

**Application for Environmental Clearance  
FORM 1**

(I) BASIC INFORMATION		
1.	Name of the Project:	Shri vile parle Kelavani Mandal's Narsee Monjee Institute of Management Studies (Deemed to be university), Plot No. 5, Education City, Sarangpur, Chandigarh (U.T.)
2.	S. No. I the schedule	The Project falls in S.No. 8 (a) Building and Construction Project
3.	Proposed capacity / area / length/ tonnage to be handled / command area / lease area / number of wells to drilled	<p>The project is an educational institute over a land of 6.07 Acres. The project has been approved by Asstt. Estate Officer, U.T, Chandigarh vide proceedings No. 26547/GIII/Edu.City/2009 dated 31.03.09. Copy enclosed as Annexure-1. The layout plan and building plans have been approved vide letter No. 72380/SDO(B)/RCE-772 dated 26.09.2011. Copy enclosed as Annexure-1A. The institute will include 1. School of Business Management 2. School of Technology Management &amp; Engineering 3. School of Pharmacy &amp; Technology Management 4. School of Commerce 5. School of Architecture. NMIMS shall have 110 classrooms, 5 seminar rooms, library at two levels, auditorium, common rooms and administration area.</p> <p>The total estimated cost of the Project is Rs. 63.60 Crores as per CA certificate (Annexure-2).</p> <p>The area and project details as given by the project proponent are given below:</p>

**AREA BREAK UP AS**

Total Area	= 6.07 Acres (24592.97 Sq. M)
Total Built-Up area	= 66185.95 Sq. M
Area under parks/ green belt/grounds	= 9061.09 Sq. M
Covered Area on Ground Floor	= 8522.47 Sq. M
Area under Parking	= 12573.90 + 12573.90 + 2753.47 Sq.M = 27901.27 Sq.M



4.	New/Expansion /Modernization	New. No construction work has been started. The site photographs from four sides are attached as <b>Annexure-2A</b>
5.	Existing capacity/ Area etc	Not Applicable
6.	Category of the project ' A', 'B', 'C'	Category-B
7.	Does it attract the general conditions? If Yes, Please Specify.	No
8.	Does it attract the specific conditions? If Yes, Please Specify	No
9.	Location	Plot No. 5, Education City, Sarangpur, Chandigarh (U.T.)
	Plot/ Survey/Khasra No.	Plot No. 5
	Village	Sarangpur
	Tehsil	-
	District	-
	State	Chandigarh (U.T.)
10.	Nearest railway station / Airport along with Distance in kilometers.	Distance of Chandigarh Railway Station@ 10 Km Distance of Chandigarh AirPort@ 12 Km
11.	Nearest town/District headquarters along with distance in kilometers	The nearest town and district headquarters is Chandigarh at a distance of 4 Km
12.	Village Panchayat, Zilla Parishads, Municipal corporation , local Bodies (Complete Postal address with telephone No. to be given)	Municipal Corporation Chandigarh New Deluxe Building Sector - 17 Chandigarh
13.	Name of the applicant	Devendra Kamdar Director, Project & Administration <b>Shri vile parle Kelavani Mandal's</b> <b>Narsee Monjee Institute of Management Studies (Deemed to be university), Plot No. 5, Education City, Sarangpur, Chandigarh (U.T.)</b> (Resolution for authorized signatory enclosed along as Annexure-3)
14.	Registered address	Shri Vile Parle Kelavani Mandal Shri Bhaidas Maganlal Sabhagriha Building, Bhaktivedanta Swami Marg, Juhu Scheme, Vile Parle (West), Mumbai - 400056



15.	Address for correspondence:	
	Name	Devendra Kamdar
	Designation(owner/ Partner/CEO)	Director, Project & Administration
	Address	Devendra Kamdar Director, Project & Administration H.No. 1154, Sector 34 C Chandigarh
	Pin Code	160036
	E- Mail	kamdardm@gmail.com
	Telephone No.	9478760233
	Fax No.	--
16.	Details of alternative Sites examined, if any. Location of these sites should be shown on the topo Sheets.	No alternate site was examined, as current site/area was specifically advertized by Chandigarh Administration as Educational (institutional) purpose development.
17.	Interlinked Projects	None
18.	Whether separate application of interlinked project has been submitted?	Not Applicable
19.	If Yes, date of submission.	Not Applicable
20.	If No, reason	Not Applicable
21.	Whether the Proposal involves approval / Clearance under: If Yes , details of the same and their to be given . (a) The Forest Conservation , Act,1980 (b) the Wild life Protection Act, 1972 (c) The C.R.Z Notification, 1991.	The project site is located within 10 Km of Sukhna wild life sanctuary so the project proponent has applied to Chief Wild Life Warden for authentication of project location and recommendation/comments thereon. Copy enclosed along as <b>Annexure-4</b> . Clearance under The Forest Conservation, Act, 1980 and The C.R.Z Notification, 1991, not applicable. undertaking for same is attached along as <b>Annexure-5</b>
22.	Whether there is any government Order / policy relevant / relating to the site?	No
23.	Forest land Involved (hectare)	No forest land is involved

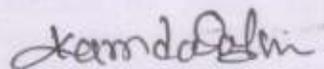
<p>24. Whether there is any litigation pending against the project and /or land in which the Projects is proposed to to be set up?  (a) Name of the court  (b) Case no.  (c) Orders / Directions of the Courts , if any and its relevance with the Project</p>	<p>No. undertaking for same is attached along as Annexure-5</p>
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(b) I hereby given the Under taking that the data and information Given in the application and enclosure are true to the best of my knowledge and in brief and belief and I am aware that if any part of the data and information submitted is found to be false or misleading at any stage, the project will be rejected and clearance give, if any to the project will be revoked at our risk and cost.

**I Further certify that no ~~further~~ construction shall be undertaken till the environmental clearance is obtained.**

Date:

Place: Chandigarh



**Signature of the applicant**

With Name and Full Address

Devendra Kamdar

Director, Project & Administration

(Project Proponent/Authorized Signatory)

H.No. 1154, Sector 34-C, Chandigarh (U.T.)

**NOTE:**

1. The project involving clearance under Coastal Regulation zone Notification, 1991 shall submit with the application a C.R.Z map duly demarcated by one of the authorized agencies, showing the project activities, w.r.t. C.R.Z (at the stage of TOR) and the recommendation of the state coastal zone Management Authority (at the stage of EC). Simultaneous action shall also be taken to obtain the requisite clearance under the provisions of the C.R.Z Notification, 1991 for the activities to be located in the CRZ.
2. The project to be located within 10 km of the National parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of wild Animals, the project proponent shall submit the map duly authenticated by chief wildlife warden showing these features vis-à-vis the project location and the recommendation or comments of the Chief wildlife warden thereon (at the stage of EC).
3. All correspondence with the Ministry of Environment & Forests including submission of application for TOR/Environmental Clearance, subsequent clarification, as may be required from time to time, **participation in the authorized signatory only. The authorized signatory should also submit a document in support of his claim of being an authorized signatory for the specific project."**



(II)		Activity	
1.	Construction, operation or decommissioning of the Project involving actions, which will cause physical changes in the locality (topography, land use, changes in water bodies, etc.		
S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
1.1	Permanent or temporary change in land use, land cover or topography including increase in intensity of land use (with respect to local land use plan)	Yes	The land earlier was lying vacant. It has now been declared an Education City. The land is allotted by Asstt. Estate Officer, U.T, Chandigarh vide proceedings No. 26547/GIII/Edu.City/2009 dated 31.03.09. Copy enclosed as Annexure-1.
1.2	Clearance of existing land, vegetation and buildings?	No	Vacant land
1.3	Creation of new land uses?	Yes	The proposed construction will conform to approved land use.
1.4	Pre-construction investigations e.g. bore houses, soil testing?	Yes	The contour plan is attached as Drawing-7; The contour varies from 97.750 to 100.185.
1.5	Construction works?	Yes	As per proposed land use given in Area Statement on Layout Plan at Drawing-5
1.6	Demolition works?	No	
1.7	Temporary sites used for construction works or housing of construction workers?	Yes	At Peak Construction Activity, the number of workers shall be @ 200 approx. A part of this work force shall be from the local area and shall not require any residential facilities. Of this @ 75 workers shall reside at the site during Peak Construction Activity over a period varying from 12-18 months.
1.8	Above ground buildings, structures or earthworks including linear structures, cut and fill or excavations	Yes	See Land Use details in Drawing-5 (layout plan) and Section-3 of Basic Information (area details chart). Excavation will be involved for laying the foundation of the building and basements. Two basements upper and lower will be provided.

from the project site. The solid waste shall be segregated to biodegradable and non-biodegradable waste in the earmarked area. The recyclable inorganic waste shall be sold to local resellers. Separate area is earmarked for handling solid waste. The biodegradable waste and non-usable (inert waste) shall be sent to dumping site of MC.

The disposal of used/discarded e-waste shall be by: Identifying appropriate vendors who are authorized by Government with demonstrated capabilities to recycle the e-waste in eco-friendly manner; ensuring that all applicable legal and statutory requirements are fulfilled for disposal of such wastes; exploring possibilities with electronics suppliers to take full cycle responsibility of the electronic goods supplied and by exploring a buy back option. Also CII-yi Chandigarh and Attero recycling, Noida launched voluntary project for e-waste management for Chandigarh city. The first stage of the project would see industries/organizations as nodal points and in second phase the project will move on to cover the residence sector and will place e-waste disposal bins in the city. Further as the e-Waste (Management & Handling) Rules, 2011 shall come into force w.e.f May 1, 2012 only responsibility of consumer is to ensure that e-waste generated by them is channelized to authorized collection centre or registered dismantler or recycler or taken back services provided by the producers. We will use their facilities.

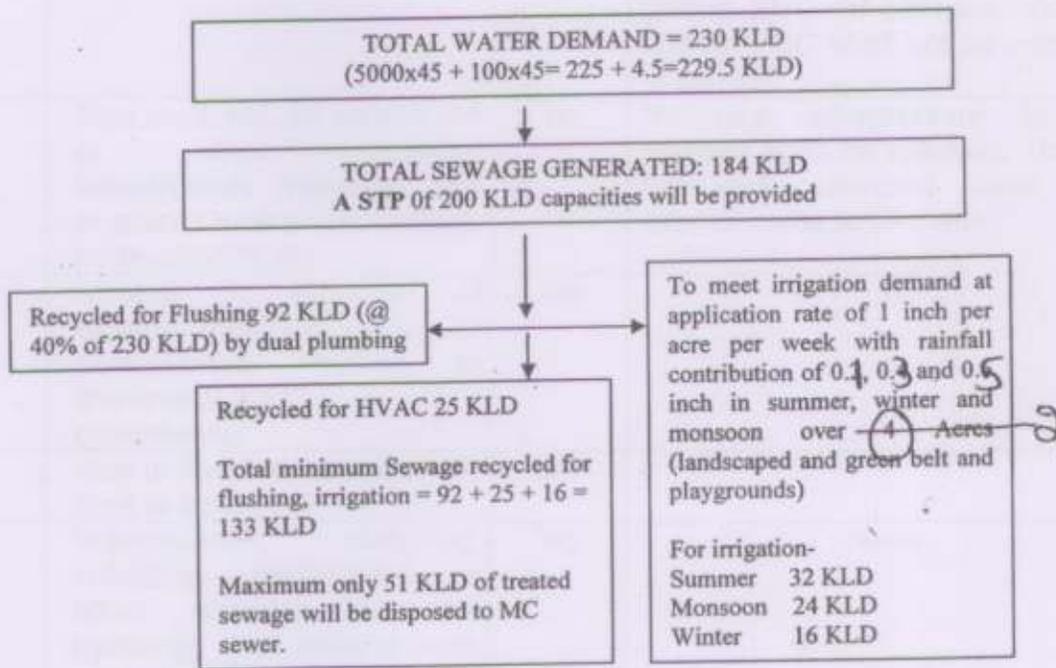
The hazardous Waste (Used oil from DG sets) shall be stored in lock and key and shall be sent to authorize resellers by CPCC.

The bio-medical waste from dispensary shall be handed over to the authorized



		<p>bio-medical waste service provider as notified by CPCC.</p> <p>The authorization under Hazardous waste and Biomedical Rules from CPCC shall be undertaken.</p> <p>For more details see waste management plan given in EMP.</p>
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### WATER BALANCE



NET WATER DEMAND: 230 KLD - 92 KLD = 138 KLD

1.16	Facilities for long term housing of operational workers?	No	No hostel/residential facility is provided.
1.17	New road, rail or sea traffic during construction or operation?	Yes	During construction phase movement of @ 30 vehicles (max.) of those supervising the work or that ferrying construction material may be there. It shall be ensured that these have PUC certificates. On completion of the project the vehicles of the staff members and the visitors may be there. Awareness program will be done for getting PUC for vehicles. Vehicles without PUC shall not be permitted in parking.
1.18	New road, rail, air waterborne or other transport infrastructure including new or altered routes and stations, ports, airports etc	No	No new infrastructure for this purpose shall be required. The site has well connected roads. Only internal roads to be made.
1.19	Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements?	No	-
1.20	New or diverted transmission lines or pipelines?	No	-
1.21	Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?	No	None
1.22	Stream crossings?	No	There is no stream crossing the site or nearby
1.23	Abstraction or transfers of water from ground or surface waters?		As explained in Water Balance net water requirement is 138 KLD. The rainwater harvesting shall be undertaken from rooftop. For the roof top area @ 5113 Sq.m, with annual average rainfall of 800 mm and assuming runoff coefficient 0.8, total runoff available is 3272.32 KL/annum. The ground water shall be recharged by providing 2 No. rain water harvesting pits to tap roof top water.

1.24	Changes in water bodies or the land surface affecting drainage or run-off?	No	
1.25	Transport of personnel or materials for construction, operation or decommissioning?	Yes	Clause-1.17, Section-II (Activity) Form-I
1.26	Long-term dismantling or decommissioning or restoration works?	No	--
1.27	Ongoing activity during decommissioning which could have an impact on the environment?	No	--
1.28	Influx of people to an area in either temporarily or permanently?	Yes	The design population of the institute is 5100, with 5000 students and 100 staff. Influx of people will be generally restricted to incoming students joining the institute every year. The development is in phases and for the area, metro network is proposed by administration. Apart from this there will be highly skilled specialized & trained Faculty & Staff for managing academic & administrative functions of the institute.
1.29	Introduction of alien species?	No	--
1.30	Loss of native species or genetic diversity?	No	--
1.31	Any other actions?	--	--
2.	Use of Natural resources for construction or operation of the Project (such as land, water, materials or energy, especially any resources which are non-renewable or in short supply):		
S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of Activity information data
2.1	Land especially undeveloped or agricultural land (ha)	No	See-Clause 1.1 Section-II of Form-I
2.2	Water (expected source & competing users) unit: KLD	Yes	See EMP, Water Balance Diagram and other Details. See section 1.23 of Section-II (Activity). This is a planned construction and there are no competing users. The water supply source is Municipal supply. See Drawing-6 for water supply.

2.3	Minerals (MT)	No	-
2.4	Construction material – stone, aggregates, sand/s oil (expected source – MT)	Yes	These materials shall be procured from authorized outlets in and around the project site. Total quantity of construction material consumed is about aggregates 14691 cum, cement 171104 bags, sand 12115 cum, bricks 346904 No., steel 2272 MT, Plywood 3063 sq.m, silverwood 58 cum
2.5	Forests and timber (source – MT)	No	The Project shall involve minimum use of timber during construction purpose. All material required for shuttering purpose shall be that of mild steel. During construction itself a mix of Particle Board (e.g. For Cupboards and Door Panels), shall be used to make minimum use of wood.
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (MT), energy (MW)	Yes	Total Energy requirements of 1840 KVA to be provided by Electricity Department. Load calculations enclosed along as Annexure: 9. Three DG sets of capacity 500 KVA are proposed for power back-up.
2.7	Any other natural resources (use appropriate standard units)	No	-
3.	Use, storage, transport, handling or production of substances or materials, which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health.		
S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
3.1	Use of substances or materials, which are hazardous (as per MSIHC rules) to human health or the environment (flora, fauna, and water supplies)	No	The proposed project is for educational purpose and does not envisage use of hazardous substances / chemicals as per MSIHC Rules
3.2	Changes in occurrence of disease or affect disease vectors (e.g. insect or water borne diseases)	No	-

3.3	Affect the welfare of people e.g. by changing living conditions?	Yes	The project shall provide direct as well as indirect employment to local people possessing relevant skills. It shall give initiative to small-scale business at local level.
3.4	Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly etc.	No	--
3.5	Any other cause	No	--
4.	Production of solid wastes during construction or operation or decommissioning (MT/month)		
S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
4.1	Spoil, overburden or mine wastes	No	The soil shall be excavated for lying of foundations & basements and shall be used for cut & fill and landscaping within campus.
4.2	Municipal waste (domestic and or commercial wastes)	Yes	<p>The construction waste shall be used in making the internal roads/floors.</p> <p>During operation phase about 1020 Kg per day of solid waste shall be generated @ 0.2 Kg/cap/day (floating population) from the project site. The solid waste shall be segregated to biodegradable and non-biodegradable waste in the earmarked area. The recyclable inorganic waste shall be sold to local resellers. Separate area is earmarked for handling of solid waste. The biodegradable waste and non- usable (inert waste) shall be sent to dumping site of MC.</p> <p>The sludge from the sewage treatment plant will be used as manure in green area inside the campus.</p> <p>The disposal of used/discarded e-waste shall be by: Identifying appropriate vendors who are</p>

	<p>authorized by Government with demonstrated capabilities to recycle the e-waste in eco-friendly manner; ensuring that all applicable legal and statutory requirements are fulfilled for disposal of such wastes; exploring possibilities with electronics suppliers to take full cycle responsibility of the electronic goods supplied and by exploring a buy back option. Also CII-yi Chandigarh and Attero recycling, Noida launched voluntary project for e-waste management for Chandigarh city. The first stage of the project would see industries/organizations as nodal points and in second phase the project will move on to cover the residence sector and will place e-waste disposal bins in the city. Further as the e-Waste (Management &amp; Handling) Rules, 2011 shall come into force w.e.f May 1, 2012 only responsibility of consumer is to ensure that e-waste generated by them is channelized to authorized collection centre or registered dismantler or recycler or taken back services provided by the producers. We will use their facilities.</p> <p>The hazardous Waste (Used oil from DG sets) shall be stored in lock and key and shall be sent to authorized resellers by CPCC.</p> <p>The bio-medical waste from dispensary shall be handed over to the authorized bio-medical waste service provider as notified by CPCC.</p> <p>The authorization under Hazardous waste and Biomedical Rules from CPCC shall be undertaken.</p> <p>For more details see waste management plan given in EMP.</p>
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4.3	Hazardous wastes (as per Hazardous Waste Management Rules)	Yes	The hazardous Waste (Used oil from DG sets) shall be stored in lock and key and shall be sent to authorized resellers by CPCC. M/s Ramky Enviro Engineers Limited, M/s Bharat Oil Company (I) Regd., M/s B.N. Concast (P) Limited, M/s Golden Petro, M/s Aggarwal .Mfg. Co.
4.4	Other industrial process wastes	No	--
4.5	Surplus product	No	--
4.6	Sewage sludge or other sludge from effluent treatment	Yes	See-Clause 4.2, Section-II (Activity) of Form-I
4.7	Construction or demolition wastes	Yes	See-Clause 4.2, Section-II (Activity) of Form-I
4.8	Redundant machinery or equipment	No	--
4.9	Contaminated soils or other materials	No	--
4.10	Agricultural wastes	No	--
4.11	Other solid wastes	No	--
5.	<b>Release of pollutants or any hazardous, toxic or noxious substances to air (Kg/hr)</b>		
S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
5.1	Emissions from combustion of fossil fuels from stationary or mobile sources	Yes	Three DG Sets of 500 KVA capacity shall be provided. These shall be run on Diesel.  These are to be used only as Standby and shall comply with emission limits as given in G.S.R. 520 (E), Environment (Protection) Amendment Rules 2003 at the manufacturing stage itself. The DG sets shall further be procured from

			agencies complying the noise emission standards at the manufacturing stage itself as per G.S.R. 371(E), the Environment (Protection) second Amendment Rules, 2002. All DG sets shall be equipped with exhaust chimney conforming to norms laid down by appropriate statutory bodies like CPCB / CPCC / MOEF
5.2	Emissions from production processes	No	--
5.3	Emissions from materials handling including storage or transport	No	--
5.4	Emissions from construction activities including plant and equipment	Yes	Dust may be generated during activities as excavation of foundation and basement. The excavation shall be done in a minimum time using machines. The vehicles which ferry construction material as sand are to be covered from top and made wet before movement and thus no dust is generated. The construction activity shall be segregated in phases to avoid any significant generation of dust. Also dust will be generated during the interiors & painting works, the Paints & adhesives used shall be of Low VOC & without lead content.
5.5	Dust or odours from handling of materials including construction materials, sewage and waste	Yes	The construction material involved shall not provide any odour. The STP is based on Activated Sludge Process and no odours shall be generated from the operation. A tree belt is further proposed along the STP boundary and Solid Waste Segregation Area to mitigate crossover of odours if any.
5.6	Emissions from incineration of waste	No	Not Applicable

5.7	Emissions from burning of waste in open air (e.g. slash materials, construction debris)	No	--
5.8	Emissions from any other sources	No	--
6.	<b>Generation of Noise and Vibration, and Emissions of Light and Heat:</b>		
S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
6.1	From operation of equipment e.g. engines, ventilation plant, crushers	Yes	<p>Unit will install three DG Sets 500 KVA capacity. The DG set will be with in-built acoustic enclosure as approved by CPCB and conforming to MoEF Notification GSR 371 (E).</p> <p>In addition the landscape plan is attached at <b>Drawing-8</b>. The project shall plant trees along the boundary, road sides and parking areas as suggested by the landscape architect. The layout is further so done that there is ample distance between roads and educational activities. The trees shall act as a buffer.</p>
6.2	From industrial or similar processes	No	Not Applicable
6.3	From construction or demolition	Yes	The noise from construction activities shall be contained within the area by providing barriers, planting trees from the very beginning. No construction activities at night shall be there. No demolition is involved.
6.4	From blasting or piling	No	Not Applicable

6.5	From construction or operational traffic	Yes	<p>The traffic during construction phase may be around only 30 vehicles in a day. This shall not have any significant impact. During the operational phase only personnel vehicles shall be used by some staff or visitors for which adequate parking is given (Drawing-9, 9A, 9B). Chandigarh Administration has also proposed MRTS for the area which may discourage use of personal vehicles. Further pick-up from nearby public bus stops shall also be provided.</p> <p>In addition adequate green area is given, so that noise impact is minimized. Also the emphasis is laid on pedestrian movement.</p> <p>A parking area of 27901.27 Sq.m is provided in basement and open parking. Total 906 cars can be parked (120 open, 393 basement 1, 393 basement 2). Further the institute shall provide pick-up from nearby public bus stops.</p>
6.6	From lighting or cooling systems	No	-
6.7	From any other sources	No	-
7.	Risks of contamination of land or water from releases of pollutants into the ground or into sewers, surface waters, groundwater, coastal waters or the sea:		
S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
7.1	From handling, storage, use or spillage of hazardous materials	No	The hazardous Waste (Used oil from DG sets) shall be stored in lock and key and shall be sent to authorized resellers by CPCC. M/s Ramky Enviro Engineers Limited, M/s Bharat Oil Company (I) Regd., M/s B.N. Concast (P) Limited, M/s Golden Petro, M/s Aggarwal Mfg. Co.

7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of discharge)	No	The sewage is treated and reused for flushing and HVAC. Excess will be discharged on 2 acres of green area within the premises. This will have characteristics as BOD <5 mg/l and shall be discharged after UV treatment. Thus this shall not add to any pollutant load.
7.3	By deposition of pollutants emitted to air into the land or into water	No	There is no point source of emission except 3 DG seta. These shall be provided with scrubber to ensure minimum emission levels.
7.4	From any other sources	No	-
7.5	Is there a risk of long term build up of pollutants in the environment from these sources?	No	As explained in 7.1 to 7.4, such risk is not expected.
8.	<b>Risk of accidents during construction or operation of the Project, which could affect human health or the environment</b>		
<b>S.No.</b>	<b>Information/Checklist confirmation</b>	<b>Yes/No</b>	<b>Details thereof (with approximate quantities /rates, wherever possible) with source of information data</b>
8.1	From explosions, spillages, fires etc from storage, handling, use or production of hazardous substances	No	There is no storage of any hazardous chemicals.
8.2	From any other causes	No	The Building shall comply with the requirements of National Building Code towards Fire Safety for multistory structures.
8.3	Could the project be affected by natural disasters causing environmental damage (e.g. floods, earthquakes, landslides, cloudburst etc)?	Yes	The area falls under Zone-IV for earthquakes. The Building is designed against Earthquakes for Zone-IV requirements as laid down in NBC. Also the lightning arrestor system will be provided for safety against cloudburst

9.	Factors which should be considered (such as consequential development) which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality		
S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
9.1	Lead to development of supporting. utilities, ancillary development or development stimulated by the project which could have impact on the environment e.g.: <ul style="list-style-type: none"> <li>• Supporting infrastructure (roads, power supply, waste or waste water treatment etc.)</li> <li>• housing development.</li> <li>• extractive industries</li> <li>• supply industries</li> <li>• other</li> </ul>	No	The project is an educational institute of international repute that will provide high end educational facilities to students and is not likely to impact the environment adversely in any manner. The project is coming in a designated area for educational institutes by Chandigarh Administration. As such any developments around are well defined.
9.2	Lead to after-use of the site, which could have an impact on the environment	No	A permanent educational institute is coming up.
9.3	Set a precedent for later developments	No	As explained above
9.4	Have cumulative effects due to proximity to other existing or planned projects with similar effects	No	The projects is planned in area are of similar nature as such measurable cumulative impacts may happen.

(III) Environmental Sensitivity			
S.No.	Areas	Name/ Identity	Aerial distance (within 15 km.) Proposed project location boundary
1	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	Yes	Sukhna wetland and wildlife sanctuary @ 6-7 Km
2	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	-	Sukhna lake approx. 7 Km
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	Yes	Sukhna lake/ wildlife sanctuary
4	Inland, coastal, marine or underground waters	No	--
5	State, National boundaries		Punjab Boundary @ 2 Km
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	No	--
7	Defense installations	Yes	Chandimandir is at a distance of 15 Km
8	Densely populated or built-up area	Yes	The nearest town is Chandigarh @ 3 Km. The demographic details and other baseline data is attached as Annexure-6.
9	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	-	500 m drawing is attached along as Drawing-4. The topographic sheet is attached along as Drawing-1. The PGIMER is at a distance of 3 Km.
10	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	--

11	Areas already subjected to pollution or environmental damage. (those where existing legal environmental standards are exceeded)	No	There is no critically polluted areas as notified by CPCB within 15 Km. as per CPCC ambient air monitoring station at PEC University of Technology, the results are SPM - 151, RSPM - 68, SO <sub>2</sub> - 2, NO <sub>x</sub> - 10. Test reports are enclosed along as Annexure: 7.
12	Areas susceptible to natural hazard which could cause the project to present environmental problems (earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions)	-	The area has not faced any natural hazard so far. Site falls in seismic zone IV.

(IV)	Proposed Terms of Reference for EIA studies
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**Shri vile parle Kelavani Mandal's Narsee Monjee Institute of Management Studies (Deemed to be university)**, is coming up at Plot No. 5, Education City, Sarangpur, Chandigarh (U.T.)

The Project falls in Category-B 8(a) - 'Construction Projects'. The project is an educational institute over a land of 6.07 Acres. The project has been approved by Asstt. Estate Officer, U.T, Chandigarh vide proceedings No. 26547/GIII/Edu.City/2009 dated 31.03.09. The institute will include 1. School of Business Management 2. School of Technology Management & Engineering 3. School of Pharmacy & Technology Management 4. School of Commerce 5. School of Architecture. NMIMS shall have 110 classrooms, 5 seminar rooms, library at two levels, auditorium, common rooms and administration area.

The total estimated cost of the Project is Rs. 63.60 Crores as per CA certificate.

It is submitted that project be granted clearance subject to compliance of proposals as laid down in EMP that include:

1. The project design population is 5100 (5000 students + 100 staff). The water demand for the project is  $(5000 \times 45 + 100 \times 45 = 225 + 4.5 = 229.5 \text{ KLD})$  say 230 KLD. Waste water @ 80% of water requirement 184 KLD will be generated. An STP of 200 KLD capacity based on activated sludge process shall be installed in basement.
2. The treated sewage shall be recycled after primary and secondary treatment including passing through dual media filter and disinfection with UV or ozone. A portion shall be recycled for flushing and HVAC. Excess will be discharged for irrigation over 2 acres of land within premises. If any excess left that will be disposed to sewer provided by U.T.
3. During operation phase about 1020 Kg per day of solid waste shall be generated @ 0.2 Kg/cap/day (floating population) from the project site. The solid waste shall be segregated to biodegradable and non-biodegradable waste in the earmarked area. The recyclable inorganic waste shall be sold to local resellers. Separate area is earmarked for handling solid waste. The biodegradable waste and non-usable (inert waste) shall be sent to dumping site of MC.



The disposal of used/discarded e-waste shall be by: Identifying appropriate vendors who are authorized by Government with demonstrated capabilities to recycle the e-waste in eco-friendly manner; ensuring that all applicable legal and statutory requirements are fulfilled for disposal of such wastes; exploring possibilities with electronics suppliers to take full cycle responsibility of the electronic goods supplied and by exploring a buy back option.

The hazardous Waste (Used oil from DG sets) shall be stored in lock and key and shall be sent to authorized resellers by CPCC.

The bio-medical waste from dispensary shall be handed over to the authorized bio-medical waste service provider as notified by CPCC.

The authorization under Hazardous waste and Biomedical Rules from CPCC shall be undertaken.

4. Provision of plantation along the boundary, roads, parks as well as providing a buffer of trees along the STP – dust capturing species as per CPCB guidelines and local varieties in consultation with Forest department

5. Provision of three Diesel Gen-sets of capacity 500 KVA for standby use only with acoustic enclosures in compliance to MoEF notification GSR 371 (E) and emission levels as per G.S.R. 520 (E), Environment (Protection) Amendment Rules 2003; Chimneys as per CPCB guidelines.

6. Provision of 2 No. Rain Water Harvesting Pit as to be approved by CGWB for tapping of rain water to recharge the aquifer. The rainwater harvesting shall be undertaken from rooftop. For the roof top area @ 5113 Sq.m, with annual average rainfall of 800 mm and assuming runoff coefficient 0.8, total runoff available is 3272.32 KL/annum.

7. Provision of Fire-fighting Measures and an Earthquake resistant structure as laid down in National Building Code and as per drawings provided

8. Of the total area of 6.07 Acres; approx. 2 acres is provided for green belt.

9. Provision of parking area of 906 (27901.27 Sq.m) is provided with parking space of 906 cars. The institute however shall provide public transport for the movement of the students and shall discourage use of personal vehicles. Pick-up will be provided from nearby public bus stops.



10. Total Energy requirements of the project are 1840 KVA. The energy requirements shall be minimized following provisions of ECBC, 2007; 40% mixing of solar lights in outside light; Use of CFL/LEDs in rooms.

11. Environmental Monitoring during the Construction and Operational Phase as per terms and Conditions imposed by Pollution Control Committee and SEIAA

12. A 5% of the project cost shall be earmarked for CSR in five year period.

Signature

( )

Name

Stamp/Seal

Address:

*Kamdar*

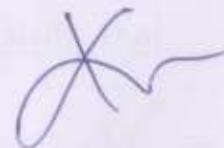
*Devendra M. Kamdar.*

*Director (Project & Administration)*

*Authorized Signatory.*

*H.No 1154, Sector 34-C, Chandigarh (U.P.)*

**SHRI VILE PARLE KELAYANI MANDAL  
JUHU DEVELOPMENT SCHEME  
VILE PARLE (WEST)  
BOMBAY 56 AS**



**FORM 1 A**

<b>FORM-1A</b>	<b>(Only for construction projects listed under item 8 of the Schedule)</b>
	<b>CHECK LIST OF ENVIRONMENTAL IMPACTS</b> (Project proponents are required to provide full information and wherever necessary attach explanatory notes with the Form and submit along with proposed environmental management plan & monitoring programme)
1.	<p><b>LAND ENVIRONMENT</b></p> <p>Will the existing land use get significantly altered from the project that is not consistent with the surroundings? (Proposed land use must conform to the approved Master Plan / Development Plan of the area. Change of land use if any and the statutory approval from the competent authority are submitted). Attach Maps of (i) site location, (ii) surrounding features of the proposed site (within 500 meters) and (iii) the site (indicating levels &amp; contours) to appropriate scales. If not available attach only conceptual plans.</p>
Reply:	<p>The following drawings are enclosed for the purpose of land use:</p> <ul style="list-style-type: none"> <li>Drawing-1 Topographic Sheet</li> <li>Drawing-2 Panoramic View</li> <li>Drawing-3 Location Plan</li> <li>Drawing-4 Location Plan with 500 m surroundings</li> <li>Drawing-5 Layout Plan</li> <li>Drawing-7 Contour Plan</li> <li>Drawing-8 Landscape Plan</li> <li>Drawing-9 Parking Plan</li> </ul> <p>The land earlier was lying vacant. It has now been declared an Education City. The land is allotted by Asstt. Estate Officer, U.T, Chandigarh vide proceedings No. 26547/GIII/Edu.City/2009 dated 31.03.09. Copy enclosed as <b>Annexure-1</b>. The layout plan and building plans have been approved vide letter No. 72380/SDO(B)/RCE-772 dated 26.09.2011. Copy enclosed as <b>Annexure-1A</b>.</p>
1.2	List out all the major project requirements in terms of the land area, built up area, water consumption, power requirement, connectivity, community facilities, parking needs etc.
Reply:	<p>The project is an educational institute over a land of 6.07 Acres.</p> <p>The project design population is 5100 (5000 students + 100 staff). The</p>



water demand for the project is  $(5000 \times 45 + 100 \times 45 = 225 + 4.5 = 229.5$  KLD) say 230 KLD. Waste water @ 80% of water requirement 184 KLD will be generated. An STP of 200 KLD capacity based on activated sludge process shall be installed in basement. The treated sewage shall be recycled after primary and secondary treatment including passing through dual media filter and disinfection with UV or ozone. A portion shall be recycled for flushing and HVAC after UF-RO treatment. Feasibility report of STP/UF-RO is attached along as Annexure-8. Also see Drawing-6A. Excess will be discharged for irrigation over 2 acres of land within premises. If any excess left that will be disposed to MC sewer.

The construction Phase water requirement varies from 15-30% of total water demand i.e 35 KLD to 70 KLD depending upon phases of construction.

Construction waste shall be recycled to the extent possible within project for flooring and roads.

During operation phase about 1020 Kg per day of solid waste shall be generated @ 0.2 Kg/cap/day (floating population) from the project site. The solid waste shall be segregated to biodegradable and non-biodegradable waste in the earmarked area. The recyclable inorganic waste shall be sold to local resellers. Separate area is earmarked for handling solid waste. The biodegradable and non-usable (inert waste) shall be sent to dumping site of MC.

The disposal of used/discarded e-waste shall be by: Identifying appropriate vendors who are authorized by Government with demonstrated capabilities to recycle the e-waste in eco-friendly manner; ensuring that all applicable legal and statutory requirements are fulfilled for disposal of such wastes; exploring possibilities with electronics suppliers to take full cycle responsibility of the electronic goods supplied and by exploring a buy back option. Also CII-yi Chandigarh and Attero recycling, Noida launched voluntary project for e-waste management for Chandigarh city. The first stage of the project would see industries/organizations as nodal points and in second phase the project will move on to cover the residence sector and will place e-waste disposal bins in the city. Further as the e-Waste (Management & Handling) Rules, 2011 shall come into force w.e.f May 1, 2012 only responsibility of consumer is to ensure that e-waste generated by them is channelized to authorized collection centre or registered dismantler or recycler or taken back services provided by the producers. We will use their facilities.

The hazardous Waste (Used oil from DG sets) shall be stored in lock and key and shall be sent to authorized resellers by CPCC.

The bio-medical waste from dispensary shall be handed over to the authorized bio-medical waste service provider as notified by CPCC.

The authorization under Hazardous waste and Biomedical Rules from CPCC shall be undertaken.

For more details see waste management plan given in EMP.

Provision of plantation along the boundary, roads, parks as well as providing a buffer of trees along the STP – dust capturing species as per CPCB guidelines and local varieties in consultation with Forest department

Provision of three Diesel Gen-sets of 500 KVA capacity for standby use only with acoustic enclosures in compliance to MoEF notification GSR 371 (E) and emission levels as per G.S.R. 520 (E), Environment (Protection) Amendment Rules 2003; Chimneys as per CPCB guidelines.

Provision of 2 No. Rain Water Harvesting wells for tapping of rain water to recharge the aquifer. The rainwater harvesting shall be undertaken from rooftop. For the roof top area @ 5113 Sq.m, with annual average rainfall of 800 mm and assuming runoff coefficient 0.8, total runoff available is 3272.32 KL/annum.

Provision of parking area of 27901.27 Sq.m is provided with parking space of two wheelers and 906 cars. The institute however shall provide public transport for the movement of the students and shall discourage use of personal vehicles. Pick up will be provided from nearby public bus stops.

Total Energy requirements of the project are 1840 KVA. See load calculations attached as Annexure-9. The energy requirements are minimized following provisions of ECBC, 2007; 40% mixing of solar lights in outside lighting; Use of CFL/LEDs in rooms.

1.3	What are the likely impacts of the proposed activity on the existing facilities adjacent to the proposed site? (Such as open spaces, community facilities, details of the existing land use, disturbance to the local ecology).
Reply:	No likely impact on adjacent facilities. The land earlier was lying vacant. It has now been declared an Education City.
1.4	Will there be any significant land disturbance resulting in erosion, subsidence & instability? (Details of soil type, slope analysis, vulnerability to subsidence, seismicity etc may be given).
Reply:	No. The contour plan is attached at Drawing-7.



1.5	Will the proposal involve alteration of natural drainage systems? (Give details on a contour map showing the natural drainage near the proposed project site)
Reply:	There is no obstruction to any natural drainage. The seasonal rivulet Patiala-ki-rao which drains the area flows at a distance of approx. 1 Km.
1.6	What are the quantities of earthwork involved in the construction activity-cutting, filling, reclamation etc. (Give details of the quantities of earthwork involved, transport of fill materials from outside the site etc?)
Reply:	The contour level of the site varies from 97.750 to 100.185. Soil to be excavated is that for foundations and basements. The soil thus excavated shall be used for cut & fill and landscaping within campus.
1.7	Give details regarding water supply, waste handling etc during the construction period
Reply:	The construction Phase water requirement varies from 15-30% of total water demand i.e 35 KLD to 70 KLD depending upon phases of construction. The workers shall be provided with toilet facilities attached to STP. The water supply source is Municipal supply. The construction waste shall be used in making the internal roads/floors.
1.8	Will the low lying areas & wetlands get altered? (Provide details of how low lying and wetlands are getting modified from the proposed activity)
Reply:	No
1.9	Whether construction debris & waste during construction cause health hazard? (Give quantities of various types of wastes generated during construction including the construction labour and the means of disposal)
Reply:	<p>No. The waste during construction shall include material as broken brick, dry plaster pieces, broken sanitary items which shall be used within as in lying down floors, internal road. The pieces of iron shall be sold to Kabadis.</p> <p>The hazardous Waste (Used oil from DG sets) shall be stored in lock and key and shall be sent to authorized resellers by CPCC.</p> <p>The bio-medical waste from dispensary shall be handed over to the authorized bio-medical waste service provider as notified by CPCC.</p> <p>The authorization under Hazardous waste and Biomedical Rules from CPCC shall be undertaken.</p> <p>For more details see waste management plan given in EMP.</p>

2.	WATER ENVIRONMENT
2.1	Give the total quantity of water requirement for the proposed project with the breakup of requirements for various uses. How will the water requirement met? State the sources & quantities and furnish a water balance statement.
Reply:	There shall be a domestic water demand of 230 KL/day of which net demand after recycling is 138 KLD. Water Balance Diagram is given in Form-I
2.2	What is the capacity (dependable flow or yield) of the proposed source of water?
Reply:	The source of water supply is MC.
2.3	What is the quality of water required, in case, the supply is not from a municipal source? (Provide physical, chemical, biological characteristics with class of water quality)
Reply:	The water in the area conforms to the requirements of IS:10500. See test reports attached at Annexure-7.
2.4	How much of the water requirement can be met from the recycling of treated wastewater? (Give the details of quantities, sources and usage)
Reply:	See Water Balance Diagram in Form-I. The 184 KLD of sewage generated shall be treated and recycled for flushing, HVAC and irrigation. Feasibility report of STP/UF-RO attached as Annexure-8.
2.5	Will there be diversion of water from other users? (Please assess the impacts of the project on other existing uses and quantities of consumption)
Reply:	No
2.6	What is the incremental pollution load from wastewater generated from the proposed activity? (Give details of the quantities and composition of wastewater generated from the proposed activity)
Reply:	The waste water shall be sewage with BOD in the range of 180-250 mg/l. About 184 Kl/day of sewage shall be generated on full occupation which shall be recycled for irrigation after secondary treatment and flushing after tertiary treatment. The BOD of this shall be less than 5 mg/l. As minimal discharge of sewage will be done outside to MS sewer, the impact is negligible.

2.7	Give details of the water requirements met from water harvesting? Furnish details of the facilities created.
Reply:	2 No. RWH structures are proposed. The rainwater harvesting shall be undertaken from rooftop. For the roof top area @ 5113 Sq.m, with annual average rainfall of 800 mm and assuming runoff coefficient 0.8, total runoff available is 3272.32 KL/annum.
2.8	What would be the impact of the land use changes occurring due to the proposed project on the runoff characteristics (quantitative as well as qualitative) of the area in the post construction phase on a long term basis? Would it aggravate the problems of flooding or water logging in any way?
Reply:	No. The change in land use does not alter natural run-off. The storm water drains are being provided in the area. Also see services plan attached as Drawing-6.
2.9	What are the impacts of the proposal on the ground water? (Will there be tapping of ground water; give the details of ground water table, recharging capacity, and approvals obtained from competent authority, if any)
Reply:	The water demand shall be met through Municipal Supply thus there is no direct impact on ground water. However ground water recharging through 2 No. rain water harvesting wells is proposed.
2.10	What precautions/measures are taken to prevent the run-off from construction activities polluting land & aquifers? (Give details of quantities and the measures taken to avoid the adverse impacts)
Reply:	The Construction Planning shall be done so that the excavation is prior to monsoon and all loose material is lifted to earmarked site so that there are no chances of soil flowing along with run-off and clogging the storm system. Further during the construction an agreement shall be there with the contractor to store all material as aggregates, sand and bricks in proper earmarked stacks. The material like cement or any material that can lead to generation of leachate shall be stored under sheds.
2.11	How is the storm water from within the site managed?(State the provisions made to avoid flooding of the area, details of the drainage facilities provided along with a site layout indication contour levels.
Reply:	Proper storm water drainage system as per guidelines of Town and Country Planning is laid down which will connect to main storm network. See Drawing-6

2.12	Will the deployment of construction laborers particularly in the peak period lead to unsanitary conditions around the project site (Justify with proper explanation)
Reply:	No. At the time of Peak Construction Activity @ 200 workers shall be employed. Of this @ 75 workers shall reside at the site and rest of workforce shall be local that shall commute daily. Common toilet and bathroom facility shall be provided for this workforce with a connection to STP.
2.13	What on-site facilities are provided for the collection, treatment & safe disposal of sewage? (Give details of the quantities of wastewater generation, treatment capacities with technology & facilities for recycling and disposal)
Reply:	About 184 Kl/day of sewage shall be generated that shall be recycled for the purpose of flushing, HVAC and irrigation. The wastewater shall be treated to secondary (Activated Sludge Process) and tertiary level. See feasibility report of STP/UF-RO attached as Annexure-8.
2.14	Give details of dual plumbing system if treated waste water is used for flushing of toilets or any other use.
Reply:	The treated waste water shall be recycled for flushing, HVAC and irrigation. STP followed by UF-RO is proposed for treating waste water. See feasibility report of STP/UF-RO attached as Annexure-8. Also see services plan attached as Drawing-6.
3.	<b>VEGETATION</b>
3.1	Is there any threat of the project to the biodiversity? (Give a description of the local ecosystem with it's unique features, if any)
Reply:	Sukhna wetland/wild life sanctuary at a distance of approx. 6 Km. applied to chief wild life warden for authentication of project location. See Annexure-4.
3.2	Will the construction involve extensive clearing or modification of vegetation? (Provide a detailed account of the trees & vegetation affected by the project)
Reply:	No
3.3	What are the measures proposed to be taken to minimize the likely impacts on important site features (Give details of proposal for tree plantation, landscaping, creation of water bodies etc along with a layout plan to an appropriate scale)
Reply:	See Environment Management Plan for Green Belt and Drawing-8

4	<b>FAUNA</b>
4.1	Is there likely to be any displacement of fauna- both terrestrial and aquatic or creation of barriers for their movement? Provide the details.
Reply:	No
4.2	Any direct or indirect impacts on the avifauna of the area? Provide details.
Reply:	No
4.3	Prescribe measures such as corridors, fish ladders etc to mitigate adverse impacts on fauna
Reply:	Not Applicable
5.	<b>AIR ENVIRONMENT</b>
5.1	Will the project increase atmospheric concentration of gases & result in heat islands? (Give details of background air quality levels with predicted values based on dispersion models taking into account the increased traffic generation as a result of the proposed constructions)
Reply:	No. The proposed project does not have any permanent operating source of fossil fuel burning as Boiler or Furnace being an Educational Institute. The generators to be provided shall only act as standby and shall comply by standards as laid down in MoEF Notifications GSR 371E and GSR 520 E for compliance at manufacturing stage for noise and emission levels.
5.2	What are the impacts on generation of dust, smoke, odorous fumes or other hazardous gases? Give details in relation to all the meteorological parameters.
Reply:	There shall not be generation of hazardous gases or odorous fumes. The dust generation during the construction activity shall be controlled as given in EMP
5.3	Will the proposal create shortage of parking space for vehicles? Furnish details of the present level of transport infrastructure and measures proposed for improvement including the traffic management at the entry & exit to the project site.
Reply:	The project shall have an area 27901.27 Sq.m for parking of 2 wheelers and 906 cars. The project, emphasis is laid on pedestrian movement, considering the same the buildings are with in reach of 10 Minutes walk & all internal pathways for pedestrians and cycles are provided.
5.4	Provide details of the movement patterns with internal roads, bicycle tracks, pedestrian pathways, footpaths etc., with areas under each category.
Reply:	See Drawing-9, 9A, 9B

5.5	Will there be significant increase in traffic noise & vibrations? Give details of the sources and the measures proposed for mitigation of the above.
Reply:	No. The noise from construction activities shall be contained within the area by providing barriers, planting trees from the very beginning. No construction at night shall be there. No demolition is involved.
5.6	What will be the impact of DG sets & other equipment on noise levels & vibration in & ambient air quality around the project site? Provide details.
Reply:	Provision of three Diesel Gen-sets of 500 KVA capacity for standby use only with acoustic enclosures in compliance MoEF notification GSR 371 (E) and emission levels as per GSR G.S.R. 520 (E), Environment (Protection) Amendment Rules 2003. Scrubbers for DG sets shall be provided.
6.	<b>AESTHETICS</b>
6.1	Will the proposed constructions in any way result in the obstruction of a view, scenic amenity or landscapes? Are these considerations taken into account by the proponents?
Reply:	No
6.2	Will there be any adverse impacts from new constructions on the existing structures? What are the considerations taken into account?
Reply:	No.
6.3	Whether there are any local considerations of urban form & urban design influencing the design criteria? They may be explicitly spelt out.
Reply:	Urban form and urban design follow the modern principles of architecture and shall be got approved from local authorities.
6.4	Are there any anthropological or archaeological sites or artifacts nearby? State if any other significant features in the vicinity of the proposed site have been considered.
Reply:	No anthropological or archeological sites in the vicinity.
7.	<b>SOCIO-ECONOMIC ASPECTS</b>
7.1	Will the proposal result in any changes to the demographic structure of local population? Provide the details.
Reply:	The project is an educational institute with a population of about 5100 persons. The development is proposed in phases. The overall development of the institute may extend over three years. Development being in phases, the change in demographic structure shall merge with the local development.
7.2	Give details of the existing social infrastructure around the proposed project.
Reply:	See location plan/ 500 m plan attached along as <b>Drawing-3</b> and <b>Drawing-4</b> .
7.3	Will the project cause adverse effects on local communities, disturbance to sacred sites or other cultural values? What are the safeguards proposed?
Reply:	No

5.5	Will there be significant increase in traffic noise & vibrations? Give details of the sources and the measures proposed for mitigation of the above.
Reply:	No. The noise from construction activities shall be contained within the area by providing barriers, planting trees from the very beginning. No construction at night shall be there. No demolition is involved.
5.6	What will be the impact of DG sets & other equipment on noise levels & vibration in & ambient air quality around the project site? Provide details.
Reply:	Provision of three Diesel Gen-sets of 500 KVA capacity for standby use only with acoustic enclosures in compliance MoEF notification GSR 371 (E) and emission levels as per GSR G.S.R. 520 (E), Environment (Protection) Amendment Rules 2003. Scrubbers for DG sets shall be provided.
<b>6.</b>	<b>AESTHETICS</b>
6.1	Will the proposed constructions in any way result in the obstruction of a view, scenic amenity or landscapes? Are these considerations taken into account by the proponents?
Reply:	No
6.2	Will there be any adverse impacts from new constructions on the existing structures? What are the considerations taken into account?
Reply:	No.
6.3	Whether there are any local considerations of urban form & urban design influencing the design criteria? They may be explicitly spelt out.
Reply:	Urban form and urban design follow the modern principles of architecture and shall be got approved from local authorities.
6.4	Are there any anthropological or archaeological sites or artifacts nearby? State if any other significant features in the vicinity of the proposed site have been considered.
Reply:	No anthropological or archeological sites in the vicinity.
<b>7.</b>	<b>SOCIO-ECONOMIC ASPECTS</b>
7.1	Will the proposal result in any changes to the demographic structure of local population? Provide the details.
Reply:	The project is an educational institute with a population of about 5100 persons. The development is proposed in phases. The overall development of the institute may extend over three years. Development being in phases, the change in demographic structure shall merge with the local development.
7.2	Give details of the existing social infrastructure around the proposed project.
Reply:	See location plan/ 500 m plan attached along as <b>Drawing-3</b> and <b>Drawing-4</b> .
7.3	Will the project cause adverse effects on local communities, disturbance to sacred sites or other cultural values? What are the safeguards proposed?
Reply:	No

8.	<b>BUILDING MATERIALS</b>
8.1	May involve the use of building materials with high-embodied energy. Are the construction materials produced with energy efficient processes? (Give details of energy conservation measures in the selection of building materials and their energy efficiency)
Reply:	The structure shall be with RCC framework with external 230 mm brick masonry & internal 115 mm brick masonry with 18 mm external plaster and 12 mm thick internal plaster. R value = 2.22, U value in BTU/(Hr).(Sqft) = 0.45. The wood shall be replaced with Particle Board wherever possible. In concrete work admixtures shall be used to reduce water cement ratio, which saves both cement and water. Pressed steel and aluminum windows are proposed in majority of the building activity.
8.2	Transport and handling of materials during construction may result in pollution, noise & public nuisance. What measures are taken to minimize the impacts?
Reply:	Dust may be generated during activities as excavation of foundation; the foundation shall be excavated in a minimum time. The vehicles which ferry construction material as sand are to be covered from top and made wet before movement and thus no dust is generated. The construction activity shall be segregated in phases to avoid any significant generation of dust.
8.3	Are recycled materials used in roads and structures? State the extent of savings achieved?
Reply:	The construction waste shall be used in floors, internal roads.
8.4	Give details of the methods of collection, segregation & disposal of the garbage generated during the operation phases of the project
Reply:	See EMP and Clause 4.2 of Section-II of Form-I
9.	<b>ENERGY CONSERVATION</b>
9.1	Give details of the power requirements, source of supply, backup source etc. What is the energy consumption assumed per square foot of built-up area? How have you tried to minimize energy consumption?
Reply:	Total energy consumption shall be 1840 KVA. Energy consumption shall be minimized by using a mix of solar energy for street lights. The total consumption is also reduced by use of CFL lights, use of energy efficient appliances such as chiller pumps with VFD, VAV boxes. Use of high efficiency lamp with higher efficiency lumens/watt.  External lighting will be through photocell and timer with dual wattage ballast which reduces the lux level by 50% during night hours. 40% mixing of solar lights in outside lighting.  Light fixtures with highest utilization factor (range 70-75%)

9.2	What type of, and capacity of, power back-up to you plan to provide?
Reply:	The back-up source is DG Set, three DG sets of 500 KVA capacity are proposed. The stand by generator shall be installed in compliance to MoEF notification GSR 371 (E) and emission levels as per GSR G.S.R. 520 (E), Environment (Protection) Amendment Rules 2003.
9.3	What are the characteristics of the glass you plan to use? Provide specifications of its characteristics related to both short wave and long wave radiation
Reply:	There are no extensively glazed building facade as such use of Low E glass is not considered. Normal glass is provided in the windows.
9.4	What passive solar architectural features are being used in the building? Illustrate the applications made in the proposed project.
Reply:	-
9.5	Does the layout of streets & buildings maximize the potential for solar energy devices? Have you considered the use of street lighting, emergency lighting and solar hot water systems for use in the building complex? Substantiate with details
Reply:	Yes, 40% solar mix external lighting is proposed. The solar devices shall be fixed in such a manner that they get the maximum exposure to sun.
9.6	Is shading effectively used to reduce cooling/heating loads? What principles have been used to maximize the shading of Walls on the East and the West and the Roof? How much energy saving has been effected?
Reply:	The ECBC guidelines as to be adopted by the UT shall be fulfilled.
9.7	Do the structures use energy-efficient space conditioning, lighting and mechanical systems? Provide technical details. Provide details of the transformers and motor efficiencies, lighting intensity and air-conditioning load assumptions? Are you using CFC and HCFC free chillers? Provide specifications.
Reply:	Yes CFC/HCFC free chillers shall be used. Use of energy efficient appliances such as chiller pumps with VFD, VAV boxes.  Two No. Transformers shall be installed.
9.8	What are the likely effects of the building activity in altering the micro-climates? Provide a self assessment on the likely impacts of the proposed construction on creation of heat island & inversion effects?
Reply:	The use of open areas, tree plantation shall help avoid any changes to micro-climate.

9.9	What are the thermal characteristics of the building envelope? (a) roof; (b) external walls; and (c) fenestration? Give details of the material used and the U-values or the R values of the individual components.
Reply:	Thermal characteristics as per ECBC shall be achieved.
9.10	What precautions & safety measures are proposed against fire hazards? Furnish details of emergency plans
Reply:	We shall follow the guidelines as per NBC 2005.
9.11	If you are using glass as wall material provides details and specifications including emissive and thermal characteristics.
Reply:	-
9.12	What is the rate of air infiltration into the building? Provide details of how you are mitigating the effects of infiltration
Reply:	-
9.13	To what extent the non-conventional energy technologies are utilized in the overall energy consumption? Provide details of the renewable energy technologies used.
Reply:	40% solar mix external lighting, use of CFL's in place of normal lamps.
10.	<b>Environment Management Plan</b>
Reply:	The Environment Management Plan would consist of all mitigation measures for each item wise activity to be undertaken during the construction, operation and the entire life cycle to minimize adverse environmental impacts as a result of the activities of the project. The Environment Management Plan is enclosed.