



Kopergaon Taluka Education Society's
K.J. Somaiya Arts, Commerce and Science College,
Kopergaon

Criterion 7- Institutional Values and Best Practices

7.1: Institutional Values and Social Responsibilities

7.1.2 The Institution has facilities and initiatives for

1. Alternate sources of energy and energy conservation measures
2. Management of the various types of degradable and non- degradable waste
3. Water conservation
4. Green campus initiatives
5. Disabled-friendly, barrier free environment

Report of Water Conservation
Initiatives





Kopargaoon Taluka Education Society's
K.J. Somaiya Arts, Commerce and Science
College, Kopargaoon

Report on Water Conservation Initiatives 2018-19 to 2022-23

Introduction

Water is a finite natural resource and with growing populations and increasing demands, it's essential to manage it efficiently. Water conservation is a critical aspect of sustainable environmental management. By conserving water on college campus, our institution K.J. Somaiya College of Arts, Commerce and Science, Kopargaoon has set an example for responsible water resource management. Water conservation initiatives in college campuses are essential for promoting sustainability, reducing costs, educating the community and contributing to environmental protection efforts. Colleges play a significant role in shaping future leaders and influencers, making them ideal settings for promoting responsible water management practices.

Our college campus has undertaken several initiatives to minimize water wastage, promote efficient water usage and raise awareness about the importance of water conservation among students, faculty and staff.

Initiatives Implemented:

Installation of Water-efficient Fixtures: The College has replaced older plumbing fixtures with water-efficient alternatives such as low-flow faucets, toilets. These fixtures significantly reduce water consumption without compromising functionality.

Drought-resistant Landscaping: The landscaping around the campus has been redesigned to incorporate drought-resistant plants that require minimal irrigation. This reduces the demand for water in maintaining the campus grounds.

Rainwater Harvesting Systems: Rainwater harvesting systems have been installed across the campus to capture and store rainwater for various non-potable uses such as irrigation, flushing toilets and landscape maintenance. This initiative helps in reducing reliance on municipal water sources.

Educational Campaigns: Regular workshops, seminars, and awareness campaigns are organized to educate students, faculty and staff about water conservation practices. These

initiatives focus on simple action by which individuals can take to reduce water wastage in their daily lives.

Grey water Treatment: Grey water that have been released from sinks, showers, and laundry facilities is pretreated for reuse in activities like landscape irrigation. This initiative promotes sustainable water use by maximizing the utilization of available water resources.

Student Involvement: Students are actively involved in water conservation efforts through Green club- Water Conservation Initiatives and water Stewardship programme, NSS volunteer programs and NCC cadets dedicated to environmental sustainability. These initiatives provide students with opportunities to contribute to campus-wide conservation efforts and develop leadership skills in sustainability.

Outcomes and Benefits:

Reduced water consumption: The implementation of water-efficient fixtures and conservation measures has led to a significant reduction in overall water usage on campus.

Cost savings: By minimizing water wastage and optimizing water use, the college has achieved cost savings on water bills and maintenance expenses.

Environmental impact: The conservation initiatives have contributed to reducing the college's environmental footprint by conserving water resources and promoting sustainable practices.

Educational impact: Through educational campaigns and student involvement, the college has raised awareness about the importance of water conservation and fostered a culture of environmental responsibility among the campus community.

Conclusion:

Water conservation is a shared responsibility that requires collective action and commitment. Through a combination of infrastructure upgrades, educational initiatives, and community engagement, our college campus has made significant progress in promoting water conservation and sustainability. However, ongoing efforts and continuous improvement are essential to further enhance our impact and ensure the long-term resilience of our water resources.


Coordinator
IQAC, K. J. Somaiya College
Kopergaon, Dist. A.Nagar




Principal
K. J. Somaiya College of Arts
Commerce & Science, Kopergaon



Kopergaon Taluka Education Society's

**K. J. Somaiya College of Arts, Commerce &
Science,**

Mohanirajnagar, Kopergaon,

Dist. Ahmednagar – 423601 (Maharashtra)

Rain water harvesting Report



Index


| Sr. No. | Content |
|---------|--|
| 1 | A Concise Report of the Rain Water Harvesting Activity in the College Campus |
| 2 | Lay out Plan of Rain water Harvesting Unit |
| 3 | Photos-Rain water harvesting activity |




Rain Water Harvesting Unit:

K. J. Somaiya College of Arts, Commerce and Science situated on the bank of holy river Godavari, with Latitude of 19.873691⁰ and Longitude of 74.482107⁰. At Kopargaon there is deep soil; rock found at very deep level. Upper strata are having soil in the form of porous and holds water which is suitable for crops. The ground water occurs in the region is very hard having too much salty nature. Considering all these aspects Rainwater Harvesting Unit constructed in the college campus to fulfill the increasing need of water of college and to start the journey towards self dependent regarding need of water.

The total area of the college campus is seven acers. The campus consists of various academic buildings including 'Padmabhushan Karamsibhai Somaiya Science and Technology Bhavan', separate hostels for girls and boys, large Indoor Game Hall, Academic and Library building which allows huge roof areas to collect rain water; by considering this in the College campus in front of the '**Padmabhushan Karamsibhai Somaiya Science and Technology Bhavan**' two huge water storage concrete tanks of two lakhs capacity each are built. During rain initial water is allowed to be drained off and later after the complete cleaning of roof, water from Science and Technology building and from Indoor game hall collected and channelize into the storage tanks to avoid turbidity. Once the tanks get filled with rainwater, about four lakhs liter of water is available for use every year. The excess of rainwater after filling of tanks are further used for refilling of bores in campus. This water is used in the laboratory for practical purpose, for the plants in garden, for preparation of distil water and conductivity water in laboratory and sometimes for washrooms. So, this store water is important in order to compensate the annual need of the water. In College there is one dedicated plumber to look after the smooth functioning of the said unit.


Co ordinator
Rain Water Harvesting Unit
K. J. Somaiya College
Kopargaon, Dist. A.Nagar




Principal
K. J. Somaiya College of Arts
Commerce & Science, Kopargaon

Recharging & Refilling of Bore well

The college campus consists of various academic buildings which makes available a large roof area for collecting huge amount of rainwater. The rainwater collected by proper channels in a two concrete tanks having capacity each of with two lakhs liter. After filling these two tanks by rainwater the remaining water from roof of the buildings use further for recharging the dry bore well in the college premises. The recharging of the bore well enhances the water level to great extent and its water is beneficial in summer days for laboratory and various other activities. Apart from this some water is use from roof of the building for refilling of the bore well to increase its water level as well as to soften the hardness of bore well water to some extent. This type of recharging and refilling of bore well by rainwater gives the relief from the increased water demand of the college. This type of utilization of rainwater is very helpful for enrichment of groundwater level on earth as well as minimizes the pressure on surface water which helpful to mitigate and fulfill the increasing demands of freshwater of the college. Refilling of bore well also help to store the water which might be waste by draining off towards sea and allow us to be self-sufficient to some extent regarding the need of freshwater.





Kopargaoon Taluka Education Society's

K.J. Somaiya College of Arts, Commerce & Science

Mohanirajnagar, Kopargaoon - 423601, Dist. Ahmednagar (MH.)

Affiliated to Savitribai Phule Pune University, Pune ID No. PU/AN/ASC/07(1964)

☎ : 9146142000, 9146152000 Email ID : kjscollege@rediffmail.com, Website : kjscollege.com

NAAC ACCREDITED 'A' GRADE AN ISO 9001-2015 CERTIFIED INSTITUTE
SAVITRIBAI PHULE PUNE UNIVERSITY "BEST COLLEGE AWARD"

Principal : Dr. B. S. Yadav (M.Sc., Ph.D.)

Founder President : Late K. B. Rohamare (Ex. M.L.A.)

Ref. No. : 16/77/2016-17

Date : 20/6/2016

To,

Mr. RAHUL AUTADE
BHAJI MARKET, SHOP NO.7
KOPARGAON

Sub.: Work order for underground water storage tank of 2 lakhs litres capacity at
K.J. Somaiya College, Kopargaoon.

Dear Sir,

This is in reference to the tender submitted by you for the above said work and subsequent to the negotiations had with you in meeting dated 06/06/2016. We are pleased to award you the said work on following terms and condition as agreed by you.

1. The work is awarded as per 'B' schedule rates and estimated rates.
2. The period for completion of said work will be one calendar month from the date of work order.
3. The leakage test will be conducted and ten only 15% amount released. And remaining 05% amount will be handed over after defected liability period.
4. The defected liability period for the work will be **Twenty four Calendar months** from the date of completion of the said work order.
5. The advance 70% of cost of material received at site will be paid and deducted from R.A. bills.
6. You are hereby advised to complete the said order within 45 days of time without fail.
7. You will have to execute the work as per detailed drawings / design prepared by Architect. The change or alteration, if any, shall be carried out only after the approval of principal.
8. We reserve the right to alter, omit any item or change / modify the work.
9. Escalation of rates shall not be entertained.
10. It is the sole responsibility of the concerned contractor to provide adequate security measures for those direct & indirect involved in the said construction works till the completion of the same. In no way K.J. Somaiya College, Kopargaoon will be responsible for any mishap till the completion of work.
11. You are requested to submit a stamp paper of Rs.100/- (Rs.Hundred only) for execution of the necessary agreement immediately after receiving this work order.
12. The tender documents shall remain the part of this work.
13. You are requested to start the work immediately on receipt of this work order to complete it within the stipulated time limit.

Thanking you,




Yours,
Principal

K. J. Somaiya College of Arts
Commerce & Science, Kopargaoon



Kopargaoon Taluka Education Society's

K.J. Somaiya College of Arts, Commerce & Science

Mohanirajnagar, Kopargaoon - 423601, Dist. Ahmednagar (MH.)

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SAVITRIBAI PHULE PUNE UNIVERSITY "BEST COLLEGE AWARD"

Principal : Dr. B. S. Yadav (M.Sc., Ph.D.)

Founder President : Late K. B. Rohmare (Ex. M.L.A.)

Ref. No. : 16/76/2019-20

Date : 21/05/2019

To,
Mr. RAHUL B. AUTADE
Vira Infrastructure, Engineers & Contractor
Shop No. 23, Utility Complex,
Loni Bk., Tal. Rahata, Dist. Ahmednagar, 413736.

Sub.: Work order for Rain Water Harvesting tank (RCC) of 2 lakhs litres capacity at K.J. Somaiya College, Kopargaoon.

Dear Sir,

This is with reference to the tender submitted by you for the above said work and subsequent to the negotiations had with you in meeting dated 11/05/2019. We are pleased to award you the said work on following terms and condition as agreed by you.

1. The entire project work has been estimated and approved by both the parties inclusive of all labour charges with all materials.
2. The work is awarded as per 'B' schedule rates and estimated rates.
3. The period of completion of said work will be one calendar month from the date of work order.
4. The leakage test will be conducted and then only 15% amount released. And remaining 05% amount will be handed over after defected liability period over.
5. The defected liability period for the work will be **Twenty four Calendar months** from the date of completion of the said work order.
6. The advance 70% of cost of material received at site will be paid and deducted from R.A. bills.
7. You are hereby advised to complete the said order within 45 days of time without fail.
8. You will have to execute the work as per detailed drawings / design prepared by Architect. The change or alteration, if any, shall be carried out only after the approval of principal.
9. We reserve the right to alter, omit any item or change / modify the work.
10. Escalation of rates shall not be entertained.
11. It is the sole responsibility of the concerned contractor to provide adequate security measures for those direct & indirect involved in the said construction works till the completion of the same. In no way K.J. Somaiya College, Kopargaoon will be responsible for any mishap till the completion of work.
12. The tender documents shall remain the part of this work.
13. You are requested to start the work immediately on receipt of this work order to complete it within the stipulated time limit.

Thanking you,




Yours,
Principal
K. J. Somaiya College of Arts
Commerce & Science, Kopargaoon



Office - 23, Utility Complex, At. Loni, Tal. Rahata, Dist. Ahmednagar Pin - 413 736. email - virainfrastructure@gmail.com

Ref.

Date 05/05/2019

TO
The Principal
KJS College of kopergaon
Kopergaon

Subject :- Regarding Quotation of RCC sump capacity 2,00,000 litrs for Rain water harvesting .

Sir,

As per per our discussion we are submitting the quootaion of RCC sump of capacity 2,00,000 litrs for Rain water harvesting.

The cost of the work includes Designing & construction of Rcc sump in M-300 mix of required capacity including excavation,solling,PCC & other RCC work as per drawings provided by RCC consultant ,detailed drawing sheet is also attached .It also incudes water proofing from inner side with hydraulic test.

The cost of the work goes to Rs 6,00,000/- & GST 18% extra .

We had quooted the possible lowest rate for the work.
So please give us oppurnity to sever your institution.

Thanking you !

Your's Faithfully.

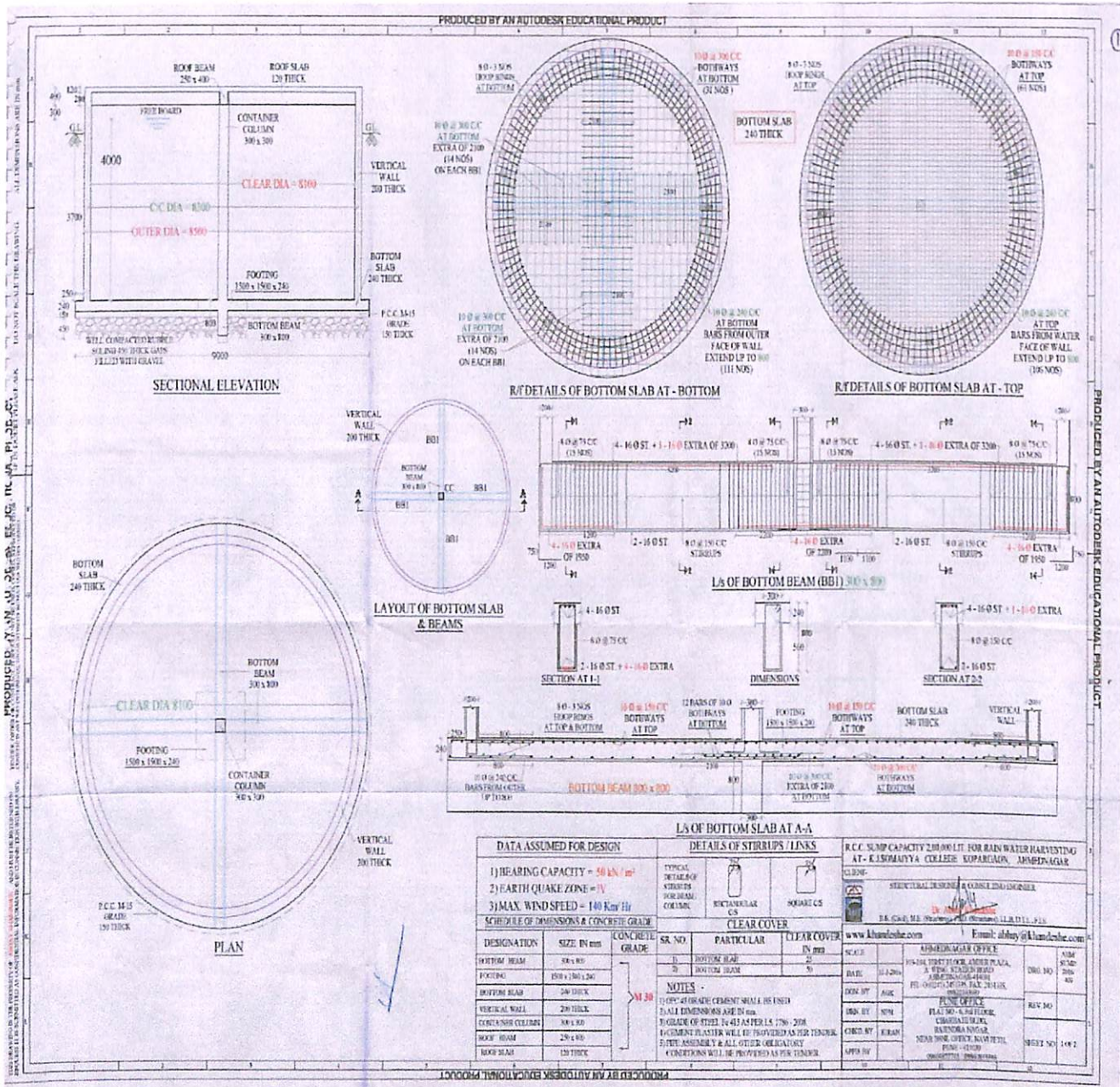
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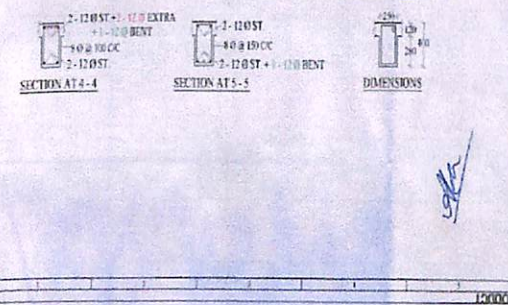
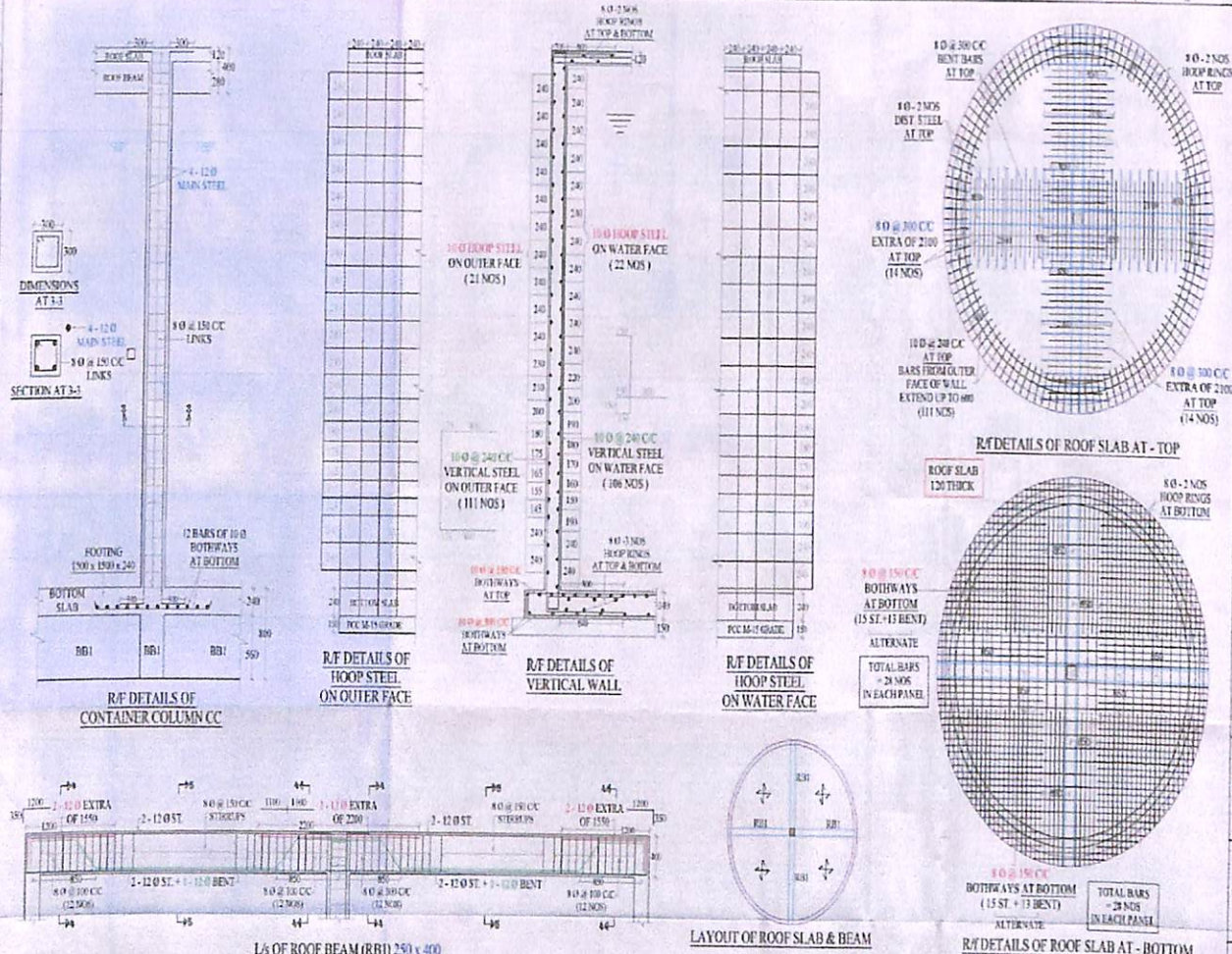


VIRA INFRASTRUCTURE
ENGINEERS & CONTRACTOR
Shop No.23,Utility Complex,Loni Bk
Tal.Rahata, Dist. Ahmednagar, 413 736



Water Tank 1 Layout





| DATA ASSUMED FOR DESIGN | | LAP LENGTH | | RCC SLAB CAPACITY 2.0000 MT FOR RAIN WATER HARVESTING AT - R/SOMAJYA COLLEGE KOPARGAON, AHMEDNAGAR | |
|---|---|----------------|---------------|--|--|
| SR | PARTICULAR | SR | PARTICULAR | SR | PARTICULAR |
| 1 | BEARING CAPACITY = 50 kN/m ² | 1 | ROOF SLAB | 1 | STRAINING DESIGN & CONSULTING ENGINEER |
| 2 | EARTH QUAKE ZONE = IV | 2 | VERTICAL WALL | 2 | www.khandeche.com |
| 3 | MAX WIND SPEED = 140 Km/Hr | 3 | ROOF BEAM | 3 | www.khandeche.com |
| SCHEDULE OF DIMENSIONS & CONCRETE GRADE | | CLEAR COVER | | SCALE | |
| DESIGNATION | SIZE IN mm | CONCRETE GRADE | SR. NO | PARTICULAR | CLEAR COVER IN mm |
| FOOTING | 1500 x 1500 x 240 | M30 | 1 | FOOTING | 50 |
| CONTAINER COLUMN | 300 x 400 | M30 | 2 | VERTICAL WALL | 25 |
| VERTICAL WALL | 200 THICK | M30 | 3 | CONTAINER COLUMN | 50 |
| ROOF BEAM | 250 x 400 | M30 | 4 | ROOF SLAB/ROOF BEAM | 25 |
| ROOF SLAB | 120 THICK | M30 | | | |

NOTES:-
 1) OPC 43 GRADE CEMENT SHALL BE USED
 2) ALL DIMENSIONS ARE IN mm.
 3) GRADE 48 STEEL IS AS PER IS: 178 - 2008

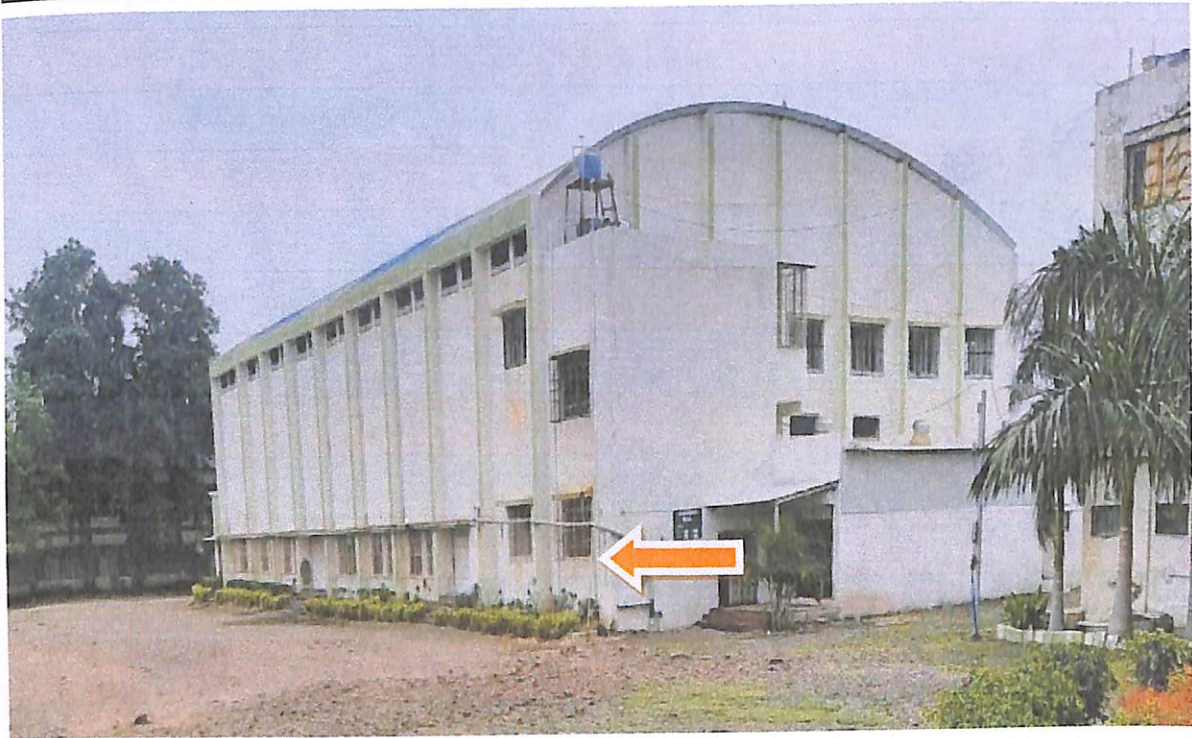
Water Tank 2 Layout





Rain water harvesting structures





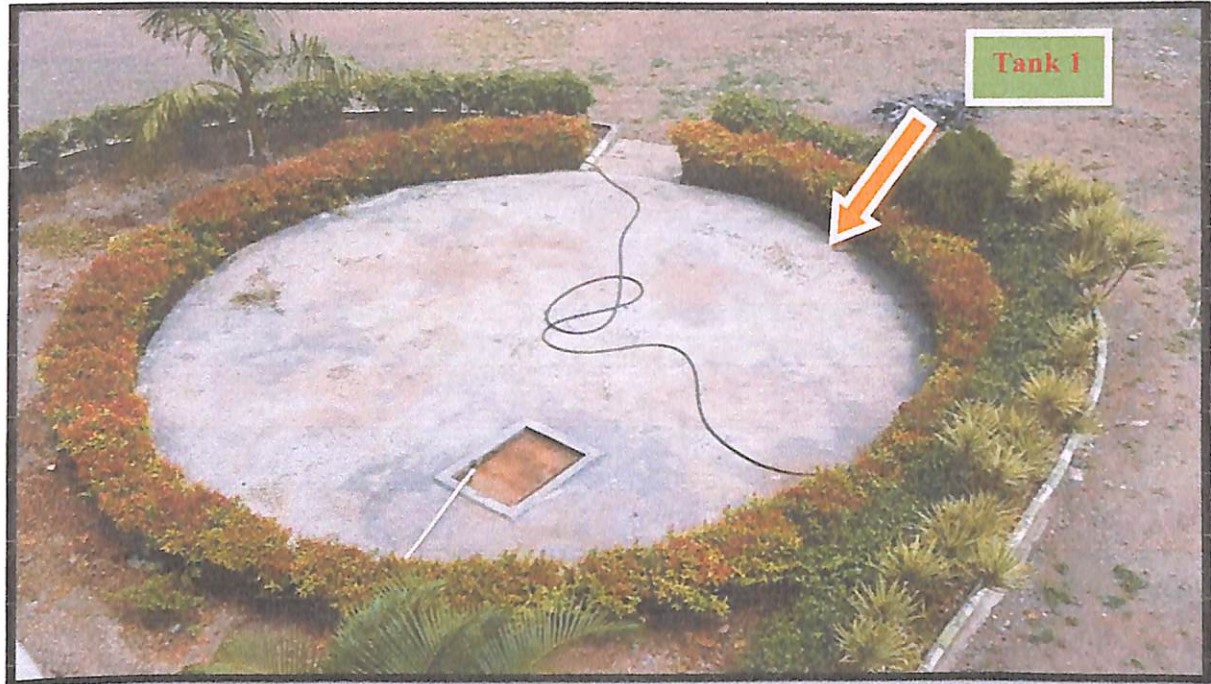
Roof water Harvesting on Roof of Indoor Game





Rain water harvesting structures





Collected Rainwater in Tank

Arthaj
 Coordinator
 IQAC, K. J. Somaiya College
 Kopergaon, Dist. A. Nagar



K. J. Somaiya
 Principal
 K. J. Somaiya College of Arts
 Commerce & Science, Kopergaon