M/s ATM ESTATES PVT. LTD.

Welcomes

to

The Presentation

of

"AMRITSAR – I"

Proposed Group Housing Project

at

Khasra No. 1363, 1364, 1365, 1415, 1416, 1417, 1418, 1419, 1420, 1421, 1422, 1423, 1424, 1425, 1426, 1427, 1439, 1440 & 1441, Shubham Enclave, Amritsar, Punjab.

for

ENVIRONMENT CLEARANCE

[FILE No. 21 – 42 / 2010 – I.A. III]

Environmental Engineers & Consultants New Delhi

INTRODUCTION

- M/s ATM Estates Pvt. Ltd. is a leading real estate developer company and has developed lot of real estate projects.
- The company proposes to develop a Group Housing Project at Khasra No. 1363, 1364, 1365, 1415, 1416, 1417, 1418, 1419, 1420, 1421, 1422, 1423, 1424, 1425, 1426, 1427, 1439, 1440 & 1441, Shubham Enclave, Besides NH-1, Amritsar, Punab.
- The total plot area for the proposed project is 3.27 Hectares and the total built up area is 51,383.45 Sq. Mtr.
- The project site is located in the Municipal limits of Amritsar Municipal Corporation and the proposed activity confirms to the land use as per the Master Plan of Amritsar.


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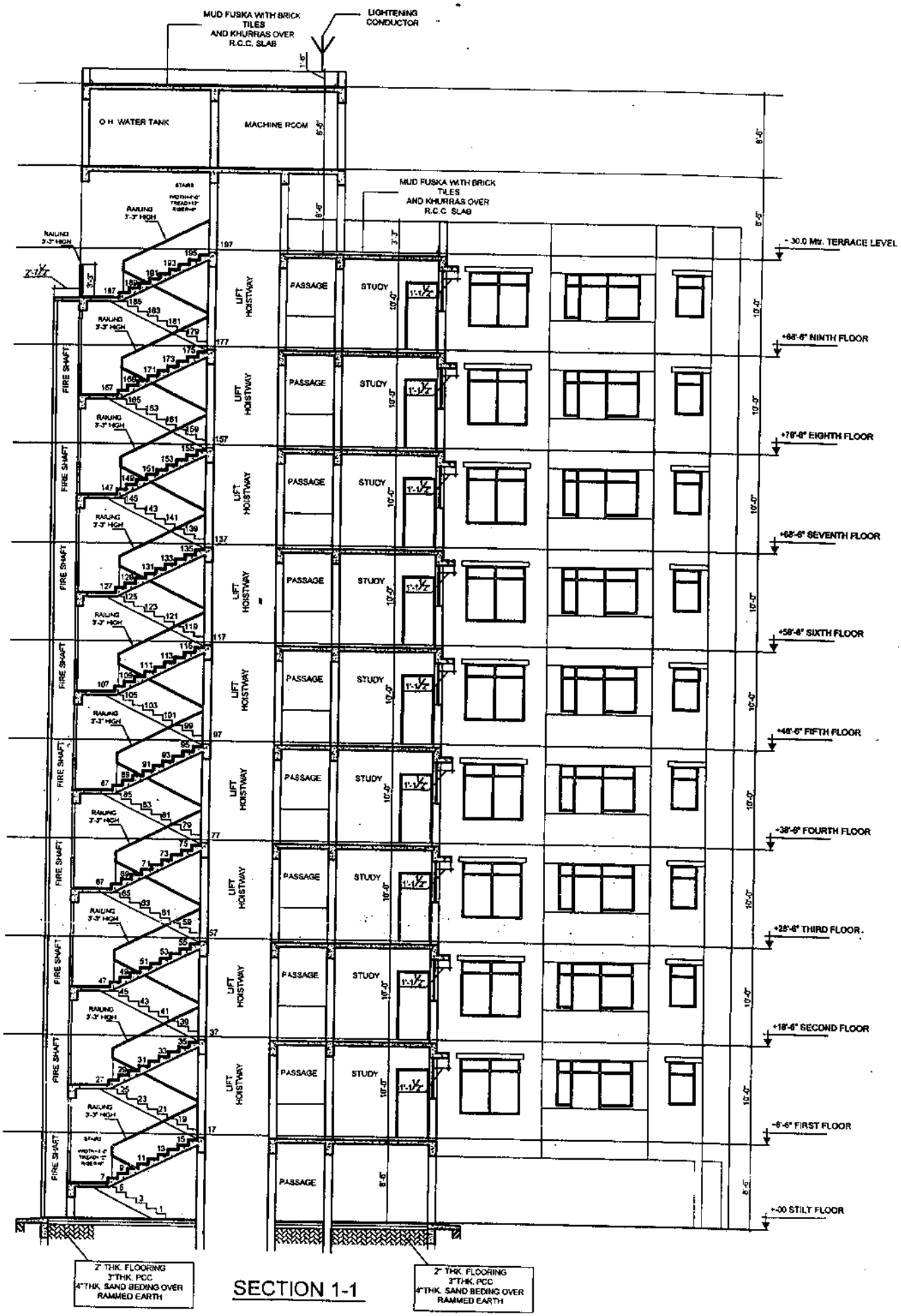
SECTION 1 - 1



SECTION 1-1

CONCEPTUAL PLAN

N

18 MTR. WIDE ROAD

IN

OUT

GREEN AREA

OTHERS LAND

30 MTR. WIDE ROAD
TO G.T. ROAD

LEGEND

- RESIDENTIAL BLOCK
- CLUB HOUSE BLOCK
- GREEN AREA
- ROAD NETWORK
- PAVEMENT
- UTILITIES (R.W.H, S.T.P.& S.W. FACILITY, WATER TANKS)

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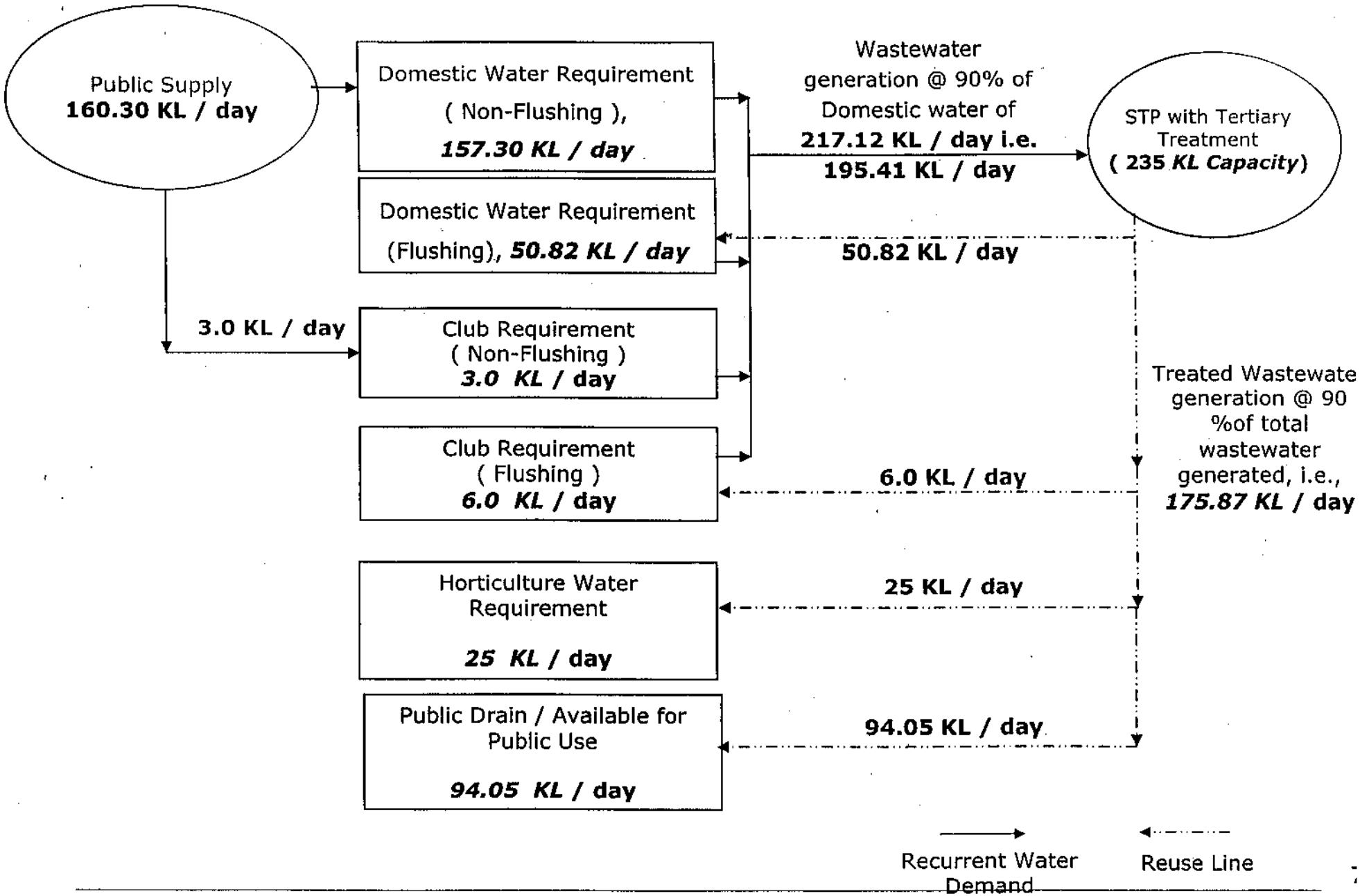
BRIEF DETAILS ABOUT THE PROJECT

➢ Objective of the project	=	Group Housing Project
➢ Total Plot Area	=	3.27 Hectares
➢ Total No. of Apartments	=	484 Nos. (1 B.R.= 49 Nos., 1 B.R. + Study = 327 Nos., 2 B.R. + Study = 96 Nos., 3 B.R. + Study = 12 Nos.)
➢ Total Built-up Area	=	51,383.45 Sq. Mtr.
➢ Total Cost of the Project	=	Rs. 95.795 Crores
➢ Total No. of Towers	=	5 Towers
➢ Max. No. of Floors	=	Stilt + 9 Floors
➢ Maximum Height	=	30.0 Mtr.

DAILY WATER CONSUMPTION BALANCE CHART



EMP – CONSTRUCTION PHASE

- First Aid facility will be provided to the workers.
- Arrangement with nearby hospital for periodic medical check up for the construction workers.
- Mobile toilets will be provided.
- Potable drinking water facility will be provided.
- Rest room for the workers will be provided.
- Wind breakers all along the periphery of the project site.
- Sprinklers at all appropriate locations to suppress the dust.
- D.G Sets with necessary noise control measures.
- Total water requirement will be about 8 KL/day for domestic purposes and 100 KL/day for construction purposes. The source of water for the construction purposes will be treated waste water available from the completed and occupied residential projects near the project site and will be brought through tankers.

EMP – OPERATION PHASE

(WASTE WATER & SOLID WASTE)

WASTE WATER :-

- **Total quantity of sewage generation = 195.41 KL / day.**
- **The sewage channelized to the Sewage Treatment Plant (STP).**
- **The treated waste water will be utilized for flushing and horticulture purposes.**

SOLID WASTE :-

- **Total quantity of solid waste = 968 Kg/day.**
- **Segregation at source by providing appropriate colored bins i.e., Bio-degradable (green) and non-biodegradable waste (yellow).**
- **Composting plant will be installed for disposal of bio-degradable waste.**
- **Non-biodegradable waste like empty bottles, plastic bags etc. will be sold to the vendors.**
- **The hazardous waste i.e., the used oil from D.G. Sets, discarded oil filters and discarded lead acid batteries of vehicles and UPS constitutes the hazardous waste. These items will be stored separately and will be sold as per EPA Norms.**
- **Various types of electronic waste including PC shall be collected separately and stored in an identified room for transportation of authorized recyclers / manufacturers.**

EMP - RAIN WATER MANAGEMENT PLAN

- Rainwater harvesting scheme as per C.G.W.A. guidelines will be implemented.
- The proposed project has provision of 14 Nos. of rainwater harvesting pits for recharging the ground water within the project premises.
- The roof run-off will be directly recharged and the surface run-off will be channelized to the de-silting cum oil trap before recharging.
- The rain water harvesting potential & harvesting pit calculation details are given below:-

➢	Roof Area	-- 11,391.47 Sq. Mtr.
➢	Green Area	-- 4,973.31 Sq. Mtr.
➢	Hard Surface, Roads & Pavement Area	– 16,332.37 Sq. Mtr.
➢	Run-off Factors:	
➢	Roof	-- 0.90
➢	Green Area	-- 0.20
➢	Roads	-- 0.60
➢	Peak Rainfall Intensity	-- 35 mm / hr. = 0.035 Mtr. / hr.
➢	Total Peak discharge from Roof	-- 11,391.47 X 0.90 X 0.035 = 358.83 Cu. Mtr / hr.
➢	Total Peak discharge from Green	-- 4,973.31 X 0.20 X 0.035 = 34.81 Cu. Mtr.
➢	Total Peak discharge from Road	-- 16,332.37 X 0.60 X 0.035 = 342.98 Cu. Mtr.
➢	Total Run-off	-- 736.62 Cu.mtr.
➢	Size & Capacity of Pit	-- 14 pits of size mtr. 4.0 dia & 4.0 mtr. depth (capacity per pit = 56 cu.mtr . & total capacity = 728 cu.mtr.)
➢	Pits required	-- 14 Pits
➢	Total Harvesting Pits Proposed	-- 14 Pits

EMP – OPERATION PHASE

ENERGY SAVINGS BY REDUCTION IN WATER CONSUMPTION

Water Requirement as per normal calculation (@ 135 Ltr. / Person / Day)	135 X 2420	326.70 KL / Day
Water Requirement as per reduced Consumption (@ 86 Ltr. / Person / Day)	86 X 2420	208.12 KL / Day
Water Savings	326.7 – 208.12	118.58 KL / Day
Energy Savings (Water Pumps) (@ 4 KW for every 10 KL Pumping)	**118.58 X 4 / 10**	**47.43 KW / Day**
Sewage Generation as per normal calculation (@ 90 % of Total Water Requirement)	326.70 X 90 / 100	294.03 KL / Day
Reduced Sewage Generation (@ 90 % of Total Water Requirement)	208.12 X 90 / 100	187.31 KL / Day
Difference in Sewage Generation	294.03 – 187.31	106.72 KL / Day
Power Savings (STP) (@ 3 KW for every 10 KL of Sewage Treatment)	**106.72 X 3 / 10**	**32.01KW / Day**
Total Power Savings by using efficient water saving fixtures & by reduction in water consumption	**47.43 + 32.01**	**79.44 KW / Day**

ENERGY SAVINGS BY USING CFL / LED LIGHTING FIXTURES

Lighting Fixtures of CFL / LED (Common Areas within the building)	**32 % Energy Saving in comparison with consumption due to conventional lighting fixtures**	**Total Units Saved – 1408 KW / Day (@ 8 hr. operation per day)**

ENERGY SAVINGS BY ADOPTING SOLAR ENERGY

Solar Energy for Water Heating & External Lighting	**8 % Energy savings in comparison with Consumption due to conventional water heating & External lighting**	**Total Units Saved – 581 KW / Day**

EMP – OPERATION PHASE
(PARKING PLAN)

- Parking will be provided at Stilt Level.
- All internal roads are of minimum 6.00 mtr. width.

PARKING CALCULATION DETAILS :-

- Total No. of Dwelling Units -- 484 Units
  (1 BR = 49, + 1 BR + Study = 327, 2BR + Study = 96, + 3 BR + Study = 12.
- MoEF parking norms and the requirement.

Size of Dwelling Units (Qty.)	Parking Norms / Unit	Parking Requirement
3 BR + Study (12 Nos.)	2 Cars	24 Cars
2 BR + Study (96 Nos.)	1 Cars + 1 T.W.	96 Cars + 96 T. W
1 BR + Study (327 Nos.)	1 Car	327 Cars
1 BR (49 Nos.)	1 Car	49 Car
Visitors Parking	10 % of Total Requirement	50 Cars + 10 T. W .
Total Parking Requirement	As Per MoEF	546 Cars + 106 T. W .
Total Parking Proposed at Stilt Level		548 Cars + 110 T. W.

PARKING PLAN AT STILT & OPEN SURFACE

N

18 MTR. WIDE ROAD

IN

OUT

GREEN AREA

OTHERS LAND

30 MTR. WIDE ROAD
TO G.T. ROAD

EMP – OPERATION PHASE

NOISE & FLUE GAS EMISSIONS :-

- The proposed project has provision of D.G. Set as standby arrangement of electricity (for emergency and common services only). The capacity of D.G. Sets of the proposed project would be 484 KVA x 1 Nos.
- D.G. Set of the proposed project will be attached with stack for the dispersion of flue gases which will be as per EPA Norms.
- Stack Height provided is for the capacity of 484 KVA

  -- $h + 0.2 \sqrt{484\ KVA}$

  -- h + 4.4 Mtr.
- D.G. Sets of the proposed project will be attached with Necessary Acoustic Enclosures for the control of noise as per EPA guidelines.

GREEN AREA DEVELOPMENT PLAN :-

- The project has provision of about 5,000 Sq. Mtr. for the Green area development, grass coverage and tree plantation.
- A large number of trees of native species would be planted within the premises.

ENVIRONMENT MANAGEMENT PLAN

CONSTRUCTION PHASE			
S. No.	Particulars	Approx. Recurring Cost / Annum (Rs. In Lacs)	Approx. Capital Cost (Rs. In Lacs)
1.	Medical cum First Aid facility	5.0	0.50
2.	Portable Toilets type mobile sanitation system	1.0	8.0
3.	Supply of Drinking water for the labourers	4.0	1.0
4.	Wind breakers	3.0	6.0
5.	Water Sprinkling for suppression of dust	1.0	2.0

OPERATION PHASE			
S. No.	Particulars	Approx. Recurring Cost / Annum (Rs. In Lacs)	Approx. Capital Cost (Rs. In Lacs)
1.	Sewage Treatment Plant	8.0	47.00
2.	Solid Waste segregation & disposal	5.0	11.0
3.	Noise Control for D.G. Sets	1.0	10
4.	D.G. Sets Emission	0.25	1.0
5.	Green Area Development including grass coverage	10.0	25.0
6.	Rain Water Harvesting System	7.0	35.0

ENVIRONMENT MONITORING PLAN

CONSTRUCTION PHASE				
Sr. No.	Particulars	Parameters	Frequency	Approx. Recurring cost / Annum (Rs. In Lacs)
1.	Ambient Air Monitoring	PM_{10} , $PM_{2.5,}$ SO_2 , NOx, CO	Every Season	1.0
2.	Noise Level Monitoring	24 Hrs. Noise Level	Once in a Month	0.50
3.	Ground Water Monitoring	As per IS:10500	Once in a Month	2.00

OPERATION PHASE				
Sr. No.	Particulars	Parameters	Frequency	Approx. Recurring Cost / Annum (Rs. In Lacs)
1.	Ambient Air Monitoring	PM_{10} , $PM_{2.5,}$ SO_2 , NOx, CO	Every Season	1.00
2.	Stack Emission Monitoring	PM, SO_2, NOx	Once in a Year	0.40
3.	Treated Effluent Monitoring	pH, BOD, COD, Oil & Grease, & Total Suspended Solids	Every Day	3.0
4.	Noise Level Monitoring	24 hrs. Noise level	Once in a Month	1.0
5.	Ground Water Monitoring	As per IS:10500	Once in a Month	1.0


Thank You