personal circumstances, whereas the persona does not require individuals to reveal intimate personal information that they may find embarrassing to disclose in public situations.
- Each persona tells a story about what he/she would like to do in the city, explains the restrictions that the current inaccessible design of the built environment places on their life and sets out possible design solutions to the issue of 'reasonable adjustments' to the 'physical features of the building' that would enable them to use an 'away from home' toilet whilst visiting the city centre. Short, easy to read digest of user needs on one side of A4.

The Bladder's Leash

- To a greater or lesser extent, when we are away from home we all plan our lives around the provision of toilets, avoiding locations where there is no provision, but our personas have revealed that disabled people have to consciously plan their daily spatial routines to ensure that they can always access the toilet if they need it.
- Consequently, their lives are narrowly constrained to a small everyday 'home range' and governed by restrictive patterns of behaviour, like not leaving home for more than about 2 hours at a time. Metaphor of 'the bladder's leash'.
- Catch 22. Not many disabled people use away from home toilets because they are badly designed. Because disabled people don't use away from home toilets, providers think there is no need to provide them.
- Constrained mobility becomes naturalised and invisible to others, because of this self-limiting behaviour. Limits disabled people's participation in wider society. This is why public toilet provision is a matter of social equity and justice, as suggested earlier.

The Health Implications

- Two kinds of health implications follow from this:
 - First, self limiting behaviour includes severely restricting fluid intake before going out and about. This places extra stress on the kidneys and could possibly raise the risk of contracting infections.
 - Second, the quality of life of the 10-40% of older women and 6-20% of older men who have incontinence problems and who are living in the community is likely to be affected. Incontinence is a disability as defined by the DDA.
 - Accessing public toilets is a significant problem for caregivers and care recipients with incontinence. Detrimental effect on life and increases social isolation. Lack of access to toilets severely curtails social activity, as people alter their lifestyle to avoid being 'caught short'.
 - Suggestive evidence from the Asian community of a higher prevalence of incontinence among people using 'sitting' toilets as opposed to 'squatting' toilets, though the pathophysiology behind this finding is unclear.

Defensive Denial

- Currently, the extent of these problems is unknown, especially in respect of how incontinence relates to QoL, morale, depression and mental health, as opposed to the immediate medication and treatment of the presenting problem. Even a lack of clarity about how many conditions have continence issues as a side-effect.
 - Incontinence is a taboo subject. Socially unacceptable to talk about it. Inhibits understanding on the part of professionals and ‘sufferers’ themselves. The body becomes untrustworthy. Defensive denial.
 - Rational ways to deal with it are seldom followed, other than using pads (raising the issue of safe disposal) or being aware of toilet locations and frequent toileting.
 - Evidence of a loss of grip on bodily propriety. Inability of an adult to contain bodily fluids is unacceptable. Incontinence is associated with bodily incompetence. Regression to childhood. Unclean.

Safety, Privacy, Cleanliness, Comfort and Dignity

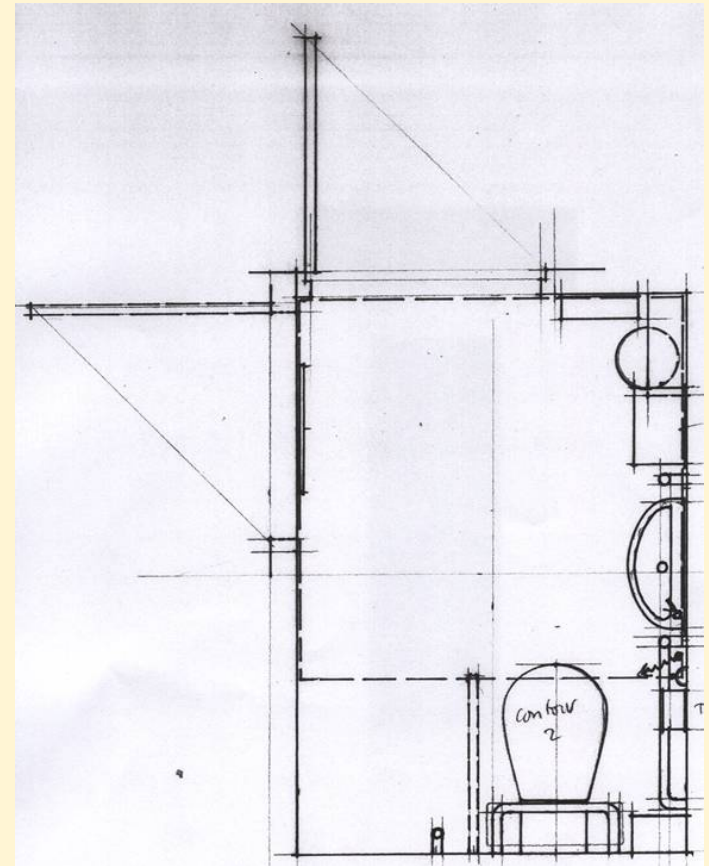
- Early focus groups revealed that we don't know enough about what ordinary men, women and children actually need to really make a toilet accessible for them.
 - Conundrum of the parent with a toddler in a pushchair or the older 'scooter' user
 - Cross gender issues, dad + daughter
- As the project becomes better known, more and more groups are contacting us who might not at first sight be the most obvious candidates for a persona (MS, arthritis care, older people, ethnic minorities, dyslexia, autism, Parkinson's disease, short stature, high/low blood pressure). In short, this is an issue that affects absolutely everyone.
- Not just about access. Universal needs with respect to toilet design. Human rights issue. Five cardinal design principles.

Broadening Concepts of Access

- Design issues raised are far broader than just access. Good design is not just about wheelchair access.
- Urostomy - a surgically created opening in the abdominal wall through which urine passes. After the operation, people need to wear a pouch to collect urine. Excretion is not under voluntary control. A hidden disability. Physical mobility fine.
 - Number of toilets, adequate provision as this group cannot queue;
 - Ordinary or preferably enlarged cubicle (because of kit) in single-sex washroom not a unisex toilet;
 - Lighting - good general light levels and no 'blue' light;
 - 'Mind the gap' - design of the cubicle door to avoid voyeuristic intrusion;
 - Good ventilation;
 - Provision of a wash hand basin in the cubicle;
 - Clean shelf on which to place equipment;
 - Disposal bin for safe disposal of used pouches.

Design Templates

- We already know that ADM 2004 shows an example of a wheelchair accessible design, but it does not suit everyone's needs.
- With advice from our informants, the desired design solution for each persona will be translated by us into a design template that will explain to provides and designers what our user groups tell us are 'reasonable adjustments', and why these are essential.
- These will be transparent so that they can be overlaid and eventually ranked from the most inclusive solution (accommodates the greatest number of personas) to the most restrictive solution (incorporates the fewest, and is hence the least accessible) .



Early prototype of a design template.

Customised / Tailored Solutions

- Templates can also be overlaid on case study data relating to existing provision, so that real examples can be ranked according to the % of personas accommodated / excluded and the reasons for failure highlighted.
- We have already established that there is no 'ideal' solution to suit everyone!
- First step will be to make ADM more inclusive, to take account of people with a much wider range of abilities.
- We shall also produce new design templates to show how the ADM can be 'customised' to suit different user groups.
- Where this is not possible, we shall design a new, 'tailored' solution.



A 'tailored' solution. Height adjustable changing bench for adults with profound physical impairments.

Breaking the Taboo

- Up to now, one of the real obstacles to the design of accessible away from home toilets has been that no one knew what actually went on behind the toilet door. Our research is beginning to lift this taboo.
- Now, with continence services high on the NHS agenda, one threat to the delivery of a seamless service for patients could be the rise in public toilet closures, just when people need them more than ever before (ageing society + DDA).
- Need for interdisciplinary research of the sort intended by SPARC to tackle the issue holistically.

