

Date: 14.03.2017

To, **The Director, Infrastructure and Miscellaneous Projects & CRZ** Indira Paryavaran Bhavan Jor Bagh Road, New Delhi - 110 003

- Sub: Application for Environmental Clearance for Proposed Residential cum Commercial project on plot bearing S. No. 120/7/A, 120/13/1, 120/13/2, 121/2, 121/3, 121/4/1, 121/4/2, 121/5, 121/6, 121/7, 121/8, 121/9/1, 121/10, 122/1, 122/2, 122/3A,3B,3C,3D, 122/4, 122/5A, 122/5B, 122/6, 122/7, 122/8, 122/9, 122/10, 122/15, 123/1, 123/2, 139/2, 139/3, 140/1, 140/2, 140/3, 140/4,140/5, 140/8 & 141/3 at Village: Kolshet, Tal:& Dist: Thane (W), Maharashtra.[F. No. 21-15/2017-IA-III].
- **Ref:** Minutes of 14th EAC (Infra-II) meeting held on 15.02.2017 (Item no. 14.4.9) (File No. 21-15/2017-IA-III)

Dear Sir,

We are very much thankful to Expert Appraisal Committee (Infra-2) for appraising our above referred project in its 14^{th} Meeting held on 15.02.2017 (Item no. 14.4.9)

As per the minutes of the meeting, we were asked to comply with certain points raised by committee. The point wise reply to the queries raised is enclosed herewith. We hope that reply is in line with your requirement.

Thanking you, Yours faithfully, **FOR AAKASH DEVELOPERS**

arrasho

Authorized Signatory

Enclosures: 1. As above

POINTWISE COMPLIANCE TO QUERIES RAISED DURING 14th EAC (Infra-II) MEETING

- **Point No. 1:** Copy of map indicating location of Sanjay Gandhi National Park dully authenticated by the wildlife warden.
- **Compliance:** The project site is marked on the Eco sensitive Zone Map published with ESZ Notification of SGNP vide No. S. O. 3645 (E) dt. 05.12.2016





<u>Point No. 2:</u> Copy of wildlife conservation plan.

<u>Compliance</u>: Wildlife Conservation Plan is as per follow:

1) To promote community based solutions to prevent and manage human-wildlife conflicts

We will develop a "Toolbox" to address immediate and long-term issues by:

- Developing prevention and education materials and tools aimed at reducing human-wildlife conflicts;
- Developing and promoting the adoption of management practices for mitigating for human-wildlife conflicts;
- Exploring opportunities to improve incentive programs and to use other mechanisms to support private land stewardship;
- Assessing the role of landscape planning at various scales in helping to address human-wildlife conflicts.

2) Build community-based solutions by

- Encouraging local communities to initiate discussions on conflict issues;
- Connecting landowners who wish to address wildlife issues on their land with those who can contribute to resolving those problems (e.g. extension specialists, wildlife technicians, animal control agencies, hunters, trappers, naturalists' groups).

3) To increase public understanding and awareness about humanwildlife conflicts

Establish a timely and practical knowledge base by:

- Developing "state of the resource" reporting;
- Conducting scientific studies and expanding knowledge of life history characteristics of selected wildlife species, including population dynamics, behavior and habitat requirements;
- Updating literature and jurisdictional reviews to obtain information about the causes of and solutions to human-wildlife conflicts, building on the success of others;
- Establishing demonstration and pilot projects to find creative solutions and develop effective tools to mitigate for human-wildlife conflicts;
- Developing extension and outreach tools.

4) Education to effect change by:

- Integrating efforts to educate the public about understanding ecological principles, their relationship with wildlife and the life histories of wildlife that reside near them;
- Incorporating information regarding human-wildlife conflicts into educational curriculum at all levels;
- Informing the public about actions by humans and wildlife that result in human-wildlife conflicts;
- Raising awareness of the public regarding the implications of their actions with respect to human-wildlife conflict;
- Acknowledging the role of resource management activities (such as regulated hunting, habitat conservation, and wildlife rehabilitation) in addressing human-wildlife conflicts.

5) Mitigation measures on Project Site

- A high wall with fencing may be erected to ensure that man animal conflict avoided.
- Construction work shall be avoided during night time to avoid negative impact on wildlife.
- Plot barricading will be done during construction phase.
- Hazards to wildlife due to vehicle will be prevented by maintaining speed limit in the areas of the project near to the eco -sensitive zone of national park.
- Emergency Contacts of the Wildlife Rehabilitation centers will be displayed in the project site for public awareness.

Emergency Contacts:

Name of the Organization	Contact Information
Nature Information Center, SGNP	+91 22 2886 8686
Wildlife Conservation Trust (WCT), Mumbai	+91 22 4925 5555

- **Point No. 3:** Give a conformity status to conditions stipulated in Annexure XIV of the amended EIA notification of 09-12-2016 and seek the approval of the CGWA before any dewatering basements.
- **<u>Compliance</u>**: We hereby confirm that we have complied all the conditions stipulated in Annexure XIV of the amended EIA notification of 09-12-2016. The details of same are as follows:

1. Topography and Natural Drainage

- Topography of the site is flat and sloping towards South Side.
- The average contour level difference is 1.5 m.
- Ground water table is observed at the depth of around 2.5 m below the ground level.
- Ulhas River is at 1.5 km.
- The area is well served with Municipal Drainage system. The drain sizes are built recently along side 20 m and 40 m wide DP road and are adequate to handle the storm water generating from the site. The Storm water finally finds it's way to Ulhas river, located around 1.5 km.
- Toposheet of the project site is as follows:



- 2. Water conservation: Rain water harvesting and ground water recharge
 - The rooftop rainwater will be stored in Rain Water Harvesting tanks after filtration.
 - The roof top Rain water harvesting potential of project is 136 m³/hr [considering average rainfall of 50 mm/ hr and its runoff coefficient 0.8 (Ref: RWH and Conservation manual by GOI, CPWD, pg no. 19)]
 - 7 Rainwater Harvesting Tanks of total 550 m³ are proposed
- 2(a) As per the local building bye-laws the RG required is 7,352.34 m² and RG provided is 16,003.31m²
- 2(b) Treated water will be used for flushing and gardening
 - Roof top rainwater harvesting through RWH Tanks.
 - Low-flow faucets, for both the kitchen and bathroom, deliver more than 30% water savings compared with standard faucets
- 2(c) The proposed development will have the dual plumbing system as the treated sewage will be used for recycling.
- 3. Solid Waste Management
 - Solid Waste generation from the complex is estimated to be 3657 kg/d
 - The biodegradable component: 2194 kg/day
 - Inert, Recyclable waste: 1463 kg/day
 - Segregation of dry and wet garbage will be done at source
- 3(a) Dry garbage as will be segregated and disposed off to recyclers
- 3(b) Wet garbage/biodegradable matter as leftover food, vegetables will be composted by Mechanical Composting
- 4. Sewage Treatment Plant

- Waste water generated out of the project is 581 KLD
- Total STP capacity provided is 650 KLD
- Treated water will be reused for Flushing (156 KLD) and gardening (80 KLD)
- Excess treated water (339 KLD) will be disposed in Municipal Sewer Lines (existing).
- The sewage generated is proposed to be treated up to tertiary treatment level to achieve following standards:

Sr. No.	Parameters	Treated Sewage	Standards for discharge of treated sewage from STP
1	рН	7-8	6.5 to 9
2	BOD (3 days 27°C) (mg/l)	<10	10
3	COD (mg/l)	Upto 40	50
4	Total Suspended Solids mg/l	Upto 10	20
5	NH4-N(mg/l)	<5	5
6	Total Nitrogen (mg/l)	<10	10
7	Fecal Coliform	<100/100 ml	< 1 0/1 0ml

- 5. Energy
 - Demand Load: 5.4 MW
 - DG Sets: 2600 kVA (3 x 750 kVA on conventional and 1 x 350 kVA on solar energy i.e. Solar PV Panels)
 - Compliance with ECBC guidelines.
 - Energy efficient lighting using LED lamps
 - Use of high energy efficient pumps for fire fighting, UG tanks and STP
 - Provision of 2 Solar powered lights and fan for each tenement
 - LED lights are proposed for common areas such as open spaces, pathways RG etc.
- 5(a) DG capacity required is: 2600 kVA

3 x 750 kVA on conventional and 1 x 350 kVA on solar energy i.e. Solar PV Panels, therefore a total of 13% of DG load is met through renewable source.

- 5(b) We are producing about 290 kW of energy through solar PV panels. Hence, the arrangement of solar water heating systems is not made.
- 5(c) Fly ash bricks, ready mix concrete, glazing with HGC of 0.56, Grass pavers, low flow water faucets.
- 6. Air Quality and Noise

Waste Management Plan:

- Excavation waste quantities estimated around : 18,093.2 m³
- Construction waste (4,106 m³) will be used at project site for Road pavement and Plinth filling purpose.
- We will provide adequate size of sedimentation tank (3 x 3 x 3.5 m) during construction phase to avoid the water mixing.

Dust Suppression Measures:

- Construction Chutes will be used to reduce on-site dust generation. Debris will be carried through these chutes directly into the trucks & will be taken off the site
- Systematic Material Stacking, so as to reduce Site Disturbance
- 20 ft high Site Barricading, so as to reduce Air & Noise Pollution
- Road Water Spraying, so as to reduce dust generation
- Net Fabric Wrapping, around the building to reduce air borne dust generation



- 6(a) DG set stack height will be provided as per CPCB guidelines.
- 7. Green Cover

RG Reqd: 7352.34 m²; RG Prov: 16,003.31 m²; Trees to be planted: 556 Nos. Green Belt area: $1,946 \text{ m}^2$

- 7(a) Trees on site: 13 Nos. Trees to be cut: 7 Nos. Trees to be retained: 6 Nos.
- 8. Top soil preservation and reuse

Top soil upto 20 cm from the surface will be preserved at one place and the same will be used for the landscape purpose.

9. Transport

The project is accessible by 20 m wide and 40 m wide DP Road. The site is well connected to G. B. Road by 18 m wide Hiranandani Estate Road. Thane Railway station is about 7 km from the project site.

Well transportation network in available near project site. Even though a variety of the Public Transport is available for the commuters, still the Thane Municipal Transport (TMT) gives an extra option within Thane City which is major bus service provider in thane. Also Autorickshaws, a/c cabs, private vehicles etc are used as mode of transportation.

Parking details of project:

- Parking provided: Residential and Commercial: 4W: 1491, 2W: 1536
- Site is accessible by 20 m wide and 40 m wide DP Road.
- Proper traffic control measures are provided to regulate the flow of traffic/to streamline the traffic flow
- Adequate traffic signs will be provided to notify the residents.
- The entry and exit to the proposed development
- There are multiple entry and exit gates to the proposed development which will help in even distribution of traffic.
- Speed humps/Speed Breakers will be provided for traffic calming and restricting the internal vehicular speed to 10 km/hr.
- Pedestrian facilities are provided like pedestrian strip and pedestrian crossing.
- Traffic wardens will be assigned to regulate the traffic flow during peak hours.
- 10. Environment Management Plan

Environmental Management Cell:

The EMC will comprise a team of environmental engineer, horticulturists, safety specialists and well-trained staff for operation and maintenance of STP and Solid waste processing unit. Staff training programmes in the areas of environment, ambient air, water quality monitoring, solid waste management, noise abatement, and safety and health aspects would be conducted.



Environmental Management Cell during Construction & Operation Phase

Budgetary provision has been made for implementation of EMP. Construction Phase : Rs. 53.5 Lakh/yr

Construction Phase	: Rs. 53.5 Lakh/y
Operation Phase	:
Capital Cost	: Rs. 745 Lakh;
0 & M Cost	: Rs. 99 Lakh/yr