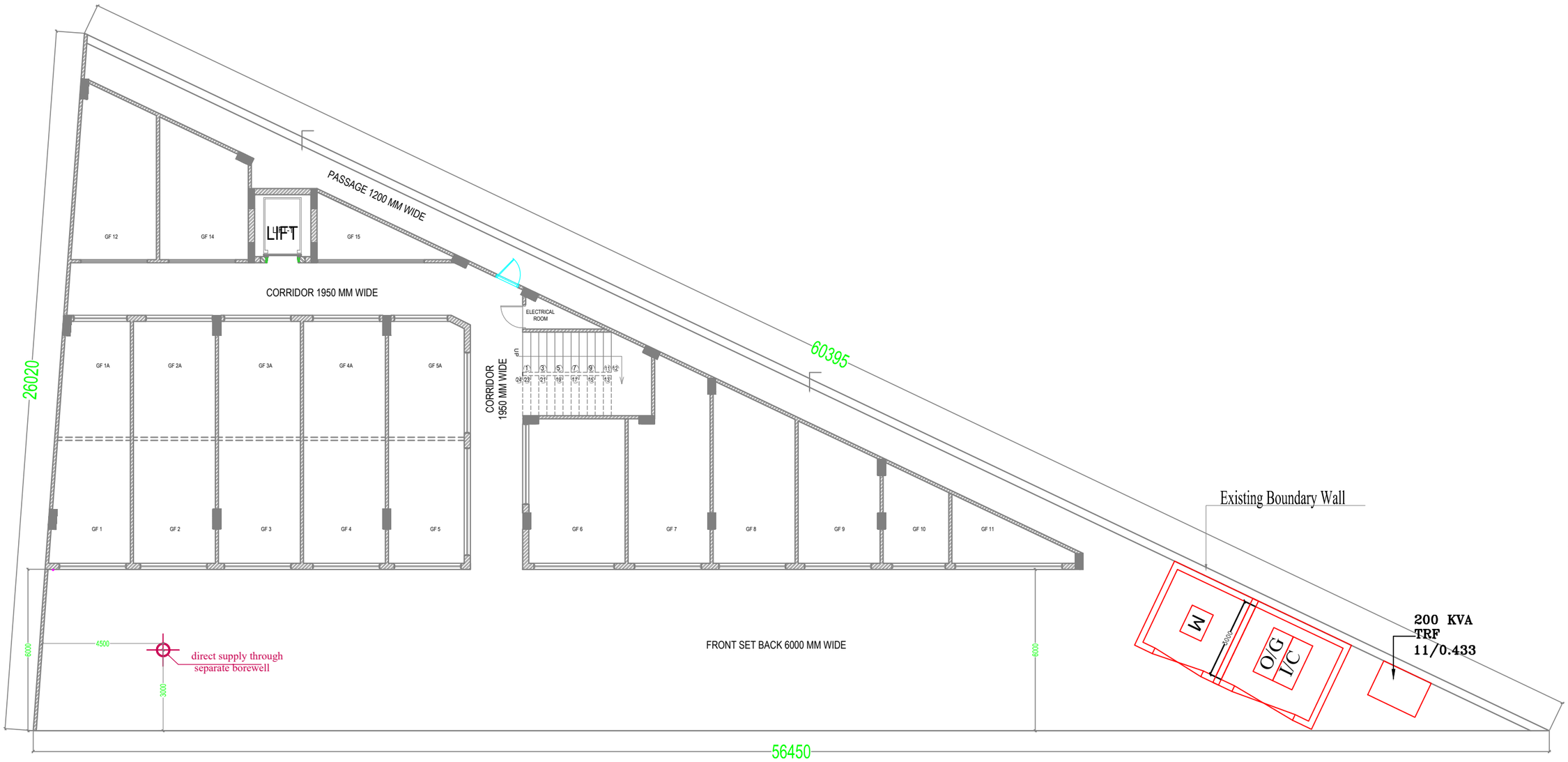

18.00 M WIDE ROAD

Divyakash Group
ARCHITECTURAL . INTERIOR . PLANNING CONSULTANTS

NORTH:

NOTES:-

1. THIS IS A CONCEPTUAL DRAWING NOT FOR CONSTRUCTION
2. ALL DIMENSIONS ARE IN MM
   ONLY NOTED DIMENSION SHALL BE FOLLOWED.

REV	DESCRIPTION	DATE	DGN	DRN	CHK	APP

PROJECT :-
PROPOSED COMMERCIAL AT GHAZIABAD

LOCATION:
CS- 6/2,SWARNJAYANTIPURAM,
GOVINDPURAM, GHAZIABAD, U.P.

CLIENT :-
ASTRUS SQUARE- ADVENT ASSOCIATES

ARCHITECT:
DIVYAKASH ATELIER INC
ARCHITECTURAL . INTERIOR . PLANNING CONSULTANTS
A VENTURE OF DIVYAKASH GROUP
407, ORBIT PLAZA, CROSSING REPUBLIK, GHAZIABAD
CONTACT US - +91- 9999609559
E mail- groupdivyakash@gmail.com

MEP CONSULTANT:
WeDESIGN ASSOCIATES.
C-68, LOWER GROUND FLOOR,
SEC-63, NOIDA, U.P.
E-MAIL: wedesignassociates@gmail.com

SHEET TITLE:
EXTERNAL ELECTRICAL PLAN

	NAME	DATE	SIGN
DRAWN BY			
CHECKED BY	AD	15.01.2024	
APPROVED BY			
PROJECT No.		SHEET SIZE	
ISSUE DATE		SCALE	N.T.S.
SHEET No.		REV. No.	R 0

PROJECT

PROPOSED COMMERCIAL
AT CS-6/2, SWARNJAYANTI PURAM, GHAZIABAD

SUBJECT

MEP SERVICES

PROJECT REPORT

MEP CONSULTANTS:
WeDESIGN ASSOCIATES.
C-68, LOWER GROUND FLOOR, SEC-63,
NOIDA, U.P.
E-MAIL: wedesignassociates@gmail.com

ARCHITECTS:
DIVYAKASH GROUP
407, 4TH FLOOR ORBIT PLAZA CROSSING
REPUBLIK GHAZIABAD-201001
E-MAIL- group.divyakash@gmail.com

INTRODUCTION

The proposed project is a commercial building, located in Ghaziabad, U.P. The building consists of Commercial shops and parking with all modern amenities to be developed on land of approx. 732 Square Meters.

This report intends to basically highlight the technical proposals/points/ parameters, which are proposed to be adopted in the planning and designing of internal & external sanitary engineering for the upcoming master plan.

ELECTRICAL

4.1 SOURCE OF POWER:

As per UPPCL norms power shall be supplied at 433 Volts if total load of the complex is less than 50 KW. If load is more than 50 KW and less than 4 MVA power shall be supplied at 11 KV. If load is more than 4 MVA and less than 20 MVA power shall be supplied at 33 KV. As the total demand load required is **153 KVA**, hence single point connection at 11 KV shall be taken from UPPCL. The power shall be terminated in 11KV metering room comprising 11 KV meter and 11 KV VCB for isolation for each.

4.2 ELECTRICITY TARRIFF SYSTEM:-

Owner shall pay to UPPCL electricity charges on the basis of readings in 11 KV meter in addition to the fixed charges as per the norms as it will be a bulk supply connection. Owner shall in turn collect electricity charges from the tenants with the help of Energy Management Software which will be used for generating electricity bill for each tenant based on the energy consumption for Lighting, Power, A/C, adjustment of Common Area charges. The software shall have the capability to take in to account the dual tariff (Grid Supply & DG Supply). The software shall have the capability to take the 11 KV meter readings, subtract from these readings the individual readings of all the energy meters and adjust this energy difference amount on to the bills of tenants based on their areas.

4.3 SELECTION OF SIZE OF TRANSFORMER:-

The 11 KV power received shall be stepped down to 433 Volts which is the operating voltage, by installing 11 KV/433 Volt Transformer. As per the calculations enclosed in the report the total transformer capacity required is **191 KVA**, for which there will be one Substation comprising 11 KV VCB Panel, **One nos. 200 KVA** oil filled type Transformer.

The Transformer shall be ONAN type as it is proposed to being installed in open.

4.4 STAND BY POWER GENERATION: -

As per load calculations enclosed in the report in total DG capacity required is **139 KVA** for which it is recommended to provide **1 nos. 140 KVA DG Set** considering almost 100% power backup for entire complex.

It is proposed to provide DG Sets with Power Command Centre (PCC) for AMF & Auto synchronizing function. Separately PLC based Auto Load Management system shall be provided which will function in coordination with Power Command Centre provided in each DG Set.

DG sets shall be provided outside in Acoustic Enclosure and exhaust pipes as per CPCB norms and shall be radiator cooled.

ELECTRICAL LOAD SHEET						
A	**DESCRIPTION OF FLOORS**	**COMMERCIAL SQ.MTR**	**WATT/ SQ.MTR**	**LOAD IN KW**	**DIVERSITY %**	**TOTAL LOAD IN KW**
1	GROUND FLOOR	364	150	54.60	75%	40.95
2	FIRST FLOOR	364	150	54.60	75%	40.95
3	SECOND FLOOR	364	150	54.60	75%	40.95
	TOTAL (B)			**163.80**		**122.85**
B	**DESCRIPTION OF FLOORS**	**SERVICE SQ.MTR**	**WATT/ SQ.MTR**	**LOAD IN KW**	**DIVERSITY %**	**TOTAL LOAD IN KW**
1	MACHINE ROOM/MUMTY	25.7	5	0.13	75%	0.10
	TOTAL (D)			**0.13**		**0.10**
E	**COMMON SERVICES**					
1	LIFT (1NOS) @12KW EACH			7.5	80%	6.00
2	FIRE FIGHTING			15	0%	0.00
3	PLUMBING			10	80%	8.00
4	STP			0	80%	0.00
5	EXTERNAL LIGHTING			5	80%	4.00
6	COMMON AREA LIGHTING			5	80%	4.00
	TOTAL (E)			**42.50**		**22.00**

GRAND TOTAL 145.KW

TRANSFORMER SELECTION

Transformer Capacity Considering 0.95 Power Factor **153.KVA**

Transformer Capacity Considering 80% Loading	**191.KVA**
Transformer Capacity 1 No. 200KVA 11KV/.433 KV Oil filled type Transformer	
GRAND TOTAL	145.KW
D.G. SET SELECTION	
OVERALL DIVERSITY 65%	94.KW
D.G. SET Capacity Considering 0.8 Power Factor	**118.KVA**
D.G. SET Capacity Considering 85% Loading	**139.KVA**
D.G. SET Capacity 1 No. 140KVA	