Future-facing Environmental Bathrooms



Green Building Encyclopaedia

Future-facing Sustainable Bathrooms, Bathing and Sanitaryware

Design

Chicane pathway with no inter-visibility entering and leaving public toilets

No doors and no ironmongery for bacteria transfer

Interior designers seem to be pushing for unisex communal toilets in offices

Space saving seems to be the driver

Socializing will probably consume more time

But happier staff?

Sequential layouts with some logic to the movement of people

Time saving navigation and sequence of activities

Wet-soap-dry machines in larger numbers or phased out in high demand toilets

Need to keep customers flowing

Will hand wash and drying taps over basins clog up the flow of people

Architect designed vanity unit/basin tops banned!

Avoid splash water flooding vanity top then dripping onto floors

Architect designed vanity unit tops and taps tested together on full-flow, low-flow and drip-drip.

Outward opening door to small cubicles (French approach) to reduce space needed

Robust internally hooking ironmongery to give users confidence

Consider Ska rating (Environmental Assessment Method) for fit-out and refit.

More robust and comprehensive than BREEAM

Sanitaryware

All water saving profiles/outlets

Proximity actuated, water saving, flow regulated, aerated taps (except bath taps)

No more tooth brushing with tap open long term

Proximity actuation (presence or departure)

Proximity actuated low water flow sprinkler taps

No-more percussion push-taps ever especially in pressurized multi-storey projects

No more water hammer (for quiet Schools Universities Hospitals)

Proximity actuated foaming soap dispensers

Baths

Smart baths for water management

Voice actuated and voice recognition

Fills the bath for you

Knows your temperature and depth preference(s) and lighting/music scenarios,

Showers

Atomized mist showers

75% water saving

Easy DIY fitting

Standard threads for connecting

3 stage mineral-based water cleaning

Mineral adding

Aromatherapy addition

<https://www.indiegogo.com/projects/cirrus-shower-revolutionary-uses-75-percent-less-water-design#/>

Water saving showers (even if rain showers)

Smart showers for water management

Voice actuated and voice recognition

Knows your temperature preference, head settings, stops and starts water for you

Audible

“Wet, soap-up, rinse”

Count down

Controls with attitude

lets you know when you’re consuming too much water

or lingering too long

Urinals

Effective visual privacy between urinals

Elbow rests on urinal dividers in public houses! Somewhere to lean if drunk!

Waterless smell-extracting urinals

Visual privacy if urinals are part of communal unisex toilets (unlikely)

Female urinals will probably never catch on except at music festivals

Too many risks of wet clothes to consider them?

Rainwater harvesting

Effective Wisy filters on down pipes

To Flush toilets

Clothes Washing Machine

Grey water harvesting

From basins to flush toilets

Australian basin on WC cistern

Roca/Laufen model basin beside WC

From baths to flush toilets

In wall pre plumbed systems

No energy intensive UV or chemical cleaning of water

If you must, use Solar PV to run it

Fabric first refurbishments

Whenever a bathroom is refurbished or refitted, use it as a trigger point for a proper job

Decent Homes, privately, Insurance repairs, etc.

All removed parts diverted from landfill for reuse or recycling

Insulate the external walls, and all voids that are opened up, properly for before refitting

So it does not have to be undone and then redone later (GreenDeal, ECO)

Refit with access panels to minimize leak damage and avoid refits next time

Insulate all hot and cold pipes everywhere not just the 1st meter from the cyclinder

Acoustics:

No more noisy hand driers

‘Quiet mark’ promoted more widely

Awarded to exceptionally quiet fast-air blower hand-driers

Not just to the first company that asked to be assessed

And not likely to be awarded to Dyson Airblade (whether they applied or not)

Men not allowed to pee standing up in blocks of flats and hotels after 9pm

Acoustic privacy in cubicles especially in unisex communal toilets

Airtightness measures at all pipes through walls/floors/roofs/partitions/ceilings/in casings/ducts

Vitreous china

Higher recycled content vitreous china:

Resource efficiency

Lower temperature baked vitreous china:

low embodied energy and potentially low embodied carbon

Ironmongery:

Reduced chemically intensive chromium plating to metalwork

Anti-bacterial silver-plated flush handles/plates/buttons/knobs/taps etc.

Anti-bacterial coatings:

Anti-bacterial silver-plated cubicle and door ironmongery on way out

Anti-bacterial silver-plated flush handles/plates/buttons knobs, taps, etc.

Anti-bacterial coated WC bowels: skid-mark-eating self-cleaning

Anti-bacterial coated everything in Prisons, Hospital and Mental institutions

Sealants:

Purpose-made profile single-piece rubber gasket water-tight seal to walls and floors:

avoiding silicone sealant:

easy reclaimable, cleanable, resalable and reusable china

Energy consumption

Effective design hand driers down to 500 Watts and still effective in 10 seconds

Fast air blower hand drying in preference to heat

Enhanced Capital Allowance promoted widely

Energy Technology List listed appliance adopted more widely

Shower waste heat recovery transferred to shower hot water supply, fitted everywhere

Insulated hot and cold pipes (everywhere including domestic)

Plumbing:

Waterless smell-extracting urinals

Move away from PVC to ABS in downpipes

Move away from PVC to Polypropylene in waste pipes

Airtightness/acoustic/fire/smoke/weather measures at all pipes through elements

walls/floors/roofs/partitions/ceilings

Flow regulating/isolating valves

Insulated pipes everywhere

Electrical wiring

Move away from PVC sheathing to Low Smoke Low Halogen LSLH

Water consumption

Isolation/flow regulation valves on all appliances

Set to low flow by default (CITB Skills training needed)

Dual flush leak-free WC valves every time

Leek-free mono-block swivel taps

Enhanced Capital Allowance promoted widely

Water Technology List listed appliance adopted more widely

Leak-Flood prevention

Special valves to limit size of floods due to leaks, fitted on appliances:

Washing machines

Dish washers

Water fountains

Easter and western WC habits will probably never merge for the majority

Westerners with medical guidance may adopt squatting

Western poo inspection platforms will never catch on in UK except in medical buildings perhaps

Easterners catered for:

Robust Toilet seats that will not break if not lifted and squatted upon (Seen in schools)

Squatting profiled feet places on western sitting WC bowl?

Truly rimless toilets (not smaller rims) with a ledge

First seen by me in Belfast during their ‘troubles’

Assumed to be designed ‘nowhere to hide explosives’

Rimless toilets in Prison WCs

No where to hide ‘miniature mobiles, drugs, sharps’

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