



<u>PROJECT - MARINA SUITES, NH-24, GHAZIABAD</u>									
<u>Electrical load Calculation</u>									
S.no	Description			No. of unit		Load per Unit		Total Load	
	Tower A			No. of Tower		=	1		
1	2 BHK + 2 TOI. (TYPE 1) (60.2 sq M @ 50 W/sqM = 3.01 KW)			24	units	@	3.01	KW	= 72 KW
	2 BHK + 2 TOI. (TYPE 2) (65.1 sq M @ 50 W/sqM = 3.25 KW)			143	units	@	3.25	KW	= 465 KW
3	3 BHK + 3 TOI. (TYPE 2) (100.9 sq M @ 50 W/sqM = 5.04 KW)			46	units	@	5.04	KW	= 232 KW
	3 BHK + Store + 2 TOI. (TYPE 1) (91.4 sq M @ 50 W/sqM = 4.57 KW)			24	units	@	4.57	KW	= 110 KW
	Tower B			No. of Tower		=	1		
5	2 BHK + 2 TOI. (TYPE 1) (59.6 sq M @ 50 W/sqM = 2.98 KW)			215	units	@	2.98	KW	= 641 KW
	2 BHK + Study + 2 TOI. (TYPE 1) (77.7 sq M @ 50 W/sqM = 3.88 KW)			24	units	@	3.88	KW	= 93 KW
	Tower C			No. of Tower		=	1		
7	2 BHK + 2 TOI. (TYPE 2) (64.8 sq M @ 50 W/sqM = 3.24 KW)			119	units	@	3.24	KW	= 386 KW
	2 BHK + Study + 2 TOI. (TYPE 2) (81.1 sq M @ 50 W/sqM = 4.05 KW)			24	units	@	4.05	KW	= 97 KW
9	2 BHK + Study + 2 TOI. (TYPE 3) (86.5 sq M @ 50 W/sqM = 4.33 KW)			48	units	@	4.33	KW	= 208 KW
	COMMON SERVICES - TOWERS								
	Tower A			No. of Tower		=	1		
10	Elevators		3 nos	@	15	KW	=	45	KW
11	Common Lights		1 towers	@	5	KW	=	5	KW
	Tower B			No. of Tower		=	1		
12	Elevators		3 nos	@	15	KW	=	45	KW
13	Common Lights		1 towers	@	5	KW	=	5	KW
	Tower C			No. of Tower		=	1		
14	Elevators		3 nos	@	15	KW	=	45	KW
15	Common Lights		1 towers	@	5	KW	=	5	KW
	COMMON SERVICES - General								
16	Tube wells / Water Supply Pumps							=	25 KW
17	STP							=	25 KW
18	External / Gate / Landscape lighting			1 Set	@	10	KW	=	10 KW
19	Basement lights (2B)							=	10 KW
20	Basement Ventillation							=	100 KW

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<u>Electrical load Calculation</u>										
S.no	Description			No. of unit		Load per Unit			Total Load	
21	Community / Club								=	25 KW
22	Commercial								=	25 KW
23	Fire pumps (only jockey pumps have been considered)		1 set	@	15 KW			=	15 KW	
						Total Load		=	2688 KW	
By taking Overall Diversity factor						70 %	=>	1882 KW		
By taking Power factor 0.90							=>	2090 KVA		
Total Electrical Load = 2090 KVA										
Recommended Transformers = 2 nos. 1250 KVA each.										

<u>PROJECT - MARINA SUITES, NH-24, GHAZIABAD</u>													
<u>Essential Electrical load Calculation</u>													
S.no	Description		No. of unit	Load per Unit		Total Load							
Sub Head (A)													
Tower A			No. of Tower			=	1						
1	2 BHK + 2 TOI. (TYPE 1)		24	units	@	1.00	KVA	=	24 KVA				
2	2 BHK + 2 TOI. (TYPE 2)		143	units	@	1.00	KVA	=	143 KVA				
3	3 BHK + 3 TOI. (TYPE 2)		46	units	@	1.00	KVA	=	46 KVA				
4	3 BHK + Store + 2 TOI. (TYPE 1)		24	units	@	1.00	KVA	=	24 KVA				
Tower B			No. of Tower			=	1						
5	2 BHK + 2 TOI. (TYPE 1)		215	units	@	1.00	KVA	=	215 KVA				
6	2 BHK + Study + 2 TOI. (TYPE 1)		24	units	@	1.00	KVA	=	24 KVA				
Tower C			No. of Tower			=	1						
7	2 BHK + 2 TOI. (TYPE 2)		119	units	@	1.00	KVA	=	119 KVA				
8	2 BHK + Study + 2 TOI. (TYPE 2)		24	units	@	1.00	KVA	=	24 KVA				
9	2 BHK + Study + 2 TOI. (TYPE 3)		48	units	@	1.00	KVA	=	48 KVA				
					Total Load			=	667 KVA				
By taking overall Diversity factor						100 %	=>	667 KVA					
Essential Load (A) = 670 KVA													
Sub Head (B)													
COMMON SERVICES - TOWERS													
Tower A			No. of Tower			=	1						
10	Elevators		3	nos	@	15	KW	=	45 KW				
11	Common Lights		1	towers	@	5	KW	=	5 KW				
Tower B			No. of Tower			=	1						
12	Elevators		3	nos	@	15	KW	=	45 KW				
13	Common Lights		1	towers	@	5	KW	=	5 KW				
Tower C			No. of Tower			=	1						
14	Elevators		3	nos	@	15	KW	=	45 KW				
15	Common Lights		1	towers	@	5	KW	=	5 KW				

COMMON SERVICES - General									
16	Tube wells / Water Supply Pumps							=	25 KW
17	STP							=	25 KW
18	External / Gate / Landscape lighting	1	Set	@	10	KW	=	10	KW
19	Basement lights (2B)						=	10	KW
20	Basement Ventillation						=	100	KW
21	Community / Club						=	25	KW
22	Commercial						=	25	KW
23	Fire pumps (only jockey pumps have been considered)	1	set	@	15	KW	=	15	KW
					Total Load		=	385	KW
By taking Overall Diversity factor					70	%	=>	270	KW
By taking Power factor					0.80		=>	340	KVA
Essential Load (B) =					340	KVA			
Total Essential Load (A + B) =					1010	KVA			
Recommended DG Sets = "2 nos 320 KVA & 1 no. 600 KVA"									