

**SCHEDULE****RAIN WATER HARVESTING**

Rain Water Harvesting in a building includes storage or recharging into ground of rain water falling on the terrace or any paved or unpaved surface within the building site.

1. The following systems may be adopted for harvesting the rain water drain from the terrace and the paved surface.

- i) Open Well of a minimum 1.00 mt. dia. And 6 mt. in depth into which rain water may be channelled and allowed after filtration for removing silt and floating material. The well shall be provided with ventilating covers. The water from the open well may be used for non-potable domestic purposes such as washing, flushing and for watering the garden etc.
- ii) Rain water harvesting for recharge of ground water may be done through a bore well around which a pit of one metre width may be excavated up to a depth of at least 3.00 mt. and refilled with stone aggregate and sand. The filtered rain water may be channelled to the refilled pit for recharging the bore well.
- iii) An impervious surface/ underground storage tank of required capacity may be constructed in the setback or other open space and the rain water may be channelled to the storage tank. The storage tank shall always be provided with ventilating covers and shall have draw-off taps suitably placed so that the rain water may be drawn off for domestic, washing, gardening and such other purposes. The storage tanks shall be provided with an overflow.
- iv) The surplus rain water after storage may be recharged into ground through percolation pits or trenches or combination of pits and trenches. Depending on the geomorphological and topographical condition, the pits may be of the size of 1.2 mt. width X 1.2 mt. length X 2 mt. to 2.5 mt. depth. The trenches can be of 0.6 mt. width X 2 to 6mt. length X 1.5 to 2 mt depth. Terrace water shall be channelled to pits or trenches. Such pits or trenches shall be back filled with filter media comprising the following materials.
  - a) 40 mm stone aggregate as bottom layer up to 50% of the depth.

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- b) 20 mm stone aggregate as lower middle layer up to 20% of the depth.
  - c) Coarse sand as upper middle layer up to 20% of the depth.
  - d) A thin layer of fine sand as top layer.
  - e) Top 10% of the pits/trenches will be empty and a splash is to be provided in this portion in such a way that roof top water falls on the splash pad.
  - f) Brick masonry is to be constructed on the exposed surface of pits/trenches and the cement mortar plastered.  
The depth of wall below ground shall be such that the wall prevents loose soil entering into pits/trenches. The projection of the wall above ground shall at least be 15 cms.
  - g) Perforated concrete slabs shall be provided on the pits/trenches.
  - v) If the open space surrounding the building is not paved, the top layer up to a sufficient depth shall be removed and refilled with coarse sand to allow percolation of rain water into ground.
2. The terrace shall be connected to the open well/bore well/storage tank/ recharge pit/trench by means of HDPE/pvc pipes through filter media. A valve system shall be provided to enable the first washings from roof or terrace catchment, as they would contain undesirable dirt. The mouths of all pipes and opening shall be covered with mosquito (insect) proof wire net. For the efficient discharge of rain water, there shall be at least two rain water pipes of 100mm dia. mt. for a roof area of 100 sq.mt.
3. Rain water harvesting structures shall be sited as not to endanger the stability of building or earthwork. The structures shall be designed such that no dampness is caused in any part of the walls or foundation of the building or those of an adjacent building.
4. The water so collected/ recharged shall as far as possible be used for non-drinking and non-cooking purpose.
- Provided that when the rain water in exceptional circumstances will be utilized for drinking and/or cooking purpose, it shall be ensured that proper filter arrangement and the separate outlet for by

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passing the first rain-water has been provided.

Provided further that it will be ensured that for such use, proper disinfectants and the water purification arrangements have been made.



Thanking You

Yours faithfully,

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