

MASTER PLAN YAMUNA EXPRESSWAY

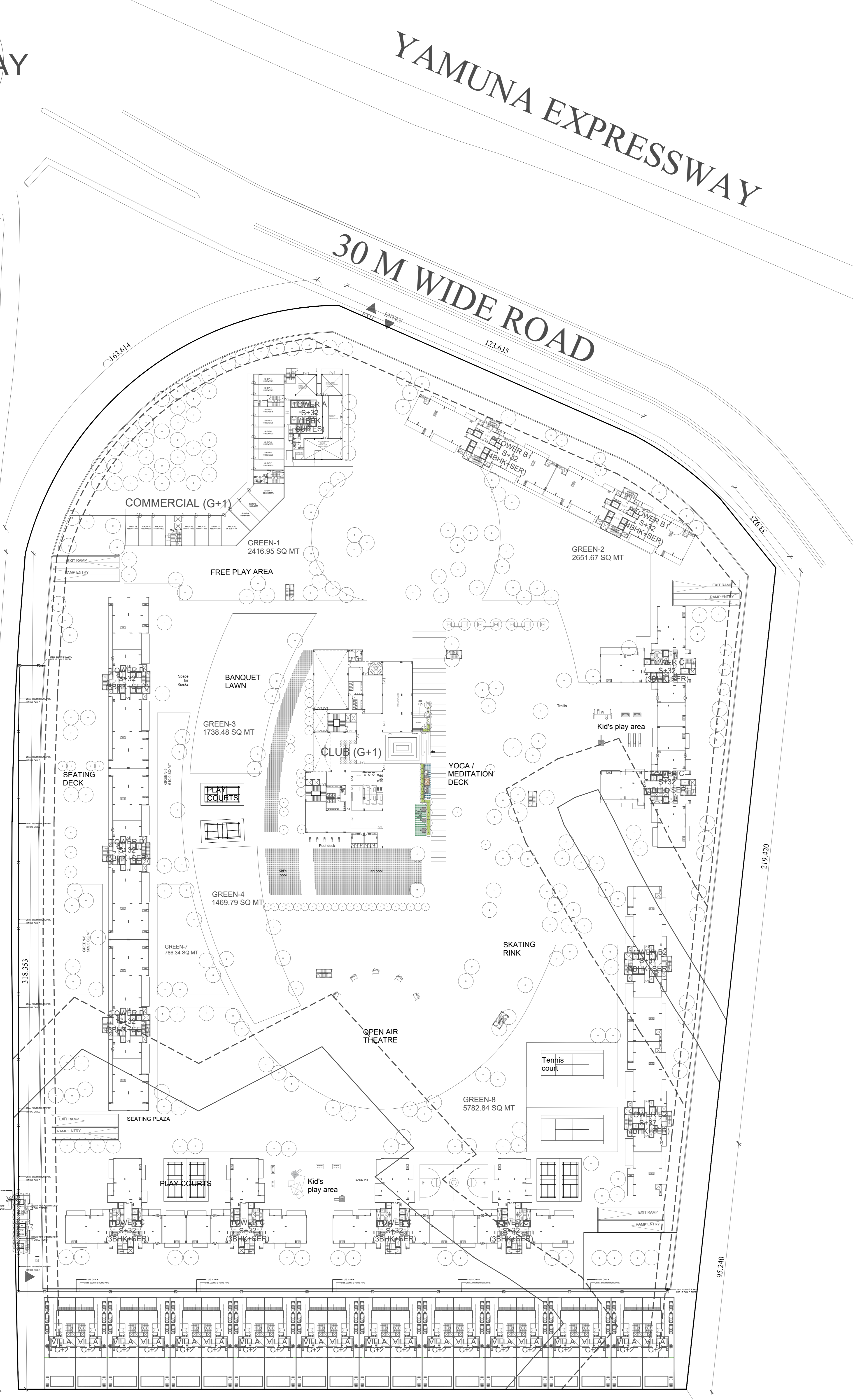
YAMUNA EXPRESSWAY

30 M WIDE ROAD

120 M WIDE ROAD

SERVICE ROAD

SERVICE ROAD



ELECTRICAL LOAD CALCULATION FOR HOUSING @ YAMUNA EXPRESSWAY

S.No	Description	No of Tower	Unit Per Tower	Total No Unit	Load Per Unit in KW	Total Load in KW	ESS-01	ESS-02
RESIDENTIAL LOAD CALCULATION								
1	Tower A - 1bhk Suite (S+32) - 69.2 sqm @ 50w/sqm = 3.46KW	1	308	308	3.5	1078.0	1078.0	
2	Tower B1 - 4bhk + Lounge (S+32) - 268.2 sqm @ 50w/sqm = 13.41KW	2	64	128	13.4	1715.2	1715.2	
3	Tower B2 - 4bhk + Lounge (S+37) - 268.2 sqm @ 50w/sqm = 13.41KW	2	74	148	13.4	1983.2		1983.2
4	Tower C Type 1 - 3bhk + Servant (S+32) - 189.9 sqm @ 50w/sqm = 9.50KW	4	96	384	9.5	3648.0		3648.0
5	Tower C Type 2 - 3bhk + Servant (S+32) - 191.59 sqm @ 50w/sqm = 9.58KW	2	96	192	9.6	1843.2	1843.2	
6	Tower D - 5bhk + Servant (S+32) - 331.734 sqm @ 50w/sqm = 16.59KW	3	64	192	16.6	3187.2	3187.2	
7	Villa - 5bhk (G+2) - 418.80 sqm @ 50w/sqm = 20.94	20	1	20	20.9	418.0		418.0
Total Load						13872.8	7823.6	6049.2
8	considering 50% Overall Diversity the Demand Load is (as Per UPERC Guide Lines)				KW	6936.4	3911.8	3024.6
9	Power factor @ 0.9PF				KVA	7707.1	4346.4	3360.7
10	Loading on Transformer @ 80%					9633.9	5113.5	3953.7
						2 nos 2000 + 1 no 1250 kva	2nos 2000 kva	

ELECTRICAL LOAD CALCULATION FOR HOUSING @ YAMUNA EXPRESSWAY

S.No	Description	No of Tower	Unit Per Tower	Total No Unit	Load in KW	Total Load in KW	
COMMON SERVICES LOAD CALCULATION							
1	Tower A - Common Area (S+32) - 5076.2 sqm @ 5KW Per Tower	1	1	1	5.0	5.0	
2	Tower B1 - 4bhk + Lounge (S+32) - 2801.8 sqm @ 5KW Per Tower	2	1	2	5.0	10.0	
3	Tower B2 - 4bhk + Lounge (S+37) - 3208.6 sqm @ 5KW Per Tower	2	1	2	5.0	10.0	
4	Tower C Type 1 & 2 - 3bhk + Servant (S+32) - 3510.4 sqm @ 5KW Per Tower	6	1	6	5.0	30.0	
5	Tower D - 5bhk + Servant (S+32) - 2594.7 sqm @ 5KW Per Tower	3	1	3	5.0	15.0	
6	Lift - 117 Nos @ 10KW/Lift				117	1170.0	
7	Club - 6802.3 sqm @ 150W/Sqm - 1020.3KW				1	1020.3	
8	Commercial - 2353.37 sqm @ 150W/Sqm - 353.0KW				1	353.0	
9	Basement Lighting - .170512.8 sqm @ 3W/Sqm - 511.54 KW				1	511.5	
10	Plumbing & STP Load				1	200.0	
11	Fire Fighting Load				1	250.0	
12	External Lighting				1	50.0	
13	Basement Ventilation				1	120.0	
Total Load						3744.8	
14	considering 75% Overall Diversity the Demand Load is (as Per UPERC Guide Lines)				KW	2808.6	
15	Power factor @ 0.9PF				KVA	3120.7	
16	Loading on Transformer @ 80%					3900.8	
Suggested Transformer @ 80% Loading & 0.9PF = 2 nos 200KVA 33/0.433 KV							

ELECTRICAL LOAD CALCULATION FOR HOUSING @ YAMUNA EXPRESSWAY

S.No	Description	No of Tower	Unit Per Tower	Total No Unit	Load in KW	Total Load in KW	ESS-01	ESS-02	ESS-03	
DG SET LOAD CALCULATION										
Housing Backup (A)										
1	Tower A - 1bhk Suite (S+32)	1	308	308	1.0	308.0	308.0			
2	Tower B1 - 4bhk + Lounge (S+32)	2	64	128	3.0	384.0	384.0			
3	Tower B2 - 4bhk + Lounge (S+37)	2	74	148	3.0	444.0		444.0		
4	Tower C Type 1 - 3bhk + Servant (S+32)	4	96	384	2.0	768.0		768.0		
5	Tower C Type 2 - 3bhk + Servant (S+32)	2	96	192	2.0	384.0	384.0			
6	Tower D - 5bhk + Servant (S+32)	3	64	192	4.0	768.0	768.0			
7	Villa - 5bhk (G+2)	20	1	20	5.0	100.0		100.0		
Total Load (A)						3156				
Taking Diversity 90%						2840.4				
Total Essential Load @ 0.8PF (A)						KVA	3551			
COMMON SERVICES - General (B)										
8	Tower A - Common Area (S+32) - 5076.2 sqm @ 5KW Per Tower	1	1	1	5.0	5.0			5.0	
9	Tower B1 - 4bhk + Lounge (S+32) - 2801.8 sqm @ 5KW Per Tower	2	1	2	5.0	10.0			10.0	
10	Tower B2 - 4bhk + Lounge (S+37) - 3208.6 sqm @ 5KW Per Tower	2	1	2	5.0	10.0			10.0	
11	Tower C Type 1 & 2 - 3bhk + Servant (S+32) - 3510.4 sqm @ 5KW Per Tower	6	1	6	5.0	30.0			30.0	
12	Tower D - 5bhk + Servant (S+32) - 2594.7 sqm @ 5KW Per Tower	3	1	3	5.0	15.0			15.0	
13	Lift - 117 Nos @ 10KW/Lift				117	1170.0			1170.0	
14	Club - 6802.3 sqm @ 150W/Sqm - 1020.3KW				1	1020.3	1020.3		1020.3	
15	Commercial - 2353.37 sqm @ 150W/Sqm - 353.0KW				1	353.0	353.0		353.0	
16	Basement Lighting - .170512.8 sqm @ 3W/Sqm - 511.54 KW				1	511.5	511.5		511.5	
17	Plumbing & STP Load				1	200.0	200.0		200.0	
18	Fire Fighting Load				1	250.0	250.0		250.0	
19	External Lighting				1	50.0	50.0		50.0	
20	Basement Ventilation				1	120.0	120.0		120.0	
Total Load (B)						3744.8	1844.0	1312.0	3744.8	
Taking Diversity 50%						1872.4	922	656	1872.4	
Total Essential Load @ 0.8PF (B)						KVA	2341	1153	2341	
Total Essential Load (A + B)						KVA	5891.0	1153	820	2341
Loading on DG SET @ 80%						KVA	7363.8	1440.6	1025.0	2925.6
Suggested DG set capacities							2 nos 750 kva	2 nos 630 kva	4 nos 750 KVA	

DRAWING TITLE :-
SITE PLAN -HT RMU & HT METER ROOM LAYOUT

PROJECT TITLE :-
PROPOSED SUBMISSION DRAWING FOR THE RESIDENTIAL GROUP HOUSING AT PLOT NO- GH-01 SECTOR - 22A, YAMUNA EXPRESSWAY INDUSTRIAL DEVELOPMENT AUTHORITY DISTRICT- GAUTAM BUDH NAGAR , U.P

OWNER NAME :-
M/S. OMNIS DEVELOPERS PVT. LTD.

SIGN. OF OWNER:- ARCHITECTS :-

(Signature)
SHEET SHANGARI
ARCHITECT
449721761

ARCHITECT : **ACPL** ISO 9001:2008
Architecture Management Planning

ACPL Design Ltd
E-24, South Extension-1 T: +91 11 24622195
New Delhi 110049 India F: +91 11 24644709

www.acplonline.com E: contact@acplonline.com P: +91 11 24634099