

202

STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY

SEAC-2014/CR-92/TC-1
Environment department
Room No. 217, 2nd floor,
Mantralaya Annexe,
Mumbai- 400 032.
Dated: ~~11th~~ March, 2016

To,
M/s. Ariisto Developers.
Ariisto House, N.S. Phadke Road,
Near East- West Flyover, Andheri (E),
Mumbai- 400 069.

Subject: Environment Clearance for proposed "Ariisto Heaven" Nisarg Residential project located at Mulund, property bearing CTS. No. 19/1 to 19/13 & 3/B, 3B-1, 3/C, 3/D, 3/E & 3/F of Village Mulund, Near Veena Nagar, L.B.S. Marg, Mulund (West), Mumbai

Sir,

This has reference to your communication on the above mentioned subject. The proposal was considered as per the EIA Notification - 2006, by the State Level Expert Appraisal Committee-II, Maharashtra in its 40th meeting and recommend the project for prior environmental clearance to SEIAA. Information submitted by you has been considered by State Level Environment Impact Assessment Authority in its 95th meeting.

2. It is noted that the proposal is considered by SEAC-II under screening category 8(b) B1 as per EIA Notification 2006.

Brief Information of the project submitted by you is as-

Name of Project	"Ariisto Heaven", at Mulund, Mumbai.
Name of Proponent	Mr. Atithi Patel (Partner) M/s. Ariisto Developers
Consultant	Ultra-Tech Environmental Consultancy & Laboratory
Accreditation of consultant (NABET Accreditation)	Accorded Accreditation under the QCI-NABET scheme for Accreditation of EIA Consultant Organizations(Rev.09, August 2011) Certificate No: NABET/EIA/1417/RA010
Type of project: Housing project / Industrial Estate / SRA scheme / MHADA / Township or others	Mixed Use Development) [Amendment in Environment Clearance (EC)] Category 8 (B1)
Location of the project	Plot bearing CTS. No. 19/1 to 19/13 & 3/B, 3B-1, 3/C, 3/D, 3/E & 3/F of Village Mulund, Near Veena Nagar, L.B.S. Marg, Mulund (West), Mumbai, Maharashtra – 400080.
Whether in Corporation / Municipal / other area	Slum Rehabilitation Authority (SRA), and Municipal Corporation of Greater Mumbai (M.C.G.M.)
Applicability of the DCR	DCR Scheme Under Reg. 33(10), Scheme Under Reg. 33(14) (D), Scheme Under Reg. 32

Note on the initiated work (If applicable)	Total constructed work (FSI+ Non FSI): 52,803.81 Sq. m. Date and area details in the necessary approvals issued by the competent authority (attach scan copies): Received Environmental Clearance (EC) dt. 8 th June 2006	
LOI / NOC from MHADA/ Other approvals (If applicable)	Date and construction area details mentioned in the approved letter: Received Environmental Clearance (EC) dt. 8 th June 2006	
Total Plot Area (sq. m.)	1, 59,280 Sq. m.	
Deductions	33,313.40 Sq. m.	
Net Plot area	1,25,966.60 Sq. m.	
Permissible FSI (including TDR etc.)	2,68,239.80 Sq. m.	
Proposed Built-up Area (FSI & Non-FSI)	<ul style="list-style-type: none"> •FSI area (sq. m.):2, 00,383.71 Sq. m. •Non FSI area (sq. m.): 4, 32,606.95 Sq. m. •Total BUA area (sq. m.):6,32,990.66 Sq. m. 	
Ground-coverage Percentage (%) (Note: Percentage of plot not open to sky)	32,673.91 (26%)	
Estimated cost of the project	Rs. 1331.08 Cr	
No. of building & its configuration(s)	Details	Description
	Building 2	One Buildings with 4 Wings (wing A, B, C & D) Wings A, B & D: 1 Basement + Ground + 5 Podia + 1 E-deck level + 2 Fire check floors+ 3 Service cum refuge floors + 4 refuge floors + 41 floors + 2 Duplex floors Wing C: 1 Basement + Ground + 5 Podia + 1 E-deck level+ 2 Fire check floors + 3 Services floors + 5 Refuge floors + 45 Floors
	Building 2A	Polyclinic: Ground + 3 Floors
	Building 2B	Public utility: Ground +1Floor
	Building 3	One Buildings with 4 Wings (wing A, B, C & D) One Basement + Lower Ground + Upper Ground + Stilt + 5 Podia + E-deck level +Service floor + Fire check floor + 26 Floors
	Building 4	One Buildings with 2 Wings (wing A & B) One Basement + Ground + 9 Podia + 2 E-deck level + 2 Fire check floors + 1 Service floor + 1 Refuge cum service floor + 5 Refuge floors + 3 Triplex floors + 33 Floors
	Bungalow	One Building with Ground + 1 Floor
	Building 4B [Public Transit Camp (PTC)]	One Building with Ground + 24 floors
	Building 4C (Rehabilitation)	One Building Ground +23 floors
	Building 5	One Building with 2 Wings A & B Ground + 5 Podia + 12 Upper floors
Number of tenants and shops	Details	No. of Flats /No. of units
	Building 2	Flats: 828 nos. Shops
	Building 3	Flats: 600 nos.

	Shops	
	Building 4	Flats: 462 nos.
	Building 4B [Public Transit Camp (PTC)]	Flats: 358 nos. Balwadis, Welfare Centre and Society Office: 3 nos. each
	Building 4C (Rehabilitation)	Flats: 450 nos. Balwadis: 5 and Welfare Centre: 5 nos. each Society Office: 4 Nos.
	Building 5	Flats: 140 nos.
Number of expected residents / users	Buildings	Occupancy (Nos.)
	Building 2	4315
	Building 3	3047
	Building 4	2310
	Bungalow	5
	Building 4B [Public Transit Camp (PTC)]	1850
	Building 4C (Rehabilitation)	2345
	Building 5	700
	Total	14572
Tenant density per hector	227/hector	
Height of the building(s)	Buildings	Height in m. (Up to Terraces Level)
	Building 2	208.05
	Building 3	116.55
	Building 4	200.90
	Building 4B [Public Transit Camp (PTC)]	71.85
	Building 4C (Rehabilitation)	69.90
	Building 5	62.30
Right of way (Width of the road from the nearest fire station to the proposed building(s))	27.45 m wide Agarwal road	
Turning radius for easy access of fire tender movement from all around the building excluding the width for the plantation	9.0 -12.0mt.	
Existing structure(s)	<p>Construction started as per previous EC.</p> <p>Whereas the Building No. 1 situated on the plot of CTS No. 3/B, 3B-1, 3/C, 3/D, 3/E & 3/F having plinth CC before 7th July 2004 hence not under the purview of EIA notification and not considered in previous EC. The building is completed and occupied on site.</p>	
Details of the demolition with disposal (If applicable)	The debris shall be partly used for back filling on site and partly disposed to the authorized landfill site with permission of M.C.G.M.	
Total Water Requirement	<p>Dry season:</p> <ul style="list-style-type: none"> • Fresh water (CMD): 1311 For Domestic: From M.C.G.M.= 1299 For Swimming pool : From tanker water of potable quality=12 • Recycled water (CMD): 930 (STP Treated sewage) 	

	<p>Flushing = 655 Gardening = 275</p> <ul style="list-style-type: none"> • Total Water Requirement (CMD) : 2241 • Swimming pool make up (Cum): As mentioned above • Fire fighting (CMD): (One Time Requirement) <table border="1"> <tr><td>Building 2</td><td>850</td></tr> <tr><td>Building 2A & 2B</td><td>75</td></tr> <tr><td>Building 3</td><td>500</td></tr> <tr><td>Building 4</td><td>350</td></tr> <tr><td>Building 4B (PTC)</td><td>200</td></tr> <tr><td>Building 4C (Rehabilitation)</td><td>200</td></tr> <tr><td>Building 5</td><td>350</td></tr> </table> <p>Wet Season:</p> <ul style="list-style-type: none"> • Fresh water (CMD): 1311 For Domestic: From M.C.G.M.= 1133 + From RWH = 166 For Swimming pool : From tanker water of potable quality=12 • Recycled water (CMD): 655 (For Flushing: STP Treated sewage) • Total Water Requirement (CMD) : 1966 • Swimming pool make up (Cum): As mentioned above • Fire fighting (CMD):(One Time Requirement) <table border="1"> <tr><td>Building 2</td><td>850</td></tr> <tr><td>Building 2A & 2B</td><td>75</td></tr> <tr><td>Building 3</td><td>500</td></tr> <tr><td>Building 4</td><td>350</td></tr> <tr><td>Building 4B (PTC)</td><td>200</td></tr> <tr><td>Building 4C (Rehabilitation)</td><td>200</td></tr> <tr><td>Building 5</td><td>350</td></tr> </table>	Building 2	850	Building 2A & 2B	75	Building 3	500	Building 4	350	Building 4B (PTC)	200	Building 4C (Rehabilitation)	200	Building 5	350	Building 2	850	Building 2A & 2B	75	Building 3	500	Building 4	350	Building 4B (PTC)	200	Building 4C (Rehabilitation)	200	Building 5	350
Building 2	850																												
Building 2A & 2B	75																												
Building 3	500																												
Building 4	350																												
Building 4B (PTC)	200																												
Building 4C (Rehabilitation)	200																												
Building 5	350																												
Building 2	850																												
Building 2A & 2B	75																												
Building 3	500																												
Building 4	350																												
Building 4B (PTC)	200																												
Building 4C (Rehabilitation)	200																												
Building 5	350																												
Rain Water Harvesting (RWH)	<ul style="list-style-type: none"> •Level of the Ground water table: 0.5 m. to 5 m. •Size and no. of RWH tank(s) and Quantity: <table border="1"> <thead> <tr> <th>Buildings</th> <th>Details</th> </tr> </thead> <tbody> <tr><td>Building 2</td><td>4 tanks of total capacity 330 KL</td></tr> <tr><td>Building 3</td><td>4 tanks of total capacity 240 KL</td></tr> <tr><td>Building 4</td><td>2 tanks of total capacity 180 KL</td></tr> <tr><td>Building 4B (PTC)</td><td>1 tank of capacity 45 KL</td></tr> <tr><td>Building 4C (Rehabilitation)</td><td>1 tank of capacity 70 KL</td></tr> <tr><td>Building 5</td><td>2 tanks of total capacity 110 KL</td></tr> </tbody> </table> <ul style="list-style-type: none"> •Location of the RWH tank(s): Ground level •Size, no of recharge pits and Quantity: Not Applicable •Budgetary allocation (Capital cost and O&M cost): Capital cost: Rs. 97.50 Lacs O & M cost: Rs. 4.88 Lacs/annum 	Buildings	Details	Building 2	4 tanks of total capacity 330 KL	Building 3	4 tanks of total capacity 240 KL	Building 4	2 tanks of total capacity 180 KL	Building 4B (PTC)	1 tank of capacity 45 KL	Building 4C (Rehabilitation)	1 tank of capacity 70 KL	Building 5	2 tanks of total capacity 110 KL														
Buildings	Details																												
Building 2	4 tanks of total capacity 330 KL																												
Building 3	4 tanks of total capacity 240 KL																												
Building 4	2 tanks of total capacity 180 KL																												
Building 4B (PTC)	1 tank of capacity 45 KL																												
Building 4C (Rehabilitation)	1 tank of capacity 70 KL																												
Building 5	2 tanks of total capacity 110 KL																												
UGT tanks	<ul style="list-style-type: none"> • Location(s) of the UGT tank(s): Underground 																												
Storm water drainage	<ul style="list-style-type: none"> •Natural water drainage pattern Drainage pattern is sloping towards East side of the plot which subsequently connected to the 27.45 m existing Aggarwal road •Quantity of storm water: 11.90 cum/sec 																												

	<p>•Size of SWD: 450 mm drain with slope 1:250, 400 mm drain with slope 1:300,</p>																		
Sewage and Waste water	<p>•Sewage generation (CMD):</p> <table border="1"> <thead> <tr> <th>Building details</th> <th>Quantity of Sewage generated (KLD)</th> </tr> </thead> <tbody> <tr> <td>Building 2</td> <td>485</td> </tr> <tr> <td>Building 2A (Polyclinic) and 2B (Public Utility)</td> <td>20</td> </tr> <tr> <td>Building 3</td> <td>352</td> </tr> <tr> <td>Building 4</td> <td>270</td> </tr> <tr> <td>Building 4B (PTC)</td> <td>214</td> </tr> <tr> <td>Building 4C (Rehabilitation)</td> <td>266</td> </tr> <tr> <td>Building 5</td> <td>82</td> </tr> <tr> <td>Total</td> <td>1689</td> </tr> </tbody> </table>	Building details	Quantity of Sewage generated (KLD)	Building 2	485	Building 2A (Polyclinic) and 2B (Public Utility)	20	Building 3	352	Building 4	270	Building 4B (PTC)	214	Building 4C (Rehabilitation)	266	Building 5	82	Total	1689
	Building details	Quantity of Sewage generated (KLD)																	
	Building 2	485																	
	Building 2A (Polyclinic) and 2B (Public Utility)	20																	
	Building 3	352																	
	Building 4	270																	
	Building 4B (PTC)	214																	
	Building 4C (Rehabilitation)	266																	
	Building 5	82																	
	Total	1689																	
	<p>•STP technology:MBBR (Moving Bed Bio-Reactor Reactor)</p>																		
	<p>•Capacity of STP (CMD):</p> <table border="1"> <thead> <tr> <th>Buildings</th> <th>STP capacity (KL)</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Building 2</td> <td>For Wing A & B: 1 STP of 240</td> </tr> <tr> <td>For Wing C & D: 1 STP of 320</td> </tr> <tr> <td>Building 2A (Polyclinic) and 2B (Public Utility)</td> <td>1 STP of 25</td> </tr> <tr> <td rowspan="2">Building 3</td> <td>For Wing A & D: 1 STP of 200</td> </tr> <tr> <td>For Wing B & C: 1 STP of 210</td> </tr> <tr> <td>Building 4</td> <td>1 STP of 320</td> </tr> <tr> <td>Building 4B (PTC)</td> <td>1 STP of 225</td> </tr> <tr> <td>Building 4C (Rehabilitation)</td> <td>1 STP of 280</td> </tr> <tr> <td>Building 5</td> <td>1 STP of 110</td> </tr> </tbody> </table>	Buildings	STP capacity (KL)	Building 2	For Wing A & B: 1 STP of 240	For Wing C & D: 1 STP of 320	Building 2A (Polyclinic) and 2B (Public Utility)	1 STP of 25	Building 3	For Wing A & D: 1 STP of 200	For Wing B & C: 1 STP of 210	Building 4	1 STP of 320	Building 4B (PTC)	1 STP of 225	Building 4C (Rehabilitation)	1 STP of 280	Building 5	1 STP of 110
	Buildings	STP capacity (KL)																	
	Building 2	For Wing A & B: 1 STP of 240																	
		For Wing C & D: 1 STP of 320																	
Building 2A (Polyclinic) and 2B (Public Utility)	1 STP of 25																		
Building 3	For Wing A & D: 1 STP of 200																		
	For Wing B & C: 1 STP of 210																		
Building 4	1 STP of 320																		
Building 4B (PTC)	1 STP of 225																		
Building 4C (Rehabilitation)	1 STP of 280																		
Building 5	1 STP of 110																		
<p>•Location of the STP: Underground</p>																			
<p>•DG sets (during emergency): For essential backup</p> <table border="1"> <thead> <tr> <th>Building</th> <th>DG capacity</th> </tr> </thead> <tbody> <tr> <td>Building 2</td> <td>3 DG sets of capacity 500 kVA each</td> </tr> <tr> <td>Building 2A (Polyclinic) and Building 2B</td> <td>1 DG sets of capacity 75 kVA</td> </tr> <tr> <td>Building 3</td> <td>2 DG sets of capacity 750 kVA each</td> </tr> <tr> <td>Building 4</td> <td>1 DG set of capacity 1000kVA</td> </tr> <tr> <td>Building 4B (PTC)</td> <td>1 DG set of capacity 400kVA</td> </tr> <tr> <td>Building 4C (Rehabilitation)</td> <td>1 DG set of capacity 400kVA</td> </tr> <tr> <td>Building 5</td> <td>1 DG set of capacity 500kVA</td> </tr> </tbody> </table>	Building	DG capacity	Building 2	3 DG sets of capacity 500 kVA each	Building 2A (Polyclinic) and Building 2B	1 DG sets of capacity 75 kVA	Building 3	2 DG sets of capacity 750 kVA each	Building 4	1 DG set of capacity 1000kVA	Building 4B (PTC)	1 DG set of capacity 400kVA	Building 4C (Rehabilitation)	1 DG set of capacity 400kVA	Building 5	1 DG set of capacity 500kVA			
Building	DG capacity																		
Building 2	3 DG sets of capacity 500 kVA each																		
Building 2A (Polyclinic) and Building 2B	1 DG sets of capacity 75 kVA																		
Building 3	2 DG sets of capacity 750 kVA each																		
Building 4	1 DG set of capacity 1000kVA																		
Building 4B (PTC)	1 DG set of capacity 400kVA																		
Building 4C (Rehabilitation)	1 DG set of capacity 400kVA																		
Building 5	1 DG set of capacity 500kVA																		
<p>•Budgetary allocation (Capital cost and O&M cost) Capital cost: Rs. 373.10 Lacs O & M cost: Rs. 111.71 Lacs/annum</p>																			
Solid waste Management	<p>Waste generation in the Pre Construction and Construction phase: • Waste generation: The excavated earth shall be reused for</p>																		

	<p>development of road within plot</p> <ul style="list-style-type: none"> •Quantity of the top soil to be preserved: Shall be stockpiled and shall be used for landscape development. •Disposal of the construction waste debris: The construction waste shall be partly reused on site and partly disposed to the authorized landfill site with permission of M.C.G.M. <p>Waste generation in the operation Phase: Dry waste (Kg/day): 1944 Wet waste (Kg/day):4479 E – waste (Kg/month):-- Hazardous waste (Kg/month): -- Biomedical waste (Kg/month) (<i>If applicable</i>): 450</p> <ul style="list-style-type: none"> • STP Sludge (Dry sludge) (Kg/day): 253 <p>Mode of Disposal of waste: •Dry waste: Non recyclable: To M.C.G.M. Recyclable: To recyclers •Wet waste: Organic Waste Converter (OWC) •E - waste: -- •Hazardous waste: -- •Biomedical waste (<i>If applicable</i>): Will be handled and disposed as per Bio-medical waste (Management and Handling rules -1998) •STP Sludge (Dry sludge): As manure</p> <p>Area requirement: Location(s) and total area provided for the storage and treatment of the solid waste: Location: Ground Level Area: 414 Sq. m.</p> <p>Budgetary allocation (Capital cost and O&M cost) Capital cost: Rs. 45.00 Lacs (Cost for treatment of biodegradable garbage in OWC) O & M cost: Rs. 18.65 Lacs (Cost for treatment of biodegradable garbage in OWC)</p>
<p>Green Belt Development</p>	<p>RG area under green belt:</p> <ul style="list-style-type: none"> • RG on the ground (sq. m.): 30,388.10 • RG on the podium (sq. m.): 12,281.35 <p>Plantation:</p> <ul style="list-style-type: none"> •Number of trees species to be planted in the ground RG: 1733Nos. <p>Number and list of trees species to be planted around the border of nalla / stream / pond (<i>If any</i>): <i>Not Applicable</i></p> <ul style="list-style-type: none"> •Number, size, age and species of trees to be cut, trees to be transplanted: Retained trees: 12 Nos. Transplanted/Cut trees: 6 Nos. <p>NOC for the Tree cutting / transplantation/ compensatory</p>

	plantation, if any: <i>Received</i>																										
	<p>Budgetary allocation (Capital cost and O&M cost) Capital cost: Rs. 167.13 Lacs O & M cost: Rs. 26.74 Lacs/annum</p>																										
Energy	<p>Power supply: •Maximum demand: 18493 KW •Connected load: 55545 KW •Source: Maharashtra State Electricity Distribution Company Limited (MSEDCL)</p> <p>•Energy saving by non-conventional method: Energy savings measures: Use of Solar lighting for external and staircase lighting Use of LED light for Lift Lobby & Staircase Provision of CFL /T5 lamps & Electronic Ballast Using combination of LED & CFL Light along with Bureau of Energy Efficiency (BEE) rated 5 Star equipments like Fan, AC, Geyser & other equipment Use of VFD for pumps & Lifts</p> <p>•Detail calculations & % of saving: 25 %</p> <p>•Compliance of the ECBC guidelines: (Yes/No) (If yes then submit compliance in tabular form): Yes</p> <p>•Budgetary allocation (Capital cost and O&M cost): Capital cost: Rs. 56.47Lacs (Solar system) O & M cost: Rs. 3.19 Lacs/annum (Solar system)</p> <p>DG Set: •Number and capacity of the DG sets to be used: DG sets (during emergency): For essential backup</p> <table border="1"> <thead> <tr> <th>Building</th> <th>DG capacity</th> </tr> </thead> <tbody> <tr> <td>Building 2</td> <td>3 DG sets of capacity 500 kVA each</td> </tr> <tr> <td>Building 2A (Polyclinic) and Building 2B</td> <td>1 DG sets of capacity 75 kVA</td> </tr> <tr> <td>Building 3</td> <td>2 DG sets of capacity 750 kVA each</td> </tr> <tr> <td>Building 4</td> <td>1 DG set of capacity 1000kVA</td> </tr> <tr> <td>Building 4B (PTC)</td> <td>1 DG set of capacity 400kVA</td> </tr> <tr> <td>Building 4C (Rehabilitation)</td> <td>1 DG set of capacity 400kVA</td> </tr> <tr> <td>Building 5</td> <td>1 DG set of capacity 500kVA</td> </tr> </tbody> </table> <p>•Type of fuel used:</p> <table border="1"> <thead> <tr> <th>No</th> <th>Description</th> <th>DG set rating in kVA</th> <th>Operational Hours / day</th> <th>Fuel Consumption @ 75% load with radiator & fan in ltr/hr</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Building-2</td> <td>3 X 500 kVA</td> <td>2</td> <td>100 ltr/hr for Each</td> </tr> </tbody> </table>	Building	DG capacity	Building 2	3 DG sets of capacity 500 kVA each	Building 2A (Polyclinic) and Building 2B	1 DG sets of capacity 75 kVA	Building 3	2 DG sets of capacity 750 kVA each	Building 4	1 DG set of capacity 1000kVA	Building 4B (PTC)	1 DG set of capacity 400kVA	Building 4C (Rehabilitation)	1 DG set of capacity 400kVA	Building 5	1 DG set of capacity 500kVA	No	Description	DG set rating in kVA	Operational Hours / day	Fuel Consumption @ 75% load with radiator & fan in ltr/hr	1	Building-2	3 X 500 kVA	2	100 ltr/hr for Each
Building	DG capacity																										
Building 2	3 DG sets of capacity 500 kVA each																										
Building 2A (Polyclinic) and Building 2B	1 DG sets of capacity 75 kVA																										
Building 3	2 DG sets of capacity 750 kVA each																										
Building 4	1 DG set of capacity 1000kVA																										
Building 4B (PTC)	1 DG set of capacity 400kVA																										
Building 4C (Rehabilitation)	1 DG set of capacity 400kVA																										
Building 5	1 DG set of capacity 500kVA																										
No	Description	DG set rating in kVA	Operational Hours / day	Fuel Consumption @ 75% load with radiator & fan in ltr/hr																							
1	Building-2	3 X 500 kVA	2	100 ltr/hr for Each																							

	2	Poly clinic & public utility area	1 X 75 kVA	2	17.5 ltr/hr
	3	Building-3	2 X 750 kVA	2	150 ltr/hr for Each
	4	Building-4b	1X 400 kVA	2	80 ltr/hr
	5	Building-4c	1X 400 kVA	2	80 ltr/hr
	6	Building-4	1X 1000 kVA	2	198 ltr/hr
	7	Building-5	1X 500 kVA	2	100 ltr/hr

Environmental Management plan Budgetary Allocation

Construction phase (with Break-up):

- Capital cost
 - O & M cost (Please ensure manpower and other details)
- Total cost incurred for EMP

Component	Description	Total Cost (Rs. In Lacs)
Air Environment	Dust Suppression	30.24
	Ambient air quality Monitoring	2.40
	Sensors to monitor daily air quality	15.00
	EMP of air, noise, DG exhaust	0.50
Water Environment	Water quality Monitoring	0.36
Land Environment	Site Sanitation & Bio-toilets	8.00
Health & Hygiene Environment	Disinfection at site	7.20
	Health Check up of workers	72
	First aid facilities	0.30
	Personal protective equipment	12.50
Total Cost		148.50

Operation Phase (with Break-up)-

- Capital cost
- O&M cost (Please ensure manpower and other details)

Sr. No.	Component	Description	Capital cost Rs. In	Operation and Maintenance

			lacs.	cost (Rs. in lacs/yr)	
1	Air, Noise & Biological Environment	Cost for Gardening	167.13	26.74	
		Cost for Ambient air & Noise quality Monitoring and sensors for air quality monitoring	15.00	0.40	
		Cost for DG Stack Exhaust Monitoring	*No set up cost is involved	0.20	
		Cost for Noise barriers	221.82	--	
		Cost for Air cleaning system in car parking areas	15.00	--	
2	Water Environment	Waste water treatment	Cost for Sewage Treatment Plants	373.10	111.71
			Cost for water and waste water Monitoring	*No set up cost is involved	32.89
		Water Conservation (Rain Water Harvesting System)	Cost for RWH tanks	97.50	4.88
			Cost for treatment unit for RWH tanks	42.00	0.14
			Cost for Rain Water Monitoring	*No set up cost is involved	0.24
3	Land Environment (Solid Waste Management)	Cost for Treatment of biodegradable garbage in OWC	45.00	18.65	
		Cost for Monitoring of OWC manure	*No set up cost is involved	0.16	
4	Energy Conservation	Solar system	56.47	3.19	
5	DMP Cost	Cost for DMP units	3405.49	17.03	
Total Cost			4438.52	216.22	
Note: * No set up cost is involved as monitoring shall be given to outside MoEF approved laboratory					

	<ul style="list-style-type: none"> • Quantum and generation of Corpus fund and Commitment: Project proponent shall operate and maintain Environmental Management Facilities (E.M.F.) for proposed development for 3 years after giving possession and shall also generate corpus fund during 3 years for O & M of Rs. 648.67 lacs (i.e. 216.22 lacs x 3 years). • Responsibility for further O &M: Corpus fund shall be handed over to the society. While handing over EMF M.O.U. shall be made with society to accept responsibility of further O & M of EMF. <p>Additionally for rehabilitation component a sum of Rs. 20,000/- per slum dweller shall be deposited to SRA as per their norm and further OC, it shall be handed over to the slum societies.</p>								
Traffic Management	<p>Nos. of the junction to the main road & design of confluence: Five Entry & Exit</p> <p>Parking details:</p> <ul style="list-style-type: none"> •Number and area of basement: One Basement (Building 2, Building 3 and Building 4) •Number and area of podia: <table border="1" data-bbox="614 907 981 1064"> <tr> <td>Building 2</td> <td>5 Podia</td> </tr> <tr> <td>Building 3</td> <td>5 Podia</td> </tr> <tr> <td>Building 4</td> <td>9 Podia</td> </tr> <tr> <td>Building 5</td> <td>5 Podia</td> </tr> </table> •Total Parking area: 1, 20,533.62 Sq. m. •Area per car: 27 Sq. m./car •2-Wheeler: 812 nos. •4-Wheeler: 4518 nos. •Public Transport: Not Applicable •Width of all Internal roads (m): Min. 6.0 m. to 12.0 m. 	Building 2	5 Podia	Building 3	5 Podia	Building 4	9 Podia	Building 5	5 Podia
Building 2	5 Podia								
Building 3	5 Podia								
Building 4	9 Podia								
Building 5	5 Podia								
CRZ/RRZ clearance obtain, if any	Not applicable								
Distance from Protected Areas / Critically Polluted areas / Eco-sensitive areas/ inter-State boundaries	Aerial distance of Eco-sensitive areas Sanjay Gandhi National Park: 0.05 km								

	Status of the approval	Name of the competent authority	Date of the issued letter
CFO NOC for the above said building structure(s)	Received (for Building 2,3 & 5) Balance shall be taken in due course	M.C.G.M.	Building 2 & 3: 26/12/2006 Building 5: 31/05/2012
HRC NOC for the above said building structure(s) (If applicable)	Received for some buildings. Balance shall be taken in due course	M.C.G.M.	28/10/2013
NOC for the above said building	Received	Airports Authority of India	05/08/2014

structure(s) from the Aviation authority (If applicable)			
Consent for the water for the above said detail(s)	Received (for Building 2,3 & 5) Balance shall be taken in due course	M.C.G.M.	Building 2 & 3: 11/03/2014 Building 5: 15/10/2013
Consent for the drainage for the above said detail(s)	Sewerage remarks	M.C.G.M.	05/12/2014
Consent for the electric supply for the proposed demand	Received	MSEDCL	22/08/2007
Precertification for Green Building from Indian Green Building Council and other recognized institutes (If applicable)	Not Applicable	--	--
Court Order (If applicable)	Received regarding private forest matter	Supreme Court Order	30/01/2014
Other approvals (If any):			
I to R	Received	MC.G.M.	07/12/1995
IOA- (Building 1)	Received	Slum Rehabilitation Authority	06/10/2000
Commencement certificate (Building 5 Wing A)	Received	M.C.G.M.	19/04/2002
Environmental Clearance	Received. Applied for Amendment	Government of Maharashtra	08/06/2006
Consent to Establish	Received as per earlier EC. Applied for Amendment	MPCB	10/04/2006
Commencement Certificate (Building 2 & 3)	Received	M.C.G.M.	22/08/2007
LOI	Received	Slum Rehabilitation Authority	13/07/2009&29/05/2015 30/04/2011
Forest NOC	Received	Forest Officer Sanjay Gandhi National Park	03/07/2009

The following proposed comparative changes due to proposed expansion / amendment:

Details		EC Received	Total proposal with Amendments	Remarks
Total Plot Area (Sq. mt.)		1,71,029.00	1,59,280.00	Decreased by 11,749 Sq. mt. due to physical area correction as per PR card
Deductions (Sq. mt.)		30,636.40	33313.40	Increased by 2677 sq. mt. due to correction in road area
Net Plot Area (Sq. mt.)		1,40,392.60	1,25966.60	Decreased by 14426 Sq. mt.
Ground coverage area (Sq.mt.)		60,304.75 (42.95%)	32673.91 (26 %)	Decreased by 27630.84 Sq. mt.
Required RG		35061.00	29668.15	Decreased by 5392.85 sq.mt. as per revised plot area
R.G area (Sq. mt.)	On ground	33272.39	30338.10	Provision as per required RG
	On podium	1,788.61	12281.35	Additional provision on podium
Permissible FSI (Sq. mt.)		259451.40	268239.80	Increased by 8788.41 Sq. mt.
Proposed Built-up area As per FSI (Sq. mt.)		257321.35	200383.71	Decreased by 56937.64 sq.m
Non FSI Area (Sq.mt.)		2,90,741.00	432606.95	Increased by 141865.95 sq.m
Total Construction Built up Area (Sq. mt.)		5,59,062.30	632990.66	Increased by 73928.36 sq.m
Required parking (Nos.)		4Wheeler: 3146	4Wheeler: 4516	Increased by 1370
Parking provision (Nos.)		4 Wheeler: 3146	4 Wheeler: 4518	Increased by 1372

Details	EC Received (Year 2006)	Total proposal with Amendments	Status of construction
Building I	4 Buildings : Ground + 4 Podia + 59 Floors	--	Not proposed now
Building II	3 Buildings : Basement + Ground + 3 Podia + 19 Floors	One Buildings with 4 Wings (wing A, B, C & D) Wings A, B & D: 1 Basement + Ground + 5 Podia + 1 E-deck level + 2 Fire check floors+ 3 Service cum refuge floors + 4 refuge floors + 41 floors + 2 Duplex floors	Bldg - 2 - Wing-A -excavation completed

		Wing C: 1 Basement + Ground + 5 Podia + 1 E- deck level+ 2 Fire check floors + 3 Services floors + 5 Refuge floors + 45 Floors	
Building III	4 Buildings : 1B+LG+UG + Ground + 1 Podium + 19 Floors	One Buildings with 4 Wings (wing A, B, C & D) One Basement + Lower Ground + Upper Ground + Stilt + 5 Podia + E- deck level +Service floor + Fire check floor + 26 Floors	Building -3 - Wing-A = 1B+LG+UG+1 Podium & Wing-B Raft completed
Building IV	1B+G+9pdm+2ELVL+36flrs f	One Buildings with 2 Wings (wing A & B) One Basement + Ground + 9 Podia + 2 E- deck level + 2 Fire check floors + 1 Service floor + 1 Refuge cum service floor + 5 Refuge floors + 3 Triplex floors + 33 Floors	Building-4 = 1Basement + Ground + 9 Podium completed
Building IV B Public Transit Camp (PTC)	1 Building : Ground + 23 floors	One Building with Ground + 24 floors Balwadis, Welfare Centre and	Not yet started

		Society Office: 3 nos. each	
Building IV C Rehab	1 Building : Ground + 23 floors	One Building Ground +23 floors Balwadis: 5 and Welfare Centre: 5 nos. each Society Office: 4 Nos.	Not yet started
Building 5	G+5pdm+12flrs	One Building with 2 Wings A & B Ground + 5 Podia + 12 Upper floors	Not yet started
	Total flats : 3575 nos.	Total flats: 2838 nos.	

3. The proposal has been considered by SEIAA in its 95th meeting & decided to accord environmental clearance to the said project under the provisions of Environment Impact Assessment Notification, 2006 subject to implementation of the following terms and conditions :

General Conditions for Pre- construction phase:-

- (i) This environmental clearance is issued subject to land use verification. Local authority / planning authority should ensure this with respect to Rules, Regulations, Notifications, Government Resolutions, Circulars, etc. issued if any. Judgments/orders issued by Hon'ble High Court, Hon'ble NGT, Hon'ble Supreme Court regarding DCR provisions, environmental issues applicable in this matter should be verified. PP should submit exactly the same plans appraised by concern SEAC and SEIAA. If any discrepancy found in the plans submitted or details provided in the above para may be reported to environment department. This environmental clearance issued with respect to the environmental consideration and it does not mean that State Level Impact Assessment Authority (SEIAA) approved the proposed land use.
- (ii) This environmental clearance is issued subject to Local body to ensure that order of NGT dated 09/07/2015 with regards to no construction in 100 m buffer zone in Sanjay Gandhi National Park is implemented, if applicable.
- (iii) E-waste shall be disposed through Authorized vendor as per E-waste (Management and Handling) Rules, 2011.
- (iv) Occupation certificate shall be issued to the project by Local Planning Authority only after ensuring availability of drinking water and connectivity of the sewer line to the project site.
- (v) This environmental clearance is issued subject to obtaining NOC from Forestry & Wild life angle including clearance from the standing committee of the National Board for Wild life as if applicable & this environment clearance does not necessarily implies that Forestry & Wild life clearance granted to the project which will be considered separately on merit.

- 831-
- (vi) PP has to abide by the conditions stipulated by SEAC & SEIAA.
 - (vii) The height, Construction built up area of proposed construction shall be in accordance with the existing FSI/FAR norms of the urban local body & it should ensure the same along with survey number before approving layout plan & before according commencement certificate to proposed work. Plan approving authority should also ensure the zoning permissibility for the proposed project as per the approved development plan of the area.
 - (viii) "Consent for Establishment" shall be obtained from Maharashtra Pollution Control Board under Air and Water Act and a copy shall be submitted to the Environment department before start of any construction work at the site.
 - (ix) All required sanitary and hygienic measures should be in place before starting construction activities and to be maintained throughout the construction phase.

General Conditions for Construction Phase-

- (i) Provision 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, crèche and First Aid Room etc.
- (ii) Adequate drinking water and sanitary facilities should be provided for construction workers at the site. Provision should be made for mobile toilets. The safe disposal of wastewater and solid wastes generated during the construction phase should be ensured.
- (iii) The solid waste generated should be properly collected and segregated. dry/inert solid waste should be disposed off to the approved sites for land filling after recovering recyclable material.
- (iv) Disposal of muck during construction phase should 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.
- (v) Arrangement shall be made that waste water and storm water do not get mixed.
- (vi) All the topsoil excavated during construction activities should be stored for use in horticulture / landscape development within the project site.
- (vii) Additional soil for leveling of the proposed site shall be generated within the sites (to the extent possible) so that natural drainage system of the area is protected and improved.
- (viii) Green Belt Development shall be carried out considering CPCB guidelines including selection of plant species and in consultation with the local DFO/ Agriculture Dept.
- (ix) Soil and ground water samples will be tested to ascertain that there is no threat to ground water quality by leaching of heavy metals and other toxic contaminants.

- (x) Construction spoils, including bituminous material and other hazardous materials 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.
- (xi) Any hazardous waste generated during construction phase should be disposed off as per applicable rules and norms with necessary approvals of the Maharashtra Pollution Control Board.
- (xii) The diesel generator sets to be used during construction phase should be low sulphur diesel type and should conform to Environments (Protection) Rules prescribed for air and noise emission standards.
- (xiii) The diesel required for operating DG sets shall be stored in underground tanks and if required, clearance from concern authority shall be taken.
- (xiv) 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 and should be operated only during non-peak hours.
- (xv) Ambient noise levels should conform to residential standards both during day and night. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase. Adequate measures should be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB/MPCB.
- (xvi) Fly ash should be used as building material in the construction as per the provisions of Fly Ash Notification of September 1999 and amended as on 27th August, 2003. (The above condition is applicable only if the project site is located within the 100Km of Thermal Power Stations).
- (xvii) Ready mixed concrete must be used in building construction.
- (xviii) The approval of competent authority shall be obtained for structural safety of the buildings due to any possible earthquake, adequacy of fire fighting equipments etc. as per National Building Code including measures from lighting.
- (xix) Storm water control and its re-use as per CGWB and BIS standards for various applications.
- (xx) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xxi) The ground water level and its quality should be monitored regularly in consultation with Ground Water Authority.
- (xxii) The installation of the Sewage Treatment Plant (STP) should be certified by an independent expert and a report in this regard should be submitted to the MPCB and Environment department before the project is commissioned for operation. Discharge of this unused treated affluent, if any should be discharge in the sewer line. Treated effluent emanating from STP shall be recycled/refused to the maximum extent possible. Discharge of this unused treated affluent, if any should

846

be discharge in the sewer line. Treatment of 100% gray water by decentralized treatment should be done. Necessary measures should be made to mitigate the odour problem from STP.

- (xxiii) Permission to draw ground water and construction of basement if any shall be obtained from the competent Authority prior to construction/operation of the project.
- (xxiv) Separation of gray and black water should be done by the use of dual plumbing line for separation of gray and black water.
- (xxv) Fixtures for showers, toilet flushing and drinking should be of low flow either by use of aerators or pressure reducing devices or sensor based control.
- (xxvi) Use of glass may be reduced up to 40% to reduce the electricity consumption and load on air conditioning. If necessary, use high quality double glass with special reflective coating in windows.
- (xxvii) Roof should meet prescriptive requirement as per Energy Conservation Building Code by using appropriate thermal insulation material to fulfill requirement.
- (xxviii) Energy conservation measures like installation of CFLs /TFLs for the lighting the areas outside the building should be integral part of the project design and should be in place before project commissioning. Use CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination. Use of solar panels may be done to the extent possible like installing solar street lights, common solar water heaters system. Project proponent should install, after checking feasibility, solar plus hybrid non-conventional energy source as source of energy.
- (xxix) Diesel power generating sets proposed as source of backup power for elevators and common area illumination during operation phase should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use low sulphur diesel. The location of the DG sets may be decided with in consultation with Maharashtra Pollution Control Board.
- (xxx) Noise should be controlled to ensure that it does not exceed the prescribed standards. During nighttime the noise levels measured at the boundary of the building shall be restricted to the permissible levels to comply with the prevalent regulations.
- (xxx1) Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided. Parking should be fully internalized and no public space should be utilized.
- (xxxii) Opaque wall should meet prescriptive requirement as per Energy Conservation Building Code, which is proposed to be mandatory for all air-conditioned spaces while it is aspiration for non-air-conditioned spaces by use of appropriate thermal insulation material to fulfill requirement.

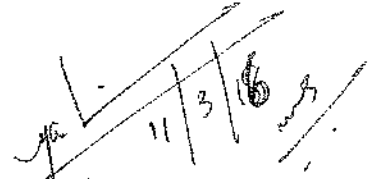
- (xxxiii) The building should have adequate distance between them to allow movement of fresh air and passage of natural light, air and ventilation.
- (xxxiv) Regular supervision of the above and other measures for monitoring should be in place all through the construction phase, so as to avoid disturbance to the surroundings.
- (xxxv) Under the provisions of Environment (Protection) Act, 1986, legal action shall be initiated against the project proponent if it was found that construction of the project has been started without obtaining environmental clearance.
- (xxxvi) Six monthly monitoring reports should be submitted to the Regional office MoEF, Bhopal with copy to this department and MPCB.

General Conditions for Post- construction/operation phase-

- (i) Project proponent shall ensure completion of STP, MSW disposal facility, green belt development prior to occupation of the buildings. As agreed during the SEIAA meeting, PP to explore possibility of utilizing excess treated water in the adjacent area for gardening before discharging it into sewer line. No physical occupation or allotment will be given unless all above said environmental infrastructure is installed and made functional including water requirement in Para 2. Prior certification from appropriate authority shall be obtained.
- (ii) Wet garbage should be treated by Organic Waste Converter and treated waste (manure) should be utilized in the existing premises for gardening. And, no wet garbage will be disposed outside the premises. Local authority should ensure this.
- (iii) Local body should ensure that no occupation certification is issued prior to operation of STP/MSW site etc. with due permission of MPCB.
- (iv) A complete set of all the documents submitted to Department should be forwarded to the Local authority and MPCB.
- (v) In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Department.
- (vi) A separate environment management cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.
- (vii) Separate funds shall be allocated for implementation of environmental protection measures/EMP along with item-wise breaks-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure should reported to the MPCB & this department.
- (viii) The project management shall advertise at least in two local newspapers widely circulated in the region around the project, one of which shall be in the Marathi language of the local concerned within seven days of issue of this letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the Maharashtra Pollution Control Board and may also be seen at Website at <http://ec.maharashtra.gov.in>.

- 5/16/15
- (ix) Project management should submit half yearly compliance reports in respect of the stipulated prior environment clearance terms and conditions in hard & soft copies to the MPCB & this department, on 1st June & 1st December of each calendar year.
 - (x) A copy of the clearance letter shall be sent by proponent to the concerned Municipal Corporation and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.
 - (xi) The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO₂, NO_x (ambient levels as well as stack emissions) or critical sector parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
 - (xii) The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.
 - (xiii) The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.
4. The environmental clearance is being issued without prejudice to the action initiated under EP Act or any court case pending in the court of law and it does not mean that project proponent has not violated any environmental laws in the past and whatever decision under EP Act or of the Hon'ble court will be binding on the project proponent. Hence this clearance does not give immunity to the project proponent in the case filed against him, if any or action initiated under EP Act.
 5. In case of submission of false document and non compliance of stipulated conditions, Authority/ Environment Department will revoke or suspend the Environmental Clearance without any intimation and initiate appropriate legal action under Environmental Protection Act, 1986.
 6. The Environment department reserves the right to add any stringent condition or to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the department or for that matter, for any other administrative reason.
 7. **Validity of Environment Clearance:** The environmental clearance accorded shall be valid for a period of 7 years as per MoEF&CC Notification dated 29th April, 2015.
 8. In case of any deviation or alteration in the project proposed from those submitted to this department for clearance, a fresh reference should be made to the department to assess the adequacy of the condition(s) imposed and to incorporate additional environmental protection measures required, if any.

9. The above stipulations would be enforced among others under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and rules there under, Hazardous Wastes (Management and Handling) Rules, 1989 and its amendments, the public Liability Insurance Act, 1991 and its amendments.
10. Any appeal against this environmental clearance shall lie with the National Green Tribunal (Western Zone Bench, Pune), New Administrative Building, 1st Floor, D-, Wing, Opposite Council Hall, Pune, if preferred, within 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.


(Malini Shankar)
Member Secretary, SEIAA

Copy to:

1. Shri. R. C. Joshi, IAS (Retd.), Chairman, SEIAA, Flat No. 26, Belvedere, Bhulabhai desai road, Breach candy, Mumbai- 400026.
2. Shri. Johnny Joseph, Chairman, IAS (Retd.), SEAC-II, office of the Lokayukta and New Up- Lokayukta, New Administrative Building, 1st floor, Madam Cama Road, Mumbai.
3. Additional Secretary, MOEF, 'MoEF & CC, Indira Paryavaran Bhavan, Jorbagh Road, Aliganj, New Delhi-110003.
4. The CCF, Regional Office, Ministry of Environment and Forest (Regional Office, Western Region, Kendriya Paryavaran Bhavan, Link Road No- 3, E-5, Ravi-Shankar Nagar, Bhopal- 462 016). (MP).
5. IA- Division, Monitoring Cell, MoEF & CC, Indira Paryavaran Bhavan, Jorbagh Road, Aliganj, New Delhi-110003.
6. Managing Director, MSEDCL, MG Road, Fort, Mumbai
7. Collector, Mumbai.
8. Commissioner, Municipal Corporation of Greater Mumbai (M.C.G.M.)
9. Member Secretary, Maharashtra Pollution Control Board, with request to display a copy of the clearance.
10. Regional Office, MPCB, Mumbai
11. Select file (TC-3)

(EC uploaded on)