1	PROJECT SUMMARY:		
S. No.	**Project Aspect**	**Project information**	**Details**
1	**Project Name**	Toilets for girls/ boys in schools	Under "Swach Bharat Abhiyan" using Prefab fast Track building technology. It shall be factory made which can be transported and erected at the relocation site in the fastest possible time.
2	**Scope of work**	Providing and fixing prefab building based on fast track building technology.	Toilet complex shall be consisting of water closet (1WC + 1WC), water tank, water filling pump, Septic Tank and soak pit for drainage system
3	**Land Area**	Land area for construction of toilet will be provided by the School Administration as per list provided by the client.	The followings norms shall be taken in consideration for selection of land area for toilet units: • Safety of the user • Privacy especially of the girls • Accessibility for the effective use • Location should be environmental friendly • Location of the sanitation facilities should not be contaminated with groundwater
4	**Proposed Toilets Size**	Type of the toilet units preferably either of these configurations i.e. 1 WC for boys and/or 1WC for girls.	
5	**Water Storage**	500 litre Polyethylene water storage tank for both toilet block (1WC for Boys and 1 WC for Girls)	Overhead 500 litre Polyethylene water storage tank, IS1 marked, with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes & fittings necessary and the base support for tank (upto 2.4 M. Height) with MS staging.

2. DESIGN CONSIDERATION:

• Given the scale of the project, it is practically not feasible to do the same through conventional methods and accordingly, it is proposed for prefab solution for taking up this challenge as same has been done by M/s Power Grid Corporation of India Limited (PGCIL) through M/s HPL.
• Child-friendliness is a basic guiding principle to make every small provision like a door knob, sink, taps, hooks, useful and accessible for all growing children attending the school. It is also about making the facilities neat, clean, easy to maintain and inviting enough for children to use.
• Septic Tank and soak pit shall be used for waste disposal.
• There will be one washing point in each toilet.
• Hygiene and sanitation facilities shall be simple enough to maintain, and facilities for hand washing designed, well placed and integrated into the entire package of facilities.
• Provision of sufficient water shall be made for cleaning and hand washing. The water supply point shall be arranged either by the School Authority.
• Inside surfaces shall be kept smooth.

3	**TECHNICAL DETAILS**	
1	**Type of Structure**	Toilet unit for schools. Pre-Fabricated Structure: Above the Ground - Prefab structure made of MS steel sections and wall panel shall be sandwich panels, made of two Fibre Reinforced Cement facing sheets, on either sides of a lightweight concrete core. The sub-structure i.e. foundation and plinth work will be constructed with convention technology with Plain Cement Concrete/ brick or random rubble masonry work as specified in the drawings and
2	**No. of storied**	Single storied structure.
3	**Type of Foundation**	Civil Foundation & Flooring: As per standard engineering practices:- The foundation will be upto 450 mm below & 450 mm above the NGL & shall be covered the following aspects as per drawing. A. Excavation of Earth-work & Backfilling of available excavated earth. B. Providing & Laying in Position Cement Concrete in base 1:4:8(1 Cement: 4 Coarse Sand:8 Graded Stone Aggregate 40 mm Nominal sizes). C. Plain Cement Concrete/ brick or random rubble masonry work as specified in the. D. Sand Filling up to 50 mm over compacted earth, if required
4	**Plinth**	Building plinth level shall be minimum 450mm above the existing ground level. Cement Plaster - 12 to 15mm thick mix on the exposed external Brick wall over NGL in 1: 6 (1 Cement: 6 Fine Sand) finished with Water proofing Cement Paint Snowcem or equivalent of approved shade. 1. Plinth protection of average 50 mm thick 1:5:10 and 300 mm in width (Sloping from 3 inches to 1 inch

5	**Super Structure**	Wall panel shall be made of Prefab structure made of MS steel sections and wall panel shall be sandwich panels made of two Fibre Reinforced Cement facing sheets, on either sides of a lightweight concrete core. The thickness of wall panels shall be 50 mm. The core is made from a mix of Portland cement, binders and siliceous and micaceous material aggregate. Apart from being fully cured at the factory itself, these panels have a unique tongue and groove jointing system that facilitates rapid construction with minimum effort. These wall Panels is an ideal solution for dry walls and partitions.
6	**Doors**	Mild steel door frames and shutters will be provided as per
7	**Ventilators**	Ventilators shall be made of MS sections with panels of gl. SS Louvered or open able or fixed.
8	**Flooring**	Providing and laying non- skid (mat Finished) ceramic floor tile: of size 300 X 300 mm (thickness to be specified by the manufacture r), of 1st quality conforming to IS:15622, of approved make, in all colours, shades, except white, ivory, grey, fume red brown, laid on 20mm thick cement mortar 1:4 (1 cement: 4 coarse sar d), including pointing the joints with white cement and matching pigments etc complete.
9	**Roofing**	Roof panels shall be sloped roof with appropriate rainwa ter disposal arrangement roof panel shall be made of PPGI shee ts/ Roofing: The roof shall be provided with one way slope of 1:3 ratio % ith PPGI trapezoidal colour coated sheet 0.6mm thick The roof sl all have minimum projection of 300 mm from the eaves & gable w all. The roof sheets shall be fixed on to the steel frame using Si SD screws having suitable washers.
10	**Painting Work**	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade with two or more coats on all new steel work. Colour washing such as white, green, blue or t uff to give an even shade on Nei/ work (two or more coats) wit a base coat of white washing with lime on internal surfaces. Finishing walls with acrylic smooth exterior paint of requi ed shade New work (Two or more coats applied @ 1.67 ltr/10 s qm over and including priming coat of exterior primer applied @ 2 .20 Kg/ 10 sqm) on new work.
11	**Electrical Work**	Electrical work is not required the school toilet will be use in daytime in daylight.
12	**Plumbing and Sanitory Work**	Providing & fixing PPR pipes for water supply connectil ns including all joints fixed over the surface with clamps. Providin, fixing PVC drainage pipe lines including jointing with seal ring all necessary fittings Providing & fixing Indian type squatting I an with integral footrest.
	Note:- 1. All the standards and technical specifications etc. have been taken from the MoA signed between one of our parent companies i.e. PFC and HPL. 2. Cost Estimates have been obtained from M/s HPL on the basis of the latest project executed by HPL for PGCIL in states of Bihar.	