

SNDT Women's University

Shreemati Nathibai Damodar Thackersey Women's University



NAAC SSR Criterion VII

Supporting documents

For

7.1.4 -Geotagged photographs of water conservation facilities

Index

Sr. No	Details	Page no
01	Rain water harvesting system at SNDTWU, Churchgate Campus	03
02	Rain water harvesting system at SNDTWU, Churchgate Campus	04
03	Maintenance of water bodies and distribution system in the campus	05
04	Evidence regarding construction of Ring well	06-16
05	Report on rainwater harvesting system	17-25



Rain water harvesting system at SNDTWU, Churchgate Campus



Rain water harvesting system at SNTWU, Churchgate Campus



Maintenance of water bodies and distribution system in the campus



S.N.D.T. Women's University
Mumbai Churchgate Campus

PAYMENT VOUCHER

Payment Voucher - General Payment

No.	Date	V. No.	Narration	Debit [Rs.]	Credit [Rs.]
1.	20-02-17	31948	Swami Samarth Enterprises Payment For Construction Work Of Ring Well At Sndt Women's University Churchgate As Per Bill No SSE/INV/2016-17/84 Dt. 14.12.16 Rs. 95000/-(Less TDS & Lab Cess 1% Ded On Total Amount (Estate Dept) Credit		
			1. 1389101070854. S.B - University Main A/c Date: 20-02-17, Chq. No. 197085 Favour of : Swami Samarth Enterprises	Amt. Rs. 93100.00	
			2. 1389101070854. S.B - University Main A/c Date: 20-02-17, Chq. No. 197086 Favour of : Canara Bank A/c Income Tax	Amt. Rs. 950.00	
				94050.00	94,050.00
			Debit		
			1. 7001. AL01001 Tds Payble(contractor)	Amt. Rs. 950.00	
			2. 7006. AL03002 Party Expenses	Amt. Rs. 93100.00	
				94050.00	94,050.00
			Payment Voucher - General Payment Total Rs. :	94,050.00	94,050.00

[Ninety Four Thousand Fifty Rupees Only.]

Receiver's Signature

Authorised Signature

Accountant

A. F. & A. Officer

F. & A. Officer

Registrar



SNDT WOMEN'S UNIVERSITY
1, Nathibai Thackersey Road, Churchgate, MUMBAI 400 020

Estate Dept./2016-17/139

December 27, 2016

FOR THE ORDERS OF REGISTRAR

Recommendation: Payment of expenditure for **Construction work of Ring well at SNDT Women's University, Churchgate Campus.**

As agreed & Incorporated condition in Work Order No. **REG-W.O./Misc.Work-Churchgate-2015-16/278** dated **October 28th 2015**. **M/S. Swami Samarth Enterprises** has put the first and final bill of an amount of **Rs. 95,000/-**

Please find herewith enclosed certified bill copy with copy of work order for **Construction work of Ring well at SNDT Women's University, Churchgate Campus**. Total amount of bill is **Rs. 95,000/-** Hence the total amount of bill after Reduction of 1% Labour Cess is **Rs. 94,050/-** **M/S. Swami Samarth Enterprises** has completed the work satisfactorily and the said amount can be paid to **M/S. Swami Samarth Enterprises** .

Detail of bill and copy of Work order attached for your perusal.

Measurement Book (No. 2784 to 2882)

(Pg. No. 2793R to 2793 L)

A. Kamble
27/12/16

Mr. Ashish P. Kamble
(University Engineer)

Recommended/Not Recommended

Dr. Sanjay N. Bharambe
29.12.2016
Dr. Sanjay N. Bharambe
(Registrar)

Swami Samarth Enterprises

perfect water solutions

110

INVOICE

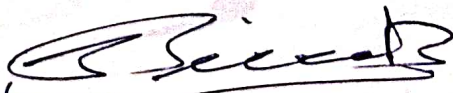
To, SNDT WOMEN'S UNIVERSITY. 1,Nathibai Thackersey Road, Churchgate, Mumbai-400020.	Date : 14/12/2016 Bill No : SSE/INV/2016/84 Work -Order : REG-W.O. Misc.Work-Churhgate-2015-16/278.
--	--

Sr. No.	Description	Amount	
		RS.	Ps.
01.	Construction of 5' ft. Dia Ringwell with 10 to 16ft. Depth Excavation work , [upto hard formation i.e. manually working conditional],ringwell completion charges ,dewatering ,rings lowering, filling stone, etc., providing RCC rings & labour charges.	95,000	00
		95,000	00

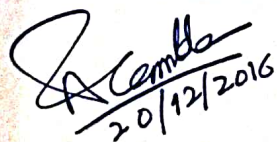
Rupees Ninety Five Thousand Only.

For SWAMI SAMARTH ENTERPRISES

Bill is fit for payment.
Subjected to deduction of 1% labour cess



Authorized Signature


20/12/2016

101-111
Payee
21934



SNDT WOMEN'S UNIVERSITY
1, Nathibai Thackersey Road, Churchgate, MUMBAI-400 020

EG-W.O./Misc.Work-Churchgate-2015-16/2-78

October 28th, 2015

D,

I/s Swami Samarth Enterprises
Room No. 27, Ground Floor,
Tapiwala Centre Opp. Station,
Doregaon (West),
Mumbai-400 062.

Sub: Work order for Construction Work of Ring Well at SNDT Women's University, Churchgate Campus

Dear Sir,

With reference to the approval and sanction dated **October 27th 2015**. We are pleased to inform you that your quotation has been sanctioned for the below said work:

Sr. No.	Work to be Done	Qty	Unit	Rate	Amount
1	Construction of 5'ft Dia. Ring well with 10 to 16ft. Depth Excavation work, (up to hard formation i.e. manually working conditional, ring well completion charges, dewatering, rings lowering, filling stone, etc. providing RCC rings & labour charges.	1.00	No.	95,000.00	95,000.00 ✓
	Total Amount				95,000.00 ✓
	Less 1% Labour Cess				950.00 ✓
	Total				94050.00 ✓
	Say Amount				94050.00 ✓

Note: 1% Labour Cess will be deducted from bills on total work cost.

In words: Rupees Ninety Four Thousand Fifty Only

Received
2/02/2016

Kim

Regards,
S. P. Badgular
3/11/15
Dr. S. P. Badgular
(Registrar)



SNDT WOMEN'S UNIVERSITY

1, Nathibai Thackersey Road, Churchgate, MUMBAI-400 020

REG-W.O./Misc.Work-Churchgate-2015-16/278

October 28th, 2015

To,

M/s Swami Samarth Enterprises
Room No. 27, Ground Floor,
Topiwala Centre Opp. Station,
Goregaon (West),
Mumbai-400 062.

Sub: Work order for Construction Work of Ring Well at SNDT Women's University, Churchgate Campus

Dear Sir,

With reference to the approval and sanction dated **October 27th 2015**. We are pleased to inform you that your quotation has been sanctioned for the below said work:

Sr. No.	Work to be Done	Qty	Unit	Rate	Amount
1	Construction of 5'ft Dia. Ring well with 10 to 16ft. Depth Excavation work, (up to hard formation i.e. manually working conditional, ring well completion charges, dewatering, rings lowering, filling stone, etc. providing RCC rings & labour charges.	1.00	No.	95,000.00	95,000.00 ✓
	Total Amount				95,000.00 ✓
	Less 1% Labour Cess				950.00 ✓
	Total				94050.00 ✓
	Say Amount				94050.00 ✓

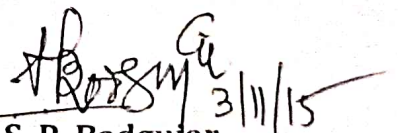
Note: 1% Labour Cess will be deducted from bills on total work cost.

In words: Rupees Ninety Four Thousand Fifty Only

Received
Swami Samarth Enterprises
02/11/15

010
Km

Regards,


Dr. S. P. Badgular
(Registrar) 3/11/15

2880

ANNEXURE

1925-
27/11**PROFORMA FOR SUBMISSION OF THE PROPOSAL FOR FINANCIAL APPROVAL**

Name of the Department: Estate

Proposal No. 110

Date: 19.10.2015

Subject: Proposal for Financial Approval for Procurement of Construction Work of Ring Well at SNTD Women's University, Churchgate Campus.

The following proposal is submitted for the Financial Approval:

A. Details of procurement (More details as per enclosures):

Sr. No.	Details of Procurement with brief Technical Specification	Qty	Estimated Cost Per Unit	Quotation/Tender /RCI Cost Per Unit	Total Cost & Remarks
1.	Construction Work of Ring Well at SNTD Women's University, Churchgate Campus.	-	-	-	95,000/-

B. Details of the Administrative Approval obtained for the Procurement:

Sr. No.	Administrative Approval Reference Number & Date	Sanctioning Authority	Budget Item code No	Amount Rs.
1.	2578/01.10.2015	Madam Vice Chancellor		96,000/-

C. Details of the Purchase procedure followed while outsourcing Services/ Purchase of stores materials equipments etc. (Xerox Copy of the Notice Inviting Quotations/Published Tender Notice/RC to be provided).

Advertisement Published Date:

Name of the Newspaper:

Sr. No.	Details of the Quotations/Tenders received & Names of Vendors	No of Unit	Rate per Unit	Total Value	Remarks
1.	M/s. Swami Samarth Enterprises	-	-	95,000.00	
2.	M/s. Shree Enterprises	-	-	1,20,000.00	
3.	M/s. Ibrahim Borewells	-	-	1,10,000.00	

D. Details of the Purchase Committee Approval obtained if any:

Sr. No.	Purchase committee Approval Meeting Resolution No. & Date	Qty	Rate/ Unit	Total Cost Incl. of all Taxes	Purchase Committee Remarks if any

E. Budget Head & Provision-Financial Year: 2015-16
Major Repairs & Renovation A000/P0110200/

a.	Budget Provision for the Current Finance Year in Rs. Fin'	57,10,000/-
b.	Cumulative Expenditure Incurred so far in Rs.	-
c.	Balance Provision available for the proposed expenditure in Rs.	57,10,000/-

F. Recommendation & justification of the HOD regarding procurement & the Acceptance of Quotation / Tender:

Sr. No.	Name of the Vendor Recommended & Particulars of Tenderers	No. of Unit	Rate per Unit	Total Value	Justification Remarks
1.	<u>M/s. Swami Samarth Enterprises</u> Construction Work of Ring Well at SNTD Women's University, Churchgate Campus.	-	-	95,000/-	Specialised Job

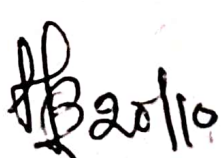
G. Any other remark of Administrative Importance for consideration of the Proposal:

I attach herewith details in original of all the Quotations / Tender Documents received along with enclosures. Further I have confirmed that the Technical & Commercial Comparative Statement is duly signed by all the members of the Quotation / Tender Opening Committee & the same are attached as enclosure.

Certified that the material proposed for purchase is required for the immediate use & I am personally satisfied that these goods proposed for purchase are of the requisite standard quality and specification & the same are being purchased from a reliable supplier. It is further certified that the recommended rates are reasonable in comparison with the current market rates.

Accountant of the Department
(Name & Designation)


UNIVERSITY ENGINEER
S.N.D.T. WOMEN'S UNIVERSITY


HoD/Principal/Director

PROFORMA FOR RECOMMENDATION OF PROPOSAL FOR FINANCIAL APPROVAL

Sub: - Proposal for the Financial Approval for Procurement of Construction Work of Ring Well at SNTD Women's University, Churchgate Campus.

Ref: Finance & Accounts Section - Proposal Inward No. 2880

The following proposal is submitted for the Financial Approval as per details provided by the HOD in the proforma prescribed for obtaining the Financial Approval:

A. Recommendation made by the concerned HOD regarding procurement & the Acceptance of Quotation/Tender:

Sr. No.	Name of the Vendor & Particulars of Procurement	No. of Unit	Rate/ Unit Rs.	Total value & Taxes Rs.	Competent Authority or Financial Approval
1.	<u>M/s. Swami Samarth Enterprises</u> Construction Work of Ring Well at SNTD Women's University, Churchgate Campus.	-	-	95,000/-	Madam Vice Chancellor

B. Remarks/Recommendation of the Finance & Accounts Section:

Financial sanction may be given for Rs 95000/- to M/s Swami Samarth Enterprises for (1) on the University budget "Major repairs & renovation recommended by civil engineer & Registrar for -

APBude
28/10/15

Ranjana
26/10/15
FINANCE & ACCOUNTS OFFICER

C. Remarks/Recommendation of the Registrar:

I do/~~do not~~ approve the proposal for the Financial Approval.

[Signature]
26/10
REGISTRAR

D. Order of the Hon. Vice Chancellor:

I do/~~do not~~ approve the proposal for the Financial Approval.

[Signature]
27/10/2015
VICE-CHANCELLOR

2578

1015
15/10/11

Annexure

S.N.D.T. WOMEN'S UNIVERSITY

1, Nathibai Thackersey Road, Mumbai - 400 020

01 OCT 2015

PROFORMA FOR SUBMISSION OF THE PROPOSAL FOR ADMINISTRATIVE APPROVAL

Proposal No. 110

Date: 29.09.2015

Subject: - Proposal for Administrative Approval for Purchase of Stores Material/ Equipment/Machinery or Outsourcing of Services etc.

The following items of store material/equipments or services are required for the Estate Department

A. Details of Purchase of Store Material/Equipment etc. (More details as per enclosures)

Sr. No.	Details of Store Material (Without Make) & Details of Required Technical Specification	Qty	Total Estimated Cost & Taxes	Procurement Plan & Present Stock
	NOT APPLICABLE			

B. Details of Outsourcing of Services (More details as per Enclosures)

Sr. No.	Particulars of Services	Period	Estimated Cost & Details of Taxes	Reasons for outsourcing services
1.	Construction Work of Ring Well at SNDT Women's University, Churchgate Campus.	2015-16	96,000/-	Specialized Job

C. Justification & need for outsourcing of Services/purchase of store material/equipment

Due to insufficient water supply from MCGM, it need to do.

D. Recommendations of the HOD regarding procurement:

Recommended

Circular guidelines - Administrative Approval - F

E. Budget Head 2015-16 Major Repairs renovation A0001P0110

(a)	Budget Provision for the Current financial Year in Rs. (Adv)	57,10,000
(b)	Cumulative Expenditure incurred so far in Rs.	-
(c)	Balance Provision available for the proposed expenditure in Rs.	57,10,000

F. Procedure to be followed while outsourcing services purchase of store materials:

- i) Sealed Quotations/tenders ii) Annual Rate Contracts (RC) iii) Purchase directly from the DGS & D or Government of Maharashtra RC

G. Any other remark of Administrative Importance

As per the Delegation of Power Administrative Approval of Madam Vice Chancellor is required for outsourcing of services/purchases as proposed above, which may be accorded for an estimated expenditure of Rs. 96,000/-

I hereby undertake to obtain approval of the Technology Committee in due course & shall submit the proposal for the approval of Purchase Committee in respect of such items where individual cost of each item exceeds Rs. 1 lakh at a time before actual procurement.

Seamla
29/09/2015

UNIVERSITY ENGINEER
S.N.D.T. WOMEN'S UNIVERSITY
CHURCHGATE - 400 020.
(Office Stamp)

Accountant of the Department

[Signature]
29/9
HOD/Principal/Director

(i) Remarks of the Finance & Accounts Officer:

Adm approval may be given for Rs 96000/- for construction work of Ring-wall at churchgate campus from the University budget head "Major Repairs renovation" as recommended by Univ Engineer & Registrar sir.

[Signature]
13/10/15
FINANCE & ACCOUNTS OFFICER

[Signature]
12/10/15

(ii) Remarks/Recommendations of the Registrar:

I do/~~do not~~ recommend the proposal for Administrative Approval

[Signature]
14/10
REGISTRAR

(iii) Order of the Hon. Vice-Chancellor:

I do/~~do not~~ approve the proposal for Administrative Approval

[Signature]
16/10/15
Vice-Chancellor

**RAINWATER HARVESTING SYSTEM FOR SNTD WOMEN'S
UNIVERSITY.1,NATHABAI THACKERSEY ROAD,
CHURCHGATE, MUMBAI-400020.**

Brihan Mumbai Municipal Corporation is founded in 1888 by BMC Act. It is now over 120 years since formation. There are many improvements in Mumbai as well as in BMC since then. The area is extended from city to extended suburbs. Population has gone multiple times. Only thing that has not changed much is the reservoirs for Mumbai. There is addition of hardly two reservoirs post independence where as one of the reservoirs has rendered un-useful for drinking water purpose. There is already shortfall in water supply by BMC. It is therefore Rain Water Harvesting is introduced by Brihan Mumbai Mahanagar Palika in Mumbai for plot area more than 300 m². It is obligatory to provide the arrangement for rain water harvesting.

NEED

Brihan Mumbai Mahanagarpalika is supplying water for drinking and flushing purpose only. However due to increase in demand and shortage in the no. of reservoirs it will not be possible to provide entire water in next few years. As per standards, it is necessary to supply 180 litres of water for residential premises. However corporation can supply only 135 litres water as on today. The supply will be brought down to 90 litres within 2 to 3 years.

According to BMC, Mumbai's present water demand, 4200 MLD (Million Litres Daily) is expected to rise to 5400 MLD by 2021, today the water supply being only 3400 MLD. It will not be very long for Mumbai to come in line with Delhi, Bangalore or Chennai cities which get water every alternate or third day. As surface water sources fail to meet rising demands, ground water reserves are tapped, often to unsustainable levels. Almost all cities depending on ground water are faced with rapid depletion of their water tables. In addition to quantity,

the cities also faced problems of water quality. Dug wells or bore wells are expected to supply only salty water. The wells or bore wells, which cater for today's needs, are gradually losing the water quality as potable water. The reason being ingress of sea in soil water which is increasing gradually. The solutions are required to be worked out. So Save Water today. Water will save you tomorrow.

REASONS

Main reason for losing potable water from existing sources is linked with the development in Mumbai. Concretization of Mumbai to reduce problems of traffic has led to such a terrific situation. Mumbai has an annual rainfall of 2100 mm. However the rate of recharge of ground water is limited because more and more permeable soil surface are being converted into concrete roads & pavements. This poor recharge rate combined with heavy extraction has led to a sharp fall in water table in many areas. All the storm water is drained through SWD and nallahs to sea. This concrete has reduced percolation of water into the soil and thereby reduced the quantity and quality of sub soil water. It is thus necessary to find out the ways to improve this water quality and quantity. Rain water harvesting has a huge potential in Mumbai. With an area of 437 sqkm can harvest approximately 964.40 Billion liters annually. This amount can meet water requirement for 300 days for the entire city.

ADVANTAGES

1. Provides self-sufficiency at least reduce load on water supply.
2. Reduces the cost for pumping of ground water as it raises GWT.
3. Provides high quality water, soft and low in minerals.
4. Improves the quality of ground water through dilution when recharged to ground water.
5. Reduces soil erosion in urban areas.
6. The roof top rainwater harvesting is less expensive.
7. Rainwater harvesting systems are simple which can be adopted by individuals.
8. Roof top rainwater harvesting system is easy to construct, operate & maintain.

9. In saline coastal areas, rainwater provides good quality water and when recharged to ground water, it reduces salinity and helps in maintaining balance between the fresh saline water interface.

METHODS

The methods for harvesting rainwater are commonly referred to as "Rain water harvesting". There are two approaches to harvest water, storing of water for direct use or recharging of ground water. Water in the ground is stored in the interstices (inter-particulate spaces) of the soil or rock that forms the earth. In rain water harvesting, water is collected from roof tops and taken to the aquifers after necessary treatment like filtration, sedimentation. If it is not possible to charge the aquifers, the water can be let in the soil alongwith surface storm water to improve the ground water. Due to concretisation, there is ingress of sea water in soil. The rain water harvesting will repel the sea water. Since recharging of ground water is more feasible for the cities like Mumbai, more attention has to pay for ground water recharging aspects of water harvesting. It simply means catching and holding rain where it falls and using it. Your groundwater will be recharged. But as groundwater moves, your neighbourhood will gain too. So for best results, get all your neighbours to become rainwater harvesters as well.

LOCATION

The plot is located at SNTD WOMEN'S UNIVERSITY1,NATHIBAI THACKERSEY ROAD CHURCHGATE, MUMBAI-400020.

PLOT

The area of plot is 6000Sqm. Proposed university building is of Stilt + 8 storied . Total gross built up area of the building is 2600Sqm. The plot is fairly level. The plot will be paved and slope will be provided towards storm water drainage. All the roof top water & surface water will also direct in the same way.

NECESSARY DATA

The data required is of two types

1. Requirement of water and availability of water

2. Properties of soil

1. Requirement of water

It is necessary to have adequate knowledge of requirement of water to be arranged through rain water harvesting. All the requirements other than drinking & bathing can be relied on rainwater harvesting. Having total 800 Students and office staff, water requirement as per norms is 800×135 i.e. 108000 litres/day. Out of this drinking and bathing water will be about 800×90 i.e. 72000 litres/day. Therefore, 36000 litres/day of water from rainwater harvesting can be relied upon. For other water, sullage recycling will be advisable.

2. Properties of sub-soil

It is necessary to have adequate knowledge about the various layers of subsoil along with their physical, engineering and chemical properties. The physical and engineering properties will decide the design of the various structures for the rainwater harvesting whereas the chemical properties will decide the usefulness of water for charging aquifer through soils.

DATA AVAILABLE

As on today, no data is available. The designs are therefore based on the roof top water, which can be used for storage and surface water flowing on pavement, directly to be used for percolation in soil.

WATER AVAILABILITY

Average annual rainfall in Mumbai is 2100 mm. Total run-off from entire plot will be about 12,60,000 liters every year. Runoff from terrace of the building will be about 54,60,000 liters every year. It is proposed that the part of water from terrace can be used for storage & water from surface runoff is to be used for percolation in soil.

DESIGN

The water from rooftop can be collected through rain water down takes, gully traps and underground pipes. The same shall be passed through sedimentation tank, filtration chamber & then connect to underground ring well storage unit. The pipes are connected to ring well storage unit through filtration arrangement as shown in drawing. This water can be use for non potable purposes during monsoon period. For surface run-off on open spaces around building, water can be harvested through percolation trenches.

COLLECTING SYSTEM

For this plot, catchments will be terrace, paved & unpaved surfaces etc. All the down takes pipes are already fixed. Now at the Ground level, for the rain water down take pipe, a gully trap shall be provided. These shall be connected with inspection chambers. The water collected from the down takes to inspection chambers will then be taken to sedimentation tank & then be taken to ring well storage unit after passing through the filtration chamber provided.

First flush device should be provided to rain water pipe bottom to prevent leaves, plastic bags, paper pieces & debris from entering the system. Also, provide mesh filters at the mouth of rain water pipes.

For surface run-off on open spaces around building, water can be harvested through percolation trenches. Water flowing on pavement area can be directed to percolation trenches for percolating in the soil.

Sedimentation tank

Sedimentation tank 0.60m X 0.60m X 0.75m depth, clear dimensions shall be provided.

Filtration chamber

Filtration chamber 0.60m X 0.90m X 0.90m depth, clear dimension shall be provided before ring well storage unit.

The filtration chamber will have layers as given below:

Layers from top -

First Layer 0.15m thick Washed, cleaned fine sand

Second Layer 0.30m thick Washed, cleaned pebbles /stone aggregate 20mm size

Third layer 0.30m thick Washed, cleaned Gravels / stone aggregate 40mm size

Ring well storage unit

Ring well storage unit of size 1.50 m diameter, 6.00 m depth shall be provided.

Percolation trench

Percolation trench of 0.90m X 1.50m X 2.30m depth, clear dimensions shall be provided.

The percolation trench will have layers as given below:

Layers from top -

First Layer 0.20m thick Washed, cleaned fine sand between 1.5 to 2 mm

Second Layer 0.40m thick Washed, cleaned coarse sand

Third Layer 0.40m thick Washed, cleaned pebbles /stone aggregate 20mm size

Fourth layer 1.00m thick Washed, cleaned Gravels /stone aggregate 40mm size

The layers will be separated with fibre mesh. Percolation trenches should be of brick masonry wall 150 / 230mm thick, cement mortar plastered. Perforated concrete slabs shall be provided on the trenches.

Rainwater flowing on pavement can be percolate in soil through percolation trenches. There shall be 10'-0" deep bore for accelerating the percolation rate.

DO'S AND DON'TS

- Harvested rain water is used for direct usage or for recharging aquifers. It is most important to ensure that the rainwater caught is free pollutants. Following precautionary measures should be taken while harvesting rain water,
- Roof or terrace uses for harvesting should be clean, free from dust, algal plants etc.
- Roof should not be painted since most paints contain toxic substances and may peel off.
- Do not store chemicals, rusting iron, manure or detergent on the roof.
- Nesting of birds on the roof should be prevented.
- Terraces should not be used for toilets either by human beings or by pets.
- Provide gratings at mouth of each drainpipe on terraces to trap leaves, debris & floating material.
- Provision of first rain separator should be made to flush off first rains.
- Do not use polluted water to recharge ground water.
- Ground water should only be recharged by rainwater.
- Before recharging, suitable arrangements of filtering should be provided.
- Filter media should be cleaned before every monsoon season.

PRECAUTION

It is necessary to maintain the terrace, pavements, R.G area & other plot area clean, avoid dumping of any waste material in the premises & there should not be any leakages from sewage network in the ground to avoid contamination of ground water.

The sewage inspection chambers should be carefully constructed & plastered to eliminate possibility of leakages. The rainwater harvesting structures shall be constructed such that no dampness is caused in any part of the walls or foundation of the building or those of an adjacent building. Rainwater harvesting structures shall be

situated as not to endanger the stability of building or earthwork. The water collected / recharged shall be used for non-drinking and non cooking purpose.

LIMITATIONS

The report is limited for rainwater collected from rooftop & surface runoff flowing on pavement area.

For **Swami Samarth Enterprises**