

# Spatial Justice: Creating a Unisex Restrooms in Taiwan

Chihyuan Chang

**Abstract**—This study recommended that Taiwan’s unisex restroom designs, on the basis of building usage types and public usage characteristics, be divided into single and complex types in order to adapt to local conditions. In addition, in furthering the use of unisex restrooms, governments should not only consider the standpoint of the user (such as male, female, transgender) in design and planning, but also take into account general users’ experience. Based on the concepts of the United Nations’ “Convention on the Elimination of all Forms of Discrimination Against Women” for the elimination of discrimination against women (such as elderly or handicapped women), equality of acquiring resources and gender-equal rights, the unisex restroom indeed needs to be set and the State should take appropriate measures to protect the rights of women.

**Index Terms**—Unisex restroom, all-gender restroom, gender neutral restroom, spatial justice.

## I. INTRODUCTION

The design of public restrooms has always been an important study issue because it involves factors such as gender, hygiene, accessibility, use of space, and equipment and piping.

In modern society, there are no restrooms built especially for a particular sex at homes in most countries. The whole family shares one restroom. But for restrooms in public space, since they are used by various people, privacy and gender factors are included in the design. Because of the different male’s and female’s toilet usage time, there are not enough women’s restrooms in public buildings. Consequently, long queue is a common scene at women’s restrooms. Furthermore, which type of public restroom should male adults with young girls, female adults with young boys or men or women with physically-challenged seniors use? They are usually troubled by gender issue when they need to go to the restroom, not to mention there is safety issue involved.

As for transgender or homosexual people, what type of public restrooms should they use? The solutions for the above issues happen in the public buildings in Taiwan are provided according to the regulations for accessible restrooms in “Design Specifications of Accessible of and Usable Buildings and Facilities”. However, it affects the rights of physically-challenged people because their toilet usage time is usually longer which could take up to 30 minutes. Thus the issue of “All-Gender Restroom” has been getting more and more attention and being taken into account by the staff at Building Administration Department.

In recent years, the issue of "unisex restrooms" has

gradually seen more and more emphasis and concerns by society, while the locations of such toilets in Taiwan are mostly at universities, colleges and public sector institutions, and most of which are in the nature of demonstrations and single-point settings.

In addition, compared to the “Convention on the Elimination of all Forms of Discrimination Against Women ” under the United Nations Charter, which is paying more and more attention to women's basic human rights, the value of human dignity and gender equality rights, the Building Act of Taiwan has neither mandatorily stipulated the necessity of setting unisex restrooms, nor formulated relevant specifications.

The present study asks: What is the difference between an accessible toilet and a unisex restroom? What are the issues of the social environment? How should we conduct planning and design for unisex restrooms?

## II. LITERATURE REVIEW

### A. Feminism and Unisex Restrooms

The basic mission of the feminist movement is to remove the gender systems in societies in order to deconstruct and reconstruct women’s identity. In practice and discourse, rejecting the female identity defined by men or imprinted of patriarchal families by demanding equality, by pointing out differences or by segregating completely to defend the rights of women is the bottom line of feminism.

“All-Gender Restroom”, aka unisex restroom, restroom for both genders / universal restroom, residential bathroom, gender neutral restroom, means broadly public restrooms that are available to and used by everyone. They are generally thought to be the partial solution to senior citizens or young children that need the assistance from their family members when going to the restroom and the disproportionate numbers of male and female restrooms and disproportionate toilet usage time.

Longhurst (2001) discussed the fluid boundaries. He talks about the shape, depth, biology, insides, outsides and boundaries of bodies’ places in particular temporal and spatial contexts. Women’s and men’s bodily boundaries can be linked to a politics of fluidity/ solidity and irrationality/rationality. Bodies are socially constructed and are also always in a state of becoming with places. Domestic toilets/bathrooms are often the site where bodily boundaries are broken and then made solid again. The body is (re)made ready for public scrutiny. Longhurst examine men’s experience of domestic toilets/ bathrooms as a strategic move to displace the often implicit association of body fluids and flows with femininity (especially maternity, pregnancy and menstruation) [1].

Gershenson and Penner (2009) point out it is only by

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understanding the private or unconscious life and meanings of controversial; how they are so integrally bound up with other issues, from women’s right to gay sexual identity, that is often impossible to invoke one without invoking them all; and why they have been the subject of so many passionate debates, controversies, and design and art interventions throughout the modern era. Public toilets are also amenities with a functional, even a civic, purpose. Yet they also act as the unconscious of public spaces [2].

Barcan (2010) pointed out public toilets are as technologies of concealment, elimination, or disavowal [3].

Serlin (2010) discussed the disability, gender and the public toilet and pointed out the federal guidelines for enforcing or invoking the ADA deliberately presume a disabled body that is unmarked to unaffected by differentials of gender, race, ethnicity, class, or sexuality, let alone bodily difference and normatively[4].

Cavanagh (2010) explores how public toilets demarcate the masculine and the feminine, and condition ideas of gender and sexuality. She pointed out the modern toilets engineers a truth about the body and its sex. The disciplining of gender is dependent upon visual and acoustic surveillance systems responsive to ideas about hygiene. Bodies are separates and subject to quarantine under the auspices of health and safety [5].

*B. Review of Literature on All-Gender Restrooms, Installation and Policies*

Kogan (2010) argued that policymakers were motivated to enact toilet separation laws aimed at factories as a result of deep social anxieties over women leaving their homes- their appropriate “separate sphere”-to enter the work force. Laws mandated sex-separated factory toilet facilities as a cure-all for Victorian social anxieties [6].

Gershenson (2010) discussed the restroom revolution about unisex toilets and campus politics in the United States and pointed out public toilets are among the very few sex-segregated spaces remaining in the culture of the United States. The laws that govern them are among the very few in the United States still to be sex respecting, meaning that they still distinguish on their face between males and females [7].

Greeds (2010) pointed out the achievements of a nonsexist restroom requires immense cultural, attitudinal, policy, legal, and architectural changes. She also made recommendations as to how to create a nonsexist restroom, with respect to the different levels of the problem-at the macro, meso, and micro levels. These recommendations involve new directions for design and planning for the city as a whole, the local area, and the toilet block, respectively [8].

Peng (2013) observed that unisex restrooms appear to be applauded but unappealing in Taiwan as most all-gender restrooms are still being used as men’s restrooms. In particular, women still continue with preferences developed from their previous gender roles in regard to their attitudes toward restroom privacy boundaries and their usage behavior. Even transgender individuals would not necessarily want to use all-gender restrooms themselves despite being supportive of the concept. She recommended that, besides men’s and women’s restrooms, an “Other” bathroom space is to be added to public restrooms in the future [9].

Although Taiwan has gradually explored the issue of

unisex restrooms, including the preliminary conception of planning and designing unisex restrooms proposed by the Architecture and Building Research Institute, MOI [10]; Empirical Assessment and Reflection on Unisex Restrooms at Shih Hsin University [11]; The Process of Moving from Female Restroom to Unisex Restroom in the View of a Participant [12]. However, those studies mentioned above have not carried out discussion about the definition, planning and design, and manageress’ view of unisex restrooms. Thus, this study was conducted and focused on this point of view.

III. RESEARCH METHODS

The research methods adopted in this study included laws and regulations study, restroom-site investigation, interviews with managers and expert seminars.

Methods included a study on laws and regulations, a unisex restroom survey, and expert interviews. The steps were as shown in Fig. 1, and the list of persons interviewed and the outline of questions asked were as shown in Tables 1 and 2 respectively.

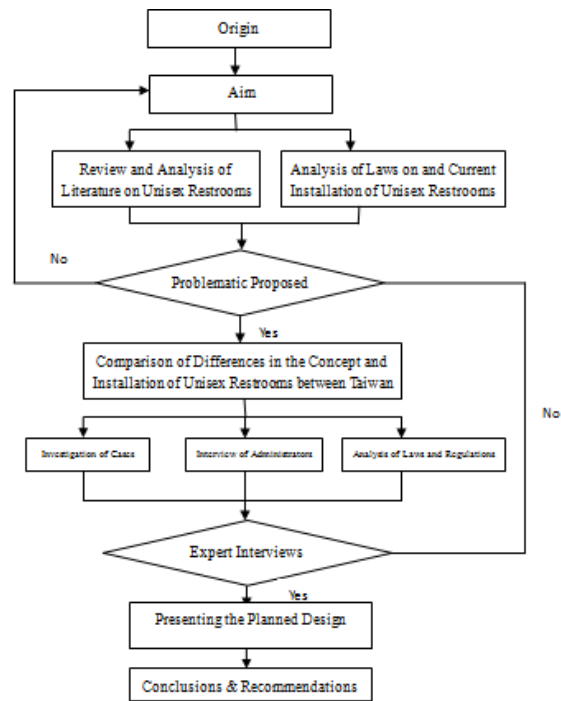


Fig. 1. Steps and procedures.

TABLE 1: LIST OF PERSONS INTERVIEWED

Type	No.	Reason
Expert/scholar	A1	University professor specializing in environments for the elderly
Expert/scholar	A2	University professor specializing in environments for the elderly and interior design
Expert/scholar	A3	University professor specializing in assistive devices for the elderly
Local government official	B1	Section chief familiar with building and barrier-free regulations
Central government official	B2	Section chief familiar with building administration regulations
Local government official	B3	Section chief in charge of unisex

official		restrooms
Central government research official	B4	Specializing in environments for the elderly
Central government research official	B5	Specializing in barrier-free environments
Central government research official	B6	Specializing in disaster prevention involving the elderly
Professional	C1	Architect who has designed unisex restrooms
Professional	C2	Architect with practical experience in design
Taiwan Tongzhi Association	D1	Member who cares about gender equality
Taiwan Toilet Association	D2	Chairperson concerned about toilet design

Source: compiled in the study.

TABLE II: OUTLINE OF QUESTIONS ASKED

Research Question	Interview Question
Characteristics of unisex restrooms	What are the intrinsic differences among unisex, barrier-free, and multifunctional restrooms?
Design of unisex restrooms	What is the emphasis in the interior design? How are safety and privacy taken into consideration? What are the things to be noted when designing restrooms? What is the difference between single-type unisex restrooms and gender-segregated restrooms?
Places where unisex restrooms are installed	What should be considered regarding places of installation? Should unisex and barrier-free restrooms be combined?
Enforcement of unisex restroom laws	How to implement and enforce the laws? Are they enacted and enforced directly or in stages?

Source: compiled in the study.

#### IV. RESEARCH PROCESSES AND RESULTS

##### A. Clarification on the Installation of Unisex Restrooms as Provided in the Covenants, Laws and Systems

Article 2 of the International Covenant on Civil and Political Rights under the Charter of the United Nations provides that each state party to the covenant undertakes to respect and to ensure the rights recognized in the covenant to all individuals within its territory and subject to its jurisdiction, regardless of gender. Based on the provisions of “State Parties condemn discrimination against women in all its forms, agree to pursue by all appropriate means and without delay a policy of eliminating discrimination against women ... and Paragraph (f) To take all appropriate measures, including legislation, to modify or abolish existing laws, regulations, customs and practices which constitute discrimination against women;...” provided for in Article 2 of the “Convention on the Elimination of all Forms of Discrimination Against Women” under the United Nations Charter along with the statement of “Paragraph (f) ...of Article 2 provides that State parties have the obligation to

provide legal protection and repeal and amend discriminatory laws and regulations, as part of a policy to eliminate discrimination against women.

State parties must be sure to incorporate the principles of gender equality and non-discrimination into domestic law and give them priority status and enforcement through an amendment to the Constitution or other appropriate means of legislation. In addition, State parties shall promulgate and enact a law in accordance with the provisions of “Convention” to prohibit discrimination against women’s life cycle, and have the obligation to take actions to amend and abolish any existing laws, regulations, customs and practices which constitute discrimination against women. Specific groups of women, including ... homosexual women, women with disabilities,... elderly women ... and so on who are particularly vulnerable to discrimination in civil and criminal law, regulations and customary laws and practices. ... “Stipulated in the 47th session of “General Recommendations” of the “Convention on the Elimination of all Forms of Discrimination against Women”, it can be learned that the settings of unisex restroom involve the concepts of "gender diversity" and "gender equality", which are aiming to protect women from being discriminated against and to enjoy human rights and fundamental freedoms.

The installation of unisex restrooms, concerning gender diversity and gender equality, can protect women from discrimination and enables them to enjoy human rights and basic freedoms. In addition, it solves problems faced by users, parents with children, persons with disabilities accompanied by those of the opposite gender, or transgender individuals, in using public toilets. It is highly related to the international covenant.

In the United States, there must be at least one unisex toilet in men’s and women’s restrooms with six toilets. In order to put gender friendliness into effect and to respect diversity, the All-gender Restroom Installation Regulations of the National Taiwan University, which were enacted in accordance with the Gender Equity Education Act of the Ministry of Education to eliminate gender discrimination and to improve and establish gender-friendly education resources and environments, require the design of unisex restrooms in its buildings to follow important principles on safety and privacy.

##### B. Unisex Restroom Interviews and Survey Analysis

This study sorted the setting problems and features through site investigation of unisex restrooms, manager interviews and expert workshops (Table III).

Summary of interviews and conclusions:

- 1) There have been different opinions on whether or not unisex restrooms should be combined with or separated from ordinary and barrier-free restrooms.
- 2) Although restrooms should be planned and designed from the standpoint of users, public sentiment should also be considered in promoting unisex restrooms.
- 3) Small or restrooms under certain scales are unsuitable for installation as unisex restrooms, and their installation should take into account the usage situations of various types of buildings.
- 4) The possibility of combining barrier-free and unisex restrooms should depend on the actual usage situation,

and, if used together with barrier-free restrooms, these restrooms should not be of a single type to give diversity and selectivity.

5) Opinions on places of installation and the enforcement

of laws have been consistent. Customs and traditions and the society’s openness and acceptance must be taken into consideration.

TABLE III: UNISEX RESTROOM INTERVIEWS AND SURVEY ANALYSIS

Issue		Response
What are the intrinsic differences among unisex, barrier-free, and multifunctional restrooms?	To be separated	<ol style="list-style-type: none"> <li>1. Combining barrier-free and unisex restrooms may lead to differential treatment and causes users to feel excluded psychologically (B6).</li> <li>2. Barrier-free and unisex restrooms shouldn’t be integrated because it would shut out different user groups (A3).</li> <li>3. The remodeling of barrier-free restrooms into unisex restrooms is not recommended so as to avoid pushing aside barrier-free restroom users (B2).</li> </ol>
	Not to be separated	<ol style="list-style-type: none"> <li>1. Unisex restroom is an issue at the psychological thinking level, whereas mobility disability is the thinking behind barrier-free design initially. There is no conflict, and there is no need for separation. Instead, it is an unfriendly behavior if separated (A2).</li> <li>2. Gender distinction would not be necessary. Transgender individuals often cannot use public toilets comfortably, but they also don’t want to use barrier-free restrooms for fear of occupying disabled persons’ space. If restrooms are set up for their use alone, there will be a labeling issue (D1).</li> </ol>
	To be combined	<ol style="list-style-type: none"> <li>1. From studies on elderly persons with dementia, it was shown that barrier-free restrooms should not be of a single type and should differentiate unassisted use from assisted use, giving diversity and selectivity. Unisex restrooms can be combined (A1).</li> <li>2. The nature of public places must be analyzed for unisex restrooms, and installation proportions should be considered. If there were excessive disparities in proportions, integration with barrier-free restrooms should be possible (C2).</li> </ol>
Design of unisex restrooms		<ol style="list-style-type: none"> <li>1. Take crime worries (e.g. snooping and intimidation) and safety into consideration and should add emergency reporting systems (B2).</li> <li>2. Have signage systems on the outside so that people can see all the facilities inside barrier-free restrooms at first glance (A2).</li> <li>3. Safety problems can be solved via emergency buttons (D1).</li> <li>4. Keep proportions and scales flexible, set high requirements for restroom partitions and consider installing fire warning lights (C1).</li> <li>5. Unisex restrooms are used by co-workers and offer much more open space and lesser blind spots after design. Thus, attention must be paid to privacy considerations inside these restrooms and the cubicles, and peeping and toilet noises must be prevented. Moreover, the awkwardness of male and female users seeing each other at the hand basin area must also be taken into account, and the restroom space’s colors need to break away from gender stereotypes. Finally, restrooms must be kept clean, tidy, ventilated, and well-lit (B3).</li> </ol>
Places where unisex restrooms are installed		<ol style="list-style-type: none"> <li>1. Related scales of places to be installed should be clearly specified to comply with building usage types and scales (B2).</li> <li>2. Small or restrooms under certain scales are unsuitable for installation to avoid insufficient number of users (B2).</li> <li>3. With educational significance, universities in the country can install unisex restrooms, but, as suggested, their installation in elementary schools and kindergartens are unnecessary for the time being (C1).</li> </ol>
Enforcement of unisex restroom laws		<ol style="list-style-type: none"> <li>1. Implement in stages (B2)</li> <li>2. Take customs and traditions into account (C1).</li> <li>3. Take the thinking, the openness, and the acceptance of the society into consideration and can be enforced in phases and segments (D2).</li> </ol>

Source: compiled in the study.

C. Analysis of the Setting of Various Types of Unisex Restrooms

To explore the design of domestic high-quality unisex restrooms, the researcher visited the section manager of Da-an District of Taipei City on May 18, 2015. The section manager stated that planners had referred to the “Design Manual of Hygienic Equipment in Public Construction” of Construction and Planning Agency, MOI during the design and planning stage, and then construction was completed after receiving architects’ designs and obtaining advice from Taiwan sex experts. It is now classified as a premium restroom by the EPA of Taipei City Government. (Figure 2)

The study analyzes "The handicapped restroom B-type (/Restroom for Parents with Infants)" and "The handicapped restroom E-type (multifunction toilet)" of "3-4 Toilets for the handicapped" in the “Design Manual of Hygienic Equipment in Public Construction”. Among them, B-type restrooms are the combination of standard restroom and restroom for parents with infants; it includes facilities such as baby changing table, child safety chair, and child toilet. Under the baby changing table, there is a 60x60 cm station for women

or children to change clothes. The height of sitting toilets for children is 30-35 cm. E-type restrooms for physically-challenged people are multifunction restrooms that include all facilities.

Taking close look at such restrooms as well as going through several interviews (Table V) , we know they have been developed mainly based on the relevant regulations in “toilets, restrooms” of the 2.7 section of Japan’s “Building Codes for the Mobility of Senior Citizens and Physically-Challenged People”. It’s to expand the main users of accessible restrooms – wheelchair users to senior citizens, physically-challenged people, visually-impaired people, pregnant women, children, people with artificial anus or people with artificial bladders, thus, the original accessible restrooms are improved with necessary facilities and are become multifunction restrooms. To improve the frequencies of its usage, different types of restrooms are built according to various requirements of restrooms in different locations. Child toilet, child safety seat, baby changing table, changing table, multi-use toilet are included for multiple use. Besides, physically-challenged people that are wheelchair-bound usually suffer from elimination disorders which

usually require them to use enema or their own hands to help them defecate. When they are done, their hands are dirty but they can't stand on their feet to wash their hands. They need to be able to wash their hands while sitting on the wheelchair. So, a small sink is installed on the sidewall of the toilet.

This study observes the space renovation of the all-gender restrooms in Da-an District, Taipei City. The main renovation is to add a door to each private toilet area while putting emphasis on the gentle atmosphere of the space, thus, public sinks and powder rooms are installed while facilities to enhance privacy, lighting and air conditioning are also added. From field observations and interview conclusions, the researcher summarized the advantages of current Taiwan unisex restrooms as follows:

- 1) Solve toileting problem for some of the elderly or young children who need their family members' assistance with mobility issues.
- 2) Adjusting the problem of uneven ratio of male and female restroom space allocation and of the proportion of male and female's toilet usage time.
- 3) Allowing the use of restroom to be more flexible and efficient, and saving usage space.

- 4) Redesign will enlarge the space and reduce blind corners, to prevent crime and enhance restroom safety.



Fig. 2. Unisex restroom in Da-an district, Taipei City.

TABLE IV: ANALYSIS OF THE SETTING OF VARIOUS TYPES OF UNISEX RESTROOMS

Type	Building	Analysis of Setting
Office building	Da-an District Office, Taipei City	<ol style="list-style-type: none"> <li>1. Colors between restroom walls and closet doors shall avoid generating a gender-stereotyped impression.</li> <li>2. The closet door can adopt different types of signs.</li> <li>3. Set a powder room.</li> <li>4. Consider privacy at top and bottom of the closet door.</li> <li>5. Set different toilet facilities in different closet doors with a door for each cubicle.</li> <li>6. Set auxiliary facilities inside the cubicle, including baby safety seats, stands, hooks etc.</li> <li>7. Install handrails and emergency equipment in toilet.</li> <li>8. Install mechanical ventilation in the toilet to reduce odor.</li> <li>9. Install automatic photosensitive lighting to save power and increase toilet security.</li> </ol>
Public gathering places	National Science Education Center	<ol style="list-style-type: none"> <li>1. Consider privacy at top and bottom of closet door.</li> <li>2. Set different toilet facilities in different closet door with a door in each cubicle, but urinals shall be co-located on the inside corner.</li> <li>3. Set hook inside the cubicle.</li> </ol>
School	The International Hall of National Cheng Kung University	<ol style="list-style-type: none"> <li>1. Remove the original male and female signs in toilet.</li> <li>2. Beautify the entrance porch with works of art.</li> <li>3. Consider privacy at top and bottom of closet door.</li> <li>4. Set different toilet facilities in different closet doors with a door in each cubicle.</li> <li>5. Set hook inside the room closet.</li> </ol>

Source: compiled in the study.

The following matters should be considered when setting unisex restrooms:

- 1) The consideration of privacy between toilet rooms: to prevent peeping and sounds of elimination. Equipping toilets with music or water sounds might be a good way to avoid such noises.
- 2) The consideration of the size of restroom space: the restroom space is to be shared by men and women and, if the space is sufficient, should design different regions for urinals, washbasins and applying makeup.
- 3) The consideration of embarrassment when using the toilet space: the embarrassment between two strangers of opposite sex meeting at the hand washing sink can be avoided by setting up a small sink within the toilet

room.

- 4) The space color of gender stereotypes needs to be broken down: use a mixture of different colors to avoid all red or blue color.
- 5) The restroom should be kept clean, tidy, ventilated and well-lit: break down the existing stereotype of restroom as always dirty.

#### D. Further Define and Design Recommendations for Unisex Restroom

Since this study suggests that "unisex restroom" denotes "no-gender public toilets", it should be made clear that such restrooms can be used by people of male, female, neutral or transgender, instead of marking it with a male or female label.

The concept of Taiwan's unisex restroom mainly refers to the contents of the "The handicapped toilet type B (and paternity toilet)" and "The handicapped toilet E-type (multifunction toilet)" of "3-4 Toilets for the handicapped" in the "Design Manual of Hygienic Equipment in Public Construction" of Construction and Planning Agency, MOI issued in 2001 (Construction and Planning Agency, MOI, 2001). Such

toilets have been developed mainly based on Japan's accessible toilet ideas. However, there is difference between unisex restroom and Taiwan's simple accessible toilet or Japan's accessible toilet which emphasizes multiple functions. The essential difference lies in the consideration of gender segmentation in such restrooms which stresses the design of blurred gender boundaries (Table V).

TABLE V: RECOMMENDATIONS FOR THE PLANNING AND DESIGN OF SINGLE AND COMPOUND UNISEX RESTROOMS

Single type of unisex restroom	Compound type of unisex restroom
<ol style="list-style-type: none"> <li>1. Refer to "Handicapped toilet type B" of "3-4 Toilets for the handicapped" in the "Design Manual of Hygienic Equipment in Public Construction" issued by MOI.</li> <li>2. Spatial planning                             <ol style="list-style-type: none"> <li>(1) Color: should avoid gender stereotype impression.</li> <li>(2) Signs: the closet door shall use different types of sign</li> <li>(3) Diagram of space configuration: set configuration diagram at the entrance to enable people to understand the toilet location.</li> <li>(4) Music: the toilet may play music or the sound of water to avoid the embarrassment of toilet functions.</li> <li>(5) Lighting: should be mainly based on natural lighting supplemented by artificial lighting.</li> <li>(6) Ventilation: may adopt natural ventilation or mechanical ventilation to maintain good ventilation.</li> </ol> </li> <li>3. Room closet design                             <ol style="list-style-type: none"> <li>(1) Toilet facilities: providing a urinal and toilet in each cubicle</li> <li>(2) Door: the lower edge of the room closet door should be in a distance range of 2 cm above the ground and the upper edge of the toilet door should protect privacy.</li> <li>(3) Small washbasin: should set up a small sink to avoid the embarrassment of joint female and male users.</li> <li>(4) Emergency devices: set up emergency devices to ensure safe use.</li> <li>(5) Toilet lighting: may install automatic photosensitive lighting to save power and increase toilet security.</li> </ol> </li> </ol>	<ol style="list-style-type: none"> <li>1. In addition to refer the design feature of single type of unisex restroom, the compound unisex restroom may be established if space is sufficient.</li> <li>2. Spatial planning                             <ol style="list-style-type: none"> <li>(1) Design room according to different usage demands: in response to the elderly, family, gender needs, it is necessary to consider setting up squat toilets, sitting toilet, parenting toilet, urinals. A closet door should be provided for each room.</li> <li>(2) Common settings in accessible restrooms: since there can be a common washroom between an accessible restroom and unisex restroom, consider installing such a setting in compound unisex restrooms.</li> <li>(3) Urinal area: a door should be set in the entrance to the urinal area to avoid the embarrassment of usage.</li> </ol> </li> <li>3. Inter-toilet design                             <ol style="list-style-type: none"> <li>(1) Small washbasin: each different inter-toilet should have a small washbasin installed to avoid the embarrassment of men and women sharing the same sink.</li> <li>(2) Dressing table: considering convenience and comfort, a dressing table should be set.</li> <li>(3) Inter-toilet accessories: in addition to setting emergency devices, it is also necessary to set a baby safety seat, baby diaper change bed, and dress up table or dressing closet in parenting toilet within a unisex restroom.</li> <li>(4) Handrail settings: in order to ensure safety and convenience for the elderly, sitting toilet could be installed with an L-shaped armrest and a squat toilet could be installed with a T-shaped armrest.</li> </ol> </li> </ol>

Source: compiled in the study.

## V. CONCLUSIONS AND RECOMMENDATIONS

Gender-role norms wield the power of structural discipline and are able to control an individual's own "will" or "choice". Gender mainstreaming seeks to change social order, norms and systems. Building a humanized society that genuinely takes various differences into consideration will be an issue of resource and power redistribution. The unisex restroom is a way of implementing gender mainstreaming. The universal design concept can signify support for gender mainstreaming because both ideas are attempts to challenge established standards, especially systems or products constructed or regenerated based on "mainstream" (male or non-disabled) viewpoints or preferences. In addition, the work of gender mainstreaming also helps designers to think outside the box of mainstream values and to see the structural problems, avoiding the specialization and labeling of requirements during the process of design and overturning the designing discrimination resulting from structural problems, to develop gender-friendly space.

Unisex restrooms put emphasis on being toilets that can be used freely by individuals of all genders, including male, female, neutral, and transgender. Being a phased strategy for the gender liberation movement, unisex restrooms incorporate the concept of universal design and aim at breaking what are expected in the mainstream point of view. They can be seen from the perspective of international covenants and domestic laws and can help designers to think outside the box of mainstream values, avoiding specialization, labeling and discrimination in requirements during the

process of design.

Unisex restrooms can solve the problems of some elderly persons or young children who may require the assistance of family members in using bathrooms due to mobility disabilities, but they do not necessarily solve the problems regarding space layouts and proportions for male and female restrooms and uneven rates of toilet usage time.

Unisex restrooms are a way of implementing gender mainstreaming, and their layouts need to adapt appropriately time- and location-wise.

It is suggested that unisex restrooms can be divided into single and compound types and, under the social environment of Taiwan, the possibility of promoting in phases need to be taken into consideration.

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