At different moments in American history the public bathroom has been a crucible that has registered social anxieties triggered by the threat of a series of marginalised groups entering into mainstream society. Historical milestones include debates sparked by the introduction of the 'ladies’ room to accommodate women entering the workplace in the early twentieth century, the fight to abolish segregated ‘coloured’ bathrooms by the Civil Rights Movement during the 1950s and 60s, the fear of contamination posed by gay men using public lavatories during the AIDS crisis in the 1980s, and the pressure to make bathrooms accessible to people with disabilities tied to the passing of the Americans with Disabilities Act (ADA) in 1990. In each instance, the public restroom transforms an abstract concern into a tangible peril by virtue of it being a physical space. It has the power to conjure nightmarish scenarios that compel ‘normal’ citizens to physically interact with ‘abnormal’ people whom society has preferred to render invisible.

In the United States, public restrooms are again a contested site; this time sparked by the spectre of allowing a new constituency – transgender individuals – access to the public restroom belonging to the gender with which they identify. A long-simmering moral panic over the presence of transgender people in sex-segregated public toilets began escalating in the spring of 2015, as an unprecedented wave of mass culture visibility for trans issues. It intersected with recent changes in the federal government’s interpretation of existing civil rights protections against sex-based discrimination. Two high-profile examples have been the Campaign for Houston to repeal HERO, an equal rights ordinance, and North Carolina’s House Bill 2. They resulted in the boycott of the state by numerous corporations and organisations. Currently, more than two dozen similar bills attempting to restrict gender-appropriate public toilet access for transgender people have been introduced in statehouses across the United States. And the Trump administration has retreated from transgender-supportive interpretations of existing laws put forth by the Obama administration.
Both sides of the debate pose this issue as one of safety. Advocates cite high rates of violence faced by trans people, and in particular trans women of color. Naysayers claim that transgender women pose a threat to cis-gender women, by portraying trans women as predatory men masquerading in dresses to stalk sexual prey in the ladies’ room. Lurking beneath this unsubstantiated fear are longstanding societal anxieties about human embodiment that bathrooms have historically harboured: they include abjection, misogyny, homophobia, and disability. Yet a new, and perhaps even deeper threat provoked by society’s newfound awareness of transgender people is the notion of gender ambiguity: trans people call into question the presumption that anatomy is destiny, demonstrating that there are multiple ways of expressing one’s gender identity independently from one’s biological sex. This increasingly calls into question the way in which bathroom design perpetuates—through spatial segregation—an outdated binary conception of sex (a conception that besides posing a problem for trans people, also excludes intersex people, and those who identify as non-binary or genderqueer).

Stalled!, an interdisciplinary design research project spearheaded by architecture professor Joel Sanders, gender studies professor Susan Stryker, and law professor Terry Kogan aims to shift the terms of the debate in three fundamental ways. First, while all-gender restrooms have received considerable media attention, few cover it from an architectural perspective. We need to regard public restrooms as a social justice issue with design consequences that can be solved with innovative architectural solutions. Secondly, we can no longer accept sex/gender segregated restrooms as a given that answers to the ostensibly objective needs of privacy based on anatomical difference. History teaches us that the first sex segregated bathrooms were instituted in the 1880s in response to women entering the workplace. A product of prurient Victorian values, ‘ladies rooms’ were invented as havens to protect women whose mentally and physically vulnerable bodies threatened to corrupt men. Thirdly, we need to expand our purview to create inclusive restrooms that not only meet the needs of the trans community, but encompass the needs of all embodied subjects of different ages, genders and abilities.

There are two prevailing design approaches to gender neutral bathrooms – the single unit and multi-stall solution. The single unit solution is the generally accepted code-compliant solution that retains sex segregated bathrooms and supplements them with a single-occupancy room relabeled/designated as Gender Neutral. But this single-occupancy solution spatially isolates and excludes: it stigmatises non-conforming individuals, not only trans but also the disabled, from mixing with other people.

Respectively, we advocate a de-segregated multi-stall solution that has received support from many trans activists. This alternative treats the public restroom as one single open space equipped with European style, fully enclosed floor-to-ceiling doors that ensure visual privacy. This solution has a number of advantages. No longer will gender non-conforming people who don’t fit the binary need to choose between two unacceptable spatial options that don’t align with their identities. By consolidating a greater number of people in one rather than two rooms, there are more eyes to monitor, reducing risk. Most importantly, multi-stall responds not only to the needs of the trans community, but also accommodates the rising needs of a wider range of differently embodied subjects of varying ages, genders, and abilities. For example, in this way a father can accompany his young daughter, or a woman can take her elderly male friend to the restroom.
Just as we ended the racial segregation of public toilets in the past, and expanded access for a wide range of physical abilities, so too can we design truly inclusive public restrooms that serve diversity and justice, safety and sanitation. But implementing inclusive desegregated bathrooms is not without challenges. To begin with, it requires changing existing legislation and building codes. Desegregated restrooms require a complicated variance. Hence, Stalled! includes an initiative to amend the International Plumbing Code (IPC), the model code that governs most construction in the United States, to allow for multi-user, all-gender restrooms in new and existing buildings. Next, it requires changing deeply ingrained social attitudes about spatial practices related to three activities – grooming, washing and eliminating – that people consider natural, universal and inevitable. We would need to recognise instead the socially constructed nature of bathrooms, as historically contingent sites of social exchange where social, psychological, technological and ecological forces converge.

While important in their own right, bathrooms are only a point of departure to generate a larger conversation about the relationship between environmental design, the human body and social equity. The controversies surrounding transgender bathrooms are just one example of how the civil liberties of non-compliant bodies – women, blacks, Muslims, immigrants and the LBGTQ community to name a few – are imperiled both in this country and around the world by denying people access to public and private space. In other words, these are political issues with architectural ramifications. Architects and designers must step up to the plate and explore the design consequences of these urgent social justice issues. First, we need to become aware of our own complicity by not turning a blind eye to the way the seemingly innocent conventions of architecture reproduce problematic cultural assumptions about ‘normal’ bodies. Then designers, working in collaboration with activists, lawyers, code experts, engineers and graphic designers need to form coalitions to develop a new design approach that enables a broad range of differently embodied people of different ages, genders, religions and disabilities to productively interact with one another in public and private space. In the process of discovering creative design solutions that include the needs of diverse human bodies, we can change social awareness: accessible public spaces that foster mixing will breed tolerance and respect for human dignity and difference.

**Airport restroom case study**

Stalled! is developing restroom prototypes that can be implemented in a variety of generic sites, from smaller footprints in institutional buildings to high volume facilities in airport concourses. We chose an airport as a case study because it is a high volume, mixed-use public space where a diverse constituency spends extended periods of time, catering to their mental and physical needs while they wait – checking social media, eating and going to the bathroom.

Our scheme for the airport restroom takes as its point of departure the standard dimensions of a typical gender-segregated airport restroom. Our goal was to explore different ways that a wide range of embodied subjects could mix together in public space, based on the understanding that the seemingly commonplace and universal activities that we perform in restrooms are shaped by the convergence of biological, cultural and psychological factors.
Diversity design methodology: Our design methodology involves researching the design consequences of the specific needs of user groups categorised by age, gender, religion and disability, and then finding creative solutions that could be shared between them. Three factors guided our design decisions. 1) Creating a space that would promote physical and psychological well-being to counteract the subjective feelings about abjection, shame, privacy and propriety that bathrooms evoke in users. 2) Integrating interactive fixtures and technologies that conserve water and are easy to handle for those with manual disabilities. 3) Devising way-finding that uses color, texture, and dramatic lighting in lieu of signage as devices to assist people with physical and sensory disabilities to navigate through public space.
Activity zones: Treating the toilet stall as a privacy unit allows us to eliminate the barrier that typically divides adjacent men’s and women’s rooms as well as the wall that separates them from the concourse and instead reconceive of the public restroom as a semi-open agora-like precinct that is animated by three parallel activity zones, each dedicated to grooming, washing, and eliminating.

Slip-resistant sheets of diamond plate, tile, and rubber differentiate each of the three activity zones painted a different shade of blue for the visually impaired. After debating the merits of different color options, we finally chose blue because research indicates that it is soothing, associated with water, health, and hygiene, and a complementary background color for deaf signing because it contrasts with skin tones.
Grooming station: Immediately adjacent to the concourse, the grooming station features a smart mirror that disseminates information (flight arrival and departure times, weather, and retail) while they groom at a multi-level counter that serves people of different heights and abilities. Those who want privacy can retreat into curtained alcoves for breastfeeding, administering medical procedures such as insulin injections, meditation, and prayer.
Washing station: The communal washing station meets the needs of adults, children, people in wheel chairs, and religious people who use public restrooms to perform ritual ablutions for cleansing face, hands, arms, and feet. Inset floor lights indicate the location of motion-activated faucets inset into the wall that allows water to flow into an inclined splash plane placed at different ergonomic heights that is then collected and cleaned in a remediating planter before being recycled. The scent of plants and the ambient sounds of flowing water masks bodily sounds and odors.
Elimination station: Located at the back of the facility, the elimination station consolidates rows of bathroom stalls that offer acoustic and visual privacy. Unoccupied stalls are indicated by recessed floor lights; when entered, they turn off and the now occupied stall glows from within. From the inside of each stall, users can surveil their surrounding by looking through a band of blue one-way mirror located at seated eye-level. Stalls contain low flush composting toilets that treat human waste through aerobic decomposition.
Section: As users circulate from one station to the next, passing from the outermost grooming station to the innermost toilet wall, they experience a multi-sensory gradient that takes them from public to private, open to closed, smooth to course, dry to wet, acoustically reverberant to sound absorptive, ambient to spot lighting.
Biography
Joel Sanders is the Principal of his New York based studio JSA and a Professor of Architecture at Yale University. JSA projects have been featured in international exhibitions including MoMA, SF MoMA, the Art Institute of Chicago and the Carnegie Museum of Art. The firm has received numerous awards, including six New York Chapter AIA Awards, two New York State AIA Awards, an Interior Design Best of Year Award, and two Design Citations from Progressive Architecture. Editor of Stud: Architectures of Masculinity and Groundwork: Between Landscape and Architecture (with Diana Balmori), Sanders's writings and practice have explored the complex relationship between culture and social space, looking at the impact that evolving cultural forces (such as gender identity and the body, technology and new media, and the nature/culture dualism) have on the designed environment.