RESIDENTIAL MEP DESIGN

Electrical Engineering & Construction Documentation

Selected Project

HONAAM ENGINEERING

Behrouz Armani - MEP Designer

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ELECTRICAL DESIGN

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Residential Building
MEP Design

LOCATION:

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REV. 01

SCALE

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PAGE

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List of Electrical Installation Drawings

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E- 000	List of Electrical Installation Drawings
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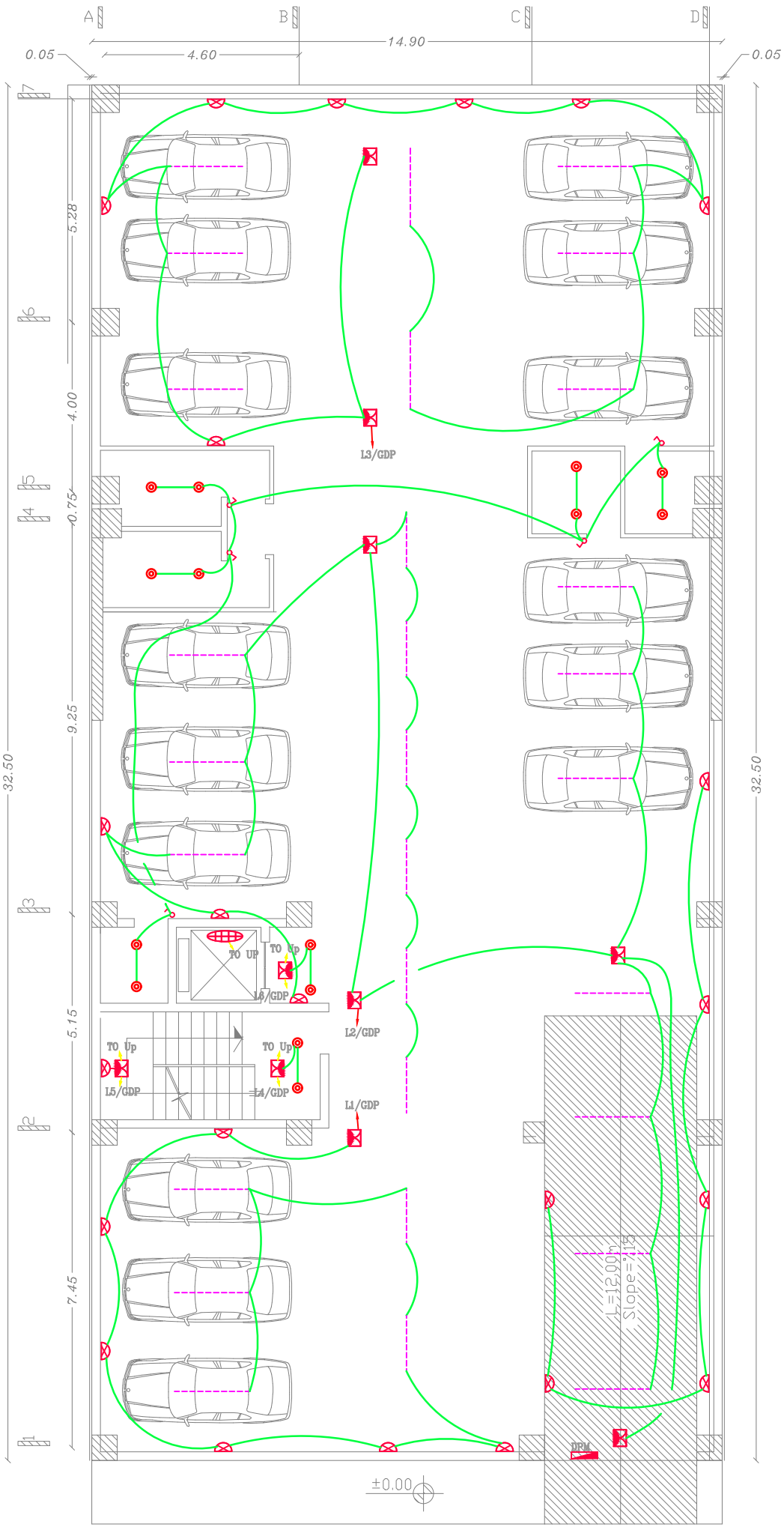
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Electrical Lighting Plan

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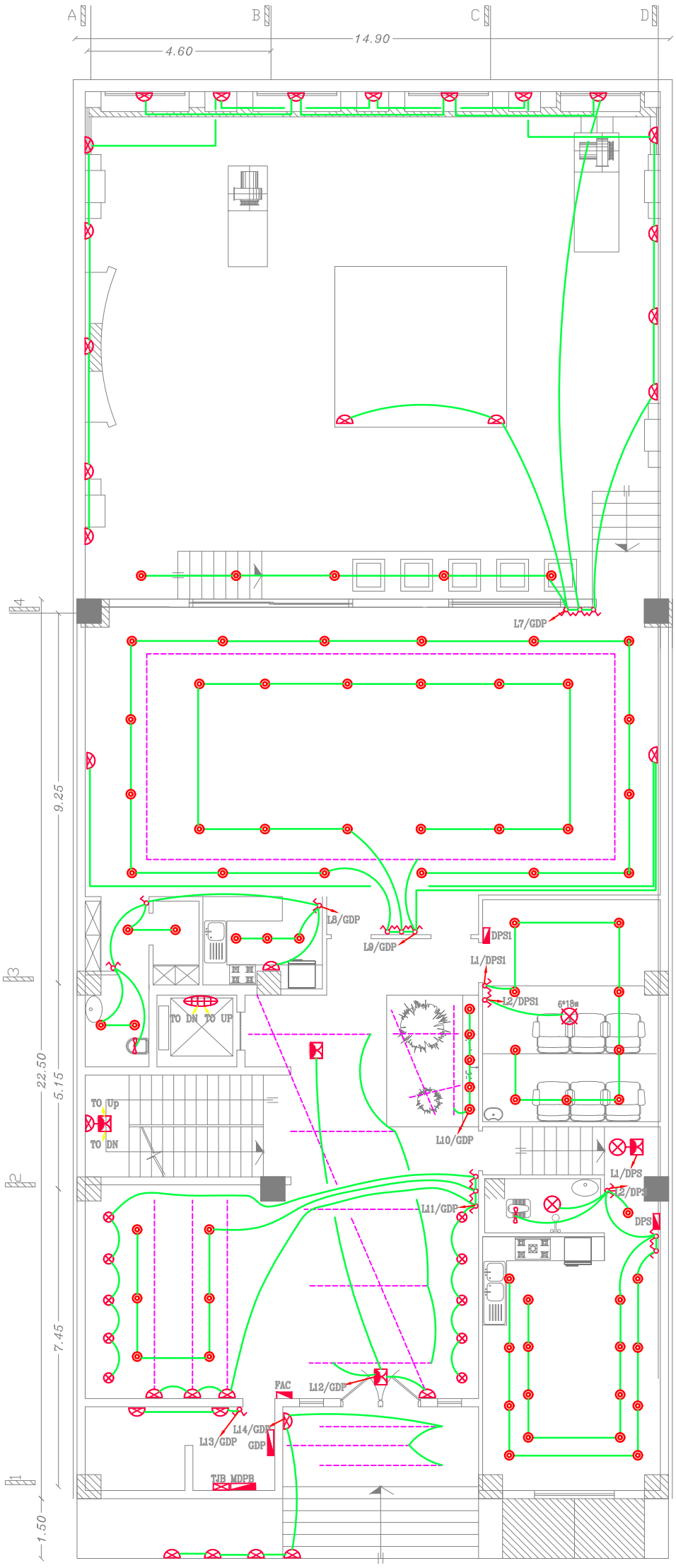
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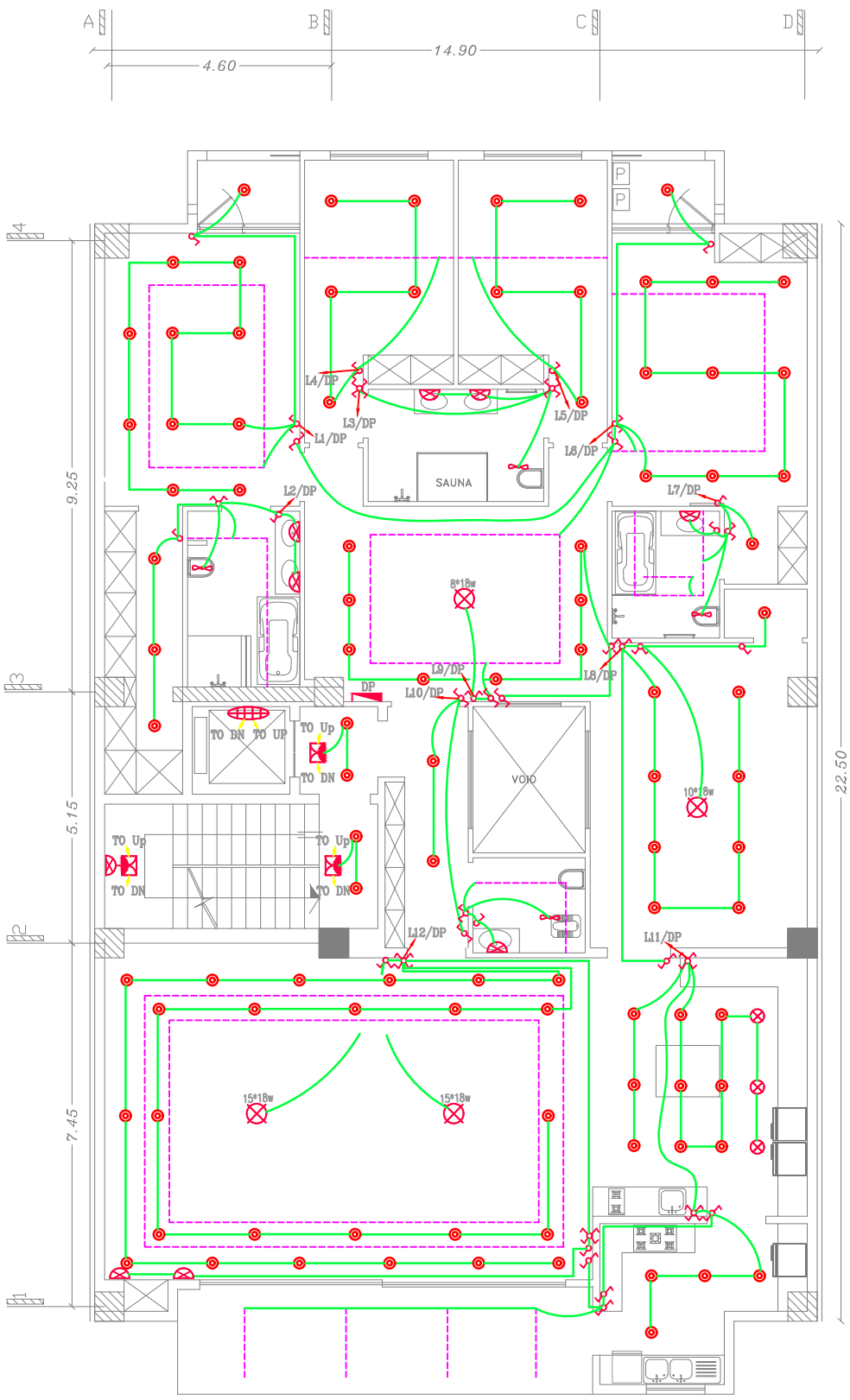
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1~5th Floor

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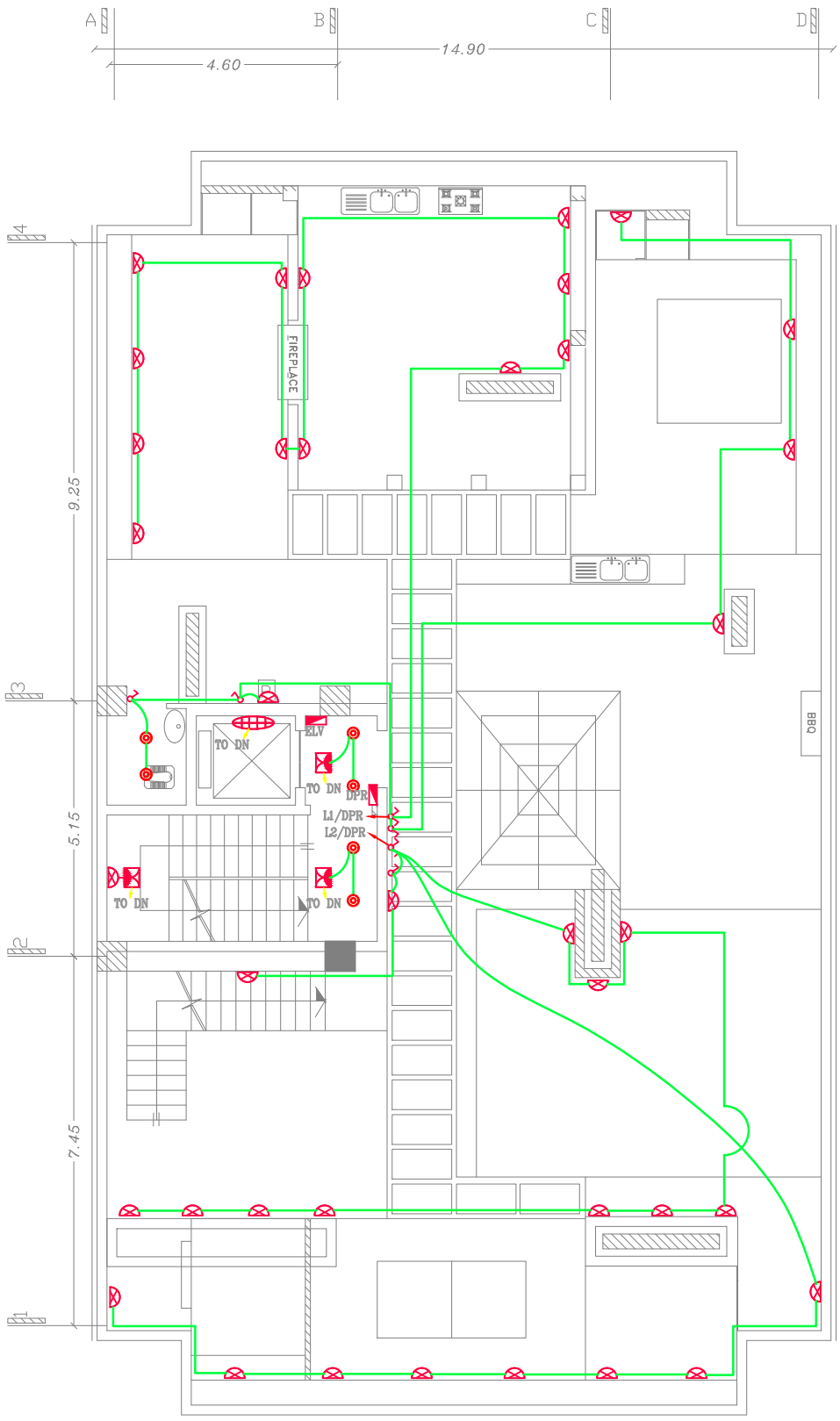
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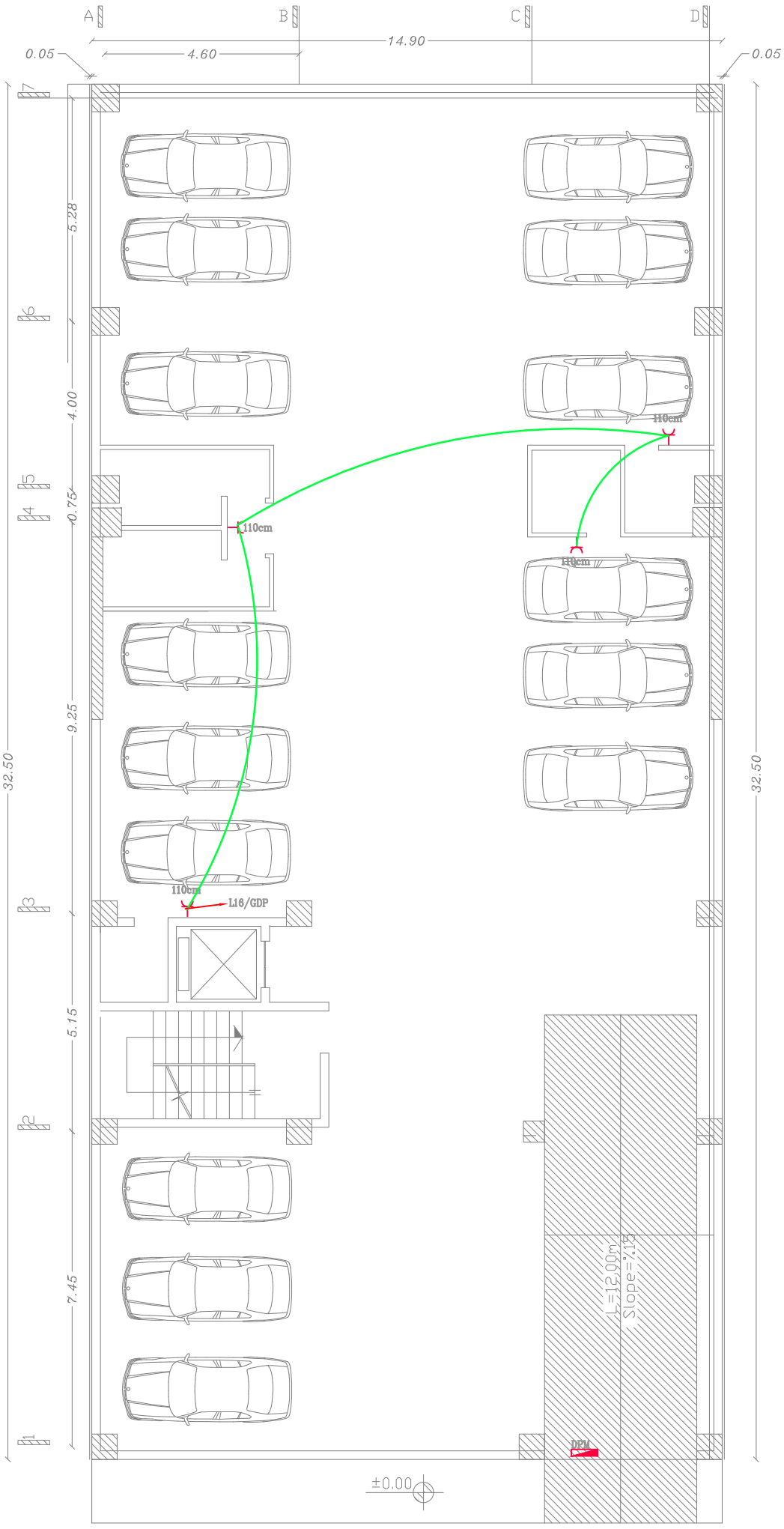
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Electrical Power Plan

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Basement

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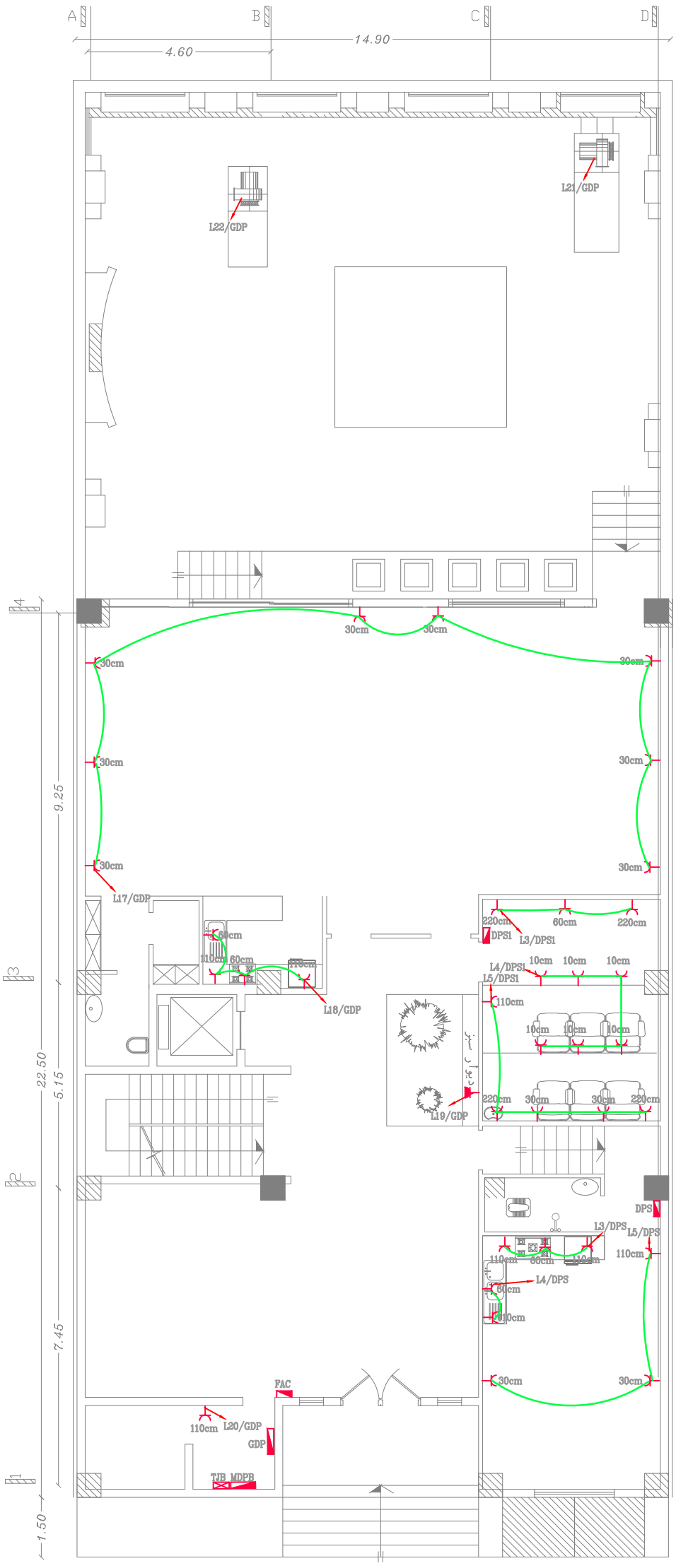
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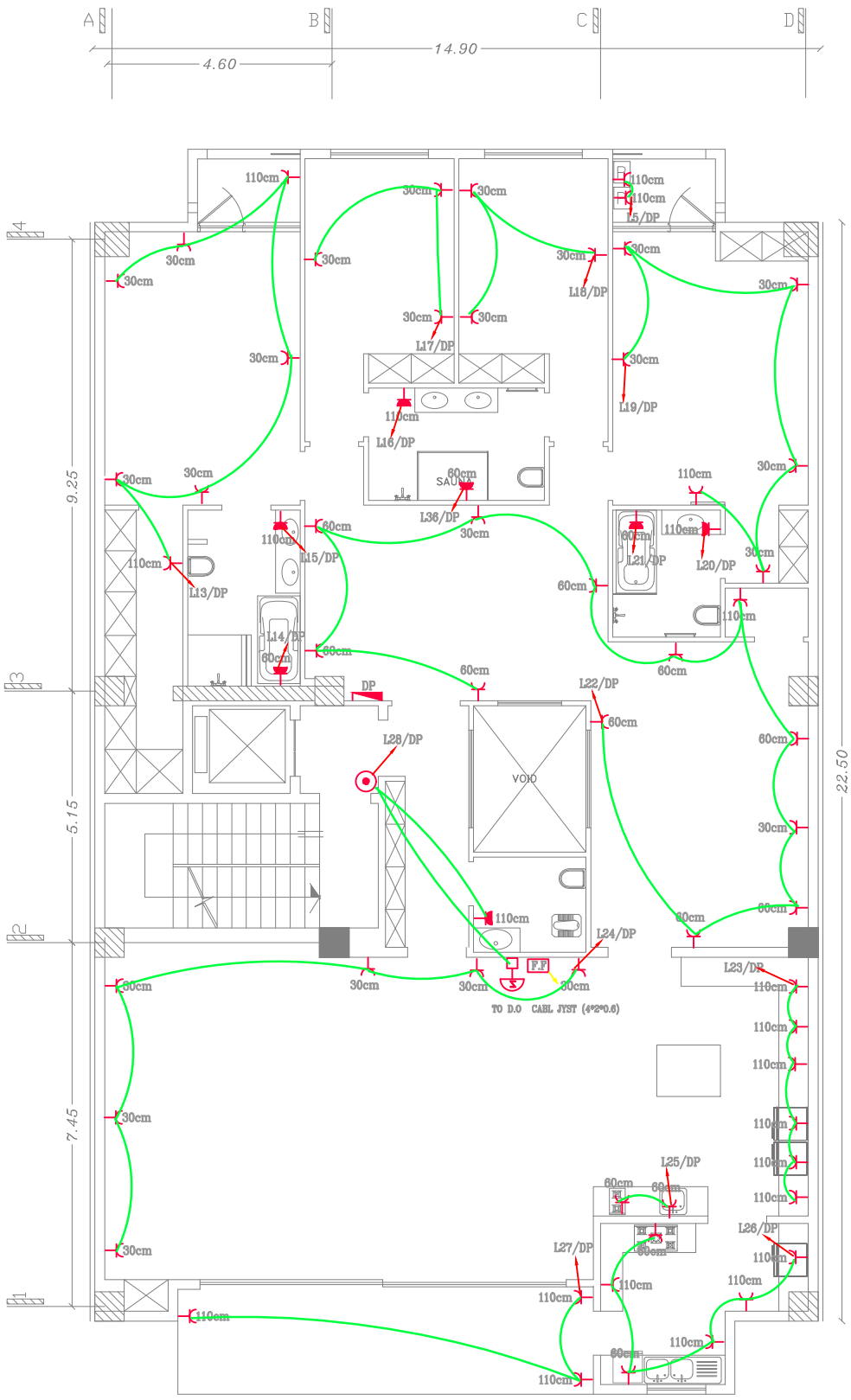
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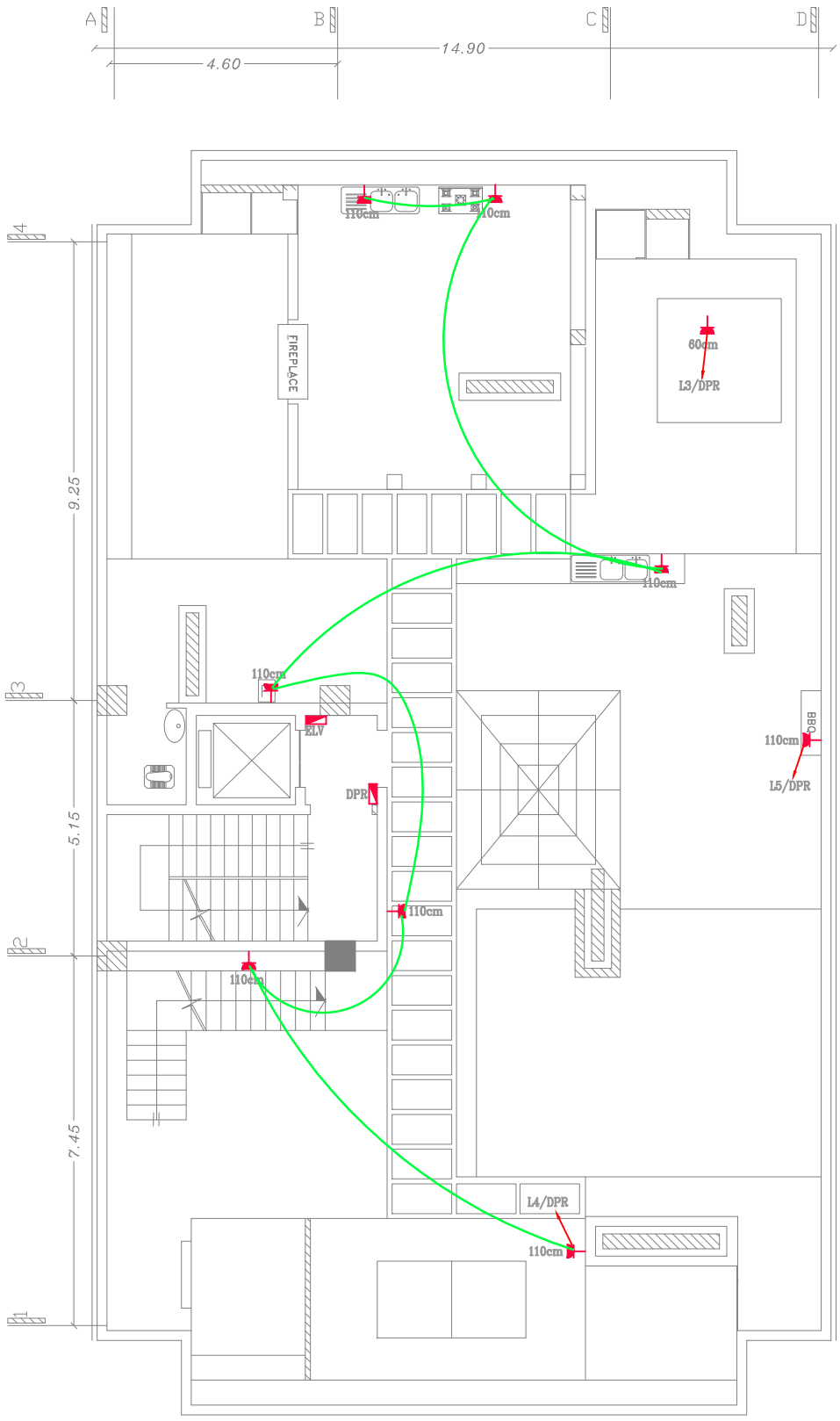
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Electrical Power Plan

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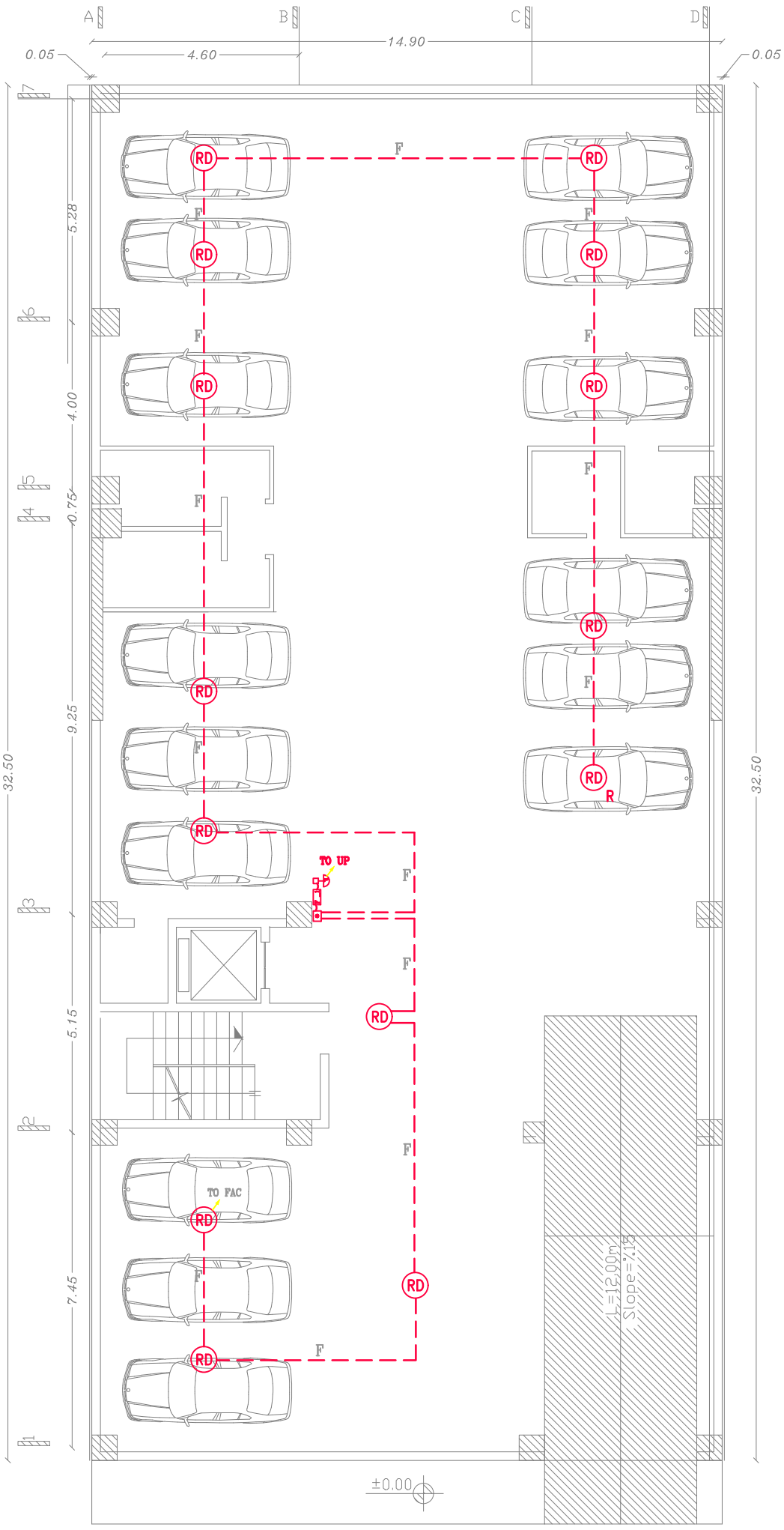
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Electrical Fire Alarm Plan

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Basement

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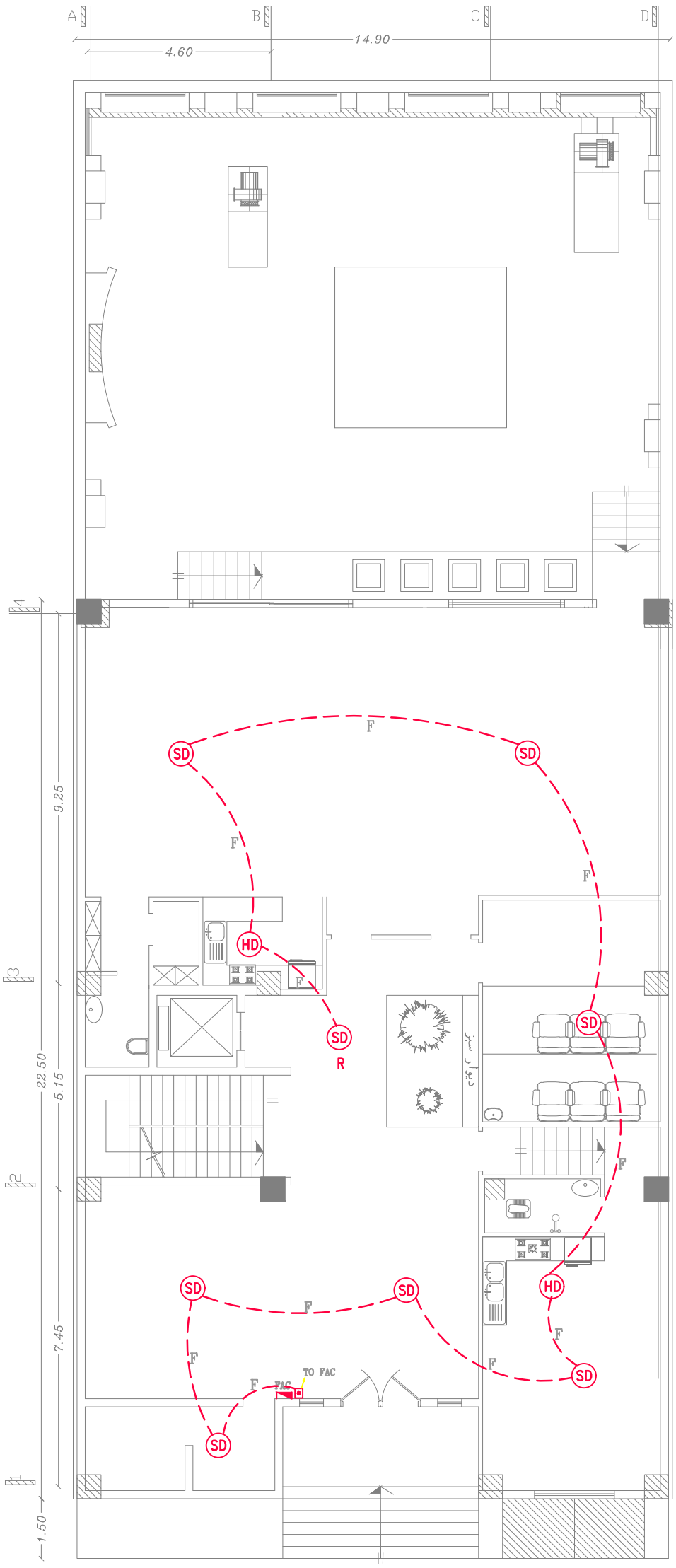
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Electrical Fire Alarm Plan

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Ground

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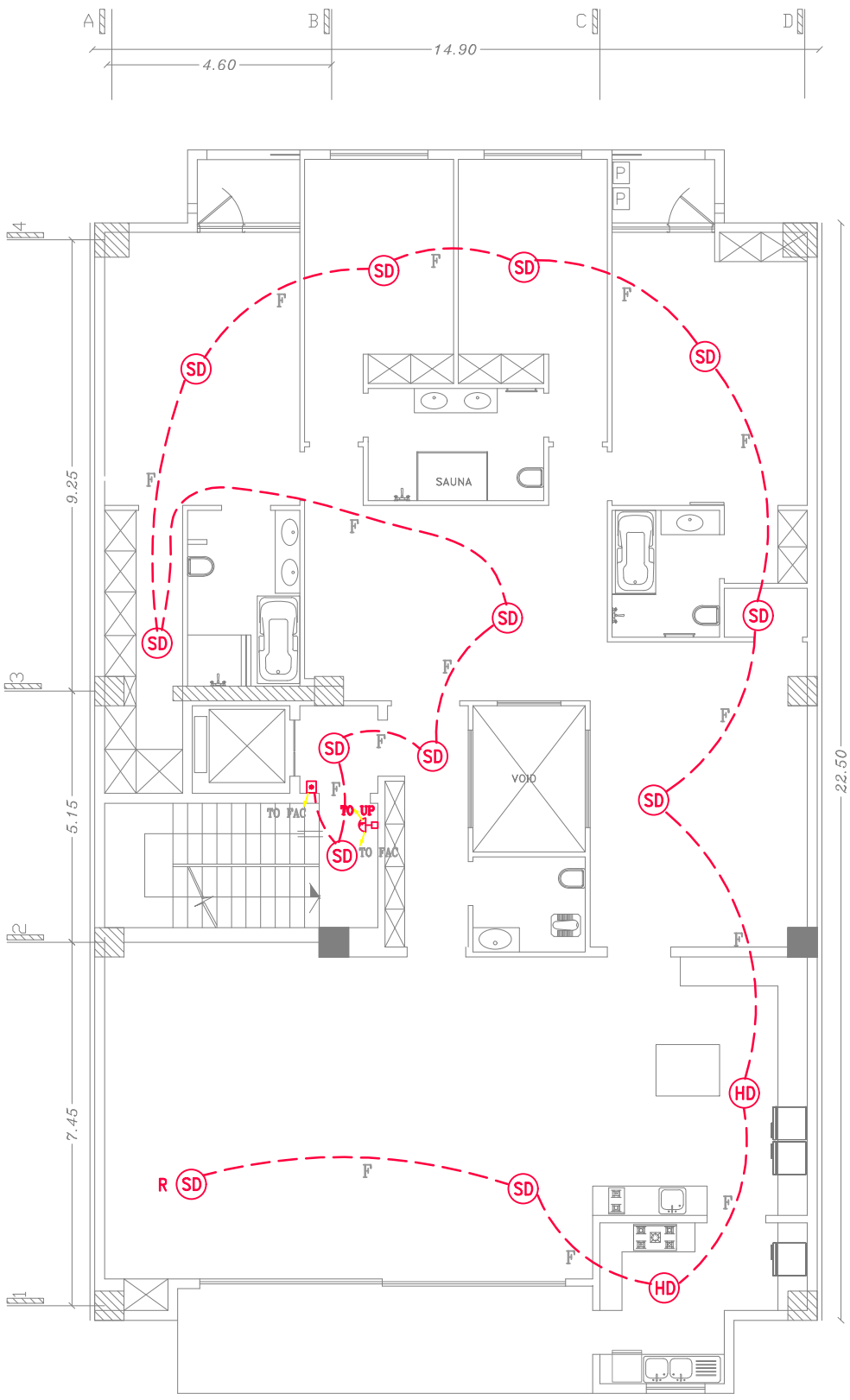
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Electrical Fire Alarm Plan

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1~5th Floor

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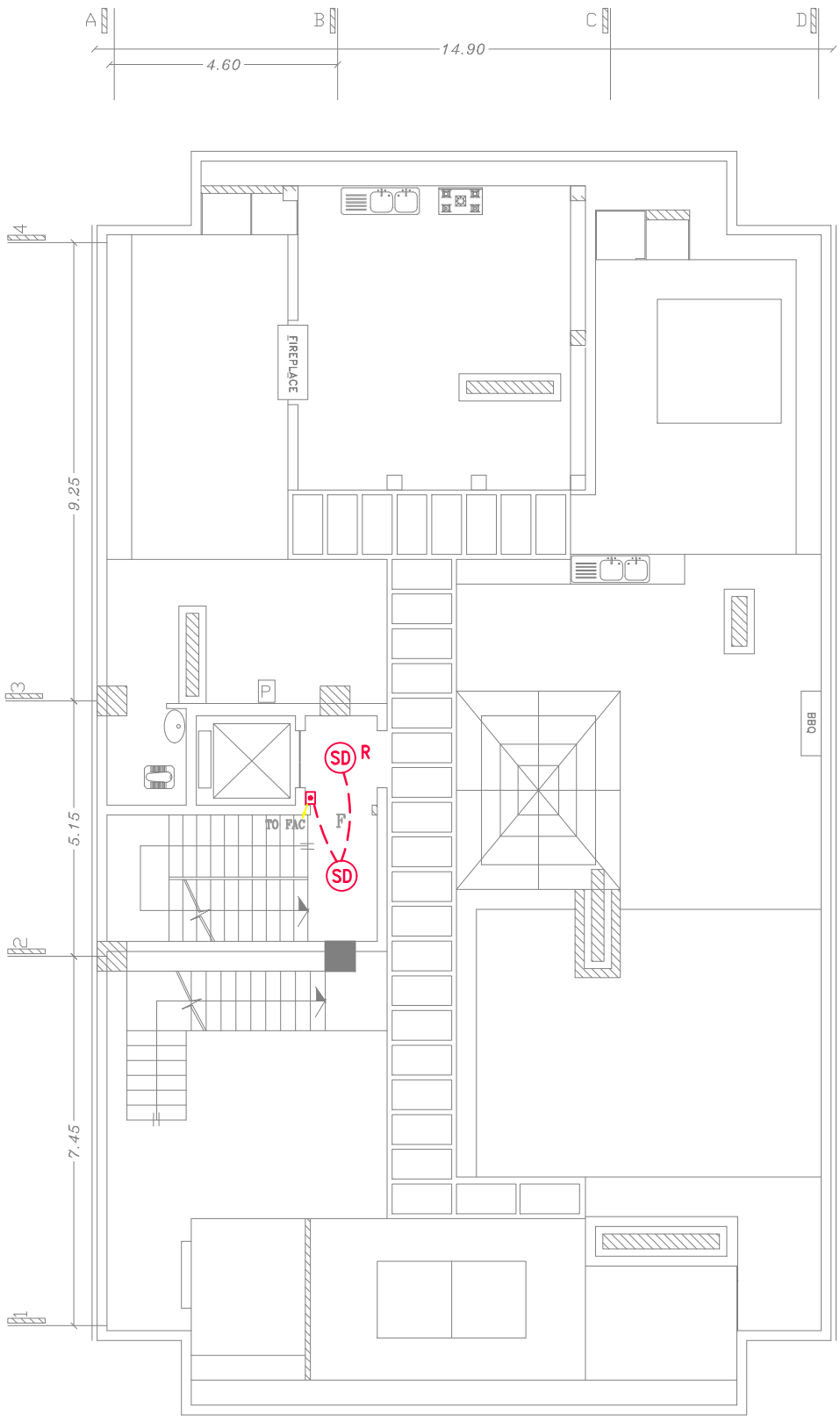
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Electrical Fire Alarm Plan

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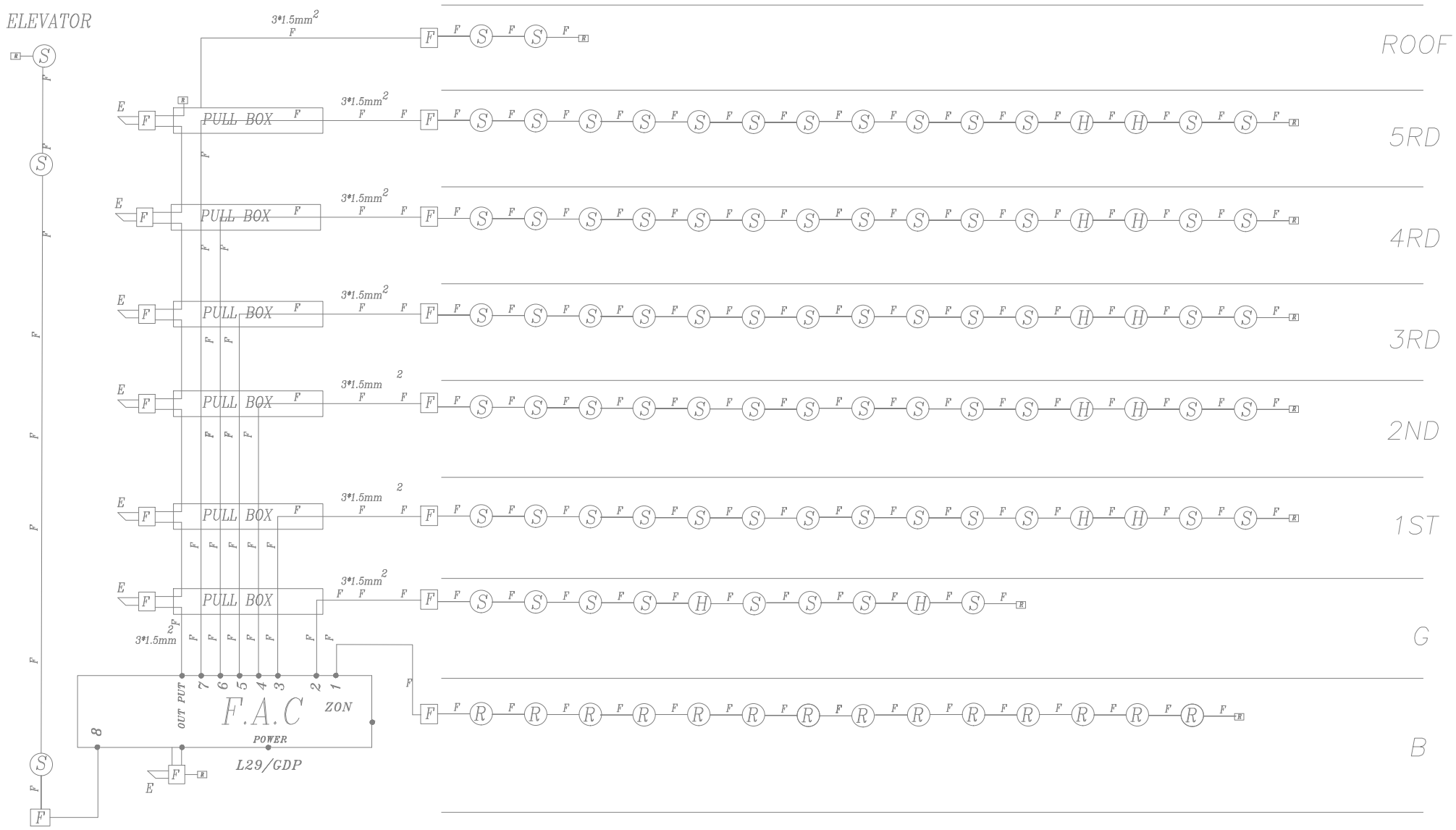
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Alarm System Diagram

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F.A.C

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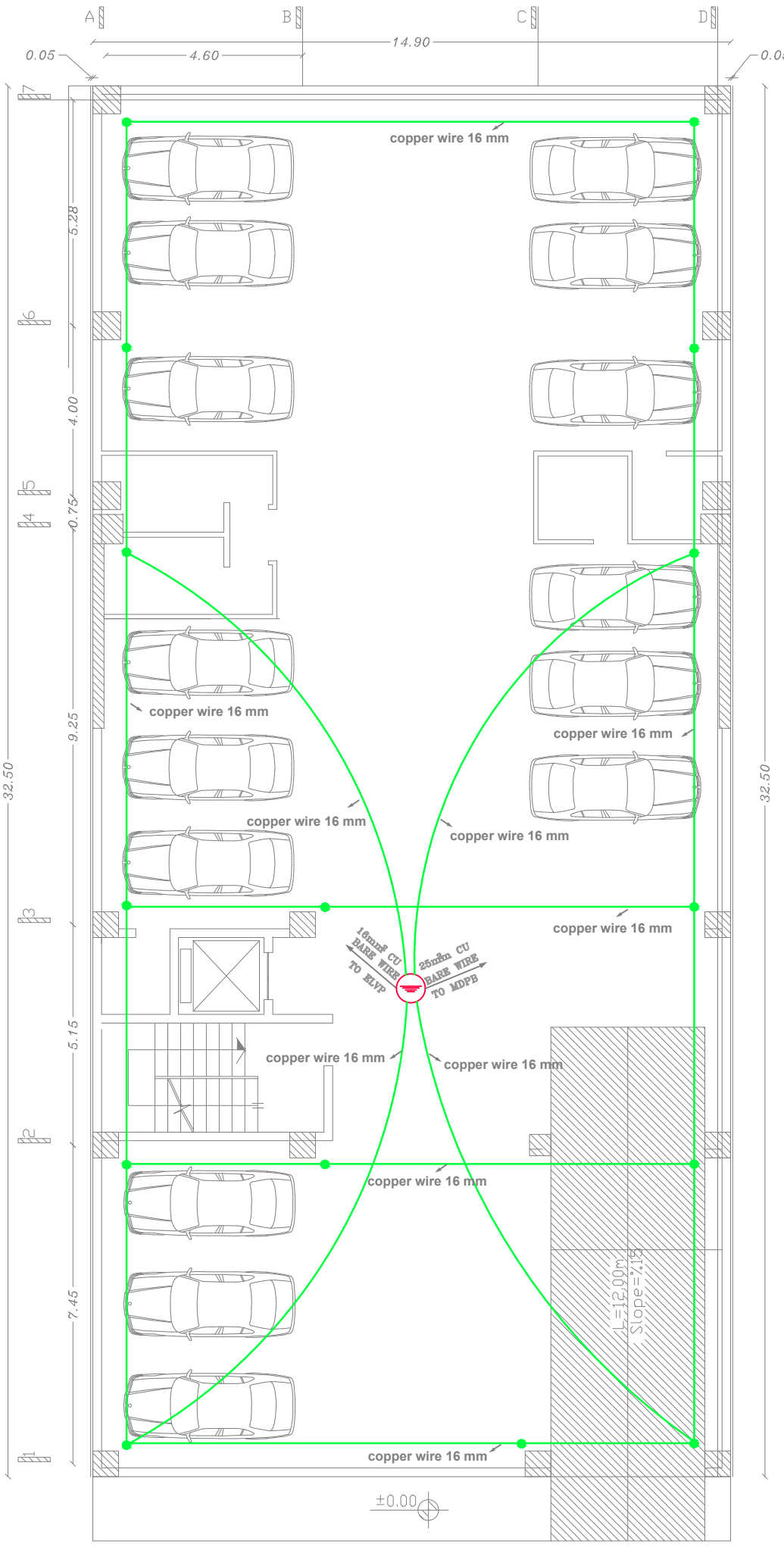
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Foundation Earthing Plan

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Basement

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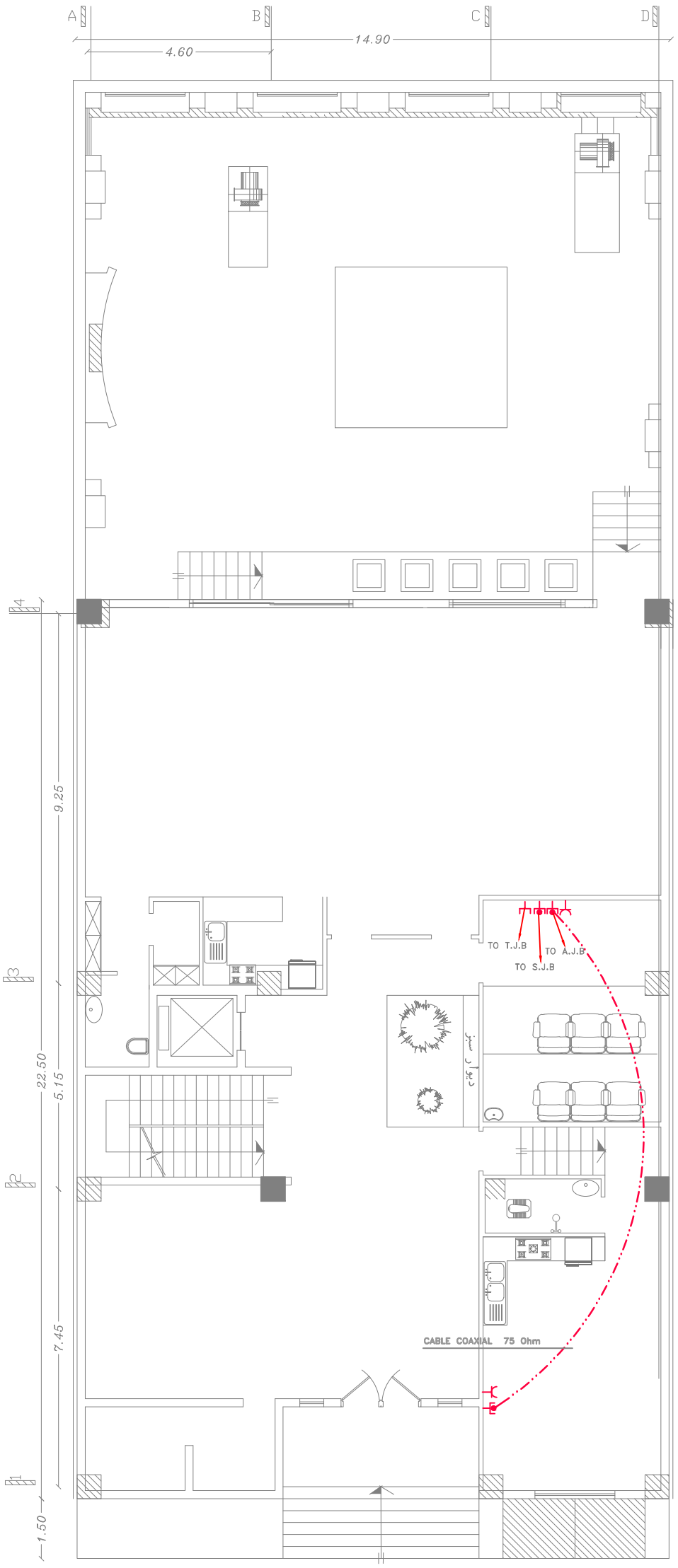
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Tel, ant, sat and net Socket

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Ground

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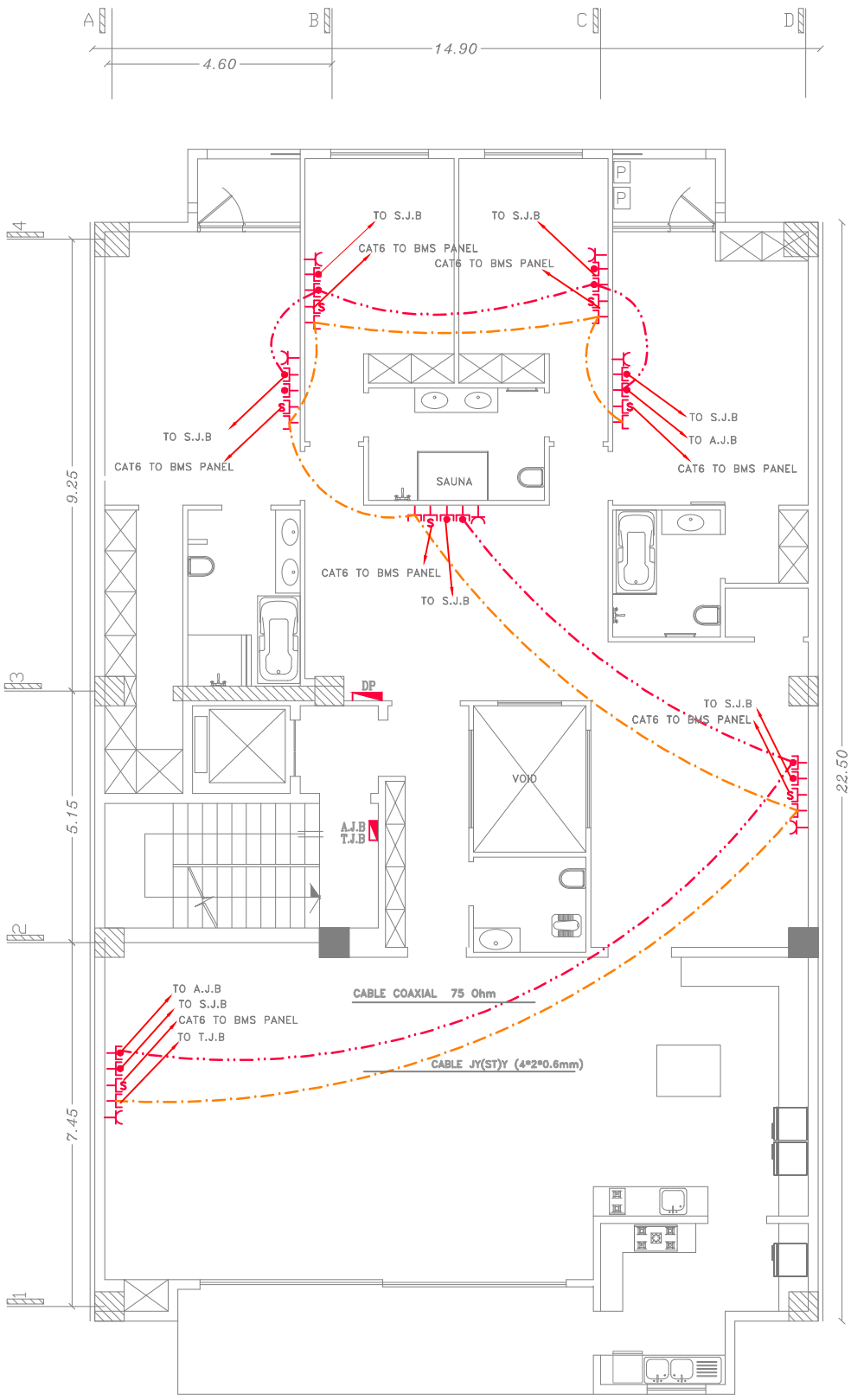
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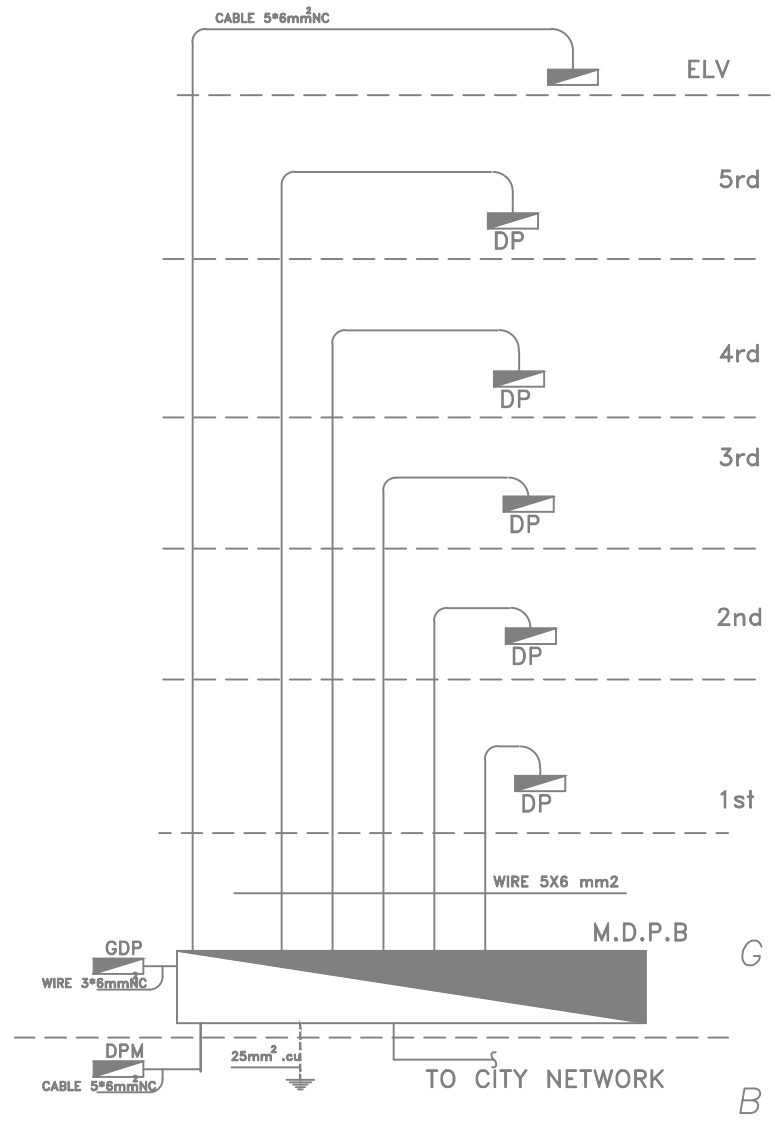
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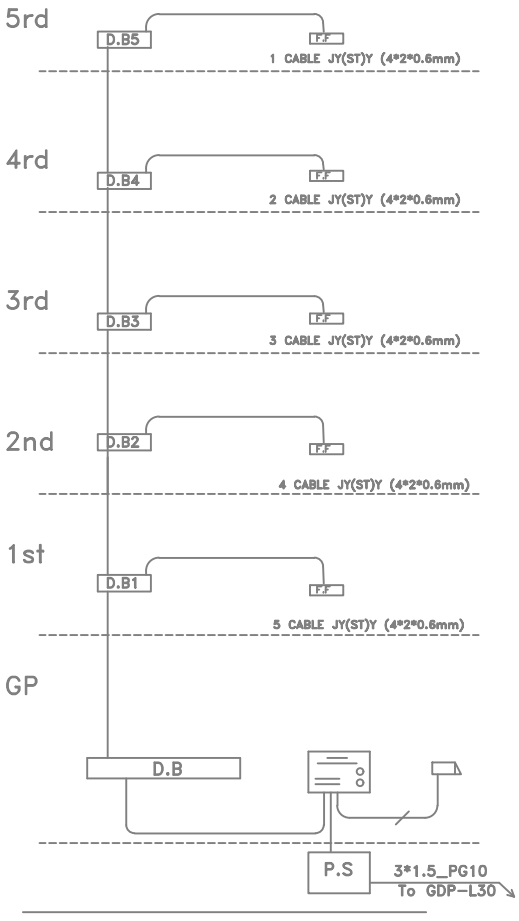
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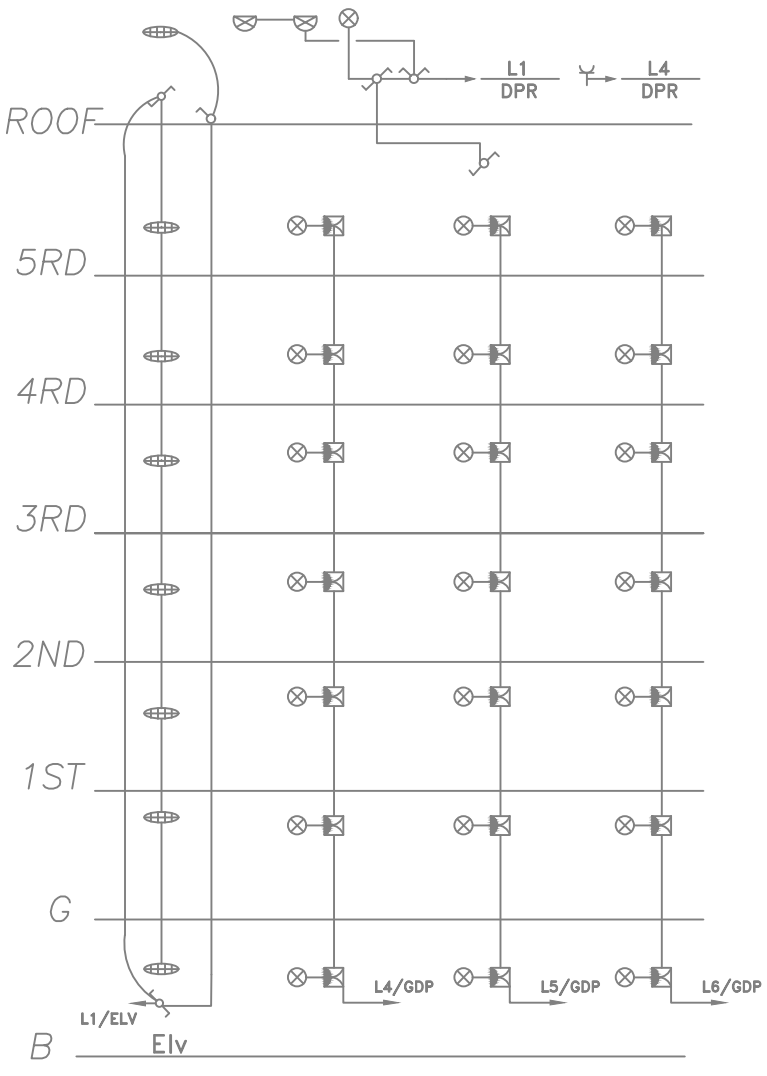
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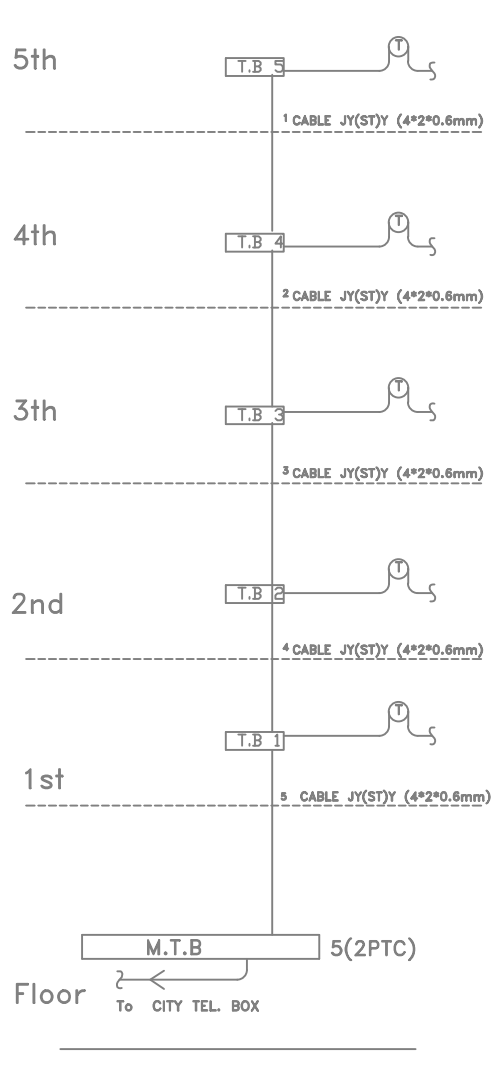
POWER DISTRIBUTIPN RISER DIAGRAM



D.O RISER DIAGRAM



STAIR LIGHTING RISER DIAGRAM



TEL RISER DIAGRAM

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PAGE

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GENERAL NOTES

1. POWER SUPPLY CABLES SHALL BE SINGLE CORE PVC INSULATED OF SINGLE CORE PVC SHEATHED OR MULTICORE PVC/PVC (AS SHOWN ON DRAWINGS), COPPER CONDUCTOR,VOLT GRADE 600/1000 VOLTS TO BSS-6346-1969.
2. WIRINGS CABLES (FROM DB,S TO SWITCH BOARD, POWER OUTLETS,SWITCH BOARDS TO LIGHTS FAN/5Amps. OUTLETS OR CONTROL WIRING) SHALL BE SINGLE CORE, PVC INSULATED, COPPER CONDUCTOR CABLES, VOLTS GRADE 300/500 OR 450/750 VOLT TO BSS-6004-1975
3. LIGHTS CIRCUIT (UNLESS OTHERWISE INDICATED) SHALL BE WIRED WITH 2 Nos 7/.029 SINGLE CORE PVC CABLES+3/.029 SINGLE CORE CABLE AS PC.(PROTECTIVE CONDUCTOR)
4. LIGHT/FAN POINTS/5A.OUTLET SHALL BE WIRED. 2 Nos. 3/.029 SINGLE CORE PVC CABLE+1No 3/.029 SINGLE CORE CABLE AS PC.
5. 15 Amps. OUTLETS SHALL BE WIRED WITH 2 Nos. 7/.036 SINGLE CORE PVC CABLE+7./029 SINGLE CORE AS PC.
6. SPLIT A/C UNITS & WINDOW TYPE A/C UNITS SHALL BE WIRED WITH 2 Nos, 7/0.036 SINGLE CORE CABLE + 7/.029 SINGLE CORE CABLE AS PC (PROTECTIVE CONDUCTOR)
7. COLOUR OF WIRING CABLES.
   PHASE RED,BLACK,BROWN,GREEN
   NEUTRAL BLUE
   EARTH GREEN&YELLOW
8. THE NUMBER OF SINGLE CORE CABLE IN ANY PVC CONDUIT SHALL BE DETERMINETED SUCH THAT THE RATIO OF CABLE AREA INCLUDING PROTECTIVE CONDUCTOR TO CONDUIT AREA IS NOT MORE THAN 0:3:1, THE FOLLOWING TABLE IS GIVEN AS GENERAL GUIDE LINES

LIGHTING OUTLETS POWER CIRCUITS

WIRE SIZE	NO.OF WIRE IN CONDUIT				
	2	3	4	5	6
	St.PG	St.PG	St.PG	St.PG	St.PG
1.5mm^2	11	11	13.5	13.5	13.5
2.5mm^2	11	13.5	13.5	13.5	13.5
4mm^2	11	13.5	13.5	16	16
6mm^2	13.5	13.5	16	21	29
10mm^2	16	21	21	29	29

WEAK CURENT

WIRE SIZE	ST.11	ST.13.5	ST.16	ST.21	ST.29	ST.36
MAX. OF WIRES SIZE& NO.	6*0.6mm^2	8*0.6mm^2	12*0.6mm^2	20*0.6mm^2	35*0.6mm^2	48*0.6mm^2
	—	2*1.5mm^2 3*0.6mm^2	2*1.5mm^2 6*0.6mm^2	2*1.5mm^2 14*0.6mm^2	2*1.5mm^2 30*0.6mm^2	2*1.5mm^2 42*0.6mm^2
	—	2*2.5mm^2 2*0.6mm^2	2*2.5mm^2 3*0.6mm^2	2*2.5mm^2 9*0.6mm^2	2*2.5mm^2 26*0.6mm^2	2*2.5mm^2 36*0.6mm^2

WHEREVER CONDUIT SIZE IS NOT SPECIFIED, 20 mm DIA CONDUIT SHALL THE MINIMUM SIZE IF IT MEETS THE ABOVE CRITERIA.

9 . THE PVC CONDUIT SHALL BE LAID ABOVE THE LOWER LAYER OF THE REINFORCEMENT.

10. GOOD QUALITY BINDING SOLUTION SHALL BE APPLIED ON ALL JOINTS.

11. PVC CONDUIT SHALL BE TIED FIRMLY WITH REINFORCEMENT NEAR BENDS,SOCKET,JUNCTION BOXES,FAN BOXES.

12. ALL JUNCTION BOXES & FAN BOXES SHOULD BE INSTALLED PARALLEL TO THE SURFACE OF CEILING.

13. BENDS SHALL BE USED ONLY ON "DOWN"/"UP" POSITIONS,NO BEND SHALL BE INSTALLED IN SLAB.

14. THERE SHALL NOT BE MORE THEN TWO BENDS IN ANY ROUTE OF CONDUITS OTHERWISE PULL BOXES SHALL BE INSTALLED AFTER TWO BENDS.

15. PVC CONDUIT IN WALLS SHALL BE RECESSED AFTER MAKING GROVE WITH CUTTER IT SHALL BE COVERED WITH ATLEAST 1" COVER OF PLASTER.

16. ALL CONDUITS NETWORK SHALL BE CLEANED & CHECKED USING PULL WIRES, THE CABLES SHALL BE DRAWN CAREFULLY,NOT APPLYIMG EXECESSIVE FORCE, NOT DAMANGING THE CABLES, THERE SHALL BE NO JOINT IN CABLE IN CONDUIT, JOINT IN CABLES SHALL BE MADE ONLY IN SWITCH BOARD, JUNCTION BOXES, PULL BOXES.

17. THE INSULATION RESISTANCE TEST SHALL BE PERFORMED ON ALL ELECTRICAL EQUIPMENT AND WIRING USING MAGGER TESTER, THE MINIMUM ACCEPTABLE INSULATION RESISTANCE VALUE SHALL BE 1 MEGAOHM

18. THE CONTRACTOR SHALL KEEP A CAREFUL RECORD OF ALL CHANGES/REVISION TO THE ORIGINAL DESIGN.

19. THE CONTRACTOR SHALL PREPARE, AND SUBMIT FOR APPROVAL SHOP DRAWINGS SHOWING EXACT ROUTES OF CONDUITS/CABLE/CABLE TRAYS ETC, AND FOR DBs & PANELS BEFORE STARTING EXCECUTION.

20. THE CONTRACTOR SHALL KEEP A CAREFUL RECORD OF ALL CHANGES/REVISION TO THE ORIGINAL DESIGN.

21. EARTH RESISTANCE VALUE OF EARTHING : LESS THAN 1 OHM

ELECTRICAL LEGEND

SINGLE GANG SWITCH	
DOUBLE GANG SWITCH	
TRIPLE GANG SWITCH	
SINGLE TWO WAY SWITCH	
DOUBLE TWO WAY SWITCH	
SINGLE OUTLET	
SINGLE OUTLET WATER PROF	
TELEPHONE OUTLET	
TV OUTLET	
INTERNET OUTLET	
CEILING LAMP	
CEILING CHANDELIER	
PICTURE LAMP	
LINEAR LAMP	
LOUVERED FLUORESCENT LIGHT 2*40 W	
LOUVERED FLUORESCENT LIGHT 4*18 W	
VENTILATION EXHAUST FAN	
SPLIT CONTROL	CS
ENTRY PHONE	EP
POWER CORD	
TELEPHONE WIRE	
ANTENNA WIRE	
EARTH WELL	PE
HIGH VOLTAGE LOAD BREAK SWITCH	
HIGH VOLTAGE FUSE	
KILOWATT METER	
ANTENNA SPLITTER - TAP OFF	
ANTENNA SPLITTER	
GENERATOR	G
FIRE ALARM CONTROL PANEL	FAC
WALL LAMP IP65	
MAIN DISTRIBUTION PANEL	MDPB
TELEPHONE JUNCTION BOX (IN FLOOR)	T.B
MAIN TELEPHONE JUNCTION BOX	MT.IB
DOOR OPENING BOX	D.O
SMOKE DETECTOR	SD
HEAT DETECTOR	HD
SMOKE & HEAT DETECTOR	RD
FIRE ALARM HORN OR CELING MOUNTED LOUDSPEAKER	
MANUAL STATION, TYPE AS SPECIFIED	
LIGHTING MOTION SENSOR	
ANTENNA JUNCTION PANEL	A.JB
HALOGEN LAMP	
BUZZER	
BUZZER CALL POINT	
(RCCB) Residual Current Circuit Breaker	
LOW VOLTAGE CIRCUIT BREAKER FIXED TYPE 3PH	
LOW VOLTAGE CIRCUIT BREAKER FIXED TYPE 1PH	

DRAWING

ELECTRICAL DESIGN

DRAWN BY:

HONAAM ENGINEERING

WEBSITE

WWW.HONAAM.COM

MAIL

Behrouz@honaam.com

PROJECT

Residential Building
MEP Design

LOCATION:

DESCRIPTION

REV	DATE	NOTES
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DRAWING

HONAAM CO.

CHECKED BY

BEHROUZ ARMANI

NO. H-236

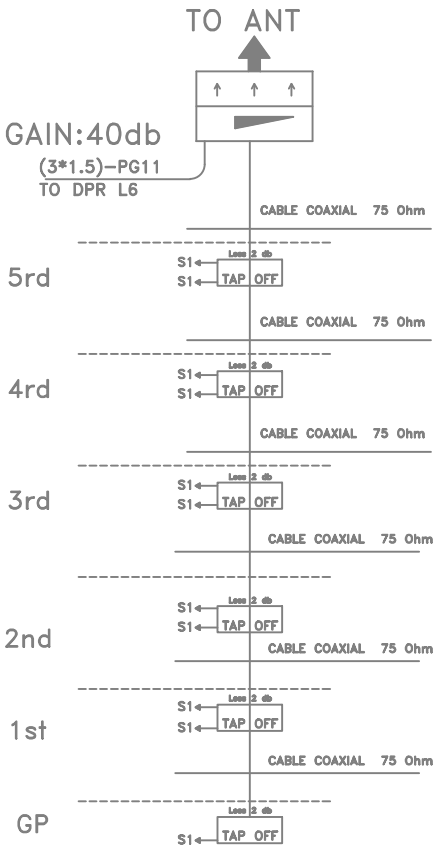
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SCALE

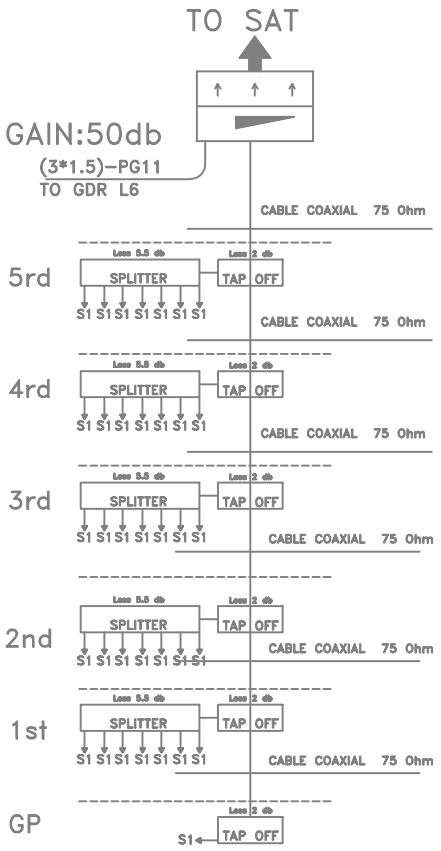
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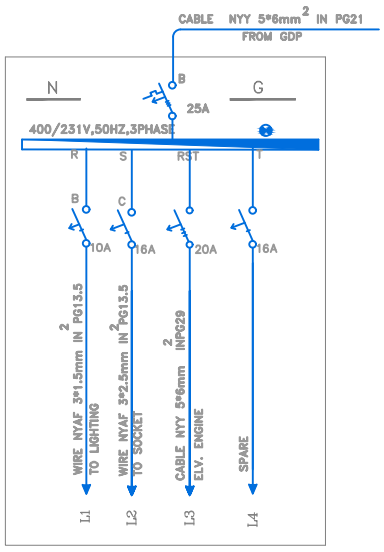
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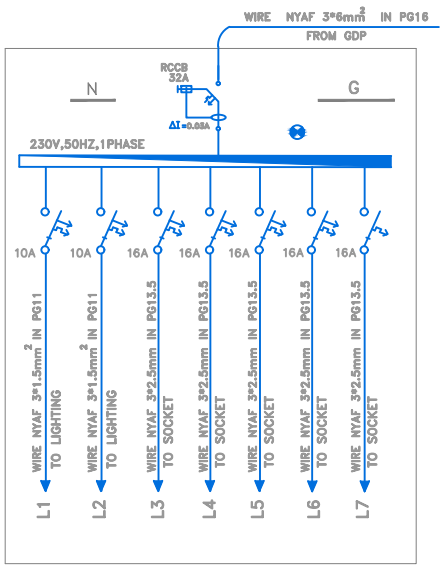
TV Ant RISER DIAGRAM



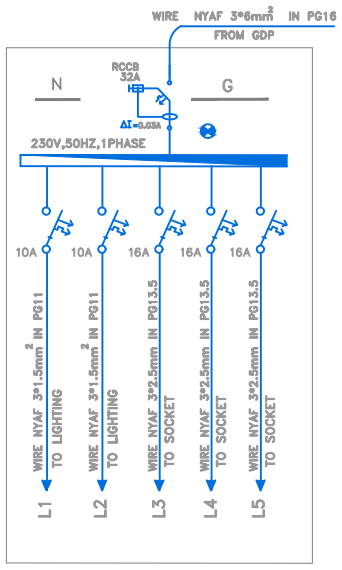
Sat.L Ant RISER DIAGRAM



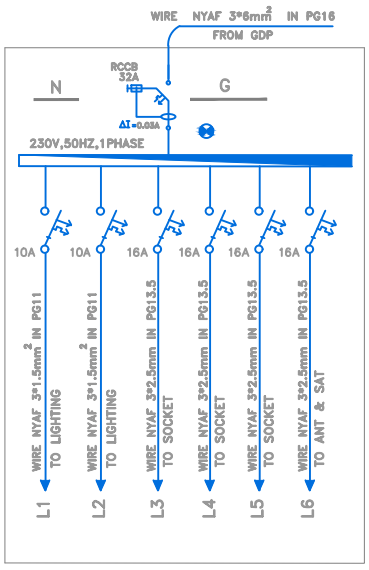
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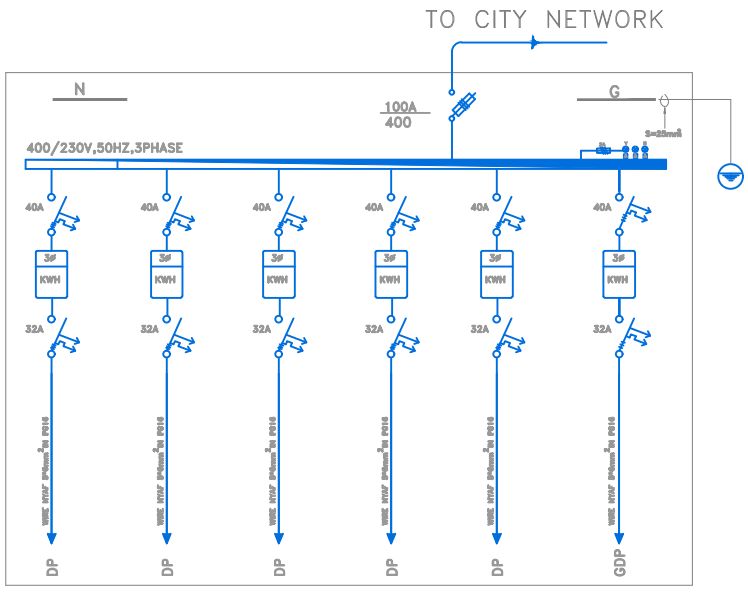
DPS



DPS1



DPR



MDPB

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REV. 01

SCALE

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PAGE

E- 504

