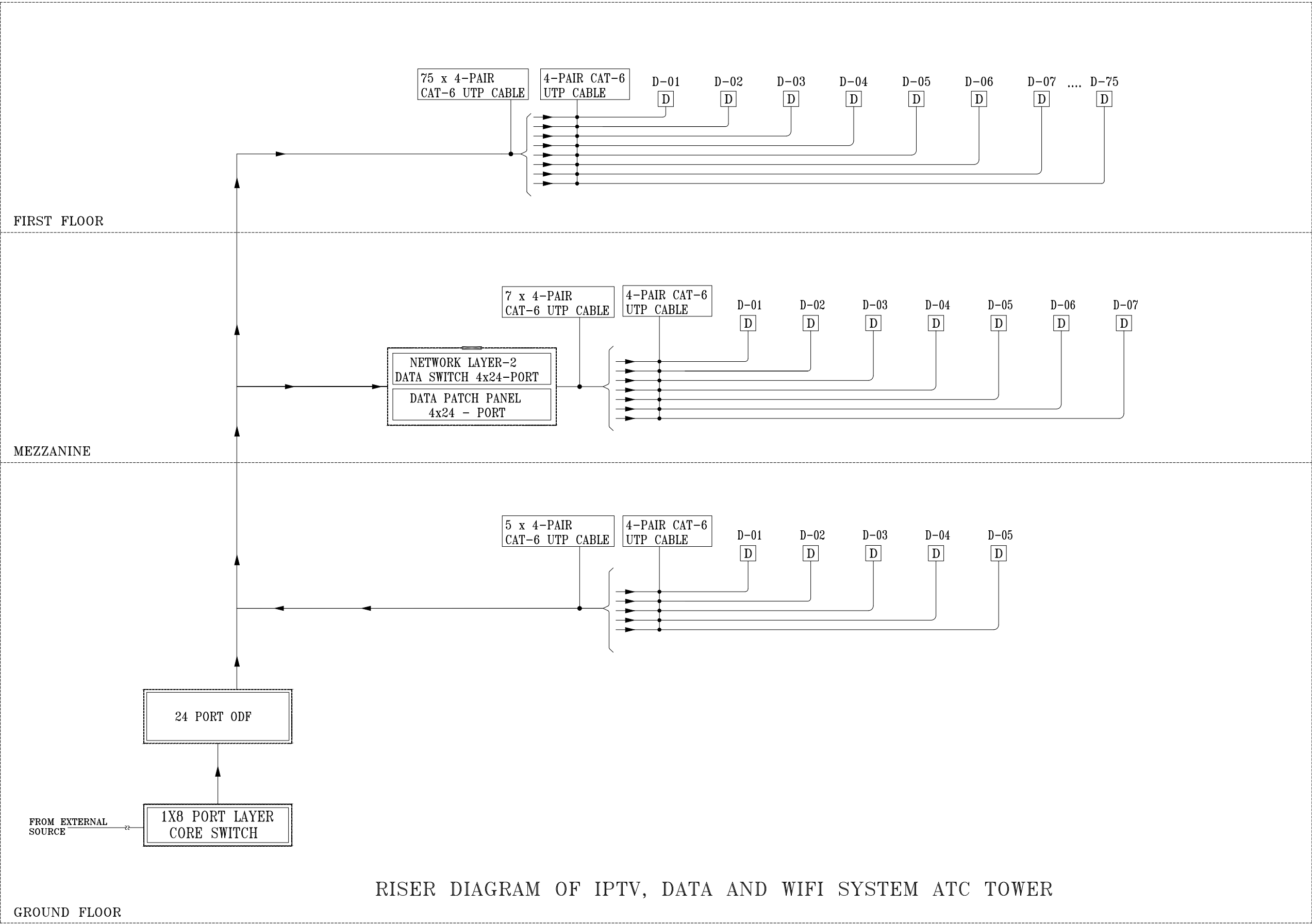




RISER DIAGRAM OF IPTV, DATA AND WIFI SYSTEM ATC TOWER

ISSUED FOR REVIEW

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TITLE PAGE:

**DETAILED ELECTRICAL
DESIGN DRAWINGS**

CLIENT NAME



پاکستان انیئر پورٹس اتھارٹی

MAIN CONSULTANT



Anwar Ali Architects (Pvt.) Ltd.
Formerly Anwar Ali & Associates Since March 2006 to June 2018
Consulting Architects, Engineers, Planners & Management Consultants

JV MEMBERS



leat-werk

STRUCTURAL CONSULTANT



AR ENGINEERS
Architects, Structural, Earthquake Engineering, Geo Technical, Public Health, Highway, Electrical Design Solution.
Office # 4, 2nd Floor, Sultana Arcade, Firdous Market, Gulberg-III, Lahore.
Ph: 042-35831506 03008811921, E-mail: arengineers78@gmail.com

MEP CONSULTANT

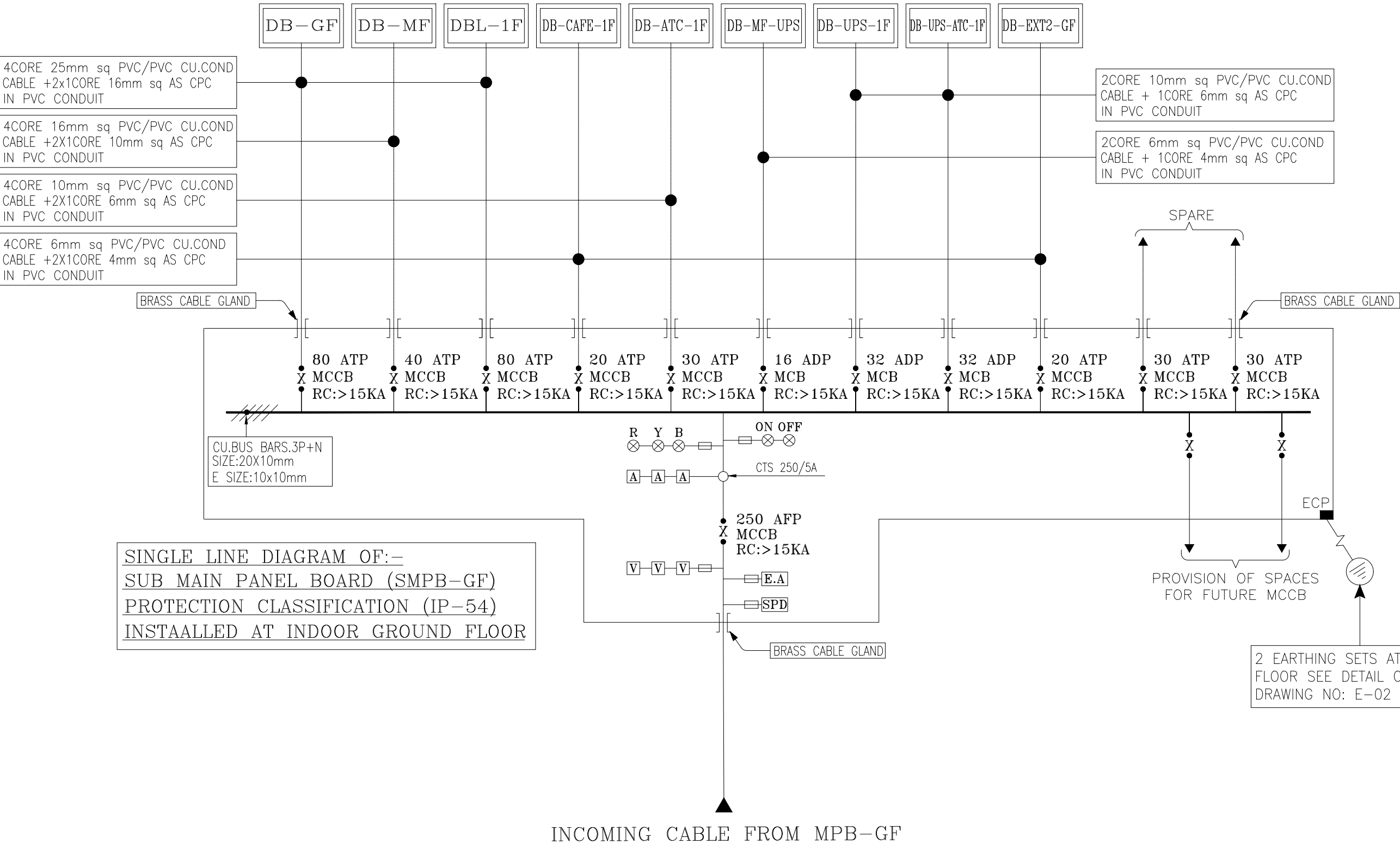


ABSTRACTORS
MEP CONSULTANT
SUITE-14,3RD FLOOR, JINNAH MALL, UZMIR TOWN, LHR
Cell no: 0322-3924199
E-mail: abstractorseng@gmail.com

Project Name
Consultancy Services for the Preparation of Detailed Design, Procurement Support and Construction Supervision of New Air Traffic Control Tower (ATCT), Fire Station and Allied Facilities at Skardu International Airport

Sheet Name
DATA NETWORKING RISER DIAGRAM

Date	APRIL, 2026
Scale	NTS
Drawn by	A.S.B
Checked by	M.K
Approved by	M.F
Drawing No.	E-58



SINGLE LINE DIAGRAM OF:-
SUB MAIN PANEL BOARD (SMPB-GF)
PROTECTION CLASSIFICATION (IP-54)
INSTAALLED AT INDOOR GROUND FLOOR

NOTES:
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CLIENT NAME

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MAIN CONSULTANT

Anwar Ali Architects (Pvt.) Ltd.
Consulting,Architects,Engineers
Planners & Management Consultants
06 HBFC BLOCK A FAISAL TOWN LAHORE

JV MEMBERS

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Cell no: 0322-3924199
E-mail: abstractorseng@gmail.com

Project Name
Consultancy Services for
New Air Traffic Control Tower
(ATCT), Fire Station and Allied
Facilities at Skardu
International Airport

**DETAILED ELECTRICAL
Design Drawings**

Sheet Name
ELECTRICAL SUBSTATION

Date	April, 2026
Scale	NTS
Drawn by	A.S.B
Checked by	M.K
Approved by	M.F
Drawing No.	E-67

NOTES:

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STRUCTURAL CONSULTANT

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MEP CONSULTANT



Project Name

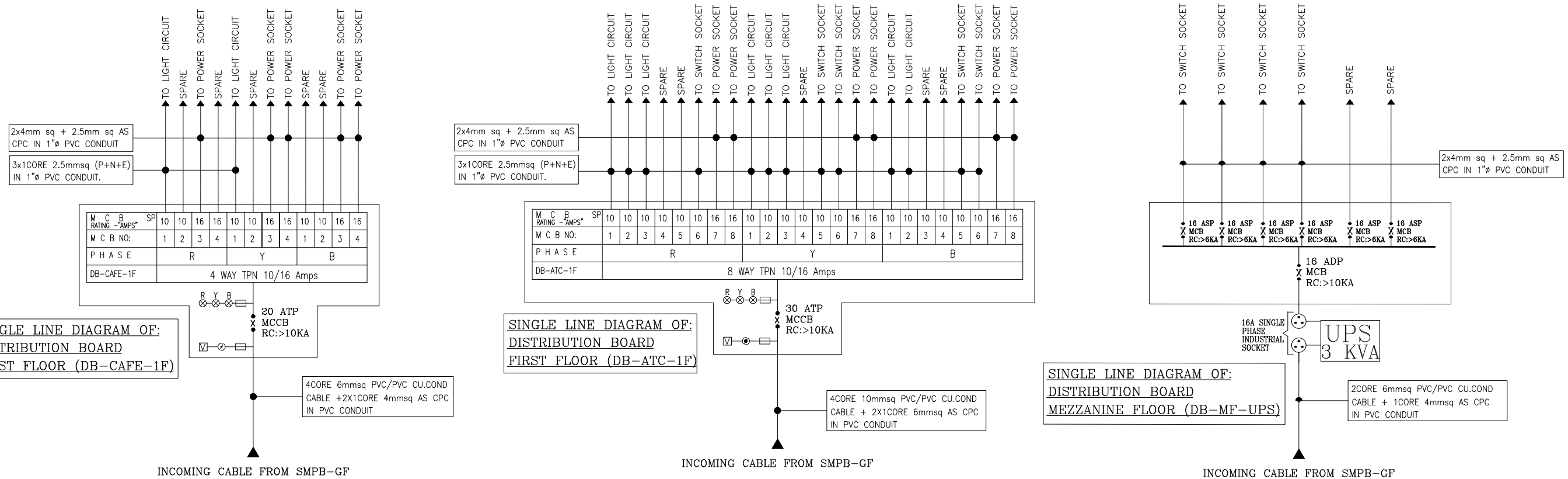
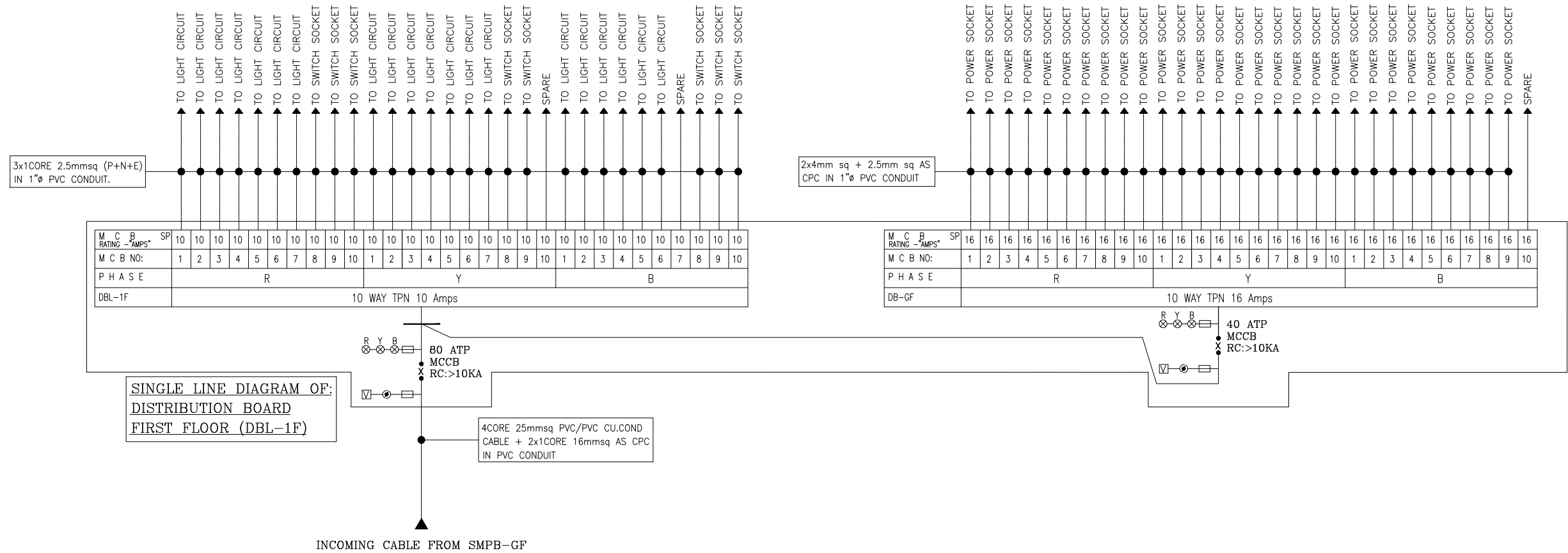
**Consultancy Services for
New Air Traffic Control Tower
(ATCT), Fire Station and Allied
Facilities at Skardu
International Airport**

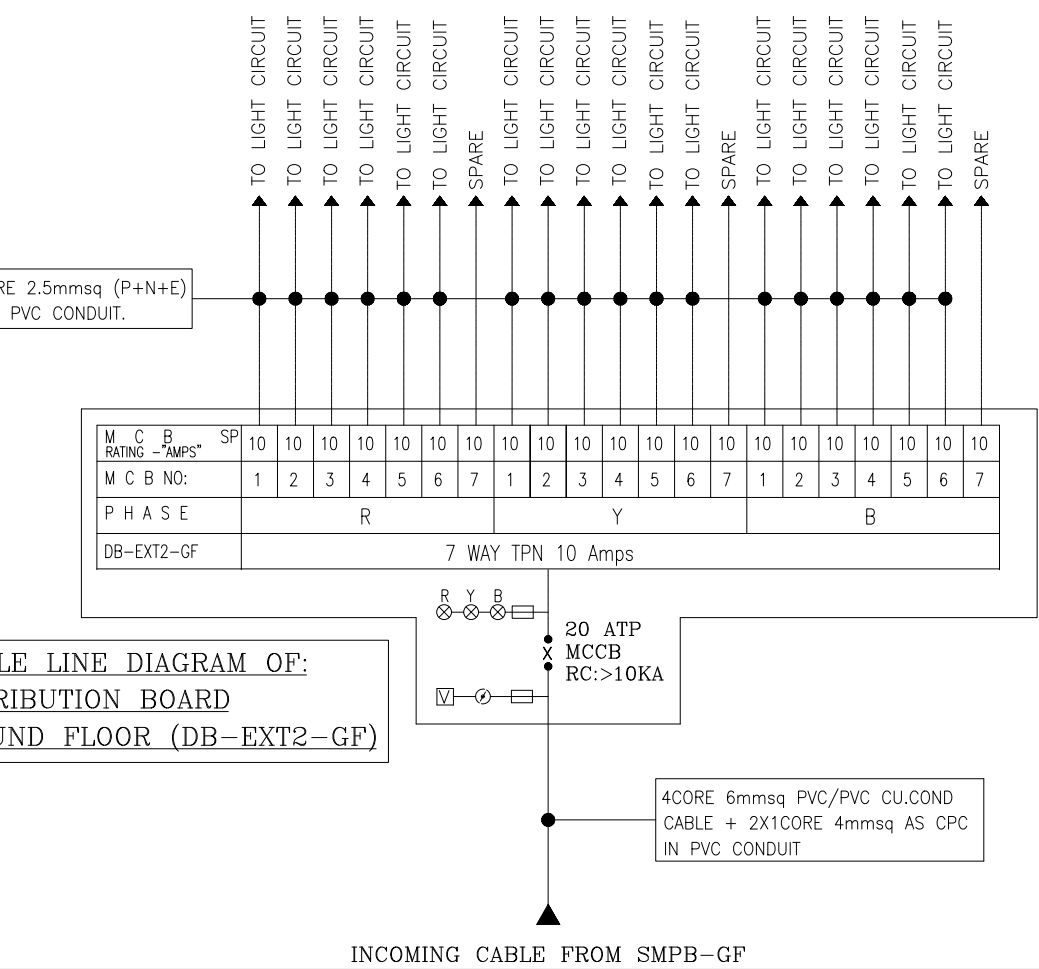
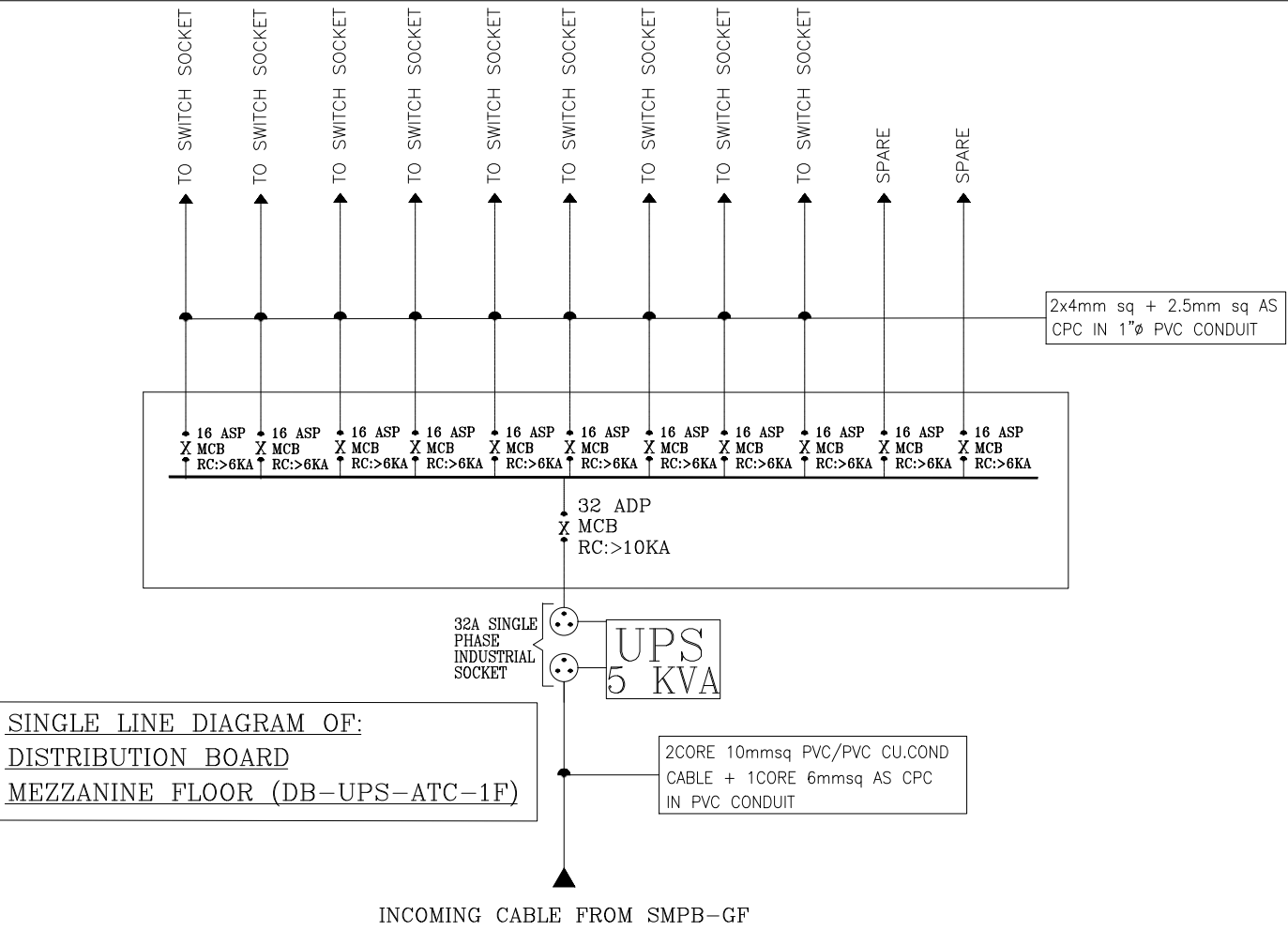
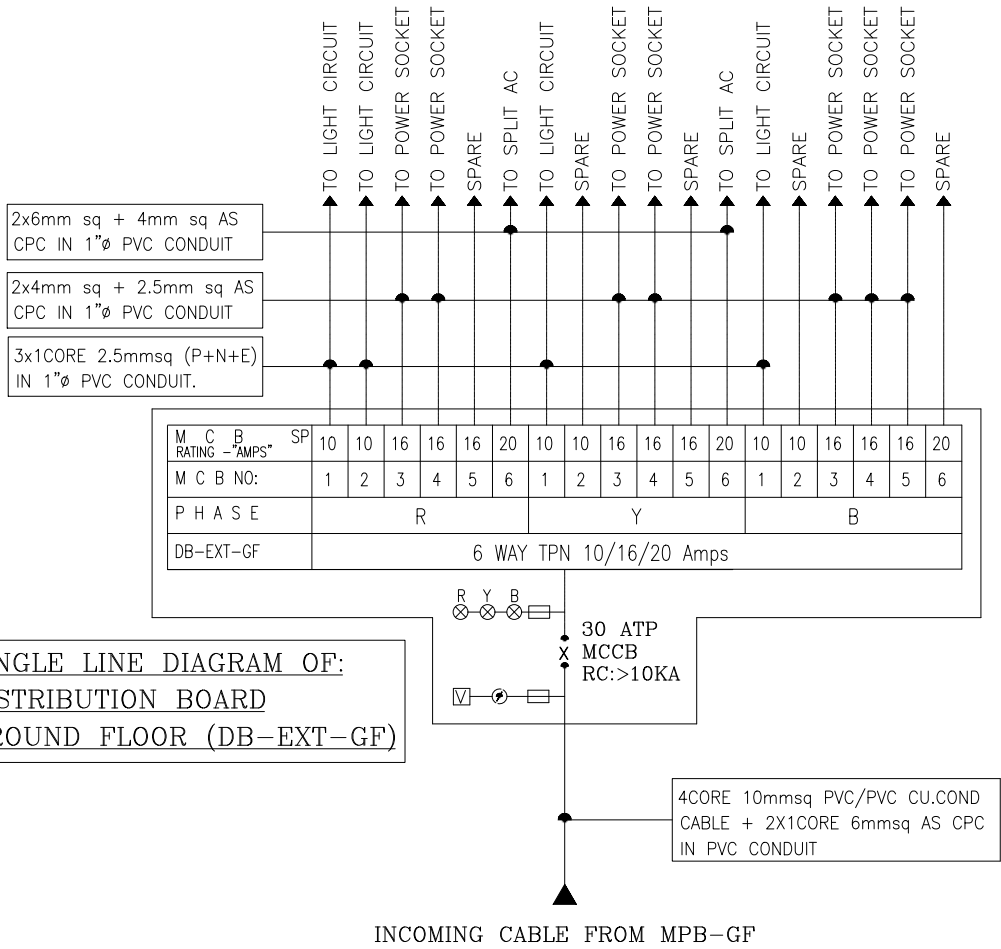
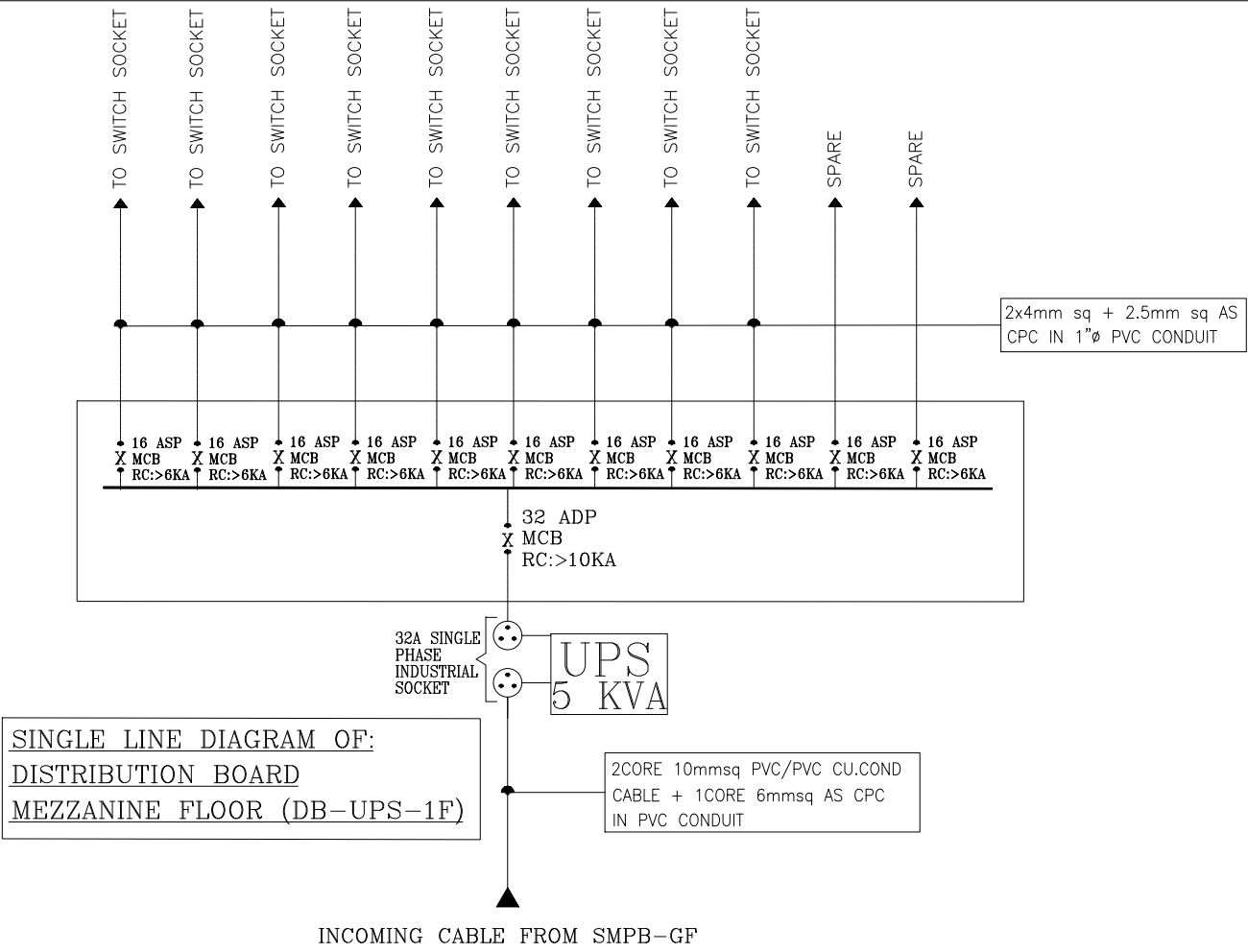
DETAILED ELECTRICAL Design Drawings

Sheet Name

ELECTRICAL SUBSTATION

Date	April, 2026
Scale	NTS
Drawn by	A.S.B
Checked by	M.K
Approved by	M.F
Drawing No.	E-69





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CLIENT NAME

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MAIN CONSULTANT

Anwar Ali Architects (Pvt.) Ltd.
Consulting,Architects,Engineers
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06 HBFC BLOCK A FAISAL TOWN LAHORE

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Ph: 042-35831906 03008813921, E-mail: arengineers786@gmail.com

MEP CONSULTANT

ABSTRACTORS
MEP CONSULTANT
SUITE-14,3RD FLOOR JINNAH MALL IZMIR TOWN, LHR
Cell no: 0322-3924199
E-mail: abstractorseng@gmail.com

Project Name
Consultancy Services for
New Air Traffic Control Tower
(ATCT), Fire Station and Allied
Facilities at Skardu
International Airport

**DETAILED ELECTRICAL
Design Drawings**

Sheet Name	
ELECTRICAL SUBSTATION	
Date	April, 2026
Scale	NTS
Drawn by	A.S.B
Checked by	M.K
Approved by	M.F
Drawing No.	E-70

<u>LIST OF APPROVED MANUFACTURERS (M)</u>					<u>(Annexure-A)</u>
Sr #	Particulars	Manufacturers / Vendors	Origin	Landline	Mobile / Cell
1	<u>LT / HT PANELS & DB's / STREET LIGHT POLES</u>				
i	Quality Switchgear Pvt Ltd.	Quality Switchgear	Pakistan		0300-8404301
ii	Bilal Engineering	Bilal Engineering	Pakistan		0313-4444029
iii	Ghafoor Engineering	Ghafoor Engineering	Pakistan		0320-7780309
iv	PEMPAK	PEMPAK	Pakistan		
v	South Asian Electric (SAEC)	South Asian Electric	Pakistan		0300-8477067
2	<u>CIRCUIT BREAKERS</u>				
	<u>MCB/MCCB/ACB/ELCB/RCBO</u>				
i)	Schneider	Oliver General Trading	France		0324-4475372
ii)	ABB	Trade Ventures	EU		0303-4443327
iii)	Sigma	Jawad Electric	Turkey		0322-8061111
3	<u>MAGNETIC CONTACTORS</u>				
i)	Schneider	Oliver General Trading	France		0324-4475372
ii)	ABB	Trade Ventures	EU		0303-4443327
iii)	Sigma	Jawad Electric	Turkey		0322-8061111
4	<u>SELECTOR SWITCHES</u>				
i)	Sinusoid	Eyelogy	CAD/CHN		0336-4452231
ii)	KRAUS & NAIMER	E-Links	EU		0321-4404025
iii)	Sigma	Jawad Electric	Turkey		0322-8061111
5	<u>ENERGY & NETWORK ANALYZERS / VOLTMETERS / AMPEREMETERS</u>				
i)	Smart Controller	Index Technology	UK		0300-8184203
ii)	Lovato	Jubilee Corporation	Italy		0300-8548550
iii)	Sigma	Jawad Electric	Turkey		0322-8061111
5a	<u>DUAL SOURCE ENERGY METERS</u>				
i)	Lovato	Jubilee Corporation	Italy		0300-8548550
ii)	ABB	ABB	EU		0303-4443327
iii)	Sigma	Jawad Electric	Turkey		0322-8061111
iv)	Schneider	Oliver General Trading	France		0324-4475372
6	<u>PFI RELAYS</u>				
i)	Shizuki	Sheikh Waliyat & Sons	Thailand		0307-5553960
ii)	BTB	Eyelogy	Turkey		0336-4452231
iii)	Nokian	Jubilee Corporation	Finland		0300-8548550
iv)	Sigma	Jawad Electric	Turkey		0322-8061111
7	<u>TERMINAL BLOCKS</u>				

i)	Klemsan	E-Links	Turkey	0321-4404025
ii)	Onka	Pyramid	Turkey	
iii)	Sigma	Jawad Electric	Turkey	0322-8061111

8 PFI CAPACITORS

i)	BTB	Eyelog	Turkey	0336-4452231
ii)	Nokian	Jubilee Corporation	Finland	0300-8548550
iii)	Shizuki	Sheikh Waliyat & Sons	Thailand	0307-5553960

9 CURRENT TRANSFORMERS

i)	Revalco/Saci	Jubilee Corporation	Italy / EU	0300-8548550
ii)	Hubit	E-Links	UK	0321 4404025
iii)	Lovato	Jubilee Corporation	EU	0300-8548550
iv)	Entes	Shahid International	Turkey	0321-8472264
v)	Sigma	Jawad Electric	Turkey	0322-8061111

10 VOLTAGE MONITORING RELAYS

i)	Entes	Shahid International	Turkey	0321-8472264
ii)	Emirel	Jubilee Corporation	Italy	0300-8548550
iii)	ABB	ABB	EU	0303-4443327
iv)	Sinusoid	Eyelog	CAD/CHN	0336-4452231
v)	Sigma	Jawad Electric	Turkey	0322-8061111

11 LOAD BREAK SWITCHES / CHANGE OVER SWITCHES

i)	Socomec	Jubilee Corporation	France	0300-8548550
ii)	ABB	ABB	EU	0303-4443327
iii)	Schneider	Oliver General Trading	France	0324-4475372
iv)	Sigma	Jawad Electric	Turkey	0322-8061111

12 INDICATION LIGHTS

i)	Telemechanique	Schneider Pakistan	EU	
ii)	GGT	E-Links	EU	0321 4404025
iii)	Sigma	Jawad Electric	Turkey	0322-8061111

13 SWITCHES & SOCKETS

i)	Clipsal Vivace Series	Clipsal Pakistan	Vietnam	0322-2880057
ii)	Legrand	Shahid International	EU	0321-8472264
iii)	Orange Switches	Orange Electric		0322-4834937
iv)	Riva	Eyelog		0336-4452231

14 LT/HT CABLES

i)	Fast Cables	Fast Cables	Pakistan	0320-8080046
ii)	Newage Cables	Newage Cables	Pakistan	0333-478210
iii)	Pakistan Cables	Pakistan Cables	Pakistan	0321-2304494

15 EARTHING CONDUCTORS

i)	Fast Cables	Fast Cables	Pakistan	0320-8080046
ii)	Newage Cables	Newage Cables	Pakistan	0333-4748210
iii)	Pakistan Cables	Pakistan Cables	Pakistan	0321-2304494

16 PVC CONDUIT & ACCESSORIES

i)	PLASCO PIPE	PLASCO PIPE	Pakistan	0321 4113938
ii)	BETA PIPES	BETA PIPES	Pakistan	
iii)	Dadex Pipes	Dadex Pipes	Pakistan	

17 LIGHTING FIXTURES

i)	Vlux	Index Techhnologies		0300-8184203
ii)	Osram	Osram		0312-4732209
iii)	Oppl Lights	Oppl Lighting		0301-8440368
iv)	Avada	Avada		0300-0840008
v)	Coarts	Coarts Lighting Pvt.Ltd		0331-2273277

18 FANS

i)	Lahore Fan	Lahore Fan	Pakistan	042-35113741
ii)	Royal Fans	Royal Fans	Pakistan	042 - 35761308

19 TELEPHONE CABLES

i)	Ventilux	Index Technologies	UK	0300-8184203
ii)	ELAN Cabels	Index Technologies	USA	0300-8184203
iii)	Clipsal	Clipsal Pakistan	Australia	0322-2880041
iv)	Comscope	Netsoft	USA	0321-8480227

20 DATA CABLES (CAT-6 UTP/STP/FTP)

i)	Ventilux	Index Technologies	UK	0300-8184203
ii)	ELAN Cabels	Index Technologies	EU	0300-8184203
iii)	Clipsal	Clipsal Pakistan	China	0322-2880057
iv)	Molex	Netsoft	USA	0321-8480227
v)	Corning	ESP Solutions	USA	0333-4666946

21 CO-AXIAL CABLES (RG-6/7)

i)	Ventilux	Index Technologies	UK	0300-8184203
ii)	ELAN Cabels	Index Technologies	EU	0300-8184203
iii)	Clipsal	Clipsal Pakistan	China	0322-2880057

22 TELEPHONE,JUNCTION BOXES & PATCH PANELS

i)	TESCO	Index Technology	USA	0300-8184203
ii)	3M	ESP Solutions		0333-4666946

23 TELEPHONE OUTLETS

i)	CLIPSAL-Vivace Series	Clipsal Pakistan	China	0322-2880041
ii)	Legrand	Shahid International	EU	0321-8472264
iii)	Orange Switches	Orange Electric		0322-4834937

24 FIRE ALARM SYSTEM

i)	DETNOV	Index Technology	Spain	0300-8184203
ii)	ALCO (fire & security)	Index Technology	USA	0300-8184203
iii)	Honeywell	Notifier	UK	
iv)	Bosch	ESP Solutions	Germany	0333-4666946

24 a FIRE ALARM SYSTEM CABLING

i)	Ventilux	Index Technologies	UK	0300-8184203
ii)	Elan	Index Technologies	Italy	0300-8184203
iii)	Cavicell	C-XOR Engineering	Italy	0300-8477751

25 CCTV SYSTEM

i)	SAMSUNG	Vital International	Korea	0306-6831111
ii)	ALCO	Index Technology	USA	0300-8184203
iii)	Bosh	ESP Solutions	Germany	0333-4666946
iii)	Honeywell		USA	

25 a CCTV SYSTEM CABLING

i)	Ventilux	Index Technologies	UK	0300-8184203
ii)	ELAN	Index Technologies	EU	0300-8184203
iii)	Clipsal	Clipsal Pakistan	China	0322-2880057
iv)	Molex	Netsoft	USA	0321-8480227
v)	Corning	ESP Solution	USA	0333-4666986

26 PUBLIC ADDRESS SYSTEM

i)	TOA	Index Technology	Japan	0300-8184203
ii)	ITC	Index Technology	China	0300-8184203
iii)	Bosch	Bosch Invented	Germany	0321-6447170

26 a PUBLIC ADDRESS SYSTEM CABLING

i)	Ventilux	Index Technology	UK	0300-8184203
ii)	ELAN	Index Technology	EU	0300-8184203
iii)	Corning	ESP Solution	USA	0333-4666986

27 CABLE TRUNKING / LADDERS

i	Quality Switchgear Pvt Ltd.	Quality Switchgear	Pakistan	0300-8404301
ii	Bilal Engineering	Bilal Engineering	Pakistan	0331-4999119
v	Ghafoor Engineering	Ghafoor Engineering	Pakistan	0320-7780309
vii	Power-EM	Power-EM	Pakistan	0300-9430832
viii	M-Tech	M-Tech	Pakistan	0301-8472264
ix	Power Tech	Power Tech	Pakistan	0321-5234202
x	PEMPAK	PEMPAK	Pakistan	

28 BUS TIE DUCT (BTD)

i)	Pogillano	Jubilee Corporation	EU	0300-8548550
ii)	Legrand	C-XOR Engineering	EU	0300 8477751

iii)	Power Plug	C-XOR Engineering	Malaysia	0300 8477751
iv)	Megaduct	ERCON	Malaysia	0300-0406941
v)	EAE	Libra Engineering	Turkey	0318-2070520

29 LIGHTNING PROTECTION SYSTEMS

Early Streamer Emission With Accessories (Active)

i)	Application Tech	C-Xor Engineering	Spain	0300-8477751
ii)	Jeflash	Eyelog	Turkey	0322-8092588
iii)	INGESCO	Electrokraft	Italy	

Conventional System With Accessories (Passive)

i)	ABB	ABB	EU	0303-4443327
ii)	Dehn	Jubilee Corporation	EU	0300-8548550

30 MV SWITCHGEAR / 11KV RMU / LBS

i)	Hyundai	PEL	Korea	
ii)	ABB	ABB	EU	0303-4443327
iv)	Siemens	Siemens	EU	

31 TRANSFORMERS (DRY TYPE)

i)	Trafo Elettro	C-Xor Engineering	EU	0300 8477751
ii)	Legrand	C-Xor Engineering	EU	0300 8477751
iii)	ABB	ABB	EU	0303-4443327
iv)	TMC	Jubilee Corporation	EU	0300-8548550
v)	Power Go	Rachena Corp	EU	0321-840078
vi)	Fedral	Eyelog	EU	0336-4452231

32 TRANSFORMERS (OIL TYPE)

i)	Pak Electron Limited (PEL)	Pak Electron Limited (PEL)	Pakistan	0300-8406508
ii)	ELMETEC	ELMETEC	Pakistan	0302-4712772
iii)	Hammad Engineering	Hammad Engineering	Pakistan	0302-4712772
iv)	Transfo Power	Transfo Power	Pakistan	0320-7889283

33 GENERATORS

i)	Cummins	Orient Energy	EU/US/CN	0300-8440430
ii)	Starkat	Innovative Energy Sol	EU	0333-0525552
iii)	Scania	KAN Engineering	Sweden/EU	0301-8402312
iv)	Onis Visa / Volvo	VPL	EU	0301-8445026
v)	Aksa	Aksa Generators	Turkey	0302-8282690
vi)	Perkins	Power Zone		0321-4462651
vii)	Perkins	Multiline		0301-8665069
viii)	Kohler SDMO	Greaves		0345-4014588
ix)	Cummins	Power Vision	EU/US/CN	0300-9439310

34 GENERATOR CONTROL MODULES

i)	SICES	HUB ENGINEERING	EU	0301-6020372
ii)	DEEP SEA	PYRAMID AUTOMATION	UK	0333-4561619
iii)	EURO GEN	EURO GEN	FRANCE	0333-4561619

35 OCCUPANCY SENSOR

i)	Ventilux	Index Technology	UK	0300-8184203
ii)	Clipsal/Schneider Electric	Clipsal Pakistan		0322-2880057

36 WIFI ROUTER

i)	Ruckus	Netsoft	Australia	0321-8480227
ii)	Huawei	CMC	China	0330-7470125
iii)	Allied Telesis	ESP SOLUTIONS		0333-4666946

37 GPON ACTIVE EQUIPMENT

i)	CORNING	ESP SOLUTIONS	USA	0333-4666986
ii)	HUAWEI	OCTO	CHINA	0330-7470125

38 GPON PASSIVE EQUIPMENT

i)	Molex	Netsoft	Aus	0321-8480227
ii)	Corning	ESP Solutions	USA	0333-4666946
iii)	Comscope	Netsoft	USA	0321-8480227

39 LIFTS / ESCALATORS / DUMP WAITERS

i)	Fuji	Innovative Energy Sol.	Japan	0300-8504838
ii)	Sanyo	DWP Technologies	Japan	0302-8445225
iii)	OTIS	Royal Systems		0300-8548002
iv)	Euksali	Mesi Group	Turkey	0300-8446992
v)	Mitsubishi			

40 ACCESS CONTROL / DOOR LOCKS

i)	Salto	ESP Solutions	UK	0333-4666946
ii)	ANVIZ	INEX Technology	USA/CHN	0300-8184203

41 INVERTER

i)	APC by Schneider	Octo	EU/CHINA	0330-7470125
ii)	ABB	SM JAFFER	EU	0333-0321284

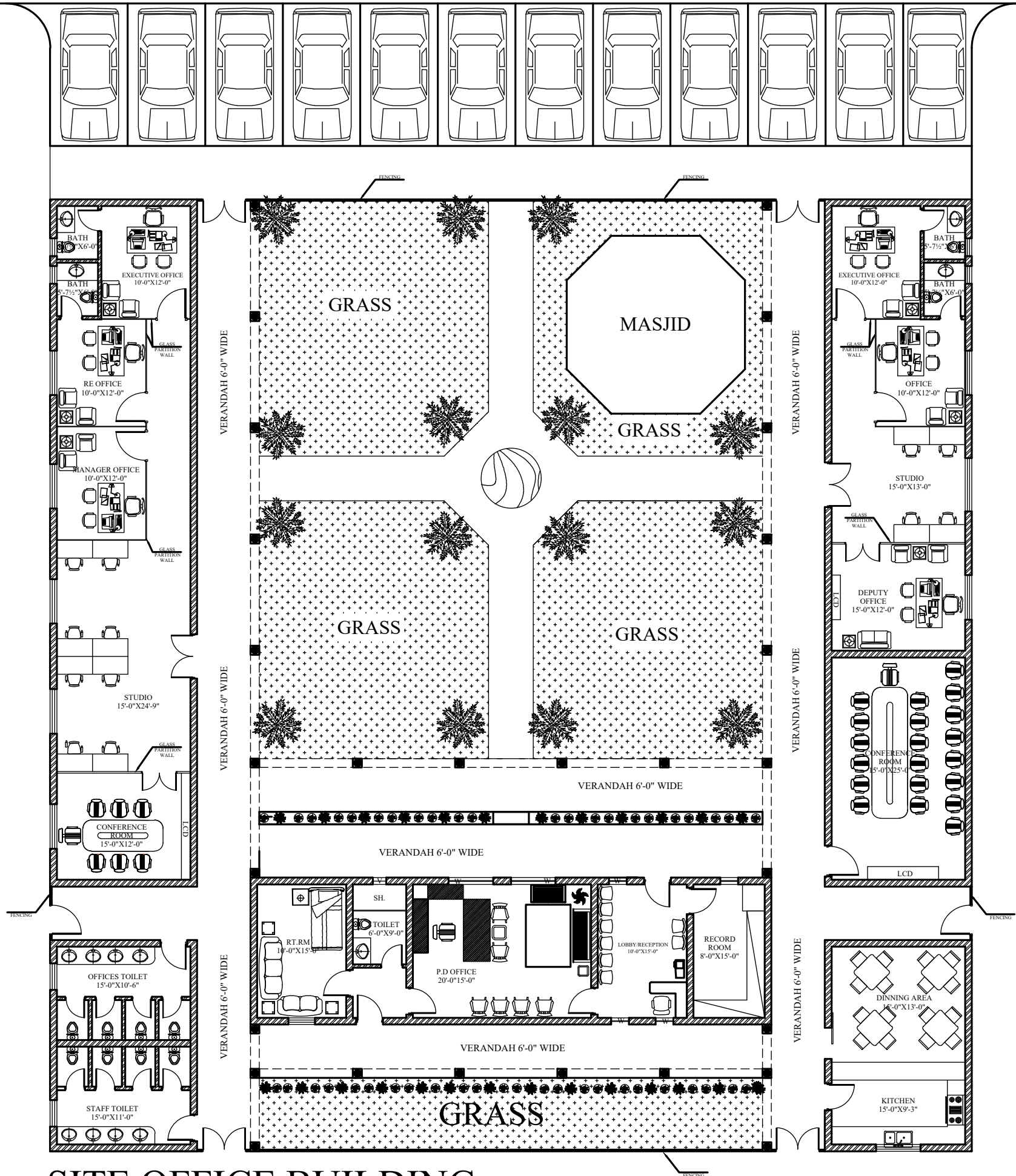
42 INDUSTRIAL POWER SOCKETS (IPS)

i)	Clipsal	Clipsal Pakisan	China	0322-2880057
ii)	FAMATEL	JUBLIEE CORPORATION	SPAIN	0300-8548550

43 SURGE PROTECTION DEVICES

i)	ABB	ABB	EU	0303-4443327
ii)	Dehn	Jubilee Corporation	EU	0300-8548550
iii)	Sigma	Jawad Electric	Turkey	0322-8061111

ROAD



SITE OFFICE BUILDING

PMU OFFICE=1282 SFT

RE OFFICE=1282 SFT

PD OFFICE=965 SFT

TOILETS AREA=392 SFT

DINNING & KITCHEN AREA=392 SFT

VERANDAH COVERED AREA = 2372 SFT

MASJID COVERED AREA = 350 SFT

DATE: 14-01-2026

PROPOSED SITE OFFICE FOR ATC TOWER PROJECT STAFF
AT SKARDU AIRPORT.

MAIN CONSULTANTS:

Anwar Ali Architects (Pvt.) Ltd.
Consulting Architects, Engineers
Planners & Management Consultants
06 HFC BLOCK A FASAL TOWN LAHORE