LANCET INFOCOM PVT. LTD.

REGD. OFFICE : G6/35, SECTOR 11, ROHINI, DELHI 110085

Date: 05.05.2017

To,

The Director (IA) III,
Ministry of Environment, Forest & Climate Change (MoEFCC),
Indira Paryavaran Bhawan,
Jor Bagh Road,
New Delhi - 110 075

Sub: Regarding Environment Clearance application for IT/ITES project "Centrade" located at Plot no. 1, Sector – 140, Noida, Uttar Pradesh by M/s Lancet Infocom Pvt. Ltd.

Reference: 15th EAC, MoEFCC, GoI meeting held on 14th April 2017

Dear Sir,

This is w.r.t the above-mentioned subject; we are herewith submitting the point wise clarifications to the observations raised at the 15th EAC meeting held on 14th April 2017. Hope this meets your satisfaction and kindly grant us Environment Clearance at the earliest.

Thanking you.

For M/s Lancet Infocom Pvt. Ltd.

NISHITH GUPTA

Authorized Signatory

Encl: As stated above

MINUTES OF THE 15TH MEETING OF EXPERT APPRAISAL COMMITTEE (INFRA-2) FOR PROJECTS RELATED TO ALL SHIP BREAKING YARD INCLUDING SHIP BREAKING UNIT, AIRPORT, COMMON HAZARDOUS WASTE TREATMENT, STORAGE AND DISPOSAL FACILITIES, PORTS AND HARBOURS, AERIAL ROPEWAYS, CETPs, COMMON MUNICIPAL SOLID WASTE MANAGEMENT FACILITY, BUILDING/CONSTRUCTION PROJECT, TOWNSHIPS AND AREA DEVELOPMENT PROJECTS HELD ON 12-14 APRIL, 2017 in MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE, INDIRA PARYAVARAN BHAWAN, NEW DELHI – 3

Day 1: Wednesday, 12th April, 2017

15.1. Opening Remarks of the Chairman.

15.2. Confirmation of the Minutes of the 14th Meeting of the EAC held on 13-15 February, 2017 at New Delhi.

15.3 Consideration of Proposals

15.3.1	**Expansion of Redi Port by M/s. Redi Port Ltd. – Environmental and CRZ Clearance [11-15/2010-IA-III; IA/MH/MIS/38095/2010]** (i) ToR was granted on 12.05.2010. Further, proposal was considered by the EAC in its meeting held on 20-23 November, 2013 and the EAC noted that the details of land purportedly allotted by the Government of Maharashtra for the port were not available and land was not yet in the possession of the proponent. The EAC decided that the proposal shall be considered once the land comes under passion of the proponent. The EAC advised the Project proponent to superimpose the layout map with port boundary on the Google map along with State boundary and nearby creek system. The Map should show the river and the existing port and the layout of the proposed port superimposed on the same map. Now PP has submitted the superimposed layout map. (ii) Maharashtra Coastal Zone Management Authority vide letter no CRZ 2012/CR148/TC4 dated 24th October, 2013 has recommended the project to MoEF&CC. (iii) An all weather multipurpose port is proposed to be developed in an area of 98 ha. out of which, 64.22 ha of land is planned to be reclaimed. Remaining 33.78 ha is a Government land. Around 33.78 ha forest land is involved in this project. Forest clearance is under process (iv) Existing jetty is handling 1 MTPA cargo i.e. Iron ore. The expansion of Redi Port is proposed towards 2.0 km south of the existing port. Dredging quantity will be 3.36 MCM and Reclamation quantity will be 5.5 MCM. (v) It was noted that Ministry vide letter dated 17.10.2013 has lifted the moratorium for consideration of proposal from Ratnagiri and Sindhudurg Districts, Maharashtra except talukas namely Khed, Chiplun, Sangameshwar, Lanja and Rajapur. Proposed project is falling in the taluka Vengurla. (vi) Public hearing was conducted by SPCB, Maharashtra on 12.09.2011. Proposal was considered by the EAC (Infra-2) in its 12th meeting held on 26-28 December, 2016 wherein the Committee sought following additional information: (i) Status of stage – I forest clearance. (ii) Tabular statement indicating details of (a) existing facilities as per existing EC obtained; (b) proposed additional facilities; (c) total capacity after expansion to be provided. (iii) Copy of existing environmental clearance to be submitted. (iv) Dispersion modelling for the dumping of the additional dredge materials shall be carried out. The study report shall be incorporated. Coordinate of dumping ground. (v) Details of the air pollution control measures to be undertaken for the Dry bulk cargo handling

(xv) **Employment potential** – Labourers during construction phase 150 no. and about 30964 personnel as staff during operation phase.

(xvi) **Benefits of the project**: –

- It will increase Infrastructure of the area & will provide housing facility, educational facility, commercial area and open space with all other basic amenities to various classes of people.
- It will provide healthy, green & safe premises for living. People have more open and green spaces, bringing them closer to nature. People live, stay and recreate; and have immediate access to entertainment facilities in a single, spacious and secured area.
- The benefits relate to the direct employment associated during the construction of the infrastructure as well as during operation of the project to run primary and nursery schools etc. Additional employment opportunities will lead to a rise in the income and improve their standard of living.
- It will increase Infrastructural complex in the area & will provide better environment to live.
- It will provide education to the children of nearby area as nursery school & Primary school and other important amenities are also going to be developed within the Group Housing Complex.
- In meeting the day to day and recreational demands of the residents of the site, it will provide education to the children of nearby area as primary school and other important amenities like commercial area, community center, etc. are also going to be developed within the Group Housing Complex, thereby, further stimulating the local economy.
- Corporate Environment Responsibility will also be considered for the social benefits of the society.

After detailed deliberation, the Committee sought following additional information:

(i) Certified compliance report issued by the Regional Office, Lucknow on the environmental conditions stipulated in earlier EC issued vide letter no. 710/726/SEAC/2011/AA(S) dated 31.03.2012.

(ii) Give a conformity status to conditions stipulated in Annexure XIV of the amended EIA Notification vide S.O. 3999 (E) dated 09.12.2016.

(iii) Notarized affidavit of undertaking by Board of Director(s) that there is no violation with regards to the provisions as made in the amended EIA notification of 14.03.2017.

(iv) Full ECBC compliance.

(v) Excess treated sewage disposal plan/scheme to be submitted.

(vi) Separate entry and exit plan should be submitted

(vii) Details energy conservation measures to be taken. All points mentioned in the proposal such as orientation to support reduced heat gain, use of ASHRAE 90.1, use of ECBC compliant envelope measures to be supported through drawings and details in the proposal.

The proposal was deferred till the desired information is submitted. The above information shall be provided with the uploading of minutes on the website.

15.5.9 **IT/ITES Project Centrade located at Plot no 1 Sector 140 Noida Uttar Pradesh by M/s. Lancet Infocom Pvt Ltd. - Environmental Clearance 21-101/2017-IA-III; IA/UP/NCP/63556/2017]**

The project proponent has presented the project and informed the following:

I. The IT/ ITES project is located at Plot No.1, Sector -140 Noida (U.P). The Co-ordinates of the project site are 28°30'51"N &, 77°25'8"E.

II. Area statement is given below:

S.No.	Particulars	Area (in $m^{2)}$	Percentage (%)
1	Plot Area	20,000	
2	Permissible Ground Coverage @ 30%	6000	30
3	Achieved Ground Coverage @ 29.99%	5999.998	29.99
4	Total Permissible GAR @2.00	46,000	

	• Permissible FAR for Buildings @ 2.00 • Permissible Services FAR @ 15% of 2.00 FAR	40,000 6000	
5	Achieved FAR for buildings	39999.173	
6	Achieved institutional services FAR (Incl. in Achieved FAR)	3738.09	
7	Achieved additional FAR for services	3943.376	
8	Total Achieved FAR	43,942.549	
9	Non FAR area (excluding Basement)	15,027.466	
10	Non-FAR Basement Area	33088	
11	Total Non-FAR	48,115.466	
12	Total Built up Area (8+11)	92,058.015	
13	Open Area	14,000.002	70
14	Landscape Area (50 % of Open Area)	7,192.12	36
15	Refuge Area (Terrace Area)	250-	

III. WATER REQUIREMENT: The total water requirement is 434 KLD. Total fresh water requirement is approx. 211 KLD which is 70% of the domestic water demand and water requirement for flushing 91 KLD. Domestic Water Requirement 302 KLD. Fresh (70% of domestic Water Demand) 211 KLD. Flushing (30 % of domestic Water Demand) 91 KLD.

IV. Water requirement during construction phase will be met from private tankers. Waste handling during the construction phase shall be done by the site contractor whose responsibility lies with collection and storage of construction and demolition waste generated on the site. Waste water generation during construction phase will be approximately 6.8 KLD. All construction wastes generated during construction will be used within the site itself for filling the floors, roads, aggregate for mortar etc. to the extent feasible.

V. It is expected that 260 KLD of wastewater shall be generated from project site during operation phase. Wastewater will be treated in the STP provided within the complex generating recoverable water from STP which will be recycled within the project site. Out of 234 KLD of treated wastewater 91 KLD will be utilized in flushing, 7 KLD for horticulture and 125 KLD in HVAC during non rainy season and rest 11 KLD will be used in construction purpose in nearby areas. During rainy season 91 KLD for flushing and 125 KLD in HVAC, rest 18 KLD will be used for construction purposes in nearby projects

VI. The power supply shall be supplied by Uttar Pradesh Power Company Limited (UPPCL). The maximum load for the IT park project will be approx. 3945 kW and will be supplied by 2 no's of transformers of capacity 2000kVA each. Effective measures have been incorporated to minimize the energy consumption in following manners: Solar street lights, Solar blinkers, all external lighting shall be BEE star rated.

VII. All internal lighting shall be BEE star rated and solar lit, at least to an extent of 25%. □ All common spaces including street lights (where there is no use of light for reading purposes), shall be of "LED".

VIII. **SOLID WASTE GENERATED** During the operation phase, waste will comprise domestic waste and estimated quantity of the waste shall be approx 1828 Kg/ per day (including STP sludge) (@ 0.15 kg per capita per day for the floating population, 0.25 kg per capita per day for the staff members and landscape wastes @ 0.2 kg/acre/day). Following arrangements will be made at the site in accordance to Municipal Solid Wastes (Management and Handling) Rules, 2000.

IX. Adequate provision will be kept for car/vehicles parking at the project. There will also be adequate provision for visitors parking so as not to disturb the traffic and allow smooth movement at the site. Total parking proposed is 1302.

After detailed deliberation, the Committee sought following additional information:

(i) Give a conformity status to conditions stipulated in Annexure XIV of the amended EIA Notification vide S.O. 3999 (E) dated 09.12.2016.

(ii) Notarized affidavit of undertaking by Board of Director(s) that there is no violation with regards to the provisions as made in the amended EIA notification of 14.03.2017.

(iii) Full ECBC compliance.

	(iv) Excess treated sewage disposal plan/scheme to be submitted. (v) NOC from Pollution Control Board to discharge excess treated water into municipal drain. (vi) Parking plan for disabled in basement and specifically at podium. (vii) Multiple (at least two) separate entry and exit plan should be submitted. (viii) Details energy conservation measures to be taken. All points mentioned in the proposal such as orientation to support reduced heat gain, use of ASHRAE 90.1, use of ECBC compliant envelope measures to be supported through drawings and details in the proposal. The proposal was deferred till the desired information is submitted. The above information shall be provided with the uploading of minutes on the website.
15.5.10	**Development of 18 hole Golf Course and an Eco Tourism Resort at Village Tiracol, Taluka Pernem, North Goa by M/s Leading Hotels Ltd – Environmental Clearance – [F.No.21-8/2016-IA-III]** SEIAA, Goa vide letter no 3-181-2010/STE-DIR/13 dated 12.04.2013 has granted environmental clearance to M/s Leading Hotels Ltd for development of 18 hole Golf Course. Further, Hon'ble NGT vide order dated 29th November, 2016 has directed that: i. "The EC dated 12.04.2013 is kept in abeyance for next 4 months. ii. The Goa-SEAC shall appraise the project by considering all the materials on record within next 4 weeks and send the recommendation to SEIAA who shall further appraise the project for decision on grant of EC within 4 weeks from the date of the receipt of recommendations of SEAC. Both SEAC and SEIAA shall appraise project without any prejudice, without getting influenced by any of the observations in the judgement." Further, in compliance of Hon'ble NGT order dated 29th November, 2016, PP submitted online application to the Ministry for appraisal of the project as term of SEIAA/SEAC, Goa has expired on 8.12.2016. Due to absence of SEIAA/SEAC, Goa, project has been treated as category 'A' and appraised by the Expert Appraisal Committee (Infrastructure-II). The Committee noted that M/s Leading Hotels Ltd. has proposed for development of 18 hole Golf Course and an Eco Tourism Resort at Village Tiracol, Taluka Pernem, North Goa. Total plot area is 244.6 acres i.e. 99 ha. Since plot area is more than 50 ha, project falls under item no. 8 (b) i.e. Township and area development projects of the schedule of the EIA Notification, 2006. The Committee also noted that earlier SEIAA/SEAC, Goa has considered this project under item no. 8 (a) instead of 8 (b) of the schedule of EIA Notification, 2006. Proposal also attracts provision of CRZ Notification, 2011. MoEF&CC vide letter no F. 11-32/2014 IA III dated 9th December, 2014 has granted CRZ clearance to M/s Leading Hotels Ltd. Cost of project is Rs. 505 Crores. Total water requirement will be 2550 cmd, which will be sourced from Tillari Dam (1500 m3/day); Ground water source (250 m3/day); treated sewage (500 m3/day). Total sewage generation will be 550 m3/day. Sewage will be treated in the STP. Solid waste generation of Biodegradable waste will be around 260 kg/day and will be processed in OWC and Non-biodegradable waste will be around 260kg/day will be handed over to authorized local vendor. The total Power requirement during construction phase will is 5050KVA. and will be met from the Goa Power grid and the total power requirement during construction phase is 500KVA and will be met from the Goa Power Grid. Roof water rainwater of buildings will be collected in Water from roof tops (area 40,000 sqm) will be conveyed though down take pipes and led to individual collection chambers opening into a Central Collection Tank. The capacity of the central water collection tank will be around 10,000 m^3. Proposal was considered by the EAC in its meeting held on 26-28 December, 2016. After detailed deliberations on the proposal, the Committee granted ToR for preparation of EIA-EMP report. The Committee discussed the matter with Chief Executive Officer, Leading Hotels, Goa and decided that before further deliberation in the matter as directed by the Hon'ble NGT to 'Appraise the project by considering all the materials on record', MoEF&CC may write letter to Government of Goa to provide all files/materials relating to the project to the Ministry for further consideration of the EAC. Project proponent

LIST OF PARTICIPANTS OF EAC (INFRASTRUCTURE-2) IN 15TH MEETING OF EAC (INFRASTRUCTURE-2) HELD ON 12-14 APRIL, 2017

Sr. No.	Name	Designation	Attendance
1.	Prof. T. Haque,	Chairman	P
2.	Shri K. Gowarappan	Member	P (1st Day)
3.	Dr. Yashpal Singh	Member	P
4.	Dr. S.K. Bhargava	Member	P
5.	Dr. Ayi Vaman N. Acharya	Member	A
6.	Dr. Chandrahas Deshpande	Member	A
7.	Shri A. P. Singh	Member	P (1st & 2nd Day)
8.	Ms. Mili Majumdar	Member	P (1st & 2nd Day)
9.	Prof. Dr. Sanjay Gupta	Member	A
MOEF&CC Representative			
10.	Dr. Vinod K. Singh	Scientist D & Member Secretary	P

Point wise clarifications to the observations raised at the 15TH MEETING OF EXPERT APPRAISAL COMMITTEE (INFRA-2), MoEFCC for the IT/ITES Project Centrade located at Plot no 1 Sector 140 Noida Uttar Pradesh by M/s. Lancet Infocom Pvt Ltd.

<table>
<tr><th>S. No</th><th>Observation</th><th>Clarification</th></tr>
<tr><td>1</td><td>Give a conformity status to conditions stipulated in Annexure XIV of the amended EIA notification vide S.O 3000 (E) dated 09.12.2016</td><td>Conformity statuses to conditions stipulated in Annexure XIV of the amended EIA notification vide S.O 3000 (E) dated 09.12.2016 has been provided in Annexure I.</td></tr>
<tr><td>2</td><td>Notarized affidavit of undertaking by Board of Directors(s) that there is no violation with regards to the provisions as made in the amended EIA notification of 14.03.2017</td><td>The notarized affidavit as suggested is attached as Annexure II.</td></tr>
<tr><td>3</td><td>Full ECBC compliance</td><td>Agreed. An undertaking indicating full compliance to ECBC norms has been provided as Annexure III.</td></tr>
<tr><td>4</td><td>Excess treated sewage disposal plans/scheme to be submitted</td><td>Total water requirement will be approx. 434 KLD, out of which domestic water requirement will be 302 KLD. It is expected that 260 KLD of wastewater shall be generated from project site during operation phase. The treatment technology proposed is MBBR technology. Out of 234 KLD of treated wastewater 91 KLD will be utilized in flushing, 7 KLD for horticulture and 125 KLD in HVAC during non rainy season and rest 11 KLD will be discharge in CSTP. During rainy season 91 KLD for flushing and 125 KLD in HVAC, rest 18 KLD will be discharged to nearby CSTP of NOIDA Authority.</td></tr>
<tr><td>5</td><td>NOC from Pollution Control Board to discharge excess treated water into municipal drain</td><td>We are in process to obtain NOC from the NOIDA authority for discharging excess treated wastewater into municipal drain.

We will not discharge any excess treated water into municipal drain before obtaining the above said NOC.</td></tr>
<tr><td>6</td><td>Parking plan for disabled in basement and specifically at podium</td><td>Agreed. The total parking required as per bye laws is 840 ECS. We are providing a total parking of 1,302 ECS spread out over 2 basements and 2 podiums. The distribution of parking provisions are as follows:
<table>
<tr><th>S.No</th><th>Particular</th><th>Parking Proposed (ECS)</th><th>Disabled Parking (ECS)</th></tr>
<tr><td>1.</td><td>Basement</td><td>534</td><td>27</td></tr>
</table>
</td></tr>
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		<table><tr><td></td><td>– 1st</td><td></td><td></td></tr><tr><td>2.</td><td>Basement – 2nd</td><td>534</td><td>27</td></tr><tr><td>3.</td><td>Podium – 1st</td><td>123</td><td>7</td></tr><tr><td>4.</td><td>Podium – 2nd</td><td>111</td><td>6</td></tr><tr><td colspan="2">Total</td><td>1,302</td><td>67</td></tr></table> 5% of the total ECS provided i.e. 67 ECS will be specifically earmarked for disabled parking and these will be located nearest to elevator.
7	Multiple (at least two) separate entry and exit plan should be submitted	One vehicular entry, 1 vehicular exit and 1 pedestrian entry/exit have been provided in the sanctioned plan. The copy of the sanctioned site plan for the same has already been submitted with the Environment Clearance application.
8	Detailed energy conservation measures to be taken. All points mentioned in the proposal as orientation to support reduced heat gain, use of ASHRAE 90.1, use of ECBC compliant envelope measures to be supported through drawings and details in the proposal.	Agreed. Detailed energy conservation measures will be taken. All lighting in common areas will be LEDs. All street lighting along the peripheral and internal roads within the project site will be 100% solar powered. Undertaking for ECBC compliance is enclosed as ***Annexure III***.

Annexure I

Compliance to Annexure XIV of the Amendment to EIA Notification, 2006 dated 09.12.2016

(Category '3': 50000 to 150000 m^2)

MEDIUM	S.N	ENVIRONMENTAL CONDITIONS	COMPLIANCE STATUS
Topography and Natural Drainage	1	The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site. No construction is allowed on wetland and water bodies. Check dams, bioswales, landscape, and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.	The natural drain system will be maintained for ensuring unrestricted flow of water. No construction shall be done to obstruct the natural drainage through the site. Buildings have been designed to follow the natural topography as much as possible with minimum cutting and filling work in mind.
Water Conservation, Rain Water Harvesting, and Ground Water Recharge	2	A complete plan for rain water harvesting, water efficiency and conservation should be prepared. Use of water efficient appliances should be promoted with low flow fixtures or sensors. The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. A rain water harvesting plan needs to be designed where the recharge bores of minimum one recharge bore per 5,000 square meters of built up area and storage capacity of minimum one day of total fresh water requirement shall be provided. In areas where ground water recharge is not feasible, the rain water should be harvested and stored for reuse. The ground water shall not be withdrawn without approval from the Competent Authority. All recharge should be limited to shallow aquifer	A complete plan for rainwater harvesting (as per approved design of CGWB), water efficiency and conservation has been prepared and submitted. A total of 2 rainwater harvesting pits (for groundwater recharge) and 2 rainwater harvesting tanks (for reuse of rainwater) have been proposed as part of the rainwater harvesting system.
	2(a)	At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.	A total of 7,192.12 m^2 i.e. 50% of the open area has been earmarked for development of peripheral green belt, avenue plantations and lawns. A total of 3,596.06 m^2 out of the total area earmarked for landscape development i.e. 25% of the open spaces will be pervious i.e. hard green area. This is in line with requirements of the local building bye laws.
	2(b)	Use of water efficient appliances should be promoted. Low flow fixtures or sensors be used to promote water conservation.	Use of water efficient appliances with low flow fixtures has been considered.
	2(c)	Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.	Dual plumbing system will be utilised for separation of grey and black water. The treated water from the in house STP will be utilised for landscaping, flushing and HVAC purposes. Any surplus treated water

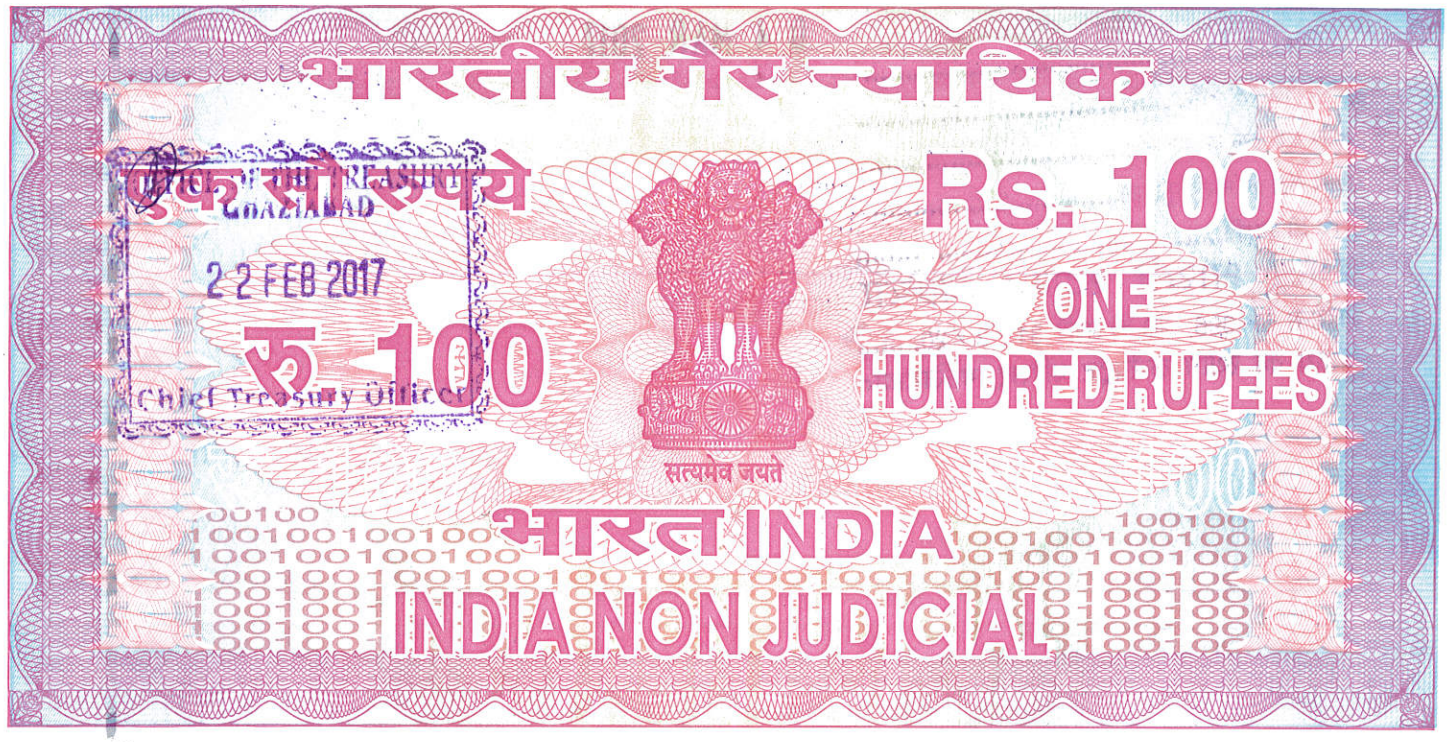
			will be available on demand for supply to nearby construction sites/ discharged to CSTP of NOIDA Authority.
Waste Management	3	Solid waste: Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. The provisions of the Solid Waste (Management) Rules 2016 and the e-waste (Management) Rules 2016, and the Plastics Waste (Management) Rules 2016 shall be followed.	An area of 500 m^2 has been earmarked within the project site for management of solid waste. Separate wet and dry bins will be provided in each unit at the ground level for facilitating segregation of waste at the earmarked area. The provisions of the Solid Waste (Management) Rules 2016 and the e-waste (Management) Rules 2016, and the Plastics Waste (Management) Rules 2016 shall be followed to the maximum extent.
	3(a)	All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recyclers.	All non biodegradable waste will be handed over to authorized recycles of CPCB and a written tie for the same will be pursued.
	3(b)	Organic waste composter/ Vermiculture pit with a minimum capacity of 0.3 kg /person/day must be installed.	All biodegradable waste generated on site will be treated by an organic waste converter (OWC-300 of 125 kg/batch make) and converted to manure which will be used for landscaping purposes within the project site.
Sewage treatment Plant	4	Onsite sewage treatment of capacity of treating 100% waste water to be installed. Treated waste water shall be reused on site for landscape, flushing, cooling tower, and other end-uses. Excess treated water shall be discharged as per CPCB norms. Natural treatment systems shall be promoted. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organisation (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.	An in house STP of 290 KLD capacity based on MBBR technology has been proposed for treating 100% of the wastewater that is expected to be generated on site. The treated waste water will be reused within the site for landscaping, flushing and HVAC purposes. Excess treated water shall be provided on demand to nearby construction sites/discharged to CSTP of NOIDA authority. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organisation (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013
Energy	5	Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC. Outdoor and common area lighting shall be LED. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation,	Solar powered street lighting has been proposed along the peripheral and internal roads within the project site. All common area lighting within the building will be LED. Compliance with the ECBC OF BEE shall be ensured to the

		landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.	maximum extent.
	5(a)	Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 1% of the demand load or as per the state level/ local building bye-laws requirement, whichever is higher.	The maximum demand load for the proposed project during its operation phase will be 3,945 kW. To meet the power backup requirements in case of power failure, a combination of DG set and solar photovoltaic cells are proposed. 50% of power backup requirement will be met through 2 DG sets of total 1,500 kVA capacities and the remaining 50% will be met through installation of solar panels.
	5(b)	Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.	As this is a commercial project, the hot water demand is negligible. However, provision of solar water heating to meet the demand shall be considered.
	5(c)	Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include flyash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials. Fly ash should be used as building material in the construction as per the provisions of the Fly Ash Notification of September, 1999 as amended from time to time.	Agreed and will be complied with to the maximum extent.
Air Quality and Noise	6	Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3 meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution. Wet jet shall be provided for grinding and stone cutting. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust. All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and	The following measures will be implemented as dust, smoke and air pollution prevention measures on site: • Screens for the building under construction • Continuous dust/ wind breaking walls all around the site of at least 5 m height • Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murram and other construction materials as well as taking out debris from the site • Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust • All construction and demolition debris shall be stored at the site (and not dumped on the roads or

		construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules 2016. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask. For indoor air quality the ventilation provisions as per National Building Code of India.	open spaces outside) before they are properly disposed • All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask
	6(a)	The location of the DG set and exhaust pipe height shall be as per the provisions of the CPCB norms.	2 DG sets of 750 kVA capacities each have been proposed as power backup in case of power failure. They will be provided with acoustic enclosures and stack height as per CPCB norms.
Green Cover	7	A minimum of 1 tree for every 80 sq.mt. of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species.	The plot area of the proposed development is 20,000 m^2. There are no trees on the proposed project site and hence no counting was done. A total of 255 trees of indigenous variety will be planted and maintained within the project site during the operational phase.
	7(a)	Where the trees need to be cut, compensatory plantation in the ratio of 1:3 (i.e. planting of 3 trees for every 1 tree that is cut) shall be done and maintained.	There is no requirement for tree felling as the project site is barren with no vegetation of significance.
Top Soil preservation and reuse	8	Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.	During the construction phase, the top soil would be stripped to a depth of 20 cm from areas proposed for buildings, roads, paved areas and external services. The top soil so stripped will be stockpiled neatly and stored in designated covered areas within the site for reuse during landscaping.
Transport	9	A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria. 1. Hierarchy of roads with proper segregation of vehicular and pedestrian traffic. 2. Traffic calming measures. 3. Proper design of entry and exit points. 4. Parking norms as per local regulation.	Road network has been designed with due consideration for environment and safety of users. One vehicular entry, one pedestrian entry/exit and one vehicular exit have been provided for proper segregation of vehicular and pedestrian traffic within the project site.
Environment Management Plan	10	An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified in item number 1 to 9 above. A dedicated Environment Monitoring Cell with defined functions and responsibility shall be put in place to implement the EMP. The environmental cell shall ensure that the	Environmental Management Plan prepared to ensure compliance with the environmental conditions specified in item number 1 to 9 above is enclosed as ***Annexure IV.*** A dedicated environmental cell shall ensure that the environmental

		environment infrastructure like Sewage Treatment Plant, Landscaping, Rain Water Harvesting, Energy efficiency and conservation, water efficiency and conservation, solid waste management, renewable energy etc. are kept operational and meet the required standards. The environmental cell shall also keep the record of environment monitoring and those related to the environment infrastructure.	infrastructure like STP, landscaping, rainwater harvesting, energy efficiency and conservation, water efficiency and conservation, solid waste management, renewable energy etc. are kept operational and meet the required standards while maintaining a record of the monitoring related to environment and its infrastructure.

Annexure II



उत्तर प्रदेश UTTAR PRADESH

DG 420327

AFFIDAVIT

I, Babu Singh, S/o Shri Shankar Singh, do hereby solemnly affirm, declare and undertake as under :

I am authorized Signatory of M/s. Lancet Infocom Pvt. Ltd. having its registered office at G-6/35, Sector -11, Rohini, Delhi 110085 and am empowered and competent to swear this undertaking.

We are in process of developing an IT/ITES Project "Centrade Business Park" at Plot No. 1, Sector 140, NOIDA, Uttar Pradesh.

1. No activity relating to this Project including civil construction has been undertaken at site except fencing of the site to the Protect it from getting encroached and construction of temporary shed(s) for guard(s).

DEPONENT

बाबू सिंह

VERIFICATION

VERIFIED at NOIDA on this 5th May 2017 that the contents of para no. 1 of the above undertaking are true and correct to the best of my knowledge and records. No part of it is false and nothing has been concealed therein.

बाबू सिंह

DEPONENT

Date : 5th May 2017

Annexure III

LANCET INFOCOM PVT. LTD.

REGD. OFFICE : G6/35, SECTOR 11, ROHINI, DELHI 110085

Date : 5th May 2017

TO WHOMSOEVER IT MAY CONCERN

I, Nishith Gupta, S/o Shri B. S. Gupta, do hereby solemnly affirm, declare and undertake as under :

1. I am authorised signatory of m/s lancet Infocom Pvt. Ltd. having its registered office at G-6/35, Sector 11, Rohini, Delhi 110085 and am empowered and competent to swear this undertaking.

2. That we are in the process of developing a IT/ITES Project "Centrade Business Park" at Plot No. 1, Sector 140, NOIDA, Uttar Pradesh.

3. Full ECBC compliance will be ensured.

4. That all points mentioned in the proposal such as orientation of support reduced heat gain, use of ASHRAE 90.1, use of ECBC compliant envelope measures to be supported through drawings and details in the proposal.

5. That no surplus treated wastewater will be discharged before obtaining NOC from Municipal Corporation of the same.

For M/s. Lancet Infocom Pvt. Ltd.

Nishith Gupta

Authorized Signatory

ENVIRONMENT MANAGEMENT PLAN

- The Environment Management Plan (EMP) 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 resulting from the activities of the project.
- It would also delineate the environmental monitoring plan for compliance of various environmental regulations. It will state the steps to be taken in case of emergency such as accidents at the sites including fire.
- The Environment Management Plan (EMP) is aimed at mitigating the possible adverse impacts of a project and for ensuring to maintain the existing environmental quality.
- The Environment Management Plan (EMP) will be site specific plan developed to ensure that the project is implemented in an environmental sustainable manner where all contractors and sub contractors, including consultants, understand the potential environmental risks arising from the proposed project and take appropriate actions to properly manage the risk.
- The main objective of the Environmental Management Plan (EMP) is to identify the project specific activities that would have to be considered for investigation of the significant adverse impacts and the mitigation measures required.
- EMP will also ensure that the project implementation is carried out in accordance with the design by taking appropriate mitigate actions to reduce adverse environmental impacts during its life cycle.
- The plan will outline existing and potential problems that may adversely impact the environment and recommends corrective measures where required.
- Also, the plan will outline roles and responsibility of the key personnel and contractors who are charged with the responsibility to manage the project site.

  While evolving effective and feasible EMP, many parameters are considered on the basis of technological as well as economical aspects.

  The EMP is generally:

  1. It will be prepared in accordance with rules and requirements of the MoEF and the State Pollution Control Board.

2. Care will be taken to ensure that the component of facility are operated in accordance with design;
3. All precautions will be taken to addresses public complaints during construction and operation of the facility
4. Plan will be to ensure remedial measures are implemented immediately.

EMP will include four major elements:

- Commitment & Policy: The management will strive to provide and implement the Environmental Management Plan that incorporates all issues related to air, water, land and noise.
- Planning: This includes identification of environmental impacts, legal requirements and setting environmental objectives.
- Implementation: This comprises of resources available to the developers, accountability of contractors, training of operational staff associated with environmental control facilities and documentation of measures to be taken.

EMP for Air Environment

- Mitigation measures will be provided

Construction Phase

To mitigate the impacts of PM (dust) during the construction phase of the project, the following measures are recommended for implementation:

- A dust control plan.
- Procedural changes in construction activities.

Dust Control Plan

The most cost-effective dust suppressant is water because water is easily available on construction site. Water can be applied using water trucks, handled sprayers and automatic sprinkler systems. Furthermore, incoming loads could be covered to avoid loss of material in transport, especially if material is transported off-site.

Procedural Changes in Construction Activities

Idle time reduction: Construction equipment is commonly left idle while the operators are on break or waiting for the completion of another task. Emission from idle equipment tends to be high, since catalytic converters cools down, thus reducing the efficiency of hydrocarbon and carbon monoxide oxidation. Existing idle control technologies comprises of power saving mode, which automatically off the engine at preset time and reduces emissions, without intervention from the operators.

Improved Maintenance: Significant emission reductions can be achieved through regular equipment maintenance. Contractors will be asked to provide maintenance records for their fleet as part of the contract bid, and at regular intervals throughout the life of the contract. Incentive provisions will be established to encourage contractors to comply with regular maintenance requirements.

Reduction of On-Site Construction Time: Rapid on-site construction would reduce the duration of traffic interference and therefore, will reduce emissions from traffic delay.

Operation Phase

To mitigate the impacts of pollutants from DG sets and vehicular traffic during the operational phase of the Group housing, following measures are recommended for implementation:

- DG set emission control measures
- Vehicular emission controls and alternatives
- Greenbelt development

Diesel Generator Set Emission Control Measures

Adequate stack height will be maintained to disperse the criteria air pollutants generated from the operation of DG sets to dilute the pollutants concentration within the immediate vicinity. Hence no additional emission control measures have been suggested.

Vehicle Emission Controls and Alternatives

Use of clean Fuel by vehicles on-site: Vehicles only with proper PUC certificates will be allowed. This will reduce emissions on-site and in areas from where these vehicles pass.

Footpaths and Pedestrian ways: Adequate footpaths and pedestrian ways would be provided at the site to encourage non-polluting methods of transportation.

Greenbelt Development

The total green area provided is 603344.96 m^2 which is 82.5% of the net plot area

1.2.2 EMP FOR NOISE ENVIRONMENT

Construction Phase

To mitigate the impacts of noise from construction equipment during the construction phase on the site, the following measures are recommended for implementation.

Time of Operation: Noisy construction equipment would not be allowed to used at the time of construction.

Job Rotation and Hearing Protection: Workers employed in high noise areas will be rotated. Hearing protection such as earplugs/muffs will be provided to those working very close to the noise generating machinery.

Operation Phase

To mitigate the impacts of noise from diesel generator sets during operational phase, the following measures are recommended:

- Adoption of Noise emission control technologies
- Greenbelt development

Noise Emission Control Technologies

DG sets will be housed in a suitable acoustic enclosure so that noise level at a distance of 1 m does not exceed 75 dB(A) at 75% load, as per CPCB standards or is meeting the local standard (whichever is higher). It would be ensured that the manufacturer provides acoustic enclosure as an integral part along with the diesel generators sets. Further,

enclosure of the services area with 4 m high wall will reduce noise levels and ensure that noise is at a permissible limit for resident of the site and surrounding receptors.

1.2.3 EMP FOR WATER ENVIRONMENT

Construction Phase

To prevent degradation and to maintain the quality of the water source, adequate control measures have been adopted. To check the surface run-off as well as uncontrolled flow of water into any water body check dams with silt basins are adopted. The following management measures are suggested to protect the water source being polluted during the construction phase:

- Avoid excavation during monsoon season
- Care would be taken to avoid soil erosion
- Common toilets will be constructed on site during construction phase and the waste water would be channelized to the septic tanks in order to prevent waste water to enter into the water bodies
- To prevent surface and ground water contamination by oil and grease, leak-proof containers would be used for storage and transportation of oil and grease. The floors of oil and grease handling area would be kept effectively impervious. Any wash off from the oil and grease handling area or workshop shall be drained through impervious drains.
- Collection and settling of storm water, prohibition of equipment wash downs and prevention of soil loss and toxic release from the construction site are necessary measure to be taken to minimize water pollution.

Operation Phase

In the operation phase of the project, water conservation and development measures will be taken, including all possible potential for rain water harvesting. Following measures will be adopted:

- Water source development
- Minimizing water consumption

- Promoting reuse of water after treatment and development of closed loop systems for different water streams

Water Source Development

Water source development shall be practiced by installation of scientifically designed Rain Water Harvesting system. Rainwater harvesting promotes self-sufficiency and fosters an appreciation for water as a valuable resource.

Minimizing Water Consumption

Consumption of fresh water will be minimized by combination of water saving devices and other domestic water conservation measures. Further, to ensure ongoing water conservation, an awareness program will be introduced for the residents. The following section discusses the specific measures, which shall be implemented:

Domestic and Commercial Usage

- Use of water efficient plumbing fixtures (ultra flow toilets and urinals, low flow sinks, water efficient dishwashers and washing machines). Water efficient plumbing fixtures uses less water with no marked reduction in quality and service
- Leak detection and repair techniques
- Sweep with a broom and pan where possible, rather than hose down for external areas
- Meter water usage: Implies measurement and verification methods. Monitoring of water uses is a precursor for management.

Horticulture

- Drip irrigation system shall be used for the lawns and other green area. Drip irrigation can save 15-40% of the water, compared with other watering techniques.
- Plants with similar water requirements shall be grouped on common zones to match.
- Use of low-angle sprinklers for lawn areas.

- Select controllers with adjustable watering schedules and moisture sensors to account for seasonal variations and calibrate them during commissioning.
- Place 3 to 5 inches of mulch on planting beds to minimize evaporation.

Promoting Reuse of Water after Treatment and Development of Closed Loop Systems

To promote reuse of waste water and development of closed loop system for waste water segregation. Two wastewater schemes are suggested, namely:

1) Storm Water Harvest 2) Waste water recycling.

Storm water harvest as discussed in earlier, will be utilized for artificial recharge of ground water sources; and waste water will be reused on site after treatment.

Treated waste water will be used for landscaping, flushing and DG water cooling. Following section discuss the scheme of waste water treatment.

Waste Water Treatment Scheme

Proponent will treat the waste water of the Project in well designed sewage treatment plant.

Storm Water Management

Most of the storm water produced on site will be harvested for ground water recharge. Thus proper management of this resource is a must to ensure that it is free from contamination.

Contamination of Strom Water is possible from the following sources:

- Diesel and oil spills in the diesel power generator and fuel storage area
- Waste spills in the solid / hazardous waste storage area
- Oil spills and leaks in vehicle parking lots
- Silts from soil erosion in gardens
- Spillage of sludge from sludge drying area of sewage treatment plant

A detailed storm water management plan will be developed which will consider the possible impacts from above sources. The plan will incorporate best management practices which will include following:

- Regular inspection and cleaning of storm drains
- Clarifiers or oil / separators will be installed in all the parking areas. Oil / grease separators installed around parking areas and garages will be sized according to peak flow guidelines. Both clarifiers and oil / water separators will be periodically pumped in order to keep discharges within limits
- Covered waste storage areas
- Avoid application of pesticides and herbicides before wet season
- Secondary containment and dykes in fuel / oil storage facilities
- Conducting routine inspection to ensure cleanliness
- Provision of slit traps in storm water drains
- Good housekeeping in the above areas

1.2.4 EMP FOR LAND ENVIRONMENT

Construction Phase

The waste generated from construction activity includes construction debris, biomass from land clearing activities, waste from the temporary make shift tents for the labours and hazardous waste. Following section discuss the management of each type of waste. Besides waste generation, management of the topsoil is an important area for which management measures are required.

Construction Debris

Construction debris is bulky and heavy and re-utilization and recycling is an important strategy for management of such waste. As concrete and masonry constitute the majority of waste generated, recycling of this waste by conversion to aggregate can offer benefits of reduced landfill space and reduced extraction of raw material for new construction activity. This is particularly applicable to the project site as the construction is to be completed in a phased manner.

Mixed debris with high gypsum, plaster, shall not be used as fill, as they are highly susceptible to contamination, and will be send to designated solid waste landfill site.

Metal scrap from structural steel, piping, concrete reinforcement and sheet metal work shall be removed from the site by construction contractors. A significant portion of wood scrap will be reused on site. Recyclable wastes such as plastics, glass fiber insulation, roofing etc shall be sold to recyclers.

Hazardous waste

Construction sites are sources of many toxic substances such as paints, solvents wood preservatives, pesticides, adhesives and sealants. Hazardous waste generated during construction phase shall be stored in sealed containers and disposed off as per the Hazardous Waste (Management, Handling & Trans boundary Movement) Rule, 2008.

Some management practices to be developed are:

- Herbicides and pesticide will not be over applied (small-scale applications) and not applied prior to rain
- Paintbrushes and equipment for water and oil based paints shall be cleaned within a contained area and will not be allowed to contaminate site soils, water courses or drainage systems
- Provision of adequate hazardous waste storage facilities. Hazardous waste collection containers will be located as per safety norms and designated hazardous waste storage areas will be away from storm drains or watercourses
- Segregation of potentially hazardous waste from non-hazardous construction site debris
- Well labeled all hazardous waste containers with the waste being stored and the date of generation
- Instruct employees and subcontractors in identification of hazardous and solid waste

Even with careful management, some of these substances are released into air, soil and water and many are hazardous to workers. With these reasons, the best choice is to avoid

their use as much as possible by using low-toxicity substitutes and low VOC (volatile organic compound) materials.

Waste from Temporary Makes Shift Tents for Labours

Wastes generated from temporary make shift labour tents will mainly comprise of household domestic waste, which will be managed by the contractor of the site. The wastewater generated will be channelized to the septic tank.

Top Soil Management

To minimize disruption of soil and for conservation of top soil, the contractor shall keep the top soil cover separately and stockpile it. After the construction activity is over, top soil will be utilized for landscaping activity. Other measures, which would be followed to prevent soil erosion and contamination include:

- Maximize use of organic fertilizer for landscaping and green belt development
- To prevent soil contamination by oil/grease, leaf proof containers would be used for storage and transportation of oil/grease and wash off from the oil/grease handling area shall be drained through impervious drains and treated appropriately before disposal
- Removal of as little vegetation as possible during the development and revegetation of bare areas after the project.
- Working in a small area at a point of time (phase wise construction)
- Construction of erosion prevention troughs/ berms.

Operational Phase

The philosophy of solid waste management at the complex will be to encouraging the four R's of waste i.e. **R**eduction, **R**euse, **R**ecycling and **R**ecovery (materials & energy). Regular public awareness meetings will be conducted to involve the residents in the proper segregation and storage techniques.

The Environmental Management Plan for the solid waste focuses on three major components during the life cycle of the waste management system i.e., collection and

transportation, treatment or disposal and closure and post-closure care of treatment/disposal facility.

Collection and Transportation

- During the collection stage, the bio-degradable and non recyclable/non biodegradable waste will be stored and collected separately. Only the non-recyclable and non-biodegradable waste will be transported to the waste disposal site. The segregation, transportation and disposal of wastes will be done by the authorized agency that will take care of the waste management of the Residential group housing during the operational phase of the project
- To minimize littering and odour problem, waste will be stored in well-designed containers/ bins that will be located at strategic locations to minimize disturbance in traffic flow
- Care would be taken such that the collection vehicles are well maintained and generate minimum noise and emissions. During transportation of the waste, it will be covered to avoid littering.

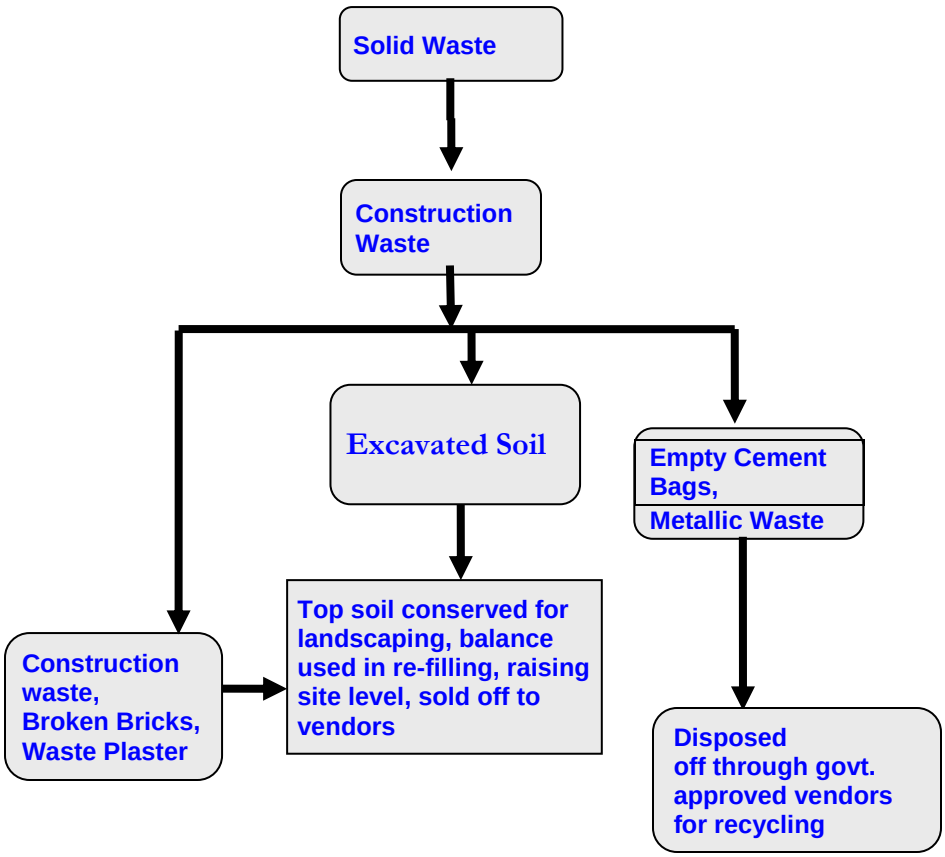


Fig 1: WASTE MANAGEMENT FLOW DIAGRAMS FOR CONSTRUCTION PHASE

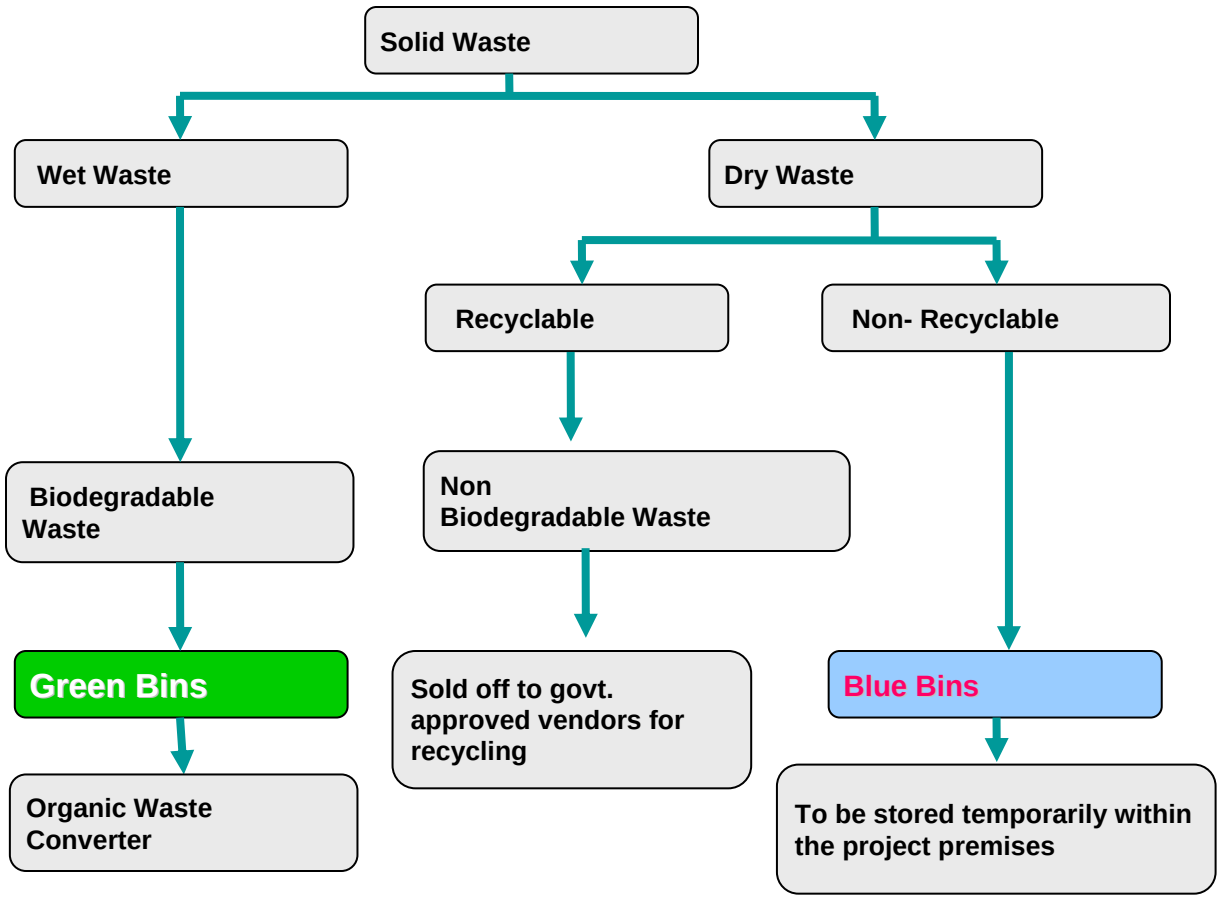


Fig 2: WASTE MANAGEMENT FLOW DIAGRAM FOR OPERATIONAL PHASE

Disposal

With regards to the disposal/ treatment of waste, the management would practice vermin composting for treating bio degradable waste, recyclable waste would be sold to approved vendors and inert waste would be stored within the project premises temporarily till a government designated landfill site comes up in the city.

1.2.5 EMP FOR ECOLOGICAL ENVIRONMENT

Construction activity changes the natural environment. But Residential Group housing also creates a built environment for its inhabitants. The project requires the implementation of following choices exclusively or in combination.

Construction Stage

- Restriction of construction activities to defined project areas, which are ecologically sensitive
- Restrictions on location of temporary labour tents and offices for project staff near the project area to avoid human induced secondary additional impacts on the flora and fauna species
- Cutting, uprooting, coppicing of trees or small trees if present in and around the project site for cooking, burning or heating purposes by the labours will be prohibited and suitable alternatives for this purpose will be made
- Along with the construction work, the peripheral green belt would be developed with suggested native plant species, as they will grow to a full-fledged covered at the time of completion

Operation Stage

Improvement of the current ecology of the project site will entail the following measures:

- Plantation and Landscaping
- Green Belt Development
- Park and Avenue Plantation

The section below summarizes the techniques to be applied to achieve the above objectives

Plantation and landscaping

Selection of the plant species would be done on the basis of their adaptability to the existing geographical conditions and the vegetation composition of the forest type of the region earlier found or currently observed.

Selection of Plant Species for Green Belt Development

The selection of plant species for the development depends on various factors such as climate, elevation and soil. The plant species, which can be suitably and have significant importance, are planted. The plants would exhibit the following desirable characteristics in order to be selected for plantation

1. The species should be fast growing and providing optimum penetrability
2. The species should be wind-firm and deep rooted
3. The species should form a dense canopy
4. As far as possible, the species should be indigenous and locally available
5. Species tolerance to air pollutants like SPM, SO_2 and NO_x should be preferred
6. The species should be permeable to help create air turbulence and mixing within the belt
7. There should be no large gaps for the air to spill through
8. Trees with high foliage density, leaves with larger leaf area and hairy on both the surfaces
9. Ability to withstand conditions like inundation and drought
10. Soil improving plants (Nitrogen fixing rapidly decomposable leaf litter)
11. Attractive appearance with good flowering and fruit bearing
12. Bird and insect attracting tree species
13. Sustainable green cover with minimal maintenance

Parks and Avenue Plantation

- Parks and gardens maintained for recreational and ornamental purposes will not only improve the quality of existing ecology at the project site but also will improve the aesthetic value.
- Avenue Plantation

1. Trees with colonial canopy with attractive flowering
2. Trees with branching at 7 feet and above
3. Trees with medium spreading branches to avoid obstruction to the traffic
4. Fruit trees to be avoided because children may obstruct traffic and general movement of public.

1.2.6 EMP for Socio-Economic Environment

The social management plan has been designed to take proactive steps and adopt best practices, which are sensitive to the socio-cultural setting of the region. The social Management Plan for complex focuses on the following components:

- **Income Generation Opportunity During Construction and Operation Phase**

The project would provide employment opportunity during construction and operation phase. There would also be a wide economic impact in terms of generating opportunities for secondary occupation within and around the complex. The main principles considered for employment and income generation opportunities are out lined below:

- Employment strategy will provide for preferential employment of local people
- Conditions of employment would address issues like minimum wages and medical care for the workers

Contractors would be required to abide to employment priority towards locals and abide by the labour laws regarding standards on employee terms and conditions.

- **Improved Working Environment for Employees**

The project would provide safe and improved working conditions for the workers employed at the facility during construction and operation phase. With the ambience and facilities provided, the complex will provide a new experience in living and recreations. Following measures would be taken to improve the working environment of the area:

- Less use of chemicals and biological agents with hazard potential
- Developing a proper interface between the work and the human resource through a system of skill improvement
- Provision of facilities for nature care and recreation e.g. indoor games facilities
- Measures to reduce the incidence of work related injuries, fatalities and diseases
- Maintenance and beautifications of the complex and the surrounding roads

1.2.7 EMP FOR ENERGY CONSERVATION

Energy conservation program will be implemented through measures taken both on energy demand and supply.

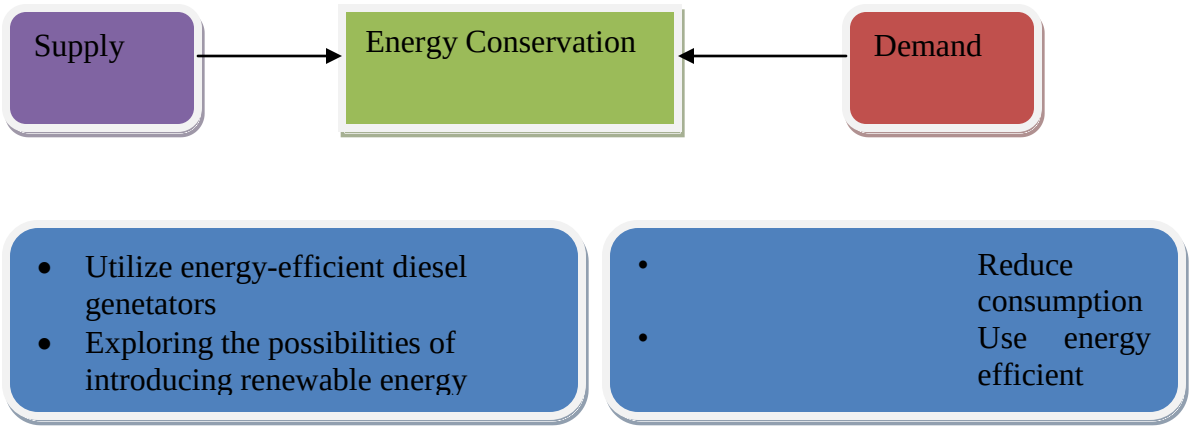


Fig 3 EMP for energy conservation

Energy conservation will be one of the focuses during the complex planning and operation stages. The conservation efforts would consist of the following:

Architectural design

- Maximum utilization of solar light will be done
- Public areas will be cooled by natural ventilation as opposed to air-conditioning
- Maximize the use of natural lighting through design
- The orientation of the buildings will be done in such a way that maximum daylight is available
- The water bodies and green areas will be spaced, so that a significant reduction in the temperature can take place.

Energy Saving Practices

- Energy efficient lamps will be provided within the complex

- Constant monitoring of energy consumption and defining targets for energy conservation
- Adjusting the settings and illumination levels to ensure minimum energy used for desired comfort levels

Behavioral Change on Consumption

- Promoting resident awareness on energy conservation
- Training staff on methods of energy conservation and to be vigilant to such opportunities

1.3 ENVIRONMENTAL MANAGEMENT SYSTEM AND MONITORING PLAN

For the effective and consistent functioning of the complex, an Environmental Management system (EMS) would be established at the site. The EMS would include the following:

- An Environmental management cell
- Environmental Monitoring
- Personnel Training
- Regular Environmental audits and Correction measures
- Documentation – standards operation procedures Environmental Management Plan and other records

1.3.1 ENVIRONMENTAL MANAGEMENT CELL

Apart from having an Environmental Management Plan, it is also adopted to have a permanent organizational set up charged with the task of ensuring its effective implementation of mitigation measures and to conduct environmental monitoring. The major duties and responsibilities of Environmental Management Cell shall be as given below:

- To implement the environmental management plan
- To assure regulatory compliance with all relevant rules and regulations
- To ensure regular operation and maintenance of pollution control devices
- To minimize environmental impact of operations as by strict adherence to the EMP

- To initiate environmental monitoring as per approved schedule
- Review and interpretation of monitored results and corrective measures in case monitored results are above the specified limit
- Maintain documentation of good environmental practices and applicable environmental laws for a ready reference
- Maintain environmental related records
- Coordination with regulatory agencies, external consultants, monitoring laboratories
- Maintenance of log of public complaints and the action taken.

Hierarchical Structure of Environmental Management Cell

Normal activities of the EMP cell would be supervised by a dedicated person who will report to the site manager / coordinator of the Residential Group housing. The hierarchical structure of suggested Environmental Management Cell is given in following Fig 1.4

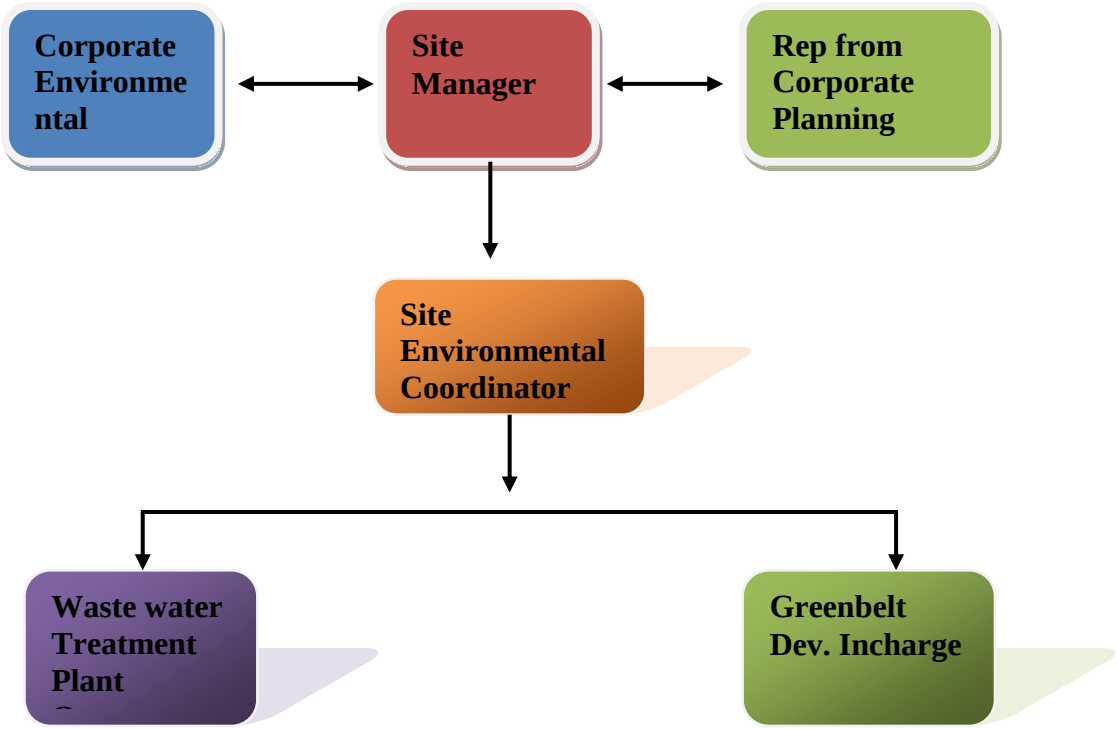


FIG. 1.4 ENVIRONMENT MANAGEMENT CELL STRUCTURE

1.3.2 ENVIRONMENTAL MONITORING

The purpose of environmental monitoring is to evaluate the effectiveness of implementation of Environmental Management Plan (EMP) by periodic monitoring. The important environmental parameters within the impact area are selected so that any adverse affects are detected and time action can be taken.

The project proponent will monitor ambient air Quality, Ground Water Quality and Quantity, and Soil Quality in accordance with an approved monitoring schedule. A suggested monitoring protocol, based on the predicted impact is given in Table 1.4.

Table 2: SUGGESTED MONITORING PROGRAM FOR PORPOSE COMPLEX ENVIRONMENTAL MONITORING PLAN

(Construction Phase)

S. No.	Particulars	Parameters	Frequency
1.	Ambient Air Monitoring	PM 2.5, PM 10, SO_2, NOx, O3 & CO	Once in six months
2.	Water Quality Monitoring	Drinking Water Specifications	Once in six months
3.	Noise Level Monitoring	24 Hrs. Noise Level	Once in six months

ENVIRONMENTAL MONITORING PLAN

(Operational Phase)

S. No.	Particulars	Parameters	Frequency

1.	Ambient Air Monitoring	PM 2.5, PM 10, SO_2, NOx, CO, HC, O3	Once in six months
2.	Stack Emission Monitoring	PM, SO_2, NOx, HC	Once in six months
3.	Treated Effluent Monitoring	pH, BOD, COD, Oil, Grease & Total Suspended solids	Once in six months
4.	Noise Level Monitoring	24 Hrs. Noise Level	Once in six months

1.3.3 Awareness and Training

Training and human resource development is an important link to achieve sustainable operation of the facility and environment management. For successful functioning of the project, relevant EMP would be communicated to residents and contractors.

Residents must be made aware of the importance of waste segregation and disposal, water and energy conservation. The awareness can be provided by periodic Integrated Society meetings. They would be informed of their duties.

1.3.4 Environmental Audits and Corrective Action Plans

To assess whether the implemented EMP is adequate, periodic environmental audits will be conducted by the project proponent's Environmental division. These audits will be followed by Correction Action Plan (CAP) to correct various issues identified during the audits.