

STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY

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No. 2237 /EN/ T-II-1/126/2008(Pt-1)

Date : 04 / 10 /2016

To

M/s. Kolkata West International City Pvt. Ltd.

“Vichitra”, Kolkata West International City, Salap Junction,

Howrah Amta Road and Bombay Road Crossing, NH6

Howrah – 711 403

SUB. : Environmental Clearance for the Phase 2B of the proposed Township Project by M/s. Kolkata West International City Pvt. Ltd. at Mouza – Kona, Balitikuri, Bankra, Pakuria, Tentulkuli, Khalia & Salap, PO & PS – Domjur, Dist – Howrah, West Bengal.

Sir,

This has a reference to the application for environmental clearance for the Phase 2B of the proposed Township Project by M/s. Kolkata West International City Pvt. Ltd. at Mouza – Kona, Balitikuri, Bankra, Pakuria, Tentulkuli, Khalia & Salap, PO & PS – Domjur, Dist – Howrah, West Bengal.

The proposal has been examined and processed in accordance with the EIA Notification, 2006.

It is noted that the salient features of the project (Phase 2B) for which Environmental clearance has been considered are given below:

Land Area	30.325 acres (122719 sqm.)
Latitude & Longitude	22°37'13.64"N & 88°17'25.91"E
Expected Population	18820 persons
Building profile	5 nos. of G+19, 7 nos. G+20 & 9 no G+21 storied
Total Water requirement	2940 KLD
Fresh water requirement	1763 KLD (source-KMDA supply)
Wastewater generated	2010 KLD (to be treated in Phase 2B STP)
Treated waste water recycled	1178 KLD (to be used in toilet flushing, landscaping & car washing)
Treated waste water discharge	833 KLD (to be discharged to Howrah drainage canal)
Solid waste disposal	10.5 TPD (to be disposed off through onsite compost plant & HMC)
Total Built-up Area	327439.95 sqm.
Ground Coverage	5.52 acres (22343.83 sqm.), (18.02% of land area)
Roads & Paved areas	7.54 acres (30530 sq.m) (24.88% of land area)
Exclusive tree plantation area	6.267 acres (25362 sq.m) (20.67% of land area)



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recycling and disposal method to be followed.
 and construction activity. The plans should identify wastes to be generated and designate handling.
 ii. Prior permission should be obtained from the competent authority for demolition of the existing structure, if any. Waste recycling plans should be developed for prior to beginning of demolition.
 sediment control measures to be adopted before ensuring construction activities.
 i. All the topsoil excavated during construction activities should be under cover/stored by retaining walls for use in horticulture / landscape development within the project site. Adequate erosion and

Steps to avoid disturbance during construction:-

- v. Rest and convenience shelter for workers with creche facility, if required, particularly for women, must be provided with proper toilet facilities.
- iv. Health and safety of the workers should be ensured during construction. Personnel protective equipment like shoes, helmets, earmuffs, earplugs etc. should be provided to the workers. For vibration control damped tools must be used and the number of hours that a worker uses them must be limited. The Management must ensure that the workers put them while doing work that needs such protection, if any.
- iii. The scaffolds, stairs and platforms for construction works and the workers must be secured as far as possible to prevent any accident.
- ii. Proper sanitation facilities should be provided for construction workers to ensure environmental sanitation. Sewage generated from the areas occupied by the construction labourers have to be directed into the existing sewage drain of the area. In case of non availability of the sewer system, an onsite treatment system has to be provided.
- i. Provision of drinking water, wastewater disposal and solid waste management should be ensured for labour camps. Water usage during construction should be optimized to avoid any wastage.

Facility of labourers during construction:-

I. Construction Phase

Part A – SPECIFIC CONDITIONS

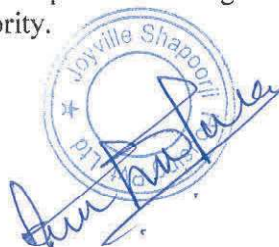
State Level Environment Impact Assessment Authority (SEIAA), examined the proposal and also perused recommendations of the State Level Expert Appraisal Committee (SEAC). After due consideration of the project proposal, and the recommendations of the State Level Expert Appraisal Committee (SEAC), the State Level Environment Impact Assessment Authority accords Environmental Clearance to the project as per provisions of the EIA notification no. S.O. 1533 (E) dt. 14th September, 2006 of Ministry of Environment, Forests & Climate Change, GOI, subject to strict compliance of terms and conditions as mentioned below :-

Other Green area	9.96 acres (40301 sq.m) (35.22% of land area)
Waterbody	0.367 acres (1484 sq.m) (1.21% of land area)
No. of plantation proposed	1776 nos.
No. of Car Parking spaces proposed	3361 nos.(covered-1000 nos, open-2361 nos.)
Power requirement	13 MVA (at least 1% of total power requirement shall be met from solar power)
Use of solar power	At least 100 KW of solar power to be generated and utilized in addition to stand alone solar street lights inside Phase 2B
Backup Power	DG Sets (1x1010KVA, 2x750 KVA)

- iii. Disposal of muck including excavated material during construction phase should not create any adverse effects on the neighbouring communities and disposed off taking the necessary precautions for general safety and health aspects.
- iv. Diesel generator sets during construction phase should have acoustic enclosures and should conform to E(P) Rules prescribed for air and noise emission standards.
- v. Vehicles / equipment deployed during construction phase should be in good condition and should conform to applicable air and noise emission standards and should be operated only during non-peak hours.
- vi. Ambient noise levels should conform to residential standards both during day and night. Fortnightly monitoring of ambient air quality (SPM, SO₂ and NO_x) and equivalent noise levels should be ensured during construction phase.
- vii. Construction spoils including bituminous material and other hazardous materials including oil from construction equipments must not be allowed to contaminate watercourses and the dumpsites for such material must be secured so that they should not leach into the ground water. If necessary, oil trap should be installed where there is deployment of heavy machineries.
- viii. Regular supervision of the above and other measures should be in place all through the construction phase so as to avoid disturbance to the surroundings. Discomfort in the neighbourhood due to the proposed project activity should be minimized as far as practicable.
- ix. Loading and unloading operations should not be carried out in open areas and should be preferably done during day time, if there is any major settlement in the surrounding areas. The construction activities including Piling work, Operation of Ready Mix Plant and Vibrator etc. should not be carried out during the night time (10 P.M. to 6 A.M.). Only essential operations, if any, may be carried out for a limited period during nighttime.
- x. The proponent must ensure that no driven piles shall be proposed for this project, if there is any major settlement in the surrounding areas.
- xi. 15m-screen and adequate sprinkler arrangement shall be provided. Care should be taken to keep all material storages adequately covered and contained so that they are not exposed to winds.
- xii. Use of Ready-Mix concrete is recommended for this project.
- xiii. Adequate measures to be adopted to avoid wastage of water for curing of concrete structures.
- xiv. Adequate mitigative measures should be adopted to control dust emissions, noise and vibrations from construction activities. Vehicles and construction machineries should be properly maintained. Vehicles should conform to Pollution under control (PUC) norms.
- xv. Locally available materials with less transportation cost should be used preferably.
- xvi. Promotion of use of cleaner fuel and fuel quality improvement should be done. Excessive energy consumption and fuel usage should be avoided.
- xvii. Accumulation / stagnation of water should be avoided to ensure vector control.

Selection of materials for better energy efficiency:-

- i. Use of energy efficient construction materials should be ensured to achieve the desired thermal comfort.
- ii. Design layout should ensure adequate solar access and ventilation. Proper planning and window design for daylight integration should be considered.
- iii. Fly Ash is to be used for construction as per Notification No. S.O. 763(E) dated 14.09.1999 amended vide Notification No. S.O. 979(E) dated 27.8.2003 and S.O. 2804(E) dated 03.11.2009 of the Ministry of Environment & Forests, Govt. of India.
- iv. Construction should conform to the requirements of local seismic regulations. The project proponent should obtain permission for the plans and designs including structural design, standard and specifications from concerned authority.



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v. Construction technologies that require less material and possess high strength should be adopted. Materials with low embodied energy and high strength should be used preferably.

vi. The building will be constructed and provisioned to use natural sunlight to the maximum during the day time, during use.

vii. Use of alternate building materials and alternate construction techniques should be considered apart from the conventional materials and methods. Use of hollow unit masonry should be considered.

viii. Use of energy efficient lighting systems e.g. High Pressure Sodium Vapour (HPSV) Lamps, LED etc. should be promoted. Solar energy should be used for outdoor lighting. Adequate no. of solar lights should be installed for external lighting as per norms. All common area lighting will be LED system.

ix. Solar water heating arrangement will be done for water heating.

x. Passive solar cooling to be incorporated in building design. Buildings should be oriented for ensuring natural ventilation and daylighting.

xi. Proper insulation of roof should be provided to achieve desired thermal comfort. Use of light coloured, reflective roofs having an SRI (solar reflectance index) of 50% or more should be incorporated.

xii. Use of high albedo or reflective pavements to keep parking lots, pavements and inside roads cool should be incorporated.

xiii. Guidelines to the occupants should include usage efficiency measures such as energy efficient lighting and water efficient system.

xiv. Reduce hard paving-on-site (open area surrounding building premises) and/or provide shade on hard paved surfaces to minimize heat island effect and imperviousness of the site.

xv. Adequate open space, greenery and water bodies to be provided as per rules.

xvi. Any proposed building with air-conditioning facility should follow the norms proposed in the ECBC regulations framed by the Bureau of Energy Efficiency. Chillers should be CFC & HCFC free.

xvii. Restrict the use of glazed surface as per National Building Code 2005.

Water Body Conservation:-

i. Water body if any should not be lined and their embankments should not be cemented. The water body is to be kept in natural conditions without disturbing the ecological habitat.

Plantation Proposal:-

i. The unit should strictly abide by The West Bengal Trees (Protection and Conservation in Non-Forest Areas) Rules, 2007. The proponent should undertake plantation of trees over at least 20% of the total area.

ii. No tree can be felled without prior permission from the Tree Cutting Authority constituted as per the West Bengal Trees (Protection and Conservation in Non-Forest Areas) Act, 2006 and subsequent rules.

iii. The proponent should plant at least 1776 trees. Indicative list of species is given at Annexure - I. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping.

iv. Provision for Roof Top Gardening is mandatory.

Water supply:-

i. Water requirement during construction phase shall be met from KMDA supply. Ground water should not be abstracted without prior permission of the competent authority as per the West Bengal Ground Water Resources (Management, Control and Regulation) Act, 2005.



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Sewage Treatment Plant:-

- i. As per the proposal submitted by the proponent waste water shall be treated in septic tank to soak pit. Construction waste water to be collected in sedimentation trap with adequate retention time and to be reused.

Storm water Management & Mitigation of Heat Island Effect:-

- i. Imperviousness of the site shall not exceed the NBC (National Building Code 2005) standards for imperviousness factor applicable to different types of area.
- ii. Total paved area of site under parking, roads, paths or any other use should not exceed 25% of the site area.
- iii. Minimum 50% of paved area on site should have pervious paving or shaded under vegetation or topped with finish having solar reflectance of 0.5 or higher.
- iv. Adequate storm water drainage network to be designed for the project without disturbing the surrounding settlements. Storm water management plan should be implemented so as to prevent sudden discharge of excessive volumes of storm water to the receiving waters thus reducing the shock load on the drainage system and impact on receiving water body.
- v. Disruption to the natural hydrology of the site should be minimised by reducing impervious cover, increasing on site infiltration and managing storm water run off.
- vi. Heat island effect should be minimized by use of shading or reflective surfaces, mainly the surfaces that contribute to the heat island effect i.e. streets, sidewalks, parking lots and buildings. White roofs should be provided in the buildings.

Rain Water Harvesting Scheme:-

- i. The proponent must follow the Rainwater Harvesting Guidelines of the State Expert Appraisal Committee (SEAC) available in the website (<http://www.wbpcb.gov.in>).
- ii. The proponent must collect rainwater from roof-top catchments and reuse for various purposes after necessary cleaning. Adequate retention time and storage provisions should be provided for harvesting rainwater.
- iii. Adequate firefighting storage should be provided as per norms.

Municipal Solid Waste Management :-

- i. Adequate provision shall be made for storage and segregation of solid waste and adequate means of access shall be provided.

Transport Management: -

- i. Both internal and external traffic planning and management should be adequate to ensure uninterrupted traffic movement in the area during construction as well as operation phase.
- ii. The design of service road and the entry and exit from the project area should conform to the norms & standards of competent authority for traffic management. Bell mouth type arrangement should be made at the entry & exit. Proper traffic management plan should be adopted in consultation with Traffic authorities.
- iii. Clarified Wastewater will be used for sprinkling water on the unpaved internal roads on a regular basis.

Others:-

- i. All mandatory approvals and permission as required from Director of Explosives, Fire Department etc. should be obtained.
- ii. Provision of Effective Controls and Building Management Systems such as Automatic Fire Alarm and Fire Detection and Suppression System etc. must be ensured.
- iii. Efficient management of indoor air quality must be ensured for health and safety of the users.

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