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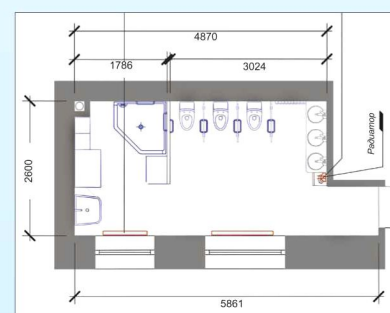


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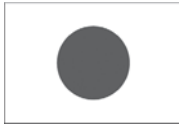
# GUIDANCE TO ESTABLISH CHILD FRIENDLY TOILETS IN KINDERGARTENS



Ulaanbaatar  
2014



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EDUCATION AND SCIENCE



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# GUIDANCE TO ESTABLISH CHILD FRIENDLY TOILETS IN KINDERGARTENS

Ulaanbaatar  
2014

## **GUIDANCE TO ESTABLISH CHILD FRIENDLY TOILETS IN KINDERGARTENS**

Developed by Takako Shibata, Project Manager, Save the Children Japan  
A.Otgonchimeg, Project Manager, Save the Children Japan

Edited by: Dr.Prof. D.Basandorj, Director of Water fund general management training  
and research center,  
E.Bayarmagnai, Specialist for Construction and Investment, Metropolitan  
Education department  
Norito Yamada, Construction engineer consultant, Japan

Constriction designs by:

M.Undrakhbold, Global ideas, Co,ltd  
U.Uuganbayar, Taliin Gurvan chuluu Co,ltd  
A.Altanhundaga, Red film Co,ltd

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## FOREWORD

A toilet is a practical place for acquiring basic daily habits through the learning of necessary behaviors which build a foundation for rich social interaction, health and safe lifestyles. By fully engaging in mental and physical activities through practice of daily habits which are required in early childhood at kindergarten, children can develop their sense of self-competence and learn the essential rules in the school environment, further forming a basis for social life.

It is good that over 193 thousand children are educated in 1087 kindergartens in Mongolia in the academic year of 2013-2014. However, there is a question of whether all those children are served with convenient water, sanitation and hygiene facilities in the kindergartens.

Therefore, Save the Children Japan, Mongolia office selected the bathrooms in kindergartens under the project objective to support to improve healthy and safe environment, analyzed the situation and piloted what concept and models would be 'child friendly' in bathrooms under the Child Friendly Kindergarten project implemented in 2011-2014 with the support of the Ministry of Foreign Affairs, Japan.

In 2012-2013, 18 models of child friendly toilets were established in Kindergartens #70 and #124 in Chingeltei district, Kindergartens #29 and #121 in Khan-Uul district, Kindergarten #22 in Bayanzurkh district and Kindergarten #91 in Songinokhairkhan district.

To create 'child friendly environments' in kindergartens, it is important to facilitate and renovate bathrooms for convenience, as there is a high demand from human lifestyle and habit. More importantly, active participation of diverse community members and their support, motivation, kind-heartedness for children can create better environments, as we see from our experience.

We developed 'The Guidance to Establish Child Friendly Toilets in Kindergartens' to promote the general public good, as we have proven that it is possible to establish child friendly, teacher friendly and safe water, sanitation and hygiene facilities. We qualified the current requirements through effective participation of kindergarten managers, teachers, staff, parents, construction companies, state and local government units, and donors working for children.

We would like to express our gratitude to *E. Bayarmagnai*, specialist of the Metropolitan Education department, *Yamada Norito*, construction engineer advisor from Japan and the Metropolitan Specialized Inspection Agency for creating concepts and designs to be the main basis of the Child friendly toilet and for consulting on the project. We also wish to thank all staff of kindergartens and construction design and renovation companies for participating in the renovations to establish these new models of toilets.

From the Project team of the Child Friendly  
Kindergarten project



# Contents

Rationale for toilets in public kindergartens.....	5
Current situations in public kindergartens.....	6
Goal of this guidance.....	8
Principle of toilets in public kindergartens .....	9
What is the “Child Friendly Toilet”? .....	12
Roles and responsibilities of major participants	
Kindergarten director role and responsibility .....	14
Kindergarten staff role and responsibility .....	16
Parents role and responsibility .....	20
Construction company role and responsibility .....	22
Model of a Child Friendly Toilet .....	24
Toilet designs	
E-shape building toilet design №1 (Kindergarten #22) .....	26
E-shape building toilet design №2 (Kindergarten #22) .....	27
E-shape building toilet design №3 (Kindergarten #91) .....	28
Round-stair building toilet design №1 (Kindergartens #29 and #121) .....	29
Round-stair building toilet design №2 (Kindergartens #29 and #121) .....	30
Big-spaced toilet design (Kindergarten #124) .....	31
Small-spaced toilet design (Kindergarten #70) .....	32
24-hour service kindergarten toilet design (Kindergarten#70) .....	33
Public toilet design (Kindergarten#46) .....	34
Toilet facility designs	
Toilet bowl designs .....	35
Child urinal designs .....	37
Wash basin designs .....	38
Design of partition with toilet tissue hanger and handler for children.....	40
Cleaning sink design .....	41
Sanitation sink design .....	42
Shower design .....	43
Mobile towel hanger /hand dryer .....	44
Cabinet design (For sanitation detergent storage) .....	45
Cabinet design (For cleaning facility storage) .....	46
Cleaning tool cabinet design .....	47
Design of cabinet for bigger tool storage .....	48
Plastic potty shelf design .....	49
Other material designs .....	50
Budget for toilet renovations (sample list of cost) .....	51
List of related laws and regulations .....	54
Attachments	
'Child and Teacher Friendly Toilet' brochure	
'Child Friendly Toilet' 5 minute video	

## RATIONALE FOR TOILETS IN PUBLIC KINDERGARTENS

Needs of kindergarten usage

Needs of renewal of professional institutions

Toilet facilities in public kindergartens are quite a big issue in Mongolia, with many organizations trying to improve the quality and quantity of these facilities. Many organizations, including the Mongolian Ministry of Education and Science, focus on the cleanliness and safety of toilet facilities from a quality point of view.

However, what about the wider educational benefit for children or user friendly functionality for kindergarten teachers and assistant teachers? It is very rare to analyze toilet facilities from this point of view, and as a result, sometimes the same issues still remain after renovations. For example: children cannot reach the toilet paper by themselves because the toilet paper is positioned far from the toilet bowl; children cannot sit down on the toilet bowl because it is adult size; children always forget to dry their hands because their towels are hung on the other side of the entrance; it is often difficult for teachers to maintain clean floors because there are many pipes; the teachers have to place mats on the floor because it is very slippery. This all creates additional workloads for teachers and is not child or teacher friendly.

Therefore, our project decided to analyze why this occurs and what needs to be considered when constructing kindergarten toilet facilities. Based on this, we built model toilets to promote “Child Friendly Toilets” at educational institutions, especially kindergartens.

## CURRENT SITUATIONS IN PUBLIC KINDERGARTENS

- Issues of construction companies
- Issues of kindergarten managers
- Issues of understanding of the concept
- Issues of construction norms and legal regulations on kindergarten toilets

Based on field visits to private and public kindergartens with new and old toilets and interviews with beneficiaries, we analyzed the current situation based on the following 3 categories:

### Constriction companies (Builders)

Most toilet construction processes are handled by private construction companies after they receive an order, with minimum inspection during the process. Although construction companies try to follow the standards, it is very difficult to find appropriate construction materials in Mongolia, particularly bathroom facilities in appropriate sizes for 2 year olds.

It is difficult to import all the required materials, so they are built with materials available in Mongolia. Also, budgets are always limited. As a result, new issues are created such as:

- The numbers of toilet bowls are reduced;
- Only half of the floor is covered by non-slippery floor tiles;
- Adult size toilet bowls are installed; and
- Mold grows inside because there is no ventilation system.



### Kindergartens (Users)

First of all, some kindergarten staff do not know the meaning behind correct toilet facility habits and design at educational institutes. They teach how to wash hands, but they do not teach how to establish daily habits to foster self-competent children and create essential rules that can be also used outside of the kindergarten environment. Also, staff do not understand that these practices create additional workloads, but this can be difficult to realize due to the lack of communication with other kindergartens. For example, staff put toilet paper where there is space, not so that children can easily reach it. This means children are always calling them for help to reach the toilet paper.

Secondly, some kindergartens do not consider children's developmental stages according to their age groups. For example, a 2 year old and 6 year old child's developmental stages are quite different physically and mentally and they cannot use the same toilet facilities.



However, kindergarten management often does not consider children's development stages and children use the same toilet facilities for 5 to 6 years because they do not change classrooms. As a result, 2 year old children are using large toilet bowls which are appropriate for 6 year olds and 6 year old children are using toilets facilities with a shower room designed for 2 years-olds, who then do not have access to these facilities.



Thirdly, kindergarten staff are not used to giving their opinions to construction companies. In one such case they were only asked about wall color by the construction company.

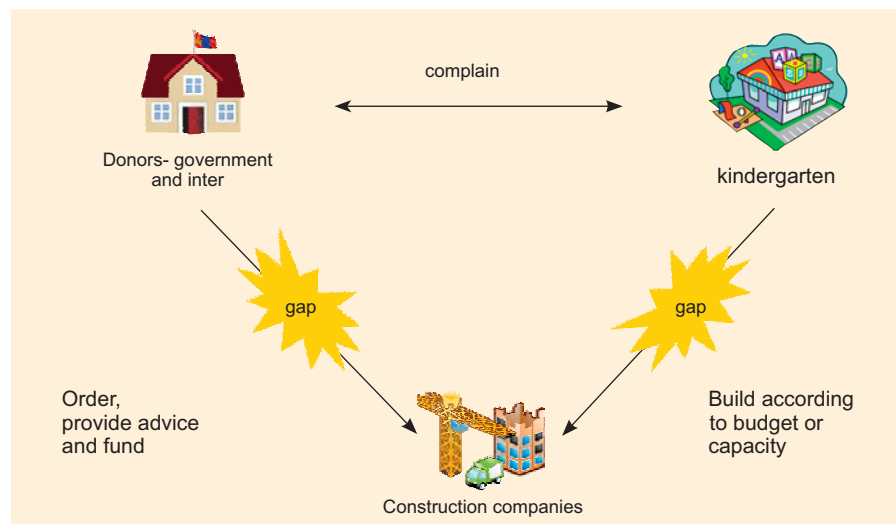
### Government / International organizations (Donors and Funders)

There are gaps between regulations and reality. For example, one regulation is "To have individual towels in a toilet room".

However, in the current situation it is impossible to have individual towels in the toilet room because there are 50-60 children per classroom. As a result, children always forget to use their towels as they are hung far from the hand wash sinks; or children cannot use them because they cannot reach them. The regulations have not been reviewed and there are also no clear policies/standards on toilet facilities



Finally, there are three parties which must be involved in the renovation process; the end user (kindergarten), the builder (construction company) and a standards monitor (donor/government/international organization). However the parties have poor communication and furthermore most construction companies build according to the budget and their capacity, rather than to specifications.



## GOAL OF THIS GUIDANCE

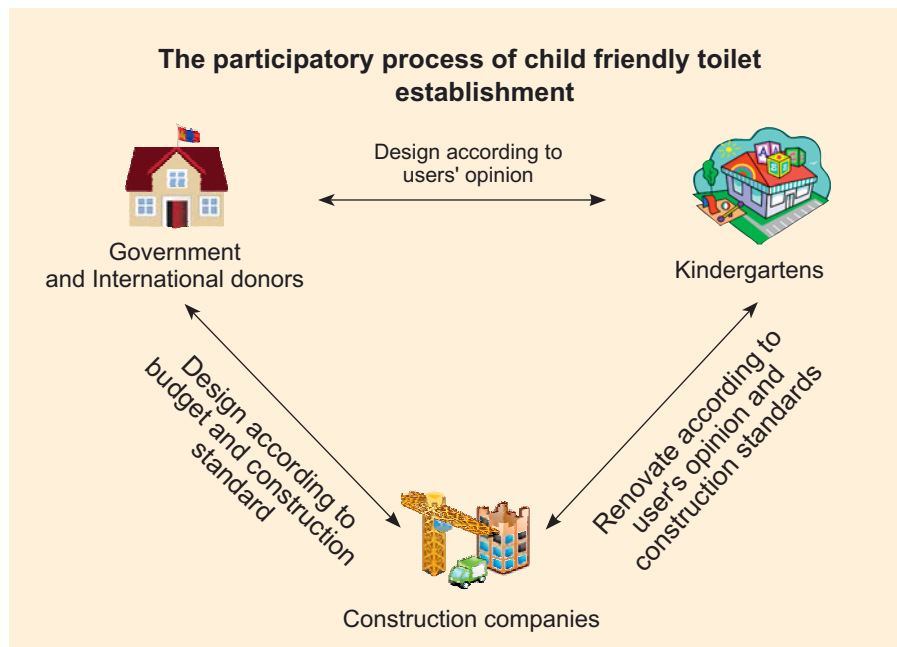
### Needs of users

### Renewal of policy documents

Developing this guidance on dissemination of the “Child Friendly Toilets” is in line with the implementation of guidelines for the “Child Friendly Kindergarten” approved by the Ministry of Education and Science and other relevant legal documents. It especially suits the concept of order to implement the “Minimum requirements for the water, sanitation and hygiene facilities in kindergartens, secondary school and dormitories” by the Ministry of Education and Science, Ministry of Health and Ministry of Finance.

The project and its targeted kindergartens concluded that the concept to promote a child friendly environment in the kindergartens is appropriate and useful. Therefore, we recommended effectively integrating and disseminating the concept and model toilet designs with the state policy and decision. The construction companies need to especially consider it when they renovate bathrooms in kindergartens.

As there is high demand for renovation of bathrooms in existing and new planned kindergartens buildings and renewal of construction norms and standards and other related legal documents on water, sanitation and hygiene facilities, the key participants should follow this guidance in future.



## PRINCIPLE OF RENOVATING TOILETS IN PUBLIC KINDERGARTENS

- Early childhood development, education and care
- Service by preschool education institutions

To provide an environment where children acquire and practice good basic hygiene habits and behaviors that are necessary to build a foundation for rich social interaction, and for a healthy, safe lifestyle. By fully engaging in mental and physical activities and actively practicing the daily habits required at kindergarten, children can develop their sense of self-competency and learn the essential rules in the school environment, further cementing their social skills.

### PRINCIPLE

1. Understanding the meaning of human relationships.
2. Developing physical and mental health in early childhood through practicing good daily habits.
3. Mastering good daily habits through frequent practice at kindergarten and at home.
4. Fostering self-esteem.
5. Understanding that acquiring good daily habits will lead to a clean and safe life.
6. Realizing that happy school life requires the observation of good daily habits.
7. Developing self-reliance and self-competence through the positive behaviors learnt through practicing good daily habits.



As children develop physically and mentally, toilet space and toilet equipment should be considered according to their development stage.

2-3 year old children cannot use toilets without help and therefore toilet space and equipment should be considered for the teachers who are supporting toilet training for the independent utilization of bathrooms.

4-5 year old children can use toilets independently. However, most of them do not use toilets in an appropriate way and need to learn how to flush the toilet and wash their hands with soap. Therefore toilet space and equipment can be considered as a user friendly requirement more and more.

Table 1.

## EARLY CHILDHOOD DEVELOPMENT AND

Age	2-3 year-olds (small)	3-4 year-olds (medium)
Significance	Gradually, they can do it alone but sometimes they need help.	They want to and can do it alone. However they have to learn toilet manners.
Distinguishing characteristics	<ol style="list-style-type: none"> <li>1. Express that they want to go to the toilet.</li> <li>2. Remove pants alone sometimes.</li> <li>3. Sit down unassisted.</li> <li>4. Use toilet paper as long as they can reach it.</li> <li>5. Open water taps alone.</li> </ol>	<ol style="list-style-type: none"> <li>1. Want to do it alone, but still they need support a lot.</li> <li>2. Dress and remove their pants without support sometimes.</li> <li>3. Dispense toilet paper and use alone</li> </ol>
Social-Psychological Development	<ol style="list-style-type: none"> <li>1. Understand and follow simple instructions</li> <li>2. Identify color / marks.</li> <li>3. Start to recognize other children.</li> </ol>	<ol style="list-style-type: none"> <li>1. Starting to establish self-confidence.</li> <li>2. Want to know everything.</li> <li>3. Act as they wish, but still cannot consider others.</li> <li>4. Understand social rules and follow the rules sometimes.</li> <li>5. Share with others sometimes</li> </ol>
		
Facility requirements	<ol style="list-style-type: none"> <li>1. Shower facilities are needed. 2 handles need to be installed for children.</li> <li>2. Partitions are not necessary. Space for teachers is more important.</li> </ol>	<ol style="list-style-type: none"> <li>1. Shower facilities are needed sometimes.</li> <li>2. Partitions need to be low for the teachers to adequately observe them.</li> </ol>
Toilets	<ol style="list-style-type: none"> <li>1. 20 cm length is required.</li> <li>2. A small vertical lever is needed</li> <li>3. 2 strong handles are required for holding.</li> </ol>	<ol style="list-style-type: none"> <li>1. 27.5 cm length is required.</li> <li>2. A long up-and down handle is needed.</li> <li>3. 2 handles are required for holding. Design can be simple.</li> </ol>
Urinal for boys	<ol style="list-style-type: none"> <li>1. 23 cm length is required.</li> <li>2. A handle is required to hold.</li> </ol>	<ol style="list-style-type: none"> <li>1. 26 cm length is required.</li> <li>2. A handle is required to hold.</li> </ol>
Hand wash sink	<ol style="list-style-type: none"> <li>1. 50 cm high is required.</li> <li>2. 40-50 cm wide with round shape is required.</li> <li>3. Space for soaps is needed.</li> </ol>	<ol style="list-style-type: none"> <li>1. 50 cm high is required.</li> <li>2. 50 cm wide is required.</li> <li>3. Space for soaps is needed.</li> </ol>
Other	<ol style="list-style-type: none"> <li>1. Sanitary wash sink for teachers.</li> <li>2. There are 4 type of storage spaces needed: <ul style="list-style-type: none"> <li>• Sanitary containers with keys or higher position for dangerous detergent.</li> <li>• A long sized storage for mops and brooms.</li> <li>• A wide sized storage for buckets and water basins.</li> <li>• Clean containers for individual towels/group towels/tooth brushes/toilet paper.</li> </ul> </li> <li>3. Electric hand dryer/towels need to be considered.</li> <li>4. Ventilation system/safe windows have to be installed</li> </ol>	



## 4-5 year-olds (senior and preparatory)

They can do it alone, and they can prepare to use public toilets with appropriate public manners

1. Go to the toilet alone when they want to
2. Think about results before they act.
3. Dress and remove their pants properly without any support  
Brush hair properly alone.

1. Establish self-confidence.
2. Gradually consider others, but have a strong sense of rivalry.
3. Learn how to communicate in groups and follow rules.
4. Try to solve problems by themselves



1. Shower facilities are not needed.
2. Partitions can be normal size for privacy considerations.

1. 27.5 cm length is required.
2. A long up-and-down handle is needed.
3. 2 handles are required for holding. Design can be simple.

1. 31 cm length is required.
2. A handle is required to hold sometimes

1. 60cm high is required.
2. 50 cm wide is required.
3. Space for soap is needed.



## SUPPORT FOR CHILDREN'S DEVELOPMENT

Children could not sit down on toilet bowls by themselves.



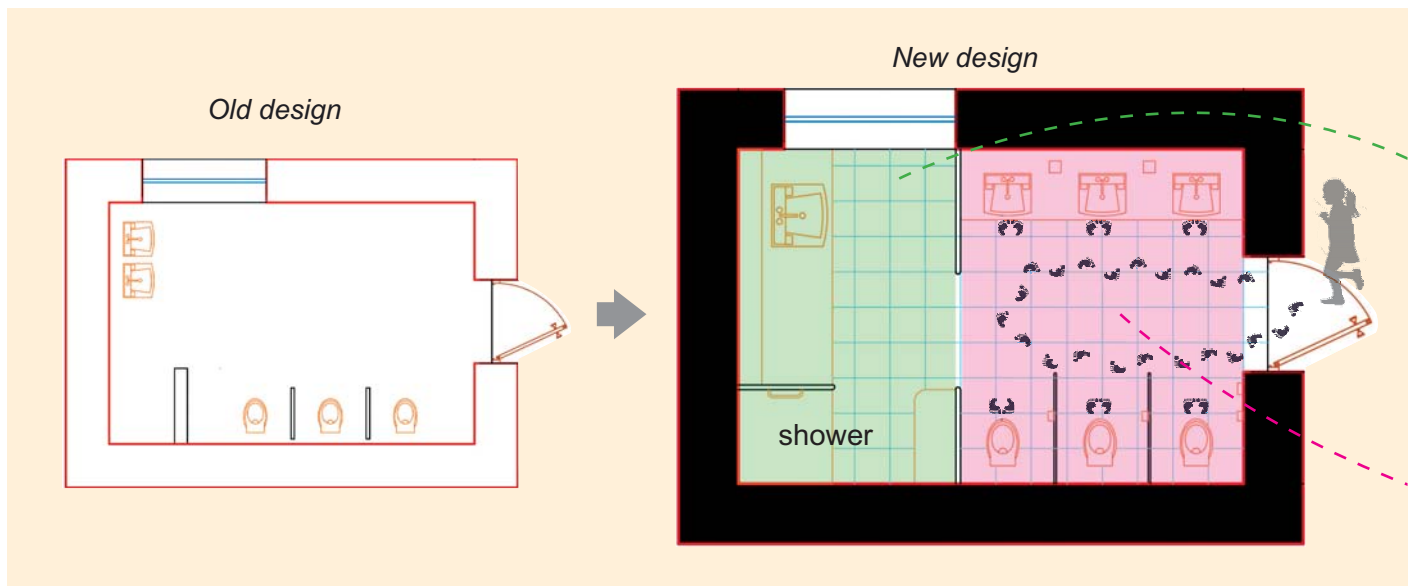
1. Children have the opportunity to practice using the toilet as part of good daily hygiene habits.

2. Toilets are easy for children to use.

3. Facilities are an appropriate size for children (toilet seat/hand-wash basin).

4. Facilities are designed for children to use independently (flush/light/toilet paper).

5. Facilities consider how children move around bathrooms (toilet seat → wash hand with soap → use towel/hand dryer)



## TRAINER (ASSISTANT TEACHER) FRIENDLY TOILET

The toilet facilities created additional workload for teachers.

Sufficient space, height and size of all equipment for trainers to support children  
Bathrooms are easy for trainers to clean (materials/sanitary wash sink)

4 types of appropriate storage spaces for cleaning materials.

1. Wall hanging type storage can be utilized

2. Dangerous detergent secured

3. Long cabinet for mops and blown

4. Big cabinet for big basin 5. Additional sanitary goods



# FRIENDLY TOILET?

## CLEANLINESS

It was very difficult to clean the floor because of pipes.

- Small spaces are not created and all pipes are covered or are in the wall/floor.
- Use of appropriate materials and equipment which are easy to clean.
- Use of appropriate materials and equipment which do not become dirty immediately.
- Appropriate ventilation system (ventilation, widow design).



Teacher zone



Child zone

## SAFETY

Children could easily reach dangerous detergents.

- Floor surface is not slippery.
- There are no barriers.
- Doors are installed appropriately.
- Chemical detergent and cleaning products are out of reach of children.
- Electrical system (for hand dryers/ultraviolet rays system) is appropriately installed.
- Windows for air ventilation are built and installed appropriately.
- Floor of the bathroom is lower than other rooms.



## ROLES AND RESPONSIBILITIES OF PARTICIPANTS

### 1. Kindergarten director roles and responsibilities

#### • Review all classrooms arrangement

The toilet facility has to be prepared for children according to their development stage. Therefore, the kindergarten directors have to review the all classroom arrangement under the long term plan.

The children never change classrooms until they graduate from the kindergarten. Our project recommends fixing a classroom for 2-3 year old children, at least. The kindergarten directors have to choose the best location for them, such as the locations near entrances or exits, on 1<sup>st</sup> floor, is the warmest room or has bed rooms.

#### • Select classrooms for the renovation (if some of them are renovated)

If only some of the toilet rooms will be renovated and the kindergarten directors have to choose rooms, what should they consider? Our project recommends those kinds of considerations:

- If you are offered renovation of a toilet room for “2-3 years old children” you have to choose the warmest classrooms for the renovation.
- You have to choose different type of classrooms. So late on, different types of toilet designs can be used as an example for other classrooms in the further renovations.
- You have to consider pipe flow. The pipes are connected between 1<sup>st</sup> floor toilets and 2<sup>nd</sup> floor toilets. If you choose classrooms near the 1<sup>st</sup> floor and 2<sup>nd</sup> floor connection, it will be easy for a construction company to change main pipes also.

#### • Prepare to manage risk

A lot of potential dangers are present during the construction. Our project recommends that the kindergarten directors and kindergarten doctors should cooperate to prepare risk management as much as possible before the construction starts. They have to introduce the safety management for kindergarten staff, parents and construction workers and monitor regularly before and during the renovation.



## CASE 1

Our kindergarten organized a meeting to assess our current situation before the construction. In general, we realized that the teachers need to assist children a lot due the lack of appropriate facilities such as:

- Since toilets are adult size. The teachers need to help 2 year old children to sit on it. Or they let them use the plastic potties, so the teachers have to wash them after every use.
- The flush tab of toilets were not working, so the children can not flush. Then the teachers have to flush or pour water with plastic buckets after every use.
- The children are holding the edges of toilet bowls. Because size of the toilet bowls are big and they cannot put their feet on floor.
- It is difficult for the children to open water taps because shape of taps are not suitable for children.

(Kindergarten#22)



Adult size toilet



Broken flush tab



Child hold toilet directly



Not appropriate water tap for children

## CASE 2

During the renovation, our kindergarten had negotiated with the construction company to provide lower fees for kitchen renovations. Our kindergarten allocated the budget for the materials. The total cost for 3 kitchen renovations was 676,300 tugriks. Because of the preparation, we could finish the kitchen renovation when the toilet renovation was over.



Before



After

(Kindergarten#22)



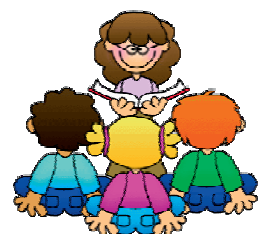
## 2. Kindergarten staff roles and responsibilities

### Before the renovation

- **Let all staff understand the “Child Friendly Toilet” concept**  
All kindergarten staff has to understand the concept of Child Friendly Toilet well. Non-targeted classroom's teachers have to practice the concept into their daily management. Although they will not receive a new toilet facility, still they can apply the concept for their toilet without needing big funding.
- **Review the current situation by doing self-assessment**  
All kindergarten staff has to assess the current situation of toilets according to the concept. In general, teachers need to assist children a lot due to the lack of appropriate facilities, lack of understanding of the concept, and lack of appropriate education.
- **Provision toilet side facilities, especially kitchens**  
Teachers, who will receive new toilets, have to have a clear plan of how to renovate the kitchen at the same time. Most of water pipes of the toilet room and the kitchen are connected. And the kitchen facility will be affected during the renovation.

### After the renovation

- **Practice the “Child Friendly Toilet” concept in the daily activities at the whole kindergarten.**  
Our project recommends practicing the “Child Friendly toilet” concept with all classrooms, including the non-targeted classrooms. For that, all the kindergarten staff has to create good ideas, material and methodology of how to put the principal into practice.
- **Provide education for children**  
The teachers together with all staff organize education activity on healthy usage of toilets. Our project recommends what has to be considered as follows;
  - Teach children to use toilets themselves/without teachers' assistance.
  - Teach eco-friendly (saving water and toilet papers) usage.
  - Teach discipline, lining up when the room is crowded.
- **Expand renovation using old equipment**  
Our project recommends utilizing old equipment and materials from the renovated toilets to improve the other classroom toilets as much as possible. Because of the selection criteria, the oldest toilet rooms are not always selected. In that case, some material still can be used.



## CASE 3

Our kindergarten really focused on 2 matters as follows;

### 1. **How to arrange the all storage cabinets.**

*We did not have any storage cabinet before. Suddenly there are many storage cabinets. Some assistant teachers did not know how to use them. We organized a meeting to understand the purpose of 4 different types of cabinets. Then they were arranged to store materials properly.*



### 2. **How to teach children how to move in a toilet room correctly.**

*This was a big challenge for us because we never had thought of that before. Finally we created 2 new ideas. One is to use a mobile towel hanger to direct the flow of children's movement. The other one is to use foot print stickers to help the children navigate. Those tools are very effective.*



(Kindergarten#22)

**CASE 4**

Our kindergarten organized a creative campaign on effective toilet usage among all classrooms and conducted training on health habits for children. This was not just talking about how to wash hands. This was more about how to use the toilet and what the public manners are.



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Table to assess the health regime of children

(Kindergarten# 22)

Assistant teacher can use the following instructions for parents to teach children how to use toilet and sinks.

**Guidance on the use of Toilet**

1. *Preparing toilets:*
  - a. *Take down your pants to your knees.*
  - b. *Put the toilet seat down.*
  - c. *Boys do not need to put toilet seats down if they do not want to sit.*
2. *Correct use of toilet:*
  - a. *Sit on the toilet holding the handle next to toilet.*
  - b. *Boys need to use toilet without making it dirty outside.*
3. *Use of toilet tissue and flushing:*
  - a. *After you finish, prepare toilet tissue by taking enough to go from your fingers to your elbow and fold into three parts.*
  - b. *Use the tissue rubbing from front to back of your bottom.*
  - c. *Put your tissue in the garbage bin.*
  - d. *Stand up and put on your pants.*
  - e. *Flush the water pushing the button once.*
4. *Go to wash basin to wash your hands:*



**Guidance on the use of wash basins**

- a) *Open washing tube mixer tap by pushing up once.*
- b) *Make the water warmth suitable for you looking the hot and cold water sign in the tap. (Blue side is cold and red side is hot)*
- c) *Make your hands wet*
- d) *Take the soap and turn the soap three times inside your hands and put it back to tray.*
- e) *If there is a liquid soap, push the button once or twice.*
- f) *Make foam rubbing your hands well according to hand washing instruction.*
- g) *Wash off the foam.*
- h) *Close the tap pushing down once.*
- i) *Take your hand towels and dry your hands.*
- j) *If there is hand dryer, put your hands below the wind and count from one to ten.*

(Kindergarten#70, 121 and 91)



### 3. Parents' roles and responsibilities

#### Before the renovation

- **Provide education on the “Child Friendly Toilet” concept**  
The kindergarten must introduce the concept of the “Child Friendly Toilet” to parents, especially they have to focus on explaining the learning of the correct and independent usage of the toilet. This will be important to build a foundation for social interaction and a healthy, safe life style for children.
- **Provision toilet side facilities (kitchen) which cannot be covered by donors**  
It is very important to inform parents of the construction process and special/temporary arrangement during the renovation so they can understand the situation and cooperate with the kindergarten well.  
Our project recommends that this information must be disseminated as follows:
  - Duration of the renovation
  - How to shift the children and share with other classrooms during the renovation
  - How to maintain safety during the renovation.
  - Request for volunteer support for furniture movement before and after the renovation

#### After the renovation

- **Support going back to normal arrangements as quickly as possible**  
The kindergarten gives priority to restoring classrooms to their former condition as quickly as possible after the renovation. For that purpose, it is very important to ask the parents to help to clean and re-sort tables and chairs.
- **Provision toilet side facilities (kitchen) which cannot be covered by donors / non-targeted classrooms.**  
Due to budget limitation, it is very important to enlist the parents to support improvement of the facility. Our project recommends the kinds of support to be needed as follows;
  - To complete the additional facilities for the toilet, which includes garbage bins, tooth brush and paste shelves (for small classroom), hangers for combs, Toilet tissue hangers, toilet cleaning brushes etc.
  - To get financial support to renovate a new kitchen for the classrooms.
- **Encourage practice of a healthy life style at home**  
The kindergarten has to use this opportunity to encourage parents to teach children a healthy life style, such as how to use the toilet at home, what is the public manner, etc.



**CASE 6**

Our kindergarten organized a survey among families of children in the kindergarten on where the children learn their health habits. The survey, conducted in February, 2014 showed the following result: 70% of families use buckets for washing hands, which means 70% of our children don't live in apartments. 58% of families use plastic potties and buckets, 42% use adult toilets and 91% of children do not have their own hand towels.

We understood that education among parents is important from the result of the survey. Thus, we organized the 'promise day' among parents to show how children learn their health habits in the kindergarten and to get their promises to practice at home. Parents come to the kindergarten and observe how their children are learning the health habits, including hand washing, teeth cleaning, clothes folding, having food, going to the toilet and collecting the toys back together with classroom teacher. Teachers show how to teach children. Then parents write their promise to practice at home for the next two weeks. After evaluating the first promise, teacher and parents make their further plan to develop the children's health habits.



Training for teachers and children

Observation and promise sheet  
(Kindergarten#22)

Надаг хэвшинийг тэмдэглэх хуудас

БД-20

Нэр: Омгирсан  
 Нас: 4  
 Хүйс: Э

Танай хүүхдийн ариун цэвэрт хэрэглэгдэх  
 Дараах зүйлүүд танай гэрт байгаа юу?  
 Гар нүүр угаах: крант, гоожуур, хувинд, байхгүй  
 Биеэс ахсуултуур, хөтөөч, модон жорлонд, ил газарт

Гэртээ хэдийг шүдээ угаадаг вэ? Оо сойтой юу?  
Шүдээ угаах байгаа

1. Эзэмших чадвар  
 - Ам зайлж хэших  
 - Бокирдсон тохиолдол бүрт гараа угаах  
 - Бие засаад усаа татаад гараа угаах  
 - Гараа дарааллын дагуу угаах  
 - Шүдээ дарааллын дагуу угаах  
 - Усаа хэмнэх

2. Бодит байдалтай танилцсан эцэг эхийн тэмдэглэл  
Энэ зайлж гадаагүй  
Болжирсон махныг дагуу  
Гараа угаадаггүй  
Гараа дарааллын дагуу  
угаадаггүй

3. Баршгын тэмдэглэл  
Хэвшинийг...  
Хэвшинийг...  
Хэвшинийг...  
Хэвшинийг...  
Хэвшинийг...  
 Гарын үсэг: HS  
 Балшгийн гарын үсэг: HS

5 амьтан  
 1-р сөрөгч өвч  
 Танилцсан эцэг эхийн гарын үсэг: HS

1. Эзэмших чадвар  
Гараа угаах 1-р сөрөгч өвч  
Бүрэн  
Хэвшинийг  
Хэвшинийг

2. Ахцныг тодорхойлсон эцэг эхийн тэмдэглэл  
Хэвшинийг  
Болжирсон махныг дагуу  
Гараа угаах сурсан  
Хэвшинийг

3. Баршгын тэмдэглэл  
Хэвшинийг...  
Хэвшинийг...  
Хэвшинийг...  
Хэвшинийг...  
Хэвшинийг...  
 Гарын үсэг: HS  
 Балшгийн гарын үсэг: HS

## 4. Construction companies' roles and responsibilities

### Participatory procedure on contracting process

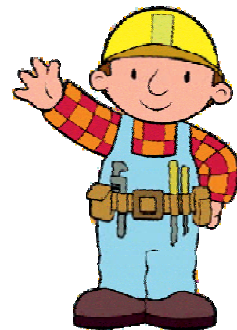
- Understand the Child Friendly concept
- Respect “child protection protocol”
- Listen to kindergarten's opinion
- Follow government regulations
- Advise and introduce new technology/material from a long term usage and environmentally friendly point of view.

### Before the renovation

- **Discuss with the kindergartens**  
A construction company has to listen to user's opinions, such as comments on the drawing to determine the number of washbasins, toilet bowls, color and design before they start the renovation.
- **Manage risk and respect Child protection protocol**  
Together with the construction company, the kindergarten has to develop safety rules and indicate them clearly during the construction. Also the kindergarten and a manager of the construction company must motivate the workers to follow the rules to protect children.
- **Communicate with kindergartens during the renovation**  
The kindergarten and the construction company must communicate each other every day during the renovation. It makes the renovation run smoothly and maintains construction quality. For example: although they had agreed on the selection of toilet bowls, sinks, wall and floor tiles, they cannot follow the agreement exactly because of the availability and cost. Therefore, it is very important to keep a good relationship

### After the renovation

- **Cooperate with the kindergartens for completion of the renovations**  
The kindergarten must work effectively to find any damages related to renovation as soon as possible under the renovation guarantee contract with the company. Sometimes, not only renovated parts, but also nearby parts might be damaged. Therefore, the kindergarten has to monitor all facilities carefully and inform the construction company properly. Before the deadline of the guarantee period, the kindergarten should make and assessment of the renovation and agree with company on what needs to be completed. When the renovation is well completed, with good quality, the money kept for the guarantee period should be released.



## CASE 7

Our kindergarten asked the construction company to go to shops to choose some materials, such as floor and wall tiles. The construction company gave us useful advice at that time from long term usage and safety function point of view.

(Kindergarten#29 and 22)

Our kindergartens have developed a set of safety rules. The contents are included as follows. And the instructions are posted at child zones.

- Don't smoke, and drink alcohol in the classroom
- Don't spit around KG
- Don't use obscene language
- Don't use toilet for children (There is toilet for staff to use for adults)
- Don't touch classroom furniture
- Don't pollute classroom and corridor walls
- Consider attention to safety rule when there is renovation on water pipe and electricity lines.

We also developed posters and put them around in the kindergarten's building during the construction to urge children, parents, all staff, construction workers and kindergarten staff to pay attention to safety.



Note on the entrance



Instruction on the renovating toilet door



# CHILD FRIENDLY TOILET



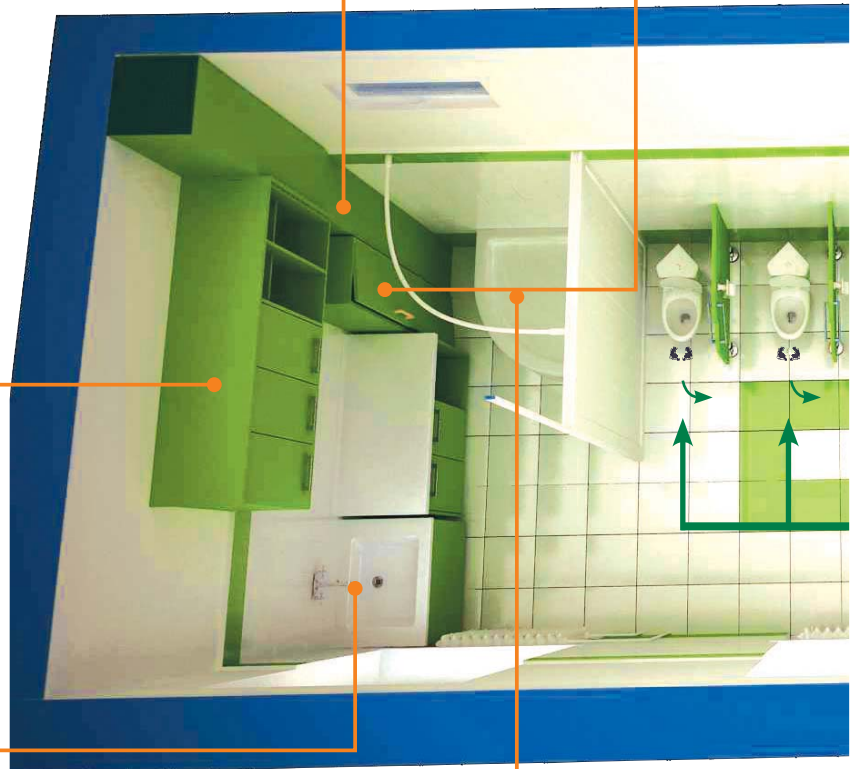
Shelf for Plastic potty



Cabinet for cleaning tools



Cabin for sanitation detergents  
(Placed out of reach the children with lockable door)



Cleaning area  
(Separate from child zone)



Shower for children (Made with handle for child and placed higher for teacher to clean children)

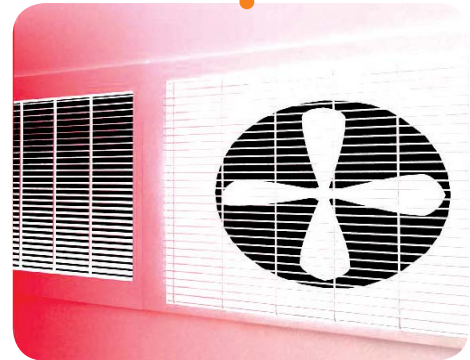
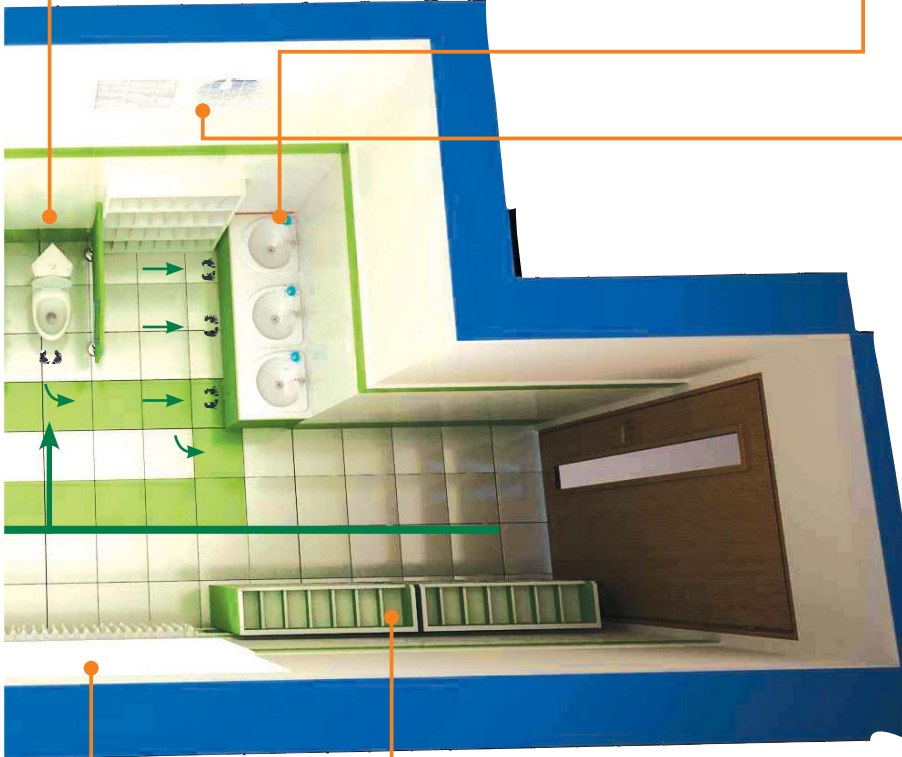




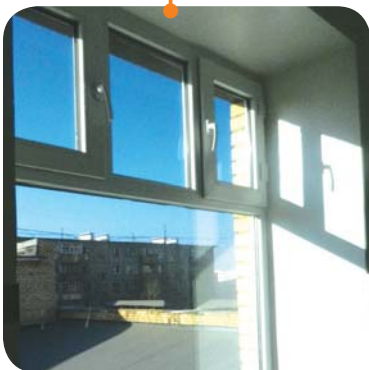
Toilet appropriate for child  
(Partition with handle and  
tissue placed)



Sink appropriate  
for children (Low, easy  
water tap, soap tray)



Ventilation  
(Except for air duct)



Safe window  
(Opens at the top)



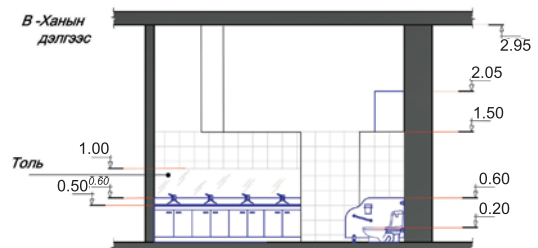
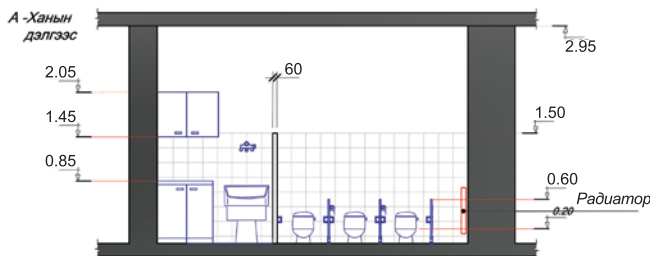
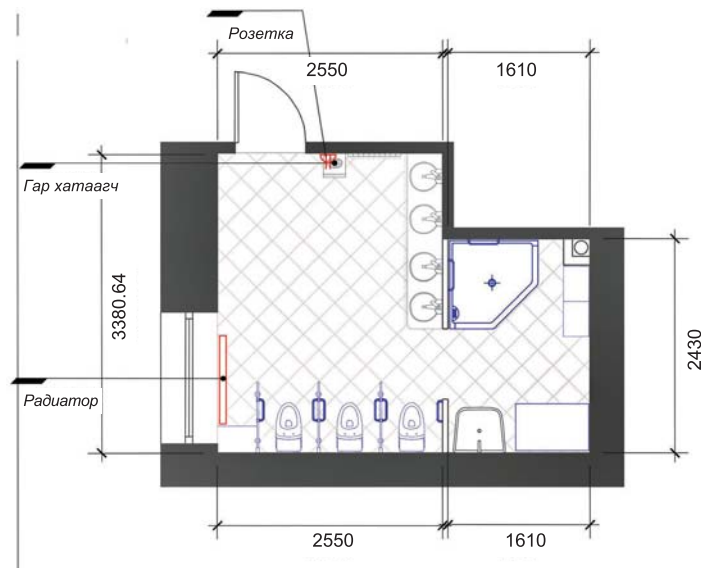
Mobile hanger (Towel, toothpaste,  
toothbrush and comb are placed  
low for children to reach)

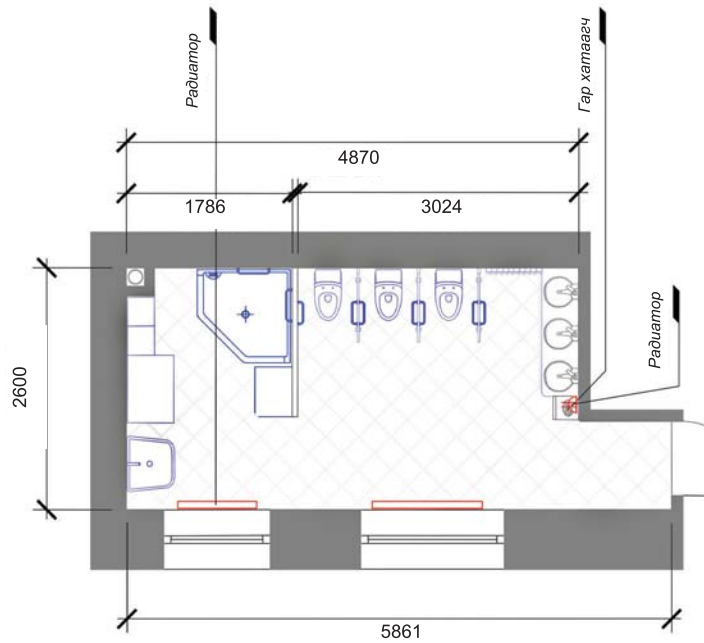
## DESIGNS OF BATHROOMS

An E-type kindergarten building is designed with capacity for 280 children. There are 35 of these buildings in the country.

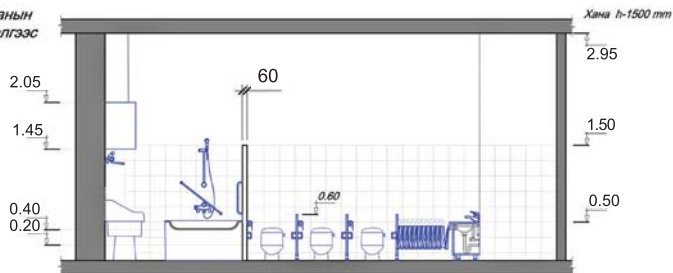
### E-type kindergarten building design No.1

(Kindergarten #22, second floor)

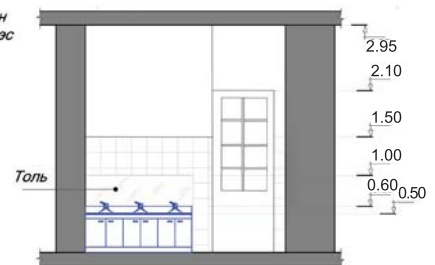




А-Ханын дэлгээс

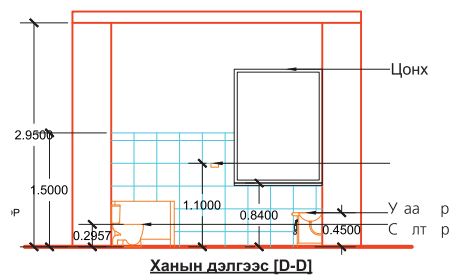
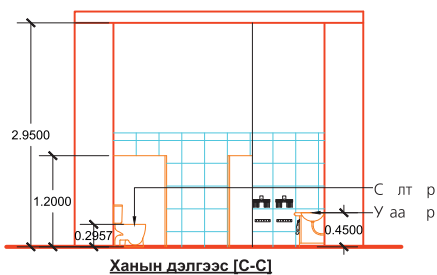
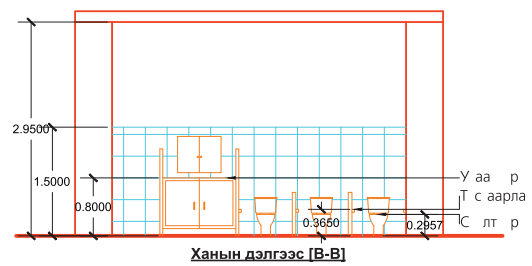
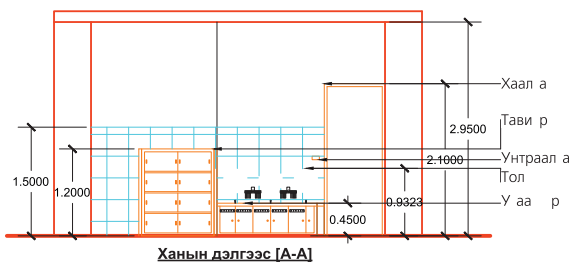
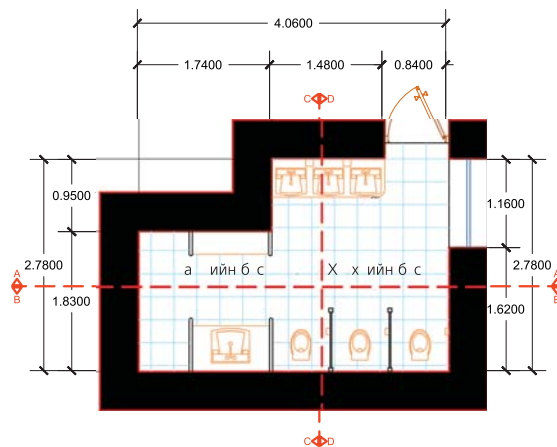


В-Ханын дэлгээс





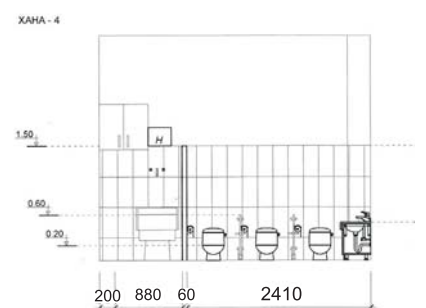
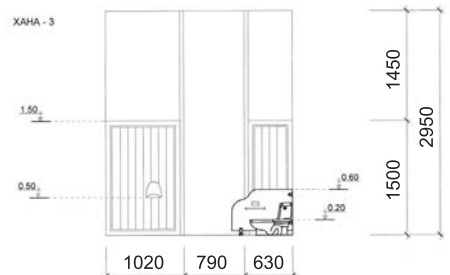
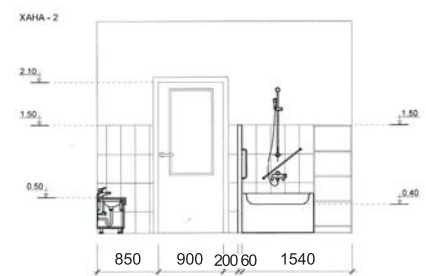
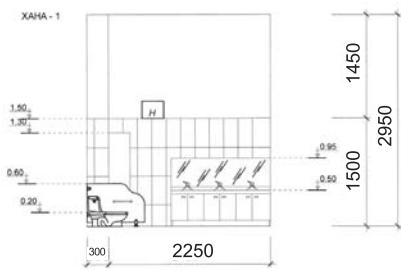
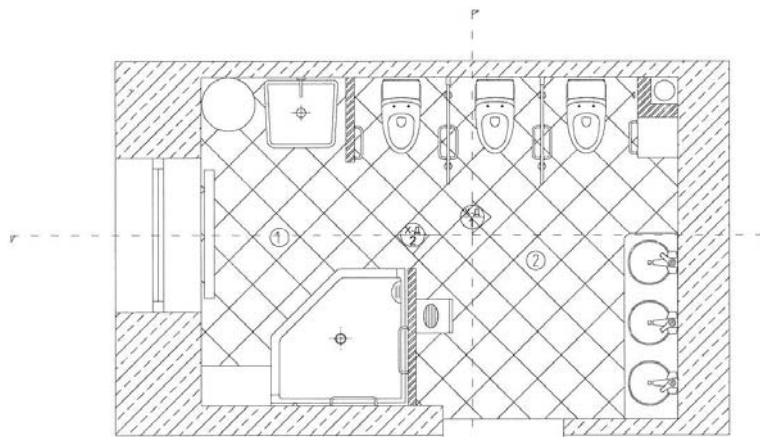
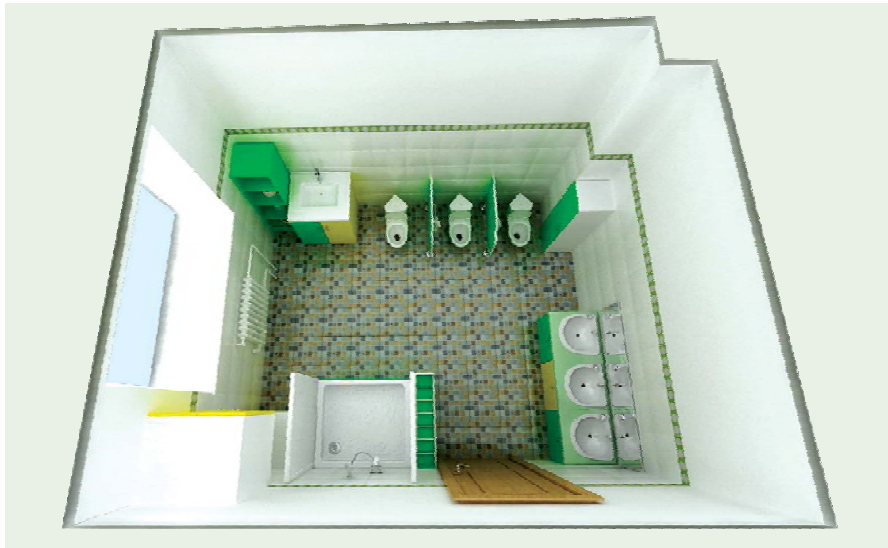
E-type kindergarten building design No.3 (Kindergarten #91, first floor)

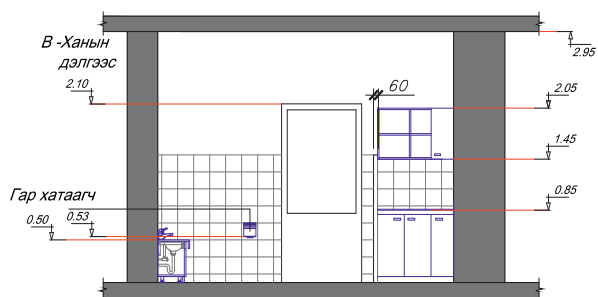
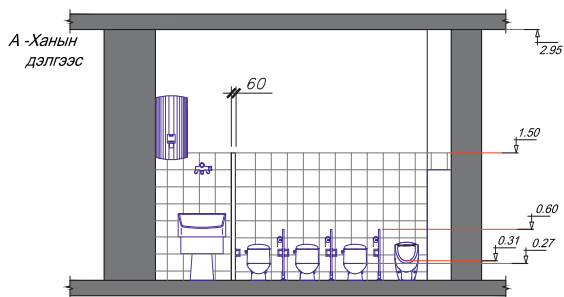
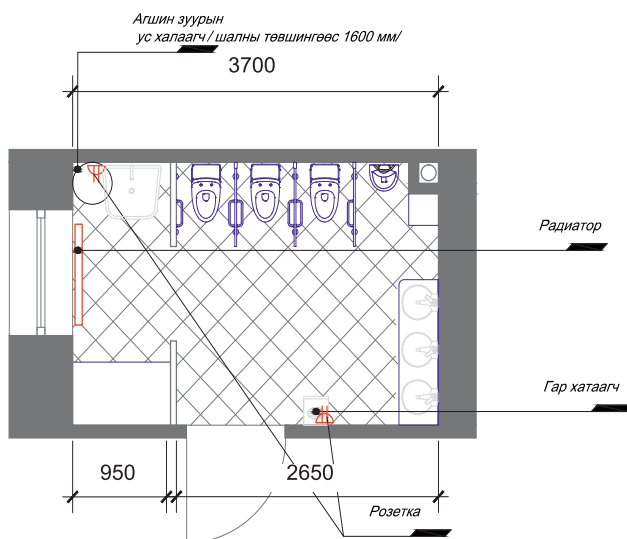


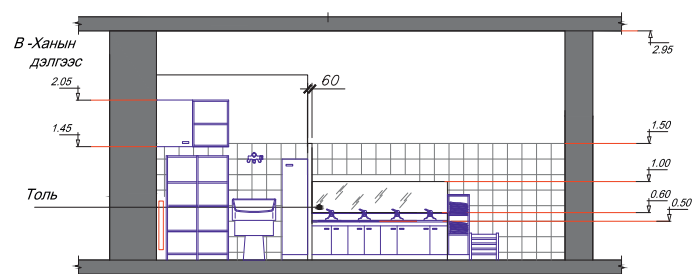
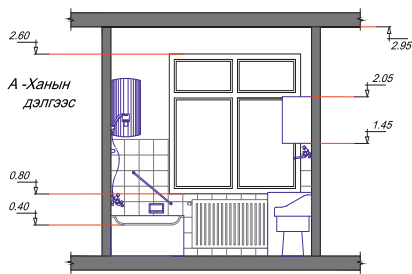
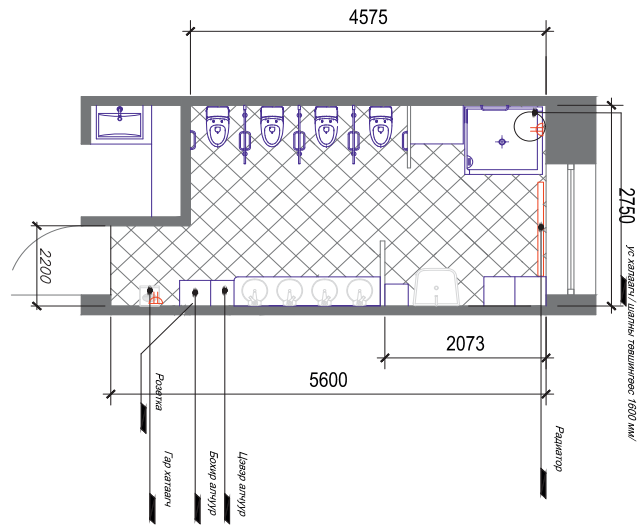
A kindergarten building with round stairs in the middle is designed with capacity for 150 children. There are 12 of these buildings in the country.

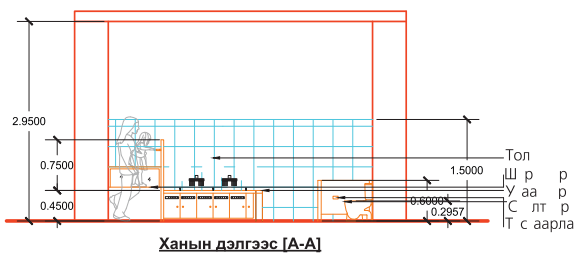
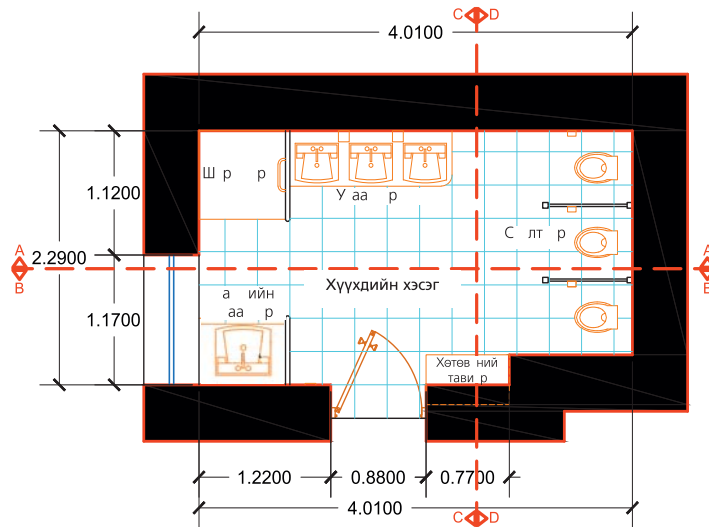
Round kindergarten building design No.1

(Kindergarten#29 and 121, small classroom design with shower)

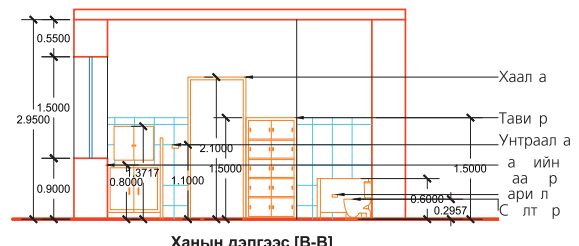




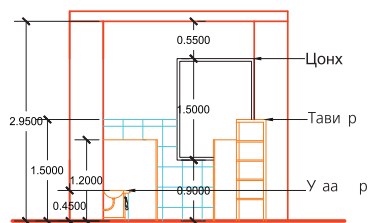




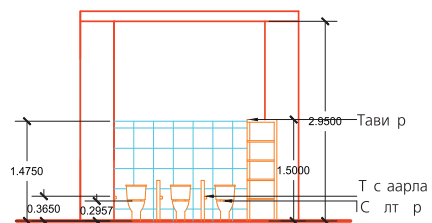
Ханын дэлгээс [A-A]



Ханын дэлгээс [B-B]



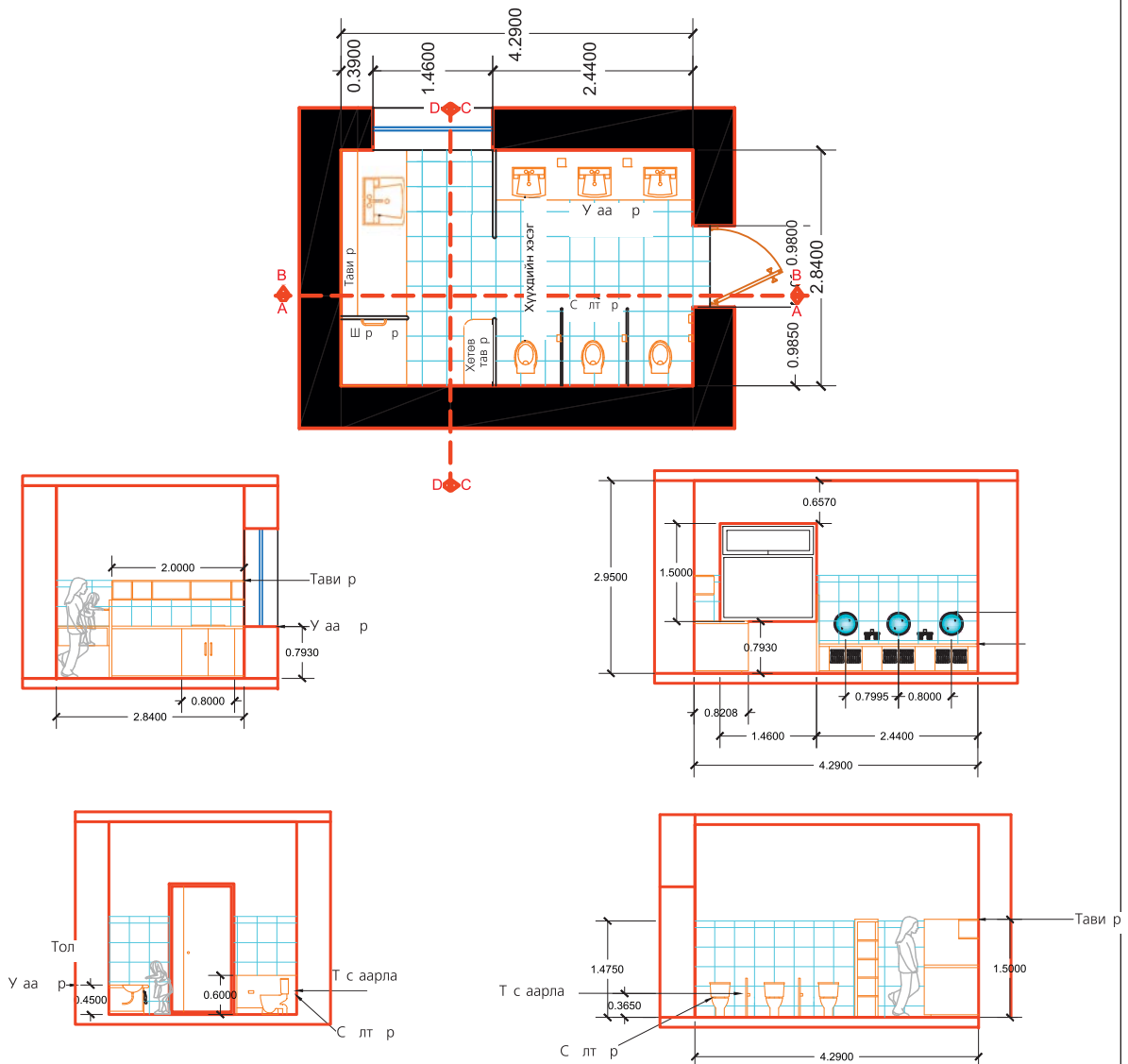
Ханын дэлгээс [C-C]

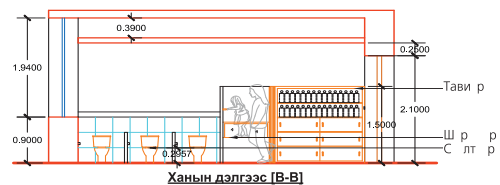
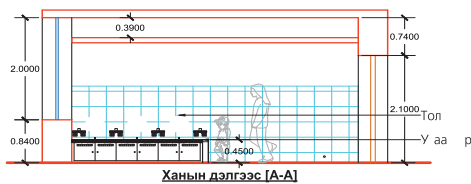
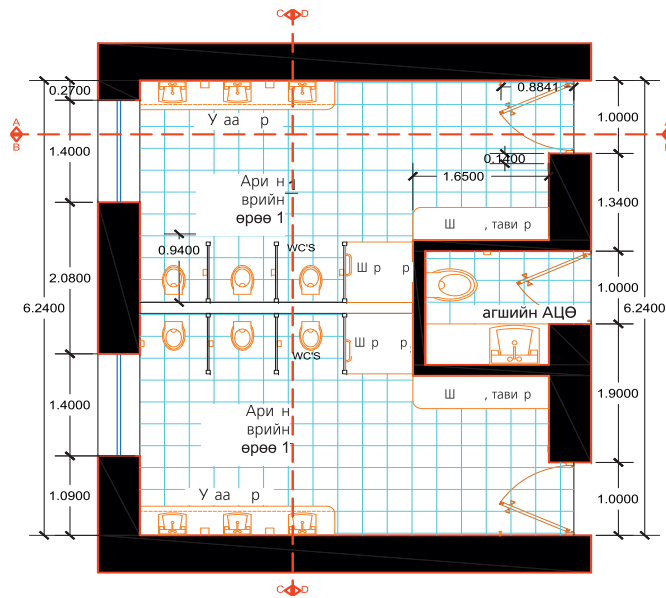
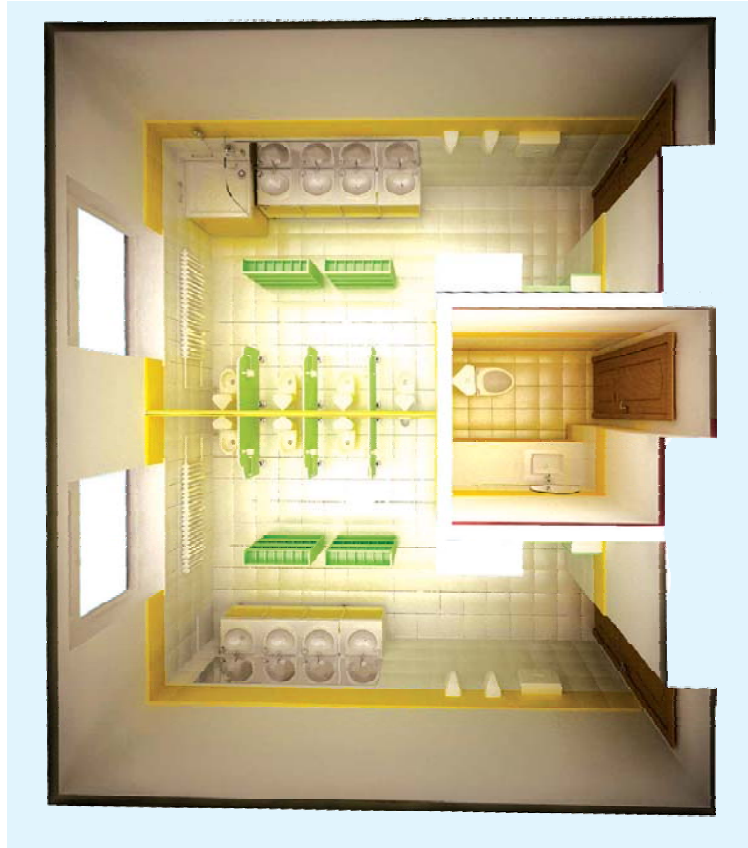


Ханын дэлгээс [D-D]



24-hour service kindergarten bathrooms should have additional cabinets to store bath towels, shampoo and soap for children.





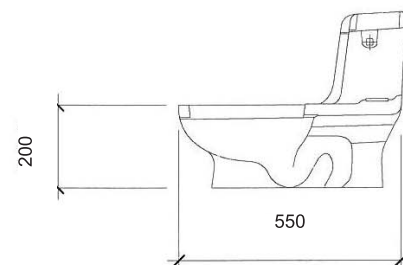
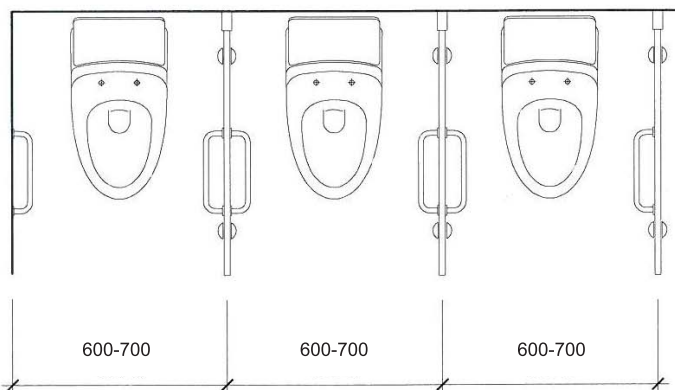
Child toilet design No 1

The toilet is for 2-3 year old kids. Height of the toilet is 20 cm.



Water tab is push down

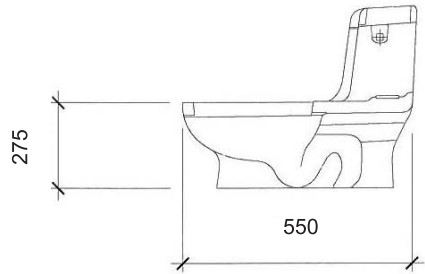
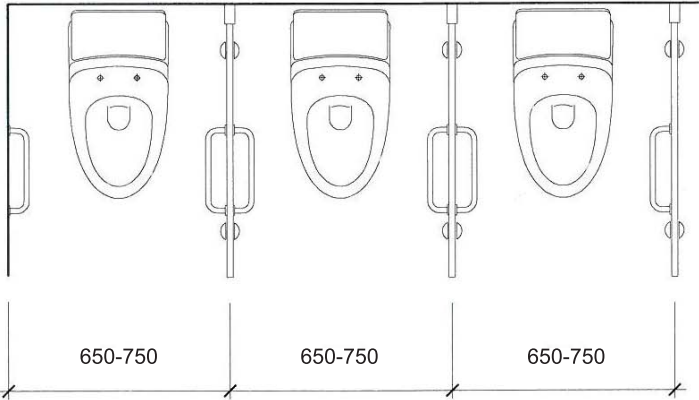
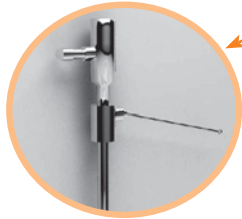
If the type of short toilet is not found, the higher ones need to be installed lower than floor level





Child toilet design No.2

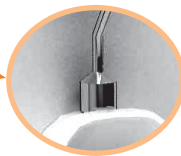
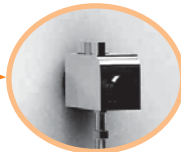
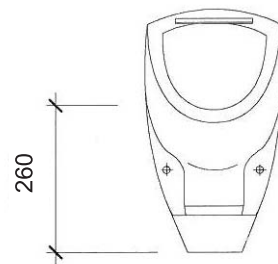
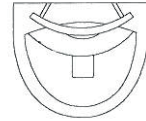
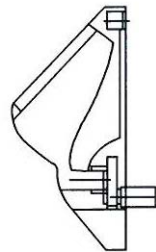
The toilet is for 4-5 year-old kids.  
The height is 27 cm.



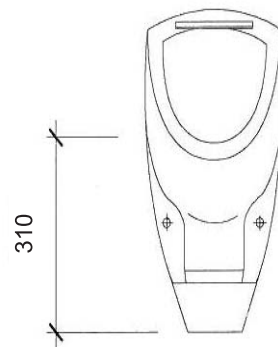
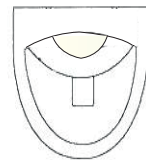
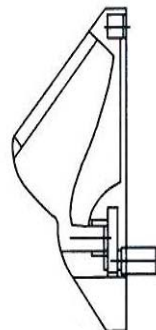
## Child Urinal designs



2-3 year old kids' urinal should be installed with handle for children to prevent them from touching it.



3104-5 year old urinals can be installed without handles.



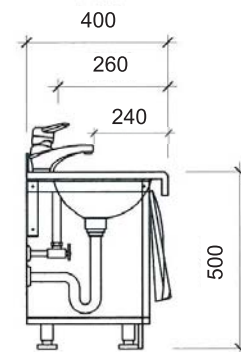
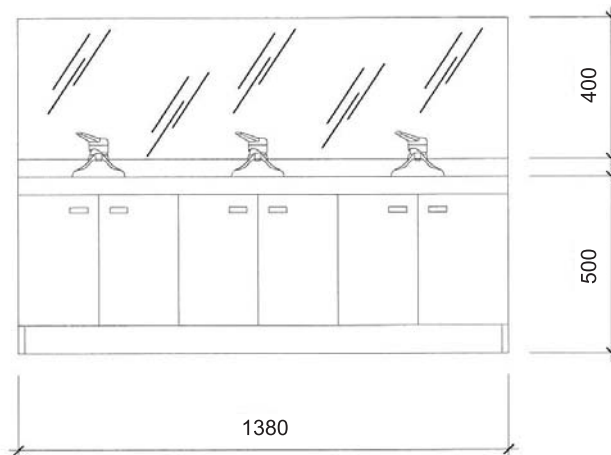
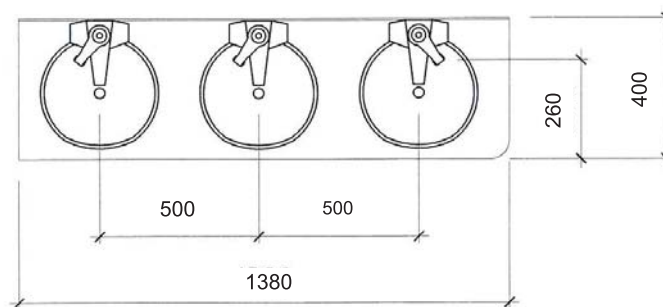
## Washbasin design №1

Wash basins for 2-3 year-old kids should be lower than 50 cm.



Water tap should be easy to reach and open

Sink should be deep



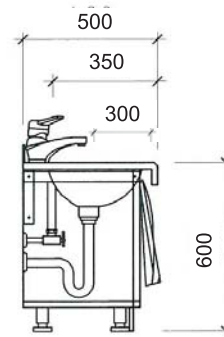
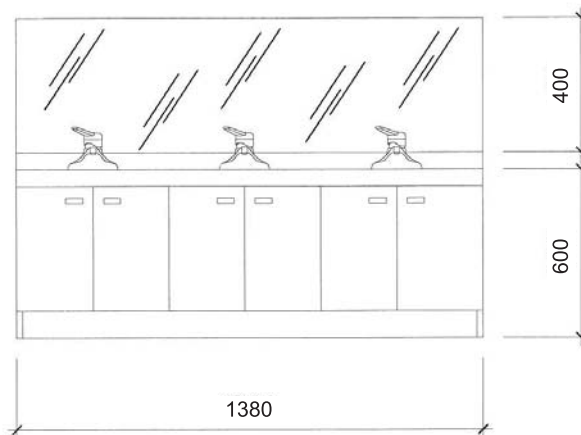
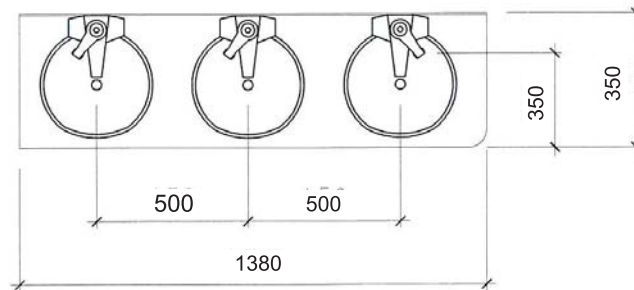
## Wash basin design No.2

Wash basin for 4-5 year old kids should be lower than 60 cm



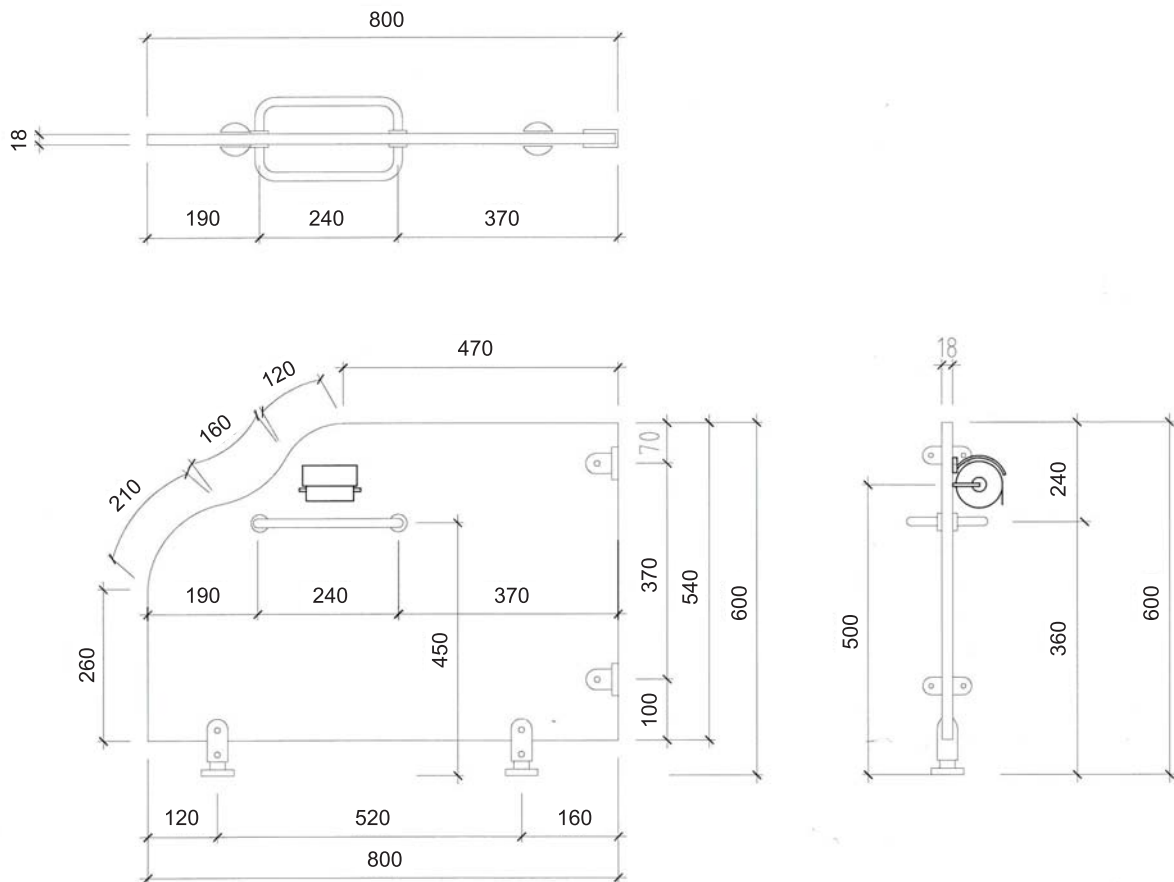
Water tap should be easy to reach and opened by turning

Sink should be deep



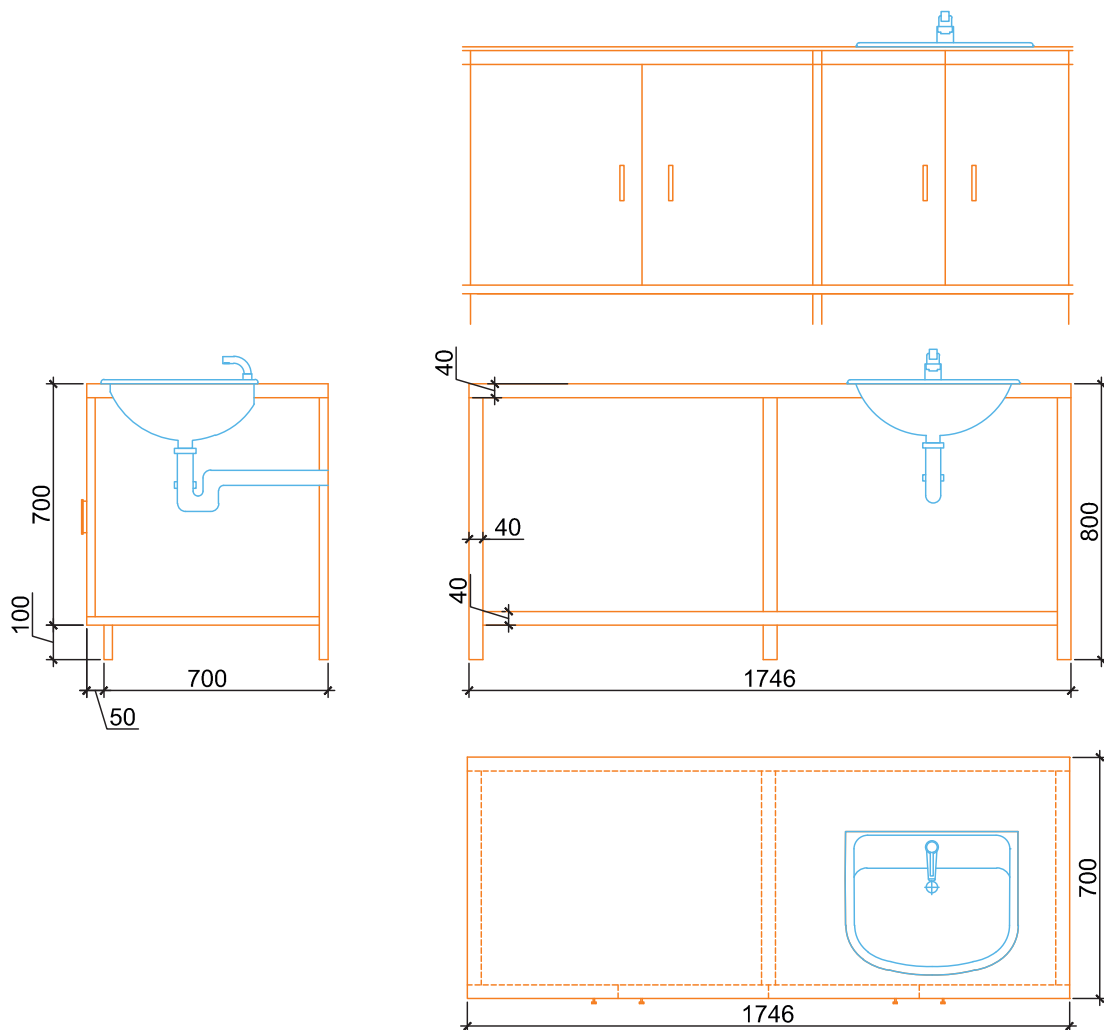
## Design of partition with handle and tissue hanger

The space between partitions should be 60-70 cm. It should have handle and toilet paper box installed.

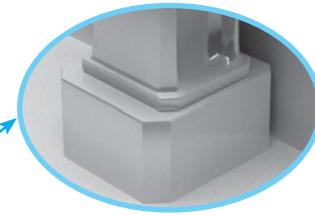


## Cleaning sink design

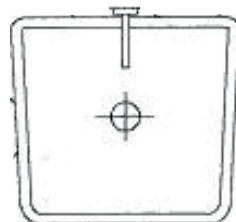
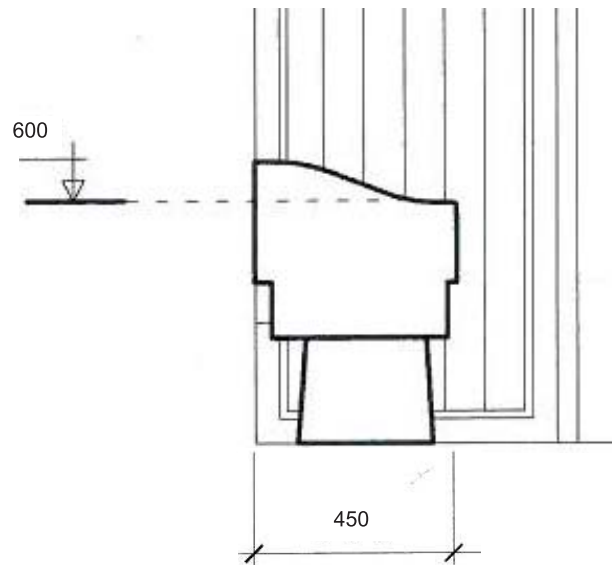
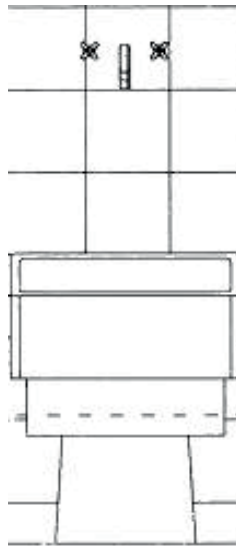
The sink should be bigger and deeper. It should have white enamel cover for hygiene purposes. It can be installed with a cabinet below to store bigger cleaning tools.



## Sanitation sink design



It can be installed higher for teachers to use easily.





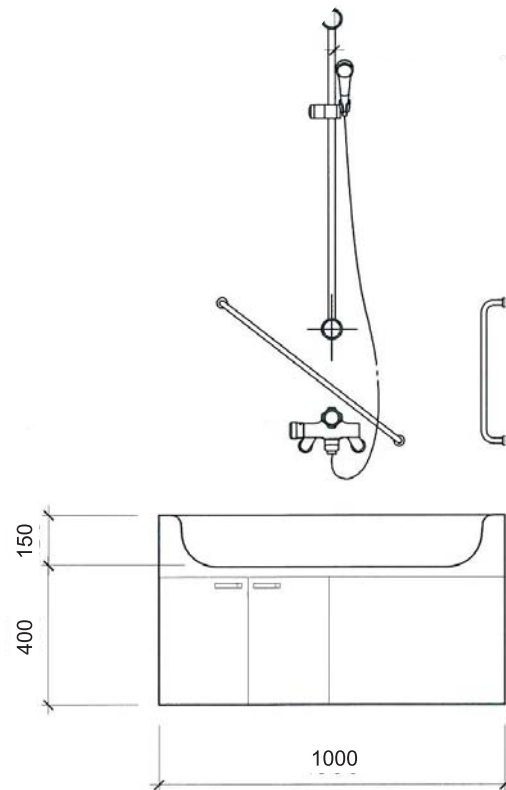
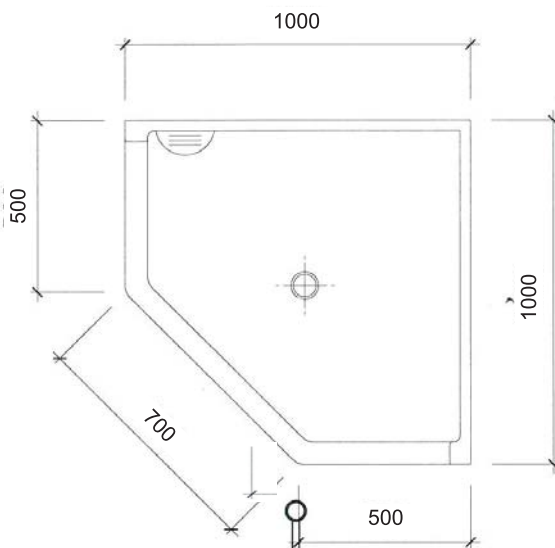
## Shower design

2-3 year old classroom bathroom should have a shower.



1000mm Handle is safe for children to hold during showering.

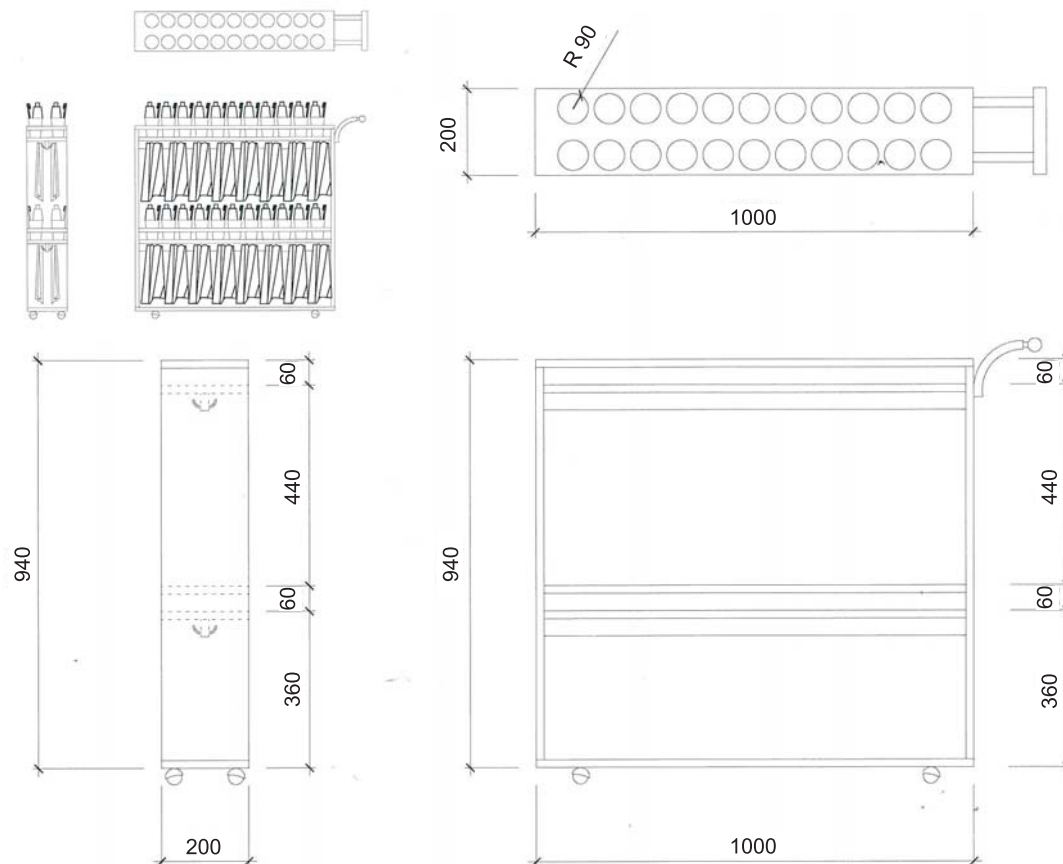
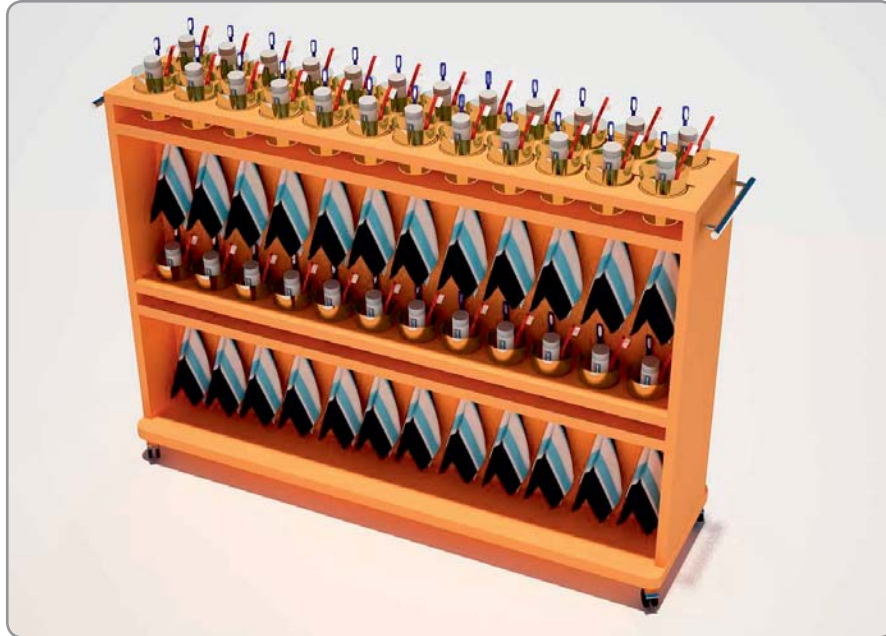
It should be installed higher for teacher to clean children without bending.





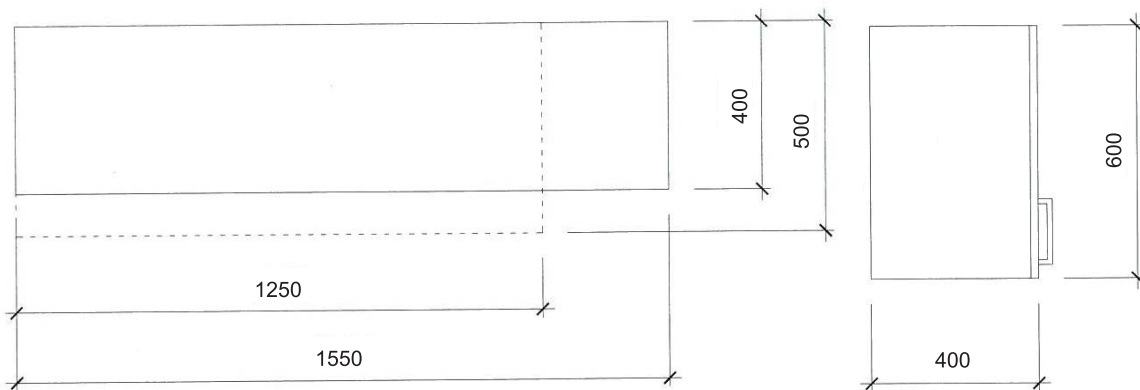
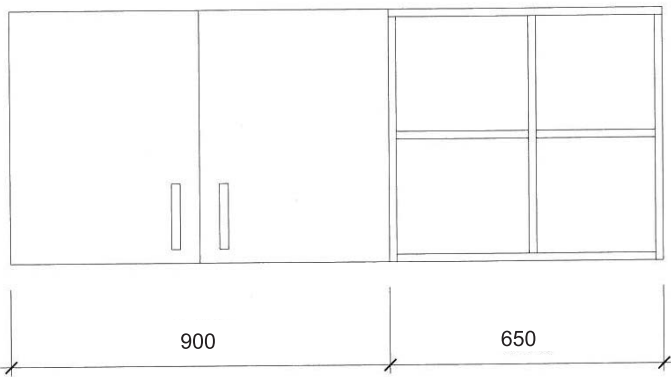
## Mobile towel hanger and hand dryer design

The towels of children should be hung on one side with the sign picture of each child and combs should be hung on the other side. To save space, there is no need for partitions between towels. However, it should be made with open space between rows. Toothbrush, toothpaste holes on the top can be fitted with partitions.



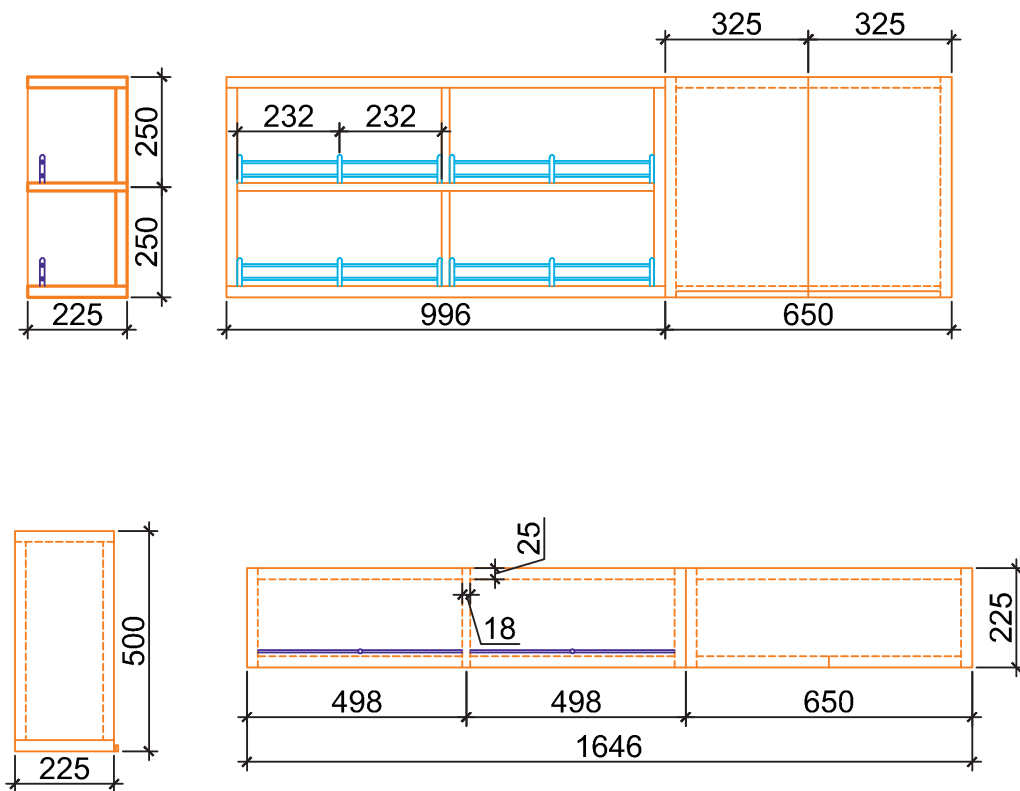
## Cabinet design No.1

The cabinet is dedicated for teachers' use for sanitation detergent storage. The cabinet should be placed preventing from children reach.



## Cabinet design No.2

The cabinet is for cleaning facility storage. Toilet tissue, soap and shampoo can be saved.

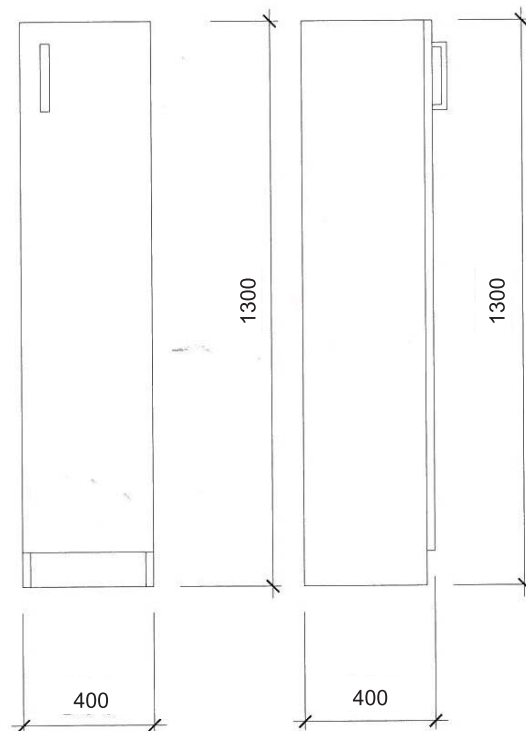
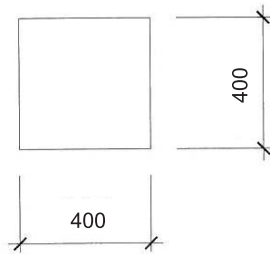


## Cleaning tool cabinet design

The cabinet is for keeping the cleaning tools such as long broom as well as the vacuum cleaner

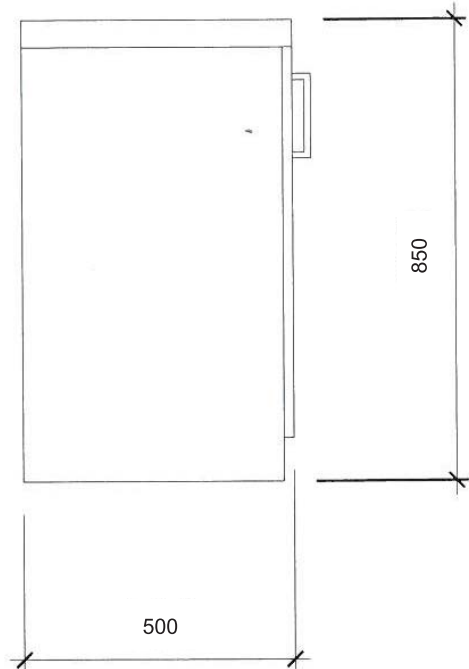
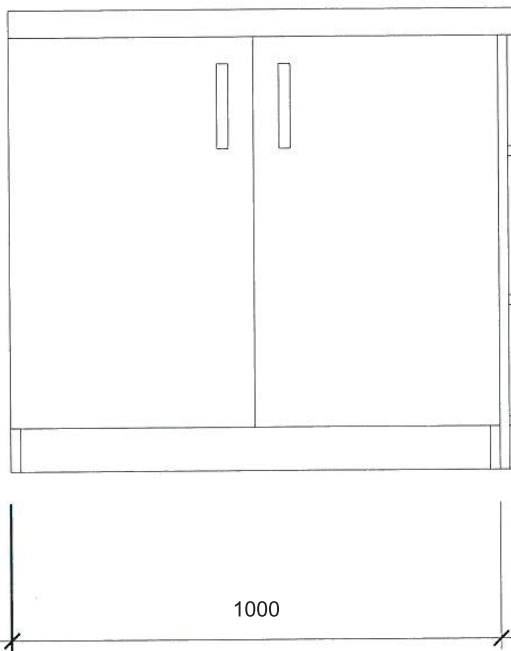


As the cabinet is long,  
it need to be fixed well  
to wall



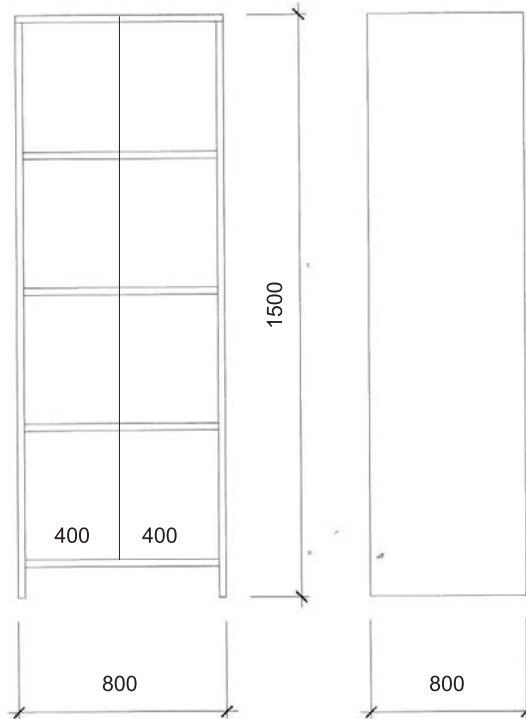
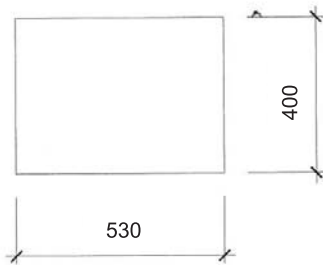
## Design of cabinet for bigger tool storage

If the room has not enough space, the cabinet can be built below shower and sanitary sink.





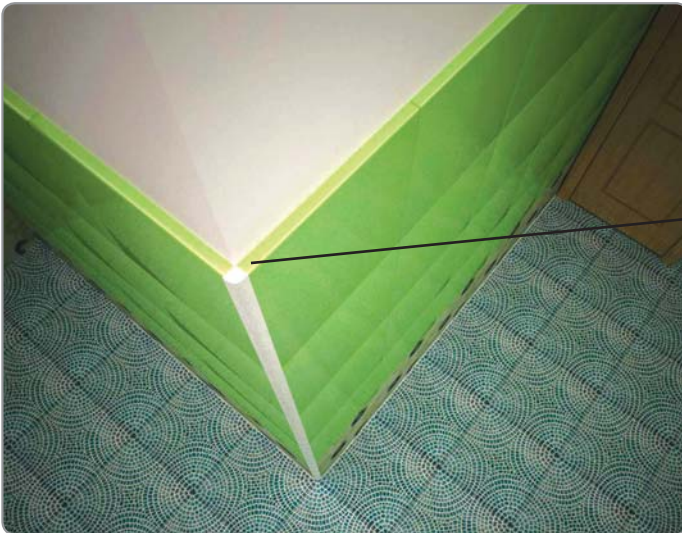
Plastic potty shelf design



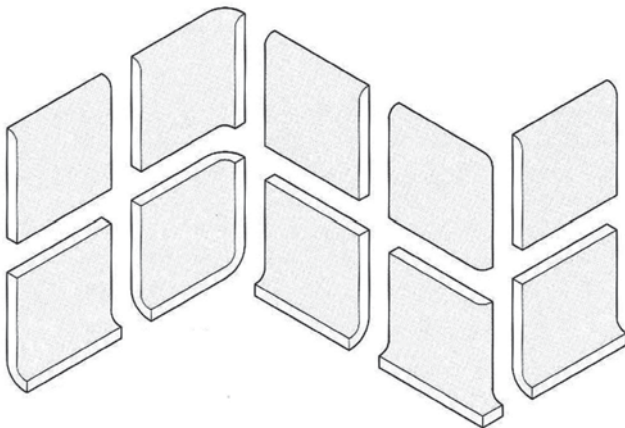
### Tile of wall and floor, corners and ventilation

It is important to choose the colour of tiles by getting comments from teachers and children. The floor tile should be not slippery. However, it shouldn't have too much bratticing pattern to make the cleaning easy.

The upper part of wall and ceiling should be painted with emulsion paint for outside as it is more tolerant for humid place. The plastic cover for ceiling is not recommended as it has more danger of fire.



The corner should not be sharp. Other facilities should also be made safe for children.



The design of tiles for corners and edges safe for children



The air pipe should be cleaned during the renovation. In addition to that, it is better if ventilation is installed.

## SAMPLE FORM OF A BUDGET TO RENOVATE A TOILET

This budget form is an example of one bathroom's renovation cost. The average cost of one toilet renovation under the project was 5-7 million tugriks in 2012 and 7-8 million tugriks in 2013.

Wage items	Measurement	Qty	Unit price	Total	Notes
<b>Disassembly</b>	cubic m.				
Disassembly of old sewer line					
Disassembly of old sinks and					
Disassembly of old heaters	piece	1			
<b>Daubing</b>					
Clay making					
Constructing a brick wall 0.12m	sq.m.				
Constructing a brick wall 0.38m	cubic m.				
Leveling floor concrete	sq.m.				
Cementing	sq.m.				
Emulsifying	sq.m.				
Applying wall tiles	sq.m.				
Applying floor tiles	sq.m.				
<b>Installation of hand washer</b>		4			
<b>Installation of toilet bowl</b>		3			
<b>Installation of shower</b>		1			
<small>ur 15 plumbing tube installation</small>		28			
∅100 sewer tube installation		14			
<b>Installation of a heater</b>		1			
<b>Installation of a door</b>	piece	1			
<b>Installation of a window</b>	piece	1			
<b>Installation of power lines</b>	m				
Installation of lighting	piece	2			
Installation of switchers and	piece	2			
Installation of mirrors	m	6			
			<b>Total</b>	-	
<b>Material items</b>					
<b>Accessories to be installed</b>					
Toilet bowl	piece	3			
Sanitation sink (teacher's)	piece	1			
Hand washer	piece	4			
Shower sink	piece	1			
Shower mixer	set	1			
Mixer	piece	4			
Flexitube of shower	pair	4			

Flexitube of toilet bowl	piece	3			
Rubber tube for toilet bowl	piece	3			
Towel hanger	piece	30			
Toilet paper container	piece	3			
Toilet bowl brush	piece	3			
Mirror	sq.m.				
Ventilator	piece	1			
<b>Construction materials</b>					
Vacuum window	sq.m.				
Window pane 1.2m	piece	1			
Door 2.1x0.7 m area	piece	1			
Lock	piece	1			
Hinge	pair	1			
Bolt with expander	piece	14			
DSP plate with colours on 2 sides	piece	3			Separator between toilet bowls
Corner holder		16			Separator between toilet bowls
Screw		80			
Expander		80			
DSP plate with colours on 2 sides		2			Wash tub cabinet.
Smooth closing hinge		12			
Connector	set				
Concrete	tn				
Sand	cubic m.	1			
Gravel	cubic m.	1			
Cement	bag	6			
Odourless paint	kg				
Emulsion (Korean)18 l	can	1			
Wall tiles 30x30	piece				Should be 1.5m high.
Floor tiles 30x30	piece				
Tile filler 2kg	bag	3			
Silicon	piece	2			
Filler foam	balloon	2			
Glue for plates 25kr	bag	5			
Plaster	kg	3			
<b>Ancillary materials</b>					
Sand paper	sq.m.	2			
Plate cutter blade	piece	6			
Plastic spatula	piece	10			
Brayer	piece	4			
<b>Plumbing materials</b>					
100 sewer pipe	m	2.5			
100 corner pipe	piece	1			
100\Φ50 pipe tripler	piece				
100\Φ100 pipe tripler	m	2			
100\50 coupler	piece	1			

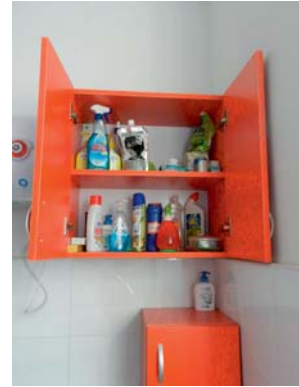
∅50 pipe	piece	6		
∅50 pipe tripler	piece	4		
∅50 corner pipe	piece	2		
∅100 holder	piece	3		
∅50 holder	piece	5		
∅15 sticking pipe for fresh cold water	m	22		
∅15 sticking pipe for hot / cold water	m	22		
∅15 fresh water corner pipe	piece	8		
∅15 fresh water pipe tripler	piece	22		
∅15 fresh water corner pipe	piece	13		
∅15 emergency halter	piece	13		For each need
∅15 emergency halter	piece	2		Main line entering the toilet room
Scotch	piece	3		
PPV 2x2.5 copper wire	m	6		
Flexi tube	m	6		
Connectors box	piece	3		
Water and moisture proof	piece	2		
Switcher	piece	1		
Socket	piece	1		
Waterproof lid	piece	1		
Lamp	piece	2		
			<b>Total</b>	
<b>Cost item</b>				<b>Total cost</b>
<b>Wages</b>				
<b>Materials</b>				
<b>Transport</b>	round	3		
<b>Machinery use</b>		76		
<b>Direct expenses</b>				-
<b>Administrative expenses</b>				-
<b>Construction total</b>				-
<b>Normative fund 0.18%</b>				-
<b>Total expenses</b>				-
<b>VAT</b>				-
			<b>Total</b>	-



## LIST OF RELEVANT LAWS AND REGULATIONS

- BNbD11-01-98 Regulation to develop, agree and approve the construction design
- BNbDII-66-68 The general norm to develop education and care center construction design and project
- BNbD40-05-98 Water and sanitation facility of construction
- BNbD3.05.01-88 Inside plumbing system
- BD31-111-11 Regulation to develop construction design –Secondary school building plan
- TN-II-2.2-1985 Norm for details of secondary school and dormitory building plan
- The minimum standard of water, sanitation and hygiene facility in schools, kindergartens and dormitories (Order of MoES, MoH, MoF, 2014 draft)
- Structure and facilities of toilets for children', Attachment 2 and 3 of order No.305 by Minister of Transportation and construction in 2011

# TOILET MODELS CREATED UNDER THE CHILD FRIENDLY KINDERGARTEN PROJECT



# NOTES

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## **CHILD FRIENDLY KINDERGARTEN Project (2011-2014)**



### **Project goal:**

To develop a model of a “child friendly” kindergarten (KG) which promotes a healthy, safe and positive learning environment for preschool age children in the targeted districts.

### **Project objective:**

- 1) To establish sustainable systems for capacity building of teachers, assistant teachers, doctors and management staff.
- 2) To improve parents' knowledge of ECCD and to increase parents' participation in KG management and Parents' Association (PA) operations in the KGs.
- 3) To create a “child friendly” (safe and hygienic) environment in the targeted KGs, through improvements in the facilities.
- 4) To promote the project principles among the general public.

### **Project target, 38 kindergartens:**

- Bayanzurkh District: kindergartens 6, 20, 22, 45, 62, 82, 122, 128 and 147
- Khan-Uul District: kindergartens 28, 29, 41, 46, 53, 67, 71, 121, 134 and 165
- Chingeltei District: kindergartens 4, 9, 19, 70, 83, 103, 108, 124 and 126
- Songinokhairkhan District: kindergartens 79, 81, 91, 104, 111, 118, 127, 148, 158 and 163

### **Non-target, 20 kindergartens involved in unit system promotion:**

- Songinokhairkhan District: kindergartens 38, 78, 116, 117, 170 and 191
- Chingeltei District: kindergartens 5, 33 and 39
- Khan-Uul District: kindergartens 49, 144, 4 and 190
- Bayanzurkh District: kindergartens 10, 50, 58, 59, 61, 129 and 136

### **Project beneficiaries:**

- Children: 21465
- Teachers: 537
- Assistant teachers: 542
- Doctors: 52
- Music teachers: 57
- Physical education teachers: 17
- Methodologists: 55
- Directors: 58

### **Project team:**

Takako shibata, Project manager  
A.Otgonchimeg, Project coordinator  
Kh.Munkhzul, Project officer  
S.Ulziisaikhan, Project officer  
L.Ariunzul, Project officer



Save the Children (Japan)  
Mongolia office

Address:  
Ulaanbaatar, Chingeltei district,  
#1 khoroo  
Arizona center 4<sup>th</sup> floor

Post address:  
Central Post office -1023  
Tel: +976-11-329371, 329365  
Fax: +976-11-329361  
E-mail: [secretary@savethechildren.mn](mailto:secretary@savethechildren.mn)  
Website: [www.savethechildren.or.jp](http://www.savethechildren.or.jp)  
[www.savethechildren.mn](http://www.savethechildren.mn)