

### Giriraj Enterprises

Date: 27.1.2017

То

The Member Secretary

Expert Appraisal Committee (2) in the Infrastructure Sector

### Ministry of Environment and Forests & Climate Change

Indira Paryavaran Bhavan,

Jor Bagh Road, New Delhi - 110003, India.

Subject: Reply to ADS generated against the submission for proposed Project "Malpani Triumph Tower" by M/s. Giriraj Enterprises at S. no. 33(P),Baner, Taluka Haveli, Dist. Pune (File no. 21-76/2016-IA-III)

### Reference: ADS generated on the website of MoEF & CC

Respected Sir,

We have received ADS for our above mentioned application as:

"The Committee sought following additional information:

- Give details of the past history of the project related to submission of application at the SEIAA Maharashtra.
- Give a conformity status to conditions stipulated in Annexure XIV of the amended EIA notification of 09-12-2016.
- (iii) Whether this project attracts CRZ notification, 2011. Pl indicates distance of project from the HTL on the Google map.
- (iv) Give details on the impacts that the project may have on the SEWRI mudflats and on the Master plan for its development.
- (v) Copy of approved building sanction plan.
- (vi) Action plan for management of Construction and Demolition waste generated from the redevelopment.

(vii) Layout plan indicating road, greenbelt, drainage, sewer line, STP, solid waste Real Estanding or so rain water harvesting structures etchindifferent colour to be furnished india

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- (viii) Layout of parking plan indicating only and exit points of vehicular movement as well as traffic management plan. Highlight the fire tender pathway.
- (ix) Details of source of water supply along with permission to be submitted.
- (x) Excess treated sewage disposal plan/scheme to be submitted.
- (xi) Prediction of ground level concentration of emissions from stack due to DG set (2x 1250 kVA).
- (xii) Efforts shall be made to reduce capacity of DG set to (1x1250 KVA) and remaining standby power shall be met from solar energy.
- (xiii) Calculation on sizing of solar water heating systems to be furnished.
- (xiv) At least 2 solar powered lights and one fan shall be provided in each flat. Solar generation shall be connected to the grid.
- (xv) Solid waste management plan along with area earmarked for solid waste management scheme.
- (xvi) Details of rain water harvesting.
- (xvii) Management of excavated soil. Pollution control measures to be taken to control fugitive emission during construction phase including marble /stone cutting.
- (xviii) Details energy conservation measures to be taken. taken (all points mentioned in the proposal such as orientation to support reduced heat gain, use of ASHRAE 90.1, use of ECBC compliant envelope measures to be supported through drawings and details in the proposal
- (xix) Layout plan indicating Greenbelt along with area earmarked to be provided.

With reference to above mentioned subject we are submitting required information for your further action.

Thanking you

MR. ASHISH MALPANI For M/s. Giriraj Enterprises

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Hospitality • Malpani Health Club & Resorts 12.4.17 Proposed construction project "Malpani Triumph Tower" At S. no. 33(P),Baner, Tal. Haveli, Dist. Pune, Maharashtra by M/s Giriraj Enterprises – Environment Clearance reg (IA/MH/NCP/60968/2016; F. No. 21-76/2016-IA-III)

M/s Giriraj Enterprises has proposed for building construction project "Malpani Triumph Tower" at Sy. no. 33(P),Baner, Tal. Haveli, Dist. Pune, Maharashtra. Total plot area is 17,509.50 m<sup>2</sup> and built-up area is 28,929.75 m<sup>2</sup>. Cost of project is . Configuration of building is as given below:

Building 1: B2+B1+LG+G+23

Floor no.	Usage	No. O floors
Lower ground floor	Shop	1
	Shop	
Ground floor	F &B	1
First floor	F &B	1
Typ floor 2,3,4 & 5th floor	Offices	4
6th floor	Offices	1
7th floor	Offices	1
8th & 9th floor	Offices	2
10th 8 11th floor	Offices	2
	F&b	_ 2
10th 8 10th floor	Offices	2
	Health club	_ 2
14th floor	F&b	1
14(11100)	Offices	
Typ floor 15,16 & 17th floor	Offices	3
Typ floor 18, 19 & 20th floor	Offices	3
21, 22nd floor	Offices	2
23rd floor	Offices	1

Total water requirement is 279 m<sup>3</sup>/day. Out of which, fresh water requirement from Puna Municipal Corporation water supply will be 175 m<sup>3</sup>/day and remaining water requirement (

is 159 waste	Treated sewage will be used for flushing and gardening. Total solid waste general Kg/day. DG sets (2 x 2000 KVA + 1x750 KVA) will be installed. Biodegred will be treated in OWC.
After detai	led deliberation, the Committee sought following additional information:
(i)	Give details of the past history of the project related to submission of application the SEIAA Maharashtra.
(ii)	Give a conformity status to conditions stipulated in Annexure XIV of the amer EIA notification of 09-12-2016.
(iii)	Whether this project attracts CRZ notification, 2011. Pl indicate distance of profession the HTL on the google map.
(iv)	Give details on the impacts that the project may have on the SEWRI mudflats an the Master plan for its development.
(v) (vi)	Copy of approved building sanction plan. Action plan for management of Construction and Demolition waste generated the redevelopment
(vii)	Layout plan indicating road, greenbelt, drainage, sewer line, STP, solid w handling area, rain water harvesting structure, etc. in different colour to be furnis
(viii)	Layout of parking plan indicating entry and exit points of vehicular movement as as traffic management plan. Highlight the fire tender pathway.
(ix)	Details of source of water supply alongwith permission to be submitted.
(X) (xi)	Excess treated sewage disposal plan/scheme to be submitted.
(XI)	1250 kVA).
(xii)	Efforts shall be made to reduce capacity of DG set to (1x1250 KVA) and rema standby power shall be met from solar energy.
(xiii) (xiv)	Calculation on sizing of solar water heating systems to be furnished. At least 2 solar powered lights and one fan shall be provided in each flat. S generation shall be connected to the grid
(xv)	Solid waste management plan alongwith area earmarked for solid w management scheme.
(xvi)	Details of rain water harvesting.
(xvii)	Management of excavated soil. Pollution control measures to be taken to co fugitive emission during construction phase including marble /stone cutting.
(xviii)	proposal such as orientation to support reduced heat gain, use of ASHRAE suse of ECBC compliant envelope measures to be supported through drawings details in the proposal
(xix)	Layout plan indicating Greenbelt alongwith area earmarked to be provided.
The propo	sal was deferred till the desired information is submitted. The above information
be provide	ed with the uploading of minutes on the website.

### POINT-WISE COMPLIANCE TO THE POINTS RAISED BY 12<sup>th</sup> EAC-Infra 2

FOR

### "Malpani Triumph Tower"

At

## S. no. 33(P),Baner, Taluka Haveli, Dist. Pune By

### **GIRIRAJ ENTERPRISES**

Item No. 11.4.17

File number: 21-76/2016-IA-III

# Point 1: Give details of the past history of the project related to submission of application at the SEIAA Maharashtra.

Reply: We had applied to SEIAA Maharashtra for prior Environmental Clearance for project under consideration dated 21 Dec 2015. The project was presented at 41<sup>st</sup> meeting of SEAC III Maharashtra. We have withdrawn the proposal from SEIAA Maharashtra and the acceptance letter is attached as Annexure I.

# Point 2: Give a conformity status to conditions stipulated in Annexure XIV of the amended EIA notification of 09-12-2016.

Reply: Total Construction BUA for the project is 91,797.00 sq.m so as per amended EIA notification it falls in category 3. We have attached "Annexure XIV of EIA Notification" which shows conformity of the conditions as stated in amended notification. Attached as Annexure II.

# Point 3: Whether this project attracts CRZ notification, 2011. Pl indicate distance of project from the HTL on the google map.

Reply: The project is located in Pune Municipal Corporation jurisdiction. CRZ Notification,2011 is not applicable for this project. Google earth map covering 15 Km radius around project site is attached as Annexure III for your reference.

# Point 4: Give details on the impacts that the project may have on the SEWRI mudflats and on the Master plan for its development.

Reply: The project is located in Pune Municipal Corporation jurisdiction. Sewri is located 108 Kms from the project site. Hence no impact on the SEWRI mudflats and on the Master plan for its development is envisaged.

### Point 5: Copy of approved building sanction plan.

Reply: We are hereby attaching copy of sanction received from Pune Municipal Corporation dated 17.12.2016 vide sanction number CC/2897/16 as Annexure IV.

# Point 6: Action plan for management of Construction and Demolition waste generated from the redevelopment.

Reply: This is a greenfield project and no demolition of existing buildings is required. However, we have prepared Construction waste management plan is as below:

S. No.	Item	Unit	Quantity	Reuse/Recycle
1	Excavated Soil	m <sup>3</sup>	239.00	Filling of depressions within the plot.
	Hard strata excavation	m <sup>2</sup>	2151.00	Soiling for foundations& roads
2	Cement	tonnes	37.50	Wasted as concrete. will be used below paver area as sub base
3	Stone Aggregate	m <sup>3</sup>	100.00	Below Paver Area as sub base
4	Crush Sand	m <sup>3</sup>	50.00	
5	Steel Metal	tonnes	19.76	<ul> <li>To use for casting of pathways, drain slabs etc.</li> <li>To send for recycle as it is recycled 100%.</li> </ul>
6	Red Bricks	m <sup>3</sup>	36.00	<ul> <li>To use for paving in landscaped portions.</li> <li>To use as plinth filling material.</li> <li>To use for Brick bat-coba for terraces and toilets.</li> <li>Construct raised platform within building or project landscape area as a filling material</li> </ul>
7	Siporex /concrete blocks	m <sup>3</sup>	81.00	<ul> <li>To use as blocks to stop water runoff from garden area.</li> <li>To construct pots for shrubs in terrace garden.</li> </ul>
8	Tiles, Granite/marble	sqft	19762.06	<ul> <li>To create Mosaic pattern in front of entrance door.</li> <li>To create pathways &amp; walkways in the landscape area using large &amp; small pieces.</li> <li>Fences around flower beds.</li> <li>Terrace flooring</li> </ul>

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9	River sand	tonnes	14.69	To use for filling of trenches.
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# Point 7: Layout plan indicating road, greenbelt, drainage, sewer line, STP, solid waste handling area, rain water harvesting structure, etc. in different colour to be furnished.

Reply: We are providing layout indicating road, greenbelt, drainage, sewer line, STP, solid waste handling area, rain water harvesting structure attached as Annexure VII.

### Point 8: Layout of parking plan indicating entry and exit points of vehicular movement as well as traffic management plan. Highlight the fire tender pathway.

Reply: We are hereby attaching parking plan indicating entry and exit points of vehicular movement as well as traffic management plan. Highlighted fire tender pathway attached as Annexure VIII.

### Point 9: Details of source of water supply along with permission to be submitted.

Reply: We have received water NOC from Pune Municipal Corporation dated 8.3.2016. Attaching water NOC as Annexure IX

### Point 10: Excess treated sewage disposal plan/scheme to be submitted.

Reply: Total water requirement of the project will be 279 m<sup>3</sup>.212 m<sup>3</sup> sewage generating from the project will be treated in STP upto tertiary level. The treated water will be recycled within the project for flushing (72m<sup>3</sup>/day) an gardening ( 30m<sup>3</sup>/day) during non monsoon season. Excess treated STP water discharged from project will be 88 m<sup>3</sup>/day (118 m<sup>3</sup>/day during monsoon) will be discharged in existing municipal sewer line. We have obtained NOC from PMC for the same.

### Point 11: Prediction of ground level concentration of emissions from stack due to DG set (2x 1250 kVA).

Reply: Proposed project have two generators of 1250 kVA. These generators were set up for commercial purpose. These generators use diesel as fuel thereby having considerable potential to cause particulate and gaseous pollution. Emissions estimated for the same are given in below Table.

Tuble 1 : Generator bet Emission Estimates								
Parameter	PM <sub>10</sub> (g/s)	PM <sub>2.5</sub> (g/s)	NOx (g/s)	CO (g/s)				
1250 KVA DG Set (2 No.)	2.6x10 <sup>-7</sup>	1.95x10 <sup>-7</sup>	1.28x10 <sup>-21</sup>	7.52x10 <sup>-29</sup>				

Table 1 : Generator Set Emission Estimates

Since generator set emissions were below model acceptable limits. Hence ground level concentration cannot be generated. Rather the emissions were well within prescribed limits. Snapshot supporting the same is attached below:



# Point 12: Efforts shall be made to reduce capacity of DG set to (1x1250 KVA) and remaining standby power shall be met from solar energy.

Reply: We have increased solar PV system from 27 KW to 124 KW as per maximum available terrace area. However, being a commercial building DG backup is very vital. Hence, DG sizes are designed accordingly.

### Point 13: Calculation on sizing of solar water heating systems to be furnished.

Reply: This is a commercial project where hot water requirement is negligible. Therefore, we are not proposing solar water heating system.

# Point 14: At least 2 solar powered lights and one fan shall be provided in each flat. Solar generation shall be connected to the grid.

*Reply:* This is a commercial project and no flats are proposed.

As per local bylaws we have proposed 27 k Watt peak generation which is minimum 20 % of total common area lighting load. However as per the available terrace area for the said project we can install approximately maximum 124 k Watt Peak solar PV system on terrace top.

As per recent development in solar we can get 300 watt installed output from 2000 mm X 1000 mm solar PV plate. The solar plate shall be installed on terrace with south-North facing mounted on independent supporting structure. Considering 90 days as a non- solar radiation days we can generate max 275 solar days.

### Point 15: Solid waste management plan along with area earmarked for solid waste management scheme.

Reply: We are submitting plan for hazardous, non-hazardous waste, e-waste and solid waste during construction and operation phase along with its mitigation measures. Also, submitting plan with its transport, collection, storage and disposal for solid waste.

Sr.	Cat	Description	Quantity	Precautions	Disposal
No.					
1	21.1	Waste from	~20 litre	Only during construction	Empty paint
		use of paints-	only	phase. Inventory will be kept	containers will
		pigments	while	minimum and JIT (just in time)	be taken back
			painting	principle shall be followed in	by vendor
				purchasing.	

Table 2: Domestic Hazardous Waste (Construction Phase)

During operation phase we may come across following Hazardous Waste as below-

Sr.	Description	Quantity	Precautions	Disposal
No.				
1	CFL, e-waste	-	This waste will be collected	Sent to SPCB
	like AA		separately at source	authorised E-
	batteries,			waste recycler
	Mobile			
	batteries etc.			

Table 3: Domestic Hazardous Waste / E-waste (Operation phase)

### MITIGATION :

It may thus be seen that Control measures are proposed to be taken with full precautions about the municipal and hazardous solid waste to minimize its menace. PP shall design a discipline as follows:

- The preparation of treatment and disposal shall be done well in advance of bringing the project operational.
- Awareness training will be arranged for the staff to make them aware to the need of not making litter indiscriminately
- Arrangements shall be done for floor to floor collection,
- Horticultural waste and garden sweepings shall not be subjected to open burning, but will be used for mulching.
- The collected waste shall be quickly removed in closed/covered vehicles.
- Awareness shall be spread to segregate the waste as organic, inorganic and inert. Staff will be appointed to supplement this.
- Waste storage shall not be unsightly.
- Waste handling shall not be by manual methods, and multiple handling shall be avoided.

### SOLID WASTE GENERATION:

Biodegradable waste generated for the project is 670 Kg/day and non –biodegradable waste is 921 Kg/day. For treating biodegradable waste OWC has been proposed for the project. Provision of area provided for the same is:

Storage	$36 \text{ m}^2$
Segregation	$12 \text{ m}^2$
Treatment	63 m <sup>2</sup>
Total	111 m <sup>2</sup>





### SOLID WASTE MANAGEMENT PLAN WITH TRANSPORT, COLLECTION, STORAGE, DISPOSAL FOR ALL TYPES OF WASTES

Collection of the segregated solid waste shall be done from each floor. Final screening shall be done with dedicated efforts.

- Collection: Service management facility will manage to collect the waste from each floor and deliver it to the composting machine in closed containers.
- Final screening shall be done with dedicated efforts, inside a shade. The nonbiodegradable waste shall be disposed through the authorized contractor. The biodegradable waste will be subjected to treatment in an Organic Waste Converter.
- Segregation: The waste will be segregated at source by employees by making them aware of the rules of separating wet and dry garbage. They will segregate garbage in two

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different color buckets. Final segregation will be ensured at OWC location where separate space is provided.

- Storage: The bio-degradable waste will be treated on daily basis. A small storage section is proposed on site in order to store the manure.
- Disposal: Biodegradable waste will be used in garden as manure. Non-biodegradable waste will be disposed through SWACH.

### E-WASTE MANAGEMENT

94 Kg/month e-waste will be generated and collected from the building. It will be stored at a pre-designated place in the respective tower. Further, it will be handed over to M/s.Hi-Tech Recycling India Pvt.Ltd. for recycling and necessary action will be taken by them.

### Point 16: Details of rain water harvesting.

Reply: As per hydrogeology report 5 number of rainwater pits with borewell are proposed. In alluvial areas where permeable rocks are exposed on the land surface or at very shallow depth, roof top rain water harvesting can be done through recharge pits.

	RAIN WATER RECHARGE PIT CALCULATION									
	Design conside	rations								
1	Rainfall per year	781.90		mm						
2	No. of days of rainfall 49.40									
3	Average Daily rainfall15.83mm/day									
*Note	All data is as per IMD st	atistics for	Pu	ne						
	RAIN WATER	DISCHARG	E B	<b>BEFORE DE</b>	EVE	ELOPME	ENT	Γ		
Sr. No.Type of areaArea in m2Area in Ha'C' valueAvg Rain fall mm/day							Discharge m3/day			
1	Barren land before development	10740.80	10740.80 1.07408			0.25	15.83		42.50	
	Moderately contoured									
	Total rain water d	ischarge bet	fore	e developn	ner	nt m3/da	ıy			42.50
	RAIN WATER	R DISCHARC	SE /	AFTER DE	VE	LOPME	NT			
Sr. No.	Sr. No. Type of area		l	Area in Ha		'C' value		Avg Rain fall mm/da	у	Dischar ge m3/day
1	Terrace area of buildings	4252.00	)	0.4252		0.9		15.83		60.57
2	Green Area	3845.00	)	0.3845		0.35		15.83		21.30
3	Paved/Road area	2643.80	)	0.26438		0.6		15.83		25.11
	Total rain water discharge after development in m3/day							106.98		
RAIN WATER TO BE RECHARGED										

### 1) Rainwater Harvesting pits

1	Total rain water d	nt	106.98	m3/day			
2	Rain water discharge of	calculation be	efore develop	oment	42.50	m3/day	
	Rain wat	er to be recha	arged		64.48	m3/day	
	Rain wat	er to be recha	arged		0.045	m3/min	
DESIGN OF RECHARGE PIT							
1	Diameter of recharge pit	2.50	mtrs				
2	Depth of recharge pit	4.00	mtrs				
3	Bore Size	0.15	mtrs				
4	Depth of hore	115.00	ft				
4	Depth of bore	35.06	mtrs				
	Capacity of 1 RWH						
5	borewell	20.24	m3/day				
6	No. of pits required	4.00					
*We pr	ropose to recharge the storm	water through	n 5 rain wate	r harvesting	pits		
As per	As per EC notification.						

### 2) Rainwater Holding tank

Storage tank may be utilized as recharge structure after cleaning and desilting the same.

The recharge water is guided through a pipe from desilting chamber to the top of storage tank. Desilting Chamber which are back filled with boulders (5-20 cm), gravels (5-10mm) and coarse sand (1.5- 2mm) in graded form. Boulders at the bottom, gravels in between and coarse sand at the top so that the silt content that will come with runoff will be deposited on the top of the coarse sand layer and can easily be removed.

RAIN WATER HOLDING TANK CALCULATION							
	Design considera	tions					
1	Rainfall per year	781.90	mm				
2	No. of days of rainfall	49.40					
3	Average Daily rainfall	15.83	mm/day				
*Note : All data is as per IMD statistics for Pune							
Sr.No.	Type of area	Area in m2	Area in Ha	'C' value	Avg Rain fall mm/day	Discharge m3/day	
1	Terrace area of buildings	3920.00	0.392	0.9	15.83	55.84	
Total rain water discharge after development from Terrace in m3/day						55.84	

Tank sizing is done as per below calculations:

RAIN WATER HOLDING TANK CAPACITY					
1	Total rain water holding tank	55.84	m <sup>3</sup> /day		
2	Rain water Holding Tank Capacity	50.00	m³/day		

Overflow of rainwater holding tank will be connected to existing municipal storm water line.

### Point 17: Management of excavated soil. Pollution control measures to be taken to control fugitive emission during construction phase including marble /stone cutting.

Reply: Details of excavated soil and its management is given below:

S.No.	Item	Unit	Quantity	Reuse/Recycle
1	Excavated Soil	m <sup>3</sup>	239.00	Filling of depressions within the plot.
2	Hard strata excavation	m <sup>3</sup>	2,151.00	Soiling for foundations & roads

Pollution control measures to be taken to control fugitive emission during construction phase are listed as follows;

- Site barricades will be provided along with the tree planting at the site boundary;
- Excavation and transport will be done during off peak hours along with material loading from site minimize to about 15-20mins;
- During windy conditions, dust suppression measures will be adopted (dampening with water, tire washing facility at the entrance of the project site, etc.;
- The vehicles hired for transportation of material and labor shall have PUC certificate in order to reduce air emissions;
- Dust covers will be provided on trucks used for transportation of materials prone to fugitive dust emissions;
- If small volumes of concrete are to be mixed (manually), mixing is to be undertaken on a hard surface covered in plastic sheeting so that concrete waste and runoff can be contained;
- Traffic Management vehicular movement to be regulated with proper parking facility and internal road system;
- The generators used on the site for energy backup will be CPCB norms complied for air emissions.

# Point 18: Details energy conservation measures to be taken. (all points mentioned in the proposal such as orientation to support reduced heat gain, use of ASHRAE 90.1, use of ECBC compliant envelope measures to be supported through drawings and details in the proposal

Reply: We have applied for IGBC and we are aiming for Platinum rating. Details of ECBC compliance have been given in Annexure X

### Point 19: Layout plan indicating Greenbelt along with area earmarked to be provided.

Туре	Area (sq.m)
Lawn in RG area	380.60
Shrub bed in RG	597.86
Additional open space along periphery of plot	418.35
Additional open space	1191.10
Grass pavers	733.49
Total	3321 (30% of plot area)

Reply: Layout plan indicating Greenbelt along with area has been attached as Annexure XI

### Acceptance Letter for withdrawal of EC apllication

State Environment Impact Assessment Authority Maharashtra Member Address

Dated: 26 Dec 2016

To, GIRIRAJ ENTERPRISES Pune Maharashtra , 411016

Subject : Withdraw of EC

Sir,

This has reference to your proposal No. SIA/MH/NCP/35332/2015 dated 21 Dec 2015 regarding withdrawal of Environmental/CRZ Clearance for the above mentioned proposal.

2.0 This is to inform that your request for withdrawal of EC has been accepted in the SEIAA an hence forth, your application will be treated as withdrawn.

Yours Sincerely SEIAA, Maharashtra

MEDIUM	S.N.	ENVIRONMENTAL CONDITIONS
Topographyand	1	The natural drain system should be maintained for ensuring unrestricted
Natural		flow of water.
Drainage		No construction shall be allowed to obstruct the natural drainage through the
		site.
		No construction is allowed 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.

**Reply:** Natural drain system is maintained as we are not changing the natural water courses. In order to facilitate the smooth flow of natural streams map is GIS based drainage map is prepared covering 500m around project site. Annexure A

Contours are used in such a way that minimal cutting filling is involved in the project.

The project is not proposed on wetland and water bodies. Proper management of channelization of storm water from site by using proper internal SWD of diameter 600 mm having carrying capacity of 0.39 m3/sec has been proposed for the project that will be connected to External Drain Line of diameter 900 mm of carrying capacity 0.81 m3/sec. Also, proper maintenance of storm water drainage will be looked after to avoid choking of drains and flooding on site and ensure discharge of storm water from the site is clear of sediment and pollution.

Water	2	a.	A complete plan for rain water harvesting, water efficiency and
conservation -			conservation should be prepared.
Rain Water		b.	The local bye-law provisions on rain water harvesting should be
Harvesting, and			followed. If local bye-law provisions are not available, adequate
Ground Water			provision for storage and recharge should be followed as per the
Recharge			Ministry of Urban Development Model Building Bye- laws, 2016.
		c.	A rain water harvesting plan needs to be designed where the recharge
			bores of minimum one recharge bore per 5,000 square meters of built
			up area and storage capacity of minimum one day of total fresh water
			requirement shall be provided. In areas where ground water recharge is
			not feasible, the rain water should be harvested and stored for reuse. The
			ground water shall not be withdrawn without approval from the
			Competent Authority.
		d.	All recharge should be limited to shallow aquifer.
Reply:			

a. Rain water harvesting is planned as per hydrogeology report:

• Average depth of unconfined aquifer up to 8 to 18 meters

- first confined aquifers begins averagely from 25 meters to 35 meters. Accordingly, depth of the borewell is planned.
- second confined aquifers begins averagely from 37 meters to 45 meters.
- b. Local DCR regarding rain water harvesting requirements area being attached as Annexure B
- c. Roof top rainwater of buildings will be recharged through 5 no. of recharge pits having diameter 2.50 mtr and depth of 4 mtr for harvesting after filtration. RWH tank of 100 cu.m per day capacity has also been proposed for the project.
- d. Tanker water will be used during the Construction phase and during operation phase, water will be supplied by PMC. Hence, there is no need to abstract ground water.

2(a)	At least 20% of the open spaces as required by the local building bye-laws
	shall be pervious. Use of Grass pavers, paver blocks with at least 50%
	opening, landscape etc. would be considered as pervious surface.

Reply: We are providing more than 20% of plot area as open space admeasuring 3321.4 sq. m. Details of same are given below:

Туре	Area (sq.m)
Lawn in RG are	a 380.60
Shrub bed in RC	G 597.86
Additional open	418.35
space along peri	iphery
of plot	
Additional open	1191.10
space	
Grass pavers	733.49
Total	3321 (30%)
2 (b) Use of water efficie	nt appliances should be p
sensors be used to pr	romote water conservatior

Reply: Low flow fixture minimizes the use of municipal water and reduces the load on waste water system. Appropriate flow restrictors/ sensor type fixture will be provided for economizing on water consumption. The flow resistors shall be typically sized for following flow / discharge.

	Using Low fixtures	Conventional
Wash Basin	6.3 LPM	8 LPM
Kitchen Sink	6.3 LPM	8 LPM
WC Flushing	3/6 LPF	6 LPF
Urinal Flushing	2.0 LPF	3 LPF

• Low flow fixture save water by reducing the flow without reducing their efficiency.

• Low flow fixtures deliver more than 30% saving than the standard fixture.

2 (c)	Separation of grey and black water should be done by the use of dual
	plumbing system. In case of single stack system separate recirculation lines
	for flushing by giving dual plumbing system be done.

Reply:

Domestic & flushing Water is pumped using two different transfer pump sets from Domestic & flushing UGR to the respective OHT at terrace level. Water Distribution from the OHT to the various toilet fixtures shall be by gravity down-takes in separate zones to ensure the required pressure & flow to each fixture. Separate Down-take pipes shall be provided for the domestic & flushing system.

Solid Waste	3	Solid waste: Separate wet and dry bins must be provided in each unit and
Management		at the ground level for facilitating segregation of waste.
		The provisions of the Solid Waste (Management) Rules 2016 and the e-
		waste (Management) Rules 2016, and the Plastics Waste (Management)
		Rules 2016 shall be followed.

Reply: Being a commercial project, Separate wet and dry bins will be provided in each floor. As per provisions of the Solid Waste (Management) Rules 2016 and the e-waste (Management) Rules 2016, and the Plastics Waste (Management) Rules 2016 Non-Biodegradable waste including plastic waste generated will be handed over to authorized recycler "SWACH" and Biodegradable waste will be treated at Organic waste converter on site. We have got agreement done from State Pollution Control Board authorized agency for solid waste disposal. Same is attached as Annexure C

We have got agreement done from State Pollution Control Board authorized E-waste collector for E-waste disposal. Same is attached as Annexure C

3 (a)	All non-biodegradable waste shall be handed over to authorized recyclers for
	which a written tie up must be done with the authorized recyclers.

Reply: Non-Biodegradable waste generated will be handed over to State Pollution Control Board authorized recycler "SWACH". We have done agreement with them attaching as Annexure B

3(b)	Organic waste composter/Vermiculture pit with a minimum capacity of
	0.3 kg/person/day must be installed.

Reply: Since it is a Commercial project, so we have considered 0.25 kg/person/day criteria for generation of organic waste as per NBC,2005. Organic waste composter for handling capacity of 670 kg/day has been proposed for the project.

Sewage Treatment	4	Onsite sewage treatment of capacity of treating 100% waste water to be
Plant		installed. Treated waste water shall be reused on site for landscape,
		flushing, cooling tower, and other end-uses. Excess treated water shall be
		discharged as per CPCB norms. Natural treatment systems shall be promoted.
		Sludge from the onsite sewage treatment, including septic tanks, shall be
		collected, conveyed and disposed as per the Ministry of Urban
		Development, Central Public Health and Environmental Engineering
		Organisation (CPHEEO) Manual on Sewerage and Sewage Treatment
		Systems, 2013.



Reply;

Wastewater generation:- 212 m3/day

Treatment capacities with technology: 250 m<sup>3</sup> using MBBR

Facilities for recycling: Flushing, Gardening

Disposal:

(a): Sludge-22 Kg/day – Use as manure

(b): Surplus Treated waste water: - 88 m3/day, Disposed off as per SPCB norms.

Design Basis of Treatment plant – MBBR (Moving Bed Bio Reactor)

Preliminary Treatment:

1) Pre – Treatment:

Screening : This is the first units of the plant in which large or floating materials in the sewage gets arrested and blockage or choking of the downstream equipment can be avoided. This arrested material will be removed manually and then will be disposed off suitably

Oil & Grease trap : Domestic sewage sometimes gets waste water from pantries or kitchen which contains free oil. This oil if not removed then creates the problem of scum accumulation and affects the functioning of microbes.

To avoid this, oil & Grease trap is provided after the bar screen, where free floating oil is arrested prior to entry in the plant. Accumulated oil will be removed periodically and disposed off properly.

Equalization : To absorb variation in quantity and quality of sewage and to provide uniform flow at the downstream treatment process, a collection or equalization tank is provided. This will avoid shock loading and process upsets of the treatment plant. To avoid settling of suspended solids in this tank, continues air agitation is provided.

If at site, septic tank is provided then collection tank as well as air agitation is not required.

Secondary Treatment:

Biological Treatment : This is the main section of the plant where degradation of organic pollutants with the help of aerobic micro-organism takes place. To provide higher surface area for micro-organism, floating media is provided. On which micro-organism growth takes place. This makes bioreactor is of hybrid concept in which both suspended growth as well as attached growth principal for micro-organism is achieved. Due to higher population of micro-organism, effective volume of bioreactor reduced drastically as compared to conventional aeration tanks.

To maintain the aerobic condition in the bioreactor, air supply arrangement is provided by means of aeration equipment which has high oxygen transfer efficiency.

Tube Settler : Gravity overflow from the bioreactor is collected in the tube settler tank. In this settling tank, generated sludge from the bioreactor undergoes a gravity settling. Clear supernatant from settling tank will flow by gravity to a chlorine contact tank.

To reduce the plan area of settling tank, tube modules are placed in this tank to increase the settling area of the

Energy	5	Compliance with the Energy Conservation Building Code (ECBC) of
		Bureau of Energy Efficiency shall be ensured. Buildings in the States which
		have notified their own ECBC, shall comply with the State ECBC.
		Outdoor and common area lighting shall be
		LED.
		Concept of passive solar design that minimize energy consumption in
		buildings by using design elements, such as building orientation,
		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.
	5 (a)	Solar, wind or other Renewable Energy shall be installed to meet electricity
		generation equivalent to 1% of the demand load or as per the state level/
		local building bye-laws requirement, whichever is higher.
	5 (b)	Solar water heating shall be provided to meet 20% of the hot water demand
		of the commercial and institutional building or as per the requirement of the
		local building bye-laws, whichever is higher. Residential buildings are also
		recommended to meet its hot water demand from solar water heaters, as far as
		possible.
	5 (c)	Use of environment friendly materials in bricks, blocks and other
		construction materials, shall be required for at least 20% of the construction
		material quantity. These include flyash bricks, hollow bricks, AACs, Fly
		Ash Lime Gypsum blocks, Compressed earth blocks, and other environment
		friendly materials.
		Fly ash should be used as building material in the construction as per the
		provisions of the Fly Ash Notification of September, 1999 as amended from
		time to time.

Reply: We are aiming for Platinum rating building under ECBC. Details of compliance of ECBC requirements are attached as Annexure X.

Other details specific to project are as:

### **Building Orientation**

The building's longer facades face the east and west directions. But the building services are located on the west facade hence it acts as a buffer for the office spaces thus minimising the heat gain in the regulary occupied, air-conditioned spaces. East is the road facing facade.

The building has some key architectural features as under:

Rectangular building form

Main entrance from the south

West buffered by service core

Stepped form with terraces. Highest level on the south, thus shading the terraces on the lower levels.

### Landscaping

The landscape design consists of native and adaptive species which require less water for irrigation. The turf area is minimised to conserve water. Green areas on the building terraces also help in reducing heat gain from the roof.

### Efficient building envelope

The fenestration shall have high performance DGU as glazing. The facade design incorporates vertical fins as shading devices which shade the high performance DGU thus lowering the solar heat gain. The top most roof is also well insulated and is covered with heat reflective tiles. This helps in reducing the heat ingress from the roof which has the highest exposure to solar radiation. The terraces shall have green cover also.

### Day lighting design

More than 95% of the regularly occupied spaces such as offices, restaurants, health club, etc receive daylight thus eliminating the use of artificial light during the day.

Point 5C:- The flyash content in the structural works shall be 25% of cement quantity. The project shall use AAC blocks or fly ash blocks, which shall have atleast 40% flyash content. The other building materials such steel, glass and aluminium shall have recycled content thus contributing to lower embodied energy.

Air Quality	6	Dust, smoke & other air pollution prevention measures shall be provided
and Noise		for the building as well as the site. These measures shall include screens
		for the building under construction, continuous dust/ wind breaking walls all
		around the site (at least 3 meter height). Plastic/tarpaulin sheet covers shall be
		provided for vehicles bringing in sand, cement, murram and other
		construction materials prone to causing dust pollution at the site as well as
		taking out debris from the site. Wheel washing for the vehicles used be done.
		Sand, murram, loose soil, cement, stored on site shall be covered adequately
		so as to prevent dust pollution.
		Wet jet shall be provided for grinding and stone cutting. Unpaved surfaces
		and loose soil shall be adequately sprinkled with water to suppress dust.
		All construction and demolition debris shall be stored at the site (and not
		dumped on the roads or open spaces outside) before they are properly
		disposed. All demolition and construction waste shall be managed as per the
		provisions of the Construction and Demolition Waste Rules 2016.
		All workers working at the construction site and involved in loading,
		unloading, carriage of construction material and construction debris or
		working in any area with dust pollution shall be provided with dust mask.
		For indoor air quality the ventilation provisions as per National Building
		Code of India.

### Reply:

In order to avoid Dust, smoke & other air pollution following measures will be provided:-

- Barricading sheets will be provided around the building under construction, continuous dust/ wind breaking walls all around the site (at least 3 meter height) is planned.
- Plastic/tarpaulin sheet covers will be provided for vehicles bringing in sand, cement, murram and other construction materials prone to causing dust pollution at the site.
- Sand, murram, loose soil, cement, stored on site will be covered adequately so as to prevent dust pollution in the designated area.
- Wet jet will be provided for grinding and stone cutting which will take place in a designated area.
- All construction waste will be stored at the site (and not dumped on the roads or open spaces outside) before they are properly used. Layout depicting same is attached.
- 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 will be provided with dust mask.

All the above measures are considered in the Environment Management plan.

	6 (a)	The location of the DG set and exhaust pipe height shall be as per the	
		provisions of the CPCB norms.	
Reply: Location of DG set is kept more than 9 m away from building and stack height is proposed as per			
CPCB norms.			
Green Cover	7	A minimum of 1 tree for every 80 sq.mt. of land should be planted and	
		maintained. The existing trees will be counted for this purpose. Preference	
		should be given to planting native species.	

Reply: Plot area is 10740.80 sq.m. As per local bye-laws 134 trees are required considering a minimum of 1 tree for every 80 sq.mt. of land. However, to increase the biodiversity and greenery around project, we have planned 235 trees of 8 different species are proposed for the project.

		S.no	Common	Botanical	Physiognomy	Nos.	]
			Name	Name			
		1.	Ain	Terminalia	Deciduous	30	
				elliptica			
		2.	Bakul	Mimusops	Evergreen	25	
				elengi			
		3.	Beheda	Terminalia	Deciduous	30	
				belirica			
		4.	Bhend	Thespesia	Evergreen	60	
				populnea			
		5.	Bibba	Semecarous	Deciduous	15	
				anacardium			
		6.	Neem	Azaradichta	Deciduous	35	
				indica			
		7.	Charoli	Buchnania	Deciduous	20	
				lanzan			
		8.	Bija	Pterocarpus	Evergreen	20	
				Total		235	
	7 (a	.) W	here the tree	es need to be c	ut, compensator	y plant	ation in the ratio of 1:3
		(i.	(i.e. planting of 3 trees for every 1 tree that is cut) shall be done and maintained				
Reply: There are no	o exist	ting tree	s at site so d	o not involve an	y compensatory j	plantatio	on.
Top Soil	8	Te	opsoil should	l be stripped to	a depth of 20 c	m from	the areas proposed for
Preservation and		bı	buildings, roads, paved areas, and external services. It should be stockpiled				
Reuse		ap	propriately	in designated	areas and reapp	plied d	uring plantation of the
		pr	oposed vege	tation on site.			
Reply: We have	evcav	ated 23	$9 \text{ m}^3 \text{ of ton}$	soil and it is	stored at the d	esionate	ed place under covered

Reply: We have excavated 239 m<sup>3</sup> of top soil and it is stored at the designated place under covered conditions which will be further used for landscaping purposes.

Transport	9	A comprehensive mobility plan, as per MoUD best practices guidelines		
		(URDPFI), shall be prepared to include motorized, non-motorized, public, and		
		private networks.		
		Road should be designed with due consideration for environment, and		
		safety of users. The road system can be designed with these basic criteria.		
		1. Hierarchy of roads with proper segregation of vehicular and		
		pedestrian traffic.		
		2. Traffic calming measures.		
		3. Proper design of entry and exit points.		
		4. Parking norms as per local regulation.		
D 1	1			

Reply:

1: Site is accessible by 30 m wide road where as internal roads of 9 m are proposed. Detailed external road network (Annexure D) and internal roads are indicated in Fire Tender Movement plan. Attached as Annexure E

2. Separate entry exit, adequate parking places, traffic signages, traffic mirrors will be proposed for smooth traffic movement.

3. Proper design of entry and exit points: Parking plan depicting the same has been attached.

4. Parking requirement

	CARS	SCOOTER	BICYCLE
REQUIRED	813	2237	838
PROPOSED	813	2237	838

Environment	10	An environmental management plan (EMP) shall be prepared and
Management		implemented to ensure compliance with the environmental conditions
Plan		specified in item number 1 to 9 above. A dedicated Environment Monitoring
		Cell with defined functions and responsibility shall be put in place to
		implement the EMP. The environmental cell shall ensure that the
		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.
Reply: Environmen	nt Manage	ement Plan has been prepared and attached as Annexure F





### PART - X SPECIAL PROVISIONS FOR CERTAIN BUILDINGS

#### 32.0 PROVISIONS OF FACILITIES FOR DIFFERENTLY ABLED PERSONS

Provisions for Barrier Free access in buildings for differently abled persons shall be as given in Appendix-P

### 33.0 INSTALLATION OF SOLAR ASSISTED WATER HEATING (SWH) SYSTEM/ ROOF TOP PHOTOVOLTAIC (RTPV) SYSTEM

SWH or RTPV systems shall be mandatory in all types of buildings to be constructed on plot area of more than 4000 sq m

In order to facilitate the installation of SWH/RTPV System, the new buildings shall have the following provisions:

- All such buildings where SWH/RTPV are to be installed will have open sunny roof area available for the installation of SWH/RTPV.
- ii) The roof loading adopted in the design of such building should be atleast 50 kg per sq.m. for the installation of SWH/RTPV.
- iii) At least 25% of the roof area shall be utilized for installation of the SWH/RTPV system.
- iv) Precaution should be taken that architectural elevation treatment should not cast shadow on terrace space. As far as possible, parapet of south, east and west sides of the terrace shall be of railing type (above 1 feet) such that it will not cast shadow on the solar collectors and maximum terrace space can be utilized.
- v) All such new buildings installed with SWH shall have an installed hot water line from the rooftop and insulated distribution pipelines to each of the points where hot water is required in the building.

### 34.0 RAIN WATER HARVESTING

The provision for Rain Water Harvesting shall be made as under:

a) All the layout open spaces/amenity spaces of housing societies and new constructions/ reconstruction/ additions on plots having area not less than 500sq.mt., in non-congested areas shall have one or more Rain Water Harvesting structures having a minimum total capacity as detailed in Schedule.

Provided that the Commissioner may approve the Rain Water Harvesting structures of specifications different from those in Schedule, subject to the minimum capacity of Rain Water Harvesting being ensured in each case.

- b) The owner/society of every building mentioned in the (a) above shall ensure that the Rain Water Harvesting System is maintained in good condition for storage of water for non-potable purposes or recharge of groundwater at all times.
- c) The Authority may impose a levy of not exceeding Rs.1000/- per annum for every 100 sq.mt. of built-up area for the failure of the owner of any building mentioned in the (a) above to provide or to maintain Rain Water Harvesting structures as required under these regulations. Failure to provide Rain Water Harvesting System shall deem to be breach of the conditions on which the development permission has been granted.



#### SCHEDULE

Rain Water Harvesting in a building site includes storage or recharging the ground water by rainwater falling on the terrace or any paved or unpaved surface within the building site.

- The following systems may be adopted for harvesting the rainwater drawn from terrace and the paved surface.
- i) Open well of a minimum 1.00 mt diameter and 6mt in depth into which rain water may be channelled and allowed to filter for removing silt and floating material. The well shall be provided with ventilating covers. The water from the open well may be used for non-potable domestic purposes such as washing, flushing and for watering the garden etc.
- ii) Rain Water Harvesting for recharge of groundwater may be done through a bore-well around which a pit of 1m width may be excavated upto a depth of at least 3m and refilled with stone aggregate and sand. The filtered rain water may be channelled to the refilled pit for recharging the bore-well.
- iii) An impressive surface/underground storage tank of required capacity may be constructed in the setback or other open spaces and the rain water may be channelled to the storage tank. The storage tank shall always be provided with ventilating covers and shall have drawn-off taps suitably placed so that rain water may be drawn off for domestic, washing, gardening and such other purposes. The storage tank shall be provided with an overflow.
- iv) The surplus rain water after storage may be recharged in to ground through percolation pits or trenches or combination of pits and trenches. Depending on the geo-morphological and topographical conditions, the pits may be of the size of 1.20 m width X 1.20 m length X 2 m to 2.50 m depth. The trenches can be of 0.60 m width X 2 to 6 m length X 1.50 to 2 m depth. Terrace water shall be channelled to pits or trenches. Such pits or trenches shall be back filled with filter media comprising the following materials:
  - a) 40 mm stone aggregate as bottom layer upto 50% of the depth.
  - b) 20 mm stone aggregate as lower middle layer upto 20% of the depth.
  - c) Coarse sand as upper middle layer upto 20% of the depth.
  - d) A thin layer of fine sand as top layer.

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- e) Top 10% of the pits/trenches will be empty and a splash is to be provided in this portion in such a way that roof top water falls on the splash pad.
- f) Brick masonry wall is to be constructed on the exposed surface of pits/trenches and the cement mortar plastered. The depth of wall below ground shall be such that the wall prevents lose soil entering into pits/ trenches. The projection of the wall above ground shall at least be 15 cm.
- g) Perforated concrete slabs shall be provided on the pits/trenches.
- h) If the open space surrounding the building is not paved, the top layer up to a sufficient depth shall be removed and refilled with coarse sand to allow percolation of rain water into ground.

The terrace shall be connected to the open well/bore-well/storage tank/ recharge pit/trench by means of HDPE / PVC pipes through filter media. A valve system shall be provided to enable the first washing from roof or terrace catchment, as they would contain undesirable dirt. The mouth of all pipes and opening shall be covered with mosquito (insect) proof wire net. For the vefficient discharge of rain water, there shall be at least two rain water pipes of 100 mm dia. for

a roof area of 100 sq.m.

- vi) Rain Water Harvesting structures shall be sited as not to endanger the stability of building or earthwork. The structure shall be designed such that no dampness is caused in any part of the walls or foundation of the building or those of an adjacent building.
- vii) The water so collected/recharged shall as far as possible be used for non-drinking and noncooking purpose. Provided that when the rain water in exceptional circumstances will be utilised for drinking and/or cooking purpose, it shall be ensured that proper filter arrangement and the separate outlet for bypassing the first rain water has been provided. Provided further that, it will be ensured that for such use, proper disinfectants and the water purification arrangements have been made.

#### 35.0 REGULATION FOR WASTE WATER RECYCLING

#### 35.1 Type of Waste Water

The Waste Water is of following types:--

Black Water .- means Waste Water from W.C. Urinals and M.S.W.

(ii) Grey Water .- means Waste Water from Bathrooms, Sinks, Shower and Wash Areas etc.

(iii) Apart from Residential Waste Water, Waste Water generated from Industrial, Medical, Commercial and Waste generated from Garbage shall also be treated as per the guidelines given by the Maharashtra Pollution Control Board.

#### 35.2 APPLICABILITY

These Regulations shall be applicable to all Developments/ Redevelopments/part Developments for the uses as mention under (C-1) to (C-6) shall have the provision for treatment, recycling and reuse of Waste Water. The applicant shall along with his application for obtaining necessary layout approval/ building permission shall submit a plan showing the location of Waste Water Treatment Plant, furnishing details of calculations, references, implementation, etc. This Plan shall accompany with the applicant's commitment to monitor the system periodically from the date of occupation of the respective building.

#### 35.3 REGULATIONS

#### 35.3.1 (C-1) For Layout Approval/Building Permission

- (i) In case of Residential layouts, area admeasuring 10000 sq.m. or more, in addition to 10 % open space, prescribed in the bye- laws, a separate space for Waste Water Treatment and Recycling Plant should be proposed in the layout.
- (ii) On the layout Plan, all Drainage lines, Chambers, Plumbing lines should be marked in different colour and submit the layout for approval to the Municipal Corporation.
- (iii) The Recycled Water shall be used for Gardening, Car Washing, Toilet Flushing, Irrigation, etc. and in no case for drinking, bathing, washing utensils, clothes, etc
- (iv) In the Estimate of Waste Water Recycling Plant only provision for basic civil work and required machinery will be proposed by the Municipal Corporation other than these provisions, additional machinery, plumbing, Water tank pipe, landscape should be provided by Owner or Developer on his Own Cost.
- (v) A clause must be included by the Owner/ Developer in the purchase agreement that the purchaser, Owner of the Premises/Organization or Society of the purchasers shall ensure that:







### Giriraj Enterprises

### SERVICE AGREEMENT

The Agreement is entered into on this 21st day of April 2016, at

### By and Between

Hi-Tech Recycling India Pvt Ltd having its office at Bhukum, Pune (Therein after referred to as First party" which expression shall unless contrary to and or repugnant to the context mean and include successors representatives and permitted assigns) through Mr. Manish Patil to enter into and sign this agreement for and on behalf of the first party.

### AND

Giriraj Enterprises, a company incorporated under the provisions of the Companies Act 1956, having its Registered Office at, MALPANI HOUSE, I.G Marg, New Nagar Road SANGAMNER - 422605 thereinafter referred to as "Second party" Which expression shall unless contrary to and or repugnant to the context mean and include its successors representative and permitted assigns through Mrs.Supriya Joshi to enter into and sign this agreement for and on behalf of the first party.

### WHEREAS

The first party is registered as Approved E Waste, Copper and Cable Recycler by the SPCB under Lic No. MPCB/RO(HQ)/Reg/16/EW/HWMD-288-(B) and MPCB/RO(HQ)/Reg/16/HW/HWMD-288-(A) of the Hazardous Waste Management & Handling Rules, 1989 as amended in 2003 and is operating a facility for the collection, Reception, Transportation, Treatment and Disposal of E Waste at Bhukum, Pune

The Second party in compliance of the Hazardous Waste Management & Handling Rules 1989 as amended in 2003 desires to have services for disposal of their Electronic Waste Except liquid waste for which the first party is authorized facility of MPCB.

NOW THIS AGREEMENT witnesses the following terms & condition to be performed by both the parties to the agreement.

1. The First Party will require the second party staff representative to sign its Hazardous Waste collection document in acknowledge of E-Waste handed over. The First Party will sign the record book to be maintained by second party as a statutory requirement and has to be compiled with.

The second party will arrange collection and ensure proper segregation of Electronic Waste generated from its various sections as per Hazardous Waste (Management & handling Rules

Page 1 of 2 Read Estate Division, 1 Modibaug Commercial, Ganesh Khind Road, Shivaji Nagar, Pune - 411016. India Tel : +91 20 66210100 (30 lines), Fax : +91 20 25661470, Mob : 099224 39956, Email : sales@malpaniestates.com I www.malpani.com





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# Giriraj Enterprises

- 1989) as amended in 2003. The second party shall also ensure that all the E-Waste is handed over to First party.
- 4. First Party will take data destruction responsibility for the data storage devices coming from second party, which in turn will issue a data destruction certificate to second party after complete recycling. First party will make sure all the data is destroyed and will not be used in any way.
- 5. The second party's responsibility will cease once the segregated electronic waste duly packed labeled and signed has been handed over to the first party. It is specifically agreed and under stood that compliances of the Hazardous Waste (Management & Handling) Rules 1989 as amended in 2003 during transportation and disposal of electronic waste shall be exclusive responsibility of the first party.
- 6. The second party will be solely responsible for compliance of Hazardous Waste (Management & Handling) Rule, 1989 in respect of their E- waste.
- 7. The First Party will be e waste recyclers for the Second Party.
- 8. This agreement will be in force for a period of four years and can be renewed at the end of four years.
- (a) Notwithstanding the aforesaid term this Agreement may be terminated by either party by giving 30 days written notice only upon the occurrence of any of events specified in Clause 9(i) (ii) & (iii).
  - i) The First Party will be at liberty to discontinue the service to the Second Party in the event the Second Party does not comply with the norms.
  - ii) The First Party will be within their right to suspend the services to the Second Party in the event of the Second Party handing over un-segregated Electronic Waste.
  - iii) The second party shall be at liberty to discontinue the services of the First Party in the event that the First Party commits two successive defaults in taking delivery of the Electronic Waste from the Second Party within 15 Days.

For Giriraj Enterprises Through representative Supriya Joshi.

ecycli PUNE bilkanni Hi-Tech Recycling India Pvt Ltd

Through Authorized signatory

Real Estate Division, 1 Modibaug Commerce and Shivaji Nagar, Pune - 411016. India Tel : +91 20 66210100 (30 lines), Fax : +91 20 25661470, Mob : 099224 39956, Email : sales@malpaniestates.com I www.malpani.com



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## **ROAD NETWORK**





# ENVIRONMENTAL IMPACTS AND MANAGEMENT PLAN

# **EMP for Construction Phase**

No	Environmental	Mitigation measures	Responsibility	Legal &
•	issues/impacts			requirement
				S
1	T 1 1:00 :	LOCATION SPECIFIC		
1.	Level difference in Land	<ul> <li>For minimum cutting and filling on site, parking level are planned along the contours and proposed formation levels shall be created by using ramp along the natural slope</li> <li>Proper measures shall be adopted for noise and dust suppression on site and in surrounding areas</li> </ul>	Project Proponents /Architects	NOC from PMC.
2.	Loss of vegetation	Good Landscaping	Contractor/ Project Manager	
		DESIGN SPECIFIC		
1.	Building Height	<ul> <li>Height of the building is in accordance with the local planning permissions</li> <li>Tower 1: 99.80 m</li> <li>MLCP: 42.00 m</li> </ul>	Architects	Guidelines of PMC
2.	Incremental runoff due to Increase in paved areas (6896 m <sup>3</sup> /min)	<ul> <li>Planned RG area Mandatory - 1074 m<sup>2</sup> (10%) Provided- 3321 m<sup>2</sup> (30%)</li> <li>To allow natural percolation</li> <li>Minimizing the incremental runoff from the site with the help of rain water harvesting (5 pit)</li> </ul>	Architects	
		CONSTRUCTION PHASE		1
1.	Increase in water demand (4.5 KLD) due to water usage for construction, dust suppression and for workers	<ul> <li>Use of polymeric spray for dust suppression instead of water wherever possible</li> <li>Curing water shall be sprayed on concrete structures, free flow of water shall not be allowed for curing</li> <li>Use of wet jute cloth/gunny bags instead of water spray for curing activity.</li> </ul>	Contractor & Project Manager	
2.	Sewage generation (4 KLD) and disposal	<ul> <li>Disposal of sewage generated to sewer line</li> <li>Daily watch on sanitation facilities,</li> </ul>	Contractor & Project Manager	Water (P & CP) Act 1974

			drains & good housekeeping		
3.	Municipal solid waste generation (13 kg/day) by workers	•	Segregation of Biodegradable (9 kg/day) and non-biodegradable garbage (4 kg/day) Disposal of segregated waste to PMC	Contractor & Project Manager	
4.	<ul> <li>Construction activity may lead to</li> <li>Water logging on site</li> <li>Unsanitary conditions and mosquito breeding on site</li> <li>Sedimentation of outside drains</li> </ul>	•	Computation of the runoff from the catchment areas outside the plot and runoff within the plot. Proper management of channelization of storm water Designing storm water drainage with adequate capacity to cater the total runoff from site to avoid flooding on site Use of screens and silt traps in advance of earthworks Proper maintenance of storm water drainage to avoid choking of drains and flooding on site Prompt completion of works relating to drainage and sediment control Ensure discharge of storm water from the site or inflow to the site due to contributing catchment is clear of sediment and pollution	Contractor & Project Manager	Storm water drainage remarks from PMC
5	Construction activity	y	2		
a.	Dust generation	•	Use of polymeric spray wherever possible /water for dust suppression On site sensors shall be installed to monitor PM10 and PM 2.5 Provision of Barricades of adequate height along the periphery of the site Use of covering sheets while transporting the material	Contractor/ Proponents	
b.	Noise & Vibration	•	Regular noise monitoring to be scheduled to maintain the noise level within the levels prescribed by CPCB during day and night time Provision of ear plugs to workers Use of high efficiency mufflers		

		•	No noise polluting work in night shifts Provision of barricades along the periphery of the site		
c.	Disruption of soil & runoff	•	Sedimentary controls to be implemented		
d.	Oil leaks	•	Regular maintenance of machineries to prevent and repair leaks Contaminated soil (if any) disposed to authorized CHWTSDF		
e	Generation of construction waste - Debris/ Excavation material	•	Quantity of the debris: -2390 m <sup>3</sup> soil - Formation and Filling of Road and garden top soil - within plot (RG area) Disposal of hazardous waste to CHWTSDF Construction waste (Empty Cement Bags, Paint container, other Barrels & Scrap metal) will be handed over/sold to Authorized recyclers	Contractor/ Proponents	NOC for Solid Waste Managem ent/Excav ation permissio n from PMC
6	<ul> <li>Vehicular movement</li> <li>Increase in traffic</li> <li>Air emissions &amp; Noise</li> <li>Oil leaks</li> </ul>	•	Proper traffic management for the construction vehicles Provision of oil and grease traps to the Storm water drains Contaminated soil found if any to authorized CHWTSDF Regular maintenance of vehicles with suitable enclosures and intake silencers Planning and ensuring effective implementation of the waste movement plan for loading and offsite movement in non-traffic hours	Project Manager	
7	Use of DG sets may leads to air and noise pollution	•	DG sets with inbuilt acoustic enclosures Site barricading Regular maintenance	Project Manager	
8	Impact on health of workers Accidents, Hazards, injuries to workers	•	Adequate drinking water, canteen, toilet and bathing facilities First aid facility Regular health checkup of workers	Safety officer	

		•	Risk assessment and preparation of disaster management plan Provision of temporary water tank for firefighting and appropriate fire suppression measures Safety educational and awareness programme Proper security arrangements		
			OPERATION PHASE		
1.	Increase in water demand (175 KLD)	•	Use of treated sewage for flushing (72 KLD) and gardening (30 KLD) Use of Treated Waste Water for flushing and gardening resulting in reduction of Net water demand by 36 %	Project Proponents/ Society/ Facility Management system	Water Act 1974 as amended
2.	Sewage generation (212 KLD)	•	Provision of STP of capacity 250 KLD for treatment of sewage up to tertiary level. Proper operation and maintenance of STP and Daily analysis of general parameters like pH, BOD, COD and TSS & O & G of the STP outlet to ensure good treatment of waste water with the help of sensors Ventilation around the STP Proper arrangements for sludge handling and disposal	Project Proponents/ Society/ Facility Management system	
3.	Increment in Runoff (0.045m <sup>3</sup> /min ) from site	•	Minimizing the incremental runoff from the site with the help of rain water harvesting pits 5 no. and RWH tank of capacity 100 cu.m Proper management of channelization of storm water from site by using proper internal SWD system and two discharge points of having adequate capacity Use of screens and silt traps to SWD Proper maintenance of storm water	Project Proponents/ Society/ Facility Management system	SWD NOC from PMC

		<ul> <li>drainage to avoid choking of drains and flooding on site</li> <li>Ensure discharge of storm water from the site is clear of sediment and pollution</li> <li>Provision of sump pumps</li> <li>External drain of adequate capacity</li> </ul>		
4.	Power demand	<ul> <li>Provision of energy saving measures: s per MSEDCL requirements, we are planned to use high efficiency Transformer &amp; to reduce losses.</li> <li>Losses for Transformer will be as per IS standards &amp; ECBC norms.</li> <li>Following are the Energy efficient fixtures should be used in our project for energy conservation :-</li> <li>Energy saving:</li> <li>A. Replacing T8 fitting in stair case with T5.</li> <li>B. Replacing 2 x 18W Down lighter in lift lobby with 24W LED.</li> <li>C. Replacing 70W MHL Street lights with 24W LED.</li> <li>D. Providing 20% of Street lights on solar.</li> <li>E. Replacing normal lighting with LED for Landscape.</li> <li>F. Using VFD's for Lift machines, we can save 10% of consumption.</li> </ul>	Project Proponents/ Society/ Facility Management system	ECBC norms
5.	Use of DG sets may lead to air and noise pollution	<ul> <li>Stack height as per CPCB norms</li> <li>DG sets with inbuilt acoustic enclosures</li> </ul>	Project Proponents/ Society/Facility Management system	CPCB specificati on
6.	<ul><li>Vehicular movement</li><li>Increase in traffic</li><li>Air emissions &amp; Noise</li></ul>	<ul> <li>Provide adequate traffic signs and signages to notify occupiers</li> <li>Install safety mirrors to aid visibility in conflict points</li> </ul>	Project Proponents/ Society/Facility Management	

	• Contamination of soil (if any) leads to Oil leaks	•	Prevent parking near the Entry and Exit Gate Provide speed humps to regulate speed of vehicles Provide pedestrian crossings and dedicated footpath to cater to the walking population Assign traffic wardens to regulate flow of project traffic during peak hours	system	
7.	OdourandunsanitaryunsanitaryconditionsduetoSTPandCompostingofbiodegradablegarbage	•	Ventilation around STP and OWC area Proper housekeeping and maintenance	Project Proponents/ Society/ Facility Management system	Air act 1981, as amended
8.	Municipal waste & other solid waste generation	• • • • •	Informing and educating occupants for solid waste management Proper segregation on site to biodegradable and non- biodegradable. Biodegradable waste (671 kg/day): OWC Non- Biodegradable waste (921kg/day): To PMC Treatment in Organic Waste Convertor (OWC) End product from OWC and sludge generated from STP shall be used as manure on site Quarterly monitoring of manure	Project Proponents/ Society/ Facility Management system	
9	Disasters like Fire, lightning, Earthquake etc.	• • •	Preparation of Disaster Management Plan Provision of Safety officer, Security and First aid team Regular review of DMP and mock drill Effective implementation of DMP	Safety Officer	CFO NOC

# Environment Monitoring Cell

No.	Designation	Qualification	Facet	Responsibility
1	Project Manager	B. E. (Five years experience)	Construction Phase – Site in- charge	Material waste minimization, labour camp sanitation, Noise, oil grease & vibration nuisance control, accident prevention.
2	Environmental Coordinator	M. Sc. / M. Tech.	Air	Monitoring PUC control, Noise & odour mitigation measures
		(Environmental Science) Two years	Water	Water budget, O&M of water supply & Monitoring functioning of waste water treatment plant.
		Environmental Monitoring and	Solid waste	Monitoring Segregation, collection, composting & disposal
		reporting.	Greening	Monitoring tree plantation, Lawn development, storm water management
			Monitoring	Field observation, Laboratory tests, interpretation & reporting.
			Public relation & Press	Documentation, training
3	Operators – 2 No.s	B. Sc. equivalent	Field work and sampling	Operation and sampling of environmental facilities and reporting to Environmental Coordinator





### PART - X SPECIAL PROVISIONS FOR CERTAIN BUILDINGS

#### 32.0 PROVISIONS OF FACILITIES FOR DIFFERENTLY ABLED PERSONS

Provisions for Barrier Free access in buildings for differently abled persons shall be as given in Appendix-P

### 33.0 INSTALLATION OF SOLAR ASSISTED WATER HEATING (SWH) SYSTEM/ ROOF TOP PHOTOVOLTAIC (RTPV) SYSTEM

SWH or RTPV systems shall be mandatory in all types of buildings to be constructed on plot area of more than 4000 sq m

In order to facilitate the installation of SWH/RTPV System, the new buildings shall have the following provisions:

- All such buildings where SWH/RTPV are to be installed will have open sunny roof area available for the installation of SWH/RTPV.
- ii) The roof loading adopted in the design of such building should be atleast 50 kg per sq.m. for the installation of SWH/RTPV.
- iii) At least 25% of the roof area shall be utilized for installation of the SWH/RTPV system.
- iv) Precaution should be taken that architectural elevation treatment should not cast shadow on terrace space. As far as possible, parapet of south, east and west sides of the terrace shall be of railing type (above 1 feet) such that it will not cast shadow on the solar collectors and maximum terrace space can be utilized.
- v) All such new buildings installed with SWH shall have an installed hot water line from the rooftop and insulated distribution pipelines to each of the points where hot water is required in the building.

### 34.0 RAIN WATER HARVESTING

The provision for Rain Water Harvesting shall be made as under:

a) All the layout open spaces/amenity spaces of housing societies and new constructions/ reconstruction/ additions on plots having area not less than 500sq.mt., in non-congested areas shall have one or more Rain Water Harvesting structures having a minimum total capacity as detailed in Schedule.

Provided that the Commissioner may approve the Rain Water Harvesting structures of specifications different from those in Schedule, subject to the minimum capacity of Rain Water Harvesting being ensured in each case.

- b) The owner/society of every building mentioned in the (a) above shall ensure that the Rain Water Harvesting System is maintained in good condition for storage of water for non-potable purposes or recharge of groundwater at all times.
- c) The Authority may impose a levy of not exceeding Rs.1000/- per annum for every 100 sq.mt. of built-up area for the failure of the owner of any building mentioned in the (a) above to provide or to maintain Rain Water Harvesting structures as required under these regulations. Failure to provide Rain Water Harvesting System shall deem to be breach of the conditions on which the development permission has been granted.



#### SCHEDULE

Rain Water Harvesting in a building site includes storage or recharging the ground water by rainwater falling on the terrace or any paved or unpaved surface within the building site.

- The following systems may be adopted for harvesting the rainwater drawn from terrace and the paved surface.
- i) Open well of a minimum 1.00 mt diameter and 6mt in depth into which rain water may be channelled and allowed to filter for removing silt and floating material. The well shall be provided with ventilating covers. The water from the open well may be used for non-potable domestic purposes such as washing, flushing and for watering the garden etc.
- ii) Rain Water Harvesting for recharge of groundwater may be done through a bore-well around which a pit of 1m width may be excavated upto a depth of at least 3m and refilled with stone aggregate and sand. The filtered rain water may be channelled to the refilled pit for recharging the bore-well.
- iii) An impressive surface/underground storage tank of required capacity may be constructed in the setback or other open spaces and the rain water may be channelled to the storage tank. The storage tank shall always be provided with ventilating covers and shall have drawn-off taps suitably placed so that rain water may be drawn off for domestic, washing, gardening and such other purposes. The storage tank shall be provided with an overflow.
- iv) The surplus rain water after storage may be recharged in to ground through percolation pits or trenches or combination of pits and trenches. Depending on the geo-morphological and topographical conditions, the pits may be of the size of 1.20 m width X 1.20 m length X 2 m to 2.50 m depth. The trenches can be of 0.60 m width X 2 to 6 m length X 1.50 to 2 m depth. Terrace water shall be channelled to pits or trenches. Such pits or trenches shall be back filled with filter media comprising the following materials:
  - a) 40 mm stone aggregate as bottom layer upto 50% of the depth.
  - b) 20 mm stone aggregate as lower middle layer upto 20% of the depth.
  - c) Coarse sand as upper middle layer upto 20% of the depth.
  - d) A thin layer of fine sand as top layer.

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- e) Top 10% of the pits/trenches will be empty and a splash is to be provided in this portion in such a way that roof top water falls on the splash pad.
- f) Brick masonry wall is to be constructed on the exposed surface of pits/trenches and the cement mortar plastered. The depth of wall below ground shall be such that the wall prevents lose soil entering into pits/ trenches. The projection of the wall above ground shall at least be 15 cm.
- g) Perforated concrete slabs shall be provided on the pits/trenches.
- h) If the open space surrounding the building is not paved, the top layer up to a sufficient depth shall be removed and refilled with coarse sand to allow percolation of rain water into ground.

The terrace shall be connected to the open well/bore-well/storage tank/ recharge pit/trench by means of HDPE / PVC pipes through filter media. A valve system shall be provided to enable the first washing from roof or terrace catchment, as they would contain undesirable dirt. The mouth of all pipes and opening shall be covered with mosquito (insect) proof wire net. For the vefficient discharge of rain water, there shall be at least two rain water pipes of 100 mm dia. for

a roof area of 100 sq.m.

- vi) Rain Water Harvesting structures shall be sited as not to endanger the stability of building or earthwork. The structure shall be designed such that no dampness is caused in any part of the walls or foundation of the building or those of an adjacent building.
- vii) The water so collected/recharged shall as far as possible be used for non-drinking and noncooking purpose. Provided that when the rain water in exceptional circumstances will be utilised for drinking and/or cooking purpose, it shall be ensured that proper filter arrangement and the separate outlet for bypassing the first rain water has been provided. Provided further that, it will be ensured that for such use, proper disinfectants and the water purification arrangements have been made.

#### 35.0 REGULATION FOR WASTE WATER RECYCLING

#### 35.1 Type of Waste Water

The Waste Water is of following types:--

Black Water .- means Waste Water from W.C. Urinals and M.S.W.

(ii) Grey Water .- means Waste Water from Bathrooms, Sinks, Shower and Wash Areas etc.

(iii) Apart from Residential Waste Water, Waste Water generated from Industrial, Medical, Commercial and Waste generated from Garbage shall also be treated as per the guidelines given by the Maharashtra Pollution Control Board.

#### 35.2 APPLICABILITY

These Regulations shall be applicable to all Developments/ Redevelopments/part Developments for the uses as mention under (C-1) to (C-6) shall have the provision for treatment, recycling and reuse of Waste Water. The applicant shall along with his application for obtaining necessary layout approval/ building permission shall submit a plan showing the location of Waste Water Treatment Plant, furnishing details of calculations, references, implementation, etc. This Plan shall accompany with the applicant's commitment to monitor the system periodically from the date of occupation of the respective building.

#### 35.3 REGULATIONS

#### 35.3.1 (C-1) For Layout Approval/Building Permission

- (i) In case of Residential layouts, area admeasuring 10000 sq.m. or more, in addition to 10 % open space, prescribed in the bye- laws, a separate space for Waste Water Treatment and Recycling Plant should be proposed in the layout.
- (ii) On the layout Plan, all Drainage lines, Chambers, Plumbing lines should be marked in different colour and submit the layout for approval to the Municipal Corporation.
- (iii) The Recycled Water shall be used for Gardening, Car Washing, Toilet Flushing, Irrigation, etc. and in no case for drinking, bathing, washing utensils, clothes, etc
- (iv) In the Estimate of Waste Water Recycling Plant only provision for basic civil work and required machinery will be proposed by the Municipal Corporation other than these provisions, additional machinery, plumbing, Water tank pipe, landscape should be provided by Owner or Developer on his Own Cost.
- (v) A clause must be included by the Owner/ Developer in the purchase agreement that the purchaser, Owner of the Premises/Organization or Society of the purchasers shall ensure that:







# Giriraj Enterprises

## SERVICE AGREEMENT

The Agreement is entered into on this 21<sup>st</sup> day of April 2016, at

### By and Between

Hi-Tech Recycling India Pvt Ltd having its office at Bhukum, Pune (Therein after referred to as First party" which expression shall unless contrary to and or repugnant to the context mean and include successors representatives and permitted assigns) through Mr. Manish Patil to enter into and sign this agreement for and on behalf of the first party.

### AND

Giriraj Enterprises, a company incorporated under the provisions of the Companies Act 1956, having its Registered Office at, MALPANI HOUSE, I.G Marg, New Nagar Road SANGAMNER - 422605 thereinafter referred to as "Second party" Which expression shall unless contrary to and or repugnant to the context mean and include its successors representative and permitted assigns through Mrs.Supriya Joshi to enter into and sign this agreement for and on behalf of the first party.

### WHEREAS

The first party is registered as Approved E Waste, Copper and Cable Recycler by the SPCB under Lic No. MPCB/RO(HQ)/Reg/16/EW/HWMD-288-(B) and MPCB/RO(HQ)/Reg/16/HW/HWMD-288-(A) of the Hazardous Waste Management & Handling Rules, 1989 as amended in 2003 and is operating a facility for the collection, Reception, Transportation, Treatment and Disposal of E Waste at Bhukum, Pune

The Second party in compliance of the Hazardous Waste Management & Handling Rules 1989 as amended in 2003 desires to have services for disposal of their Electronic Waste Except liquid waste for which the first party is authorized facility of MPCB.

NOW THIS AGREEMENT witnesses the following terms & condition to be performed by both the parties to the agreement.

1. The First Party will require the second party staff representative to sign its Hazardous Waste collection document in acknowledge of E-Waste handed over. The First Party will sign the record book to be maintained by second party as a statutory requirement and has to be compiled with.

The second party will arrange collection and ensure proper segregation of Electronic Waste generated from its various sections as per Hazardous Waste (Management & handling Rules

tate Division, 1 Modibaug Commercial, Ganesh Khind Road, Shivaji Nagar, Pune - 411016. India Tel:+91 





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Hospitality Club & Resorts



# Girirai Enterprises

- 3. 1989) as amended in 2003. The second party shall also ensure that all the E-Waste is handed over to First party.
- 4. First Party will take data destruction responsibility for the data storage devices coming from second party, which in turn will issue a data destruction certificate to second party after complete recycling. First party will make sure all the data is destroyed and will not be used in any way.
- 5. The second party's responsibility will cease once the segregated electronic waste duly packed labeled and signed has been handed over to the first party. It is specifically agreed and under stood that compliances of the Hazardous Waste (Management & Handling) Rules 1989 as amended in 2003 during transportation and disposal of electronic waste shall be exclusive responsibility of the first party.
- 6. The second party will be solely responsible for compliance of Hazardous Waste (Management & Handling) Rule, 1989 in respect of their E- waste.
- 7. The First Party will be e waste recyclers for the Second Party.
- 8. This agreement will be in force for a period of four years and can be renewed at the end of four years.
- 9. (a) Notwithstanding the aforesaid term this Agreement may be terminated by either party by giving 30 days written notice only upon the occurrence of any of events specified in Clause 9(i) (ii) & (iii).
  - i) The First Party will be at liberty to discontinue the service to the Second Party in the event the Second Party does not comply with the norms.
  - ii) The First Party will be within their right to suspend the services to the Second Party in the event of the Second Party handing over un-segregated Electronic Waste.
  - iii) The second party shall be at liberty to discontinue the services of the First Party in the event that the First Party commits two successive defaults in taking delivery of the Electronic Waste from the Second Party within 15 Days.

For Giriraj Enterprises Through representative Supriya Joshi.

ecycli PUNE bilkanni Hi-Tech Recycling India Pvt Ltd

Through Authorized signatory

Real Estate Division, 1 Modibaug Comme Page Carlesh Khind Road, Shivaji Nagar, Pune - 411016. India Tel: +91 20 66210100 (30 lines), Fax: +91 20 25661470, Mob: 099224 39956, Email: sales@malpaniestates.com I www.malpani.com



Chap Jarda · Bagshah Khainy



Education Dhruv Acade International School



Entertainment



Hospitality Malpani Heal Club & Resorts

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# AGREEMENT

This Agreement is made and executed on 28th Day of January, 2016 at Pune.

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### Between

GIRIRAJ ENTERPRISES, a registered Partnership Firm having its office at 1 Modibagu Commercial, Ganeshkind Road, Shivaji Nagar, Pune -144016 (herein after referred to as the "Developer")Party No.1

## AND

SWaCH Pune Seva Sahakari Sanstha Maryadit, Pune (SWaCH Cooperative), a fully owned cooperative of waste pickers in Pune which has its office at Old KothrudKacchra depot, Kothrud, Pune - 411038 (herein after referred to as the "Service Provider")Party No.2

WHEREAS, the Developer/Party No.1 is developing/has developed a project under the name and style of "MALPANI TRIAMPH TOWER" situated at S.No.33 1(Part) and S. No. 33/1/12, situated at Village Baner, Taluka; Haveli, District Pune. (herein after referred to as the "said Site").

AND WHEREAS, the Developer requires professional services of a suitable agency to collect, recycle, and/or dispose of all the non-biodegradable wastes, ("the said Wastes") resulting from the said Site on timely basis;

AND WHEREAS, the Service Provider/Party No.2 has assured the Developer that it can provide such services and that it is in the business of and has the expertise, experience, resources and capability to perform the collecting, packaging, recycling, and/or disposing of aforesaid wastes.

AND WHEREAS relying on the assurances and representations made by the Service Provider, the Developer has agreed to assigned the said contract to the Service Provider to provide the services required for treating, disposing etc of the wet, dry and non-recyclable waste for a period of 12 months from the date of execution hereof, which is accepted by the Service Provider subject to the terms and conditions mentioned herein after.

## NOW THIS AGREEMENT WITNESSETH HEREAFTER

 The Service Provider hereby agree to provide and give the service of collection, segregation and disposal of non-bio-degradable waste(925Kg/Day)resulting from the said Site for a period of 12 (twelve) months from the date of execution hereof, for the charges mutually agreed upon which are more particularly mentioned herein below and accordingly the Developer agrees to take and obtain the same from the Service Provider.



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 This agreement is renewable for a subsequent term of 12 months or more upon written agreement with mutual consent in between the Parties. At the time of renewal, the parties will determine and agree in writing any amendments to this agreement, if any.

 In consideration of providing the said services by the Service Provider to the Developer, the Developer agrees to pay the service charges finalized upon actual commencement of services.

 The Developer shall pay the amount due on or before 10th day of every month to the Service Provider herein.

5. The Bills shall be raised by the Service Provider in the name of "GIRIRAJ ENTERPRISES" and/or in the name of the society/apartment association of tenement holders in the said Project, as the case maybe.

6. The Service Provider shall not, without the prior written consent of the Developer, delegate or subcontract the performance of the work, or any portion thereof, to a third party/agency.

7. Notices: Any notice required or permitted to be given under this Agreement shall be in writing, shall be deemed duly given if delivered in person or if sent by registered Post, return receipt requested, on the address stated hereinabove.

8. It is agreed by and between the Parties that either party shall be entitled to terminate this agreement by giving 30 days written notice to the other party. However, the services provided for, before the cancellation of this contract, shall be settled in monetary terms forthwith.

9. This agreement is subject to Indian Laws and any dispute arising out of the same shall be referred to the courts of appropriate jurisdiction within the city limits of Pune (Maharashtra, India) only.

IN WITNESS WHEREOF, the parties have signed this Agreement on the day and year first above written.

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GIRIRAJ ENTERPRISES Through its Authorized Partner Mr. Ashish Madhav Malpani. (Developer / Party No.1)

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Witness:

1.

Name

Address

2.

Name

Address

## **ROAD NETWORK**





# ENVIRONMENTAL IMPACTS AND MANAGEMENT PLAN

# **EMP for Construction Phase**

No ·	Environmental Issues/Impacts	Mitigation measures	Responsibility	Legal & Other					
				requirement s					
	LOCATION SPECIFIC								
1.	Level difference in Land	<ul> <li>For minimum cutting and filling on site, parking level are planned along the contours and proposed formation levels shall be created by using ramp along the natural slope</li> <li>Proper measures shall be adopted for noise and dust suppression on site and in surrounding areas</li> </ul>	Project Proponents /Architects	NOC from PMC.					
2.	Loss of vegetation	Good Landscaping	Contractor/ Project Manager						
		DESIGN SPECIFIC	•						
1.	Building Height	<ul> <li>Height of the building is in accordance with the local planning permissions</li> <li>Tower 1: 99.80 m</li> <li>ML CP: 42.00 m</li> </ul>	Architects	Guidelines of PMC					
2.	Incremental runoff due to Increase in paved areas (6896 m <sup>3</sup> /min)	<ul> <li>Planned RG area Mandatory - 1074 m<sup>2</sup> (10%) Provided- 3321 m<sup>2</sup> (30%)</li> <li>To allow natural percolation</li> <li>Minimizing the incremental runoff from the site with the help of rain water harvesting (5 pit)</li> </ul>	Architects						
		CONSTRUCTION PHASE							
1.	Increase in water demand (4.5 KLD) due to water usage for construction, dust suppression and for workers	<ul> <li>Use of polymeric spray for dust suppression instead of water wherever possible</li> <li>Curing water shall be sprayed on concrete structures, free flow of water shall not be allowed for curing</li> <li>Use of wet jute cloth/gunny bags instead of water spray for curing activity.</li> </ul>	Contractor & Project Manager						
2.	Sewage generation (4 KLD) and disposal	<ul> <li>Disposal of sewage generated to sewer line</li> <li>Daily watch on sanitation facilities,</li> </ul>	Contractor & Project Manager	Water (P & CP) Act 1974					

			drains & good housekeeping		
3.	Municipal solid waste generation (13 kg/day) by workers	•	Segregation of Biodegradable (9 kg/day) and non-biodegradable garbage (4 kg/day) Disposal of segregated waste to PMC	Contractor & Project Manager	
4.	<ul> <li>Construction activity may lead to</li> <li>Water logging on site</li> <li>Unsanitary conditions and mosquito breeding on site</li> <li>Sedimentation of outside drains</li> </ul>	• • • •	Computation of the runoff from the catchment areas outside the plot and runoff within the plot. Proper management of channelization of storm water Designing storm water drainage with adequate capacity to cater the total runoff from site to avoid flooding on site Use of screens and silt traps in advance of earthworks Proper maintenance of storm water drainage to avoid choking of drains and flooding on site Prompt completion of works relating to drainage and sediment control Ensure discharge of storm water from the site or inflow to the site due to contributing catchment is clear of sediment and pollution	Contractor & Project Manager	Storm water drainage remarks from PMC
5	Construction activity	v	seament and pontation		
a.	Dust generation	•	Use of polymeric spray wherever possible /water for dust suppression On site sensors shall be installed to monitor PM10 and PM 2.5 Provision of Barricades of adequate height along the periphery of the site Use of covering sheets while transporting the material	Contractor/ Proponents	
b.	Noise & Vibration	•	Regular noise monitoring to be scheduled to maintain the noise level within the levels prescribed by CPCB during day and night time Provision of ear plugs to workers Use of high efficiency mufflers		

		•	No noise polluting work in night shifts Provision of barricades along the periphery of the site		
c.	Disruption of soil & runoff	•	Sedimentary controls to be implemented		
d.	Oil leaks	•	Regular maintenance of machineries to prevent and repair leaks Contaminated soil (if any) disposed to authorized CHWTSDF		
e	Generation of construction waste - Debris/ Excavation material	•	Quantity of the debris: -2390 m <sup>3</sup> soil - Formation and Filling of Road and garden top soil - within plot (RG area) Disposal of hazardous waste to CHWTSDF Construction waste (Empty Cement Bags, Paint container, other Barrels & Scrap metal) will be handed over/sold to Authorized recyclers	Contractor/ Proponents	NOC for Solid Waste Managem ent/Excav ation permissio n from PMC
6	<ul> <li>Vehicular movement</li> <li>Increase in traffic</li> <li>Air emissions &amp; Noise</li> <li>Oil leaks</li> </ul>	•	Proper traffic management for the construction vehicles Provision of oil and grease traps to the Storm water drains Contaminated soil found if any to authorized CHWTSDF Regular maintenance of vehicles with suitable enclosures and intake silencers Planning and ensuring effective implementation of the waste movement plan for loading and offsite movement in non-traffic hours	Project Manager	
7	Use of DG sets may leads to air and noise pollution	•	DG sets with inbuilt acoustic enclosures Site barricading Regular maintenance	Project Manager	
8	Impact on health of workers Accidents, Hazards, injuries to workers	•	Adequate drinking water, canteen, toilet and bathing facilities First aid facility Regular health checkup of workers	Safety officer	

		•	Risk assessment and preparation of disaster management plan Provision of temporary water tank for firefighting and appropriate fire suppression measures Safety educational and awareness programme Proper security arrangements		
	I		OPERATION PHASE		
1.	Increase in water demand (175 KLD)	•	Use of treated sewage for flushing (72 KLD) and gardening (30 KLD) Use of Treated Waste Water for flushing and gardening resulting in reduction of Net water demand by 36 %	Project Proponents/ Society/ Facility Management system	Water Act 1974 as amended
2.	Sewage generation (212 KLD)	•	Provision of STP of capacity 250 KLD for treatment of sewage up to tertiary level. Proper operation and maintenance of STP and Daily analysis of general parameters like pH, BOD, COD and TSS & O & G of the STP outlet to ensure good treatment of waste water with the help of sensors Ventilation around the STP Proper arrangements for sludge handling and disposal	Project Proponents/ Society/ Facility Management system	
3.	Increment in Runoff (0.045m <sup>3</sup> /min ) from site	•	Minimizing the incremental runoff from the site with the help of rain water harvesting pits 5 no. and RWH tank of capacity 100 cu.m Proper management of channelization of storm water from site by using proper internal SWD system and two discharge points of having adequate capacity Use of screens and silt traps to SWD Proper maintenance of storm water	Project Proponents/ Society/ Facility Management system	SWD NOC from PMC

		<ul> <li>drainage to avoid choking of drains and flooding on site</li> <li>Ensure discharge of storm water from the site is clear of sediment and pollution</li> <li>Provision of sump pumps</li> <li>External drain of adequate capacity</li> </ul>		
4.	Power demand	<ul> <li>Provision of energy saving measures: s per MSEDCL requirements, we are planned to use high efficiency Transformer &amp; to reduce losses.</li> <li>Losses for Transformer will be as per IS standards &amp; ECBC norms.</li> <li>Following are the Energy efficient fixtures should be used in our project for energy conservation :-</li> <li>Energy saving:</li> <li>A. Replacing T8 fitting in stair case with T5.</li> <li>B. Replacing 2 x 18W Down lighter in lift lobby with 24W LED.</li> <li>C. Replacing 70W MHL Street lights with 24W LED.</li> <li>D. Providing 20% of Street lights on solar.</li> <li>E. Replacing normal lighting with LED for Landscape.</li> <li>F. Using VFD's for Lift machines, we can save 10% of consumption.</li> </ul>	Project Proponents/ Society/ Facility Management system	ECBC norms
5.	Use of DG sets may lead to air and noise pollution	<ul> <li>Stack height as per CPCB norms</li> <li>DG sets with inbuilt acoustic enclosures</li> </ul>	Project Proponents/ Society/Facility Management system	CPCB specificati on
6.	<ul><li>Vehicular movement</li><li>Increase in traffic</li><li>Air emissions &amp; Noise</li></ul>	<ul> <li>Provide adequate traffic signs and signages to notify occupiers</li> <li>Install safety mirrors to aid visibility in conflict points</li> </ul>	Project Proponents/ Society/Facility Management	

	• Contamination of soil (if any) leads to Oil leaks	•	Prevent parking near the Entry and Exit Gate Provide speed humps to regulate speed of vehicles Provide pedestrian crossings and dedicated footpath to cater to the walking population Assign traffic wardens to regulate flow of project traffic during peak hours	system	
7.	OdourandunsanitaryunsanitaryconditionsduetoSTPandCompostingofbiodegradablegarbage	•	Ventilation around STP and OWC area Proper housekeeping and maintenance	Project Proponents/ Society/ Facility Management system	Air act 1981, as amended
8.	Municipal waste & other solid waste generation	• • • • •	Informing and educating occupants for solid waste management Proper segregation on site to biodegradable and non- biodegradable. Biodegradable waste (671 kg/day): OWC Non- Biodegradable waste (921kg/day): To PMC Treatment in Organic Waste Convertor (OWC) End product from OWC and sludge generated from STP shall be used as manure on site Quarterly monitoring of manure	Project Proponents/ Society/ Facility Management system	
9	Disasters like Fire, lightning, Earthquake etc.	• • •	Preparation of Disaster Management Plan Provision of Safety officer, Security and First aid team Regular review of DMP and mock drill Effective implementation of DMP	Safety Officer	CFO NOC

# Environment Monitoring Cell

No.	Designation	Qualification	Facet	Responsibility
1	Project Manager	B. E. (Five years experience)	Construction Phase – Site in- charge	Material waste minimization, labour camp sanitation, Noise, oil grease & vibration nuisance control, accident prevention.
2	Environmental Coordinator	M. Sc. / M. Tech.	Air	Monitoring PUC control, Noise & odour mitigation measures
		(Environmental Science) Two years experience in Environmental Monitoring and	Water	Water budget, O&M of water supply & Monitoring functioning of waste water treatment plant.
			Solid waste	Monitoring Segregation, collection, composting & disposal
		reporting.	Greening	Monitoring tree plantation, Lawn development, storm water management
			Monitoring	Field observation, Laboratory tests, interpretation & reporting.
			Compliance Reporting	Six monthly post EC compliance and State Pollution Control Board consents
			Public relation & Press	Documentation, training
3	Operators – 2 No.s	B. Sc. equivalent	Field work and sampling	Operation and sampling of environmental facilities and reporting to Environmental Coordinator














SR	FLOOR	NO OF	PARKING	
NO		VEHICLES	AREA	
	TWO-WHEELERS			
1	B2 FLOOR	920	3963	
2	B1 FLOOR	920	3963	
3	LG FLOOR	310	994	
4	GR (SURFACE)	87	261	
	TOTAL	2237	9181	
	FOUR-WI	IEELERS		
1	LG FLOOR	18	582	
2	GR (SURFACE)	30	785	
3	1ST FLOOR	64	2035	
4	2nd FLOOR	64	2035	
5	3rd FLOOR	64	2035	
6	4th FLOOR	63	2035	
7	5th FLOOR	64	2035	
8	6th FLOOR	63	2035	
9	7th FLOOR	64	2035	
10	8th FLOOR	63	2035	
11	9th FLOOR	64	2035	
12	10th FLOOR	64	2035	
13	11th FLOOR	64	2035	
14	12th FLOOR	64	2035	
	TOTAL	813	25787	



STRUCTURAL CONSULTANT

TM

JW CONSULTANTS LLP

SAIRADHE, OFFICE NO. 201, 2ND RUCOR, BEHIND HOTELLE MERIDIEN, 100-101 XENNEDY ROAD, PUNE, TEL.: +91 204644 9100

MOEF CONSULTANT:

XXXXXXXX

ULTRA-TECH (ENVIRONMENTAL CONSULTANCY &

LABORATORY) C-3, 2ND FLOOR, PAUD ROAD, KOTHRUD, PUNE-411038 TEL. 020-25/288109

MALPANI TRIUMPH TOWER

For M/S. Giriraj Enterprises

At S. NO. 33(P) Baner, Pune

COLUMN CN:

009D-TMP-MLCP

 NORPOTENT-VNLCP

 SOCRE
 0.00 m/s
 2000 m/s
 700 m/s

 1350
 2000 m/s
 2000 m/s
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REVISIONS

NOTE :



Office of Executive Engineer S.N.D.T. Water Supply, Pune Municipal Corporation Outward No.1621 Date: 08/03/2016



Subject: Your proposal for supply of water after Property Card of Survey No.33/1/12, 33/1, Share 33/1A/1/59/12, 331A/1/59/13 and 33/1A/1/59/14 Mouze Baner, Pune.

Reference: Proposal dated 28/01/2016 of Archi. Giriraj Enterprises. (Order No.9081)

With reference to proposal, you have submitted documents relating to sanction of building plans by Pune Municipal Corporation of Survey No. No.33/1/12, 33/1, Share 33/1A/1/59/12, 331A/1/59/13 and 33/1A/1/59/14 Mouze Baner, Pune. With the referenced letter you have demanded "No Objection Certificate" from Water Supply Department for getting Environemntal Clearance Certificate.

Hence you are informed that after completion of construction of proposed subject matter building and after submitting proposal for water connection along with property card, Municipal Corporation as per prevailing Rules, Policy and availability of water shall grant water connection.

Hence this letter is given on your demand.

BEFORE ME

D. R. BADGUJAR NOTAR GOVT. OF INDIA PUNE Dy. Executive Engineer Chatursinghi Water Supply Department Pune Municipal Corporation 2 6 DFC 2016

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Ach.



M/s Giriraj Enterprises Through authorized Partner: Ashish Madhav Malpani 1 Modibaug Commercial, 2<sup>nd</sup> Floor, Ganesh Khind Road, Shivajinagar, Pune 411 016

## **Project: "Commercial Development – Triumph Tower, Baner**

### **ECBC Compliance Report**

Triumph tower is designed as commercial development in Pune. The building has two basement, 13 floors of MLCP and 23 floors of office space. The project's architectural design, services design and specifications have duly considered energy efficiency and energy conservation measures (ECM's). In doing so, the project has used ECBC – Energy Conservation Building Codes to demonstrate its ECM's

The purpose of ECBC is to provide minimum requirements for the energy-efficient design and construction of buildings. It is proposed to make the ECBC mandatory for all new buildings that have a connected load of 100 kW or higher or a contract demand of 120 kVA or higher. Thus this project shall achieve ECBC compliance.

The ECBC ensures the construction of energy efficient buildings with a concomitant reduction in electrical demand and thereby consumption during the operational phases of the project.

The ECBC has five focus areas -

- Building Envelope
- Heating, Ventilation and Air Conditioning
- Service Water Heating
- Lighting
- Electrical Power

Climate Zone: As per ECBC the project is located in Warm and Humid Climate

### **Solar Passive Design Interventions:**

The building design has incorporated shading through massing and vertical projections as an in-built part of fenestration design. In addition to the overall facade design, vertical fins of 0.6m depth and 1.2m spacing have been incorporated. The extent of the local shading devices is governed by the maximum architectural projections allowed as per the local regulations. Almost all habitable spaces have an external facade thereby providing optimum daylight. This shall negate the use of artificial lighting throughout the day. VK:e environmental LLP Regd.

A 5, Agarkar Bhavan, L.B.Shastri Road, Pune – 411 030

#### Correspondence

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Page 1 of 4 ECBC Compliance Report.doc



## ECBC Section 4.0 Building Envelope:

# Window to Wall area: 47% Weighted Average Skylight to Roof Ratio : Not Applicable since no skylights are proposed

Note that the project has improved upon the building envelope performance through the specifications better than conventional practices. The project shall be ECBC compliant using the Prescriptive Approach. The following comparative table gives the ECBC prescriptive compliance and the proposed case.

Sr. No.	Building Envelope Component	ECBC Prescriptive Compliance	Proposed
1	Top Roof	U = 0.409 W/sqm K (max) ;	Heat Reflective Tile + 35 mm screed + geo textile & plastic sheet + 75 mm XPS Board + Waterproofing+ 150mm RCC (with steel) + putty finish U Value = 0.32 W/m2 °K
2	Opaque wall assembly	U = 0.440 W/sqm K (max)	Spandrel section with 50mm glasswool insulation U Value = 0.26 W/m2 °K
3	WWR and SHGC	Upto 40%, SHGC shall be 0.25 between 40% to 60%, SHGC shall be 0.20	Weighted average WWR = 47% Thus for warm and humid climate, the maximum SHGC of glass shall be 0.20
4	Fenestration	U = 3.3 W/sqm K (max) ; SHGC = 0.2 (max) ; VLT = 0.16 (min)	High Performance DGU; U = 1.8 W/sqm K ; SHGC = 0.27 SHGC with M-factor = 0.20 VLT = 0.36 The SHGC shall be further reduced owing to the vertical shading devices. Thus the resultant SHGC with M factor is 0.20
5	4.2.1.3 Air Leakages	Control air leakage through entrance doors within 5.0 l/s/sqm and through other windows and doors to 2.0 l/s/sqm	Weather stripping shall be done



Sr. No.	HVAC Aspect	ECBC Prescriptive Compliance	Proposed
1	5.2.1 Natural Ventilation	NBC Part 8 Section1, 5.4.3 and 5.7.1.	There are no naturally ventilated spaces in the building. All the spaces are mechanically ventilated.
2	5.2.2 Minimum Equipment Efficiency	The cooling equipments must meet minimum efficiency parameters as prescribed by ECBC and ASHRAE 90.1-2010	We are proposing VRF units having EER value not less than 10. In addition to that client to add in the tenant agreement to use VRF Units with minimum 10 EER.
3	5.2.3 Controls	Temperature Control, Timer Based controls required for systems larger than 8 TR	For both the systems proposed (i.e. DX Split & VRF systems) larger than 8 TR we shall have temperature & timer based control. In addition Client to add the same in tenant agreement.
4	5.2.4 Piping and Ductwork	R-values as prescribed by ECBC (0.35 sqm.K / W minimum)	We are proposing 13 mm thick elastomeric closed cell Nitrile Rubber insulation having R value 2.41 (Hr-ft2-oF/ BTU) I.e 0.42 sqm K/W
5	5.2.5 System Balancing	Air System Balancing	We are proposing collar damper in all the collars and volume control duct dampers at Y piece wherever required.
6	5.2.6 Condenser Location	The location of the condenser shall be planned in such a way that the heat sink is free from any heat discharges from other sources.	Noted, the condenser units are being proposed on the AC ledge provided at the periphery of the building.

## ECBC Section 5.0 Heating, Ventilation and Air Conditioning (HVAC)

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# ECBC Section 7.0 Lighting

Sr. No.	Lighting	ECBC Prescriptive Compliance	Proposed
1	7.2.1 Lighting Controls	Automatic time based controls for internal and external lights	External Lights shall operate on Astronomical timer. Internal lights shall operate as per actual lights requirement automatically.
2	7.2.3 Efficacy	Lighting for exterior building ground luminaries which operate at greater than 100 W shall contain lamps with minimum	Complying as per requirement.

		efficacy of 60 lm/W unless controlled by a motion sensor	
3	7.3.1 Interior Lighting Power Density	Plan artificial lighting design lower than the maximum permissible Lighting Power Density recommended by ECBC Maximum permissible LPD is 10.8 W/sqm as per Building Area Method.	Complying as per ECBC. The LPD for common areas is well below permissible limits.
4	7.3.5 Exterior Lighting Power Density	Plan artificial lighting design lower than the maximum permissible Lighting Power Density recommended by ECBC.	We are providing LED lights for exterior lights.



Sr. No.	Electric Power	ECBC Prescriptive Compliance	Proposed
1	8.2.1 Transformers	Maximum Allowable losses as per ECBC	The project has proposed 2 nos. of 2500 KVA Dry Type Transformers. The proposed TRF shall be energy efficient star rated shall be complying to ECBC Transformers specifications.
2	8.2.2 Motors	Minimum Efficiency as per ECBC	The motors used by pumps proposed in the project shall be energy efficient complying with the ECBC norms.

