

santosh.rana

From: Sanjeev Khandelwal <sanjeevglb@gmail.com>
Sent: Saturday, November 16, 2019 9:12 AM
To: santosh.rana@glbitm.org
Subject: Fwd: Completion of RWH project at G L Bajaj

----- Forwarded message -----

From: **Mamta Singh** <mamta.singh@force.org.in>
Date: Fri, Sep 9, 2016 at 5:38 PM
Subject: Completion of RWH project at G L Bajaj
To: <sanjeevglb@gmail.com>, <hod.ce@glbitm.org>
Cc: sanjiv <sanjiv@force.org.in>

Dear Sir,

The work rainwater harvesting at G L Bajaj has completed. On Monday my colleague will come to verify it & he will also meet you discuss for closure of RWH project.

Would request you to kindly suggest dates for Handing over of the project & Dedication ceremony. We are comfortable after 13th Sept.

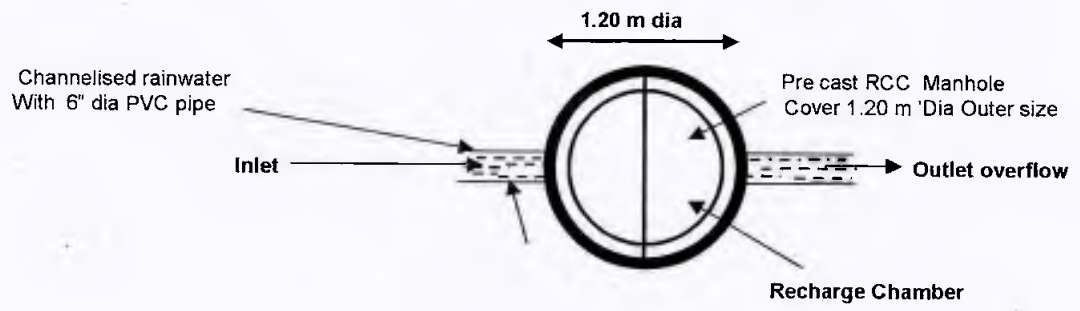
Thanks & Regards,

Mamta Singh

Program Manager

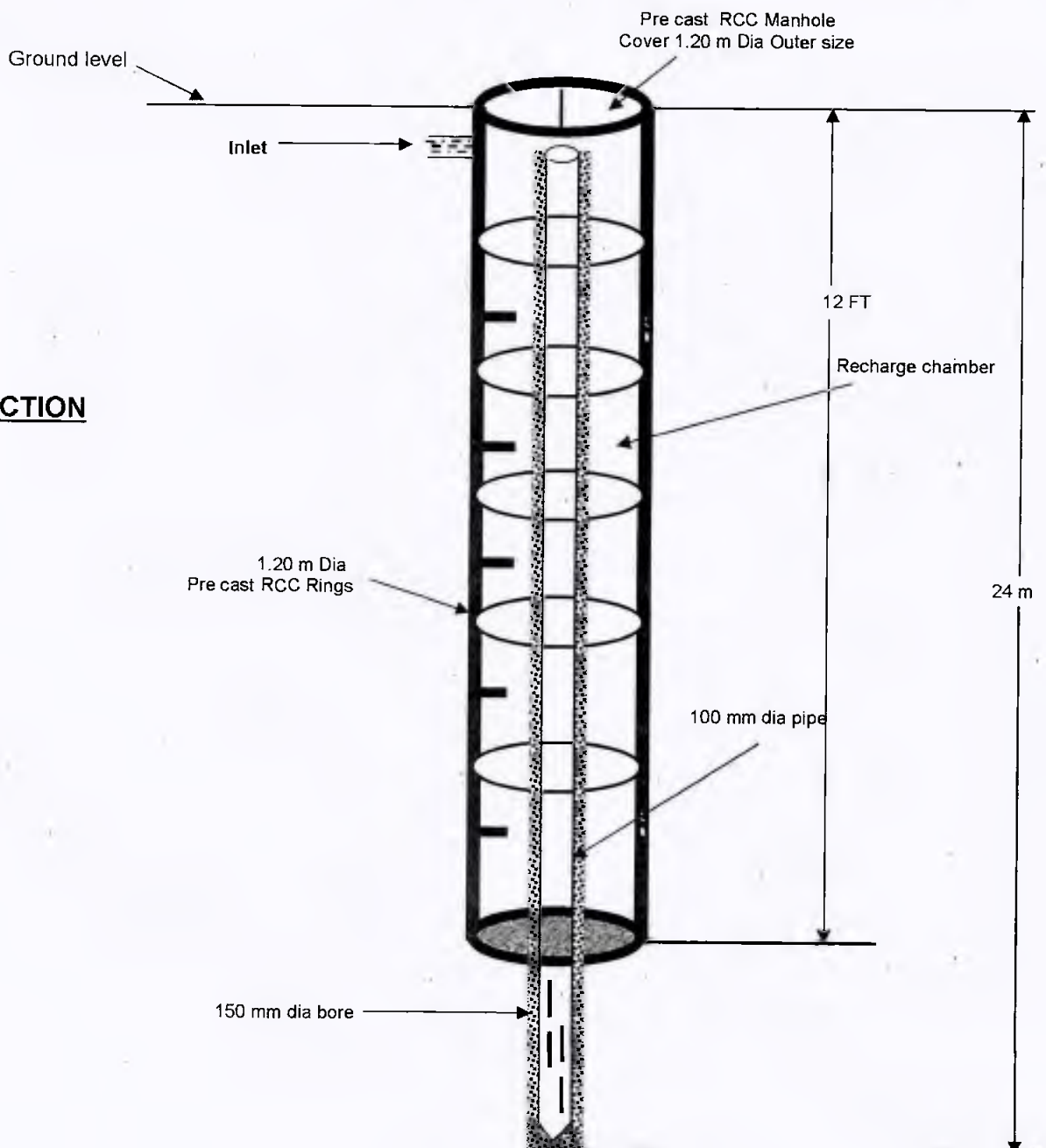
DV Water Harvesters Company

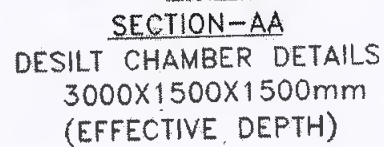
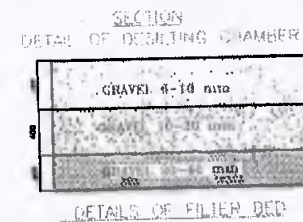
Rain water harvesting System design At GL BAJAJ



PLAN


SECTION



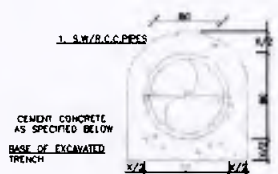


SECTION-R.R.

RAIN WATER HARVESTING (RECHARGE SHAFT)
3000 mm DIA & 3000 mm (EFFECTIVE DEPTH)

No.	Rev.	Description	Issued By	PROJECT	ARCHITECTS	SERVICES CONSULTANTS	DRAWING TITLE	Job. No.	PDS/PN/311	Drawing No.
				G.L.BAJAJ COLLEGE INSTITUTE FOR TECKNOLOGY AND MANAGEMENT K.P. III, GREATER NOIDA.	ARCHITECTS,ENGINEERS C-11B SAFDURJUNG DEVELOPMENT AREA NEW DELHI -110016	 PDS CONSULTANTS CONSULTING ENGINEERS 10-Aurovindo Apartments Near "N.C.E.R.T", Adichiri New Delhi-17-Phone 26511441 Email: info.pdsconsultants@gmail.com pds@pds@gmail.com	Job. No. Drawn by Chkd by App. by Date Scale Revisions			FIRST TIME

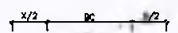
61



W = BC+X, WHERE BC IS THE EXTERNAL DIAMETER OF THE PIPE.
X = 300 UP TO TRENCH DEPTH OF 1200mm.
400 TRENCH DEPTH MORE THAN 1200mm.

DETAIL OF CONCRETE AROUND

- 1. R.C.C. PIPES**
- FOR PIPE TO BE LAID WITH THEIR CROWN AT DEPTH UP TO 1.2 m AND LESS FROM GROUND AND FOR CROWN DEPTH > 1.5 m
 - UNDER ALL ROAD CROSSINGS
 - IN SUB SOIL WATER CONDITIONS
- CEMENT CONCRETE (1:5:10)
CEMENT CONCRETE (1:3:8)
CEMENT CONCRETE (1:3:8)

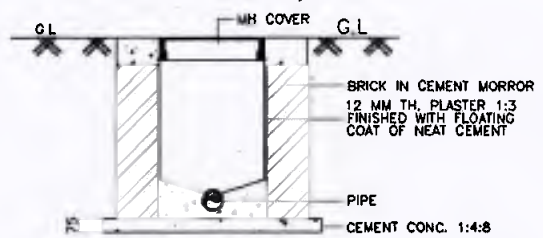


W = BC+X, WHERE BC IS THE EXTERNAL DIAMETER OF THE PIPE.
X = 300 UP TO TRENCH DEPTH OF 1200mm.
400 TRENCH DEPTH MORE THAN 1200mm.
T = 100 FOR PIPES UNDER 150, WITH INTERNAL DIA. SUBJECT TO A MIN. OF 150 AND MAX. 300 FOR PIPES MORE THAN 1500 DIA.

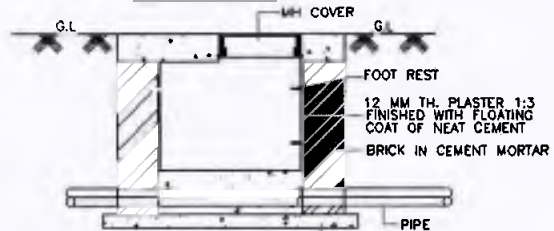
DETAIL OF CONCRETE UP TO HAUNCHES

- A.** FOR PIPE TO BE LAID WITH THEIR CROWN AT DEPTH > 1.2 m FROM GROUND AND FOR CROWN DEPTH < 1.5 m
- CEMENT CONCRETE (1:5:10)

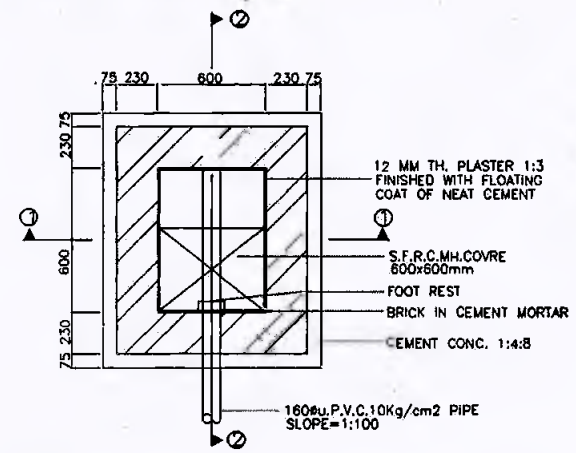
DETAIL FOR U.P.V.C./R.C.C. PIPE



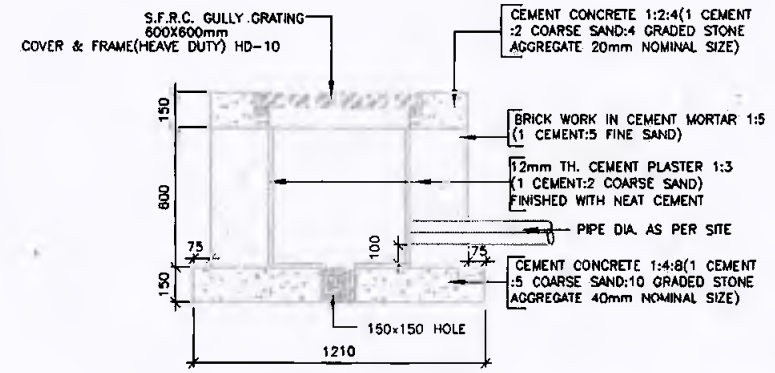
SECTION-1-1



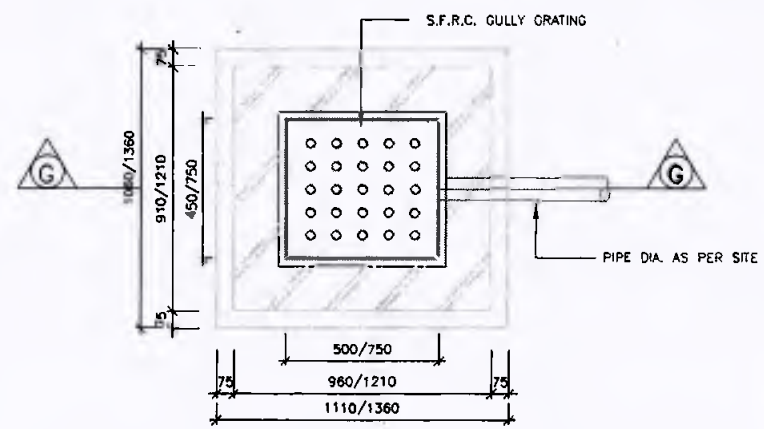
SECTION-2-2



TYPICAL DETAIL FOR MANHOLE 600X600mm

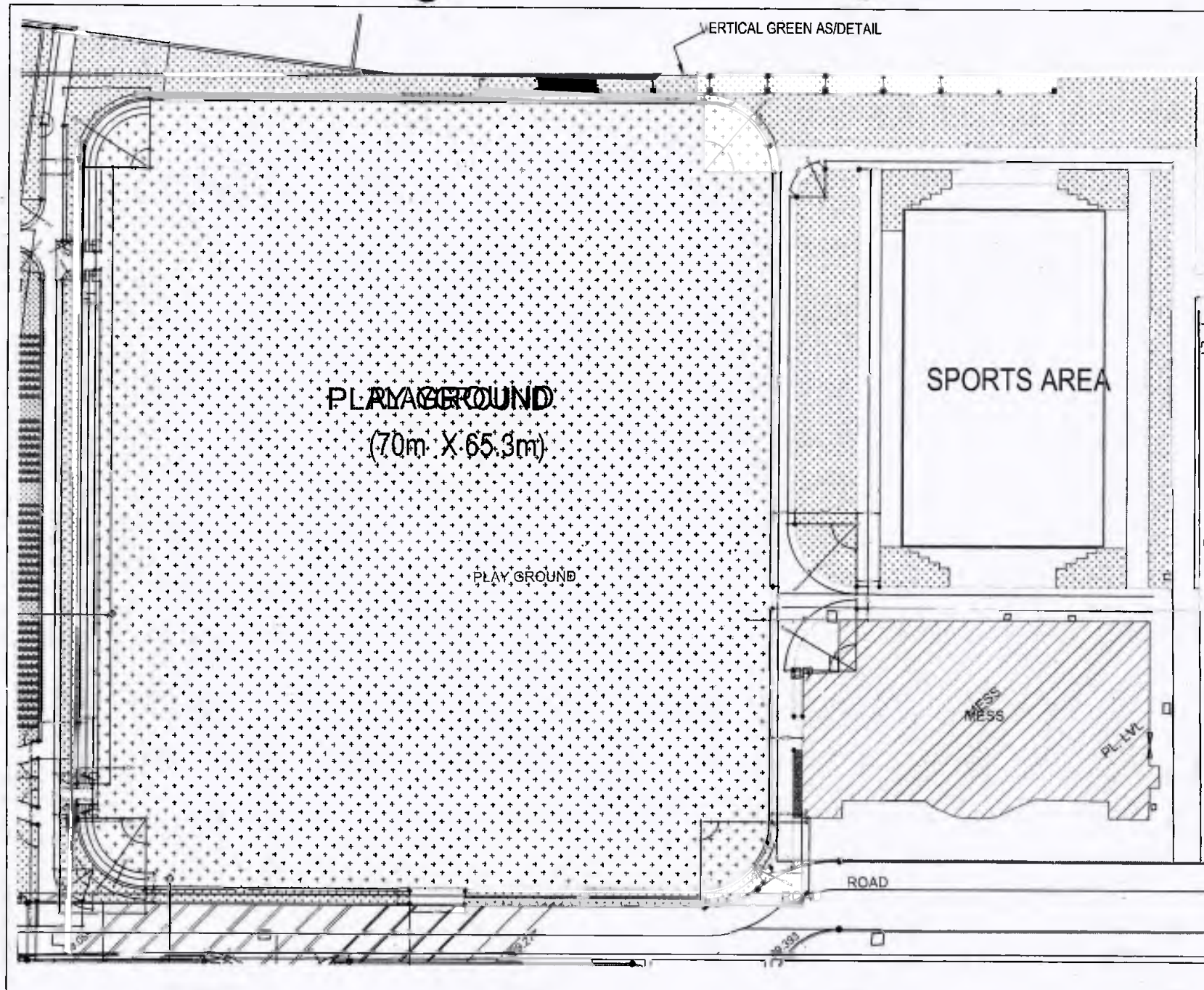


SECTION G-G



PLAN ROAD GULLY CHAMBER S.F.R.C. GRATING

Rev.	Drawn	Checked	Date	PROJECT	ARCHITECTS/ENGINEERS	SERVICES CONSULTANTS	DRAWING TITLE	Job No.	PDS/PN/311	Drawing No.
				G.L. BAJAJ COLLEGE	ARCHITECTS/ENGINEERS	PLUMBING & FIRE FIGHTING CONSULTANTS	ROAD GULLY CHAMBER S.F.R.C. GRATING			
				INSTITUTE FOR TECHNOLOGY AND MANAGEMENT	C-18 SAFOURJUNG DEVELOPMENT	PDS CONSULTANTS		Drawn by	Rahul	
				K.P. III, GREATER NOIDA.	AREA NEW DELHI-110016	CONSULTING ENGINEERS		Check by	Dilendra	
						10-Aurovinda Apartments		App. by	RAWAT	
						Near N.C.E.R.T., Adichini		Date		
						New Delhi-17-Phone 26511441		Scale		
						Email: pdsconsultants@gmail.com				
						Website: pdsconsultants.com				



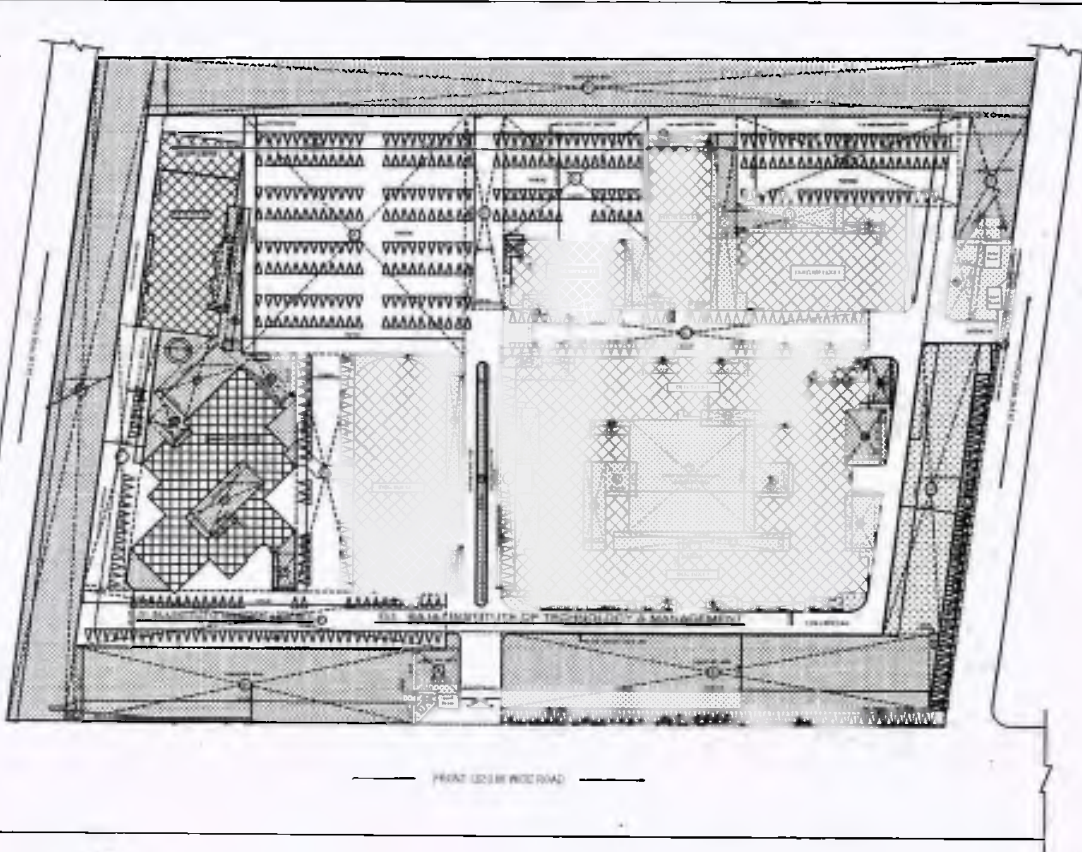
PROJECT: **SL BAJAJ G NDEA**
 DRAWING NO: **SL BAJAJ G NDEA**
 SCALE: **1:100**
 DATE: **10/10/2020**
 DRAWN BY: **RO**
 CHECKED BY: **RO**
 APPROVED BY: **RO**
 PROJECT LOCATION: **SL BAJAJ G NDEA**
 PROJECT DESCRIPTION: **PLAYGROUND SETTING OUT PLAN**
 PROJECT STATUS: **FOR APPROVAL**
 PROJECT CLIENT: **SL BAJAJ G NDEA**
 PROJECT ADDRESS: **SL BAJAJ G NDEA**
 PROJECT CONTACT: **SL BAJAJ G NDEA**
 PROJECT PHONE: **SL BAJAJ G NDEA**
 PROJECT EMAIL: **SL BAJAJ G NDEA**
 PROJECT WEBSITE: **SL BAJAJ G NDEA**
 PROJECT SOCIAL MEDIA: **SL BAJAJ G NDEA**
 PROJECT LOGO: **SL BAJAJ G NDEA**
 PROJECT SIGNATURE: **SL BAJAJ G NDEA**
 PROJECT STAMP: **SL BAJAJ G NDEA**
 PROJECT SEAL: **SL BAJAJ G NDEA**
 PROJECT KEY: **SL BAJAJ G NDEA**
 PROJECT INDEX: **SL BAJAJ G NDEA**
 PROJECT LIST: **SL BAJAJ G NDEA**
 PROJECT TABLE: **SL BAJAJ G NDEA**
 PROJECT FORM: **SL BAJAJ G NDEA**
 PROJECT SHEET: **SL BAJAJ G NDEA**
 PROJECT COVER: **SL BAJAJ G NDEA**
 PROJECT END: **SL BAJAJ G NDEA**

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TOTAL PLOT AREA - 270,400 SQ. FT. AREA 12;
 PLOT 15 TOTAL SQ. = 107,350 SQ. + 17,400 SQ. = 124,750
 AREA 12 SQ. + 10,500 SQ. = 135,250 SQ.

[illegible]

TOTAL PROPOSED LANDSCAPE AREA
= 2878.78 + 14.3152 = 2893.0952 Sqft



DARWIN: 6: ANK18:AF-18:1


FRONT LUGS BE WIDE ROAD


PARKING & LANDSCAPING PLAN

SCHEDULE OF AREAS				
3 May		Paving is due		Proposed
		to	from	
	2000 Pct Area			
	2.45-14-14.50			
	Ground Coverage	20	1,535,285	0.148 15.1
	F.A.R.		0.117 330	0.257 071

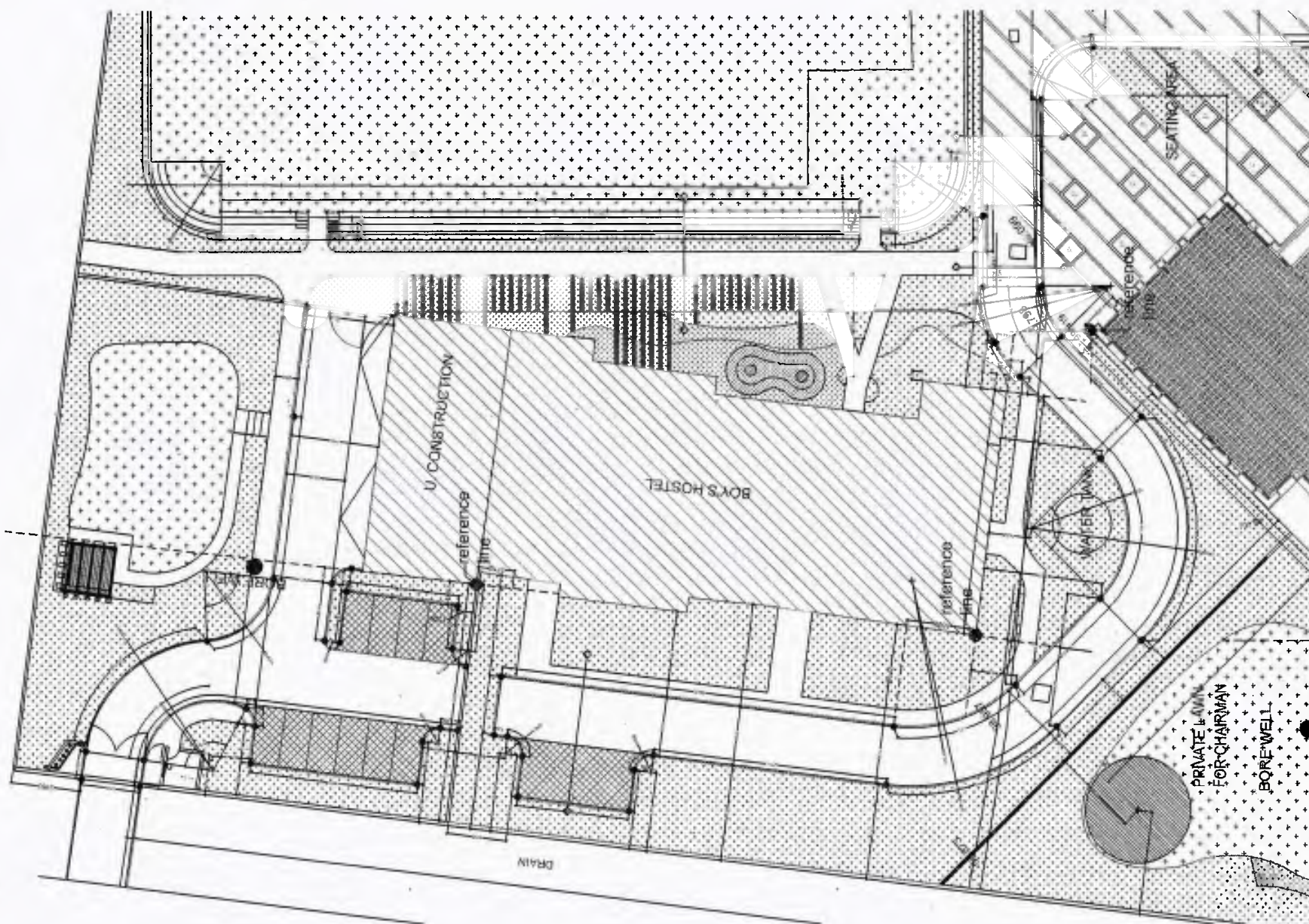
[illegible]

A = 59 39 x 64 B = 3789 40
 B = 70 57 x 51 61 = 549 51
 C = 10 65 x 78 57 = 1104 21
 D = 54 70 x 73 64 = 541 30
 E = 27 32 x 12 39 = 1218 02
 F = 55 55 x 51 06 = 785 07
 G = 43 x 46 23 = 988 63
 H = 57 4 x 15 17 = 1478 64
 I = 50 50 x 57 56 = 287 57
 J = 78 11 x 4 5 = 536 43
 K = 70 57 x 57 = 417 44

 BUILDING BLOCK

 LANDSCAPED AREA

420119ECY

[illegible]

(M)

TENTATIVE PROGRAM SCHEDULE

Particulars	Time Duration	Work Responsibilities
Welcome of Chief Guest, Special Guest & Speaker with token of respect	10:30- 10:40	G L Bajaj & FORCE
Welcome address by G L Bajaj	10:40- 10:50	G L Bajaj Spl Guest
Presentation by FORCE: Mr Sanjiv Sharma, Director on "Rainwater Harvesting & A brief description of RWH project at G L Bajaj & its long term benefit"	10:50- 11:10	FORCE
Kalash ceremony by all present	11:10 – 11:20	FORCE
Presentation by Dr Durjoy Chakraborty, Scientist, Central Ground Water Board (CGWB) on "Water Governance & Importance of Rainwater harvesting"	11:20- 11:40	FORCE
Speech by Asian Paints Ltd.	11:40- 11:50	FORCE
Open Discussion	11:50- 12:00	
Presenting Memento to the Speaker & Guest	12:00-12:10	FORCE
Vote of Thanks by FORCE & G L Bajaj	12:10- 12:15	G L Bajaj & FORCE
High Tea	12:15 onwards	G L Bajaj
Banner		FORCE

Agreement

This Agreement ("Agreement") is made and executed on this 15th day of June, 2016 between

G L BAJAJ INSTITUTE OF TECHNOLOGY & MANAGEMENT, with address at plot No. 2, Knowledge Park III, Distt. G.B.Nagar, Greater Noida, Uttar Pradesh 201306

AND

FORUM FOR ORGANISED RESOURCE CONSERVATION AND ENHANCEMENT, a registered society under the Societies Registration Act, 1860 represented herewith by its president Ms. Jyoti Sharma and having its registered office at C-8/8035, Vasant Kunj, Delhi - 110070 (hereinafter referred to as "**FORCE**" which expression shall, unless repugnant to the context or meaning thereof, be deemed to include its administrators, members, executors, successors and the permitted assigns)

The works conducted as a part of this project that is sponsored by Asian Paints are:

1. Design and implementation of 8 no. Rainwater Harvesting Structures in the institution premises.
2. Child Protection features in each system. This includes use of closed reinforced concrete cement covers.
3. Installation of 1 nos 3ft X 4 ft signboard explaining the project features and installation of 8 nos 1 ftX1.5 ft marker signboards at each site.
4. The Borewell/s made for rainwater harvesting and recharging at your site should not be used for extraction of groundwater in future.
5. In case of any damage to structure, college authority should inform FORCE and Asian Paints immediately.
6. To ensure that your rainwater harvesting system continues to perform optimally, the maintenance of rainwater harvesting system should be done regularly.
7. For the first initial year the maintenance work will be carried out by FORCE with support from Asian Paints Ltd.
8. We request for your support during the implementation of the project like in availing electricity, water etc.
9. We also request you to ensure the following for a period of atleast minimum of 5 years from handing over of project.
 - That the educational signboard put up as a part of this project is always visible on site.
 - That visiting personnel from Asian Paints are allowed to visit the site.
 - That the Rainwater Harvesting system is not demolished and is kept functional through regular maintenance.
 - That apart from the safety measures taken as a part of the project, the college will also take measures to ensure that no mishap occurs.

Classified - Confidential


DIRECTOR
G.L. Bajaj Institute of
Technology & Management
Plot No.2, Knowledge Park III
Greater Noida- 201306

APPROVED BY AICTE,
NEW DELHI, MINISTRY OF
HRD, GOVT. OF INDIA
& AFFILIATED TO
DR APJAKTU, LUCKNOW

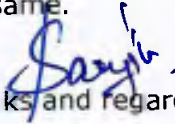
Plot No. 2, Knowledge Park III,
Greater Noida, Distt. G.B. Nagar,
U.P., India-201306

Tel: 0120-2323818 | Fax: 0120-2323817
Help Line No: 8010-000-234
Email: director@glbitm.org/registrat@glbitm.org
Website: www.glbitm.org | facebook/glbitm


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Once again, on behalf of FORCE and of the generous sponsors of the project – Asian Paints Ltd, we congratulate you on your noble initiative.

Kindly sign (with stamp) in the space indicated below to indicate your acceptance of the same.


Thanks and regards

Sanjiv Sharma
Director (Projects), FORCE
Ph: 8745017933
www.force.org.in


For – College Authority

DIRECTOR
Name: G.L. Bajaj
Designation: Institute of
Technology & Management
College Name: Plot No. 2, Knowledge Park-III
Greater Noida-201306 (U.P.)

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RAINWATER HARVESTING PROJECT 2016-17

Sponsored by Asian Paints Ltd.

Under "Project Refill"



SURVEY REPORT

For

G L BAJAJ, GREATER NOIDA



Forum for Organised Resource Conservation and Enhancement

For more information on FORCE visit our website: www.force.org.in

FORCE-C-8/8035, VasantKunj, New Delhi-110070.T: 11 46018754 M: 9899812888 email jjyoti@force.org.in

MAP SHOWING CATCHMENT AREA OF G L BAJAJ CAMPUS



MAP SHOWING RWH STRUCTURE PROPOSED



Roof Top Catchment

Desilting chamber



Storm water drains

Recharge chamber

Actual structure Implemented on the ground

Total area= 50m * 13m=650 sq. m

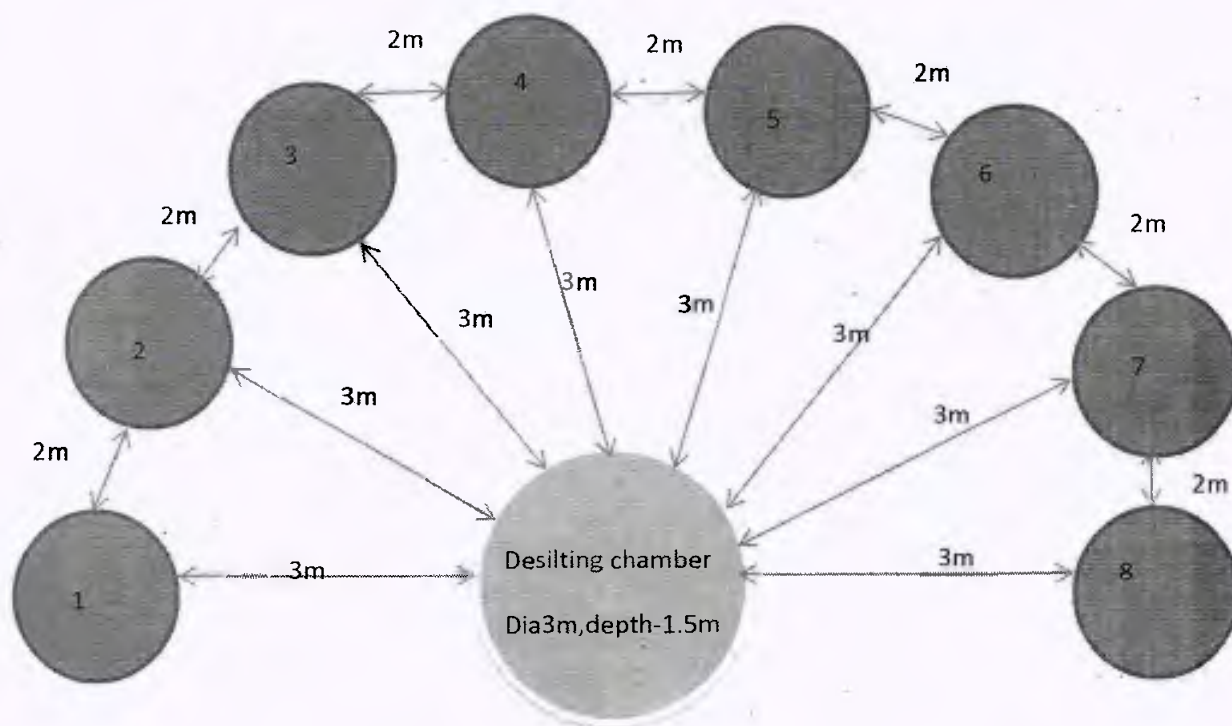
Recharge bore with filter media (1,2,3,4,5,6,7,8)

Dia-1.32m, Depth-4.16m

Total recharge str. vol.-40.73+160=200.73cu.m

Desilting vol.-1.5*(1.5)²*3.14=10.60 cu.M

Total vol.-200.73+10.60=210.60 cu. M



50 m

13.5 m

5

CALCULATION OF RECHARGE POPTENTIAL

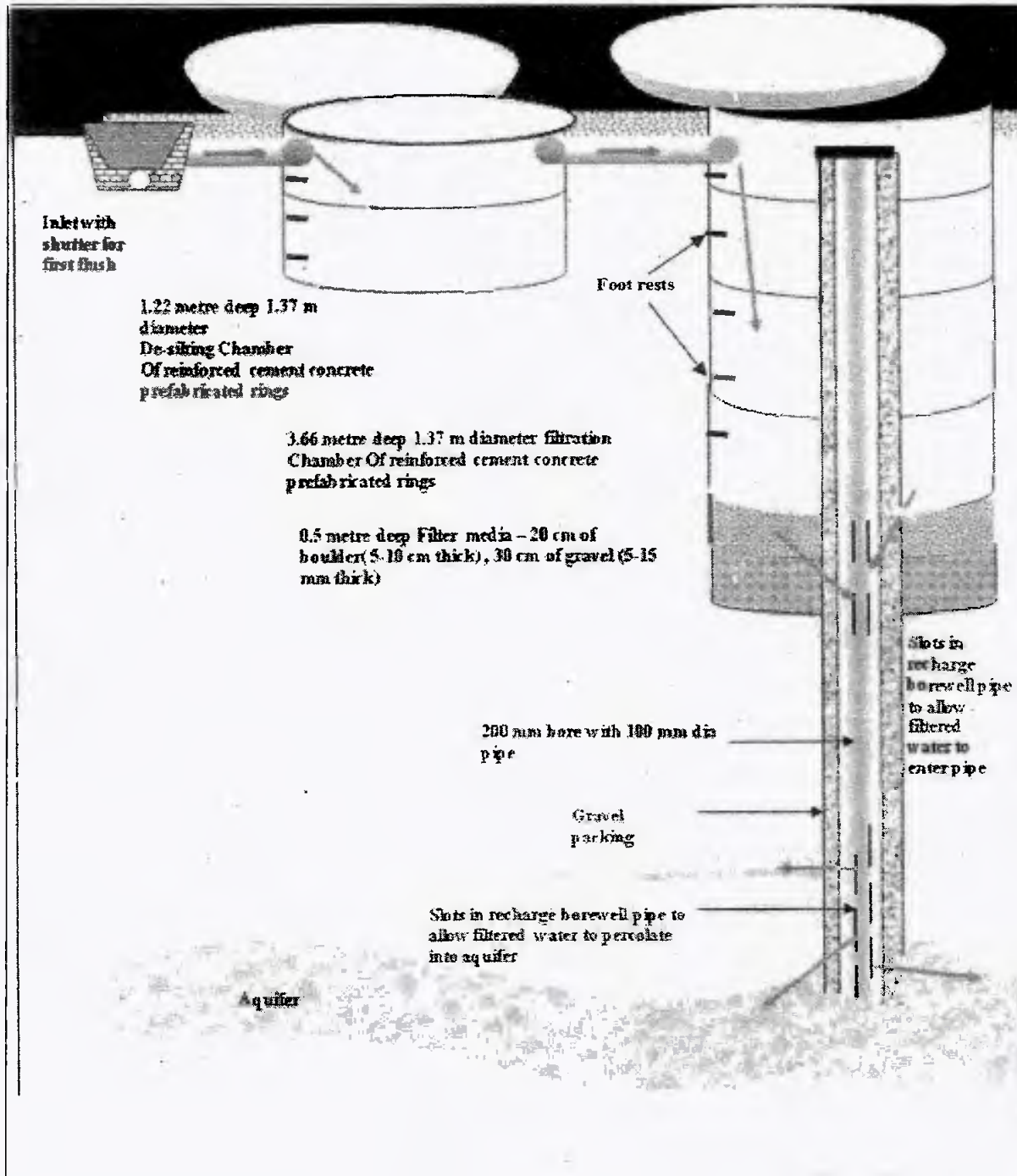
Site No.	Land use break-up	Area (sq.m)	Annual Rainfall (m)	Hourly Rainfall (m)	Coefficients	AnnualRunoff (cu.m/yr)	Hourly Runoff (cu.m/hr)
S-1 to S-8	Roof top	7251.35	0.7	0.025	0.8	4060.756	145.027
	Green	0	0.7	0.025	0.2	0	0
	Paved	4690	0.7	0.025	0.6	1969.8	70.35
	Total	11941.35				6030.556	215.377

DETAILS OF RECHARGE STRUCTURES PROPOSED

No. of structures	Location	Channelization details (pipe length & dia)
S-1 to S-8	Behind Boys hostel (Total no. of structures- 6)	30m & 6" with 3 shutter
	Total	30 m with 3 shutter

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DESIGN OF STRUCTURE PROPOSED





Date:- 3/06/2016

To,
The Director (Project)
FORCE, C-8/8035, Vasant Kunj,
New Delhi.

Subject:- Issuance of NOC for Implementation and execution of Rainwater Harvesting work.

Dear Sir/Madam,

With refer to your letter and discussed with our representative regarding issuance of NOC for execution and completion of rainwater harvesting work in our campus at G L Bajaj Institute of Technology & Management, Plot No-2, K P -3, Greater Noida.

In this regard we issue **No Objection Certificate** to you and hope you will complete the work with in time.



Dr. Rajeev Agarwal

(Director)

DIRECTOR
G.L. Bajaj Institute of
Technology & Management
Plot No.2, Knowledge Park-III
Greater Noida-201306 (U.P.)

PROPOSAL FOR RAINWATER HARVESTING

Under submission is the proposal for Rain Water Harvesting in the GLBITM, Greater Noida Campus. In this regard the Department of Civil Engineering is in receipt of details from an NGO namely Forum For Organised Resource Conservation & Enhancement (FORCE) regarding various welfare activities being carried out by FORCE. Of these, the rainwater harvesting has been found to be worth taking up. The entire expenditure for the work will be borne by ASIAN PAINTS, Kasna which has been assigned with the task of financing for the said work under Corporate Social Responsibility (CSR). I have personally seen this work in IEC-CET, Greater Noida. The work was satisfactory and it is learnt from reliable sources that the same is functioning efficiently.

Advantages:

1. We can associate student in this project during construction and functioned stage.
2. The same is to be demonstrated to the students in forth coming year as it forms the part of the syllabus for 7th semester of B. Tech. (Civil Engineering)
3. It will prove to be a welfare activity on social front as the project will contribute to conserving ground water.

The representative from 'FORCE' who met me last week, apprised that they only require 'NO OBJECTION CERTIFICATE (NOC)' from the institute for implementing the work. The format for NOC was also given by him.

Funds are available at present with ASIAN PAINTS. It is preferable that we issue NOC as early as possible so that the work could be completed within the current financial year itself. Before we issue the NOC, a meeting can be fixed with your goodself with the representatives. However, we have impressed upon the precautions to be taken during execution to enable protecting the landscaping/ beautification work carried out within institute premises.

Director Sir

P. K. Mishra
[Signature]

[Signature]

A. K. Yadav
HOD, CE

RAINWATER HARVESTING 'A SMART TECHNOLOGY'

Need towards Sustainable & Right Approach for Water Conservation

Water is our most precious natural resource and something that most of us take for granted. There are many ways to save/conserves it. RAIN WATER HARVESTING is one of them. Rainwater harvesting is a technology used for collecting and storing rainwater from the surfaces where it falls. It provides an independent water supply during regional water restrictions. It provides water when there is a drought, can help mitigate flooding of low-lying areas, and reduces demand on wells which may enable groundwater levels to be sustained.

In the 21st century the challenges are different. Cities realize that they have to depend on multiple sources of water. Groundwater and its sustainable management is a huge challenge. Water conservation encompasses the policies, strategies and activities made to manage fresh water as a sustainable resource, to protect the water environment and to meet current and future human demand. Hence, effective water governance plays the most crucial role in future developmental plan.

Water resources in particular receive growing attention given its uneven distribution in many parts of the world. Engineering solutions to address water management challenges played significant roles in the past in areas such as access to clean water and sanitation, providing water for irrigation, offering protection against floods, allowing power generation, etc. Despite their proven benefits, engineering solutions are receiving increasing criticism due to their negative environmental and societal impacts and the high cost of their implementation and operation. More reliance on ecosystem services as an alternative is often advocated as a means to achieve more sustainable water management solutions. The ultimate goal should be for finding a better balance in deploying ecosystem-based and engineering solutions together with satisfying the needs of human societies while minimizing the impacts on the ecosystems.

With respect to Water conservation techniques, understanding the hydrogeology would be an advantage for successful implementation of any civil project. Today, the need of the hour is "Smart Technology" which means when adapted to local conditions & changing environment.

With support from Asian Paints Ltd. under "Project Refill" rainwater harvesting was done in G L Bajaj Institute of Technology & Management. A total of 10 no. of structures were constructed having recharge potential of approximately 7000 KL/yr.

With the objective of making a platform for sharing the knowledge & experience this seminar have been organized to discuss in detail the process of effective rainwater harvesting plan & design with effective water governance methodology.