

Minutes of the 20th 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 Projects, Townships and Area Development Projects held on 26th to 28th July, 2017 in the Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, New Delhi – 3.

Day 1: Wednesday, 26th July, 2017

20.1 Opening Remarks of the Chairman

At the outset, Chairman welcomed the members of the Expert Appraisal Committee (Infra-2). Thereafter, agenda items were taken up for discussion. The deliberations held and decisions taken are as under.

20.2 Confirmation of the Minutes of the 19th Meeting of the EAC held on 27th to 29th June, 2017 at New Delhi.

The minutes of the 19th Expert Appraisal Committee (Infra-2) meeting held during 27th to 29th June, 2017 were confirmed with the following corrections.

Agenda No.	Minuting	Correction/To be read as
Agenda No. 19.3.11 Modification of existing iron ore terminal on "as is where is" basis to handle common user coal at Kamarajar port by M/s Kamarajar Port Ltd	(vii) A.1 Main Berth 34.7m x 30m with Bollard, Fenders, Ladders etc.	(vii) A.1 Main Berth 347.5m x 30m with Bollard, Fenders, Ladders etc.
Agenda No. 19.4.4 Establishment of Common Effluent Treatment Plant (To be managed by The Ahmedabad Hand Screen Printing Association) by M/s Ahmedabad Hand Screen Printing Association	(i) CETP with design Capacity of 30 MLD, expandable to 45 MLD considering peak flow of 1.5 times is proposed at Block No.135/Part & 154/Part, Behrampura, Ahmedabad.	(i) CETP with design Capacity of 30 MLD, expandable to 45 MLD considering peak flow of 1.5 times is proposed at Block No.138/Part & 154/Part, Behrampura, Ahmedabad.
Agenda No. 19.4.7 Redevelopment of General Residential Accommodation (GPRA) Colonies at Netaji Nagar, Delhi by	ToR Condition (xxxi) Traffic Impact Analysis (TIA) shall be carried out engaging services of an organisation specialising in Transport Planning and Traffic	(xxxi) Traffic Impact Analysis (TIA) shall be carried out engaging services of an organisation specialising in Transport Planning and Traffic

M/s NBCC India Limited	engineering to assess the impact of proposed redevelopment of the existing residential complex of AIIMS in terms of impact on traffic intensities, road capacities, intersection capacities and related delays on the bounding network of the site.	engineering to assess the impact of proposed redevelopment of the existing residential complex in terms of impact on traffic intensities, road capacities, intersection capacities and related delays on the bounding network of the site.
Agenda No. 19.4.8 Redevelopment of General Residential Accommodation (GPRA) at Nauroji Nagar, New Delhi by NBCC India Ltd	ToR Condition (xxx) Traffic Impact Analysis (TIA) shall be carried out engaging services of an organisation specialising in Transport Planning and Traffic engineering to assess the impact of proposed redevelopment of the existing residential complex of AIIMS in terms of impact on traffic intensities, road capacities, intersection capacities and related delays on the bounding network of the site.	(xxx) Traffic Impact Analysis (TIA) shall be carried out engaging services of an organisation specialising in Transport Planning and Traffic engineering to assess the impact of proposed redevelopment of the existing residential complex in terms of impact on traffic intensities, road capacities, intersection capacities and related delays on the bounding network of the site.

20.3 Consideration of Proposals

20.3.1	<p>Juhi Serenity Residential and Commercial development at Plot No. 24, Sector- 8, Ghansoli, Navi Mumbai, Maharashtra by M/s Bhumika Developers – Reconsideration for Environmental Clearance (IA/MH/MIS/60231/2016, F.No.21-43/2016-IA-III)</p> <p>The project proponent made a presentation and provided the following information to the Committee:-</p> <p>Committee:-</p> <p>(i) The project is located at 19°07'08.1"N Latitude and 72°59'50.0"E longitude.</p> <p>(ii) The total plot area is 4800.10 sqm. FSI area is 8637.372 sqm and total construction area of 28434.401 sqm. The project will comprise of Residential 2 Building: (Main Building + EWS/LIG Building) Main Building: Ground (Partially Commercial + Stilt Parking)+ 1st Floor (Partially Commercial + Parking on Podium Floor) + 2nd Floor (Parking on Podium Floor) + 3rd Floor (Parking on podium floor) + 4th Floor (Recreational podium floor) + 23 upper residential floors with refuge area on 8th, 11th, 14th, 17th, 20th, 23rd, 26th floors (3rd floor as Fire check Floor) (i.e. Ground + 27th floors); EWS/LIG Building: Ground floor (stilt parking) + 1st floor (parking on podium floor) + 6 upper residential floors (i.e. Ground + 7th</p>
--------	--

floors) Total 150 flats + 13 shops + 13 offices shall be developed. Maximum height of the Main building is: 85.50 Mtrs up to Terrace level and 90.55 Mtrs Height up to top of overhead tank level and EWS/LIG Building: 24.00 Mtrs up to terrace level and 28.15 Mtrs height up to top of overhead tank level.

- (iii) During construction phase, total water requirement is expected to be 12 KLD for workers and 10-20 KLD for construction, which will be met by NMMC and water tankers. During the construction phase, soak pits and septic tanks will be provided for disposal of waste water. Temporary sanitary toilets will be provided during peak labour force.
- (iv) During operational phase, total water demand of the project is expected to be 167 KLD and the same will be met by the NMMC and recycled water. Waste water generated (137.00 KLD) uses will be treated in Microfiltration technology based on KSQ flat sheet membrane STP of total 145.00 KLD capacity. 123.00 KLD of treated wastewater will be recycled (49.0 for flushing, 3.70 for gardening, 3.34 for car washing). About 66.96 KLD will be disposed in to municipal drain.
- (v) About 459.33 TPD solid wastes will be generated in the project. The biodegradable waste (321.53 TPD) will be processed in OWC and the non-biodegradable waste generated (137.80 TPD) will be handed over to authorized local vendor.
- (vi) The total power requirement during construction phase is 100 KVA and will be met from MSEDCL and total power requirement during cooperation phase is 3156.34 KW and will be met from MSEDCL.
- (vii) Rooftop rainwater of buildings will be collected in 1 RWH tank of total 58.50 KLD capacities for harvesting after filtration.
- (viii) Parking facility for 223 four wheelers is proposed to be provided against the requirement of 223 (According to local norms).
- (ix) Proposed energy saving measures would save about 26.31% of power.
- (x) Project Site is not located within 10 km of Eco Sensitive areas.
- (xi) There is no court case pending against the project.
- (xii) Investment/Cost of the project is Rs. 98.65 crore.
- (xiii) Employment potential: 100 – 150.
- (xiv) Benefits of the project: Employment benefit, trade in building materials, housing supply for small and medium requirements etc.

The proposal was earlier considered by the EAC in its 11th meeting held on 24th-25th November, 2016, wherein some additional information was sought. Now, Project Proponent vide letter dated 9.01.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant

agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.

- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.
- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.
- (xi) Sewage shall be treated in the STP based on Micro filtration- KSQ Flat Sheet Membrane Technology (with tertiary treatment i.e. Ultra Filtration). The treated effluent from STP shall

- be recycled/re-used for flushing, horticulture & Car washing. Excess treated effluent shall be discharged in to NNMC Municipal sewer as per CPCB norms.
- (xii) 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. As proposed, 1 nos. of rain water harvesting tanks of total capacity of 58.50 m³ shall be provided as per CGWB guidelines.
 - (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. 60 m² space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
 - (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
 - (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
 - (xvi) 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.
 - (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
 - (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
 - (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
 - (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
 - (xxi) Approval of the CGWA require before any dewatering for basements.
 - (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
 - (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
 - (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
 - (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
 - (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.

(xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.

(xxviii) 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.

- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
- Traffic calming measures
- Proper design of entry and exit points.
- Parking norms as per local regulation

II. Operational Phase

(i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.

(ii) For indoor air quality the ventilation provisions as per National Building Code of India.

(iii) Fresh water requirement from Navi Mumbai Municipal Corporation (NMMC) Water Supply shall not exceed 98 m³/day.

(iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.

(v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.

(vi) No sewage or untreated effluent water would be discharged through storm water drains.

(vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.

(viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.

(ix) 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.
- (x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.
 - (xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
 - (xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed 516.790 sqm area on ground and 221.40 sqm on podium shall be provided for green belt development.
 - (xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified 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 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.
 - (xiv) The company shall draw up and implement a corporate social Responsibility plan as per the Company's Act of 2013.

20.3.2 Environmental Clearance for proposed Residential and Commercial Project at S. NO. 147/8, 147/9, 147/10, 147/11, 148/2, 148/1A, 200/3 of village Khidkali, Thane, Maharashtra by M/s Dynamic Buildtech Ltd – Reconsideration for Environmental Clearance (IA/MH/MIS/60031/2016, F.No.21-10/2016-IA-III)

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The project is located at 19°09'23.34"N Latitude and 73°03'56.21"E Longitude.
- (ii) The project is residential and commercial project on land bearing S. NO. 147/8, 147/9, 147/10, 147/11, 148/2, 148/1A, 200/3 of village Khidkali, Dist – Thane, Maharashtra.
- (iii) The total plot area is 17,730 sqm. FSI area is 25,032.66 sqm and total construction area is 40,903.61 sqm. Total 657 nos. of flats and commercial offices shall be developed. Maximum height of the building is 89.40 m.
- (iv) During construction phase, total water requirement is expected to be 40KLD which will be met by tanker water. During the construction phase, soak pits and septic tanks will be provided for disposal of waste water. Temporary sanitary toilets will be provided during peak labour force.

- (v) During operational phase, total water demand of the project is expected to be 446 KLD and same will be met by fresh water from TMC and recycled water. Wastewater generated (416 KLD) uses will be treated in STP of 450 KLD capacity. 149 KLD of treated wastewater will be recycled for flushing. About 254 KLD will be discharged in Municipal sewer lines
- (vi) About 1653 kg/d solid waste will be generated in the project. The biodegradable waste (992 kg/d) will be processed in mechanical composting (Ecobiocompack) and the non-biodegradable waste generated (661 kg/d) will be handed over to authorized local vendor
- (vii) The total power requirement during construction phase is 250 kVA and will be met from MSEDCL and Total power requirement during operation phase is 3.5 MW and will be met from MSEDCL
- (viii) Rooftop rainwater of building will be collected in one RWH tank of total 50 m³ capacity for harvesting after filtration
- (ix) Parking facility for 115 four wheelers and 664 two wheelers are proposed to be provided against the requirement of 105 four wheelers and 664 two wheelers respectively (as per local norms).
- (x) Energy saving measure would save around 3.26% as compared to ECBC compared to conventional system.
- (xi) Site is not located within 10 km of Sanjay Gandhi National Park (Eco Sensitive areas).
- (xii) There is no court case pending against the project
- (xiii) Investment/Cost of the project is Rs. 66.50 Crore.
- (xiv) Employment potential: 80 Nos.
- (xv) Benefits of the project: The expected outcome of the proposed project will be the good quality of livelihood to people. Employment to local residents during construction phase. The project will generate employment (Labour employment of household activity) during operational phase which will benefit the local population in getting work opportunities. It will create long term employment in activities such as maintenance of the buildings and ancillary services.

The proposal was earlier considered by the EAC in its 11th meeting held on 24th-25th November, 2016, wherein some additional information was sought. Now, Project Proponent vide letter dated 02.02.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.

- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.
- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.
- (xi) Sewage shall be treated in the STP based on Moving Bed Biofilm Reactor (MBBR) Technology (with tertiary treatment i.e. Ultra Filtration). The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling. Excess treated effluent shall be discharged in to Municipal sewer line as per CPCB norms.
- (xii) 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. As proposed, 1

no. of rain water harvesting tanks of total capacity of 50 m³ shall be provided as per CGWB guidelines.

- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. 110m² space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in

building construction.

(xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.

(xxviii) 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.

- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
- Traffic calming measures
- Proper design of entry and exit points.
- Parking norms as per local regulation

II. Operational Phase

(i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.

(ii) For indoor air quality the ventilation provisions as per National Building Code of India.

(iii) Fresh water requirement from Thane Municipal Corporation Water Supply shall not exceed 296 m³/day.

(iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.

(v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.

(vi) No sewage or untreated effluent water would be discharged through storm water drains.

(vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.

(viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.

(ix) 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.

(x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be

	<p>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.</p> <p>(xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.</p> <p>(xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed 872 sqm area shall be provided for green belt development.</p>
20.3.3	<p>Expansion of Residential cum Commercial Project at Plot bearing CTS No. 136/1, 137/6, 137/11, 136/12, 136/13, 136/14, 136/16-A, 133/1, 132/1, 128/1 at village Kolshet, Thane, Maharashtra by M/s Darshan Sagar Developers – Reconsideration for Environmental Clearance (IA/MH/MIS/60499/2016, 21-53/2016-IA-III)</p> <p>The project proponent made a presentation and provided the following information to the Committee:-</p> <p>(i) The project is located at 19°15'02.41"N Latitude and 72°58'59.00"E Longitude.</p> <p>(ii) The project is Expansion of residential cum commercial project at Plot bearing CTS No. 136/1, 137/6, 137/11, 136/12, 136/13, 136/14, 136/16-A, 133/1, 132/1, 128/1 at village Kolshet, Thane, Maharashtra.</p> <p>(iii) The part portion of the plot was under ULC reservation (Library and post office) and as per the provisions under ULC any reservation land has to be handed over to the Government free of Cost. Therefore, in the phase I we have considered the development under the land area falling in R zone where reservation was not applicable, i.e.; for survey Nos. 136/1, 137/6 and 137/11. Based on this potential of the development was less than 20,000 sqm and the plan was sanctioned by the TMC vide VP No. SO 5/0051/12 having FSI Area of building 1 & 2 is 13,733.78 sqm & total Construction area: 18,958 sqm.</p> <p>(iv) Now in the meanwhile ULC Act is abolished and as per the revised decision of the Government that Reserved land can be developed by paying 100% land cost. Therefore, we are now entitled to develop the land under reservation, therefore the total potential is exceeding 20,000 sqm hence this application is for expansion of the existing project.</p> <p>(v) As per earlier plan building 1 & 2 were almost under the verge of completion, whose construction area is 18,958 sqm. In this expansion there is no change in the configuration of constructed building. The remaining development is on the adjoining plot. Thus out of total construction area of existing and proposed i.e. 73,803.36 sqm, the expansion sought for the area of 54,845.36 sqm.</p> <p>(vi) The plot area is 22,339.24 sqm. FSI area is 42,769.68 sqm and total construction area is 73,803.36 sqm. Total 561 nos. of flats, Commercial Shopping, Library & Welfare Centre, Post office building shall be developed. Maximum height of the building is 74.25 m.</p> <p>(vii) During construction phase, total water requirement is expected to be 70 KLD which will be met by tanker water. During the construction phase, soak pits and septic tanks will be provided for disposal of waste water. Temporary sanitary toilets will be provided during peak labor force.</p>

- (viii) During operational phase, total water demand of the project is expected to be 337 KLD and same will be met by fresh water from TMC (Thane Municipal Corporation) and recycled water. Wastewater generated (288 KLD) uses will be treated in STP of 360KLD capacity. 83 KLD of treated water will be recycled for flushing and about 24 KLD for gardening. About 178 KLD will be discharged in Municipal sewer line.
- (ix) About 1819 kg/d solid waste will be generated in the project. The biodegradable waste (1091 kg/d) will be processed in mechanical composting (Eco-biocompack) and the non-biodegradable waste 727 kg/d will be handed over to recyclers.
- (x) The total power requirement during construction phase is 500 kVA and will be met from MSEDCL and Total power requirement during operation phase is 3.1 MW (demand Load) and will be met from MSEDCL.
- (xi) Rooftop rainwater of building will be collected in three RWH tanks of total 150 m³ capacity for harvesting after filtration.
- (xii) Parking facility for 769 Nos. four wheelers and 385 Nos. two wheelers are proposed to be provided against the requirement of 726 Nos. four wheelers and 271 Nos. two wheelers respectively (as per local norms).
- (xiii) Energy saving of total 3.30 % as compared to ECBC 2007 base case will be achieved.
- (xiv) Site is located within 10 km of Sanjay Gandhi National Park. However, it is outside the eco sensitive area as per MoEF&CC Notification dated 05.12.2016.
- (xv) There is no court case pending against the project.
- (xvi) Investment/Cost of the project is Rs.156 Crore.
- (xvii) Employment potential: The project would generate direct / indirect employment up to 100 people.
- (xviii) Benefits of the project: The proposed project will provide good quality housing with all the amenities and waste processing / recycling facilities. The project will generate employment (Labour employment of household activity) during operational phase which will benefit the local population in getting work opportunities. It will create long term employment in activities such as maintenance of the buildings and ancillary services. The development of library and post office as per the reservation will be an added benefit of this project to the surrounding areas.

The proposal was earlier considered by the EAC in its 12th meeting held on 26th-28th December, 2016, wherein some additional information was sought. Now, Project Proponent vide letter dated 27.01.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.

- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.
- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.
- (xi) Sewage shall be treated in the STP based on Oxic-Anoxic attached media growth Treatment Technology (with tertiary treatment i.e. Ultra Filtration). The treated effluent from STP shall be recycled/re-used for flushing & horticulture. Excess treated effluent shall be discharged in to Municipal sewer line as per CPCB norms.

- (xii) 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. As proposed, 3 nos. of rain water harvesting tanks of total capacity of 150 m³ shall be provided as per CGWB guidelines.
- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. 100 m² space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightning etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.

(xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.

(xxviii) 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.

- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
- Traffic calming measures
- Proper design of entry and exit points.
- Parking norms as per local regulation

II. Operational Phase

(i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.

(ii) For indoor air quality the ventilation provisions as per National Building Code of India.

(iii) Fresh water requirement from Thane Municipal Corporation Water Supply shall not exceed 337 m³/day.

(iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.

(v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.

(vi) No sewage or untreated effluent water would be discharged through storm water drains.

(vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.

(viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.

(ix) 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.

	<p>(x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.</p> <p>(xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.</p> <p>(xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed 742.62 sqm area shall be provided for green belt development.</p> <p>(xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified 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 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.</p> <p>(xiv) The company shall draw up and implement a corporate social Responsibility plan as per the Company's Act of 2013.</p>
20.3.4	<p>Environmental Clearance for Proposed Residential Building on Plot Bearing C.T.S No. 284 Of Village Bhandup, Mumbai, Maharashtra by M/s Marathon Realty Pvt. Ltd. – Reconsideration for Environmental Clearance (IA/MH/MIS/60650/2016, 21-59/2016-IA-III)</p> <p><i>Project Proponent did not attend meeting.</i></p>
20.3.5	<p>Redevelopment of Residential cum Commercial Project at Byculla, Mumbai, Maharashtra by M/s Dosti Realty Ltd – Reconsideration for Environmental Clearance (21-101/2016-IA-III, IA/MH/MIS/61280/2016)</p> <p><i>Project Proponent did not attend meeting.</i></p>
20.3.6	<p>Proposed Redevelopment of Residential Building No. 38 & 39 of Vartaknagar Layout at Plot bearing S. No. 212 (Pt) at village Majiwade, Tal and Dist: Thane, Maharashtra by M/s Ekdanta Construction & Developers Pvt. Ltd – Reconsideration for Environmental Clearance (21-102/2016-IA-III, IA/MH/MIS/61293/2016)</p> <p>The project proponent made a presentation and provided the following information to the Committee:-</p> <p>(i) The project is located at 19⁰12'42.34"N Latitude and 72⁰57'39.77"E Longitude.</p> <p>(ii) The project is redevelopment of residential building no. 38 & 39 of Vartaknagar, Plot bearing</p>

S. No. 212 (Pt) at village Majiwade, Tal and Dist - Thane, Maharashtra.

- (iii) The total plot area is 3,810.77 sqm. FSI area is 16,276.16 sqm and total construction area is 31,275.50 sqm. The project comprise of 1 Residential Building having 305 flats & Commercial area of 2260 sqm (44 shops). Maximum height of the building is 91.50 m
- (iv) During construction phase, total water requirement is expected to be 60 KLD which will be met by tanker water/ treated water from nearby STP. During the construction phase, soak pits and septic tanks will be provided for disposal of waste water. Temporary sanitary toilets will be provided during peak labor force.
- (v) During operational phase, total water demand of the project is expected to be 167 KLD and same will be met by fresh water from TMC (Thane Municipal Corporation) and recycled water. Wastewater generated (Sullage Generation- 95 KLD) will be treated in Sullage Treatment Plant of 100 KLD capacity. 44 KLD of treated wastewater will be recycled for flushing. Sewage and Excess Treated Sullage of 93 KLD will be discharged to Municipal sewer lines.
- (vi) About 960 kg/d solid waste will be generated in the project. The biodegradable waste (576 kg/d) will be processed in mechanical composting (Eco-biocompack) and the non-biodegradable waste generated (384 kg/d) will be handed over to authorized local vendor
- (vii) The total power requirement during construction phase is 250 kVA and will be met from MSEDCL and Total power requirement during operation phase is 1.4 MW (Demand Load) and will be met from MSEDCL
- (viii) Rooftop rainwater of building will be collected in one RWH tank of total holding capacity 49 m³ for harvesting after filtration
- (ix) Parking facility for 280 Nos. four wheelers and 305 Nos. two wheelers are proposed to be provided against the requirement of 223 four wheelers and 305 two wheelers respectively (as per local norms).
- (x) Proposed energy saving measures would save about 20.5 % of (Total demand) power.
- (xi) The project site is located within 10 km of Sanjay Gandhi National Park protected area. As per the ESZ notification of Sanjay Gandhi National Park (SGNP), vide no. S. O. 3645 (E) dated 05.12.2016, our project site is outside of ESZ i.e. (100 m).
- (xii) There is no court case pending against the project
- (xiii) Investment/Cost of the project is Rs. 89.62 Crore.
- (xiv) Employment potential: 50 Nos.
- (xv) Benefits of the project: The proposed redevelopment being carried for economically weaker section hence the proposed project will give the good quality of livelihood to people. The project will generate employment (employment for household activity) during operational phase which will benefit to the local population for getting work opportunities. It will create long term employment in activities such as maintenance of the building and ancillary services including environmental infrastructure.

The proposal was earlier considered by the EAC in its 13th meeting held on 23-25 January, 2017, wherein some additional information was sought. Now, Project Proponent vide letter dated 15.02.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions

along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.
- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing,

thermal cooling, conditioning etc. shall be done.

- (x) 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.
- (xi) Sewage shall be treated in the STP with tertiary treatment i.e. Ultra Filtration. The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling. Excess treated effluent shall be discharged in to Municipal sewer line as per CPCB norms.
- (xii) 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. As proposed, 1 nos. of rain water harvesting tanks of total capacity of 49 m³ shall be provided as per CGWB guidelines.
- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. 60 m² space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightning etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per

Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxviii) 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.
- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from Thane Municipal Corporation Water Supply shall not exceed 121 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage

	<p>Treatment Systems, 2013.</p> <p>(viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.</p> <p>(ix) 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.</p> <p>(x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.</p> <p>(xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.</p> <p>(xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed 200 sqm area shall be provided for green belt development.</p>
20.3.7	<p>Proposed Redevelopment of Residential Cum Commercial Project At CTS. No. 15, 47, 48, 49, 59 & 63 at L.B.S. Marg, Damani Estate, Naupada, Thane by Providence Realty LLP- Reconsideration for Environmental Clearance (21-100/2016-IA-III, IA/MH/MIS/61192/2016)</p> <p>The project proponent made a presentation and provided the following information to the Committee:-</p> <p>(i) The project is located at 19°11'25.58"N Latitude and 72°57'58.94"E Longitude.</p> <p>(ii) The project is Proposed Redevelopment of Residential Cum Commercial Project at CTS. No. 15, 47, 48, 49, 59 & 63 at L.B.S. Marg, Damani Estate, Naupada, Thane (W), Maharashtra.</p> <p>(iii) The plot area is 10,562.27 sqm. FSI area is 23,522.95 sqm and total construction area is 47,642.69 sqm. Total 363 nos. of flats, Commercial shops and offices shall be developed. Maximum height of the building is 91.95 m.</p> <p>(iv) During construction phase, total water requirement is expected to be 60KLD which will be met by tanker water / treated water from nearby STP. During the construction phase, soak pits and septic tanks will be provided for disposal of waste water. Temporary sanitary toilets will be provided.</p> <p>(v) During operational phase, total water demand of the project is expected to be 201 KLD and same will be met by fresh water from TMC (Thane Municipal Corporation) and recycled water. Wastewater generated (176 KLD) uses will be treated in STP of 200 KLD capacity. 50 KLD of treated water will be recycled for flushing and about 10 KLD for gardening. About 114 KLD will be discharged in Municipal sewer line.</p>

- (vi) About 1114 kg/d solid waste will be generated in the project. The biodegradable waste (669 kg/d) will be processed in mechanical composting (Eco-biocompack) and the non-biodegradable waste 446 kg/d will be handed over to recyclers.
- (vii) The total power requirement during construction phase is 250 kVA and will be met from MSEDCL and Total power requirement during operation phase is 1.8 MW (demand Load) and will be met from MSEDCL
- (viii) Rooftop rainwater of building will be collected in 2 RWH tanks of total 50 m³ holding capacity for harvesting after filtration
- (ix) Parking facility for 438 Nos. four wheelers and 497 Nos. two wheelers are proposed to be provided against the requirement of 438 Nos. four wheelers and 497 Nos. two wheelers respectively (as per local norms).
- (x) Energy saving of total 2.08% as compared to ECBC 2007 base case will be achieved.
- (xi) Site is located within 10 km of Sanjay Gandhi National Park. However, it is outside the eco sensitive area as per MoEF&CC Notification dated 05.12.2016
- (xii) There is no court case pending against the project
- (xiii) Investment/Cost of the project is Rs.115.0 Crore.
- (xiv) **Employment potential:** The project would generate direct / indirect employment up to 70 people.
- (xv) **Benefits of the project:** The existing buildings are in dilapidated state. The proposed redevelopment project will provide good quality housing with all the amenities and waste processing / recycling facilities. The project will generate employment (Labour employment of household activity) during operational phase which will benefit the local population in getting work opportunities. It will create long term employment in activities such as maintenance of the buildings and ancillary services. The overall quality of living will substantially improve after the redevelopment compared with the existing condition.

The proposal was earlier considered by the EAC in its 13th meeting held on 23 -25 January, 2017, wherein some additional information was sought. Now, Project Proponent vide letter dated 15.02.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.

- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.
- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.
- (xi) Sewage shall be treated in the STP with tertiary treatment i.e. Ultra Filtration. The treated effluent from STP shall be recycled/re-used for flushing & horticulture. Excess treated effluent shall be discharged in to Municipal sewer line as per CPCB norms.
- (xii) 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. As proposed, 2 nos. of rain water harvesting tanks of total capacity of 50 m³ shall be provided as per CGWB guidelines.

- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. 70 m² space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05

kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.

(xxviii) 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.

- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
- Traffic calming measures
- Proper design of entry and exit points.
- Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from Thane Municipal Corporation Water Supply shall not exceed 136 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.
- (ix) 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.
- (x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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

	<p>far as possible.</p> <p>(xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.</p> <p>(xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed 600 sqm area shall be provided for green belt development.</p>
20.3.8	<p>Proposed construction at Survey no. 109 Hissa no. 3, 6, Survey no. 111 Hissa no. 10, Survey no. 121, Hissa no. 1, 2, 8 of Village Ghodbunder, Bhayander (East), Thane, Maharashtra by M/s Arkade Realty Ltd – Reconsideration for Environmental Clearance (IA/MH/MIS/60238/2016, 21-46/2016-IA-III)</p> <p><i>Project Proponent did not attend meeting.</i></p>
20.3.9	<p>Proposed Residential Development on Plot Bearing Cts No. 1651, 1653 & 1654 of Bandra-C Village, situated at Ambedkar Road, Bandra, Mumbai by Shri Ahuja Properties Pvt. Ltd. – Reconsideration for Environmental Clearance (IA/MH/MIS/60296/2016, 21-48/2016-IA-III)</p> <p>The project proponent made a presentation and provided the following information to the Committee:-</p> <p>(i) Shree Ahuja Properties Pvt. Ltd have proposed Residential Development on plot bearing CTS No. 1651, 1653 & 1654 of Bandra-C Village situated at Ambedkar Road, Bandra, Mumbai.</p> <p>(ii) The total plot area of the project is 4,046.00 sqm and total construction area is 41,537.53 sqm (FSI area is 16324.46 sqm and non FSI area is 25213.07 sqm). The proposed project consist of one building having configuration 1 Tank level +3 Basements + Stilt + 6 Podiums + 1 Deck Level + 2 Transfer levels + 1 Fire check floor + 19 Residential floors (Tenant floors 10 nos. + Sale floors 9 nos.) amounting to total no. of 142 tenements. RG area proposed is 809.50 sqm.</p> <p>(iii) The proposed infrastructure works includes water supply from Municipal Corporation of Greater Mumbai, electric supply from M/s. Reliance Energy, sewage treatment through MBBR Technology, storm water drainage system, rain water harvesting system, fire fighting, energy conservation measures, adequate parking space, solid waste management and communication networks etc will be provided.</p> <p>(iv) The total water requirement during operation phase of the project will be 115 KLD out of which fresh water requirement is 70 KLD and recycled water requirement is 45 KLD. The fresh water supply for domestic purpose will depend on the local municipal supplies i.e. Municipal Corporation of Greater Mumbai water supply whereas treated water from sewage treatment plant will be use for flushing and gardening purpose.</p> <p>(v) The total wastewater generated from the project is estimated 80 KLD. The waste generated will be treated in sewage treatment plant based on MBBR Technology of capacity 80 KLD. The treated water from sewage treatment plant will be reclaimed and used for flushing and gardening purpose that will result in minimum consumption of fresh water. The balance water will be discharge to municipal drain.</p>

- (vi) The power requirement during operation period will be about 3657 KW for connected load and 980 KW for maximum demand load. The power supply will be from M/s. Reliance Energy. There will be also provision for DG set in case of emergency. 1 No. of DG set of capacity 630 kVA for apartment and 1 No. of DG set of capacity 320 KVA for MCGM will be provided.
- (vii) The total solid waste generated during operation phase will be 355 kg/day. The biodegradable waste will be 213 kg/day whereas non biodegradable waste will be 142 kg/day. The biodegradable waste will be composted whereas other will be given to authorized agencies.
- (viii) The estimated cost of the project is Rs. 90.20 Crores.
- (ix) Employment potential: Yes
- (x) Benefits of the project: Proposed development will provide safe and quality residential accommodation to the people who are currently living in dilapidated buildings. It will also help in increase in living standards of the local residents.

The proposal was earlier considered by the EAC in its 12th meeting held on 26th-28th December, 2016, wherein some additional information was sought. Now, Project Proponent vide letter dated 02.03.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
- (iv) 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

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.

- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.
- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.
- (xi) Sewage shall be treated in the STP based on Moving Bed Biofilm Reactor (MBBR) Technology (with tertiary treatment i.e. Ultra Filtration). The treated effluent from STP shall be recycled/re-used for flushing & horticulture. Excess treated effluent shall be discharged in to Municipal sewer line as per CPCB norms.
- (xii) 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. As proposed, 1 nos. of rain water harvesting tanks of total capacity of 50 m³ shall be provided as per CGWB guidelines.
- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. 75 m² space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) 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.

- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxviii) 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.
 - Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from Municipal Corporation of Greater Mumbai (MCGM) Water Supply shall not exceed 70 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.
- (ix) 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.
- (x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.
- (xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed adequate area shall be provided for green belt development.

20.3.10 **The Residential and commercial development at Plot No. -2, Sector- 8, Ulwe, Navi Mumbai, District: Raigad, Maharashtra By M/s Midtown Holding Leasing and Properties Pvt. Ltd.-Reconsideration for Environmental Clearance(IA/MH/MIS/60221/2016, 21-96/2016-IA-III)**

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The project is located at 18°58'09.1"N Latitude and 73°00'48.8"E longitude.
- (ii) Earlier Clearance details and constructions status, if any: Earlier EC received on 31st May 2014 (SEAC-2013/CR-489/TC-1); In 4 wings (A-D) up to 7 floors and in 5th (E) wing up to 9 floors has been constructed.
- (iii) The total plot area is 9599.48 sqm. FSI area is 14,389.050 sqm and total construction area of 37,871.269 sqm. The project will comprise of Residential 1 Building + 5 wings + 2 Podiums + 12 Upper Floors + 242 flats + 33 shops. Total 242 flats shall be developed. Maximum height of the building is 44.60 Mt.
- (iv) During construction phase, total water requirement is expected to be 12 KLD for workers and 10-20 KLD for construction, which will be met by CIDCO and water tankers. During the construction phase, soak pits and septic tanks will be provided for disposal of waste water. Temporary sanitary toilets will be provided during peak labour force.
- (v) During operational phase, total water demand of the project is expected to be 202.00 KLD and the same will be met by the CIDCO and recycled water. Waste water generated (151.00 KLD) will be treated in Microfiltration technology based on KSQ flat sheet membrane STP of total 160 KLD capacities. 136.00 KLD of treated wastewater will be recycled (57.00 for flushing, 15.00 for gardening and 4.00 for car washing). About 60.00 KLD will be disposed in to municipal drain.
- (vi) About 584.64 TPD solid wastes will be generated in the project. The biodegradable waste (409.24 TPD) will be processed in OWC and the non-biodegradable waste generated (175.40 TPD) will be handed over to authorized local vendor.
- (vii) The total power requirement during construction phase is 100 KVA and will be met from MSEDCL and total power requirement during cooperation phase is 1894.80 KVA and will be met from MSEDCL.
- (viii) Rooftop rainwater of buildings will be collected in 1 RWH tank of total 100 KLD capacities for harvesting after filtration.
- (ix) Parking facility for 286 four wheelers and 114 two wheelers is proposed to be provided against the requirement of 285 and 114 respectively (According to local norms).
- (x) Proposed energy saving measures would save about 26 % of power.
- (xi) There is no court case pending against the project.
- (xii) Investment/Cost of the project is Rs. 95.00 crore.
- (xiii) **Employment potential:** 100 – 150
- (xiv) **Benefits of the project:** Employment benefit, trade in building materials, housing supply for small and medium requirements etc.

The proposal was earlier considered by the EAC in its 11th meeting held on 24th-25th November, 2016 and 13th meeting held on 23rd-25th January, 2017, wherein some additional information was sought. Now, Project Proponent vide letter dated 06.01.2017 and 08.03.2017 submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on the certified compliance report letter F. No. EC-454/RON/2017-NGP/

dated 24.07.2017 issued by the MoEF&CC's Regional Office (WCZ), Nagpur and reply given by the project proponent to non-compliance of EC conditions. The Committee deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.

- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.
- (xi) Sewage shall be treated in the STP with tertiary treatment i.e. Ultra Filtration. The treated effluent from STP shall be recycled/re-used for flushing, horticulture & Car washing. Excess treated effluent shall be discharged in to Municipal sewer line as per CPCB norms.
- (xii) 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. As proposed, 1 nos. of rain water harvesting tanks of total capacity of 100 m³ shall be provided as per CGWB guidelines.
- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. Adequate space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.

- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxviii) 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.
- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from CIDCO Water Supply shall not exceed 110 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.

- (vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.
- (ix) 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.
- (x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.
- (xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed adequate area shall be provided for green belt development.

20.3.11 Proposed Expansion of Residential cum commercial project at village Ghodbunder, Dist Thane, Maharashtra by M/s. J.P. Infra (Mumbai) Pvt. Ltd – Reconsideration for Environmental Clearance (IA/MH/MIS/60603/2016; F.No. 21-3/2017-IA-III)

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The project is located at 19°16'55.34" N Latitude and 72°53'13.62" E Longitude.
- (ii) The project is for Amendment/Expansion of Residential cum Commercial Project on Plot bearing survey no 110/1(pt), 26/8(pt), 110/3, 26/9, 25/1, 24/3, 21/2A(pt), 21/2B(pt), 22/2, 22/5 (pt), 112/2 (pt), 112/3, 117/1, 117/3, 117/4, 113/2(pt), 117/5, 117/6, 116/1(pt), 118/2, 118/3, 116/2A(pt), 116/3(pt), 116/4, 116/6, 116/5, 116/7, 128/4, 116/9, 116/8, 127/2, 127/4, 127/5, 133/3, 133/2, 133/5, 133/4, 133/6, 133/8, 133/7, 148/2, 148/1, 133/1, 134/3, 135/3, 134/8, 134/2, 134/1, 127/3, 127/1, 126/2, 126/5, 134/4, 134/5, 126/3, 126/1, 126/4, 118/8, 118/5, 118/7, 118/4, 124/3, 125/1, 125/2, 125/3, 125/4, 124/5, 125/5, 125/6, 125/7 at Village: Ghodb under, Dist. Thane, Maharashtra.
- (iii) Earlier Clearance details and constructions status, if any: Obtained Prior Environmental clearance vide letter F. No. 21-149/2014-IA.III dated 18th June, 2015 and as per the Environmental clearance, construction work has been started.
- (iv) The total plot area is 88,439 sqm, FSI area is 1, 71, 857 sqm and total construction area is 4,12,521.47 sqm. Total 27 Residential Buildings with 3,274 nos. of tenements, 284 nos. of

shops and 1 school building will be developed. Maximum height of the building is 69.9 m.

- (v) During construction phase, total water requirement is expected to be 300 KLD which supplied by tanker water. During the construction phase, soak pits and septic tanks are provided for disposal of waste water. Temporary sanitary toilets are provided during peak labour force.
- (vi) During operational phase, total water demand of the project is expected to be 1,830 KLD and same will be met by fresh water from MBMC (Municipal Water Supply) and recycled water. Wastewater generated (1,604 KLD) uses will be treated in STP of 1,700 KLD capacity. 462 KLD of treated wastewater will be recycled for flushing. About 1,027 KLD will be discharged in Municipal sewer lines.
- (vii) About 10,122 kg/d solid waste will be generated in the project. The biodegradable waste (6,073 kg/d) will be processed in mechanical composting (Eco-biocompack) and the non-biodegradable waste generated (4,049kg/d) will be handed over to authorized local vendor.
- (viii) The total power requirement during construction phase is 600 kVA and is supplied from Tata/Reliance and Total power requirement during operation phase is 31.6 MW and will be met from Tata/Reliance.
- (ix) Rooftop rainwater of building will be collected in 6 RWH tank of total 750 m³ capacity for harvesting after filtration.
- (x) Parking facility for 1,800 Nos. four wheelers are proposed to be provided against the requirement of 1,800 four wheelers (as per local norms) and 798 two wheelers are proposed to be provided.
- (xi) Proposed energy saving measures would save around 21.2%.
- (xii) The project site is located at 185 m from the boundary of Sanjay Gandhi National Park, Borivali (Eco Sensitive areas).
- (xiii) There is no court case pending against the project.
- (xiv) Investment/Cost of the project is Rs. 820 Crore.
- (xv) **Employment potential:** 800 Nos.
- (xvi) **Benefits of the project:** The proposed project will provide good quality housing with all the amenities and waste processing / recycling facilities. The project will generate employment (Labour employment of household activity) during operational phase, which will benefit the local population in getting work opportunities. It will create long term employment in activities such as maintenance of the buildings and ancillary services.

The proposal was earlier considered by the EAC in its 14th meeting held on 13th-15th February, 2017, wherein some additional information was sought. Now, Project Proponent vide letter dated 9.03.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on the certified compliance report letter F. No. EC-291/RON/2017-NGP/ dated 24.07.2017 issued by the MoEF&CC's Regional Office (WCZ), Nagpur and reply given by the project proponent to non-compliance of EC conditions. The Committee deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.
- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.

- (xi) Sewage shall be treated in the STP with tertiary treatment i.e. Ultra Filtration. The treated effluent from STP shall be recycled/re-used for flushing. Excess treated effluent shall be discharged in to Municipal sewer line as per CPCB norms.
- (xii) 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. As proposed, 6 nos. of rain water harvesting tanks of total capacity of 750 m³ shall be provided as per CGWB guidelines.
- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. 600 m² shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase.

Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxviii) 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.
- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from MBMC Water Supply shall not exceed 1259 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the

	<p>Plastics Waste Management Rules, 2016 shall be followed.</p> <p>(ix) 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.</p> <p>(x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.</p> <p>(xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.</p> <p>(xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed adequate area shall be provided for green belt development.</p> <p>(xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified 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 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.</p> <p>(xiv) The company shall draw up and implement a corporate social Responsibility plan as per the Company's Act of 2013.</p>
20.3.12	<p>Rajlaxmi Developers “Proposed Residential Housing Project” at Balkum Thane, Maharashtra by M/s. Rajlaxmi Developers – Reconsideration for Environmental Clearance (IA/MH/MIS/61837/2017; F. No. 21-18/2017-IA-III)</p> <p><i>The Project Proponent has made a request for exclusion/delisting of the project because the project has already been considered in SEIAA, Maharashtra. Accordingly proposal was not considered.</i></p>
20.3.13	<p>Environmental Clearance for proposed Residential cum Commercial project at Shelavli village, Tal: Shahapur, Dist. Thane. By M/s Charms Inc – Reconsideration for Environmental Clearance (IA/MH/MIS/61284/2016, F. No. 21-4/2017-IA-III)</p> <p>The project proponent made a presentation and provided the following information to the Committee:-</p> <p>(i) The project is located at 19°27'0.20"N Latitude and 73°23'29"E Longitude.</p> <p>(ii) The project is Residential cum Commercial Project “Charms Signature” at S. No. 394, 396, 412, 413, 414, 416, 418, 419, 420,421 of Shelavli village, Tal - Shahapur, Dist. Thane Maharashtra..</p>

- (iii) The plot area is 1,09,710 sqm, FSI area is 1,16,188.36 sqm and total construction area is 1,44,112.45 sqm. Total 32 Residential Buildings, 1 Commercial Building and School shall be developed. Maximum height of the building is 24 m.
- (iv) During construction phase, total water requirement is expected to be 200KLD which will be met by tanker water. During the construction phase, soak pits and septic tanks will be provided for disposal of waste water. Temporary sanitary toilets will be provided during peak labor force.
- (v) During operational phase, total water demand of the project is expected to be 1,587 KLD and same will be met by fresh water from Bhatsa River and recycled water. Wastewater generated (1,435 KLD) uses will be treated in STP of 2400 KLD capacity. 528 KLD of treated wastewater will be recycled for flushing. About 841 KLD will be discharged in Municipal sewer lines.
- (vi) About 9,212 kg/d solid waste will be generated in the project. The biodegradable waste (5,527 kg/d) will be processed in mechanical composting (Eco-biocompack) and the non-biodegradable waste generated (3,685 kg/d) will be handed over to authorized local vendor.
- (vii) The total power requirement during construction phase is 400 kVA and will be met from MSEDCL and Total power requirement during operation phase is 8.6 MW and will be met from MSEDCL.
- (viii) Rooftop rainwater of building will be collected in 7 RWH tank of total 700 m³ capacity for harvesting after filtration and 25 Nos. of Recharge pits are proposed to recharge the surface runoff.
- (ix) Parking facility for 400 Nos. four wheelers are proposed to be provided against the requirement of 21 four wheelers (as per local norms) and 3829 two wheelers are proposed to be provided.
- (x) Proposed energy saving measures would save around 3% as compared to ECBC and will be more than 20% as compared to conventional system.
- (xi) The project site is not located within 10 km from any wild life sanctuary or protected area.
- (xii) There is no court case pending against the project.
- (xiii) Investment/Cost of the project is Rs. 230 Crore.
- (xiv) Employment potential: 400 Nos.
- (xv) Benefits of the project: The proposed project will provide good quality housing with all the amenities and waste processing / recycling facilities. The project will generate employment (Labour employment of household activity) during operational phase which will benefit the local population in getting work opportunities. It will create long term employment in activities such as maintenance of the buildings and ancillary services.

The proposal was earlier considered by the EAC in its 14th meeting held on 13th-15th February, 2017, wherein some additional information was sought. Now, Project Proponent vide letter dated 11.03.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.
- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.

- (xi) Sewage shall be treated in the STP based on Anoxic attached media growth Treatment Technology (with tertiary treatment i.e. Ultra Filtration). The treated effluent from STP shall be recycled/re-used for flushing & horticulture. Excess treated effluent shall be used for nearby agriculture and construction works.
- (xii) 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. As proposed, 7 nos. of rain water harvesting tanks of total capacity of 700 m³ for harvesting after filtration and 25 Nos. of Recharge pits are proposed to recharge the surface runoff shall be provided as per CGWB guidelines.
- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. 600 m² space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per

Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxviii) 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.
- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from Bhatsa River/Irrigation Department. Water Supply shall not exceed 1007 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage

Treatment Systems, 2013.

- (viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.
- (ix) 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.
- (x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.
- (xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed 3900 sqm area shall be provided for green belt development.
- (xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified 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 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.
- (xiv) The company shall draw up and implement a corporate social Responsibility plan as per the Company's Act of 2013.

20.3.14 Proposed Residential cum Commercial project at Village Kolshet, Tal & Dist : Thane (W), Maharashtra by M/s. Aakash Developers – Reconsideration for Environmental Clearance (IA/MH/MIS/61823/2017, 21-15/2017-IA-III)

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The project is located at 19°02'46.60"N Latitude and 72°54'08.15"E Longitude.
- (ii) The proposal is for development of residential and commercial project at 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, Village – Kolshet, Tal &Dist.- Thane, Maharashtra.
- (iii) The total plot area is 80,573.72 sqm. FSI area is 72,938.81 sqm and total construction area

is 1,41,405.82 sqm. Total 1,252 nos. of flats & 65 shops shall be developed. Maximum height of the building is 108.75 m.

- (iv) During construction phase, total water requirement is expected to be 150 KLD which will be met by tanker water. During the construction phase, soak pits and septic tanks will be provided for disposal of waste water. Temporary sanitary toilets will be provided during peak labor force.
- (v) During operational phase, total water demand of the project is expected to be 708 KLD and same will be met by fresh water from TMC (Thane Municipal Corporation) and recycled water. Wastewater generated (581 KLD) uses will be treated in STP of total 650 KLD capacity. 156 KLD of treated wastewater will be recycled for flushing. About 339 KLD will be discharged in Municipal sewer lines.
- (vi) About 3,657 kg/d solid waste will be generated in the project. The biodegradable waste (2,194 kg/d) will be processed in mechanical composting (Eco-biocompack) and the non-biodegradable waste generated (1,463 kg/d) will be handed over to authorized local vendor.
- (vii) The total power requirement during construction phase is 500 kVA and will be met from MSEDCL and Total power requirement during operation phase is 5.4 MW and will be met from MSEDCL.
- (viii) Rooftop rainwater of building will be collected in RWH tanks of total 300 m³ capacity for harvesting after filtration.
- (ix) Parking facility for 1,491 Nos. four wheelers and 1,536 Nos. two wheelers are proposed to be provided against the requirement of 1,472 four wheelers (as per local norms).
- (x) Proposed energy saving measures would around 3% as compared to ECBC & more than 20% as compared to conventional system.
- (xi) The project site is located within 10 km of Sanjay Gandhi National Park, Borivali, Maharashtra protected area. However, as per the ESZ notification of Sanjay Gandhi National Park (SGNP), vide no. S. O. 3645 (E) dated 05.12.2016, project site is outside of ESZ i.e. (100 m); hence clearance from the Standing Committee of the National Board for Wildlife is not applicable for this project.
- (xii) There is no court case pending against the project.
- (xiii) Investment/Cost of the project is Rs. 150 Crore.
- (xiv) **Employment potential:** 150 Nos.
- (xv) **Benefits of the project:** The proposed project will be giving the good quality of livelihood to people. The project will generate employment (Labour employment of household activity) during operational phase which will benefit the local population in getting work opportunities. It will create long term employment in activities such as maintenance of the buildings and ancillary services.

The proposal was earlier considered by the EAC in its 14th meeting held on 13th-15th February, 2017, wherein some additional information was sought. Now, Project Proponent vide letter dated 14.03.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.
- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.

- (xi) Sewage shall be treated in the STP with tertiary treatment i.e. Ultra Filtration. The treated effluent from STP shall be recycled/re-used for flushing & horticulture. Excess treated effluent shall be discharged in to Municipal sewer line as per CPCB norms.
- (xii) 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. As proposed, 7 nos. of rain water harvesting tanks of total capacity of 550 m³ shall be provided as per CGWB guidelines.
- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. 120 m² space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase.

Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxviii) 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.
- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from Thane Municipal Corporation Water Supply shall not exceed 472 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management)

- Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.
- (ix) 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.
 - (x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.
 - (xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
 - (xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed 1946 sqm area shall be provided for green belt development.
 - (xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified 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 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.
 - (xiv) The company shall draw up and implement a corporate social Responsibility plan as per the Company's Act of 2013.

20.3.15 Slum Rehabilitation Scheme At Village Oshiwara, Tal Andheri, Off Veera Desai Ext Road, Andheri West, Mumbai- 400 053. by M/s Transcon Developers Pvt. Ltd. – Reconsideration for Environmental Clearance (IA/MH/MIS/62134/2017; 21-20/2017-IA-III)

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The project is located at 19°08'15.51"N Latitude and 72°50'05.82"E Longitude.
- (ii) This is a Slum Rehabilitation Scheme.
- (iii) Earlier Environment Clearances were granted by SEIAA, Maharashtra vide File No. SEAC - 2010/CR.534/TC.2) dated 23rd March 2011 and Environmental Clearance vide File No. SEAC-2212/CR 401/TC-2) from SEIAA, Maharashtra dated 28th January 2016.
- (iv) Total constructed work (FSI + Non FSI) on site till date: 39132.44 sqm.
- (v) The plot area is 10,992.00 sqm. FSI area is 34,128.51 sqm (including fungible area) and total construction area of 65,343.32 sqm. The project will comprise of 3 buildings. Total

Flats: 384 Nos., PAP: 41 Nos., R/C: 2 Nos., Shops: 3 Nos., Balwadi, Welfare Centre, Society Office: 3 Nos. each shall be developed. Maximum height of the building up to terrace level is 125.15 m.

- (vi) During construction phase, total water requirement is expected to be 12 KLD for workers and 10-20 KLD for construction activity which will be met by M.C.G.M. and tanker respectively. During construction phase the waste water will be disposed to existing municipal sewer line. Temporary sanitary toilets will be provided during peak labor force.
- (vii) During operational phase, total water demand of the project is expected to be 302 KLD and the same will be met by the 105KLD recycled water, 194 KLD fresh water from M.C.G.M. and 3 KLD water from tanker of potable quality. Wastewater generated (253 KLD) will be treated in STPs of total capacity 260 KLD. 105 KLD of treated wastewater will be recycled (98 KLD for flushing, 7 KLD for gardening). About 123 KLD from the whole project will be disposed in to municipal drain.
- (viii) About 0.97 TPD solid wastes will be generated in the project. The biodegradable waste (0.67TPD) will be processed in OWC and the non-biodegradable waste generated (0.30TPD) will be handed over to M.C.G.M.
- (ix) The total power requirement during construction phase is 100 KW and will be met from Reliance Power Ltd. and total power requirement during operation phase is 1344 KW and will be met from Reliance Power Ltd.
- (x) Rooftop rainwater of buildings will be collected in 3 Nos. RWH tanks of total 92 KL capacity for harvesting after filtration.
- (xi) Parking facility for 451 four wheelers and 100 two wheeler is proposed to be provided (according to local norms).
- (xii) Site is located approximately 2.00 Km away from Sanjay Gandhi National Park. However, as per the ESZ notification of Sanjay Gandhi National Park (SGNP), vide no. S.O. 3645 (E) dated 05.12.2016, project site is outside of ESZ i.e. (100 m)
- (xiii) There is court case pending against the project
- (xiv) Investment/ Cost of the project is Rs. 295.58 Crores
- (xv) Employment Potential: During construction phase:150 Nos.& some household and domestic servants during operation phase
- (xvi) Benefits of the project: Slum Rehabilitation Scheme.

The proposal was earlier considered by the EAC in its 14th meeting held on 13th-15th February, 2017, wherein some additional information was sought. Now, Project Proponent vide letter dated 31.03.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on the certified compliance report letter F. No. EC-292/RON/2017-NGP/1684 dated 27.04.2017 issued by the MoEF&CC's Regional Office (WCZ), Nagpur and reply given by the project proponent to non-compliance of EC conditions. The Committee deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.
- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.

- (xi) Sewage shall be treated in the STP based on Moving Bed Biofilm Reactor (MBBR) Technology (with tertiary treatment i.e. Ultra Filtration). The treated effluent from STP shall be recycled/re-used for flushing & horticulture. Excess treated effluent shall be discharged in to Municipal sewer line as per CPCB norms.
- (xii) 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. As proposed, 3 nos. of rain water harvesting tanks of total capacity of 92 m³ shall be provided as per CGWB guidelines.
- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. 156 m² space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase.

Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxviii) 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.
- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from Municipal Corporation of Greater Mumbai (MCGM) Water Supply shall not exceed 194 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management)

- Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.
- (ix) 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.
 - (x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.
 - (xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
 - (xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed adequate area shall be provided for green belt development.
 - (xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified 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 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.
 - (xiv) The company shall draw up and implement a corporate social Responsibility plan as per the Company's Act of 2013.

20.3.16 "Sunberry" residential and commercial development at Plot No. 26, Sector-8, Ghansoli, Navi Mumbai, District – Thane, Maharashtra by M/s Neelkanth Infratech Co.– Reconsideration for Environmental Clearance (21-95/2016-IA-III, IA/MH/MIS/60828/2016)

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The project is located at 19°07'03.9"N Latitude and 72°59'46.4"E longitude.
- (ii) The total plot area is 4825.580 sqm, FSI area is 8685.978 sqm and total construction area of 30,170.176 sqm. The building is divided into 2 parts: (Main Building + EWS/LIG Building) Main Building: Ground floor (Partially commercial + Stilt Parking) + 1st floor (Partially commercial + parking on podium floor) + 2nd & 3rd floor (Parking on podium floor) + 4th Floor (Recreational Podium Floor) + 25 Upper residential Floors with Refuge Area on 8th, 11th, 14th, 17th, 20th, 23rd, 26th, 29th Floor (23rd Floor as Fire check floor) (i.e. Ground + 29th Floor) EWS/LIG Building: Ground Floor (Stilt Parking) + 1st to 4th Residential Floor (3 Flats per floor) + 5 Upper Floor (4 flats per floor) with refuge area on 8th Floor (i.e. Ground + 9th Floor). Total 174 flats (Main Building: 141; EWS/LIG Building: 33) and 22 shops (Main

building) shall be developed. Maximum height of the building in Main Building: 92.60 Mt. Height up to terrace level and 97.30 Mt. Height up to top of overhead tank level EWS/LIG Building: 29.50 Mts. Height up to terrace level and 33.50 Mt. Height up to top of overhead tank level.

- (iii) During construction phase, total water requirement is expected to be 12 KLD for workers and 10-20 KLD for construction, which will be met by NMMC and water tankers. During the construction phase, soak pits and septic tanks will be provided for disposal of waste water. Temporary sanitary toilets will be provided during peak labour force.
- (iv) During operational phase, total water demand of the project is expected to be 166.80 KLD and the same will be met by the NMMC and recycled water. Waste water generated (135.50 KLD) will be treated in Microfiltration technology based on KSQ flat sheet membrane STP of total 140.00 KLD capacities. 58.80 KLD of treated wastewater will be recycled (50.00 for flushing, 5.00 for gardening, 3.80 for car washing). About 63.15 KLD will be disposed in to municipal drain.
- (v) About 425.45 TPD solid wastes will be generated in the project. The biodegradable waste (297.81 TPD) will be processed in OWC and the non-biodegradable waste generated (127.44 TPD) will be handed over to authorized local vendor.
- (vi) The total power requirement during construction phase is 100 KVA and will be met from MSEDCL and total power requirement during cooperation phase is 3156.34 KW and will be met from MSEDCL.
- (vii) Rooftop rainwater of buildings will be collected in 1 RWH tank of total 17.73 KLD capacities for harvesting after filtration.
- (viii) Parking facility for 255 four wheelers is proposed to be provided against the requirement of 255 (According to local norms).
- (ix) Proposed energy saving measures would save about 22.67% of power.
- (x) It is not located within 10 km of Eco Sensitive areas.
- (xi) There is no court case pending against the project.
- (xii) Investment/Cost of the project is Rs 98.70 crore.
- (xiii) **Employment potential:** 100 – 150.
- (xiv) **Benefits of the project:** Employment benefit, trade in building materials, housing supply for small and medium requirements etc.

The proposal was earlier considered by the EAC in its 13th meeting held on 23rd-25th January, 2017, wherein some additional information was sought. Now, Project Proponent vide letter dated 13.04.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the

construction shall be done in accordance with the local building byelaws.

- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.
- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.
- (xi) Sewage shall be treated in the STP with tertiary treatment i.e. Ultra Filtration. The treated effluent from STP shall be recycled/re-used for flushing, horticulture & Car washing. Excess

treated effluent shall be discharged in to Municipal sewer line as per CPCB norms.

- (xii) 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. As proposed, 1 nos. of rain water harvesting tanks of total capacity of 17.73 m³ shall be provided as per CGWB guidelines.
- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. 60 m² space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvi) 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 Fly

Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.

- (xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxviii) 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.
- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from NMMC Water Supply shall not exceed 166.80 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.
- (ix) 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.

- (x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.
- (xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed green area on ground 483.567 sqm and on podium floor 500.584 sqm area shall be provided for green belt development.

20.3.17 Redevelopment of "Lokmanya Nagar Priyadarshani Co-Operative Housing Society Ltd." at Sub Plot A Bearing F.P No. 580, T.P. Scheme IV of Mahim Division at the Junction of Senapati Bapat Marg & Kakasaheb Gadgil Marg, Mumbai by M/s. Sheetal Sagar Builders & Developers Pvt. Ltd- Reconsideration for Environmental Clearance (IA/MH/MIS/61567/2017; 21-14/2017-IA-III)

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The project is located at 19°00'52.11"N Latitude and 72°49'36.84"E Longitude.
- (ii) This is a redevelopment project. Earlier Environment Clearance was granted vide EC letter No: EAC2010/CR466/TC.2 dated 22nd September 2011 by SEIAA Maharashtra.
- (iii) Construction status: Total Constructed Area on site till date: 15,436.79 sqm.
- (iv) The plot area is 10,038.40 sqm, FSI area is 36,820.36 sqm (including fungible area) and total construction area of 53,319.01 sqm. The project will comprise of 3 buildings, out of which there are 2 Redevelopment Buildings and 1 Sale Building. Total 369 flats, retail mall, Society office, Store room and Ambedkar Smarak room shall be developed. Maximum height of the building up to terrace level is 64.40 mt.
- (v) During construction phase, total water requirement is expected to be 12 KLD for workers and 10-20 KLD for construction activity which will be met by M.C.G.M. and tanker respectively. During construction phase the waste water will be disposed to existing municipal sewer line. Temporary sanitary toilets will be provided during peak labor force.
- (vi) During operational phase, total water demand of the project is expected to be 316 KLD and the same will be met by the 127 KLD recycled water and 189KLD fresh water from MCGM. Wastewater generated (276 KLD) will be treated in 2 STP of total 350 KL capacity. 127 KLD of treated wastewater will be recycled (124 KLD for flushing, 3 KLD for gardening). About 121 KLD from the whole project will be disposed in to municipal drain.
- (vii) About 1.52 TPD solid wastes will be generated in the project. The biodegradable waste (0.65TPD) will be processed in OWC and the non-biodegradable waste generated (0.87TPD) will be handed over to M.C.G. M.E-Waste (App. Quantity 1.82 TPD for the Retail

- mall i.e. Sale Building 3) shall be stored separately and recycled through authorized dealers.
- (viii) The total power requirement during construction phase is 100KW and will be met from MSEDCL and total power requirement during cooperation phase is 5734 KW and will be met from MSEDCL.
 - (ix) Rooftop rainwater of buildings will be collected in 4 RWH tanks of total 164 KL capacity for harvesting after filtration.
 - (x) Parking facility for 364 four wheelers, 43 two wheelers & 6 Transport vehicles is proposed to be provided against the requirement of 357, Nil & 6 respectively (according to local norms).
 - (xi) Proposed energy saving measures would save about 22% of power.
 - (xii) It is not located within 10 km of Eco Sensitive areas(National Park/Wildlife Sanctuary)
 - (xiii) There is no court case pending against the project
 - (xiv) Investment/ Cost of the project is Rs. 275.47 in Crores.
 - (xv) **Employment Potential:** During construction phase: 150Nos.and during operation phase: Retail Mall staff: 338 Nos. & other domestic household servants for apartments.
 - (xvi) **Benefits of the project:** Redevelopment project

The proposal was earlier considered by the EAC in its 14th meeting held on 13th-15th February, 2017, wherein some additional information was sought. Now, Project Proponent vide letter dated 2.05.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on the certified compliance report letter F. No. EC-287/RON/2017-NGP/ dated 01.05.2017 issued by the MoEF&CC's Regional Office (WCZ), Nagpur and reply given by the project proponent to non-compliance of EC conditions. The Committee deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well

as taking out debris from the site. Sand, murrum, 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.

- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.
- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.
- (xi) Sewage shall be treated in the STP based on Moving Bed Biofilm Reactor (MBBR) Technology (with tertiary treatment i.e. Ultra Filtration). The treated effluent from STP shall be recycled/re-used for flushing & horticulture. Excess treated effluent shall be discharged in to Municipal sewer line as per CPCB norms.
- (xii) 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. As proposed, 4 nos. of rain water harvesting tanks of total capacity of 164 m³ shall be provided as per CGWB guidelines.
- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. 653 m² space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.

- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxviii) 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.

- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
- Traffic calming measures
- Proper design of entry and exit points.
- Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from Municipal Corporation of Greater Mumbai (MCGM) Water Supply shall not exceed 161 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.
- (ix) 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.
- (x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.
- (xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.

- (xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed adequate area shall be provided for green belt development.
- (xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified 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 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.
- (xiv) The company shall draw up and implement a corporate social Responsibility plan as per the Company's Act of 2013.

20.3.18 Proposed Construction project "Vishal Vishwa" by Vishal Constructions at Village – Talegaon Dhamdhere, Taluka- Shirur, District – Pune, Maharashtra– Reconsideration for Environmental Clearance (IA/MH/NCP/60962/2016; F. No. 21-75/2016-IA-III)

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The proposal is for Construction project "Vishal Vishwa" by Vishal Constructions at Gat No - 3668, 3672, 3673, 3679, 3688 Village –Talegaon Dhamdhere, Taluka- Shirur, District Pune, Maharashtra.
- (ii) The project Earlier Clearance details, Constructions status, if any –

Sr.	Particulars	Date & Number	Proposed FSI (m ²)	Proposed Non-FSI (m ²)	Proposed Total BUA (m ²)	Status / Actual construction carried till date (m ²)
1.	Amalgamation of two different plots proposed	Sanction for plot 1 (N.A./S.R./203/2007)dated 06/05/2008	9425.29	4059.15	13484.44	13484.44
		Sanction for plot 2 (NA/SR/137/2012) dated23.10.2012	16305.97	2322.60	18628.57	18628.57
2.	Previous EC granted if any	No	--	--	--	--
3.	Applied for EC on 8.12.2016	EC required since plot 1 & plot 2 proposed for amalgamation	40301.67	16809.55	57111.22	--

- (iii) The total plot area will be 42700.00 sqm after amalgamation. The project will comprise of 13 Buildings. FSI area is 40301.67 sqm + Non FSI area 16809.55 sqm and total construction area will be 57111.22 sqm. Total 527 flats will be developed. Maximum height of the building will be 29.7 m. The Project components are as follows:

Sr. No.	Type of Unit / Bldg	Number of Floors	Number of Tenements	Total Population
1	A & B	P+7	56	280
2	C & D	P+7	56	280
3	F	P+7	19	95
4	1	P+7	56	280
5	2	P+7	56	280
6	3	P+7	56	280
7	4	P+7	28	140
8	5	P+9	72	360
9	6	P+9	72	360
10	7	P+7	56	280
11	COMM	G+2 2170 SQMT		485
Total			527	2635+485=3120

- (iv) Water requirement will be 247 KLD which will be sourced from Gram panchayat Talegaon - Dhamdhere.
- (v) Waste water generation will be 340 KLD which will be treated in STP of 375 KLD (Technology MBBR)
- (vi) Quantity of solid waste generated will be 1404 kg/day (Quantity of wet waste – 842.4 kg/day and Quantity of dry waste – 561.6 kg/day). Wet waste will be converted in to manure by composting in OWC machine. The dry waste will be recycle & vendor for sale of recyclable material has been appointed. Hazardous Waste Management will be done as per guideline of CPCB.
- (vii) Required mandatory RG area as per PMRDA (Pune Metropolitan Regional Development Authority) is 10% & proposed area for project is 4199.79 sqm.
- (viii) Investment/Cost of the project is Rs 100.0 crore.
- (ix) Employment potential – Residential complex is proposed; indirect employment is envisaged.
- (x) Benefits of the project - Residential complex is proposed; indirect employment is envisaged.

The proposal was earlier considered by the EAC in its 12th meeting held on 26th-28th December, 2016, wherein some additional information was sought. Now, Project Proponent vide letter dated 21.01.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.

- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.
- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.
- (xi) Sewage shall be treated in the STP based on Moving Bed Biofilm Reactor (MBBR) Technology (with tertiary treatment i.e. Ultra Filtration). The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling. Excess treated effluent shall be discharged in to Municipal sewer line as per CPCB norms.

- (xii) 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. As proposed, 10 nos. of rain water recharge pits shall be provided as per CGWB guidelines.
- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. 100 m² space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended

as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.

(xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.

(xxviii) 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.

- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
- Traffic calming measures
- Proper design of entry and exit points.
- Parking norms as per local regulation

II. Operational Phase

(i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.

(ii) For indoor air quality the ventilation provisions as per National Building Code of India.

(iii) Fresh water requirement from Gram Panchayat, talegaon-Dhamdhere Water Supply shall not exceed 247 m³/day.

(iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.

(v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.

(vi) No sewage or untreated effluent water would be discharged through storm water drains.

(vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.

(viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.

(ix) 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.

(x) Solar power shall be used for lighting in the apartment to reduce the power load on grid.

	<p>Separate electric meter shall be installed for solar power. 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.</p> <p>(xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.</p> <p>(xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed 8322 sqm area shall be provided for green belt development.</p> <p>(xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified 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 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.</p> <p>(xiv) The company shall draw up and implement a corporate social Responsibility plan as per the Company's Act of 2013.</p>
20.3.19	<p>Proposed building construction project in Pune, Maharashtra by M/s. The Broadway Lavim Developers Private Ltd.– Reconsideration for Environmental Clearance (IA/MH/NCP/60691/2016; F. No. 21-71/2016-IA-III)</p> <p><i>The Project Proponent has made a request for exclusion/delisting of the project because the project has already been considered in SEIAA, Maharashtra. Accordingly, proposal was not considered.</i></p>
20.3.20	<p>Environmental Clearance for residential cum commercial building at plot bearing S.No.411/A, at village Bolinj, District Thane in Maharashtra by M/s Ameya Builders and Property Developers– Reconsideration for Environmental Clearance (IA/MH/NCP/60096/2016; F.No.21-33/2016-IA-III)</p> <p>The project proponent made a presentation and provided the following information to the Committee:-</p> <p>(i) The project is located at Latitude 19°26'23.25"N, 19°26'26.01"N, 19°26'23.12"N, 19°26'20.97"N and Longitude 72°48'29.37"E, 72°48'38.47"E, 72°48'38.63"E, 72°48'29.61"E</p> <p>(ii) The total plot area is 16190.00 sqm. FSI area is 32,459.49 sqm and total construction area of 50,563.89 sqm. The project will comprise of 8 no. of Buildings. Total 868 Nos. of residential tenements& 55402.57 sqm of commercial area shall be developed. Maximum height of the building is 44.96 m.</p> <p>(iii) During construction phase, total water requirement is expected to be 20 KLD which will be</p>

met by Outsource through Tanker Water during the construction phase. Modular STP will be provided during construction. Temporary sanitary toilets will be provided during peak labor force.

- (iv) During operational phase, total water demand of the project is expected to be 632 KLD (Fresh water 405 cum, recycled water 228 cum) KLD and the same will be met by the 228 KLD Recycled Water. Wastewater generated (536 KLD) will be treated in STP of total 600 KLD capacity. 519 KLD of treated wastewater will be recycled (214 KLD for flushing, 14 KLD for gardening). About 292 KLD (Non Monsoon) & 306 KLD (Monsoon) will be disposed in to municipal drain.
- (v) About 2342 Kg/day solid waste will be generated in the project. The biodegradable waste (1354 Kg/day) will be processed in OWC and the non-biodegradable waste generated (988 Kg/day) will be handed over to authorized local vendor.
- (vi) The total power requirement during construction phase is 100 KW and will be met from MSEDCL Land total power requirement during cooperation phase is Connected Load: 5727 KW, Maximum Demand: 4009 KW and will be met from MSEDCL
- (vii) Rooftop rainwater of buildings will be collected in 2 no. of RWH tanks of having total 228 cum capacity for harvesting after filtration.
- (viii) Parking facility for 300 four wheelers and 760 two wheelers is proposed to be provided against the requirement of 299 and as per local norms respectively (according to local norms).
- (ix) Proposed energy saving measures would save about 12.5% of power.
- (x) It is not located within 10 km of Sanjay Gandhi National Park (14.00 km) Eco Sensitive areas
- (xi) There is no court case pending against the project.
- (xii) Investment/Cost of the project is Rs. 80.00 crore.
- (xiii) **Employment potential:** 25 shall be provided with temporary housing facilities Around 60 labors will come to site during peak construction phase
- (xiv) **Benefits of the project:** Help in reducing population density of Mumbai city and for convince in employment for industrial belts of Virar Palghar and adjoin industrial estate

The proposal was earlier considered by the EAC in its 11th meeting held on 24th-25th November, 2016, wherein the Project Proponent was asked to submit revised Form-1 & 1A. Now, Project Proponent vide letter dated 21.02.2017 has submitted revised Form-1 & 1A. Copy of additional Information is available on the website.

The EAC deliberated on submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland

and water bodies. Check dams, bio-swales, 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.

- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.
- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.
- (xi) Sewage shall be treated in the STP based on Moving Bed Biofilm Reactor (MBBR) Technology (with tertiary treatment i.e. Ultra Filtration). The treated effluent from STP shall be recycled/re-used for flushing & horticulture. Excess treated effluent shall be discharged in to Municipal sewer line as per CPCB norms.
- (xii) 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. As proposed, 2 nos. of rain water harvesting tanks of total capacity of 228 m³ shall be provided as per CGWB guidelines.

- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. 248 m² space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in

building construction.

(xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.

(xxviii) 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.

- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
- Traffic calming measures
- Proper design of entry and exit points.
- Parking norms as per local regulation

II. Operational Phase

(i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.

(ii) For indoor air quality the ventilation provisions as per National Building Code of India.

(iii) Fresh water requirement from Municipal Corporation Water Supply shall not exceed 292 m³/day.

(iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.

(v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.

(vi) No sewage or untreated effluent water would be discharged through storm water drains.

(vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.

(viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.

(ix) 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.

(x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.

- (xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed adequate area shall be provided for green belt development.
- (xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified 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 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.
- (xiv) The company shall draw up and implement a corporate social Responsibility plan as per the Company's Act of 2013.

20.3.21 Proposed Slum Rehabilitation Project at village Kolekalyan, Santacruz (E), Mumbai, Maharashtra by M/s. Klassik Vinyl Products LLP– Reconsideration for Environmental Clearance (IA/MH/NCP/60992/2016; 21-88/2016-IA-III)

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The project is located at Latitude- 19° 4'20.157" N, and longitude- 72°51'45.240" E.
- (ii) The total plot area is 3881.60 sqm out of which 305.70 sqm area is deducted and net plot area is 3,575.90 sqm. The project will comprise of two buildings. One building will be a composite building (predominantly for rehabilitation of slum dwellers) with two shops and second building will consist of residential tenements for sale purpose as per provisions of D. C. Regulation 33(10) of D.C. Regulations for Greater Mumbai -1991. FSI area is 14090.347 sqm and total construction/ built up area of 23120.923 sqm. Total 278 residential tenements and 2 shops shall be developed. Maximum height of the building is 44.4 m.
- (iii) During construction phase, total water requirement is expected to be 10 - 20KLD which will be met by tanker water. During the construction phase, temporary sanitary toilets will be provided for labour force. Soak pits and septic tanks will be provided for disposal of wastewater.
- (iv) During operational phase, the water details of the project are as follows:

Particulars	Composite Bldg (in KLD)	Sale Bldg (in KLD)	Total (in KLD)
-------------	----------------------------	-----------------------	-------------------

Fresh Water requirement	91	38	129
Flushing	49	19	68
Landscaping	2	3	5
Total water Demand	142	60	202
Waste water generated	122	49	171
Proposed STP capacity	135	55	190
Treated water available.	110	44	154
Treated water recycled	51	22	73
Excess to Municipal Drain	59	22	81

(vi) During Operation phase, the solid waste details is as follows:

Particulars	Composite Bldg (in kg/day)	Sale Bldg (in kg/day)	Total (in kg/day)	Remarks
Biodegradable waste	326	127	453	It shall be composted by means of organic waste converter /equivalent systems
Non - Biodegradable waste	221	87	308	It shall be handed over to vendors for recycling.
Total Solid waste	547	214	761	-

(vii) The total power requirement during construction phase is estimated 142 kW. The total power requirement during operation phase is as follows:

Particulars	Composite Bldg	Sale Bldg
Connected Load	1012.2 kW	1215.2 kW
Demand Load	431.1 kW	529.1 kW
D.G Set	1 D.G. Set of capacity 320 kVA	1 Nos. of D.G. Sets of capacity 380 kVA.

(viii) Rain Water Harvesting (RWH) shall be done in 4 nos. of recharge pits.

(ix) Parking facility for 136 no. of four wheelers and is proposed to be provided against the requirement of 140 no. (According to local norms).

(x) Proposed energy savings measures would result in savings of 20% of the annual energy consumption for both Composite and Sale building.

(xi) Sanjay Gandhi National Park is approx. 6.40 Km to the project site. Vide S. O. 3645 (E) dated 05.12.2016, Eco-Sensitive Zone the SGNP has been declared. The project site does not fall within ESZ.

(xii) There is no court case pending against the project.

(xiii) Investment/Cost of the project is Rs. 85.81 crore (estimated).

(xiv) Employment potential - During the construction phase, initially approx. 50 workers will be employed. The actual worker requirement shall be dependent on work requirement.

- (xv) Benefits of the project: It will provide healthy, green & safe premises for slum dwellers. Direct and Indirect opportunities and infrastructural development within the area.

The proposal was earlier considered by the EAC in its 13th meeting held on 23rd-25th January, 2017, wherein some additional information was sought. Now, Project Proponent vide letter dated 22.02.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.

- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.
- (xi) Sewage shall be treated in the STP based on Moving Bed Biofilm Reactor (MBBR) Technology (with tertiary treatment i.e. Ultra Filtration). The treated effluent from STP shall be recycled/re-used for flushing & horticulture. Excess treated effluent shall be discharged in to Municipal sewer line as per CPCB norms.
- (xii) 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. As proposed, 4 nos. of rain water harvesting tanks shall be provided as per CGWB guidelines.
- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. 57.72 m² space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.

- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxviii) 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.
 - Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from Municipal Corporation of Greater Mumbai (MCGM) Water Supply shall not exceed 129 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.

- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.
- (ix) 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.
- (x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.
- (xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed 750.44 sqm area shall be provided for green belt development.

20.3.22 Amendment in Proposed Residential cum Commercial Project on land bearing S No. / H. No. 110/1 (PT), 224/1A (PT), 224/1B (PT), 26/7(PT), 26/8(PT) Village Ghodbunder, Thane by JP Infra Mumbai Pvt. Ltd. & SPH Agro Farms & Estates Pvt. Ltd. (Joint venture)– Reconsideration for Environmental Clearance (IA/MH/NCP/60646/2016; F. No. 21-70/2016-IA-III)

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The project is located at 19°16'54.09"N Latitude and 72°53'03.33"E longitude.
- (ii) This is an expansion project. Earlier environmental clearance was granted by SEIAA< Maharashtra vide letter No. SEAC-2014/CR-183/TC-1 dated 31.03.2015 for total Construction Area of 21917.85 sqm.
- (iii) Construction as per the environmental clearance received earlier. Total Constructed area is 12370.01 sqm. (Constructed FSI Area = 7487.14 sqm and Non FSI Area = 4882.87 sqm).

- (iv) The total plot area is 12985.00 sqm. FSI area is 15900.97 sqm and total construction area of 32181.21 sqm. The project will comprise of 2 Buildings (1 residential commercial with 1 club house) Total 320 flats shall be developed. Maximum height of the building is 48 m.
- (v) During construction phase, total water requirement is expected to be 4.5 KLD which will be met by Tanker water. During the construction phase 2 Septic Tanks + 2 Soak Pits provided on site. Temporary sanitary toilets will be provided during peak labor force (6 toilets for workers + 4 toilets for staff)
- (vi) During operational phase, total water demand of the project is expected to be 242 KLD and the same will be met by the MBMC/Recycled Water. Wastewater generated (213 KLD) uses will be treated in 1 no. of STP of total 234 KLD capacity. 191 KLD of treated wastewater will be recycled (79 for flushing, 9for gardening). About 103 KLD will be disposed in to municipal drain.
- (vii) About 866Kg/day solid waste will be generated in the project. The biodegradable waste (500 Kg/Day) will be processed in OWC and the non-biodegradable waste generated (366 Kg/Day) will be handed over to authorized local vendor.
- (viii) The total power requirement during construction phase is 100 KVA and will be met from Reliance Energy and total power requirement during cooperation phase is Connected load: 2239.00 KW, Maximum Demand: 1075.80 KW and will be met from Reliance Energy
- (ix) Rooftop rainwater of buildings will be collected in 1 no. of RWH tanks of total 60cumcapacity for harvesting after filtration.
- (x) Parking facility for 250 Nos. four wheelers and 91 no. of two wheelers is proposed to be provided against the requirement of 249 and 76 respectively (according to local norms).
- (xi) Proposed energy saving measures would save about 12.16% of power.
- (i) The project is 1.05 km away from Sanjay Gandhi National Park (SGNP). The project does not fall within the SGNP as per the Notification under ESZ of SGNP dated 5.12.2016 issued by MoEF&CC.
- (xii) There is no court case pending against the project.
- (xiii) Investment/Cost of the project is Rs.68.00 (in crore).
- (xiv) Employment potential:-Employment for 120/day no. of persons in the construction phase
- (xv) Benefits of the project:-This project will contribute to meeting the housing requirement of the urbanized area. As the surrounding urbanized area like Thane etc. are already dense. This project provides better option with respect to connectivity to the area.

The proposal was earlier considered by the EAC in its 12th meeting held on 26th-28th December, 2017, wherein some additional information was sought. Now, Project Proponent vide letter dated 22.05.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on the certified compliance report letter F. No. EC-263/RON/2017-NGP/ dated 10.04.2017 issued by the MoEF&CC's Regional Office (WCZ), Nagpur and reply given by the project proponent to non-compliance of EC conditions. The Committee deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.
- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.

- (xi) Sewage shall be treated in the STP based on Moving Bed Biofilm Reactor (MBBR) Technology (with tertiary treatment i.e. Ultra Filtration). The treated effluent from STP shall be recycled/re-used for flushing & horticulture. Excess treated effluent shall be discharged in to Municipal sewer line as per CPCB norms.
- (xii) 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. As proposed, 1 nos. of rain water harvesting tanks of total capacity of 122 m³ and 10 nos. of recharge pits shall be provided as per CGWB guidelines.
- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. 100 m² space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the

ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxviii) 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.
- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from MBMC. Water Supply shall not exceed 136 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management)

	<p>Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.</p> <p>(ix) 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.</p> <p>(x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.</p> <p>(xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.</p> <p>(xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed 666 sqm area shall be provided for green belt development.</p>
20.3.23	<p>Proposed Residential cum commercial project at village Virar Taluka Vasai District Thane, Maharashtra by Shri Viva Shelter– Reconsideration for Environmental Clearance (21-89/2016-IA-III; IA/MH/NCP/60397/2016)</p> <p><i>Project Proponent did not attend meeting.</i></p>
<p><u>Time: 10.00 AM</u></p>	
<p>Day 2: Thursday, 27th July, 2017</p>	
20.4.1	<p>Amendment in development of commercial building, at Plot bearing S.No. 169/1, Sector I & II (part), Aundh, Pune-411007 by Chitrani Properties Pvt. Ltd – Reconsideration for Environmental Clearance (21-90/2016-IA-III; IA/MH/NCP/60444/2016)</p> <p>The project proponent made a presentation and provided the following information to the Committee:-</p> <p>(i) The project proponent made a presentation and provided the following information to the Committee:-</p> <p>(ii) The proposed amendment in Environmental clearance is for Commercial Development at S.No. 169/1, sector I & II (part), Aundh, Pune- 411007 Maharashtra. The project was granted Environmental Clearance vide letter No. 21-366/2007-IA.III dated 07.12.2007 and the EC was revalidated up to 07.12.2017 by SEIAA on 11.06.2014.</p> <p>(iii) The Environment Clearance received in 2007 was for a total Built up Area (BUA) of 91,000 sqm and proposed to have one building each in sector I and II Part i.e. Building A (Sector I) comprising of Mall, Multiplex and Hotel having total 18 Floors and Building B (Sector II) comprising of IT office and retail. Now it is proposed to construct 9 upper floors above the mall and multiplex for IT office and Retail purposes instead of initial 18 floor hotel component</p>

due to which our total BUA significantly reduces.

- (iv) The Total Plot area of the project is 29,500 sqm and the total sanction BUA of 76,416 sqm which includes building A up to 4th floor as approved by PMC and completed building B up to 7th floor. The maximum height of the building A considering total proposal up to 9th floor is 65.925 m. (Top of mumty level). The height of the building A as per the present PMC approved plan up to 4th floor is 33.925 m. (Terrace level) the height up to mumty level for the same is 38.925 m. Building Configuration of the Proposed Project is as follows:

Sector	Building	Floors	
1	A	Existing	Ground North + Ground South + Higher Ground Floor + First Floor + Second Floor + Third Floor (Part) Completion Certificate from PMC is received for above mentioned areas.
		Proposed & approved by PMC	Third Floor (Part) + Service Floor + Fourth Floor (Two Floors for IT/Office use) Part Second Floor South, Part Higher Ground Floor, Part First Floor & Part Second Floor at South Side of the building
		Proposed & applied for approval	Fifth to Ninth Floor (Five Floors for IT/Office use)
2(p)	B	Existing	Ground + 7 floors Completion Certificate from PMC is received for above mentioned areas.

- (v) Total number of 1,438 car Parking and 4,084 two-wheeler parking are provided against the requirement of 1,184 and 3,611 respectively (according to local norms for the present approval of PMC up to 4th Floor of building A & completed building B).
- (vi) Total operative STP capacity is 380 m³) to treat the sewage discharge. Fluidized Media Bio reactor (FMBR process) is used for the STP. Treated water will be utilized for Flushing and for the gardening purpose of the trees around the project site.
- (vii) The total expected solid waste generation is 1,320 kg/day of which 792 kg/day will be biodegradable waste which will be treated in OWC whereas non-biodegradable waste will account to 435 kg/day which will be sold to authorized recyclers, inert waste will account to 93kg/day.
- (viii) To increase the percolation of rain water into the soil 5 recharge pits along with borewell are provided for Building A, and 15 recharge pits along with borewell are provided at building B.
- (ix) The proposed project has maximum demand load 12,215 KVA & connected load demand 15,012 KW. 10 DG sets of 2x2000 KVA, 2x1250 KVA, 1x500 KVA, 1x625 KVA, 1x1010 KVA, 3 X 600 KVA capacity will be provided which will be used during power failure and in emergency condition.
- (x) The total cost of this project is Rs. 274.01crores.
- (xi) Benefit of the Project: Project offers good infrastructure, ample parking and excellent recreation facility. It also has the adequate fire fighting systems installed in the project, which includes sprinkler system, FAS,PA system and has wide roads for fire tender movement, and fire escape staircases, etc.

The proposal was earlier considered by the EAC in its 13th meeting held on 23rd-25th January, 2017, wherein some additional information was sought. Now, Project Proponent vide letter dated 23.02.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on the certified compliance report letter F. No. 16-1/2008 (ENV)/1387 dated 20.02.2017 issued by the MoEF&CC's Regional Office (WCZ), Nagpur and reply given by the project proponent to non-compliance of EC conditions. The Committee deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.

- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.
- (xi) Sewage shall be treated in the STP based on Fluidized Media bio reactor (FMBR) Technology (with tertiary treatment i.e. Ultra Filtration). The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling. Excess treated effluent shall be discharged in to PMC drain as per CPCB norms.
- (xii) 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. As proposed, 5 recharge pits along with borewell for Building A, and 15 recharge pits along with borewell for building B shall be provided as per CGWB guidelines.
- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. Adequate space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code

including protection measures from lightening etc.

- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxviii) 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.
- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from PMC Water Supply shall not exceed 462 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall

- be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
 - (vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
 - (viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.
 - (ix) 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.
 - (x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.
 - (xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
 - (xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed 6011 sqm area shall be provided for green belt development.
 - (xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified 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 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.
 - (xiv) The company shall draw up and implement a corporate social Responsibility plan as per the Company's Act of 2013.

20.4.2 Proposed Building on plot no. 71 C.S. no. 447 of Sewri Wadala Estate Scheme No 57 at Dyaneshwar Nagar, R.A. Kidwai Marg, Parel Sewri Division, Wadala, Mumbai 400031 by M/s. Xcellent Realty Pvt Ltd.– Reconsideration for Environmental Clearance (IA/MH/NCP/60723/2016; F. No. 21-72/2016-IA-III)

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The project is located at 19°00'11.77"N Latitude and 72°51'12.80"E Longitude.
- (ii) The project is new/ redevelopment:-Redevelopment
- (iii) The total plot area is 6180.04 sqm. FSI area is 20807.25 sqm and total construction area of 42579.79 sqm. The project will comprise of 2 Buildings. Total 260flats shall be developed. Maximum height of the building is 69.75m.
- (iv) During construction phase, total water requirement is expected to be 20 KLD which will be met by Tanker water. During the construction phase, Modular STP will be provided. Temporary sanitary toilets will be provided during peak labor force.
- (v) During operational phase, total water demand of the project is expected to be 188KLD and the same will be met by the MCGM/Recycled Water. Wastewater generated (164KLD) uses will be treated in 1 No. of STP of total 180 KLD capacity. 65 KLD of treated wastewater will be recycled (59 for flushing, 6 for gardening). About 82 KLD will be disposed in to municipal drain.
- (vi) About 650 Kg/day solid waste will be generated in the project. The biodegradable waste (390Kg/Day) will be processed in OWC and the non-biodegradable waste generated (260 Kg/Day) will be handed over to authorized local vendor.
- (vii) The total power requirement during construction phase is 100 KVA and will be met from BEST and total power requirement during cooperation phase is Connected load: 4178 KW, Maximum Demand: 2001 KW and will be met from BEST.
- (viii) Rooftop rainwater of buildings will be collected in various 2 no. of RWH tanks of total Rehab = 50Cum &Sale = 42 Cum of capacity for harvesting after filtration.
- (ix) Parking facility for 304 Nos. four wheelers is proposed to be provided against the requirement of 304Nos. (according to local norms).
- (x) Proposed energy saving measures would save about Sale = 22%, Rehab = 21% of power.
- (xi) It is located /not located within 10 km of Eco Sensitive areas: Not located within 10 km eco sensitive area
- (xii) There is no court case pending against the project.
- (xiii) Investment/Cost of the project is Rs. 230.00 Crore.
- (xiv) Employment potential: Construction phase employment is expected to be 125/day.
- (xv) Benefits of the project: As it is redevelopment project it will be beneficial in the following ways:
 - It will initiate redevelopment of surrounding old building.
 - The surrounding area will also be developed from residential point of view.
 - It will provide employment opportunities to the local people in terms of labour during construction and services personnel during operational phase.

The proposal was earlier considered by the EAC in its 12th meeting held on 26th-28th December, 2016, wherein some additional information was sought. Now, Project Proponent vide letter dated 27.02.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.
- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.

- (xi) Sewage shall be treated in the STP based on Moving Bed Biofilm Reactor (MBBR) Technology (with tertiary treatment i.e. Ultra Filtration). The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling. Excess treated effluent shall be discharged in to Municipal sewer line as per CPCB norms.
- (xii) 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. As proposed, 2 nos. of rain water harvesting tanks of total capacity of 92 m³ shall be provided as per CGWB guidelines.
- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. 107 m² space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the

ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxviii) 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.
- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from Municipal Corporation of Greater Mumbai (MCGM) Water Supply shall not exceed 117 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.

	<p>(viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.</p> <p>(ix) 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.</p> <p>(x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.</p> <p>(xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.</p> <p>(xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed 1275.50 sqm area shall be provided for green belt development.</p>
20.4.3	<p>Proposed Amendment in Redevelopment of RUSTOMJEE ‘SUMMIT’ and ‘PINNACLE’ At Plot Bearing C.T.S No. 88 (pt), Rajendra Nagar C.H.S, Rajendra Nagar, Dattapada road, Borivali (E), Mumbai - 400066 by Keystone Realtors Pvt. Ltd. – Reconsideration for Environmental Clearance (IA/MH/NCP/60230/2016; F. No. 21-64/2016-IA-III)</p> <p><i>Project Proponent did not attend meeting.</i></p>
20.4.4	<p>Environmental Clearance for residential sum commercial project ‘Vedant Nakshtra’ at Property Bearing S.No. 70, H.No 1(Pt) & H.No 5 (Pt), Village –Kulgaon , Tal- Ambernath ,Dist Thane in Maharashtra by M/s Tharwani Infrastructure – Reconsideration for Environmental Clearance (IA/MH/NCP/60141/2016; F.No.21-36/2016-IA-III)</p> <p><i>Project Proponent did not attend meeting.</i></p>
20.4.5	<p>Amendment in Environmental Clearance for Proposed “Sandor” Residential & Commercial project at S.No. 230, H.No 1,2,3,4,5,6,7,8 S.No. 231, H. No 1,2,3,4,5,6,7,8,9 S.No. 235, H.No 1/2,2,3,4,5,6,7,8,9,10,11/1,11/2 S. No. 236, H. No 1, 2, 3, 7, 8, 11, 12, 13, 14, 15, 17, 18, 19,20,21,22,23,pt,24,25A,25B,27,28,29 village Sandor, Tehsil Vasai District Palghar State Maharashtra by Ameya Townhomes Pvt Ltd – Reconsideration for Environmental Clearance (IA/MH/NCP/61554/2017; 21-9/2017-IA-III)</p> <p>The project proponent made a presentation and provided the following information to the Committee:-</p> <p>(i) The project is located on land bearing S.No. 230, H.No 1,2,3,4,5,6,7,8; S.No. 231, H.No 1,2,3,4,5,6,7,8,9; S.No. 235, H.No 1/2,2,3,4,5,6,7,8,9,10,11/1,11/2; S.No. 236, H.No 1, 2, 3, 7, 8, 11, 12,13,14,15,17,18,19,20,21,22,23,pt,24,25A,25B,27,28,29 at Village Sandor,</p>

Vasai, Maharashtra. Latitude 18°33'41.22"N and Longitude 73°48'25.32"E.

- (ii) Proposed application is for amendment in EC granted by the Ministry vide letter No. 21-366/2007-1A.III dated 07.12.2007.
- (iii) The Plot area of proposed site is 36,408.75 sqm, FSI area is 52,691.21 sqm, Non FSI area 40,165.94 sqm and Total Construction Area is 93,857.15 m². Total 1,192 nos. of tenements and 57 Shops shall be developed. The proposed project involves construction of Residential cum Commercial Buildings. The maximum height of the building is 65.70 m. Details of the project is as follows:

Details	Area	Unit
1) Total plot area	36,408.75	m ²
2) Deduction for		
a. Area under 30 m wide D.P road	1,260.52	m ²
b. Area under 20 m wide D.P. road	4,229.29	m ²
c .PC	6,661.60	m ²
d .Channel	3,030.04	m ²
Total deduction (a+b+c+d)	15,401.45	m ²
Net plot area	21,007.30	m ²
3) FSI area	52,691.21	m ²
4) Non FSI area	40,165.94	m ²
5) Total Construction area	93,857.15	m ²

- (iv) During construction phase, water requirement will be met by Tanker. During the construction phase, soak pits and septic tanks will be provided for disposal of waste water. Temporary sanitary toilets will be provided during peak labor force.
- (v) The water requirement during operation phase will be met by VVMC. The total water requirement of the proposed project is 870 m³/day.
- (vi) Two STP is proposed one of 360 m³ other of 340 m³, (Total STP capacity will be 700 m³) to treat the sewage discharge. It will use Moving bed biofilm reactor (MBBR process).
- (vii) Treated water will be utilized for Flushing and for the gardening purpose of the trees around the project site
- (viii) The total expected solid waste generation is 3040 kg/day of which 1806 kg/day will be biodegradable waste which will be treated in OWC whereas non-biodegradable waste will account to 1,234 kg/day which will be handover to VVMC for disposal or will be sold to authorized recyclers, inert waste will account to 218.3 kg/day.
- (ix) The total maximum connected load is 20451 kW and Demand load 5525.64 kW, (14 D.G sets) 3 of 75 kVA, 7 of 700kva and 4 of 5125 kVA will be installed which will be used during power failure and in emergency conditions.
- (x) Proposed energy saving measures would save account to 15.65% unit saving per year (Solar lighting will be connected for common areas)
- (xi) Total no of 687 car parking and 1227 two wheeler parking will be provided.
- (xii) It is at a distance of 9.47 km from Sanjay Gandhi National park boundary and Tungareshwar wild life sanctuary is situated at a distance of 8.5 km.
- (xiii) No Court case pending against the project.
- (xiv) Total cost of the project is Rs. 225.0 crore.
- (xv) Employment Potential: For skilled and no skilled construction workers during construction phase and security, cleaning staff during operation phase.
- (xvi) Benefits of the project: Good quality residences & commercial shops, varied apartments to

suit different clientele requirements of size and cost, adequate water supply and electric supply coupled with energy efficient mechanisms, Availability of ample parking space and Good Recreational space.

The proposal was earlier considered by the EAC in its 14th meeting held on 13th-15th February, 2017, wherein Project Proponent was asked to submit revised Form-1 & 1A. Now, Project Proponent vide letter dated 08.03.2017 has submitted revised Form-1 & 1A. Copy of additional Information is available on the website.

The EAC deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.

- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.
- (xi) Sewage shall be treated in the STP based on Moving Bed Biofilm Reactor (MBBR) Technology (with tertiary treatment i.e. Ultra Filtration). The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling. Excess treated effluent shall be discharged in to Municipal sewer line as per CPCB norms.
- (xii) 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. As proposed, 3 nos. of rain water harvesting tanks of total capacity of 130 m³ shall be provided as per CGWB guidelines.
- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. 140 m² space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the

project.

- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxviii) 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.
 - Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from Vasai- Virar Municipal Corporation (VVMC) Water Supply shall not exceed 546 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be

measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.

- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.
- (ix) 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.
- (x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.
- (xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed 2088 sqm area shall be provided for green belt development.
- (xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified 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 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.
- (xiv) The company shall draw up and implement a corporate social Responsibility plan as per the Company's Act of 2013.

20.4.6 **Expansion of redevelopment Project at D. N. Nagar, MHADA layout, Andheri (West) Mumbai,**

Maharashtra by M/s. Axayraj Build Well Pvt. Ltd. – Reconsideration for Environmental Clearance (21-87/2016-IA-III; IA/MH/NCP/60145/2016)

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The project is located at 19°7'29.08"N, 19°7'28.06"N, 19°7'34.44"N, 19°7'34.15"N, Latitude and 72°49'51.83"E, 72°49'52.03"E, 72°49'55.66"E, 72°49'56.94"E Longitude.
- (ii) The is an expansion project. Earlier environmental clearance granted by MoEF&CC vide letter no. 21-260/2008-IAIII dated 06.05.2011 for construction area of 56,041.69 sqm. An area of 41755.82 sqm has been constructed on site as per EC obtained.
- (iii) The total plot area is 10,278.39 sqm. FSI area is 39,842.90 sqm and total construction area of 65,745.64 sqm. The project will comprise of 11 no. of wings. Total Residential 355 nos. Residential, 224 nos Shops, 542 nos. offices & 3 nos. Restaurant shall be developed. Maximum height of the building is 53.15 m.
- (iv) During construction phase, total water requirement is expected to be 20 KLD which will be met by Outsource through Tanker Water during the construction phase. Septic Tanks will be provided during construction. Temporary sanitary toilets will be provided during peak labor force.
- (v) During operational phase, total water demand of the project is expected to be 413 KLD (Fresh water 234 cum, recycled water 179 cum) KLD and the same will be met by the MCGM. Wastewater generated (366 KLD) uses will be treated in STP of total 380 KLD capacity. 329 KLD of treated wastewater will be recycled (174 KLD for flushing, 5 KLD for gardening). About 155 KLD (Non Monsoon) & 150 KLD (Monsoon) will be disposed in to municipal drain.
- (vi) About 1823 Kg/day solid waste will be generated in the project. The biodegradable waste (813 Kg/day) will be processed in OWC and the non-biodegradable waste generated (1010 Kg/day) will be handed over to authorized local vendor.
- (vii) The total power requirement during construction phase is 100 KW and will be met from Tata Power and total power requirement during cooperation phase is Connected Load: 14169.16 KW, Maximum Demand: 7084.58 KW and will be met from Tata Power.
- (viii) Rooftop rainwater of buildings will be collected in 1 no. of RWH tanks of having total 80 cum capacity for harvesting after filtration.
- (ix) Parking facility for 439 four wheelers and 60 two wheelers is proposed to be provided and as per local norms respectively (according to local norms).
- (x) Proposed energy saving measures would save about 25.65 % of power.
- (xi) Not within Eco Sensitive Zone of Sanjay Gandhi national park. (3.1 Km away)There is no court case pending against the project.
- (xii) Investment/Cost of the project is Rs. 89.97 in crore.
- (xiii) Employment potential: 25 shall be provided with temporary housing facilities Around 60 labors will come to site during peak construction phase. Since it is a partially commercial project it will generate permanent employment of approx.600 persons.
- (xiv) Benefits of the project: The project is a redevelopment of old MHADA (Maharashtra Housing and Area Development Authority) tenements. The project will improve the standard of living and add the aesthetics of the surrounding environment.

The proposal was earlier considered by the EAC in its 13th meeting held on 23rd-25th January, 2017, wherein some additional information was sought. Now, Project Proponent vide letter

dated 14.03.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on the certified compliance report letter F. No. 18-C-11/2014/ dated 24.04.2017 issued by the MoEF&CC's Regional Office (WCZ), Nagpur and reply given by the project proponent to non-compliance of EC conditions. The Committee deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.

- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.
- (xi) Sewage shall be treated in the STP with tertiary treatment i.e. Ultra Filtration. The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling. Excess treated effluent shall be discharged in to Municipal sewer line as per CPCB norms.
- (xii) 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. As proposed, 1 nos. of rain water harvesting tanks of total capacity of 80 m³ shall be provided as per CGWB guidelines.
- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. 150 m² space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings

due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.

- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxviii) 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.
 - Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from Pune Municipal Corporation Water Supply shall not exceed 169 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent

expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.

- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.
- (ix) 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.
- (x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.
- (xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed 301.84 sqm area shall be provided for green belt development.
- (xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified 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 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.
- (xiv) The company shall draw up and implement a corporate social Responsibility plan as per the Company's Act of 2013.

20.4.7 **Expansion of "VICINIA" Residential project Plot Bearing CTS No. 15A,15C,15D,15E &15F Chandivali, Kurla, Mumbai Maharashtra by M/s. Forbes And Company Ltd., Mumbai-Reconsideration for Environmental Clearance (IA/MH/NCP/60414/2016; 21-8/2017-IA-III)**

The project proponent made a presentation and provided the following information to the

Committee:-

- (ii) The project is Expansion of Proposed Residential project "VICINIA" Plot Bearing CTS No. 15A,15C,15D,15E &15F Chandivali, Kurla, Mumbai Maharashtra. (Latitude: 19° 6'43.27"N, 19° 6'34.92"N, 19° 6'35.15"N, 19° 6'38.01"N, 19° 6'43.41"N and Longitude: 72°54'9.05"E, 72°54'8.64"E, 72°54'6.37"E, 72°54'6.59"E, 72°54'3.36"E)
- (iii) Earlier environmental clearance was granted to the project by SEIAA, Maharashtra vide letter no. SEAC-2212/CR-398/TC-1 dated 18.07.2016 for construction area of 95,368.49 sqm. Construction of basement slabs is in progress as per EC obtained.
- (iv) Total plot area is 27,263.50 sqm and total construction area after expansion will be 1,18,513.67 sqm. Maximum height of the building is 69.94 m. The details are as follows:

Wings	Configuration	Height
A & B	3B + Stilt + 20 Flrs	69.94 m
C, D, E, F & G,H	3B + Stilt + 21Flr	69.94 m
Wing I (Sports Center)	G + 1 Flr (Pt)	9.40 m
Club House	G + 1 Flr (Pt)	8.00 m

- (v) During construction phase total expected water requirement will be 20 KLD which will be outsourced through tanker. Septic tanks will be provided for disposal of wastewater. Temporary sanitary toilets will be provided during peak labour force.
- (vi) During operation phase total expected water demand will be 430 KLD (Recycled water: 167 KLD, Wastewater generated: 361 KLD, Capacity of STP: 400 KLD). Excess treated water 157 KLD will be discharged to municipal drain.
- (vii) Biodegradable waste (861 Kg/Day) will be processed and treated in OWC to convert into organic manure). Non-biodegradable (574 Kg/Day) will be handed over to authorized local vendor.
- (viii) During construction phase 100 KVA and during operation phase 12313 kW power will be required.
- (ix) For rainwater harvesting, RWH tanks of 166 cum will be provided for harvesting after filtration.
- (x) The project is 3.56 km away from SGNP. The project does not fall within the Sanjay Gandhi national park as per the Notification under ESZ of SGNP dated 5-12-2016 issued by MoEF&CC.
- (xi) There is no/ court case pending against the project.
- (xii) Investment/ cost of the project is Rs. 405.00 Crores.
- (xiii) Employment potential: 25 shall be provided with temporary housing facilities Around 60 labors will come to site during peak construction phase.
- (xiv) Benefits of the project: Since the project is situated in the area of Powai there are lots of IT parks situated in the nearby proximity also the project is well connected via metro station, western and eastern zone of Mumbai via JVLR, eastern express highways & western express highway .This is a residential project which will create 30 direct employment and 100 indirect employment during the operation phase.

The proposal was earlier considered by the EAC in its 14th meeting held on 13th-15th

February, 2017, wherein some additional information was sought. Now, Project Proponent vide letter dated 17.03.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on the certified compliance report vide letter No. 284/RON/2017-NGP dated 24.04.2017 issued by the MoEF&CC's Regional Office (WCZ), Nagpur and reply given by the project proponent to non-compliance of EC conditions. The Committee deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.

- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.
- (xi) Sewage shall be treated in the STP based on Moving Bed Biofilm Reactor (MBBR) Technology (with tertiary treatment i.e. Ultra Filtration). The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling. Excess treated effluent shall be discharged in to Municipal sewer line as per CPCB norms.
- (xii) 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. As proposed, 2 nos. of rain water harvesting tanks of total capacity of 166 m³ shall be provided as per CGWB guidelines.
- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. 200 m² space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.

- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxviii) 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.
 - Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from Municipal Corporation of Greater Mumbai (MCGM) Water Supply shall not exceed 273 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly

Monitoring reports.

- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.
- (ix) 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.
- (x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.
- (xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed 5108.91 sqm area shall be provided for green belt development.
- (xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified 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 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.
- (xiv) The company shall draw up and implement a corporate social Responsibility plan as per the Company's Act of 2013.

20.4.8

Environmental Clearance for Chakradhar Nagar residential project on plot bearing S.No. 74/2/3, 90, 85/1 to 8, 86/5/6/7, 117 B/1 to 4 at village Achole and Nilemore, District Palghar (Maharashtra) by M/s Viva & Patil Construction – Reconsideration for Environmental Clearance (IA/MH/NCP/60049/2016; F.No.21-30/2016-IA-III)

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The project is located at 19°24'47.34"N Latitude and 72°48'55.95"E longitude.
- (ii) The total plot area is 83110.23 sqm. FSI area is 74297.55 sqm and total construction area of 104838.94 sqm. The project will comprise of 6 Buildings. Total 1856 flats shall be developed. Maximum height of the building is 66.15 m.
- (iii) During construction phase, total water requirement is expected to be 20 KLD which will be met by Tanker water. During the construction phase, Modular STP will be provided. Temporary sanitary toilets will be provided during peak labor force.
- (iv) During operational phase, total water demand of the project is expected to be 1322 KLD and the same will be met by the VVCMC/Recycled Water. Wastewater generated (1189 KLD) uses will be treated in .1 no. of STP of total 1200 KLD capacity. 478 KLD of treated wastewater will be recycled (429 for flushing, 49 for gardening). About 591 KLD will be disposed in to municipal drain.
- (v) About 4779 Kg/day solid waste will be generated in the project. The biodegradable waste (2826 Kg/Day) will be processed in OWC and the non-biodegradable waste generated (1953 Kg/Day) will be handed over to authorized local vendor.
- (vi) The total power requirement during construction phase is 100 KVA and will be met from MSEB and total power requirement during cooperation phase is Connected load: 8578 KW, Maximum Demand: 5147 KW and will be met from MSEB.
- (vii) Rooftop rainwater of buildings will be collected in various no. of RWH tanks of total 122 cum capacity for harvesting after filtration.
- (viii) Parking facility for 895 Nos. four wheelers and 2255 two wheelers is proposed to be provided against the requirement of 895 and 2255 respectively (according to local norms).
- (ix) Proposed energy saving measures would save about 19.5% of power.
- (x) It is located approximately 8.0 km from Tungareshwar National Park.
- (xi) There is no court case pending against the project.
- (xii) Investment/Cost of the project is Rs. 250.00 in crore.
- (xiii) Employment potential:-Construction phase employment is expected to be 80 persons.
- (xiv) Benefits of the project: This project will contribute to meeting the housing requirement of the urbanized area. As the surrounding urbanized area like Mumbai, Thane etc. are already dense. This project provides better option with respect to connectivity to the area.

The proposal was earlier considered by the EAC in its 11th meeting held on 24th-25th November, 2017, wherein Project Proponent was asked to submit revised Form-1 & 1A. Now, Project Proponent vide letter dated 18.03.2017 has submitted revised Form-1 & 1A. Copy of additional Information is available on the website.

The EAC deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.
- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.

- (xi) Sewage shall be treated in the STP based on Moving Bed Biofilm Reactor (MBBR) Technology (with tertiary treatment i.e. Ultra Filtration). The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling. Excess treated effluent shall be discharged in to Municipal sewer line as per CPCB norms.
- (xii) 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. As proposed, 2 nos. of rain water harvesting tanks of total capacity of 244 m³ shall be provided as per CGWB guidelines.
- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. 533.5 m² space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase.

Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxviii) 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.
- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from Virar-Vasai Municipal Corporation (VVMC) Water Supply shall not exceed 611 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management)

	<p>Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.</p> <p>(ix) 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.</p> <p>(x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.</p> <p>(xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.</p> <p>(xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed 6892.03 sqm area shall be provided for green belt development.</p> <p>(xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified 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 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.</p> <p>(xiv) The company shall draw up and implement a corporate social Responsibility plan as per the Company's Act of 2013.</p>
20.4.9	<p>Proposed SRA Project at plot bearing C.T.S No. 720, 723,728 Village Kandivali, District Mumbai, Maharashtra by Triax Developers LLP – Reconsideration for Environmental Clearance (21-93/2016-IA-III; IA/MH/NCP/61384/2016)</p> <p><i>Project Proponent did not attend meeting.</i></p>
20.4.10	<p>“Residential Development” At S. No. 9 to 14, Hissa Nos. 1/50 to 1/51, Mundhwa, Dist. - Pune, State – Maharashtra. By Pinni 2 Co. operative Housing Society Ltd. Developer M/s Oxford Shelter Pvt. Ltd. and One Earth – Reconsideration for Environmental Clearance (IA/MH/NCP/61574/2017; 21-10/2017-IA-III)</p> <p>The project proponent made a presentation and provided the following information to the Committee:-</p> <p>(i) The project is located at 18°32'24.88"N latitude and 73°56'57.91"Elongitude.</p> <p>(ii) The total plot area is 15,800 sqm.; FSI area is 18,045.45 sqm and Non FSI area is 8,754.55</p>

sqm and total construction area of 26,800 sqm. The project will comprise of 2 Buildings A and B. Maximum height of the building is 47.85 m.

- (iii) During construction phase, total water requirement is expected to be 10-20 KLD which will be met by tanker. Mobile toilets will be provided during project.
- (iv) During operational phase, total water demand of the project is expected to be 175 KLD out of which 104 KLD will be met by Gram panchayat. Waste water generated (135 KLD) will be treated in one STP of total 150 KLD capacity. 132 KLD of treated wastewater will be recycled (52 for flushing, 19 for gardening). About 61 KLD will be disposed in to municipal drain.
- (v) About 0.6 TPD solid wastes will be generated in the project. The biodegradable waste (0.34 TPD) will be processed in OWC and the non-biodegradable waste generated (0.23 TPD) will be handed over to SWACH.
- (vi) The total power requirement during construction phase will be met by using 1 D.G. set of 150 kVA and total power requirement during operation phase will be met from Maharashtra State Electricity Distribution Company Limited (MSEDCL)
- (vii) Rooftop rain water of buildings will be recharged through 4 no. of recharge pits having diameter 1.50x1.50x 2 m.
- (viii) There is no court case pending against the project
- (ix) Investment/Cost of the project is Rs. 63 Crore.
- (x) Employment potential: Will create 20-25 job opportunities for support staff like Security, Maintenance, household workers, Shop keepers etc. During construction phase 100 skilled and unskilled labours will be employed.
- (xi) Benefits of the project: Enhancement of the infrastructural facilities in the area. It will create job opportunity for support staff like Security, Maintenance, household workers etc.

The proposal was earlier considered by the EAC in its 14th meeting held on 13th-15th February, 2017, wherein some additional information was sought. Now, Project Proponent vide letter dated 23.03.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.

- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.
- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.
- (xi) Sewage shall be treated in the STP with tertiary treatment i.e. Ultra Filtration. The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling. Excess treated effluent shall be discharged in to Municipal sewer line as per CPCB norms.
- (xii) 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. As proposed, 4 no. of recharge pits having diameter 1.50 × 1.50 × 2 mtr shall be provided as per CGWB guidelines.
- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. Adequate space

shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.

- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport

Departments shall also include the consent of all the concerned implementing agencies.

(xxviii) 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.

- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
- Traffic calming measures
- Proper design of entry and exit points.
- Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from Gram Panchayat. Water Supply shall not exceed 104 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.
- (ix) 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.
- (x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.
- (xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and

- disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed 3160 sqm area shall be provided for green belt development.

20.4.11 Proposed residential development at S. No. 17/7, 22/2A, 17/6/1(1+2+3), 17/6/2, Kharadi Pune, Maharashtra by Nyati Housing – Reconsideration for Environmental Clearance (IA/MH/NCP/60824/2016; 21-5/2017-IA-III)

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The project is located at 18°32'29.34"N latitude and 73°56'20.56"E longitude
- (ii) The project is for Expansion of residential development at S. No. 17/7, 22/2A, 17/6/1(1+2+3), 17/6/2, Kharadi Pune.
- (iii) Earlier Clearance details: The proposed project is of expansion type. Construction initiated as per Earlier EC vide letter No.: SEAC-III-2015/CR-132/TC-3/A; Dated: 18.07.2016.

S. No.	As per EC				Amendment			
	Building	No. of Floors	Height of building (Mt)	Tenements	Building	No. of Floors	Height of building (Mt)	Tenements
1	A1	3P+21	69.45	84	A1	4P+ 1	15.0	3
2	A2	3P+21	69.45	84	A2	4P+29	99.0	116
3	B1	3P+21	69.45	84	B1	4P+29	99.0	116
4	B2	3P+21	69.45	84	B2	4P+29	99.0	116
5	B3	3P+21	69.45	84	B3	4P+23	81.0	92
6	B4	3P+21	38.90	84	C1	4P+29	99.0	116
7	B5	3P+1	11.90	04	C2	4P+29	99.0	116
8	C1	3P+11	40.90	44	C3	4P+29	99.0	116
9	E1	3P+21	69.45	123	C4	4P+29	99.0	116
10	D1	2P+11	36.80	166	D1	2P+14	45.50	165

11	-	-	-	-	E1	2P+14	45.50	158
Total		841						1230

Status of Construction:

S. No.	Building name as EC	No. of Floors as per EC	Revised Nomenclature	Revised No. of Floors	Status of construction	Total area constructed sq.mt.
1	A1	3P+21	A1	4P+ 1	Not started	-
2	A2	3P+21	A2	4P+29	1 st parking	1104.30
3	B1	3P+21	B1	4P+29	Plinth level	-
4	B2	3P+21	B2	4P+29	Plinth level	-
5	B3	3P+21	B3	4P+29	Not started	-
6	B4	3P+21	C1	4P+29	Not started	-
7	B5	3P+1	C2	4P+29	Not started	-
8	C1	3P+11	C3	4P+29	Plinth level	-
9	E1	3P+21	C4	4P+29	Not started	-
10	D1	2P+11	D1	2P+14	Not started	-
11	-	-	E1	2P+14	Not started	-

- (iv) The total plot area is 27,424.31 sqm and total built up area of the project is 146,525.38 sqm. Proposed 11 Residential buildings having 1230 nos. of flats and 1 no. of multipurpose hall having ground floor.
- (v) During construction phase, total water requirement is expected to be 10-20 KLD which will be met by tanker. During the construction phase, Mobile Toilet will be provided for disposal of waste water. Temporary sanitary toilets will be provided during peak labour force.
- (vi) During operational phase, total water demand of the project is expected to be 847 KLD and out of the total 554 KLD will be met by PMC, 2 KLD from tanker of potable quality and the rest 291 KLD will be met by recycled water. Waste water generated (748 KLD) uses will be treated in two no. of STP of total 770 KLD capacity. 291 KLD of treated waste water will be recycled (277 for flushing, 14 for gardening). About 382 KLD will be disposed into Municipal drain.
- (vii) About 2.83 TPD solid wastes will be generated in the project. The biodegradable waste (1.75 TPD) will be processed in OWC and the non- biodegradable waste generated (1.07TPD) will be handed over to PMC

- (viii) The total power requirement during construction phase is about 100KW and will be met from Maharashtra State Electricity Distribution Company Limited (MSEDCL) and total power requirement during operation phase is 4774 KW (5305.00KVA) will be met by MSEDCL Supply
- (ix) Roof top rain water of buildings will be recharged through 14 no. of recharge pit having size 1.5mt. x 4mt for harvesting after filtration. RWH tank not planned.
- (x) Parking facility for (1123 Proposed) four wheelers and 2583 two wheelers is proposed cars two wheelers two wheeler respectively (according to local norms).
- (xi) There is no court case pending against the project
- (xii) Investment/Cost of the project is Rs.254.37 Cr
- (xiii) Employment potential: Will create job opportunity for support staff like Security, Maintenance, household workers, Shop keepers etc.
- (xiv) Benefits of the project: It will Enhancement of the infrastructural facilities in the area. It will create job opportunity for support staff like Security, Maintenance, household workers etc.

The proposal was earlier considered by the EAC in its 14th meeting held on 13th-15th February, 2017, wherein some additional information was sought. Now, Project Proponent vide letter dated 30.05.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on the certified compliance report letter No. EC-268/RON/2017-NGP/ dated 25.03.2017 issued by the MoEF&CC's Regional Office (WCZ), Nagpur and reply given by the project proponent to non-compliance of EC conditions. The Committee deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.

- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.
- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.
- (xi) Sewage shall be treated in the STP with tertiary treatment i.e. Ultra Filtration. The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling. Excess treated effluent shall be discharged in to Municipal sewer line as per CPCB norms.
- (xii) 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. As proposed, 14 no. of recharge pit having size 1.5mt. x 4mt for harvesting after filtration shall be provided as per CGWB guidelines.
- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. Adequate space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of

the project.

- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxviii) 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.
 - Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.

- Traffic calming measures
- Proper design of entry and exit points.
- Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from PMC Water Supply shall not exceed 554 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.
- (ix) 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.
- (x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.
- (xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed adequate area shall be provided for green belt development.

	<p>(xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified 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 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.</p> <p>(xiv) The company shall draw up and implement a corporate social Responsibility plan as per the Company's Act of 2013.</p>
20.4.12	<p>Expansion of Residential group housing scheme at Village Undri, Haveli, Pune, Maharashtra by M/s. Kumar Kering Properties Pvt Ltd – Reconsideration for Environmental Clearance (21-94/2016-IA-III ; IA/MH/NCP/61046/2016)</p> <p><i>Project Proponent did not attend meeting.</i></p>
20.4.13	<p>Proposed Commercial Construction project 'Runwal REGALIA' by M/s Runwal Erectors Pvt Ltd At Survey no.153A/1 to 4/1/1 & Survey No.153A/1 to 4/1, Hadapsar, Pune by Runwal Erectors Pvt Ltd– – Reconsideration for Environmental Clearance (IA/MH/NCP/62119/2017; 21-29/2017-IA-III)</p> <p>(i) The project is located at 18°30'13.86"N Latitude and 73°55'30.20"E longitude. The project is new.</p> <p>(ii) As per the notification dated 06.04.2011, it is specifically mentioned that the built up area is defined as " the built up or covered area on all the floors put together including basement(s) and other service areas, which are proposed in the building/ construction projects". Therefore Total Built-up area has been changed to 36925.20 sqm which includes parking area admeasuring 12918.64 sqm which exceeded 20,000.00 sqm.</p> <p>(iii) As of now the construction activity is stopped and the construction status of the project is as follows;</p> <p><i>From all above facts and reference to Circular by Environment Department, Govt of Maharashtra circular No. ENV 2013/CR 39/TC-1 Dated 21/4/2015, it is to inform you that we have not carried out construction more than 20000 sqm.</i></p> <p>(iv) The total plot area is 8340.00 sqm. The project will comprise of 1 Commercial Building. FSI area is 12340.57 sqm and total construction area of 36925.20 sqm. Total 10 Offices, 48 Shops, 3 Restaurants, 11 Sports/ Assembly, 121 Rooms shall be developed. Maximum height of the building is 39.9 m.</p> <p>(v) During construction phase, total water requirement is expected to be 50 KLD which will be met by treated water from tanker.</p> <p>(vi) During operational phase, total fresh water demand of the project is expected to be 169KLD and the same will be met by the 77 KLD Recycled water and 101 KLD Fresh Water supplied by Pune Municipal Corporation. Wastewater generated (149 KLD) uses will be treated in 1 STPs of total 160 KLD capacity. 77 KLD of treated wastewater will be recycled (68KLD for flushing, 9 KLD for gardening). About 76KLD will be disposed in to drain.</p> <p>(vii) About 0.602TPD solid waste will be generated in the project. The biodegradable waste (0.279 TPD) will be processed in OWC and the non-biodegradable waste generated (0.323</p>

TPD) will be handed over to authorized local vendor.

- (viii) The total power requirement during construction phase is 25 kVA and will be met from MSEDCL / D.G. set and total power requirement during operation phase is 1865 kVA and will be met from MSEDCL.
- (ix) Rainwater that can be harvested in tank proposed with capacity 160 cum.
- (x) Parking facility for 281 four wheelers and 819 two wheelers is proposed to be provided against the requirement of 281 and 819 respectively (according to local norms).
- (xi) Proposed energy saving measures would save about 19% of power.
- (xii) Project site is not located within 10 km of Eco Sensitive areas.
- (xiii) There is no court case pending against the project.
- (xiv) Investment/Cost of the project is Rs. 95.5 crore.
- (xv) Employment potential –Commercial building is proposed; direct & indirect employment is envisaged.
- (xvi) Benefits of the project: – Commercial building is proposed; direct & indirect employment is envisaged.

The proposal was earlier considered by the EAC in its 14th meeting held on 13th-15th February, 2017, wherein some additional information was sought. Now, Project Proponent vide letter dated 31.03.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.

- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.
- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.
- (xi) Sewage shall be treated in the STP based on Moving Bed Biofilm Reactor (MBBR) Technology (with tertiary treatment i.e. Ultra Filtration). The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling. Excess treated effluent shall be discharged in to drain as per CPCB norms.
- (xii) 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. As proposed, 1 no. of rain water harvesting tanks of total capacity of 160 m³ shall be provided as per CGWB guidelines.
- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. 100 m² space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of

the project.

- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxviii) 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.
 - Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.

- Traffic calming measures
- Proper design of entry and exit points.
- Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from Pune Municipal Corporation Water Supply shall not exceed 101 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.
- (ix) 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.
- (x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.
- (xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed

adequate area shall be provided for green belt development.

20.4.14 Environmental Clearance for Residential & Commercial Development 'Palladium Grand II(Expansion)' at Palladium Grand II, S. No. 17/1A/2, Dhanori, Pune, Maharashtra by M/s Raojee Constructions – Reconsideration for Environmental Clearance (IA/MH/NCP/60063/2016; F.No.21-32/2016-IA-III)

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The project is located at 18°35'55.79" N latitude and 73°54'8.02"E longitude.
- (ii) This is an Expansion project. Earlier environmental clearance was granted by the SEIAA, Maharashtra vide letter no. SEAC-2014/CR-376/TC-3 dated 26th July 2016.
- (iii) Status of Construction as on 16.11.2016: Existing FSI - 10,442.02 sqm. Existing Non FSI - 7,040.98 sqm, Total BUA Area – 17,483.00 sqm.

Building Type	No. of Buildings	No. of Floors	No. of Flats
Existing Buildings			
A	1	P +7	28
B	1	P +7	28
C	1	P +7	28
D	1	P +7	28
J	1	P +7	28
Total	5		140

- (v) The total plot area is 25,328.62 sqm. The project will comprise of 5 Existing and 5 proposed buildings Buildings. FSI area is 30,401.45 sqm (Existing- 10,442.02 sqm + Proposed- 19,959.43 sqm) and total construction area of 58,666.85 sqm (Existing: 17,483 Proposed: 41,183.85 Total flats Existing-140 nos. Proposed: -350 nos. & 52 Commercial units shall be developed. Maximum height of the building is 42 m.
- (vi) During construction phase, total water requirement is expected to be 10-20 KLD which will be met by tanker. During the construction phase, soak pits and septic tanks will be provided for disposal of waste water. Temporary sanitary toilets will be provided during peak labour force.
- (vii) During operational phase, total water demand of the project is expected to be 391 KLD and out of the total 279 KLD will be met by Pune Municipal Corporation. (0.5 KLD – Tanker) Waste water generated (328 KLD) will be treated in one STP of total 350 KLD capacity. 111 KLD of treated waste water will be recycled (87 KLD for flushing and 24 KLD for gardening). About 217 KLD will be disposed into municipal drain.
- (viii) About 1.17 TPD solid wastes will be generated in the project. The biodegradable waste (0.7 TPD) will be processed in OWC and the non- biodegradable waste generated 0.4 TPD) will be handed over to PMC.
- (ix) The total power requirement during construction phase is about 100KW and will be met from Maharashtra State Electricity Distribution Company Limited (MSEDCL) and total power requirement during operation phase will be met by MSEDCL Supply.
- (x) Roof top rain water of buildings will be recharged through 13 no. of recharge pits having size

3mt. x 3mt x 3mt approx. for harvesting after filtration.

- (xi) Parking facility for (70 Existing + 407 Proposed) four wheelers and Existing 280 + Proposed 855 two wheelers is proposed to be provided against the requirement of (70 Existing + 407 Proposed) cars and Existing 280 + Proposed 855 two wheelers two wheeler respectively (according to local norms).
- (xii) Proposed energy saving measures would save about 23%.
- (xiii) Not located within 10 km of any Eco Sensitive areas
- (xiv) There is no court case pending against the expansion project.
- (xv) Investment/Cost of the project is Rs. 29.88 Crore.
- (xvi) Employment potential: Will create job opportunity for support staff like Security, Maintenance, household workers, Shop keepers etc.
- (xvii) Benefits of the project: Enhancement of the infrastructural facilities in the area. It will create job opportunity for support staff like Security, Maintenance, household workers etc.

The proposal was earlier considered by the EAC in its 11th meeting held on 24th-25th November, 2016, wherein some additional information was sought. Now, Project Proponent vide letter dated 30.01.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on the certified compliance report letter No. EC-275/RON/2017-NGP/ dated 31.03.2017 issued by the MoEF&CC's Regional Office (WCZ), Nagpur and reply given by the project proponent to non-compliance of EC conditions. The Committee deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.

- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.
- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.
- (xi) Sewage shall be treated in the STP based on Moving Bed Biofilm Reactor (MBBR) Technology (with tertiary treatment i.e. Ultra Filtration). The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling. Excess treated effluent shall be discharged in to Municipal sewer line as per CPCB norms.
- (xii) 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. As proposed, 13 nos. of rain water recharge pits shall be provided as per CGWB guidelines.
- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. 100 m² space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of

the project.

- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxviii) 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.
 - Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.

- Traffic calming measures
- Proper design of entry and exit points.
- Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from Pune Municipal Corporation Water Supply shall not exceed 279 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.
- (ix) 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.
- (x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.
- (xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed

3080.84 sqm area shall be provided for green belt development.

- (xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified 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 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.
- (xiv) The company shall draw up and implement a corporate social Responsibility plan as per the Company's Act of 2013.

20.4.15 **Sai World Empire- Residential Project at Plot Bearing S.NO.93/2+4, 93/3,94/1,94/2,94/3A,94/3B,94/4,102/1A,102/4,102/5A/2,102/5B,102/5C,103/1A,103/2B,103/3, 102/1B, 102/3, 103/2A, 103/1B, Rohinjan, Panvel, Raigad by M/s. Paradise Group – Reconsideration for Environmental Clearance (21-35/2016-IA-III; IA/MH/NCP/63123/2017)**

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The name of the project is SAI WORLD EMPIRE at Plot Bearing S.NO.93/2+4, 93/3,94/1,94/2,94/3A,94/3B,94/4,102/1A,102/4,102/5A/2,102/5B,102/5C,103/1A,103/2B,103/3, 102/1B, 102/3, 103/2A, 103/1B, Rohinjan, Panvel, Raigad. Latitude and Longitude are 19°04'53.47" N and 73°04'25.32" E.
- (ii) Total plot is 66,260 sqm (FSI area: 176,748.51 sqm, Total construction area: 3,96,768.41 sqm No. of flats: 2703 nos) Maximum height of buildings is 127.15 m.
- (iii) During construction phase total expected water requirement of 13.5 KLD will be met through Tanker Water. Soak pits and septic tanks will be provided for disposal of waste water: Modular STP shall be provided. Temporary sanitary toilets will be provided during peak labor force.
- (iv) During operation phase total expected water demand will be of 1738 KLD (Recycled water: 1535 KLD, Wastewater generated: 1616 KLD, Capacity of STP: 750 KLD, 250 KLD & 650 KLD). Excess treated water of 852 KLD will be discharged to municipal drain:
- (v) Biodegradable waste 4014 kg/day will be processed in OWC and Non-biodegradable waste 2645 kg/day will be handed over to authorized local vendor
- (vi) Total Power requirement during construction phase will be 100 KVA which will be met by MSEDCL. During operation phase Connected load will be 32739+14203=46942 kW
- (vii) Rainwater harvesting for 58 cum will be provided.
- (viii) Investment/ cost of the project is 175.0 Crore.
- (ix) Employment potential: Construction phase staff: 68 Nos. (approx.), Overall labor strength during construction will be approx 612 Nos.
- (x) Benefits of the project: As the project involves rental component, PP is indirectly provide affordable housing in the area. It is located well near the Taloja MIDC area, so it can be a residential hub for the employees over there.

The proposal was earlier considered by the EAC in its 15th meeting held on 12th-14th April, 2017, wherein some additional information was sought. Now, Project Proponent vide letter dated

06.05.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.

- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.
- (xi) Sewage shall be treated in the STP based on Moving Bed Biofilm Reactor (MBBR) Technology (with tertiary treatment i.e. Ultra Filtration). The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling. Excess treated effluent shall be discharged in to Municipal sewer line as per CPCB norms.
- (xii) 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. As proposed, rain water harvesting tanks of total capacity of 245 m³ shall be provided as per CGWB guidelines.
- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. 335 m² space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.

- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxviii) 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.
 - Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from MJP. Water Supply shall not exceed 138 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from

	<p>STP.</p> <ul style="list-style-type: none"> (vi) No sewage or untreated effluent water would be discharged through storm water drains. (vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013. (viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed. (ix) 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. (x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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. (xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination. (xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed 2198.03 sqm area shall be provided for green belt development. (xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified 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 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. (xiv) The company shall draw up and implement a corporate social Responsibility plan as per the Company's Act of 2013.
20.4.16	<p>Residential & Commercial Development” at CTS No. 4270, Chinchwad Gaon, Pune, Maharashtra by M/s. Elpro International Limited– Reconsideration for Environmental Clearance (IA/MH/NCP/62181/2017; 21-34/2017-IA-III)</p> <p>The project proponent made a presentation and provided the following information to the Committee:-</p> <ul style="list-style-type: none"> (i) The project is located at 18°37'45.72"N Latitude and 73°47'01.54"E Longitude.

- (ii) The project is residential and commercial development and proceeding for amendment in EC.
- (iii) Earlier environmental clearance was granted to the project by the Ministry vide letter No. 21-456/2006-IA-III for total built up area of 2,31,350 sqm. Total constructed area: 1,26,389.72 sqm.
- (iv) The total plot area is 1,72,560.00 sqm. Now, it is proposed to complete total construction area of 1,39,482.94 sqm having FSI area 95,943.91 sqm and Non FSI of 43,539.03 sqm. Maximum height of the building is 30m. The project will comprise of following:
- (v) During construction phase, total water requirement is expected to be 10-20 KLD which will be met by tanker. Mobile toilets will be provided during project.
- (vi) During operational phase, total water demand of the project is expected to be 898 KLD out of which 410 KLD will be met by PCMC. Additionally 5 KLD will be required for swimming pool makeup from tankers of Potable water quality. Wastewater generated (696 KLD) uses will be treated in 3 different STP of 215, 230, 255 KLD capacity for residential and commercial and mall. 590 KLD of treated wastewater will be recycled (363 for flushing, 125 for gardening). About 102 KLD will be disposed into municipal drain.
- (vii) About 3.0 TPD solid wastes will be generated in the project. The biodegradable wastes (1.43 TPD) will be processed in OWC and the non- biodegradable waste generated (1.60 TPD) will be handed over to PCMC.
- (viii) The total power requirement during construction phase will be met by using 9 nos. of 125 KVA, 2 nos. of 500 KVA, 1 Nos. of 630 KVA, 1 no of 82.5 KVA, 3 nos. of 2000 KVA and total power requirement during operation phase will be met from Maharashtra State Electricity Distribution Company Limited (MSEDCL).
- (ix) Rooftop rain water of buildings will be recharged through 12 no. of recharge pits having diameter 150 mm and depth of 30 mtr for harvesting after filtration.
- (x) There is no court case pending against the project.
- (xi) Investment/Cost of the project is Rs. 400 core.
- (xii) Employment potential: It will create 20-25 job opportunities for support staff like Security, Maintenance, household workers, Shop keepers etc. During construction phase 100 skilled and unskilled labours will be employed.
- (xiii) Benefits of the project: Enhancement of the infrastructural facilities in the area. It will create job opportunity for support staff like Security, Maintenance, household workers etc.

The proposal was earlier considered by the EAC in its 14th meeting held on 13th-15th February, 2017, wherein some additional information was sought. Now, Project Proponent vide letter dated 19.05.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on the certified compliance report letter F. No. EC-16-57/2007(ENV)/1720 dated 05.05.2017 issued by the MoEF&CC's Regional Office (WCZ), Nagpur and reply given by the project proponent to non-compliance of EC conditions. The Committee deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.
- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.

- (xi) Sewage shall be treated in the STP based on Moving Bed Biofilm Reactor (MBBR) Technology (with tertiary treatment i.e. Ultra Filtration). The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling. Excess treated effluent shall be discharged in to Municipal sewer line as per CPCB norms.
- (xii) 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. As proposed, 12 nos. of rain water harvesting pits shall be provided as per CGWB guidelines.
- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. Adequate space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase.

Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxviii) 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.
- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from PCMC Water Supply shall not exceed 410 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the

	<p>Plastics Waste Management Rules, 2016 shall be followed.</p> <p>(ix) 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.</p> <p>(x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.</p> <p>(xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.</p> <p>(xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed 32194.83 sqm area shall be provided for green belt development.</p> <p>(xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified 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 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.</p> <p>(xiv) The company shall draw up and implement a corporate social Responsibility plan as per the Company's Act of 2013.</p>
20.4.17	<p>Proposed Project 'Kalpataru Yashodhan' [formerly Kalpataru Grandeur(Yashodhan)] at FP no. 71, TPS, Andheri No. VI, S.V. Road, Vile Parle (W), Mumbai, Maharashtra by M/s. Kalpak Property Ventures LLP– Reconsideration for Environmental Clearance (IA/MH/NCP/60462/2016; F. No. 21-66/2016-IA-III)</p> <p>The project proponent made a presentation and provided the following information to the Committee:-</p> <p>(i) The project is located at FP no. 71 TPS, Andheri No. VI, Vile Parle, Mumbai Suburban District, Maharashtra. Latitude: 19° 6'42.41"N and longitude: 72°50'33.51"E</p> <p>(ii) This is an expansion project. Earlier EC was granted to the project by SEIAA, Maharashtra vide letter no. SEAC/2013/CR-212/TC-1 dated 02.05.2013.</p> <p>(iii) The total plot area is 8110 sqm. FSI area is 20,229.75 sqm and total construction area of 42,433.50 sqm. Total 195 No. Dwelling units shall be developed. The project will comprise of 5 wings. Maximum height of the building is 41.45 m.</p> <p>(iv) During construction phase, total water requirement is expected to be 31 KLD which will be</p>

met by MCGM. During the construction phase, soak pit sand septic tanks will be provided for disposal of waste water. Temporary sanitary toilets will be provided to labourers.

- (v) During operational phase, total water demand of the project is expected to be 158 KLD and the same will be met by the MCGM/Recycled Water. Wastewater generated (128 KLD) uses will be treated in STP of total 140 KLD capacity. 102 KLD of treated wastewater will be recycled (52 KLD for flushing, 12 KLD for gardening). About 38 KLD will be disposed in to municipal drain.
- (vi) About 0.514 TPD solid wastes will be generated in the project. The biodegradable waste (0.309 TPD) will be processed in OWC and the non-biodegradable waste generated (0.154 TPD) will be handed over to authorized local vendor.
- (vii) The total power requirement during construction phase is 112.5 KVA and will be met from TATA Power/Reliance and total connected load requirement during operation phase is 3,684.375 KVA it will be met from TATA Power/Reliance.
- (viii) Parking facility for 467 No. of four wheelers is proposed to be provided against the requirement of 467 Nos. (According to local norms).
- (ix) Proposed energy saving measures would save about 20.18% of power.
- (x) It located /not located within 10 km of Eco Sensitive areas- Located within 7 km from Project Site.
- (xi) Investment/Cost of the project is Rs. 125 Crore.
- (xii) Employment potential. During the construction phase, approx. 80 workers will be provided with Housing facilities which will be purely of temporary basis and during peak hours remaining will be deployed from nearby places. On completion of project there will be regular movement of residents, visitors, staff and related personals. Total influx of population is expected to be 1122 nos.
- (xiii) Benefits of the project: Direct & Indirect employment opportunities and Infrastructural Development of the Area.

The proposal was earlier considered by the EAC in its 12th meeting held on 26th - 28th December, 2016 and 1th meeting held on 13th-15th February, 2017, wherein some additional information was sought. Now, Project Proponent vide letter dated 25.01.2017 and 8.06.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on the certified compliance report letter F. No. 18-C-5/2014/1740 dated 08.05.2017 issued by the MoEF&CC's Regional Office (WCZ), Nagpur and reply given by the project proponent to non-compliance of EC conditions. The Committee deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland

and water bodies. Check dams, bio-swales, 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.

- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.
- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.
- (xi) Sewage shall be treated in the STP with tertiary treatment preferably Ultra Filtration. The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling. Excess treated effluent shall be discharged in to Municipal sewer line as per CPCB norms.
- (xii) 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. As proposed, 7

nos. of rain water harvesting pits shall be provided as per CGWB guidelines.

- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. Adequate space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.

(xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.

(xxviii) 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.

- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
- Traffic calming measures
- Proper design of entry and exit points.
- Parking norms as per local regulation

II. Operational Phase

(i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.

(ii) For indoor air quality the ventilation provisions as per National Building Code of India.

(iii) Fresh water requirement from local Municipal Authority Water Supply shall not exceed 90 m³/day.

(iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.

(v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.

(vi) No sewage or untreated effluent water would be discharged through storm water drains.

(vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.

(viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.

(ix) 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.

(x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.
- (xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
 - (xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed 1662.65 sqm area shall be provided for green belt development.

20.4.18 **“Alta Monte” Expansion of Proposed SRA scheme village Malad, Tehsil Borivali, Mumbai, Maharashtra by M/s Omkar Realtor and Developers Ltd.– Reconsideration for Environmental Clearance (IA/MH/NCP/61360/2014; 21-22/2017-IA-III)**

The project proponent made a presentation and provided the following information to the Committee:-

- i. The project is located at Latitude 19°11'05.18"N and Longitude 72°51'40.26"E.
- ii. The project is for redevelopment of slums units. Earlier Clearance details, Constructions status, if any: Amended EC received dated 24th March, 2015 letter vide no: SEAC – 2010/CR.29/TC-1 for construction area 5,30,721.49 sqm.
- iii. The total plot area is 56,334.74 sqm. FSI area is 2,18,669.68 sqm, Fungible FSI is 9773.01 sqm and total construction area of 6,40,355.23 sqm. The project will comprise of 7 no. of Buildings. Total 4576 Nos. of residential tenements & 247nos. of commercial, 16 nos. of R/C, 71 nos. of BWS, 4 nos. of PHS & 15 nos. of Religious structures shall be developed. Maximum height of the building is 247.85 m.
- iv. During construction phase, total water requirement is expected to be 100 KLD which will be met by Outsource through Tanker Water during the construction phase. Modular STP will be provided during construction. Temporary sanitary toilets will be provided during peak labor force.
- v. During operational phase, total water demand of the project is expected to be 3377 KLD (Fresh water 2197 cum, recycled water 1664.05 cum) KLD and the same will be met by the 1664.05 KLD Recycled Water. Wastewater generated (3050 KLD) uses will be treated in STP of total 3065 KLD capacity. About 1816.5 KLD will be disposed in to municipal drain.
- vi. About 11654 Kg/day solid waste will be generated in the project. The biodegradable waste (6992 Kg/day) will be processed in OWC and the non-biodegradable waste generated (4662 Kg/day) will be handed over to authorized local vendor.
- vii. The total power requirement during construction phase is 100 KW and will be met from Reliance Energy and total power requirement during cooperation phase is Connected Load: 13332.7 KW, Maximum Demand: 9132.7 KW and will be met from Reliance Energy. Rooftop rainwater of buildings will be collected in RWH tanks of having total 610 cum capacity for harvesting after filtration.
- viii. Parking facility for 2375 four wheelers is proposed to be provided against the requirement of 1220 nos. And as per local norms respectively (according to local norms).

- ix. Proposed energy saving measures would save about 18.55% for Sale & 17.0% for Rehab of power.
- x. Not within Eco Sensitive Zone of Sanjay Gandhi national park. (1.31 Km away)
- xi. Court Case pending: National Green Tribunal: Appeal No 14 of 2014. Order dated 2nd February, 2015 was just to inform the customers that it is subject to final outcome of this case. It was passed when Notification of Eco Sensitive Zone of Sanjay Gandhi National Park was not passed.
- xii. Investment/Cost of the project is Rs. 1282 Crores.
- xiii. Employment potential: Approximately 820 workers are currently employed for all the construction related activity on site.
- xiv. Benefits of the project: The project is a rehabilitation of slums tenements. The project will improve the standard of living and add the aesthetics of the surrounding environment it will also help in reducing the ground coverage. The layout is residential with adequate open spaces and as per DCR to provide basis infrastructure.

The proposal was earlier considered by the EAC in its 14th meeting held on 13th-15th February, 2017 and 18th meeting held on 25th-27th May, 2017, wherein some additional information including details of pending court cases M.A. No 125/2014(WZ) in Appeal No. 14/2014 (WZ) pending in the Hon'ble National Green Tribunal was sought. Project Proponent vide letter dated 29.04.2017 and 16.06.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project subject to the decision of the Hon'ble National Green Tribunal for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) This clearance is subject to the decision of the Hon'ble National Green Tribunal in the M.A. No 125/2014(WZ) in Appeal No. 14/2014 (WZ).
- (ii) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (iii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iv) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.

- (v) 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 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.
- (vi) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vii) 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.
- (viii) 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, 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.
- (ix) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (x) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (xi) 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.
- (xii) Sewage shall be treated in the STP based on Moving Bed Biofilm Reactor (MBBR) Technology (with tertiary treatment i.e. Ultra Filtration). The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling. Excess treated effluent shall be discharged in to Municipal sewer line as per CPCB norms.
- (xiii) 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. As proposed, rain water harvesting tanks of total capacity of 610 m³ shall be provided as per CGWB guidelines.
- (xiv) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. Adequate space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one

fan. As proposed, central lighting and street lighting shall also be based on solar power.

- (xvi) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvii) 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.
- (xviii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xix) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xx) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xxi) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxii) Approval of the CGWA require before any dewatering for basements.
- (xxiii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
- (xxiv) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxvi) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvii) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxviii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxix) 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.

- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
- Traffic calming measures
- Proper design of entry and exit points.
- Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from Municipal Corporation of Greater Mumbai (MCGM) Water Supply shall not exceed 2197 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.
- (ix) 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.
- (x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.
- (xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The

existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed adequate area shall be provided for green belt development.

- (xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified 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 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.
- (xiv) The company shall draw up and implement a corporate social Responsibility plan as per the Company's Act of 2013.

20.4.19 Environmental Clearance for Expansion of "Paradise City" – Residential and commercial building At S. No. 942 Pt, at Village Mahim, Tal Palghar, Dist – Thane by M/s A Y Associates (M/s HDIL Creating Value and others) – Environmental Clearance (IA/MH/NCP/63211/2017; F.No.21-48/2017-IA-III)

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The project is located at 19°40'49.77"N, 19°40'44.81"N, 19°40'39.58"N, 19°40'23.71"N, 19°40'23.71"N, 19°40'8.06"N, 19°40'5.71"N, 19°40'16.80"N, 19°40'38.68"N Latitude and, 72°46'21.82"E, 72°46'22.95"E, 72°46'18.81"E, 72°45'49.29"E, 72°45'49.29"E, 72°45'52.02"E, 72°45'28.54"E, 72°45'27.99"E, 72°45'49.07"E Longitude.
- (ii) This is an expansion project. Earlier Clearance details, Constructions status, if any: EC vide letter no. SEAC-2011/CR.731/TC.2 received dated 2.3.2012 for construction area of 342382.22 sqm. As on date total 301721.27 sqm is constructed on site as per EC obtained earlier.
- (iii) The total plot area is 683910.00 sqm. FSI area is 774649.31 sqm and total construction area of 903039.68 sqm. The other details of the projects are as below:-

No. of flats	Residential -18679 Nos. Shops- 1815 nos
Maximum height of the buildings	26.25m
Wings	Configuration
Sector I,II,III,IV,V,VI,VII, XI	G+4
Sector VIII,IX,X,XII,XIII,XIV ,XV,XVI,XVII-	G+8(pt)St
Hospital	G+3
Community hall	G+2
School (PS+HS)	G+3
Open market	G+2 (pt)
Fitness centre/health club	G+2 (pt)
Open market	G+2 (pt)

Shopping centre/ open market	G+2 (pt)
School (PS+HS)	G+3
Shopping Centre	G+2 (pt)

- (iv) During construction phase, total water requirement is expected to be 20 KLD which will be outsourced through private water suppliers. During the construction phase Septic tanks will be provided for disposal of waste water. Temporary sanitary toilets will be provided during peak labor force.
- (v) During operational phase, total water demand of the project is expected to be 13.5 MLD and the same will be met by the MC/Recycled Water. Wastewater generated (10.8 MLD) will be treated in STPs having total 14 MLD capacity. 4.9 MLD of treated wastewater will be recycled (4.6 for flushing, 0.3 for gardening). About 4.8 MLD will be disposed in to municipal drain.
- (vi) About 29833 Kg/day solid waste will be generated in the project. The biodegradable waste (18071 Kg/Day) will be processed in OWC and the non-biodegradable waste generated (11762 Kg/Day) will be handed over to authorized local vendor.
- (vii) The total power requirement during construction phase is 100 KVA and will be met from MSEB and total power requirement during cooperation phase is Connected load: 113 MW, Maximum Demand: 57 MW and will be met from MSEB.
- (viii) Rooftop rainwater of buildings will be collected in various no. of RWH tanks of total capacity of 6705 Cum of capacity for harvesting after filtration.
- (ix) Parking facility for 1017 Nos. four wheelers & 26189 Nos. two wheelers is proposed to be provided according to local norms.
- (x) Proposed energy saving measures would save about 11% of power.
- (xi) It is not located within 10 km of Eco Sensitive areas.
- (xii) There is no court case pending against the project.
- (xiii) Investment/Cost of the project is Rs. 980.00 Crore.
- (xiv) Employment potential: 100 shall be provided with temporary housing facilities Around 100 labors will come to site during peak construction phase. Since it is a partially commercial project it will generate permanent employment of approx. 8000 persons
- (xv) Benefits of the project: -This is a township project which will help in reducing population density of Mumbai city and for convinces in employment for industrial belts of Virar Palghar and adjoin industrial estate. The project also has proposals for hospital and school which will add to the basic infrastructure of the palghar region. This is a residential project which will create 8000 direct employment and 2000 indirect employment during the operation phase.

The proposal was earlier considered by the EAC in its 18th meeting held on 25th-27th May, 2017, wherein some additional information was sought. Now, Project Proponent vide letter dated 28.06.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on the certified compliance report letter F. No. EC-299/RON/2016-NGP/ dated 23.05.2017 issued by the MoEF&CC's Regional Office (WCZ), Nagpur and reply given by the project proponent to non-compliance of EC conditions. The Committee deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental

clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.
- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing

etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.

- (x) 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.
- (xi) Sewage shall be treated in the STP with tertiary treatment i.e. Ultra Filtration. The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling. Excess treated effluent shall be discharged in to Municipal sewer line as per CPCB norms.
- (xii) 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. As proposed, rain water harvesting tanks shall be provided as per CGWB guidelines.
- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. 4660 m² space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per

Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxviii) 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.
- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from Mahim gram panchayat Water Supply shall not exceed 8683 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage

Treatment Systems, 2013.

- (viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.
- (ix) 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.
- (x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.
- (xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed adequate area shall be provided for green belt development.
- (xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified 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 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.
- (xiv) The company shall draw up and implement a corporate social Responsibility plan as per the Company's Act of 2013.

20.4.20 Amendment in Environmental Clearance for "Neelkanth Woods", Mullabaug, Near Hill Crest Society ,off Ghodbunder Road, Thane (W) at Survey No. 312/1A, 313/3, 314/5, 314/7, 314/9, 315/3, 316 (PT), 317/4,318/1D and 321/3B, Majiwada Village, Thane by M/s T.Bhimjyani Realty Pvt Ltd. – Reconsideration for Environmental Clearance (21-96/2017-IA-III; IA/MH/NCP/61764/2017)

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The project is for Amendment of On-going Project 'Neelkanth Woods' at Survey No. 312/1A, 313/3, 314/5, 314/7, 314/9, 315/3, 316 (PT), 317/4,318/1D and 321/3B village Majiwade, Thane at MullaBaug, Hill Crest Society, Ghodbunder Road, Thane.
- (ii) Latitude (A - 19°14'42.27"N , B - 19°14'42.36"N, C - 19°14'29.72"N, D - 19°14'28.71"N, E - 19°14'29.78"N) Longitude, A - 72°58'5.73"E, B - 72°58'11.82"E, C - 72°58'12.55"E, D -

72°58'5.24"E, E - 72°58'0.37"E)

- (iii) Earlier EC has been received vide letter SEAC-2013/CR – 205/TC - 1 dated 23rd December, 2013 for total construction area of 347310.9 sqm. As of today 73741.66 sqm is constructed on site as per EC obtained earlier.
- (iv) Total plot area is 1,77,735.00 sqm and total construction area is 346550.45 sqm. (FSI area: 172009.59 sqm. No. of flats are Residential-1524 [1441 units in towers +83 units in Bungalows], Shops- 9 nos. Maximum height of the buildings: 116.15 m. The details are as follows:

Wings	Configuration	Height
Tower A, B, C, D, E, F (6 Towers)	Gr + 2 P + Stilt + 37 Residential Floors,	116.15 m
Tower G, H, I and M (4 Towers)	Gr + 2 P + Stilt + 32 Residential Floors,	100.90 m
Tower J, K, L (3 Towers)	LG + Gr + 1 P + Stilt + 26 Residential Floors,	82.60 m
70 Bungalows	(Stilt+2) Floors,	11.00 m
commercial	(Gr. Floor)	4.00 m
Club House, Fitness Centre		

- (v) During Construction Phase total expected water requirement will be 70 KLD which will be outsourced through tanker. Septic tanks will be provided for disposal of waste water. Temporary sanitary toilets will be provided during peak labor force.
- (vi) During Operation Phase total expected water requirement will be 1104 KLD (Recycled water: 417 KLD). Waste water generated will be 842 KLD which will be treated in STP of 1050KLD (4 STP of capacity 425 KLD, 325 KLD, 200 KLD &100 KLD). Excess treated water to municipal drain: 340 KLD
- (vii) Biodegradable waste will be 2288 Kg/Day and processed and treated in OWC to convert into organic manure. Non-biodegradable waste will be 1529 Kg/Day and be handed over to authorized local vendor.
- (viii) Power Requirement: During construction phase 100 KVA, During operation phase (Connected load = 15783 kW, Maximum Demand load = 7383 kW)
- (ix) Parking details: 4 wheelers (according to local norms): 3366 nos., 2 wheelers (according to local norms): 1529 nos.
- (x) It located/ not located within 10 km eco sensitive area: Sanjay Gandhi National Park ~ 1 km. As per the Notification S.O. 3645(E) dated 5-12-2016 issued by MoEFCC, this project site does not fall under the ESZ of SGNP.
- (xi) There is no court case pending against the project.
- (xii) Investment/Cost of the project: Rs. 920 Crores.
- (xiii) Employment Potential: 300 shall be provided with temporary housing facilities Around 300 labors will come to site during peak construction phase. This is a residential project which will create 50 direct employments and 300 indirect employments during the operation phase.
- (xiv) Benefits of the project: This is a residential project which will help in reducing population density of Mumbai city and for convinces in employment for commercial & industrial belts of

thane and adjoin industrial estate. This is a residential project which will create 50 direct employment and 300 indirect employments during the operation phase.

The proposal was earlier considered by the EAC in its 15th meeting held on 12th-14th April, 2017, wherein some additional information was sought. Now, Project Proponent vide letter dated 4.07.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on the certified compliance report letter No. 18-C-35/2015 (SEAC/ dated 23.06.2017 issued by the MoEF&CC's Regional Office (WCZ), Nagpur and reply given by the project proponent to non-compliance of EC conditions. The Committee deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.

- (vii) 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, 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.
- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.
- (xi) Sewage shall be treated in the STP with tertiary treatment i.e. Ultra Filtration. The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling. Excess treated effluent shall be discharged in to Municipal sewer line as per CPCB norms.
- (xii) 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. As proposed, 4 nos. of rain water harvesting tanks of total capacity of 564 m³ shall be provided as per CGWB guidelines.
- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. Adequate space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.

- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxviii) 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.
 - Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from Municipal Corporation Water Supply shall not exceed 495 vm³/day.

- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.
- (ix) 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.
- (x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.
- (xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed adequate area shall be provided for green belt development.
- (xv) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified 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 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.
- (xvi) The company shall draw up and implement a corporate social Responsibility plan as per the Company's Act of 2013.

20.4.21 Proposed Ropeway with Building Constructions (amusement park with mini hill station township) by M/s. Valley World Entertainments Private Limited – Reconsideration for ToR (10-92/2016-IA-III; IA/KL/MIS/61394/2016)

The project proponent made a presentation and provided the following information to the Committee:-

- (i) Proposed project is a Ropeway with Building Constructions (amusement park with mini hill station township) at Village Konnathadi, Munnar, Taluk Idukki (previously Udumbanchola), District Idukki, Kerala. Proposed Project shall be developed by the M/s Valley World Entertainments Private Ltd. As the Konnathadi village is falling in list of villages of Eco Sensitive Area of the Western Ghats at S.N 1770 as notified by MoEF&CC dated 17.04.2013, hence, the project falls under Aerial Ropeway having schedule 7 (g), category 'A' of the EIA notification, 2006 and thus, General Conditions Apply.
- (ii) This project envisages setting up of Infrastructure facility which includes amusement Park with mini hill station township, Ropeway and various Entertainments rides. The plot area of proposed project will be 202830 sqm & Built-up area will be 19500.0 sqm. The proposed project will consist of three parts namely 1. Sky-Diving area at 920.15 m above MSL. (Entry point of Ropeway & Upper Station) 2. Amusement park area with mini hill station township at 874.33 m above MSL (Exit point of Ropeway & Lower Station) 3. Ropeway, which will inter-connect Amusement park area and Sky Diving area.
- (iii) The Ropeway alignment will be 3602 metres in length and covering an area of 39920 sqm (including Terminal Stations & ropeway corridor). The Elevation of UTP is 920.15 m & LTP is 874.33 m, hence, there is an elevation difference of 45.82 metres. The proposed Ropeway system to be installed will be Monocable Detachable Gondola. The capacity of the ropeway will be 1000 pph.
- (iv) Administrative Approval from Government of Kerala has been obtained. Topographical Survey and Investigations have been completed. Environmental Clearance application for the proposed ropeway project was submitted in MoEF&CC on 28.12.16. The project was appraised in 13th meeting of EAC held on 23.01.16 for grant of ToR. With reference to the Minutes of meeting & as suggested by the committee, we have again reviewed our proposal as per the ESZ notification of Western Ghats. The notification S.O.2435 (E), GoI, dated 4th September, 2015, Point No. 3 states that the projects and activities to be prohibited or regulated in the Eco-sensitive area. Under its clause no. (d), all new and expansion projects of building and construction with built up area of 20,000 square metres and above and all new and expansion townships and area development projects with an area of 50 hectares and above or with built up area of 1,50,000 sqm and above shall be prohibited.
- (v) In lieu of above-said notification we have revised our proposal for project Proposed Ropeway with Building Constructions with built-up area revised to less than 20,000 sqm and the revised application was submitted on 03.03.17. Now the case is being listed in 20th EAC meeting to be held on 27.07.2017 for reconsideration of ToR.
- (vi) The proposed alignment of the project was selected as this alignment starts with its LTP where mini hill station township area could be proposed. The corridor traverses over a thin vegetation with very few trees upon land. The alignment finally ends its Upper Terminal Point at skydiving area. The alignment is clear of any urban habitat in its corridor. Parking of township will cater the visitors of the ropeway, no extra parking land is required. Accessibility from township to lower LTP is good. There will be minimum trees on the land which will not be cut.
- (vii) Maximum of 250 numbers of laborers will be deployed during peak construction phase. Proper arrangement of water supply and sewage disposal will be made at site.

- (viii) As this is a Ropeway with Building Constructions (amusement park with mini hill station township), 1500 no. of staff working for 8-12 hours & visitors of approx. 6000 no. is envisaged.
- (ix) During Operation Phase Power requirement, will be 1300 KVA. DG set of 2 X 500 KVA & 1 X 360 KVA are proposed for backup power supply located at LTP. These D.G. Sets will be provided with adequate stack height as per the CPCB norms & will be kept in acoustically treated room.
- (x) The total water requirement has been estimated as 299 KLD and the source will be KWA supply. Water shall be used mainly for domestic, flushing, gardening & misc. purposes. Total quantity of waste water generation has been estimated to be 151 KLD. The waste water generated will be treated in STP of total capacity 200 KLD which shall be installed at LTP. Bio-toilets shall be provided at UTP.
- (xi) Total 1125 Kg/day of waste will be generated due to the proposed development. The Organic Waste will be treated in Organic Waste Converter and converted into compost proposed at LTP & the Recyclable Waste Collected shall be given to approved recycler.
- (xii) There will be no displacement or immigration of the human population due to the proposed project. Risk assessment shall be done and proper safety and security measures shall be undertaken. Proper prevention and timely maintenance of ropes, machines etc will be scheduled to prevent any accident. Maintenance team will be trained to handle any type of contingency in time of emergency. All safety guidelines shall be adhered to and followed during construction and operation phases. First aid facilities will be provided at site.
- (xiii) Parking of 1200 ECS will be provided in the project.
- (xiv) Total cost of the project is Rs. 615 Crore. Cost on EMP will be approx. 85.0 Lacs with recurring cost of approx. Rs 10.0 Lacs/year.

After detailed deliberations on the proposal, the Committee *recommended for grant of Terms of Reference as specified by the Ministry as Standard ToR in April, 2015 for the said project/activity* and the following TOR in addition to *Standard ToR* for preparation of EIA-EMP report:

- i. Importance and benefits of the project.
- ii. A toposheet of the study area of radius of 10km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet. (including all eco-sensitive areas and environmentally sensitive places)
- iii. Stage – I forest clearance to be submitted.
- iv. Status of application for NBWL clearance if required for the project.
- v. Toposheet map of 10 km distance indicating eco-sensitive areas dully authenticated by the Wildlife warden.
- vi. Route map of proposed ropeway project.
- vii. Layout maps of proposed project indicating location of upper station and lower station, building, food court, parking, greenbelt area, utilities etc.
- viii. Numbers of persons/projections of tourist.
- ix. Cost of project and time of completion.
- x. A note on appropriate process and materials to be used to encourage reduction in carbon foot print. Optimize use of energy systems in buildings that should maintain a specified indoor environment conducive to the functional requirements of the building by following mandatory compliance measures (for all applicable buildings) as recommended in the Energy conservation building code (ECBC) 2007 of the Bureau of Energy Efficiency,

	<p>Government of India. The energy system includes air conditioning systems, indoor lighting systems, water heaters, air heaters and air circulation devices. Use</p> <ul style="list-style-type: none"> xi. Details of air emission, effluents, solid waste and hazardous waste generation and their management. xii. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract) xiii. The E.I.A. should specifically address to vehicular traffic management and parking facilities. xiv. Examine the ground water / water body contamination from septic tank/Soak pit. xv. The impact of odors from the bio-toilets and its management. xvi. The increment in foot falls as a result of implementation of the project along with a justification on the adequacy of the existing and proposed infrastructure including toilets. xvii. An assessment of the impact of all activities being carried out or proposed to be carried out by the project shall be made for traffic densities and parking capabilities in a 2 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organization of repute and specializing in Transport Planning shall be submitted with the EIA. xviii. At LTP, one monitoring station should be set up in North and South direction of the project. The meteorological data should be compared with IMD. xix. An onsite disaster management plan shall be drawn up to account for risks and accidents. This onsite plan shall be dovetailed with the onsite management plan for the district. xx. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made. xxi. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. xxii. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case. xxiii. A tabular chart with index for point wise compliance of above TOR. <p><i>It was recommended that 'TOR' along with Public Hearing prescribed by the Expert Appraisal Committee (Infrastructure- 2) should be considered for preparation of EIA/ EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. The draft EIA/EMP report shall be submitted to the State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.</i></p>
20.4.22	<p>Expansion of Residential plotted colony named "Esencia/Versalia" at Sector-67 & 67A, Gurgaon Haryana by M/s. Ansal Properties and Infrastructure Ltd. – Reconsideration for Environmental Clearance (IA/HR/NCP/61763/2015; F.No. 21-95/2015-IA-III)</p> <p><i>Project Proponent did not attend meeting.</i></p>
20.4.23	<p>IT/ITES Project Centrade located at Plot no 1 Sector 140 Noida Uttar Pradesh by M/s. Lancet Infocom Pvt Ltd. – Reconsideration for Environmental Clearance (21-101/2017-IA-III; IA/UP/NCP/63556/2017)</p>

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The project is located at 28°30'51"N Latitude and 77°25'8"E longitude.
- (ii) The total plot area is 20,000 sqm. FSI area is 43,942.549 sqm and total construction area of 92,058.015 sqm. The project will comprise of 2 Buildings. Maximum height of the building is 63.9 m.
- (iii) During construction phase, total water requirement is expected to be 100 KLD which will be met by private water tankers. During the construction phase, soak pits and septic tanks will be provided for disposal of waste water. Temporary sanitary toilets will be provided during peak labor force.
- (iv) During operational phase, total water demand of the project is expected to be 434 KLD and the same will be met by the supply from Municipal Corporation. Wastewater generated (260 KLD) uses will be treated in 01 STPs of total 290 KLD capacity. 223 KLD of treated wastewater will be recycled (91 for flushing, 7 for gardening and 125 KLD for HVAC). About 18 KLD will be disposed in to municipal drain.
- (v) About 1.828 TPD solid wastes will be generated in the project. The biodegradable waste (1.097 TPD) will be processed in OWC and the non-biodegradable waste generated (0.731 TPD) will be handed over to authorized local vendor.
- (vi) The total power requirement during construction phase is 200 KVA and total power requirement during operation phase is 3,945 KVA and will be met from 2 no's of transformers of capacity 2000kVA each.
- (vii) Rooftop rainwater of buildings will be collected in 2 RWH tanks of total 96 KLD capacity for harvesting after filtration.
- (viii) Parking facility for 1,302 four wheelers is proposed to be provided against the requirement of 870 ECS respectively (according to local norms).
- (ix) Proposed energy saving measures would save about 15% of power.
- (x) It is located /not located within 10 km of any Eco Sensitive areas
- (xi) There is no/court case pending against the project.
- (xii) Investment/Cost of the project is Rs 250 (in crore).
- (xiii) Employment potential 6,092.
- (xiv) Benefits of the project is to provide direct and indirect employment opportunities in IT/ITES

The proposal was earlier considered by the EAC in its 15th meeting held on 12th-14th April, 2017, wherein some additional information was sought. Now, Project Proponent vide letter dated 5.05.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant

agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.

- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.
- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.
- (xi) Sewage shall be treated in the STP based on Moving Bed Biofilm Reactor (MBBR) Technology (with tertiary treatment i.e. Ultra Filtration). The treated effluent from STP shall

be recycled/re-used for flushing, horticulture & DG cooling. Excess treated effluent shall be discharged in to nearby CSTP of Noida Authority as per CPCB norms.

- (xii) 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. As proposed, 2 nos. of rain water harvesting tanks of total capacity of 96 m³ shall be provided as per CGWB guidelines.
- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. Adequate space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.

(xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.

(xxviii) 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.

- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
- Traffic calming measures
- Proper design of entry and exit points.
- Parking norms as per local regulation

II. Operational Phase

(i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.

(ii) For indoor air quality the ventilation provisions as per National Building Code of India.

(iii) Fresh water requirement from Municipal Corporation Water Supply shall not exceed 211 m³/day.

(iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.

(v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.

(vi) No sewage or untreated effluent water would be discharged through storm water drains.

(vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.

(viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.

(ix) 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.
- (x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.
 - (xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
 - (xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed adequate area shall be provided for green belt development.
 - (xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified 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 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.
 - (xiv) The company shall draw up and implement a corporate social Responsibility plan as per the Company's Act of 2013.

20.4.24 Group Housing at Plot No. SC-01/C (A-7 & A8), Sector-150 Noida, by M/s. Saha Infratech Pvt Ltd– Reconsideration for Environmental Clearance (21-94/2017-IA-III; IA/UP/NCP/62981/2017)

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The project will be located at Latitude- 28°25'22.38"N and longitude- 77°29'08.56"E.
- (ii) The proposed project is a "Group Housing" is proposed at plot no. SC-01 (A-7 & A-8), Sector-150, Noida and being developed by M/s Saha Infratech Pvt. Ltd. Proposed site has been allotted by New Okhla Industrial Development Authority to M/s Logix Infra Developers Pvt. Ltd. Possession certificate has been obtained for the development of Group Housing vide Memo no. Noida/Commerce/2015/891 dated 28.05.15. The plot no. SC-01 (A-7) has a sub-lease deed is between M/s Logix Infra Developers Pvt. Ltd. & M/s Elicit Rwaltech Pvt. Ltd. & plot no. SC-01 (A-8) has a sub-lease deed is between M/s Logix Infra Developers Pvt. Ltd. & M/s Abet Buildcon Pvt. Ltd. There is a development agreement among M/s Saha Infratech, M/s Abet Buildcon Private Limited and M/s Elicit Realtech Private Limited. Logix Infra Developers Pvt. Ltd. has transferred its power of attorney to Saha Infratech Pvt. Ltd.
- (iii) Total plot area of 25000 sqm (plot A-7: 13000 sqm and plot A-8: 12000 sqm). The built-up area of the project is 105873.684 sqm (plot A-7: 54261.502 sqm and plot A-8: 51612.182

sqm). Hence, it falls under category 8 (a) of the EIA notification, 2006.

- (iv) The Activity proposed in the project will be dwelling unit, Milk Booth, Police Chowki & Religious Area. The FAR achieved of the plot A-7 will be 28561.765 sqm and FAR achieved of the plot A-8 will be 27140.224 sqm. The total built-up area will be 105873.684 sqm (plot A-7: 54261.502 sqm and plot A-8: 51612.182 sqm). Height of the building will be 50.85 m.
- (v) During the construction of the proposed project, the water shall be supplied from treated water of existing STP of the complex and the same will be maintained without any adverse impact on the environment. There will be water Treatment plant for drinking water. Temporary sanitary toilets will be provided during peak labor force.
- (vi) The total water requirement for Plot A-7 will be 138 KLD and plot A-8 will be 129 KLD. The source of water will be Noida Supply. The total waste water generation for Plot A-7 will be 86 KLD and plot A-8 will be 83 KLD. The waste water shall be treated through 2 no of each Sewage Treatment Plant (STP) capacity 110 KLD (2 nos). 63 KLD treated water in plot A-7 will be reused in flushing, gardening, D.G. Cooling. Remaining 18 KLD of treated water will be discharged to sewer. 56 KLD treated water in plot A-8 will be reused in flushing, gardening, D.G. Cooling. Remaining 23 KLD of treated water will be discharged to sewer.
- (vii) About 535 Kg/day Municipal solid waste from Plot No-A7 and 521 Kg/day Municipal solid waste from Plot No-A8 will be generated in the project. The biodegradable waste (375 Kg/day from Plot A7 and 365 kg/day from Plot A8) shall be treated in Organic Waste Converter provide within each plot, recyclable waste generated (134 Kg/ day from Plot A7 and 130 kg/day from Plot A8), plastic waste (26 kg/day from both plots) will be handed over to authorized recycler. Used Oil of 24 lit/month shall be collected in leak proof containers at isolated place and then it will be given to approved recycler. E- Waste of 2 kg/ month will be collected and given to approved recycler.
- (viii) The total power requirement will be 3155 KW (Plot A -7: 1627 KW and Plot A-8: 1528 KW) which will be provided by UP Electricity Board. D.G. Set of capacities 1x 500 KVA and 1x250 KVA (for each plot) shall be installed in acoustically enclosure with anti-vibration pads and shall be used during Power failure only. Hence, to avoid the emissions, stack height of 5 m above roof level for D.G. sets of capacities 500 KVA and stack height of 3 m above roof level for D.G. sets of capacities 250 KVA shall be installed to reduce the air emissions, meeting all the norms prescribed by CPCB.
- (ix) 7 No. of RWH pits shall be provided for storm water recharging to ground (Plot A-7: 4 pits, Plot A-8: 3 Pits).
- (x) Parking Requirement is 358 ECS for plot A7 and 339 ECS for Plot A8. Parking Proposed is 671 ECS for plot A7 and 656 ECS for Plot A8 and shall be provided as Stilt, Upper Basement and Lower Basement.
- (xi) Total 88 panels of Solar Hot Water are proposed for 6 towers (3 tower for each plot).
- (xii) Total Energy Saving in plot Sc-01/C-A7 is 27% and Total Energy Saving in plot Sc-01/C-A8 is 29%.
- (xiii) No eco-sensitive area lies within 10 km radius. Okhla Bird Sanctuary- 22.43 Km SW.
- (xiv) There is no court case pending against the project.
- (xv) Employment potential – Labourers during construction phase 150 no. and about 60 personnel as staff during operation phase (in each plot-30 personnel).
- (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.

The proposal was earlier considered by the EAC in its 15th meeting held on 12th-14th April, 2017, wherein some additional information was sought. Now, Project Proponent vide letter dated 6.05.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.

- (vii) 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, 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.
- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.
- (xi) Sewage shall be treated in the STP based on Moving Bed Biofilm Reactor (MBBR) Technology (with tertiary treatment i.e. Ultra Filtration). The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling. Excess treated effluent shall be discharged in to sewer line as per CPCB norms.
- (xii) 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. As proposed, 7 nos. of rain water harvesting tanks shall be provided as per CGWB guidelines.
- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. 200 m² space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing

agents and other best practices referred.

- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxviii) 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.
 - Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from Noida Supply Water Supply shall not exceed 267 m³/day.

- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.
- (ix) 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.
- (x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.
- (xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed adequate area shall be provided for green belt development.
- (xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified 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 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.
- (xiv) The company shall draw up and implement a corporate social Responsibility plan as per the Company's Act of 2013.

20.4.25 Expansion of “DCM Residential Colony” at Kishanganj, Delhi by M/s DCM Ltd. – Reconsideration for Environmental Clearance (IA/DL/NCP/61663/2016; F.No.21-61/2017-IA-III)

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The project will be located at Latitude- 28°39'37.43"N and longitude- 77° 11'46.14"E.
- (ii) The project is an expansion project.
- (iii) Project has already been granted Environment Clearance vide letter no. DPCC/SEAC/197/SEIAA/66/2014 dated 03.06.2014 for plot area of 1,08,858.92 sqm and built up area of 5,79,463.697 sqm. Land has been allotted by Delhi Development Authority for development of additional Group Housing in addition to M/s DCM Ltd. Due to increase in land area and additional FAR due to green building, the total plot area will increase from 1,08,858.92 sqm to 1,60,780.357 sqm and built up area will increase from 5,79,463.697 sqm to 10,05,604.38 sqm which is more than 3,00,000 sqm, hence as per the amendment in EIA Notification,2006 the project falls under the activity 8 (b), Category 'A'.
- (iv) The total plot area is 160780.357 sq m. The project will be comprising of various activities after expansion i.e. Residential towers, Community Facilities, Commercial Spaces, EWS Units, Sports Facility & Religious Buildings. The Total FAR of the proposed complex after expansion will be 474388.225 sq m. The total built-up area after expansion will be 10,05,604.38 sqm. Maximum height of the building will be 180 m.
- (v) During the construction of the proposed project, the water shall be supplied from treated water of existing STP of the complex and the same will be maintained without any adverse impact on the environment. There will be water Treatment plant for drinking water. Temporary sanitary toilets will be provided during peak labor force.
- (vi) The total water requirement after expansion will be 2770 KLD. The source of water will be Greater Noida Supply. The total waste water generation will be 2037 KLD. The waste water shall be treated through Sewage Treatment Plant (STP) of total capacity 2300 KLD (Existing 1670 KLD). 1120 KLD treated water will be reused in flushing, gardening & D. G. & HVAC cooling
- (vii) About 7999 Kg/day Municipal solid waste will be generated in the project after expansion. The biodegradable waste (5599 Kg/ day) shall be treated in Organic Waste Convertor provide within the complex, recyclable waste generated (2400 Kg/day) will be handed over to authorized recycler. Used Oil of 180 lit/month shall be collected in leak proof containers at isolated place and then it will be given to approved recycler. E- Waste of 2 kg/ month will be collected and given to approved recycler.
- (viii) The total power requirement after expansion will be 28897 KW which will be provided by UP State Electricity Board. D.G. Set of capacities 10 x 1500 & 4 x 500 KVA shall be installed and will be kept in acoustically treated room & installed with anti-vibration pads and is used during Power failure only. Hence, to avoid the emissions, stack height of 6 m above roof level for each D.G. sets has been installed to reduce the air emissions, meeting all the norms prescribed by CPCB.
- (ix) Rainwater of buildings will be collected and 14 No. of RWH pits shall be provided for storm water recharging to ground.
- (x) Adequate parking provision shall be provided in the project of 9858 ECS as Basement parking (first level basement, second level basement & third level Basement) & Surface parking.
- (xi) 25% solar lights (36Nos.) of total external pole lighting (70W LED) on road shall be provided. Total 325 Nos. solar panel for water heater shall be provided. Solar Measures

shall be adopted to provide shading devices for windows and roof which would effectively reduce heating up of building envelope. Louvers and sunshades will be used around windows in order to protect from direct sunlight.

- (xii) No eco-sensitive area lies within 10 km radius. Okhla Bird Sanctuary- 12.88 Km SW
- (xiii) There is no court case pending against the project.
- (xiv) Investment/Cost of the project is Rs. 532.22 Crores.
- (xv) Employment potential – Labourers during construction phase 150 no. and about 150 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.

The proposal was earlier considered by the EAC in its 15th meeting held on 12th-14th April, 2017, wherein some additional information was sought. Now, Project Proponent vide letter dated 02.05.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on the certified compliance report letter No. IV/ENV/CON-9/1307/2014/185 dated 29.08.2016 and correction letter No. IV/ENV/CON-9/1307/2014/09 dated 02.05.2017 issued by the MoEF&CC's Regional Office (C), Lucknow and reply given by the project proponent to non-compliance of EC conditions. The Committee deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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,

murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.

- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.
- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.
- (xi) Sewage shall be treated in the STP with tertiary treatment i.e. Ultra Filtration. The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling. Excess treated effluent shall be discharged in to Municipal sewer line as per CPCB norms.
- (xii) 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. As proposed, 14 nos. of rain water harvesting tanks shall be provided as per CGWB guidelines.
- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. Adequate space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one

fan. As proposed, central lighting and street lighting shall also be based on solar power.

- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxviii) 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.

- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
- Traffic calming measures
- Proper design of entry and exit points.
- Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from Greater Noida supply. Water Supply shall not exceed 2770 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.
- (ix) 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.
- (x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.
- (xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The

existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed adequate area shall be provided for green belt development.

(xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified 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 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.

(xiv) The company shall draw up and implement a corporate social Responsibility plan as per the Company's Act of 2013.

Time: 10.00 AM

Day 3: Friday, 28th July, 2017

20.5.1 Residential Colony "TDI City" at Sector-58,59, 60, 61, 63 & 64 Sonapat – Kundli, Haryana by M/s TDI Infrastructure Ltd. – Reconsideration for Environmental Clearance (IA/HR/NCP/61778/2014; F.No.21-62/2017-IA-III)

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The project will be located at Latitude- 28° 53'13.30"N and longitude- 77°7'29.36"E.
- (ii) The project is a Expansion project.
- (iii) The construction work has been done for the built-up area less than 39,00,000 sqm as per the Environmental Clearance granted & the same has been clarified in the compliance report received from regional office of MoEF. Now, the construction work has been stopped.
- (iv) The total plot area is 4598807.965 sqm. The project will comprise of General plots, EWS plots, Community Centre/Amenities Area, Commercial areas, Dwelling Units, EWS Units, Servant Units. FAR area will be 4239091.258 sqm and total construction/ built up area will be 6514132.528 sqm. Total General plots – 7049 EWS plots – 1761, 1 Community Centre/Amenities Area, 3 Commercial areas, Dwelling Units – 6349, EWS Units –1130 Servant Units - 680. Maximum height of the building will be 44.95 m.
- (v) During construction phase, total water requirement will be met by tanker water supplier from nearby STP. During the construction phase, soak pits and septic tanks will be provided for disposal of waste water. Temporary sanitary toilets will be provided during peak labour force.
- (vi) During operational phase, total water demand of the project has been estimated as 28632 KLD and the same will be met by HUDA supply/Ground Water. The total waste water generation will be 18925 KLD. Waste water generated from the complex shall be treated in Modular Sewage Treatment Plants of total capacity 16300 KLD shall be installed for Plotted Area, Community & Amenities Area, STP of 100 KLD installed & Modular STPs having total Capacity- 600 KLD shall be installed for Commercial areas, STP of 500 KLD already installed and it will be further enhanced to 650 KLD for Group Housing-I (11.46 Acres), 2 No. of STPs of 500 KLD and 660 KLD resp. already installed for Group Housing-II (18.43 Acres), 2 no. of STP of 720 KLD & 510 KLD resp. already installed which will be further enhanced to total capacity 1300 KLD for Group Housing-III (22.862 Acres), STP of 350 KLD shall be

installed for Group Housing-IV (7.0 Acres), STP of 720 KLD already installed and it will be further enhanced to 850 KLD for Independent Group Housing-I (14.07 Acres), STP of 150 KLD installed & STP having total Capacity 750 KLD shall be installed for Independent Group Housing-II (14.288 Acres), STP of 600 KLD shall be installed for Independent Group Housing-III (10.14 Acres). About 9322 KLD excess treated water will be given to Tanker water supplier for construction purpose.

- (vii) About 76733 Kg/ day solid waste will be generated in the project. The biodegradable waste (53713 Kg/ day) will be sent to Municipal Solid waste site for plotted colony and the waste will be converted into compost in OWC within the site for Group Housing & commercial and the recyclable waste generated (23020 Kg/ day) will be handed over to authorized local vendor/recycler.
- (viii) The total power requirement during construction phase will be met from 2 x 62.5 KVA DG set and total power requirement during operation phase will be 118167 KVA and will be met from Uttar Haryana Bijli Vitran Nigam limited(UHBVN). D.G. sets for power back up is proposed 6 x 500 KVA, 3 x 625 KVA , 2x 250 KVA & 3x140 KVA for Group Housings area, 2 x 250 KVA & 2 x 500 KVA for Commercial area and 2 x 500 KVA & 2 x 750 KVA for Plotted, Community & amenities area).
- (ix) Rainwater of buildings will be collected in 718 RWH pits of dia. 4.8 m & depth 3.8 m for recharging the ground water.
- (x) For plotted area, adequate parking provision shall be provided within the individual plots as NBC norms & for commercial area, group housings and community area, 18476 ECS shall be provided on surface area & basement area.
- (xi) The project is not located within 10 km of Eco Sensitive areas.
- (xii) There is no court case pending against the project.
- (xiii) Investment/Cost of the project is 1790 Crore.
- (xiv) Employment potential – 22544
- (xv) Benefits of the project: It will increase Infrastructure of the area & will provide better living style. It will provide housing facility & job opportunities with all basic amenities to various classes of people. It will provide healthy, green & safe premises for living.

The proposal was earlier considered by the EAC in its 15th meeting held on 12th-14th April, 2017, wherein some additional information was sought. Now, Project Proponent vide letter dated 08.05.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on the certified compliance report letter F. No. 4-435/2007-RO(NZ)/289-290 dated 14.07.2017 issued by the MoEF&CC's Regional Office (NZ), Chandigarh and reply given by the project proponent to non-compliance of EC conditions. The Committee deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the

construction shall be done in accordance with the local building byelaws.

- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.
- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.
- (xi) Sewage shall be treated in the STP based on Moving Bed Biofilm Reactor (MBBR) Technology (with tertiary treatment i.e. Ultra Filtration). The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling. Excess treated effluent shall be

supplied to Tanker water supplier for construction purposes as proposed.

- (xii) 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. As proposed, 718 nos. of rain water harvesting pits shall be provided as per CGWB guidelines.
- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. Adequate space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.

(xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.

(xxviii) 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.

- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
- Traffic calming measures
- Proper design of entry and exit points.
- Parking norms as per local regulation

II. Operational Phase

(i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.

(ii) For indoor air quality the ventilation provisions as per National Building Code of India.

(iii) Fresh water requirement from HUDA Supply/ground water. Water Supply shall not exceed 28632 m³/day.

(iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.

(v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.

(vi) No sewage or untreated effluent water would be discharged through storm water drains.

(vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.

(viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.

(ix) 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.

- (x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.
- (xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed 1388831.79 sqm area shall be provided for green belt development.
- (xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified 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 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.
- (xiv) The company shall draw up and implement a corporate social Responsibility plan as per the Company's Act of 2013.

20.5.2

Expansion of "Residential Plotted Colony" at Village Bohar and Para, Sector-34(P), 35& 36, District Rohtak, Haryana by M/s Suncity Buildcon Pvt. Ltd. – Reconsideration for Environmental Clearance (IA/HR/NCP/62307/2014; F.No.21-73/2017-IA-III)

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The project will be located at Latitude- 28°54'40.10"N and longitude- 76°37'43.85"E
- (ii) The project is an expansion project.
- (iii) Project has already been granted Environment Clearance vide letter no. 21-702/2007-IA.III dated 20 March 2008 by MoEFCC for the plot area of 710982.624 sqm (71.09 hectares) and built-up area 652131.8 sq m. The license has been granted for development of Residential plotted colony by DTCP Haryana vide license no. 1134-1166 of 2006 renewed upto 21-09-2017, 187 of 2008 renewed upto 07-11-16, 17 of 2009 renewed upto 30-05-2017 and 04 of 2014 & valid upto 20-01-2018. The construction for the built-up area 455288.26 sqm has been completed. Due to increase in Plot area from 710982.624 sqm (71.09 hectare) to 1521429.998 sqm (152.14 hectare), The built-up area of the project will also increase from 455288.26 sqm to 2341488 sqm hence, the project falls under 8 (b) Category "A" of EIA notification, 2006.
- (iv) The total plot area is 1521429.998 sqm (152.14 hectare). The project will be comprising of

various activities after expansion i.e. common services, community sites & commercial areas. The Total FAR of the proposed complex after expansion will be 1472295.08 sqm. The total built-up area after expansion will be 2341488 sqm.

- (v) During the construction of the proposed project, the water shall be supplied from treated water of existing STP of the complex and the same will be maintained without any adverse impact on the environment. There will be water Treatment plant for drinking water. Temporary sanitary toilets will be provided during peak labor force.
- (vi) The total water requirement after expansion will be 2508 KLD. The source of water will be Greater Noida Supply. The total waste water generation will be 8182 KLD. The waste water shall be treated through Sewage Treatment Plant (STP) of total capacity 5400 KLD (Existing 1 x 1800 & Proposed (2 x 1800 KLD). 4314 KLD treated water will be reused in flushing, gardening, D. G. cooling & Miscellaneous
- (vii) About 18146 Kg/day Municipal solid waste will be generated in the project after expansion. The biodegradable waste (12702 Kg/ day) shall be treated in Organic Waste Converter provide within the complex, recyclable waste generated (5444 Kg/day) will be handed over to authorized recycler. Used Oil of 9 lit/month shall be collected in leak proof containers at isolated place and then it will be given to approved recycler. E- Waste of 5-7 kg/ month will be collected and given to approved recycler.
- (viii) The total power requirement after expansion will be 37.97 MVA which will be provided by Uttar Haryana Bijli Vitran Nigam Limited (UHBVNL). D.G. Set of capacities 3 x 125 KVA shall be installed & the existing D.G. Sets (1 x 125 KVA) has been kept in acoustically treated room & installed with anti-vibration pads and is used during Power failure only. Hence, to avoid the emissions, stack height of 6 m above roof level for each D.G. sets has been installed to reduce the air emissions, meeting all the norms prescribed by CPCB.
- (ix) The rain water shall be collected in the project area and channelizes to nearby storm water drain. The water level of Rohtak is high (approx. 4 to 5 m) so it is not possible to recharge groundwater by using rain water harvesting structure. The permission for the same has been received from HUDA.
- (x) Adequate parking provision shall be provided in the project of 1880 ECS as Basement parking (first basement, second basement & third Basement) & Surface parking.
- (xi) Energy Conservation measures will be taken. Solar Water Heaters shall be provided in each building block to meet hot water requirement in the Group Housing Colony. Solar based LED Lighting will be done in 10% of landscape areas, signage's, entry gates and boundary walls etc.
- (xii) No eco-sensitive area lies within 10 km radius.
- (xiii) There is no court case pending against the project.
- (xiv) Investment/Cost of the project is Rs. 255 Crores.
- (xv) Employment potential – Labourers during construction phase 150 no. and about 7140 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.

The proposal was earlier considered by the EAC in its 15th meeting held on 12th-14th April, 2017, wherein some additional information was sought. Now, Project Proponent vide letter dated 16.05.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on the certified compliance report letter No. 4-481/2008-RO(NZ)/131 dated 13.04.2017 issued by the MoEF&CC's Regional Office (NZ), Chandigarh and reply given by the project proponent to non-compliance of EC conditions. The Committee deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.

- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.
- (xi) Sewage shall be treated in the STP with tertiary treatment i.e. Ultra Filtration. The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling. Excess treated effluent shall be discharged in to sewer line as per CPCB norms.
- (xii) 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.
- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. Adequate space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.

- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightning etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxviii) 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.
 - Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from HUDA Water Supply shall not exceed 3868 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent

expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.

- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.
- (ix) 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.
- (x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.
- (xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed 456587.25 sqm area shall be provided for green belt development.
- (xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified 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 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.
- (xiv) The company shall draw up and implement a corporate social Responsibility plan as per the Company's Act of 2013.

20.5.3 **Expansion of Group Housing at Plot No.-GH-01/B, Sector-10, Greater Noida by M/s. Dhanya Promoters Private Limited – Reconsideration for Environmental Clearance (21-93/2017-IA-III; IA/UP/NCP/62971/2017)**

The project proponent made a presentation and provided the following information to the

Committee:-

- (i) The project will be located at Latitude- 28°34'17.43"N and longitude- 77° 28'29.76"E
- (ii) The project is an expansion project.
- (iii) Project had already been granted Environment Clearance vide letter no. 1919/Parya/SEAC/1857/2013/AD(H) Dated 12/10/2013 for the plot area 12,250.7 sq m and built up area 55,744.5 sq m. The land is already under construction. The land has been allotted to M/s Dhanya Promoters For the development of "Group Housing" by Greater Noida Industrial Development Authority. Due to increase in FAR & vertical expansion, built-up-area of the project is increasing from 55,744.5 sq m to 69,192.73 sq m which is more than 20,000 sq m. Hence, the project falls under category 8 (a) as per the EIA notification, 2006.
- (iv) The total plot area is 12250.7 sq m. The project will be comprising of various activities after expansion i.e. Dwelling Units, Commercial Building & Community Building, The Total FAR of the proposed complex after expansion will be 44,999.25 sq m. The total built-up area after expansion will be 69,192.73 sq m. Maximum height of the building will be 87 m.
- (v) During the construction of the proposed project, the water shall be supplied from treated water of nearby STP of the complex and the same will be maintained without any adverse impact on the environment. Drinking water for labor shall be provided with tanker supply. Temporary sanitary toilets will be provided during peak labor force.
- (vi) The total water requirement after expansion will be 286 KLD. The source of water will be Greater Noida Supply. The total waste water generation will be 216 KLD. The waste water shall be treated through Sewage Treatment Plant (STP) of total capacity 320 KLD (Existing 200 KLD & proposed 120 KLD). 113 KLD treated water will be reused in flushing, gardening, D.G. Cooling & Miscellaneous.
- (vii) About 1316 Kg/day Municipal solid waste will be generated in the project after expansion. The biodegradable waste (921 Kg/ day) shall be treated in Organic Waste Converter provide within the complex, recyclable waste generated (395 Kg/day) will be handed over to authorized recycler. Used Oil of 25 lit/month shall be collected in leak proof containers at isolated place and then it will be given to approved recycler. E- Waste of 2 kg/ month will be collected and given to approved recycler.
- (viii) The total power requirement after expansion will be 1942 KVA which will be provided by UP State Electricity Board. D.G. Set of capacities 2X 1250 KVA shall be installed in acoustically enclosure & installed with anti-vibration pads and is used during Power failure only. Hence, to avoid the emissions, stack height of 6 m above roof level for each D.G. sets has been installed to reduce the air emissions, meeting all the norms prescribed by CPCB.
- (ix) Rainwater of buildings will be collected and 4 No. (Existing-3 & Proposed -1) of RWH pits shall be provided for storm water recharging to ground.
- (x) Adequate parking provision shall be provided in the project of 603 ECS as Basement parking (upper basement & Lower Basement) & Surface parking
- (xi) No eco-sensitive area lies within 10 km radius.
- (xii) There is no court case pending against the project.
- (xiii) Investment/Cost of the project -Rs. 140 Crores.
- (xiv) Employment potential – Labourers during construction phase 150 no. and about 117 personnel as staff during operation phase.
- (xv) 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.

The proposal was earlier considered by the EAC in its 15th meeting held on 12th-14th April, 2017, wherein some additional information was sought. Now, Project Proponent vide letter dated 23.05.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on the certified compliance report letter No. VII/ENV/SCL-UP/898/2017/31 issued by the MoEF&CC's Regional Office (CZ), Lucknow and reply given by the project proponent to non-compliance of EC conditions. The Committee deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of

temporary structures to be removed after the completion of the project.

- (vi) 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.
- (vii) 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, 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.
- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.
- (xi) Sewage shall be treated in the STP with tertiary treatment i.e. Ultra Filtration. The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling. Excess treated effluent shall be discharged in to sewer line as per CPCB norms.
- (xii) 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. As proposed, 4 nos. of rain water harvesting pits shall be provided as per CGWB guidelines.
- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. 200 m² space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.

- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxviii) 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.
 - Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.

- (iii) Fresh water requirement from Greater Noida Supply Water Supply shall not exceed 173 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.
- (ix) 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.
- (x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.
- (xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed adequate area shall be provided for green belt development.
- (xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified 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 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.
- (xiv) The company shall draw up and implement a corporate social Responsibility plan as per the

Company's Act of 2013.

20.5.4

Environmental Clearance for expansion of Group Housing Project "Mahagun Mantra -II", Plot No- GH-01/A, Sector-10, Greater Noida, U.P. by M/s HEBE Infrastructure Pvt. Ltd – Reconsideration for Environmental Clearance (21-98/2017-IA-III; IA/UP/NCP/63275/2017)

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The project will be located at Latitude- 28°34'16.13"N and longitude- 77°28'27.46"E
- (ii) The project is an expansion project.
- (iii) Project had already been granted Environment Clearance vide letter no. 1522/Praya/SEAC/2481/2013-14/AD(S) Dated 08/12/2015 for the plot area 23657.31 sqm and built up area 1,35,405.18 sqm. The land is already under construction. The land has been allotted to M/s Hebe Infrastructure for the development of "Group Housing" by Greater Noida Industrial Development Authority. Due to change in planning, FAR is increasing from 82799.05 sqm to 86579.54 sqm and built up area will increase from 135405.18 sq m to 138294.520 sqm which is less than 1,50,000 sqm, hence the project falls under the category 8 (a) of the EIA Notification, 2006.
- (iv) The total plot area is 23657.31 sq m. The project will be comprising of various activities after expansion i.e. Dwelling Units, Commercial Building & Community Building, The Total FAR of the proposed complex after expansion will be 86579.54 Sq. m. The total built-up area after expansion will be 138294.520 Sq. m. Maximum height of the building will be 94.69m.
- (v) During the construction of the proposed project, the water shall be supplied from treated water of nearby STP of the complex and the same will be maintained without any adverse impact on the environment. Temporary sanitary toilets will be provided during peak labor force.
- (vi) The total water requirement after expansion will be 503 KLD. The source of water will be Greater Noida Supply. The total waste water generation will be 382 KLD. The waste water shall be treated through Sewage Treatment Plant (STP) of total capacity 620 KLD (Existing 450 KLD & proposed 170 KLD). 197 KLD treated water will be reused in flushing, gardening, D.G. Cooling & Miscellaneous.
- (vii) About 2297 Kg/day Municipal solid waste will be generated in the project after expansion. The biodegradable waste (1609 Kg/ day) shall be treated in Organic Waste Converter provide within the complex, recyclable waste generated (689 Kg/day) will be handed over to authorized recycler. Used Oil of 24 lit/month shall be collected in leak proof containers at isolated place and then it will be given to approved recycler. E- Waste of 2 kg/ month will be collected and given to approved recycler.
- (viii) The total power requirement after expansion will be 3582 KVA which will be provided by UP State Electricity Board. The D.G. Sets of capacities 2 x 1500 KVA shall be installed in acoustically enclosure & installed with anti-vibration pads and shall be used during Power failure only. Hence, to avoid the emissions, stack height of 6 m above roof level for each D.G. sets shall be installed to reduce the air emissions, meeting all the norms prescribed by CPCB.
- (ix) Rainwater of buildings will be collected and 6 No. (Existing-4 & Proposed -2) of RWH pits shall be provided for storm water recharging to ground.
- (x) Adequate parking provision shall be provided in the project of 1301 ECS as Basement parking (upper basement & Lower Basement) & Surface parking

- (xi) No eco-sensitive area lies within 10 km radius. None
- (xii) There is no court case pending against the project.
- (xiii) Investment/Cost of the project is Rs. 293.45 Crores.
- (xiv) Employment potential – Labourers during construction phase 150 no. and about 300 personnel as staff during operation phase.
- (xv) 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.

The proposal was earlier considered by the EAC in its 15th meeting held on 12th-14th April, 2017, wherein some additional information was sought. Now, Project Proponent vide letter dated 23.05.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on the certified compliance report letter No. VII/ENV/SCL-UP/1412/2017/30 dated 23.05.2017 issued by the MoEF&CC's Regional Office (CZ), Lucknow and reply given by the project proponent to non-compliance of EC conditions. The Committee deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.

- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.
- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.
- (xi) Sewage shall be treated in the STP with tertiary treatment i.e. Ultra Filtration. The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling. Excess treated effluent shall be discharged in to Municipal sewer line as per CPCB norms.
- (xii) 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. As proposed, 2 nos. of rain water harvesting tanks and 4 nos. of rain water harvesting pits shall be provided as per CGWB guidelines.
- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. Adequate space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of

the project.

- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxviii) 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.
 - Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.

- Traffic calming measures
- Proper design of entry and exit points.
- Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from Greater Noida Supply Water Supply shall not exceed 306 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.
- (ix) 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.
- (x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.
- (xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed

- 9540.27 sqm area shall be provided for green belt development.
- (xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified 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 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.
- (xiv) The company shall draw up and implement a corporate social Responsibility plan as per the Company's Act of 2013.

20.5.5 Environmental Clearance for Expansion of Group Housing "Mahagun Mywoods" at Plot no. – 04, SECTOR – 16 C, Noida Extension, Greater Noida, Uttar Pradesh by M/s Mahagun India Pvt. Ltd.– Reconsideration for Environmental Clearance (21-37/2017-IA-III; IA/UP/NCP/61408/2016)

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The project will be located at Latitude- 28°37'15.0"N and longitude- 77° 25'40.0"E.
- (ii) The project is an expansion project. Project had already been granted Environment Clearance vide letter no. 710/726/SEAC/2011/AA(S) Dated 31.03.2012 for the plot area 1,33,690 sqm (33.03 acre) and built up area 6,63,509.180 sqm. Additional 12047.8 sqm (2.97 acre) land has been allotted by Greater Noida Industrial Development of Group Housing to M/s Mahagun India Pvt. Ltd. Due to increase in Plot area and FAR, built up area will increase from 6,63,509.180 sqm to 8,53,653.39 sqm which is more than 3,00,000 sqm, hence as per the amendment in EIA Notification,2006 the project falls under the activity 8 (b), Category 'A'. After expansion, plot area will increase from 1,33,690 sqm (33.03 acre) to 1,45,737.8 Acre (36.01 acre), built up area will increase from 6,63,509.180 sqm to 8,53,653.39 sqm.
- (iii) The total plot area is 1,45,737.8 Acre (36.01 acre). The project will be comprising of various activities after expansion i.e. Dwelling Units, Commercial, Club House, Nursery School & Sr. Secondary School. The Total FAR of the proposed complex after expansion will be 531450.78 sqm (3.64 %). The total built-up area after expansion will be 853653.39 sqm. Maximum height of the building will be 91.35 m.
- (iv) During the construction of the proposed project, the water is being supplied from treated water of nearby STP of the complex and the same will be maintained without any adverse impact on the environment. Drinking water is being provided with drinking water tanker supply. Temporary sanitary toilets is being provided during peak labor force.
- (v) The total water requirement after expansion will be 2508 KLD. The source of water will be Greater Noida Supply. The total waste water generation will be 2100 KLD. The waste water shall be treated through Sewage Treatment Plant (STP) of total capacity 3300 KLD (Existing 800 KLD & proposed 2 x 1650 KLD). 1196 KLD treated water will be reused in flushing, gardening & D. G. cooling
- (vi) About 12958 Kg/day Municipal solid waste will be generated in the project after expansion. The biodegradable waste (9071 Kg/ day) shall be treated in Organic Waste Convertor provide within the complex, recyclable waste generated (3887 Kg/day) will be handed over to authorized recycler. Used Oil of 139 lit/month shall be collected in leak proof containers at

isolated place and then it will be given to approved recycler. E- Waste of 2 kg/ month will be collected and given to approved recycler.

- (vii) The total power requirement after expansion will be 16516 KVA which will be provided by UP State Electricity Board. D.G. Set of capacities 5 x 1010, 4 x 750, 1 x 500, 2 x 250 KVA shall be installed & the existing D.G. Sets (4 x 1010 KVA) has been kept acoustically enclosed & installed with anti-vibration pads and is used during Power failure only. Hence, to avoid the emissions, stack height of 6 m above roof level for each D.G. sets has been installed to reduce the air emissions, meeting all the norms prescribed by CPCB.
- (viii) Rainwater of buildings will be collected in 18 No. (Existing-12 & Proposed -6) of RWH pits for recharging Ground water.
- (ix) Adequate parking provision shall be provided in the project of 6812 ECS as Basement parking (first basement, second basement & third Basement), Podium parking & Surface parking.
- (x) No eco-sensitive area lies within 10 km radius. Okhla Bird Sanctuary- 12.88 Km SW
- (xi) There is no court case pending against the project.
- (xii) Investment/Cost of the project is Rs. 1553 Crores.
- (xiii) Employment potential – Labourers during construction phase 150 no. and about 30964 personnel as staff during operation phase.
- (xiv) 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.

The proposal was earlier considered by the EAC in its 15th meeting held on 12th-14th April, 2017, wherein some additional information was sought. Now, Project Proponent vide letter dated 25.05.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on the certified compliance report letter No. VII/ENV/SCL-UP/730/2017/22 dated 23.05.2017 issued by the MoEF&CC's Regional Office (CZ), Lucknow and reply given by the project proponent to non-compliance of EC conditions. The Committee deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland

and water bodies. Check dams, bio-swales, 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.

- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.
- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.
- (xi) Sewage shall be treated in the STP with tertiary treatment i.e. Ultra Filtration. The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling. Excess treated effluent shall be discharged in to sewer line as per CPCB norms.
- (xii) 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. As proposed, 18

nos. of rain water harvesting pits shall be provided as per CGWB guidelines.

- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. Adequate space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.

(xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.

(xxviii) 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.

- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
- Traffic calming measures
- Proper design of entry and exit points.
- Parking norms as per local regulation

II. Operational Phase

(i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.

(ii) For indoor air quality the ventilation provisions as per National Building Code of India.

(iii) Fresh water requirement from Greater Noida supply Water Supply shall not exceed 1709 m³/day.

(iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.

(v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.

(vi) No sewage or untreated effluent water would be discharged through storm water drains.

(vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.

(viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.

(ix) 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.

(x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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

	<p>buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.</p> <p>(xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.</p> <p>(xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed 51820.64 sqm area shall be provided for green belt development.</p> <p>(xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified 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 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.</p> <p>(xiv) The company shall draw up and implement a corporate social Responsibility plan as per the Company's Act of 2013.</p>
20.5.6	<p>Expansion of "Mahagun Moderne" (Group Housing) at Plot no. – 02, SECTOR - 78, Noida, G.B Nagar, Uttar Pradesh by M/s Mahagun Real Estate Pvt. Ltd. – Reconsideration for Environmental Clearance (IA/UP/NCP/62110/2016; F.No.21-63/2017-IA-III)</p> <p>The project proponent made a presentation and provided the following information to the Committee:-</p> <p>(i) The project will be located at Latitude- 28°33'41.87"N and longitude- 77° 23'13.41"E</p> <p>(ii) The project is an expansion project.</p> <p>(iii) Project has already been granted Environment Clearance vide letter no. 1124/SEAC/545/2010/DD(S) Dated 10.05.2011 for the plot area 100238.43 sqm and built up area 449676.436 sqm. Due to change in planning and approved building Plan, FAR is increasing from 275655.68 (2.75) to 317389.47 (3.17), built up area will increase from 449676.513 sq m to 493344.83 sqm which is more than 3,00,000 sqm, hence as per the amendment in EIA Notification,2006 the project falls under the activity 8 (b), Category 'A'.</p> <p>(iv) The total plot area is 100238.43 sq m. The project will be comprising of various activities after expansion i.e. Dwelling Units, Servant Unit, Commercial, Club House & Primary School. The Total FAR of the proposed complex after expansion will be 317389.47 sqm (3.17). The total built-up area after expansion will be 493344.83 sqm. Maximum height of the building will be 131.6 m.</p> <p>(v) During the construction of the proposed project, the water shall be supplied from treated water of existing STP of the complex and the same will be maintained without any adverse impact on the environment. Drinking water shall be provided for labors from existing Noida supply. Temporary sanitary toilets will be provided during peak labor force.</p> <p>(vi) The total water requirement after expansion will be 1212 KLD. The source of water will be</p>

Noida Supply. The total waste water generation will be 999 KLD. The waste water shall be treated through Sewage Treatment Plant (STP) of total capacity 1800 KLD (Existing 1400 KLD & proposed 400 KLD). 401 KLD treated water will be reused in flushing, gardening & Miscellaneous

- (vii) About 6237 Kg/day Municipal solid waste will be generated in the project after expansion. The biodegradable waste (4366 Kg/ day) shall be treated in Organic Waste Converter provide within the complex, recyclable waste generated (1622 Kg/day) will be handed over to authorized recycler. Used Oil of 110 lit/month shall be collected in leak proof containers at isolated place and then it will be given to approved recycler. E- Waste of 10 kg/ month will be collected and given to approved recycler.
- (viii) The total power requirement after expansion will be 8500 KW which is being provided by UP State Electricity Board. D.G. Set of capacities 1X 1010 KVA and 1X750 KVA shall be installed & the existing D.G. Sets (8 x 1010 KVA & 1 x 750 KVA) has been kept acoustically enclosed & installed with anti-vibration pads and is used during Power failure only. Hence, to avoid the emissions, stack height of 6 m above roof level for each D.G. sets has been installed to reduce the air emissions, meeting all the norms prescribed by CPCB.
- (ix) Rainwater of buildings will be collected and 17 No. (Existing-15 & Proposed -2) of RWH pits shall be provided for storm water recharging to ground.
- (x) Adequate parking provision shall be provided in the project of 4243 ECS as Basement parking (Mechanical Parking), Podium parking & Surface parking
- (xi) No eco-sensitive area lies within 10 km radius. Okhla Bird Sanctuary- 8.54 Km NW, Asola Wildlife Sanctuary- 17.82 Km SW
- (xii) There is no court case pending against the project.
- (xiii) Investment/Cost of the project is Rs. 1451 Crore.
- (xiv) Employment potential – Labourers during construction phase 150 no. and about 100 personnel as staff during operation phase.
- (xv) 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.

The proposal was earlier considered by the EAC in its 15th meeting held on 12th-14th April, 2017, wherein some additional information was sought. Now, Project Proponent vide letter dated 30.05.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on the certified compliance report letter No. VII/ENV/SCL-UP/1444/2017/17 dated 29.05.2017 issued by the MoEF&CC's Regional Office (CZ), Lucknow and reply given by the project proponent to non-compliance of EC conditions. The Committee deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.

- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.
- (xi) Sewage shall be treated in the STP with tertiary treatment i.e. Ultra Filtration. The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling. Excess treated effluent shall be discharged in to sewer line as per CPCB norms.
- (xii) 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. As proposed, 17 nos. of rain water harvesting pits shall be provided as per CGWB guidelines.
- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. 300 m² space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.

- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxviii) 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.
 - Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from Noida supply Water Supply shall not exceed 811 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.

- (vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.
- (ix) 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.
- (x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.
- (xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed 49500.41 sqm area shall be provided for green belt development.
- (xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified 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 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.
- (xiv) The company shall draw up and implement a corporate social Responsibility plan as per the Company's Act of 2013.

20.5.7 **"Oxygen Boulevard (IT SEZ)"at Plot No.-07, Sector-144, Noida, U.P. M/s Oxygen Business Park Pvt. Ltd. – Reconsideration for Environmental Clearance (IA/UP/NCP/61365/2016; 21-25/2017-IA-III)**

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The project will be located at Latitude- 28°29'52.82"N and longitude- 77° 25'42.41"E
- (ii) The project is an expansion project.
- (iii) Revision in Environmental Clearance is received vide letter No. 219/parya/SEAC/2748/2015 dated 16 August, 2016 by SEIAA Uttar Pradesh for the land area of 100498 sqm and total

built-up area 343129.13 sqm. During the Approval of plans there is change in FAR, Ground Coverage & Built-up area. Built-up area will increase from 343129.13 sq m to 370892.903 sqm which is more than 1,50,000 sqm, hence the project falls under the category 8 (b) & Sub-category 'A' of the EIA Notification, 2006. Construction work of phase-I has been completed and of Phase-II will be started after getting Expansion in Environmental Clearance.

- (iv) The total plot area is 100498 sqm. The project will be comprising of various activities after expansion i.e. IT/ITES offices, Commercial, Retail Space Utility Block, Food Court. The Total FAR of the proposed complex after expansion will be 234396.711sqm (2.33). The total built-up area after expansion will be 370892.903 sqm. Maximum height of the building will be 60 m.
- (v) During the construction of the proposed project, the water shall be supplied from treated water of existing STP of the complex and the same will be maintained without any adverse impact on the environment. There will be water Treatment plant for drinking water. There will be Mobile S.T.P for the treatment of water. Temporary sanitary toilets will be provided during peak labor force.
- (vi) The total water requirement after expansion will be 1256 KLD. The source of water will be Noida Supply. The total waste water generation will be 894 KLD. The waste water shall be treated through Sewage Treatment Plant (STP) of total capacity 1100 KLD (Existing 550 KLD & proposed 550 KLD). 867 KLD treated water will be reused in flushing, HVAC cooling, Miscellaneous & gardening.
- (vii) Approximately 4606 kg/day solid waste generated out of which 2827 Kg/day shall be given to Authorized Vendor "Indian Pollution Control Association (IPCA)" & 1779 kg/day recyclable waste will be given to approved Recycler. Approx. 283 litres/month used oil will be generated from the DG sets which shall be kept in an isolated area and in leak proof container and shall be given to authorized recycler as per Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2016. Approx. 10 kg/month E-waste will be generated & being given to approved vendor of SPCB as per e-waste rules, 2016.
- (viii) The total power requirement during construction phase will be met by obtaining temporary connection and for backup, DG set will be kept of 125 KVA and total power requirement during operation phase will be 21000 KVA which will be provided by UP State Electricity Board. D.G. Set of capacity 5X 2500 KVA, 2 X 1010 KVA & 3 X 2250 KVA shall be installed & the existing D.G. Sets (4 x 2000 KVA, 5 x 1500 KVA & 2 x 1250 KVA) has been installed.
- (ix) Rainwater of buildings will be collected and 10 Nos. (Existing-8 & Proposed -2) of RWH pits shall be provided for storm water recharging to ground.
- (x) Adequate parking provision shall be provided in the project of 4689 ECS as Basement parking (Mechanical Parking), Podium parking & Surface parking
- (xi) No eco-sensitive area lies within 10 km radius. Okhla Bird Sanctuary- 12.89 Km NW, Asola Wildlife Sanctuary- 18.0 Km WSW
- (xii) There is no court case pending against the project.
- (xiii) Investment/Cost of the project is Rs. 760 Crores.
- (xiv) Employment potential – Labourers during construction phase 150 no. and about 21475 personnel as staff during operation phase.
- (xv) Benefits of the project: The development of SEZ in the project area will result in the increase in the social infrastructure as the population related to IT SEZ in form of supporting staff, working staff & visitors will increase. Exemption from duties on all imports for project development.

The proposal was earlier considered by the EAC in its 14th meeting held on 13th-15th

February, 2017, wherein some additional information was sought. Now, Project Proponent vide letter dated 1.06.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on the certified compliance report letter No. VII/ENV/SCL-UP/1445/2017/21 dated 29.05.2017 issued by the MoEF&CC's Regional Office (CZ), Lucknow and reply given by the project proponent to non-compliance of EC conditions. The Committee deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.

- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.
- (xi) Sewage shall be treated in the STP with tertiary treatment i.e. Ultra Filtration. The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling. Excess treated effluent shall be discharged in to sewer line as per CPCB norms.
- (xii) 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. As proposed, 10 nos. of rain water harvesting pits shall be provided as per CGWB guidelines.
- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. 145 m² space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings

due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.

- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxviii) 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.
- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from Noida supply Water Supply shall not exceed 389 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is

commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.

- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.
- (ix) 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.
- (x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.
- (xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed 37307.4 sqm area shall be provided for green belt development.
- (xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified 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 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.
- (xiv) The company shall draw up and implement a corporate social Responsibility plan as per the Company's Act of 2013.

20.5.8 Environmental Clearance for Group Housing Scheme 'New Saket' under Samajwadi Awas Yojna in Village Abdullapur, Meerut, U.P by M/s Inprosper Infrastructures LLP – Reconsideration for Environmental Clearance (21-97/2017-IA-III; IA/UP/NCP/63055/2017)

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The project is located at village Abdullapur, Pargana Meerut, Tehsil Meerut, District Meerut, Uttar Pradesh. Latitude: 28°59'23.76"N, and longitude: 77°46'10.58"E.
- (ii) The total plot area is 35924 sqm. The project will comprise of 4 Phases. FSI area is 45,013.800 sqm and total construction area of 46,422.874 sqm. Total 668 No. Dwelling units shall be developed. Maximum height of the building is 12.45 m.
- (iii) The total water requirement for the construction of Commercial Project is estimated to be approx. 232 ML. The water supply during Construction phase will be met through private water tankers/STP. During the construction phase, soak pits and septic tanks are provided for disposal of waste water. Temporary toilets will be provided for labourers.
- (iv) During operational phase, total water demand of the project is estimated to be 292 KLD and the same will be met by the Municipal Cooperation/Recycled Water. Wastewater generated (234 KLD) uses will be treated in STP of total 280 KLD capacity. About 187 KLD of treated wastewater will be generated from which 82 KLD will be used for flushing, 6 KLD for gardening, 14 KLD for DG Set cooling and remaining 85 KLD will be sent to municipal drain.
- (v) About 1656 kg/day solid waste will be generated from the project. The biodegradable waste (993.6 kg/day) will be processed in OWC and the non-biodegradable waste generated (662.4 kg/day) will be handed over to vendors.
- (vi) The total power requirement during operation phase is 3110 KVA and will be met from Uttar Pradesh Power Company Limited (UPPCL).
- (vii) Parking facility for 181 No. four wheelers is proposed to be provided against the requirement of 181 Nos (according to local norms).
- (viii) Proposed energy saving measures: Energy will be saved using energy efficient lighting fixtures, Electronic Ballast, Timer based lighting and APFC Panel.
- (ix) It is not located within 10 km of Eco Sensitive areas
- (x) There is no court case pending against the project
- (xi) Estimated Cost of the project is Rs. 91 Crore.
- (xii) Employment potential: It will generate direct and indirect employment opportunities for both skilled and unskilled labor during construction & operation phase.
- (xiii) Benefits of the project: Direct & Indirect employment opportunities and Infrastructural Development of the Area.

The proposal was earlier considered by the EAC in its 15th meeting held on 12th-14th April, 2017, wherein some additional information was sought. Now, Project Proponent vide letter dated 5.06.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.

- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.
- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.
- (xi) Sewage shall be treated in the STP based on Moving Bed Biofilm Reactor (MBBR) Technology (with tertiary treatment i.e. Ultra Filtration). The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling. Excess treated effluent shall be discharged in to Municipal sewer line as per CPCB norms.

- (xii) 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. As proposed, 2 nos. of rain water harvesting tanks and 3 nos. of rain water harvesting pits shall be provided as per CGWB guidelines.
- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. Adequate space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightning etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.

(xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.

(xxviii) 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.

- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
- Traffic calming measures
- Proper design of entry and exit points.
- Parking norms as per local regulation

II. Operational Phase

(i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.

(ii) For indoor air quality the ventilation provisions as per National Building Code of India.

(iii) Fresh water requirement from Municipal Corporation Water Supply shall not exceed 190 m³/day.

(iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.

(v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.

(vi) No sewage or untreated effluent water would be discharged through storm water drains.

(vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.

(viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.

(ix) 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.

- (x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.
- (xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed 5388.60 sqm area shall be provided for green belt development.

20.5.9 Proposed Commercial Project at Patto village, Goa by M/s. DLF Ltd – Reconsideration for Environmental Clearance (21-89/2017-IA-III; IA/GA/NCP/62188/2017)

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The project is located at 15° 29'38.11" N Latitude and 73° 49'54. 85"E longitude.
- (ii) The project is new expansion/ redevelopment. Earlier EC was obtained vide letter No 21-626/2007-IA.III dated 08/05/2008 from MOEFCC. No construction has commenced on site.
- (iii) The total plot area is 18,120.00 sqm. FSI area is 48,561.57 sqm and total construction area of 74,411.00 sqm. The project will comprise of 1 building of basement+G+8 Floors. Maximum height of the building is 28 m.
- (iv) During construction phase, total water requirement is expected to be 30 KLD which will be met by PWD. During the construction phase, soak pits and septic tanks will be provided for disposal of waste water. Temporary sanitary toilets will be provided during peak labor force.
- (v) During operational phase, total water demand of the project is expected to be 271 KLD and the same will be met by PWD and the STP Recycled Water. Wastewater generated (200 KLD) will be treated in 1 STP of total 250 KLD capacity. 250 KLD of treated wastewater will be recycled. About 22 KLD will be disposed in to municipal drain.
- (vi) About 2.23 TPD solid wastes will be generated in the project. The biodegradable waste (0.89 TPD) will be processed in OWC and the non-biodegradable waste generated (1.34 TPD) will be handed over to authorized local vendor.
- (vii) The total power requirement during construction phase is 500 KVA and will be met from Goa state Electricity Board and total power requirement during operation phase is 3763 KW and will be met from Goa state Electricity Board/ Solar energy.
- (viii) Rooftop rainwater of buildings will be collected in 1 RWH tank of total 100 CUM capacity for harvesting after filtration.
- (ix) Parking facility for 906 ECS is proposed to be provided against the requirement of 906 ECS (according to local norms).
- (x) Proposed energy saving measures would save about 18% of power.

- (xi) It is ~~located~~/not located within 10 km of Eco Sensitive areas
- (xii) There is no court case pending against the project.
- (xiii) Investment/Cost of the project is Rs. 240 (in crore).
- (xiv) Employment potential: During construction period, employment opportunities will be generated for about 100 local construction labourers.
- (xv) Benefits of the project: The project involves construction of a commercial complex comprising of retails shops, offices, retail food court and multiplex. Shops and retails outlets will provide employment opportunities to local youth. It is proposed to have 8 small screen multiplexes (auditoriums) for small gatherings. This will be the first of its kind in Goa and would serve as a major attraction. The other amenities would comprise of food courts, sufficient parking spaces and landscaped areas.

The proposal was earlier considered by the EAC in its 15th meeting held on 12th-14th April, 2017, wherein some additional information was sought. Now, Project Proponent vide letter dated 8.06.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on the monitoring report letter No. EP/121/212/Goa dated 15.06.2017 issued by the MoEF&CC's Regional Office (SZ), Bangalore and reply given by the project proponent to non-compliance of EC conditions. The monitoring report given by the Regional Office mentioned that there is no construction at site so the compliance report is not prepared. The Committee deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
- (iv) 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 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.

- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.
- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.
- (xi) Sewage shall be treated in the STP with tertiary treatment i.e. Ultra Filtration. The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling. Excess treated effluent shall be discharged in to Municipal sewer line as per CPCB norms.
- (xii) 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. As proposed, 1 nos. of rain water harvesting tanks of total capacity of 100 m³ shall be provided as per CGWB guidelines.
- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. 100 m² space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) 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.

- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxviii) 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.
 - Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from PWD Water Supply shall not exceed 93 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.
- (ix) 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.
- (x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.
- (xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed adequate area shall be provided for green belt development.
- (xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified 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 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.

- (xiv) The company shall draw up and implement a corporate social Responsibility plan as per the Company's Act of 2013.

20.5.10 Euphoria-subdivision of Sports City at SC-01, Sport City, Adjoining Sector Techzone-IV, Greater Noida, Uttar Pradesh by M/s. Euphoria Sports City Pvt. Ltd. – Reconsideration for Environmental Clearance (21-92/2017-IA-III; IA/UP/NCP/62946/2017)

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The project is located at SC-1, Sports City, Adjoining Sector Techzone-IV, Greater Noida, Uttar Pradesh. Latitude: 74°49.98"N ,and longitude: 77° 48'25.08"E
- (ii) The total plot area is 3,52,036 sqm. The project will comprise of Sport City. FSI area is 547905.5 sqm and total construction area of 797005.3 sqm. Total 2897 No. Dwelling units shall be developed. Maximum height of the building is 125m.
- (iii) The total water requirement for the construction of Commercial Project is estimated to be approx. 3985 ML. The water supply during Construction phase will be met through private water tankers/STP. During the construction phase, soak pits and septic tanks are provided for disposal of waste water. Temporary toilets will be provided for labourers.
- (iv) During operational phase, total water demand of the project is estimated to be 1606 KLD and the same will be met by the GNIDA/Recycled Water. Wastewater generated (1281KLD) uses will be treated in STP of total 1500 KLD capacity. About 1021 KLD of treated wastewater will be generated from which 446 KLD will be used for flushing, 575 KLD for gardening and there will be a zero exit discharge.
- (v) About 9043 kg/day solid waste will be generated from the project. The biodegradable waste (5,425.8 kg/day) will be processed in OWC and the non-biodegradable waste generated (3,617.2 kg/day) will be handed over to vendors.
- (vi) The total power requirement during operation phase is 21420 KVA and will be met from Uttar Pradesh Power Company Limited (UPPCL).
- (vii) Parking facility for 8825 No. of four wheelers is proposed to be provided against the requirement of 8825 Nos. (according to local norms).
- (viii) Proposed energy saving measures: Energy will be saved using energy efficient lighting fixtures, Electronic Ballast, Timer based lighting and APFC Panel.
- (ix) It is not located within 10 km of Eco Sensitive areas
- (x) There is no court case pending against the project.
- (xi) Estimated Cost of the project is Rs. 800.20 Crore.
- (xii) Employment potential: It will generate direct and indirect employment opportunities for both skilled and unskilled labor during construction & operation phase.
- (xiii) Benefits of the project: Direct & Indirect employment opportunities and Infrastructural Development of the Area.

The proposal was earlier considered by the EAC in its 15th meeting held on 12th-14th April, 2017, wherein some additional information was sought. Now, Project Proponent vide letter dated 9.06.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.

- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.
- (xi) Sewage shall be treated in the STP based on FAB Technology (with tertiary treatment i.e. Ultra Filtration). The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling. Excess treated effluent shall be discharged in to Municipal sewer line as per CPCB norms.
- (xii) 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. As proposed, 11 nos. of rain water harvesting tanks in addition to 26 nos. of rain water harvesting pits shall be provided as per CGWB guidelines.
- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. Adequate space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings

due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.

- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxviii) 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.
 - Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from GNIDA Water Supply shall not exceed 1044 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is

commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.

- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.
- (ix) 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.
- (x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.
- (xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed adequate area shall be provided for green belt development.
- (xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified 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 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.
- (xiv) The company shall draw up and implement a corporate social Responsibility plan as per the Company's Act of 2013.

20.5.11 **“SAMARAYA” Proposed Residential Development at Reis Magos village, Goa by M/s Delanco Homes & Resorts Pvt Ltd – Reconsideration for Environmental Clearance (IA/GA/NCP/62297/2017; F.No.21-64/2017-IA-III)**

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The project is located at 15° 29'38.11" N Latitude and 73° 49'54. 85"E longitude.
- (ii) The project is for expansion. The proponent had received environmental clearance dated 12th September, 2008 vide letter number 21-712/2007-IA.III from MoEFCC for total construction area of 67,185.00 sqm. The proponent had initiated work on site as per the earlier EC. The validity of the EC lapsed in 2013, after which work on the site was stopped.
- (iii) The total plot area is 1,06,345.66 sqm. FSI area is 42,097.19 sqm and total construction area of 52,589.14 sqm. The project will comprise of 84 Villas (ground + 2 upper floors) + 1 Club house. Maximum height of the building is 6 m.
- (iv) During construction phase, total water requirement is expected to be 20 KLD which will be met by PWD or from ground water. During the construction phase, soak pits and septic tanks will be provided for disposal of waste water. Temporary sanitary toilets will be provided during peak labor force.
- (v) During operational phase, total water demand of the project is expected to be 268 KLD and the same will be met from PWD and by the STP Recycled Water. Wastewater generated (94 KLD) will be treated in 1 STP of total 100 KLD capacity. 89 KLD of treated wastewater will be recycled (20 KLD for flushing, 69 KLD for gardening). About 0 KLD will be disposed in to municipal drain.
- (vi) About 0.36 TPD solid waste will be generated in the project. The biodegradable waste (0.24 TPD) will be processed in OWC and the non-biodegradable waste generated (0.11 TPD) will be handed over to authorized local vendor.
- (vii) The total power requirement during construction phase is 125 KVA and will be met from Goa state Electricity Board and total power requirement during operation phase is 1000 KW and will be met from Goa state Electricity Board/ Solar energy.
- (viii) Rooftop rainwater of buildings will be collected in 1 RWH tank per villa of total 10 cum each capacity for harvesting after filtration.
- (ix) Parking facility for 92 four wheelers to be provided against the requirement of 84 (according to local norms).
- (x) Proposed energy saving measures would save about 202 KW of power.
- (xi) It is not located within 10 km of Eco Sensitive areas
- (xii) There is no court case pending against the project.
- (xiii) Investment/Cost of the project is Rs. 200 in crore.
- (xiv) Employment potential: During construction period, employment opportunities will be generated for local construction labourers.
- (xv) Benefits of the project: The project involves construction of high end villas with swimming pools and a club house with amenities and facilities. It will serve as a tourist attraction.

The proposal was earlier considered by the EAC in its 15th meeting held on 12th-14th April, 2017, wherein some additional information was sought. Now, Project Proponent vide letter dated 13.06.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on the MoEFCC Regional Office letter no. EP/12.1/193/Goa dated 21.07.2017 in which it is mentioned that the project is inspected and report is yet to be approved. However the compliance of the various conditions of environment clearance is satisfactory. The Committee also deliberated on the reply given by the project proponent to non-compliance of EC conditions. The Committee deliberated on point wise submission of project proponent on earlier

observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.
- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets

- tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
 - (x) 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.
 - (xi) Sewage shall be treated in the STP with tertiary treatment i.e. Ultra Filtration. The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling. Excess treated effluent shall be discharged in to Municipal sewer line as per CPCB norms.
 - (xii) 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. As proposed, 1 nos. of rain water harvesting tanks of total capacity of 110 m³ shall be provided as per CGWB guidelines.
 - (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. Adequate space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
 - (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
 - (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
 - (xvi) 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.
 - (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
 - (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
 - (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
 - (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
 - (xxi) Approval of the CGWA require before any dewatering for basements.
 - (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
 - (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
 - (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and

should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.

- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxviii) 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.
- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from PWD Water Supply shall not exceed 20 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.

- (viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.
- (ix) 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.
- (x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.
- (xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed 54170 sqm area shall be provided for green belt development.
- (xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified 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 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.
- (xiv) The company shall draw up and implement a corporate social Responsibility plan as per the Company's Act of 2013.

20.5.12 Environmental Clearance for Expansion of group housing colony at Sector – 48, Sohna Road, Gurgaon by M/s Sweta Estates Pvt Ltd – Reconsideration for Environmental Clearance (IA/HR/NCP/62973/2015; F.No.21-148/2017-IA-III)

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The project will be located at Latitude- 28°25'29.01"N and longitude- 77°02'05.10"E
- (ii) The proposed project is "Expansion of Group Housing Colony" located at Sector-48, Sohna Road, Gurgaon, Haryana and being developed by M/s Sweta Estates Pvt. Ltd. Project had already been granted Environment Clearance vide letter no. 21-563/2006-IA III dated 10.04.2007 from SEIAA, Haryana, for the development of the "Group Housing Colony" at

Sector-48, Sohna Road, Gurgaon, Haryana for plot area 192334.638 sqm & built up area of 331520 sqm excluding (Basement and Non-FAR) for 28 towers. Out of which 26 towers were constructed having FAR 272932.438 sqm. Now, only two towers have to be constructed. Hence, built up area (excluding basement and Non-FAR) will increase from 331520.0 sqm to 335813.683 sqm (excluding basement and Non-FAR) and built up area 562141.739 sqm (including basement and Non-FAR). As the built-up area is more than 3,00,000 sqm. Hence, as per the amendment in EIA Notification, 2006 the project falls under the activity 8 (b), Category 'A'

- (iii) After expansion, plot area will be 191893.533 sqm (47.418 acres) and built up area will be 562141.739 sqm. The project will be comprising of various activities i.e. Dwelling Units, EWS, Service personnel Unit, Commercial, Club House, Nursery School & Primary school.
- (iv) During the construction of the proposed project, the water is being supplied from treated water of nearby STP of the complex and the same will be maintained without any adverse impact on the environment. Drinking water is being provided with drinking water tanker supply. Temporary sanitary toilets shall be provided during peak labor force.
- (v) The total water requirement after expansion will be 1770 KLD. The source of water will be HUDA Supply. The total waste water generation will be 1118 KLD. The waste water shall be treated through Sewage Treatment Plant (STP) of total capacity 1375 KLD. 879 KLD treated water will be reused in flushing, gardening & D. G. cooling. Remaining 181 KLD of treated water will be discharged to sewer.
- (vi) About 3935 Kg/day Municipal solid waste will be generated in the project after expansion. The biodegradable waste (2754 Kg/ day) shall be treated in Organic Waste Converter provide within the complex, recyclable waste generated (1181 Kg/day) will be handed over to authorized recycler. Used Oil of 190 lit/month shall be collected in leak proof containers at isolated place and then it will be given to approved recycler. E- Waste of 2 kg/ month will be collected and given to approved recycler.
- (vii) The total power requirement after expansion will be 13290 KVA which will be provided by Dakshin Haryana Bijli Vitran Nigam Limited. D.G. Set of capacities 9 x 1010 KVA & 2 x 1250 KVA already installed and DG sets of capacity 2 x 1010 KVA, 2 x 1250 KVA & 4 x 2000 KVA shall be installed as standby, will be kept acoustically enclosed & installed with anti-vibration pads. It will be used during Power failure only. Hence, to avoid the emissions, stack height of 6 m above roof level for each D.G. sets has been installed to reduce the air emissions, meeting all the norms prescribed by CPCB.
- (viii) Rainwater of buildings will be collected in 45 No. of RWH pits for recharging Ground water (out of which 32 are installed and 13 no of pits shall be constructed).
- (ix) Adequate parking provision shall be provided in the project of 3566 ECS as Basement parking (first basement & second basement) & Surface parking.
- (x) No eco-sensitive area lies within 10 km radius. Sultanpur Bird Sanctuary- 14.33 Km SW
- (xi) There is no court case pending against the project.
- (xii) Investment/Cost of the project is Rs. 394.40 Crores.
- (xiii) Employment potential – Labourers during construction phase 150 no. and about 100 personnel as staff during operation phase.
- (xiv) 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.

The proposal was earlier considered by the EAC in its 18th meeting held on 25th-27th May, 2017, wherein some additional information was sought. Now, Project Proponent vide letter dated 21.06.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on the certified compliance report letter No. 4-263/2007-RO (NZ)/288 dated 13.07.2017 issued by the MoEF&CC's Regional Office (NZ), Chandigarh and reply given by the project proponent to non-compliance of EC conditions. The Committee deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.

- (vii) 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, 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.
- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.
- (xi) Sewage shall be treated in the STP with tertiary treatment i.e. Ultra Filtration. The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling. Excess treated effluent shall be discharged in to Municipal sewer line as per CPCB norms.
- (xii) 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. As proposed, 45 nos. of rain water harvesting pits shall be provided as per CGWB guidelines.
- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. Adequate space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.

- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxviii) 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.
 - Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from HUDA Water Supply shall not exceed 1770 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be

measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.

- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.
- (ix) 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.
- (x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.
- (xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed adequate area shall be provided for green belt development.
- (xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified 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 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.
- (xiv) The company shall draw up and implement a corporate social Responsibility plan as per the Company's Act of 2013.

20.5.13 **Environmental Clearance for Group Housing at Plot No: GH-01A/B (Alpha), Sector 107 Noida,**

Dist: Gautam Budh Nagar, Uttar Pradesh by M/s Ace Infracity Developers Pvt Ltd – Reconsideration for Environmental Clearance (F.No.21-100/2017-IA-III; IA/UP/NCP/63527/2017)

The project proponent made a presentation and provided the following information to the Committee:-

- (i) M/s Ace Infracity Developers Pvt. Ltd proposes to develop a group housing at plot no: GH-01A/B (Alpha), Sector 107 Noida, Distt: Gautam Budh Nagar, Uttar Pradesh on a total plot area of 20000 sq m and total built up area is 114580.93 sqm.
- (ii) Proposed project is construction of multi-storeyed residential with community facilities. Adequate parking area of 25410.969 sqm is proposed on surface, stilt & basements for visitors as well as residents. Community facilities include club house, parks, and gardens. A total of 8050.3 sqm is to be developed as landscape area.
- (iii) The project envisages construction of 7(5+2) towers including 5 residential towers+1 community hall+ 1 commercial of 2B+G+26 floors.
- (iv) Total population of the proposed project will be 1878 which include the population of residents, community and visitors.
- (v) The total water requirement for the project has been estimated to be 178 KLD. This includes domestic water requirement, flushing, D.G. cooling and landscaping. The total fresh water requirement is 100 KLD which includes domestic water requirement. The water requirement for flushing and landscaping will be met through treated water from STP.
- (vi) Total waste water generated is 113 KLD, which will be treated in onsite STP. The treated water will be recycled and re-used for flushing, D.G. cooling and landscaping.
- (vii) The total electrical load demand has been estimated to be 2253 KW for the proposed project. The source of power will be from Uttar Pradesh Power Corporation Ltd.
- (viii) In case of power failure, DG sets of total capacity of 2430 KVA (3x810) for the proposed project will be provided as power back-up.
- (ix) The domestic solid waste will be generated by the occupants of the residents, visitors and people coming to community area will pertain to the two categories, Bio-degradable and Non-biodegradable. It is estimated that maximum solid waste generation would be about 0.78 TPD for the proposed project and 87.6 kg of sludge will be generated from the proposed project.
- (x) Investment/Cost of the project is Rs. 172 Crore.
- (xi) Employment potential: The project involves labour camp for 120 labours during construction.
- (xii) Benefit of the Project: During operational phase of Group Housing, persons will get employment opportunities as staff for management, maintenance and security. As an estimate, during operation phase, persons will get marginal employment opportunities from the residents of Group Housing who would work as domestic helpers. This will help in improving the quality of life of economically weaker sections of the local area.

The proposal was earlier considered by the EAC in its 15th meeting held on 12th-14th April, 2017, wherein some additional information was sought. Now, Project Proponent vide letter dated 12.05.2017 has submitted additional Information. Copy of additional Information is available on the website.

The EAC deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended

the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.
- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing

etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.

- (x) 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.
- (xi) Sewage shall be treated in the STP with tertiary treatment i.e. Ultra Filtration. The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling. Excess treated effluent shall be discharged in to Municipal sewer line as per CPCB norms.
- (xii) 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. As proposed, 2 nos. of rain water harvesting pits of total capacity of 6068.67 m³ shall be provided as per CGWB guidelines.
- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. 75 m² space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.

- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxviii) 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.
- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from Noida Industrial Development Authority Water Supply shall not exceed 100 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.

- (viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.
- (ix) 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.
- (x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.
- (xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed 7992.3 sqm area shall be provided for green belt development.
- (xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified 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 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.
- (xiv) The company shall draw up and implement a corporate social Responsibility plan as per the Company's Act of 2013.

20.5.14 Kochi Water Metro Project at Kochi, Kerala by M/s. Kochi Metro Rail Limited – Terms of Reference (ToR) (IA/KL/MIS/63548/2017; F.No. 10-39/2017-IA-III)

The project proponent made a presentation and provided the following information to the Committee:-

- (i) Kochi Metro Rail Limited (KMRL) in line with the directives of the Ministry of Urban Development, Government of India has spearheaded the task of setting up an integrated transportation system for Kochi city.
- (ii) The proposed project recommends sixteen (16) identified routes connecting thirty eight (38) jetties across ten (10) island communities across a 76 km route network. The identified routes and jetties are represented in the figure. Of these 38 jetties, 35 are existing jetties where boat services from Kerala State Water Transport Corporation and

private agencies are currently being operated. Eighteen (18) jetties proposed to be developed as major jetties or main boat hubs while the remaining twenty (20) jetties shall be developed as minor jetties for water transit services.

- (iii) The entire Inland Water Transport project is proposed to be realised over a period of four years between 2017 and 2020. The project shall be implemented to cater to daily ridership, which is estimated to increase to 40,000 by 2019; 54,000 by 2025 and 86,000 by 2035. The project involves the renovation of jetties, boatyard and access roads around, providing parking facilities, maintenance dredging activities etc.
- (iv) Almost all the boat channels identified for the Kochi Water Metro Project are current ferry routes. The dredging shall be limited to maintenance dredging for removal of silt deposits. At present Inland Waterways Authority of India (IWAI) and Kerala Irrigation Department are carrying out maintenance dredging to a depth of 1-2 m. The proposed draft for the boats for KWMP is about 0.9 m and a channel depth of 1.5 m which would suffice for safe operation. Present dredging arrangements shall continue and KMRL also would take up dredging on need basis to ensure uninterrupted ferry services
- (v) The total water required for passengers and staff is expected as 3870 KLD. Out of which, 1720 KLD will be used for domestic purpose (20 lpcd) while 2150 KLD for flushing (25 lpcd). The source of water is Kerala Water Authority. The major stretch of proposed waterway is connected by road network. The proposed project developments, will lead to acquisition of few buildings, petty shops, land.
- (vi) Cost of the project is about Rs.747.28 crores with core water transport infrastructure estimated at Rs.435.37 crores.
- (vii) Kochi Water Metro Project is an integral link in the perceived Urban Metropolitan Transportation Model for Kochi, wherein the Metro rail, land feeder services, earmarked pavements for cycle and pedestrian movement and water metro would be integrated to ease the traffic congestion and reduce the pollution in the city. Implementation of the Kochi Water Metro Project would provide the following advantages:
- Facilitate better connectivity of the islands around Kochi with mainland. This has been a long-standing requirement of the islanders and could be only partially mitigated through the Gosree bridges and International Container Transit Terminal road.
 - Drastically reduce the road traffic by diverting the passengers to water transport. In turn, it would assist in reducing the road congestion on the roads.
 - Reduction in the atmospheric pollution from land vehicles and carbon footprint of Kochi City.
 - Impetus to tourism in and around Kochi providing easy access to the scenic islands around. This would lead to the development of all the islands connected by the Water Metro Project.

After detailed deliberations on the proposal, the EAC recommended for grant of Terms of Reference (ToR) as specified by the Ministry as Standard ToR in April, 2015 for the said project/activity and the following ToR in addition to Standard ToR for preparation of EIA-EMP report:

- i. Importance and benefits of the project.
- ii. Submit a copy of layout superimposed on the HTL/LTL map demarcated by an authorized agency on 1:4000 scale.
- iii. Recommendation of the SCZMA.
- iv. NBWL clearance is required.

- v. Various Dock and shipbuilding facilities with capacities for existing and proposed project.
- vi. Study the impact of dredging on the shore line.
- vii. A detailed impact analysis of rock dredging.
- viii. Study the impact of dredging and dumping on marine ecology and draw up a management plan through the NIO or any other institute specializing in marine ecology.
- ix. A detailed analysis of the physico-chemical and biotic components in the highly turbid waters round the project site (as exhibited in the Google map shown during the presentation), compare it with the physico- chemical and biotic components in the adjacent clearer (blue) waters both in terms of baseline and impact assessment and draw up a management plan.
- x. Details of Emission, effluents, solid waste and hazardous waste generation and their management in the existing and proposed facilities.
- xi. The existing project should avail of and submit consent to operate from the State Pollution Control Board.
- xii. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract).
- xiii. Wastewater management plan.
- xiv. Details of Environmental Monitoring Plan.
- xv. To prepare a detailed biodiversity impact assessment report and management plan through the NIOS or any other institute of repute on marine, brackish water and fresh water ecology and biodiversity. The report shall study the impact on the rivers, estuary and the sea and include the intertidal biotopes, corals and coral communities, molluscs, sea grasses, sea weeds, subtidal habitats, fishes, other marine and aquatic micro, macro and mega flora and fauna including benthos, plankton, turtles , birds etc. as also the productivity. The data collection and impact assessment shall be as per standard survey methods.
- xvi. Disaster Management Plan for the above terminal.
- xvii. Layout plan of existing and proposed Greenbelt.
- xviii. Status of court case pending against the project.
- xix. A tabular chart with index for point wise compliance of above TORs.
- xx. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.

It was recommended that 'TOR' along with Public Hearing prescribed by the Expert Appraisal Committee (Infrastructure-2) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. The draft EIA/EMP report shall be submitted to the State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.

20.5.15 Proposed commercial project - XENON on Plot Bearing C.T.S No. 1406- A/25 – B/ 20 F, Village Malad, Off Link road, Malad West by M/s Radhakrishna Properties Pvt. Ltd. (Formerly applied in the name of M/s. Raheja Universal (Pvt) Ltd.)– Reconsideration for Environmental Clearance (F. No. 21-2/2017-IA-III; IA/MH/MIS/61429/2016)

The project proponent made a presentation and provided the following information to the

Committee:-

- (i) The project is located at 19°10'29.59"N, 19°10'28.87"N, 19°10'28.17"N, 19°10'27.00"N, 19°10'28.25"N, 19°10'29.54"N Latitude and 72°50'9.78"E, 72°50'9.88"E, 72°50'10.14"E, 72°50'9.68", 72°50'5.41"E, 72°50'5.59"E Longitude.
- (ii) The project is new/ redevelopment:- New
- (iii) Earlier Clearance details, Constructions status, if any: Nil
- (iv) The total plot area is 7257.00 sq.m. FSI area is 13421.09 sqm and total construction area of 25545.42 sqm. The project will comprise of 1 no. of Buildings. Total 127 Nos. of Shops shall be developed. Maximum height of the building is 17.70m.
- (v) During construction phase, total water requirement is expected to be 15 KLD which will be met by Outsource through Tanker Water during the construction phase. Modular STP will be provided during construction. Temporary sanitary toilets will be provided during peak labor force.
- (vi) During operational phase, total water demand of the project is expected to be 32 KLD (Fresh water 11 cum, recycled water 21 cum) KLD and the same will be met by the 21 KLD Recycled Water. Wastewater generated (23 KLD) uses will be treated in STP of total 30 KLD capacity. 21 KLD of treated wastewater will be recycled (14KLD for flushing, 7 KLD for gardening). About 0 KLD (Non Monsoon) & 7 KLD (Monsoon) will be disposed in to municipal drain.
- (vii) About 141 Kg/day solid waste will be generated in the project. The biodegradable waste (42 Kg/day) will be processed in OWC and the non-biodegradable waste generated (99 Kg/day) will be handed over to authorized local vendor.
- (viii) The total power requirement during construction phase is 100 KW and will be met from Tata Power/Reliance Energy and total power requirement during cooperation phase is Connected Load: 1907.00 KW, Maximum Demand: 1499.00 KW and will be met from Tata Power/Reliance Energy
- (ix) Rooftop rainwater of buildings will be collected in 1 no. of RWH tanks of having total 33 cum capacity for harvesting after filtration.
- (x) Parking facility for 266 four wheelers and 45 two wheelers is proposed to be provided against the requirement of 98 and as per local norms respectively (according to local norms).
- (xi) Proposed energy saving measures would save about 37.44% of power.
- (xii) It is located /not located within 10 km of Sanjay Gandhi National Park (2.51 km) Eco Sensitive areas.
- (xiii) There is no court case pending against the project.
- (xiv) Investment/Cost of the project is Rs. 98.98 Crore.
- (xv) Employment potential:-During Construction phase for construction activity & during operation stage for O & M of the infrastructure.
- (xvi) Benefits of the project: The project will meet the shopping needs of the area with provision of better options. It will provide employment opportunities to the local people in terms of labour during construction and services personnel of app. 1000 persons during operational phase as it is a commercial project.

The EAC deliberated on the information given by the project proponent and recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.
- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.

- (x) 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.
- (xi) Sewage shall be treated in the STP based on Moving Bed Biofilm Reactor (MBBR) Technology (with tertiary treatment i.e. Ultra Filtration). The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling. Excess treated effluent shall be discharged in to Municipal sewer line as per CPCB norms.
- (xii) 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. As proposed, 1 no. of rain water harvesting tanks of total capacity of 33 m³ shall be provided as per CGWB guidelines.
- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. Adequate space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per

Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxviii) 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.
- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from Municipal Corporation of Greater Mumbai (MCGM) Water Supply shall not exceed 11 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage

	<p>Treatment Systems, 2013.</p> <p>(viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.</p> <p>(ix) 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.</p> <p>(x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.</p> <p>(xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.</p> <p>(xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed 1588 sqm area shall be provided for green belt development.</p>
20.5.16	<p>Residential & Commercial Building “Ambika Estate” at village Borpada, Taluka: Bhiwandi, District: Thane, Maharashtra – Environmental Clearance (IA/MH/NCP/65549/2017; F. No. 21-236/2017)</p> <p>The project proponent made a presentation and provided the following information to the Committee:-</p> <p>(i) The project is located at 19°20'15.79"N, 19°20'7.16"N, 19°20'7.34"N, 19°19'54.71"N, 19°19'54.04"N, 19°19'58.10"N, 19°20'1.69"N, 19°20'5.16"N, 19°20'9.24"N, 19°20'12.86"N, 19°20'17.80"N Latitude and 73°3'20.20"E, 73°3'17.52"E, 73° 3'21.22"E, 73°3'27.50"E, 73°3'31.61"E, 73°3'40.09"E, 73°3'41.98"E, 73°3'36.96"E, 73°3'29.15"E, 73°3'36.77"E, 73°3'35.31"E, 73°3'28.79"E Longitude.</p> <p>(ii) The total plot area is 2,52,289.00 sqm FSI area is 4,06,901.53 sqm and total construction area of 7,38,798.72 sqm. The project will comprise of 11 no. of wings. Total Residential 7132 nos. and Shops 40 nos. offices shall be developed. Maximum height of the building is 54m.</p> <p>(iii) During construction phase, total water requirement is expected to be 30 KLD which will be met by Outsource through Tanker Water during the construction phase. Septic Tanks will be provided during construction. Temporary sanitary toilets will be provided during peak labor force.</p> <p>(iv) During operational phase, total water demand of the project is expected to be 5778 KLD (Fresh water 3587 cum, recycled water 2191 cum) KLD and the same will be met by the STEM. Wastewater generated (4295 KLD) will be treated in 8 nos. STPs of total 4798 KLD capacity. 2191 KLD of treated wastewater will be recycled (1711 KLD for flushing, 480 KLD for gardening). About 1761 KLD (Non Monsoon) & 2044 KLD (Monsoon) will be disposed in to municipal drain.</p>

- (v) About 16661 Kg/day solid waste will be generated in the project. The biodegradable waste (11620 Kg/day) will be processed in OWC and the non-biodegradable waste generated (5041 Kg/day) will be handed over to authorized local vendor.
- (vi) The total power requirement during construction phase is 100 KW and will be met from Torrent Power Company Ltd. and total power requirement during cooperation phase is Connected Load: 41277 KW, Maximum Demand: 18960 KW and will be met from Torrent Power Company Ltd..
- (vii) Rooftop rainwater of buildings will be collected and recharged in 208 nos. of pits.
- (viii) Parking facility for 6265 four wheelers and 11137 two wheelers is proposed to be provided and as per local norms respectively (according to local norms).
- (ix) Proposed energy saving measures would save about 23.6% of power in Phase I, 26.7% of power in Phase II and 29.4 % of power in Phase III.
- (x) Not within Eco Sensitive Zone. There is no court case pending against the project.
- (xi) Investment/Cost of the project is Rs. 1900 in crore.
- (xii) Employment potential: 100 Nos. shall be provided with temporary housing facilities Around 100 labors will come to site during peak construction phase.
- (xiii) Benefits of the project: The project site is situated in such areas of Village Borpada where very few social infrastructures are existed. Therefore, the project will be designed in such way that it will provided maximum physical and social benefit. Effective rainwater harvesting system and storm water drainage network will be planned based on geophysical exploration which will be also helpful to strengthen the water management in nearby areas. Adequate road connectivity and maintenance will be provided for easy.

The EAC deliberated on the information given by the project proponent and recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.

- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.
- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.
- (xi) Sewage shall be treated in the STP based on Moving Bed Biofilm Reactor (MBBR) Technology (with tertiary treatment i.e. Ultra Filtration). The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling. Excess treated effluent shall be discharged in to Municipal sewer line as per CPCB norms.
- (xii) 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. As proposed, 208 nos. of rain water harvesting pits shall be provided as per CGWB guidelines.
- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. Adequate space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of

the project.

- (xvi) 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.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxviii) 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.
 - Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.

- Traffic calming measures
- Proper design of entry and exit points.
- Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from STEM Water Supply shall not exceed 3587 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.
- (ix) 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.
- (x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.
- (xi) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heaters shall be used to meet hot water demand, as far as possible.
- (xii) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xiii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The

	<p>existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed 1159 sqm area shall be provided for green belt development.</p> <p>(xiv) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified 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 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.</p> <p>(xv) The company shall draw up and implement a corporate social Responsibility plan as per the Company's Act of 2013.</p>
20.5.17	<p>Installation of Material Ropeways 5 nos. for the construction of Deothal Chanju 30 MW in Chaurah Tehsil of District Chamba, Himachal Pradesh by M/s Himachal Pradesh Power Corporation Ltd. – Terms of Reference (ToR), (IA/HP/MIS/62371/2017, 10-24/2017-IA-III)</p> <p>The project proponent made a presentation and provided the following information to the Committee:-</p> <p>(i) The TOR for the whole project has already been approved by State Level EIA Authority and EIA /EMP reports have been finalized. The area for the installation of ropeways has already been covered under EIA Studies. The proposed ropeways will be used to carry the construction material only during the construction period The altitude/elevation of the proposed Material Ropeways to be installed is more than 1000 m from MSL, therefore, the case for the installation of Material Ropeways for the construction of said projects being submitted to MoEF&CC for preparation of separate EIA/EMP reports.</p> <p>(ii) The paths in the project area encountered most hostile terrain with steep gradient with deep and wide gorges and valleys much more inaccessible. The existing HPPWD road on the right bank of Nallah terminates in the downstream of the project and extension of which is not feasible due to dense forest and tough terrain. Also, due to dense forest on the left bank hills, the possibility of construction of and project road has been ruled out. Due to high altitude and difficult location, aerial/material ropeways systems are needed to be installed. The objective of HPPCL is to use the ropeways for transportation of construction materials from road head to the work sites on the left bank of the Nallah. Therefore, 05 no. material Ropeways across the Nallah and longitudinal Ropeways (Six Sections) connecting all the takeoff points of cross Ropeways from road head to the trench weir along the right bank of Nallah have been proposed.</p> <p>(iii) Total area of land for the proposal is 5.38 ha. The area already considered in Forest Clearance Case vides Proposal No. FP/HP/HYD/23829/2017 Dated 06.02.2017.</p> <p>(iv) Water required during peak stage of the construction for 50-60 workforce is about 60 KLD</p> <p>(v) The existing HPPWD road on the right bank of Nallah terminates in the downstream of the project and extension of which is not feasible due to dense forest and tough terrain. Also, due to dense forest on the left bank hills, the possibility of construction of and project road has been ruled out. Due to high altitude and difficult location, aerial/material ropeways systems are needed to be installed. The objective of HPPCL is to use the ropeways for transportation of construction materials from road head to the work sites on the left bank of</p>

the Nallah.

- (vi) The altitude/elevation of the proposed Material Ropeways to be installed is more than 1000 m from MSL, therefore, the case for the installation of Material Ropeways for the construction of said projects is being submitted to MoEF&CC for making separate EIA/EMP reports. However; the EIA/EMP reports for whole of the project has been prepared by WAPCOS and further submitted to HP State Pollution Control Board for conducting Public Hearing.
- (vii) Total 2124 no. trees including 1134 no saplings are coming in the construction of Deothal Chanju 30 MW HEP.
- (viii) Cost of the project is Rs.62.89 crores.
- (ix) Proposed Material Ropeways would help in saving many trees which would be felled in case of road construction. As the area is hilly and the construction of the road is not feasible, there is an last option to provide ropeways. This would have positive impact on Environment.

After detailed deliberations on the proposal, the Committee *recommended for grant of Terms of Reference as specified by the Ministry as Standard ToR in April, 2015 for the said project/activity* and the following TOR in addition to *Standard ToR* for preparation of EIA-EMP report:

- (i) Importance and benefits of the project.
- (ii) A toposheet of the study area of radius of 10km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet. (including all eco-sensitive areas and environmentally sensitive places).
- (iii) Stage – I forest clearance to be submitted.
- (iv) Status of application for NBWL clearance if required for the project.
- (v) Toposheet map of 10 km distance indicating eco-sensitive areas dully authenticated by the Wildlife warden.
- (vi) Route map of proposed ropeway project.
- (vii) Layout maps of proposed project indicating location of upper station and lower station, building, food court, parking, greenbelt area, utilities etc.
- (viii) Numbers of persons/projections of tourist.
- (ix) Cost of project and time of completion.
- (x) A note on appropriate process and materials to be used to encourage reduction in carbon foot print. Optimize use of energy systems in buildings that should maintain a specified indoor environment conducive to the functional requirements of the building by following mandatory compliance measures (for all applicable buildings) as recommended in the Energy conservation building code (ECBC) 2007 of the Bureau of Energy Efficiency, Government of India. The energy system include air conditioning systems, indoor lighting systems, water heaters, air heaters and air circulation devices. Use
- (xi) Details of air emission, effluents, solid waste and hazardous waste generation and their management.
- (xii) Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract)
- (xiii) The E.I.A. should specifically address to vehicular traffic management and parking facilities.
- (xiv) Examine the ground water / water body contamination from septic tank/Soak pit.

- (xv) The impact of odors from the bio-toilets and its management.
- (xvi) The increment in foot falls as a result of implementation of the project along with a justification on the adequacy of the existing and proposed infrastructure including toilets.
- (xvii) An assessment of the impact of all activities being carried out or proposed to be carried out by the project shall be made for traffic densities and parking capabilities in a 2 kms. radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organization of repute and specializing in Transport Planning shall be submitted with the EIA.
- (xviii) At LTP, one monitoring station should be set up in North and South direction of the project. The meteorological data should be compared with IMD.
- (xix) An onsite disaster management plan shall be drawn up to account for risks and accidents. This onsite plan shall be dovetailed with the onsite management plan for the district.
- (xx) Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
- (xxi) Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included.
- (xxii) Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.
- (xxiii) A tabular chart with index for point wise compliance of above TOR.

It was recommended that 'TOR' along with Public Hearing prescribed by the Expert Appraisal Committee (Infrastructure- 2) should be considered for preparation of EIA/ EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. The draft EIA/EMP report shall be submitted to the State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.

20.5.18	<p>Installation of Material Ropeways 6 nos for the construction of Chanju-III 48MW HEP in Chaurah Tehsil of District Chamba, Himachal Pradesh by M/s Himachal Pradesh Power Corporation Limited –Terms of Reference (ToR), (10-25/2017-IA-III, IA/HP/MIS/62364/2017)</p> <p>The project proponent made a presentation and provided the following information to the Committee:-</p> <ul style="list-style-type: none"> (i) Himachal Pradesh Power Corporation Limited (HPPCL), a State Government Undertaking has been entrusted with the construction of Chanju-III (48MW) HEP in Chaurah Tehsil of District Chamba. (ii) Terms of Reference (TOR) for the construction of the said projects has already been approved and obtained from State Level EIA Authority vide MOM No. SEIAA/17th Meeting/2013-2855 dated 28.11.2016 which has been again extended up to Nov. 27th, 2017. The Techno economic Clearance of the said projects has also been accorded by Himachal Pradesh Govt. vide letter No DoE/CE/TEC- Chanju-III/2015-3443-51 dated 14.07.2015. (iii) The Chanju-III HEP (48 MW) envisaged as a run-of-river scheme on Chanju nallah, a tributary of Baira River which in turn drains into the river Ravi, in Chamba Distt. of H.P. The project is located in Chamba-Nakror-Kathwar-Dantoi road. For diversion of Chanju Nallah flows, a drop type trench weir is proposed at EL\pm 2100m to draw a design discharge of 10.32 cumecs. For diversion of Mahed nallah flows, a drop type trench weir is proposed at EL\pm 2100m to draw a design discharge of 3.15 cumecs. The water conductor system comprises
---------	--

an underground Desilting Basin to exclude all silt particles down to 0.20 mm size, a 4900 m long 2.7m concrete lined D-shaped head race tunnel will carry design discharge of 10.32 cumecs at 2.60 m/sec., a underground forebay will be provided by enlarging the section of the tunnel at its end. Also from Mahed Nallah water shall be diverted through HRT 993 m long to the main HRT, just upstream of the Forebay. A 660 m long main pressure shaft trifurcating near the power house to feed three generating units of 16 MW each. An underground power house located on the left bank of Chanju nallah at an EL \pm 1616.00 m will have an installed capacity of 48MW.

- (iv) This project has been contemplated as run-of river development of Chanju Nallah. The proposal has been made in such a way to minimize the use of land. Before taking up the execution work of Chanju-III HEP (48 MW) by Himachal Pradesh Power Corporation Ltd. the forest/govt. land involving the area of 25.98 Hectare and private land involving the area of 1.42 Hectare respectively is likely to be acquired. Two Panchayats named as Chanju and Dehra are involving in this proposed project.
- (v) The proposed Hydro Electric Project is a run of river scheme on Chanju nallah, a left bank tributary of Baira Nallah which in turn is a left bank tributary of Siul river in Ravi basin. The project proposal envisages utilization of the combined waters of Chanju nallah and Mahed nallah for power generation. The paths in project area encountered most hostile terrain with steep gradient with deep and wide gorges and valleys much more inaccessible. The HPPWD road exists on the right bank of Chanju Nallah only. But due to dense forest on the left bank hills, the possibility of construction of any project road has been ruled out. Due to high altitude and difficult location aerial/material ropeway systems are needed to be installed.
- (vi) The objective of HPPCL is to use the ropeways for transportation of construction materials from road side to the work sites on the left bank of the Nallah. Therefore, for the construction of Chanju-III (48MW) HEP, 6 no. of material ropeways across the Nallah are proposed to be installed. The altitude/elevation of the proposed Material Ropeways to be installed is more than 1000 m from MSL, therefore, the case for the installation of Material Ropeways for the construction of said projects is being submitted to MoEF&CC,Gol for making separate EIA/EMP reports. However; the EIA/EMP reports for whole of the project has been prepared by WAPCOS and further submitted to HP State Pollution Control Board for conducting Public Hearing.
- (vii) Cost of the project is Rs. 23.40 Crore.
- (viii) Proposed Material Ropeways would help in saving many trees which would be felled in case of road construction. As the area is hilly and the construction of the road is not feasible, there is a last option to provide ropeways. This would have positive impact on Environment.

After detailed deliberations on the proposal, the Committee *recommended for grant of Terms of Reference as specified by the Ministry as Standard ToR in April, 2015 for the said project/activity* and the following TOR in addition to *Standard ToR* for preparation of EIA-EMP report:

- (i) Importance and benefits of the project.
- (ii) A toposheet of the study area of radius of 10km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet. (including all eco-sensitive areas and environmentally sensitive places).
- (iii) Stage – I forest clearance to be submitted.
- (iv) Status of application for NBWL clearance if required for the project.
- (v) Toposheet map of 10 km distance indicating eco-sensitive areas dully authenticated by the Wildlife warden.
- (vi) Route map of proposed ropeway project.
- (vii) Layout maps of proposed project indicating location of upper station and lower station,

- building, food court, parking, greenbelt area, utilities etc.
- (viii) Numbers of persons/projections of tourist.
 - (ix) Cost of project and time of completion.
 - (x) A note on appropriate process and materials to be used to encourage reduction in carbon foot print. Optimize use of energy systems in buildings that should maintain a specified indoor environment conducive to the functional requirements of the building by following mandatory compliance measures (for all applicable buildings) as recommended in the Energy conservation building code (ECBC) 2007 of the Bureau of Energy Efficiency, Government of India. The energy system includes air conditioning systems, indoor lighting systems, water heaters, air heaters and air circulation devices. Use
 - (xi) Details of air emission, effluents, solid waste and hazardous waste generation and their management.
 - (xii) Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract)
 - (xiii) The E.I.A. should specifically address to vehicular traffic management and parking facilities.
 - (xiv) Examine the ground water / water body contamination from septic tank/Soak pit.
 - (xv) The impact of odors from the bio-toilets and its management.
 - (xvi) The increment in foot falls as a result of implementation of the project along with a justification on the adequacy of the existing and proposed infrastructure including toilets.
 - (xvii) An assessment of the impact of all activities being carried out or proposed to be carried out by the project shall be made for traffic densities and parking capabilities in a 2 kms. radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organization of repute and specializing in Transport Planning shall be submitted with the EIA.
 - (xviii) At LTP, one monitoring station should be set up in North and South direction of the project. The meteorological data should be compared with IMD.
 - (xix) An onsite disaster management plan shall be drawn up to account for risks and accidents. This onsite plan shall be dovetailed with the onsite management plan for the district.
 - (xx) Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
 - (xxi) Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included.
 - (xxii) Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.
 - (xxiii) A tabular chart with index for point wise compliance of above TOR.

It was recommended that 'TOR' along with Public Hearing prescribed by the Expert Appraisal Committee (Infrastructure- 2) should be considered for preparation of EIA/ EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. The draft EIA/EMP report shall be submitted to the State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.

20.5.19 Two way Passenger Ropeway from Shunarang at village Ralli to Badodhar at village Mebar constructed by Maheshwar Gram Vikas Committee, Gram Panchayat Mebar, Kinnaur District

of Himachal Pradesh by M/s. Maheshwar Gram Vikas Committee Mebar - Environmental Clearance (IA/MIS/HP/23612/2014; F. No. 10-24/2014-IA.III)

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The proposed project will be developed between village Ralli to Mebar for the well-being of Villagers of Gram Panchayat Mebar which have been facing hardship from past many years due to non-existence of road from village Ralli to village Mebar. The Gram Panchayat Mebar had requested the H.P.P.W.D, Govt. HP for the construction of said road. After conducting the survey, the H.P.P.W.D. refused to construct the road to village Mebar due to large number of trees standing in the proposed road. The Gram Panchayat Mebar then decided to construct two-way Passenger Ropeway, so that the inhabitants of the both villages having house and land holding at both places; including the deity temple doesn't have to face hardship. Himachal Pradesh Power Corporation will provide financial help under their CSR activity.
- (ii) The proposed ropeway will be constructed at Shunarang at Ralli village to Badodhar at Mebar village, Dist. Kinnaur (H.P.).The alignment will be 1339 metres in length with an elevation difference of 480 metres, covering an area of 7133sq m (including Terminal Stations & ropeway corridor).
- (iii) The elevation of LTP is 2306 m & UTP is 2786 m above MSL. The alignment falls within a Forest land for development of terminal stations & line towers. About 0.7331 area of forest land will be required. The NOC has been obtained for the same. There will be no removal of the trees.
- (iv) The project being an Aerial Ropeway falls under the item 7 (g) of the EIA notification, 2006 and is a designated Project as per Schedule and falls under category A, as the altitude of site is above 1000 m. There is no eco-sensitive zone is 10 km radius of the project.
- (v) The ropeway alignment passes through large valley where distance between cabin and ground below is more than the permissible limit allowed in mono cable ropeway. Therefore, Bicable ropeway is felt necessary. Based on this, it is recommended the use of Big Cable Zig back system.
- (vi) The important characteristic of the Bi- Cable Ropeway system is the use of two static track ropes (or carrying rope), on which two cabins are running To&Fro. The cabins are suspended from one carriage by means of a hanger, and are attached to the moving hauling rope. The hauling rope's drive and return sheaves are in horizontal plane between track ropes. Hauling rope is attached to the cabin hanger. One carriage has 4 rollers (4 Nos wheel's support on track rope) and one-track rope brake. These brakes are operating automatically if hauling rope falls or, if required, can be operated by cabin person in emergency.
- (vii) Proper arrangement of water supply and sewage disposal will be made at site. DG set of 1 x 25 KVA will be proposed at LTP and 1 x 5 KVA at UTP for backup power supply. These D.G. Sets will be provided with proper stack height as per the CPCB norms &will be bought acoustically enclosed.
- (viii) The total water requirement has been estimated as 6 KLD as per detailed below and the source will be I&PH department. Water shall be used mainly for flushing, drinking, hand washing & horticulture purposes. Total quantity of waste water generation has been estimated to be 4 KLD. The waste water generated will be discharged to septic tank followed by soak pit.
- (ix) Total 23 Kg/day of waste will be generated due to the proposed development. The Organic

Waste will be treated through Vermicomposting and converted into compost & the Recyclable Waste Collected and given to approved recycler

- (x) There will be no displacement or immigration of the human population due to the proposed project. Risk assessment shall be done and proper safety and security measures shall be undertaken. Proper prevention and timely maintenance of ropes, machines etc will be scheduled to prevent any accident. Maintenance team will be trained to handle any type of contingency in time of emergency. All safety guidelines shall be adhered to and followed during construction and operation phases. First aid facilities will be provided at site.
- (xi) Total cost of the ropeway project is Rs.317.74 lakhs.
- (xii) Maximum of 55-60 numbers of laborers will be deployed during peak construction phase. Ropeway will have carrying capacity of 40 persons per hour. Operation of 9 hrs of ropeway is envisaged. Population of 150 persons/day will use the ropeway. Staff for operation & maintenance to be deployed at project will be about 4 persons.

After detailed deliberations, the Committee recommended the project for environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- (i) The project should conform to the norms prescribed by the Director General Mine safety. Necessary clearances in this regard shall be obtained.
- (ii) The project proponents would consider taking up the beautification and rejuvenation of nearby ponds as part of their CSR responsibilities, in consultation with the local administration.
- (iii) Energy conservation measures as suggested in the "Green Rating for Integrated Habitat Assessment", GRIHA, shall be followed while constructing associated buildings.
- (iv) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Diesel generating sets shall be installed, in the downwind directions.
- (v) Solar energy shall be used in the project i.e. at upper terminal and lower terminal to reduce the carbon footprint.
- (vi) Adequate infrastructure, including power, shall be provided for emergency situations and disaster management.
- (vii) Total fresh water requirement from I&PH will be 6 KLD. No ground water shall be extracted.
- (viii) As proposed, wastewater shall be discharged into authorized municipal sewerage system. In any case, no wastewater shall be discharged in open.
- (ix) Adequate parking shall be constructed at upper terminal and lower terminal. PP shall ensure smooth traffic management and minimum waiting time.
- (x) Separate dedicated baggage trolleys shall be provided and passenger trolleys should not be allowed to carry heavy baggage (beyond hand baggage as defined for air travel).
- (xi) Storm water from the project area shall be passed through setting chamber.
- (xii) Adequate first aid facility shall be provided during construction and operation phase of the project.
- (xiii) Regular safety inspection shall be carried out of the ropeway project and a copy of safety inspection report should be submitted to the Regional Office, Dehradun.
- (xiv) An onsite disaster management plan shall be drawn up to account for risks and accidents. This onsite plan shall be dovetailed with the onsite management plan for the district.

20.5.20 Expansion of “Blue Ridge” Integrated Township Project, at Village – Hinjawadi, Taluka: Mulshi, District: Pune by M/s. Flagship Infrastructure (P) Ltd. - Environmental Clearance (IA/MH/MIS/64858/2014; F.No. 21-190/2017-IA-III)

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The project is located at 18°34'41.30"N Latitude and 73°44'37.67"E Longitude
- (ii) The project is Expansion of Integrated Township and Commercial IT Project at CTS No., 120, 121, 122, 123, 124, 125, 154, 154/1/1(p), 154/1/2(p), 154/2(p), 154/7(p), 154/8(p), 154/9, 154/10, 154/11, 155, 156/1, 156/2, 156/3, 157/3(p), 160/5(p), 160/6(p), 161/1, 161/2, 162, 163/1A, 163/1B, 163/1C, 163/2, 164/1, 164/2, 165/1(p), 165/2, 166/1, 166/2, 167, 168/1, 168/2, 168/3, 168/4, 168/5, 168/6/1, 168/6/2, 168/7, 168/8, 168/9, 168/10, 168/11, 168/12, 168/13, 169/1(p), 169/2, 169/3, 119, 170/1, 170/2, 171, 171/1, 171/2, 172/2A & 173 and after amalgamation and subsequent sub-division renumbered as survey No. 119(part) to 125 + 154 (part) to 160 + 160/2 to 171 + 173, plot no 1 and 106, 111/1, 112/4, 113/1, 114, 131/2/1, 131/2/2 situated at Village: Hinjawadi, Tal: Mulshi, Dist: Pune, Maharashtra.
- (iii) Earlier Clearance details, Constructions status, if any: Received Environment Clearance From MoEF Reference No. 21-382/2007-IA-III Dated 3rd October 2007. Received extension for EC from Environment Dept. GoM on 4th December 2014.
- (iv) The construction work is in progress as per the EC received. The total constructed area till today is 5,60,356.85 m².
- (v) The plot area is 5,94,675m². FSI area is 7,26,631.66m² and total construction area is 14,02,149.29m². The proposed development will have 36 Residential buildings with 47 shops and 10 numbers of stores, 9 SEZ IT buildings, 1 Educational building, 1 Multipurpose Hall, 1 Office Building, 1 Polyclinic and 1 Vegetable Market, 1 Mall Multiplex, 6 Club House, 1 Recreational Hall, 4 number of Utility. Maximum height of the building is 106.55m.
- (vi) During construction phase, total water requirement is expected to be 100KLD which will be met by tanker water / treated water from STP. During the construction phase, soak pits and septic tanks will be provided for disposal of waste water. Temporary sanitary toilets will be provided.
- (vii) During operational phase, total water demand of the project is expected to be 6058 KLD and same will be met by fresh water from Mula River through Irrigation Department. Wastewater generated (5328 KLD) will be treated in STP of 5550KLD capacity. 2313 KLD of treated water will be recycled for flushing, about 1514 KLD for gardening and 1095 KLD for HVAC Make up.
- (viii) About 15103 kg/d solid waste will be generated in the project. The biodegradable waste (7551.5 kg/d) will be processed in mechanical composting and the non-biodegradable waste 6041.2 kg/d will be handed over to recyclers. The inert material (1510.3 kg/d) will be sent to Landfill Site.
- (ix) The total power requirement during construction phase is 100 kVA and will be met from MSEDCL and Total power requirement during operation phase is 32.8 MW (demand Load) and will be met from MSEDCL.
- (x) The groundwater will be recharged through 40 recharge pits.
- (xi) Parking facility for 11579 Nos. four wheelers, 14112 Nos. of Cycles and 13714 Nos. Motor Cycles are proposed to be provided against the requirement of 9641 Nos. four wheelers, 10375 Nos. of Cycles and 10220 Nos. two wheelers respectively (as per local norms).

- (xii) Energy saving of total 5.34% as compared to ECBC 2007 base case will be achieved.
- (xiii) Site is not located within 10 km of any National Park (Eco Sensitive Zone)
- (xiv) There is no court case pending against the project.
- (xv) Investment/Cost of the project is Rs.2644 Crore.
- (xvi) Employment potential: During Construction: Workers: 200 Nos., During Operation: IT Employment – 17,258 Employees; Township Staff - 100 Nos.
- (xvii) Benefits of the project: This Project is basically self-sustaining in nature. The project includes Residential, Commercial, School, SEZ IT etc. different components which forms an integrated township in the area. Integrated townships are mini cities, on the outskirts of big cities and offer essential facilities like housing, education, work place, shopping, healthcare etc in a relatively small area. Integrated townships provide an added advantage of development. As compared to standalone buildings apartments in integrated townships offer better return on investments. Also The project will generate employment (Labour employment of household activity) during operational phase which will benefit the local population in getting work opportunities. It will create long term employment in activities such as maintenance of the buildings and ancillary services.

The EAC deliberated on the certified compliance report letter No. 16-181/2007 (ENV) dated 26.07.2017 issued by the MoEF&CC's Regional Office (WCZ), Nagpur and reply given by the project proponent to non-compliance of EC conditions. The Committee deliberated on point wise submission of project proponent on earlier observations made. The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
- (iv) 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 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.

- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.
- (vii) 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, 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.
- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) 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.
- (xi) Sewage shall be treated in the STP based on Moving Bed Biofilm Reactor (MBBR) Technology (with tertiary treatment i.e. Ultra Filtration). The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling. Excess treated effluent shall be discharged for HVAC make up. as per CPCB norms.
- (xii) 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. As proposed, 40 nos. of rain water harvesting pits shall be provided as per CGWB guidelines.
- (xiii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. 3234 m² shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) 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.

- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvi) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms. radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxviii) 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.
 - Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from Mula River through Irrigation Department Water Supply shall not exceed 3736 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.
- (ix) 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.
- (x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.
- (xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed adequate area shall be provided for green belt development.
- (xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified 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 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.

- (xiv) The company shall draw up and implement a corporate social Responsibility plan as per the Company's Act of 2013.

20.5.21 Development of an Exhibition-cum-Convention Centre (ECC) at Dwarka, New Delhi by Delhi Mumbai Industrial Corridor Development Corporation Ltd. - Environmental Clearance (IA/DL/NCP/66197/2017; F. No. 21-102/2017-IA-III)

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The total plot area is 89.72sqm and total built up area is 10, 20,000 sq. m. Additionally, the total basement area (basement I, II, III & IV) is 10,30,998 Sq.m
- (ii) Floor Area Ratio of the proposed project is 113.86
- (iii) The project will comprise of 13 Buildings blocks (As per AAI approval)
- (iv) The project will comprise exhibition centre will start along with construction of 1300 rooms of five star hotels, 800 rooms of four star hotels, 1000 rooms of three star hotel and 500 service apartments. Simultaneously, there will be development of 2, 15,000 sqm of office spaces and 1, 70,000 sqm of retail spaces. Approx. 2, 00,000 sqm of exhibition space and 60,000 sqm of convention centre will also be constructed as a part of ECC.
- (v) Height may change for several building blocks while detailed design is carried. Maximum height of the building is 45 m.
- (vi) During construction phase, total water requirement is expected to be 247.5KLD which will be met by Delhi Jal Board (DJB) through water tankers. During the construction phase, soak pits and septic tanks will be provided for disposal of waste water. Temporary sanitary toilets will be provided during peak labor force.
- (vii) During operational phase, total water demand of the project is expected to be 16 MLD and the same will be met by the 8.5 MLD Recycled Water and rest by DJB Supply. Wastewater generated (9.0 MLD) uses will be treated in two (2) STPs of total capacities of 4.3 MLD and 6.5 MLD respectively. 8.5 MLD of treated wastewater will be recycled (3.8MLD for flushing, 3.2 MLD for cooling Tower make up, 1.0 MLD for gardening and 0.5 MLD additional water available). There will be no discharge into municipal drain.
- (viii) About 75-80 TPD solid waste will be generated in the project during peak season. The biodegradable waste(41 -44 TPD) will be processed in OWC or other organic waste treatment facilities and the non-biodegradable waste generated (33-36TPD) will be handed over to authorized local vendor.
- (ix) During construction phase of the project, no construction labour camps will be set up hence; power requirement will only be limited to operation of construction equipment and machinery. The power will be sourced from nearest grid substation. Diesel Generator sets of capacity / number approximately 250 KVA x 6 Nos, 125KVAX9 Nos, and 65 KVA x 12 numbers will be used for power back-up.
- (x) Total power requirement during operation phase is 100 MW and will be met from Delhi Transco substation.
- (xi) Rooftop rainwater of buildings will be collected in 20 Nos RWH tanks of total 9000 KLD capacity for harvesting after filtration.
- (xii) Parking facility for 26125 four wheelers (26125 equivalent ECS) and 3500 two wheelers (875

equivalent ECS) is proposed to be provided against the requirement of 27000 ECS (according to the norms).

- (xiii) Proposed energy saving measures would save about 25% to 30% of power consumption.
- (xiv) It is located within 10 km of Rajokri Protected Forest (8.5km, SE).
- (xv) There is no court case pending against the project.
- (xvi) Investment/Cost of the project is INR 25,367 crores.
- (xvii) Direct Employment potential during operation phase is 53, 704.
- (xviii) Benefits of the project: The project is envisaged to generate double employment, triple industrial output and quadruple exports; Increase in the tourism market in the region. ECC will become the centre place for sponsoring and conducting international and national meetings;

The EAC deliberated on the information given by the project proponent and recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (ii) 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, on wetland and water bodies. Check dams, bio-swales, 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.
- (iii) Construction site shall be adequately barricaded before the construction begins. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
- (iv) 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 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.
- (v) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) 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.

- (vii) 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, 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.
- (viii) Follow super ECBC requirement of ECBC 2017 and provider compliance report. Acoustic planning to be provided as it is in air funnel of landing/takeoff of IGI Airport.
- (ix) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (x) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (xi) 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.
- (xii) Sewage shall be treated in the STP with tertiary treatment i.e. Ultra Filtration. The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling. There will be no discharge into municipal drain.
- (xiii) 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. As proposed, 20 nos. of rain water harvesting pits of total capacity of 450 m³ shall be provided as per CGWB guidelines.
- (xiv) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. Adequate space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site. As proposed Pneumatic Waste Collection System shall be provided for solid waste management.
- (xv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xvi) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvii) 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.
- (xviii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xix) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.

- (xx) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xxi) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxii) Approval of the CGWA require before any dewatering for basements.
- (xxiii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
- (xxiv) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxvi) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvii) 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 Fly Ash 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 provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxviii) An assessment of the cumulative impact of all activities being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 kms. radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxix) 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.
 - Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.

- (iii) Fresh water requirement from DJB Supply Water Supply shall not exceed 7.5 MLD.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) 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 Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (viii) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed.
- (ix) 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.
- (x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. 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.
- (xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. 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. As proposed 42.5% area shall be provided for green belt development.
- (xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified 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 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.
- (xiv) The company shall draw up and implement a corporate social Responsibility plan as per the Company's Act of 2013.

--	--

LIST OF PARTICIPANTS OF EAC (INFRASTRUCTURE-2) IN 20th MEETING OF EAC (INFRASTRUCTURE-2) HELD ON 26th – 28th July, 2017

S. No.	Name	Designation	Attendance			Signature
			P	P	P	
1.	Prof. T. Haque,	Chairman	P	P	P	
2.	Shri K. Gowarappan	Member	A	P	P	
3.	Dr. Yashpal Singh	Member	A	A	A	
4.	Dr. S.K. Bhargava	Member	P	P	P	
5.	Dr. Ayi Vaman N. Acharya	Member	P	P	A	
6.	Dr. Chandrahas Deshpande	Member	A	A	A	
7.	Shri A. P. Singh	Member	P	A	A	
8.	Ms. Mili Majumdar	Member	A	P	P	
9.	Prof. Dr. Sanjay Gupta	Member	A	A	A	
10.	Shri Kushal Vashist	Director & Member Secretary	P	P	P	