

Schedule I: Locations of Public Toilets

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2. xxxxxxxxxxxx
3. xxxxxxxxxxxx
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Schedule II: Design and Construction Specifications

Development, Operation & Maintenance of Pay&Use Public Toilets in Warangal on DBFOT basis

1. Overall Description

1.1 **Mandatory**

- The layout of the toilet block would depend on the availability of space and other local conditions.
- Toilet structure – Required toilet seats for men, women and physically handicapped (PHC) along with mandatory fixtures and other key features is described below:
 - a. Minimum number of toilet units and fixtures
 - i. Men – 2 WCs (Indian), 3 Urinals, 1 Bath, 2 WBs
 - ii. Women – 1 WC (Indian), 1 Urinal, 1 Bath, 1 WB
 - iii. PHC- 1 WC, 1 WB along with ramp
 - b. Janitor rest room
 - c. Storage space for cleaning material / equipment
 - d. Common luggage space for users
 - e. Water storage tanks
 - f. Disposal system for
 - i. Waste water from toilet units (Black water) - Advanced septic tanks (3 chamber septic tank with anaerobic baffled reactor) along with soak pit.
 - ii. Waste water from bath and wash basin (grey water) – Appropriate waste water disposal mechanism for washbasins and bathrooms.

1.2 **Desirable features**

- Child friendly toilet fixtures in both male and female blocks shall be encouraged. For example; low height urinals in men's block, Seats for children in the section in women's block.
- Rainwater harvesting system along with underground storage tank shall be encouraged.
- Reuse and recycling of waste water from Wash basin, Bath etc is encouraged.
- Solar Water Heating & Solar Power provisions shall also be encouraged.

Note: Please refer **Model 1** and **Model 2**, consisting of idea plans and conceptual perspectives.

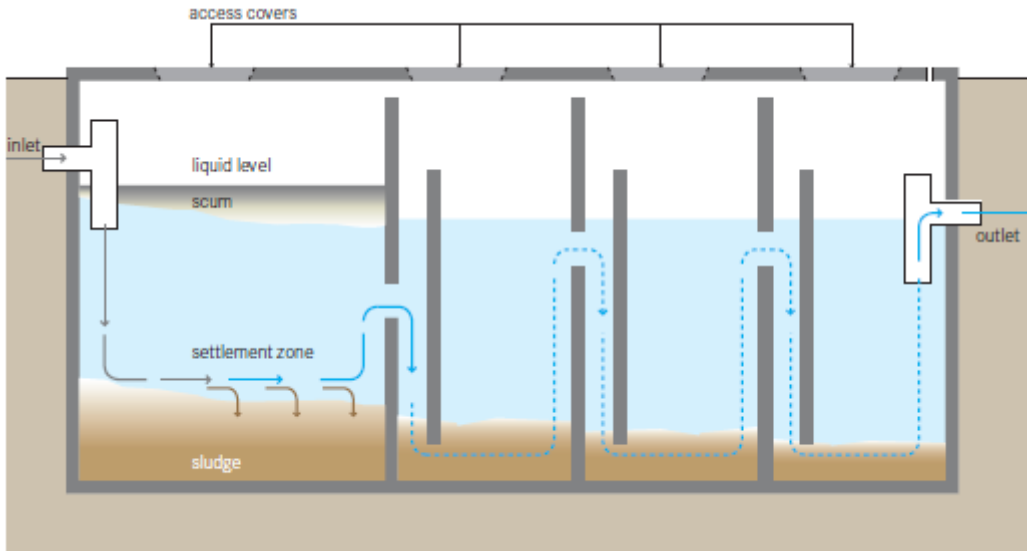
2 Design Specifications

2.1 **Mandatory**

- Separate toilet blocks for men and women with separate entries.
- The design/architecture of the complex should be in consonance with surroundings
- Public toilets should be designed to minimize hand contact for hygienic reasons.
- The inside height of Toilet complex should be 3 mtrs.
- Standard dimensions
 - Urinal = 2'-0" x 2'-0" (ideal) or 1'-6" x 2'-0" (minimum)
 - WC cubical = 4'-8" x 3'-0" (ideal) or 3'-3" x 4'-3" (minimum)
 - P.H.C unit = 5'-9" x 5'-0" (ideal) or 5'-0" x 5'-0" (minimum)
 - Internal circulation = 3'-0" wide
 - Ramp for PHC with Slope 1:12 (ideal) or 1:10-11 (minimum)
 - Main door width and PHC - 3'-3" (min)
- Ventilation

- Natural ventilation through doors windows and ventilators should be provided.
- Mid level exhausts or louvered exhausts can be used above the floor level.
- Surface area of the openings (for ventilation) should be 8% (min) of the floor area—
To be validated
- Internal partition height should be limited to 7'-6"
- The areas around each toilet block shall be constructed by proper approaches.
- Disposal of waste water
 - Waste water from toilets should be treated with advanced septic tanks (*3 chamber septic tank with anaerobic baffled reactor*) and the treated water should be disposed in to soak pit.
 - **The design criteria for sizing of septic tanks should be as per CPHEEO or NBC Code.**
 - **The soak pit should be horizontal type should be designed as per CPHEEO or NBC Code.**
 - Appropriate waste water disposal mechanism for washbasins and bathrooms.

Figure 1: Improved septic tank or Anerobic baffled reactor



- Landscape/Aesthetics -
 - The adjoining areas upto 10 mtrs. from the external face of the toilet block (*subject to availability of area*), shall be landscaped (*to avoided littering and urinating around the toilet block*)
 - shrubbery and citrus plantations can be encouraged which not only purify the air but also add fragrance.
 - Indoor plantations (Ex. flower pots, Shrubs etc) can be incorporated in order to beautify the interiors, which add color and texture. (if space permits) (Refer to Model 1 & 2)
- Installing safety grills and doors in order to avoid vandalism.
- Space shall be provided for advertisement boards and hoardings (Refer to Model 1 & 2)
- A comprehensive firefighting system in accordance with CPWD and NBC norm

2.2 Desirable features

- Reuse of waste water from bath and wash basin Ex. Watering the plants etc.

3 Construction Specifications

3.1 Mandatory

- Advised to carry out its own tests and investigations related to soil condition, strata, bearing capacity and other characteristics.
- All Civil/building/structural works shall conform to Central Public Works Department (CPWD) specifications for class-1 building works and standards as given in the National Building Code (NBC) and guidelines of CDMA as amended and/or modified from time to time.
- The foundations shall be as per site requirement.
- The foundation shall be refilled with the excavated earth and shall be filled with gravel / iwith due consolidation and compaction in layers.
- RCC structures shall be designed as per IS 456: 2000
- Steel structures shall be designed in accordance with the provisions of IS 800 – 1984. Structural steel shall conform to IS 2062. Tubular sections would conform to IS- 4923. Structural joints shall conform to IS 4000:1992.
- All the main entries shall be of 75mm thick perforated steel rolling shutters.
- Walls and floor
 - Brick masonry in super structure
 - Light color tiles placed upto 4' or latexmat paint upto 4' to 7'.
 - Floor - anti-skid dark color ceramic tile, stone or concrete.
 - Flooring, wall lining etc shall have to be of water resistant materials of 1st quality.
 - Wall surface shall be finished with good quality plastic emulsion paint.
 - Floor & wall color schemes shall be coordinated. Lively, vibrant colors are encouraged to enhance the overall aesthetic
 - The use of large size tiles is recommended (preferably 2'x2') to reduce area of grout joints.
 - Floor traps where ever required
- Aluminium frames of all doors and windows.
- Door shutter of min 35mm thick with aluminium frame and panel of pre- laminated board shall be provided.
- Aluminium window shutters with powder finish shall be provided.
- Wash hand basins shall be provided in the counters as indicated in the drawing. The counter shall be of granite.
- Approaches to the toilets shall be provided from BRT pedestrian pathways and adjoining areas as feasible. Such approaches shall be laid with precast paver blocks of at least 40mm thickness.

3.2 Desirable features

- Concrete slabs or Aerocon panels can be used for internal partition to increase the rotation space, also easy to maintain.
- Innovative wall painting inside and outside the toilet structure.
- Creative form for a public toilet to make it more aesthetically appealing.

4 Fittings and Fixtures

4.1 Mandatory

- Washbasins in male, female and PHC blocks as mentioned.
- Mirror along with wash basin
- Sanitary fitting fixtures shall be used of standard specifications and the work shall be got done through approved licensed plumber having a certificate to this effect.
- The fixtures should be leak proof.
- The water absorption of the ceramic surface shall be minimal to make it difficult for urine to remain in body and odor eliminated.
- First Quality C.P. fixtures & fittings shall be of the reputed make such as Jaquar, Nova, Ess-Ess etc.
- The emergency fixture is to be located within the toilet block.
- Lighting
 - General illumination lighting may be provided by CFL/LED down lights.
 - Min.200lux shall be provided (8w LED lights or 15w CFL) -as per NBC
 - Warm colored lights can be used for a better ambience
- Meter box and main switch to be provided outside the toilet block away from wet areas.
- The Tissue rolls stands should be placed near WBs.
- Litter bins should be placed at visible place within the toilets block, both in men's and women's toilet block.
- All plumbing works, electrical works, fittings and fixtures must be aesthetically and safely concealed.

4.2 Desirable features

- Automated flushing systems can be installed.
- Foot operated hand washing fixtures
- Energy efficient lighting fixtures
- Hand dryers in men's and ladies' toilet blocks.
- Video surveillance – CC cameras outside the toilet block.
- Incinerator in women's block for disposal of sanitary pads.

5 Signage and branding

5.1 Mandatory

- Inside the toilet block, there should be information panels, prominently and clearly displaying dos & don'ts, safety instructions, Identification details of the toilet, Cleaning Schedule, details about complaint registration system in place, Telephone No, e-mail address of Concessionaire nodal person for receiving complaints, and Telephone no of officials
- Photo Identity Cards for each staff
- Care-taker in uniform and trained by the Concessionaire regarding his duties and dealing with public
- Information panels should be of good quality, screen printed and sufficient size (Small stickers not acceptable). The mounting should be rugged & tempering proof.
- Mandatory display of certain information at the site : The Concessionaire shall display the following information on a board of size 2 feet by 1.5 feet on front side:

- GWMC Logo
- Site License No
- Name of the Concessionaire
- Validity period of the license

6 Advertisement

6.1 Mandatory

- Parameters with respect to height the display should be as per laid down in the outdoor advertisement policy approved by Hon'ble Supreme Court.
- Material: All Structure/Frame to be made of Galvanized Steel.
- The structure/Frame to be treated with Hot dip or Hot spray Galvanization.
- The private operator will pay the advertisement tax to WMC as per HMC ACT,1955. The tax is payable even though the advertising space is vacant.
- Concessionaire shall not display anything on the wall that is repugnant to general standards of morality
- Advertisement in the form of banners, posters, etc on footpaths, roads around the PTUs will not be permitted
- The Top side of front portion of the wall shall be used by GWMC for its advertisements.
- All Screws and nuts to be made of Stainless Steel and there should be spot welding at all the nuts to prevent vandalism.
- The structure/frame should be dimensioned to withstand local wind gusts according to regulations.
- The structure to be properly powder coated for protection against rusting.
- All materials should be nonflammable.
- All sharp corners should be eliminated.
- Parts used should not be fragile and safety secured to its foundation with 20 mm anchor fasteners or chemical fasteners which make the furniture more stable and joint fasteners not visible from outside.

SCHEDULE III - Operation & Maintenance

Mandatory

- Minimum operational Hours: 05:00 AM to 11:00 pm every day and preferably round the clock.
- The Concessionaire shall ensure availability at all times of adequate water for general cleanliness, electricity and septage cleaning at its own cost
- The Concessionaire has to keep cleanliness around the complex to the extent of 50 mtrs and ensure it is litter free and urination free.
- One person for every unit of Public Toilet for cleaning and washing the unit round the clock, including public holiday.
 - Daily washing with water and phenyl washing.
 - Sweeping up to 50 mtrs around the structure and sprinkling of disinfectant mixture of 200 gms (50 gms bleaching powder and 150 gms lime).
 - 0.5 liters of acid per unit
 - Removal of solid waste – emptying of dust bins at least once in a day as per GWMC procedure.
- Custodian duty (protecting the structure against damage and misuse) and to prevent open - urination surrounding the unit.
- Removal of handbills and washing of scrubbing inside and outside the structure.
- Engaging men and equipment and provide the disinfectants and implements for cleaning and arrange for sufficient water supply at the urinal / toilets for Cleaning.
- Provide tools - Cleaning Brooms ,Sweeping brooms ,Coir brush ,Scraping Sheet ,Bamboo Basket ,Plastic containers , Bamboo Reapers ,Plastic Buckets ,Plastic Mug ,Sponge piece , Washing Soap, Identity Card ,Apron inscribed ULB ,Phenyl, Acid , Bleaching powder and lime powder shall be supplied by the Concessionaire to the staff Engaged by them.
- Will not use or allow any person to use toilet block for other purposes.
- Suggested that a female attendant is available during the working hours
- Quick cleaning is carried out by the attendant after each use.
- Consumables required for cleaning & operation of toilets shall be ensured
- The Concessionaire shall ensure cleaning of the PTUs as per the cleaning schedule provided.
- Dedicated cleaning staff shall be provided by the Concessionaire for PTUs.
- Damaged information panels to be replaced by Concessionaire within 3 days
- The liquid soap shall be made available for Users for the purpose of hand washing at all time during operation.
- The Concessionaire shall engage minimum one person for every unit of Public Toilet for cleaning and washing the unit round the clock, including public holidays
- The Concessionaire shall design and provide a system where the users or Authority can lodge their complaints through register at site, telephone, SMS, and e-mail regarding functioning, status or condition of any PTU. All such suggestions/complaints registered shall be properly recorded and monitored for addressing them within 48 hours.
- The Complaints/ Suggestion book maintained by the toilet attendant should also be examined on daily basis and issues raised should be addressed.
- Concessionaire shall submit a monthly report of complaints received and their redressing.

Monitoring and Evaluation

Mandatory

- After completion of the construction the Concessionaire should submit 3 sets of completion report which include plan, plumbing and electrical layout, advertisement space, fittings and fixtures details etc.
- of stoppage of work due to unavoidable circumstance, each case will be reviewed and compensation is decided based on the case by case basis.
- Following are the list of penalties
 - Rs.100/day - cleaning and washing not attended (one time)
 - Rs.200/day - cleaning and washing not attended (full time)
 - Rs.150/day - Janitor absent
 - Rs. 50/day - Phenyl not used (per day)
 - Rs.100/day - Acid not used (weekly)
 - Rs.100/one time - sweeping and disinfecting not attended
 - Rs.200/full time- sweeping and disinfecting not attended
 - Rs.300 - any complaint from users
- The Concessionaire shall furnish the names of the persons who have been appointed as attendant/caretaker for the toilet blocks and their names will be registered with the Authority. The said attendant/caretaker of the Concessionaire shall not allow any other person to occupy the toilet blocks.
- The Concessionaire shall maintain all the records of:
 - The bills paid to service providers like water and power supply etc,
 - Record on number of users using the Public Convenience
 - A Complaint or Suggestion Book for the users
- Concessionaire shall maintain at the Public Convenience an Inspection Card
- The Concessionaire shall ensure that the premises are not used for playing games etc., which involves stakes / betting, play cards etc., or for any un-lawful activities.
- ULB appointed Engineer-in-Charge will oversee the implementation of the project and to monitor the performance.

SCHEDULE -IV
(See Clause 9.1)
PERFORMANCE SECURITY

(To be submitted on Non-Judicial stamp paper of appropriate value purchased in the name of the issuing bank)

To: The Executive Engineer,
Greater Warangal Municipal Corporation,
Warangal.

WHEREAS ----(Name and address of M/s XXXX Ltd), hereinafter referred to as “the CONCESSIONAIRE”, has undertaken to design, construct & commission, operation and maintenance of Public Toilets in accordance with the provisions of the Concession Agreement, and includes all works, services and equipment relating to or in respect of the Scope of the Project as defined therein in the Concession Agreement dated _____ with Greater Warangal Municipal Corporation (hereinafter referred to as “the AGREEMENT”)

AND WHEREAS in terms of the Conditions as stipulated in the Agreement, the Concessionaire is required to furnish, a Bank Guarantee by way of Performance Security, issued by a Scheduled Bank in India, in your favour, as per Clause 9.1 of the AGREEMENT, to secure due and satisfactory compliance of the obligations by the CONCESSIONAIRE on their part, in accordance with the AGREEMENT, (which guarantee is hereinafter called as “the PERFORMANCE SECURITY”)

AND WHEREAS the CONCESSIONAIRE has approached us, (Name of the issuing Bank) for providing the PERFORMANCE GUARANTEE, AND WHEREAS in consideration of the fact that the CONCESSIONAIRE is our valued constituent and the fact that he has entered into the AGREEMENT with you, WE (Name of the Bank) having our Registered Office at, _____ and Branch office at _____, India have agreed to issue the PERFORMANCE GUARANTEE, THEREFORE WE (Name of the issuing Bank) through our Branch at _____ India furnish you the PERFORMANCE GUARANTEE in the manner hereinafter contained and agree with you as follows:

We (Name of the issuing Bank), undertake to indemnify you and keep you indemnified from time to time to the extent of Rs. _____ (Rupees _____) against any loss or damage caused to or suffered by or that may be caused to or suffered by you on account of any breach or breaches on the part of the CONCESSIONAIRE of any of the terms and conditions contained in the Agreement and in the event of the CONCESSIONAIRE default or defaults in carrying out any of the work or discharging any obligation in relation thereto under the AGREEMENT or otherwise in the observance and performance of any of the terms and conditions relating thereto in accordance with the true intent and meaning thereof, we shall forthwith on demand pay to you such sum or sums not exceeding the sum of Rs. _____ (Rupees _____) may be claimed by you on account of

breach on the part of the CONCESSIONAIRE of their obligations in terms of the AGREEMENT.

Notwithstanding anything to the contrary we agree that your decision as to whether the CONCESSIONAIRE has made any such default or defaults and the amount or amounts to which you are entitled by reasons thereof will be binding on us and we shall not be entitled to ask you to establish your claim or claims under Performance Guarantee but will pay the same forthwith on your demand without any protest or demur.

This Performance Guarantee shall continue and hold good until it is released by you on the application by the CONCESSIONAIRE after expiry of the relative Concession Period of the Agreement and after the CONCESSIONAIRE had discharged all his obligations under the Agreement and submitted a "No Demand Certificate" provided always that the guarantee shall in no event remain in force after the day of _____, without prejudice to your claim or claims arisen and demanded from or otherwise notified to us in writing before the expiry of three months from the said date which will be enforceable against us notwithstanding that the same is or are enforced after the said date.

Should it be necessary to extend Performance Guarantee on account of any reason whatsoever, we undertake to extend the period of Performance Guarantee on your request under intimation to the CONCESSIONAIRE till such time as may be required by you. Your decision in this respect shall be final and binding on us.

You will have the fullest liberty without affecting Performance Guarantee from time to time to vary any of the terms and conditions of the Agreement or extend the time of performance of the Agreement or to postpone any time or from time to time any of your rights or powers against the CONCESSIONAIRE and either to enforce or forbear to enforce any of the terms and conditions of the Agreement and we shall not be released from our liability under Performance Guarantee by the exercise of your liberty with reference to matters aforesaid or by reason of any time being given to the CONCESSIONAIRE or any other forbearance, act, or omission on your part or any indulgence by you to the CONCESSIONAIRE or by any variation or modification of the Agreement or any other act, matter or things whatsoever which under law relating to sureties, would but for the provisions hereof have the effect of so releasing us from our liability hereunder provided always that nothing herein contained will increase our liability hereunder beyond the limit of Rs. ____ (Rupees _____) as aforesaid or extend the period of the guarantee beyond the said day of _____ unless expressly agreed to by us in writing.

The Performance Guarantee shall not in any way be affected by your taking or giving up any securities from the CONCESSIONAIRE or any other person, firm or company on its behalf or by the winding up, dissolution, insolvency or death as the case may be of the CONCESSIONAIRE.

In order to give full effect to the guarantee herein contained, you shall be entitled to act as if we were your principal debtors in respect of all your claims against the CONCESSIONAIRE hereby guaranteed by us as aforesaid and we hereby expressly waive

all our rights of surety and other rights, if any, which are in any way inconsistent with any of the provisions of Performance Guarantee. Subject to the maximum limit of our liability as aforesaid, Performance Guarantee will cover all your claim or claims against the CONCESSIONAIRE from time to time arising out of or in relation to the Agreement and in respect of which your claim in writing is lodged on us before expiry of three months from the date of expiry of Performance Guarantee.

Any notice by way of demand or otherwise hereunder may be sent by special courier, telex, fax or registered post to our local address as aforesaid and if sent by post it shall be deemed to have been given when the same has been posted.

The Performance Guarantee and the powers and provisions herein contained are in addition to and not by way of limitation of or substitution for any other guarantee or guarantees heretofore given to you by us (whether jointly with others or alone) and now existing un-cancelled and that Performance Guarantee is not intended to and shall not revoke or limit such guarantee or guarantees.

The Performance Guarantee shall not be affected by any change in the constitution of the CONCESSIONAIRE or us nor shall it be affected by any change in your constitution or by any amalgamation or absorption thereof or therewith but will endure to the benefit of and be available to and be enforceable by the absorbing or amalgamated company or concern.

The Performance Guarantee shall come into force from the date of its execution and shall not be revoked by us any time during its currency without your previous consent in writing. We further agree and undertake to pay you the amount demanded by you in writing irrespective of any dispute or controversy between you and the CONCESSIONAIRE.

Notwithstanding anything contained herein:

- i. Our liability under this guarantee shall not exceed Rs. _____ (Rupees _____ only);**
- ii. This guarantee shall be valid upto _____; and**
- iii. We are liable to pay the guaranteed amount or any part thereof under this guarantee only and only if you serve upon us a written claim or demand at ----- (place) on or before _____ (mention period of the guarantee as found under clause ii. above plus claim period).**

We have the power to issue Performance Guarantee in your favour by statute and the undersigned has full power to execute Performance Guarantee under the Power of Attorney to him by the Bank.

Dated this _____ day of _____ 2015.

For and on behalf of

BRANCH MANAGER SEAL ADDRESS PLACE