

ENGINEERING NETWORKS

LEGEND

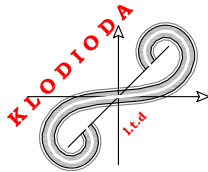
**Security upgrade of Ministry of Interior (Mol)
Main Supply Centre “Mullet”- -Small Arms Light
Weapons(SALW) and ammunition storage location,
Second Phase**

DETAILED DESIGN

ENGINEERING NETWORKS



**UNITED NATIONS
DEVELOPMENT
PROGRAMME
ALBANIA**

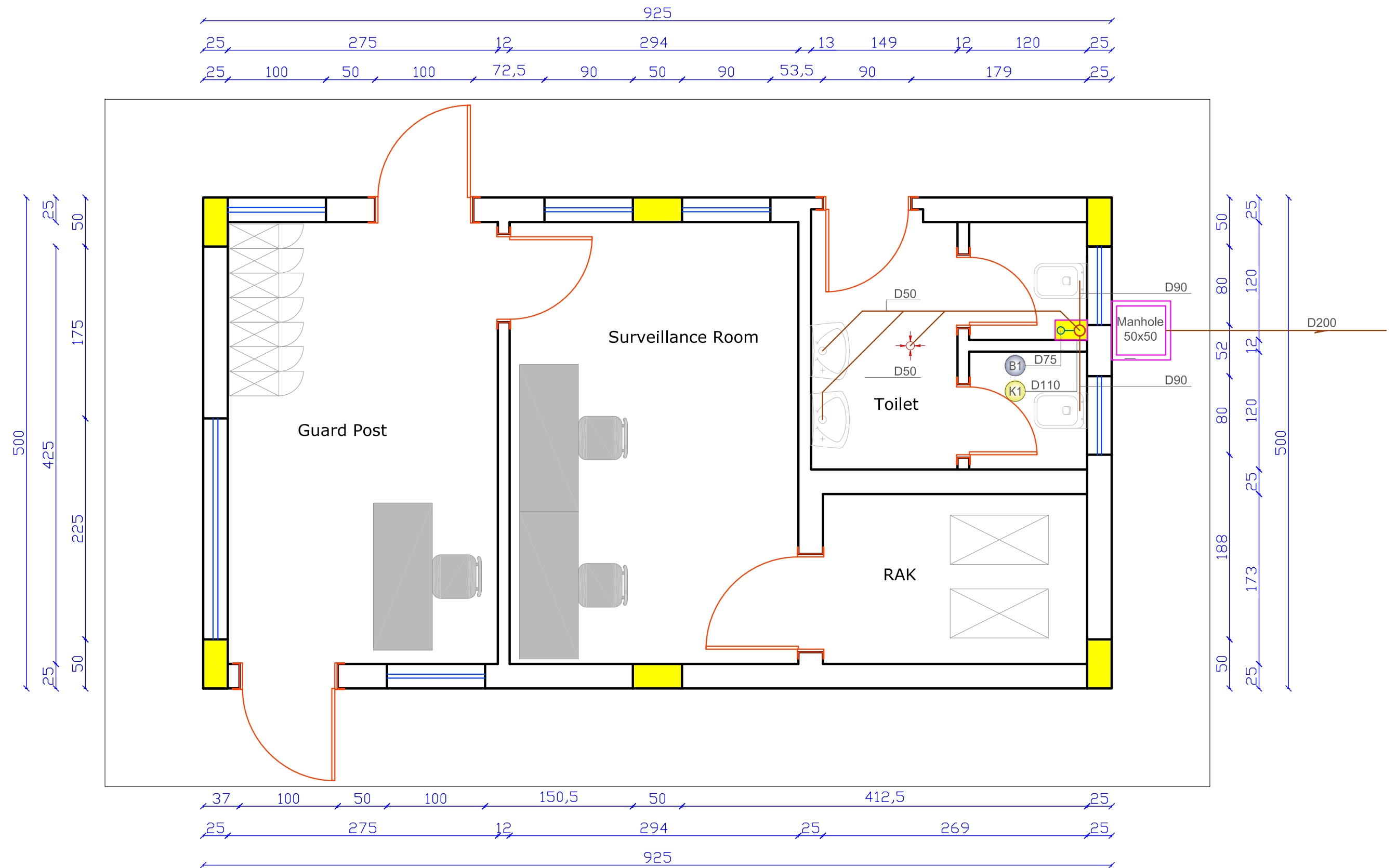


"KLODIODA" l.t.d

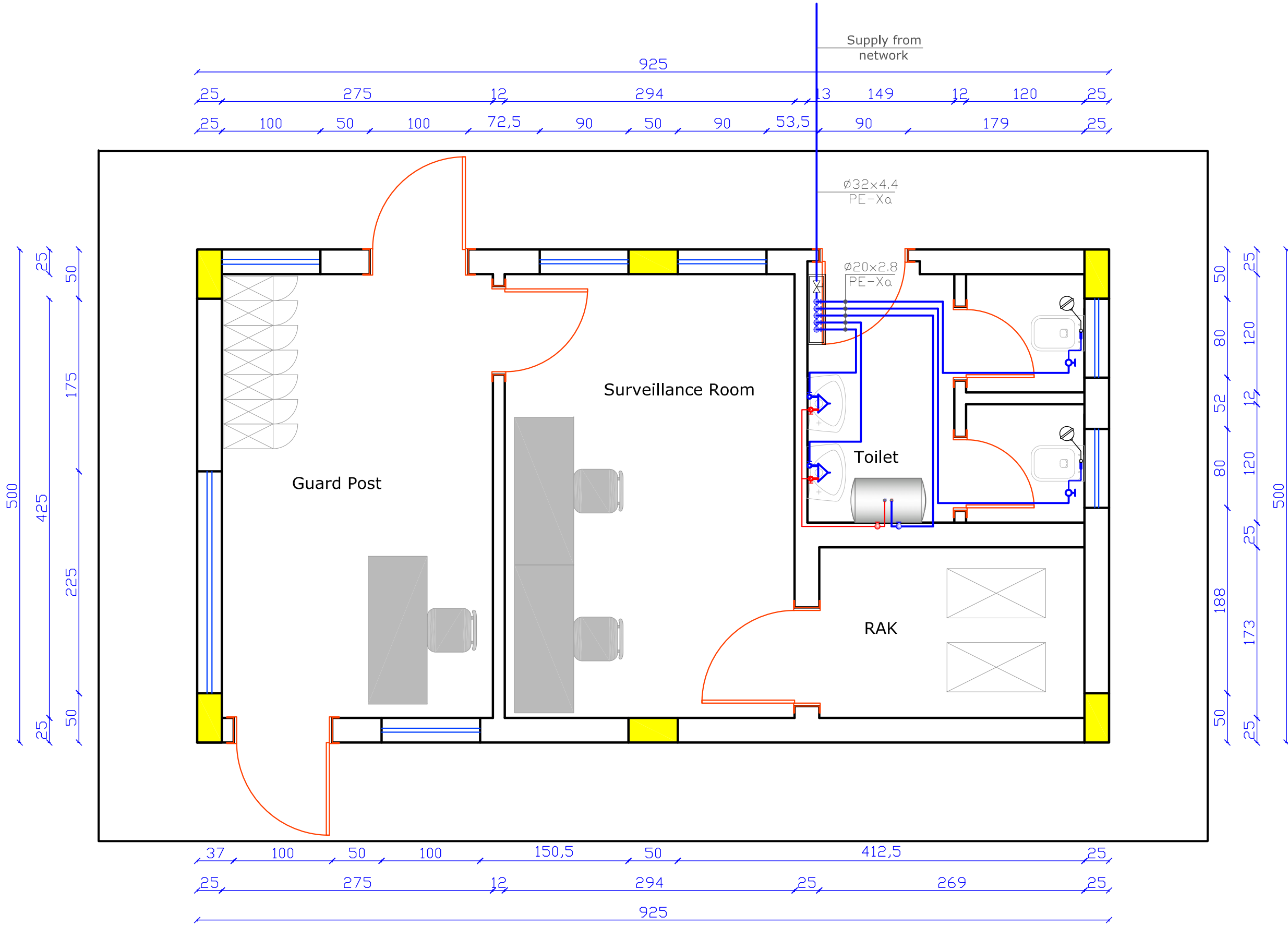
Rr.Barrikadave P.118 Kati III, Zyra Nr.2
Tiranë - Shqipëri
klodioda@gmail.com
klodioda@yahoo.com

Design Team			Scale
	Eng. YLLI KARAPICI		1:25
	Eng. XHEVAHIR ALIU		Date MARCH 2020
	Eng. PAMELA KURTULAJ		
	Eng. EJONA BEZHANI		Sheet Name Page F-2.00
	Eng. YLLI BILALI		

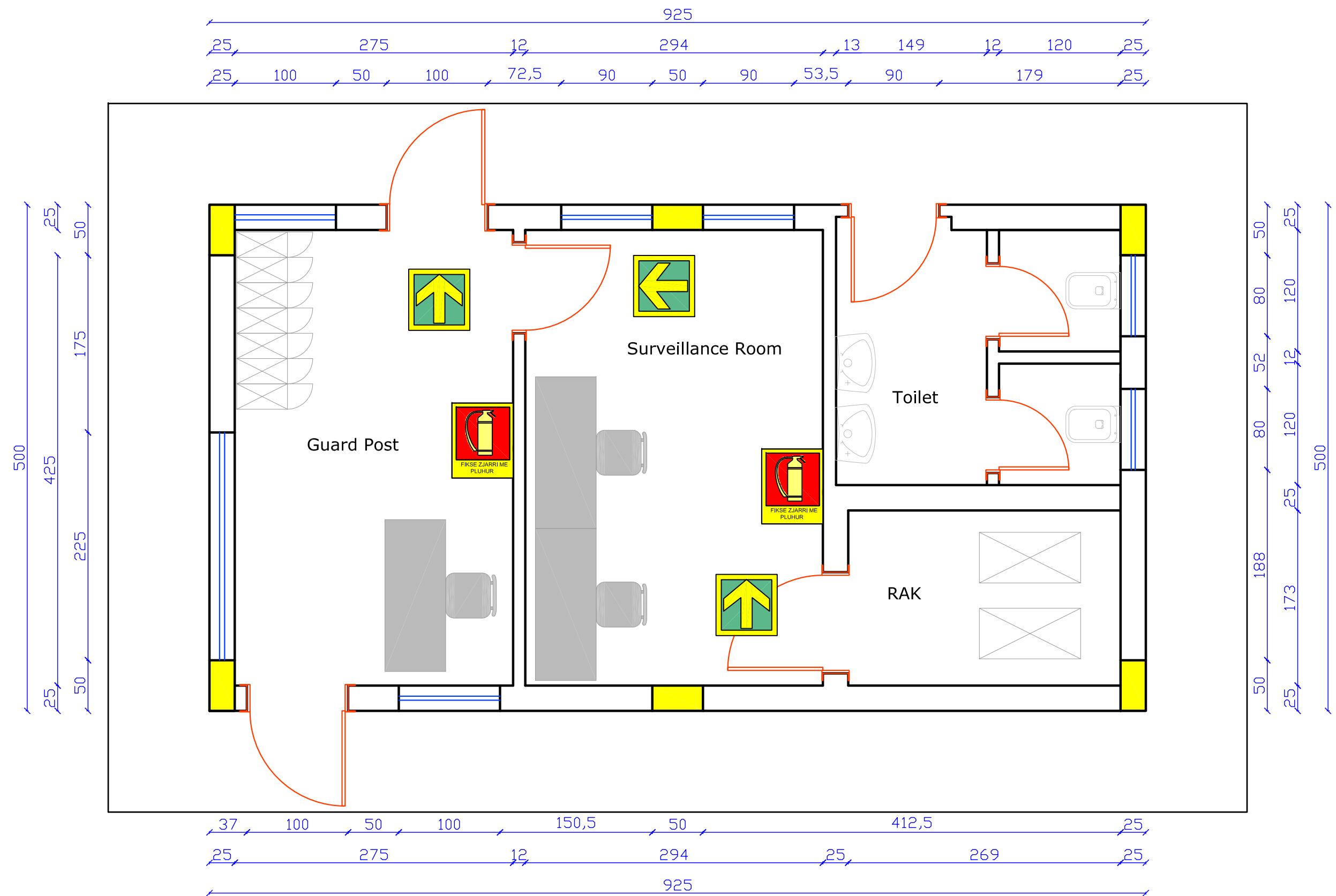
SEWAGE WATER PLAN



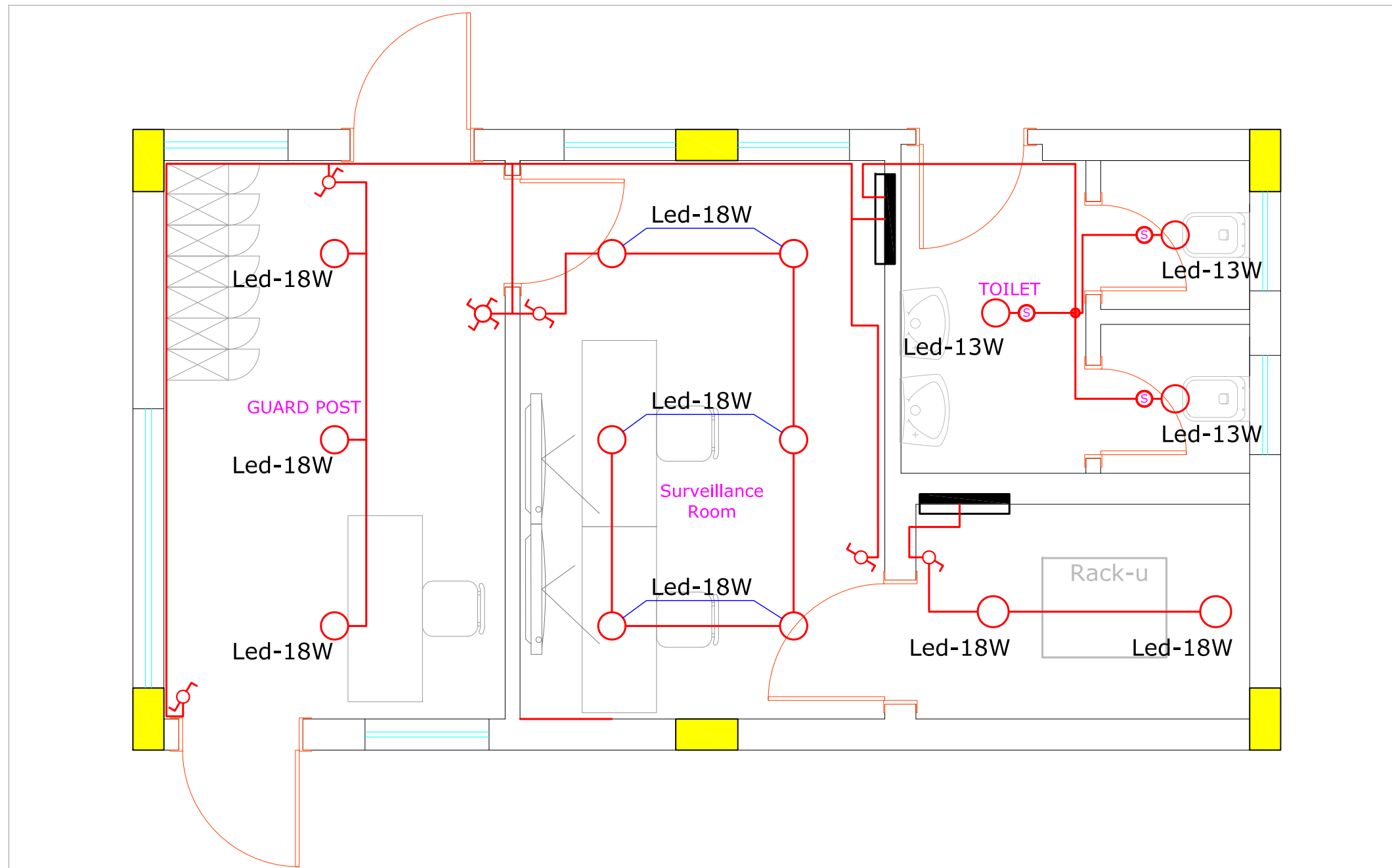
WATER SUPPLY PLAN



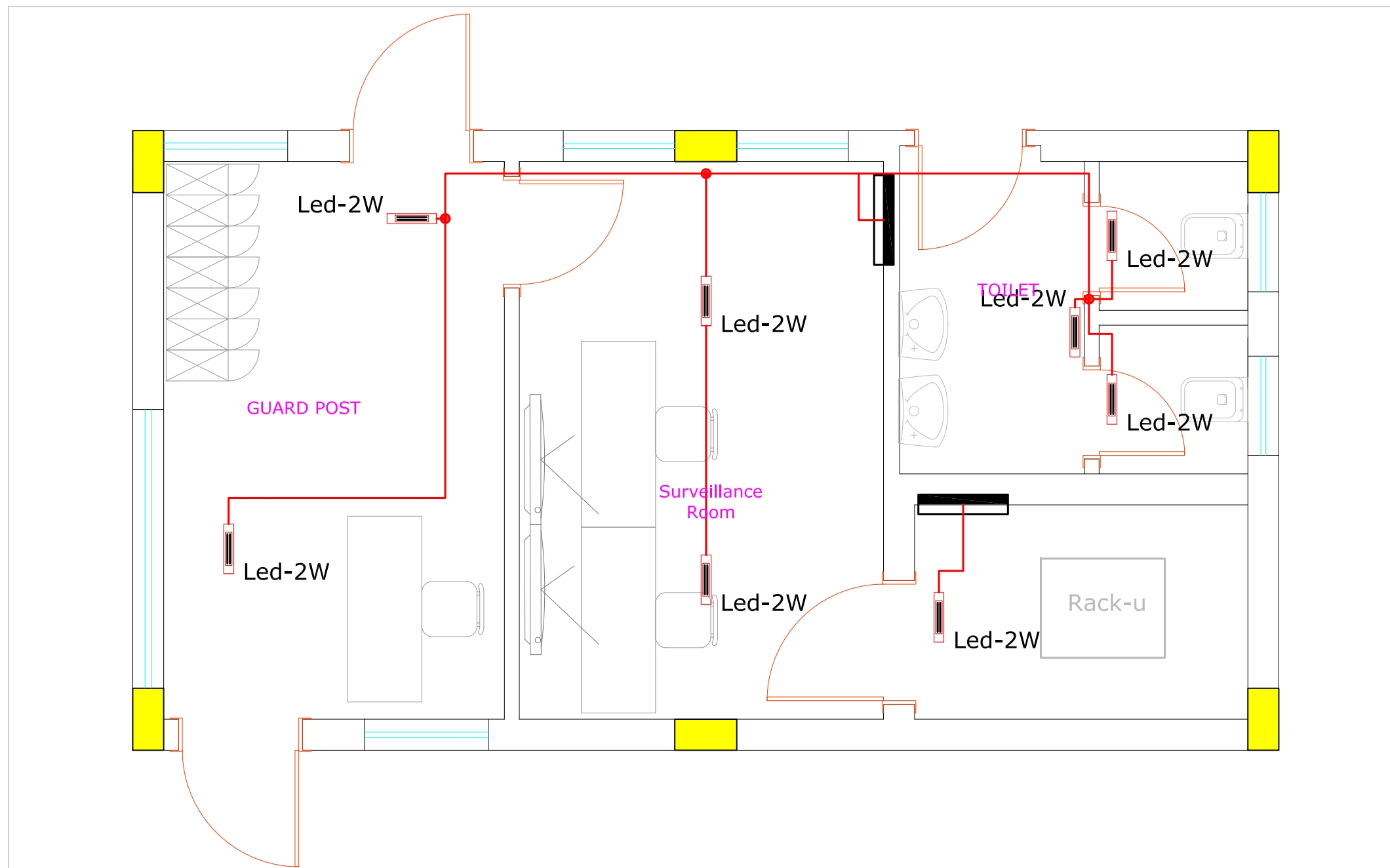
EVACUATION AND
FIRE RESCUE PLAN



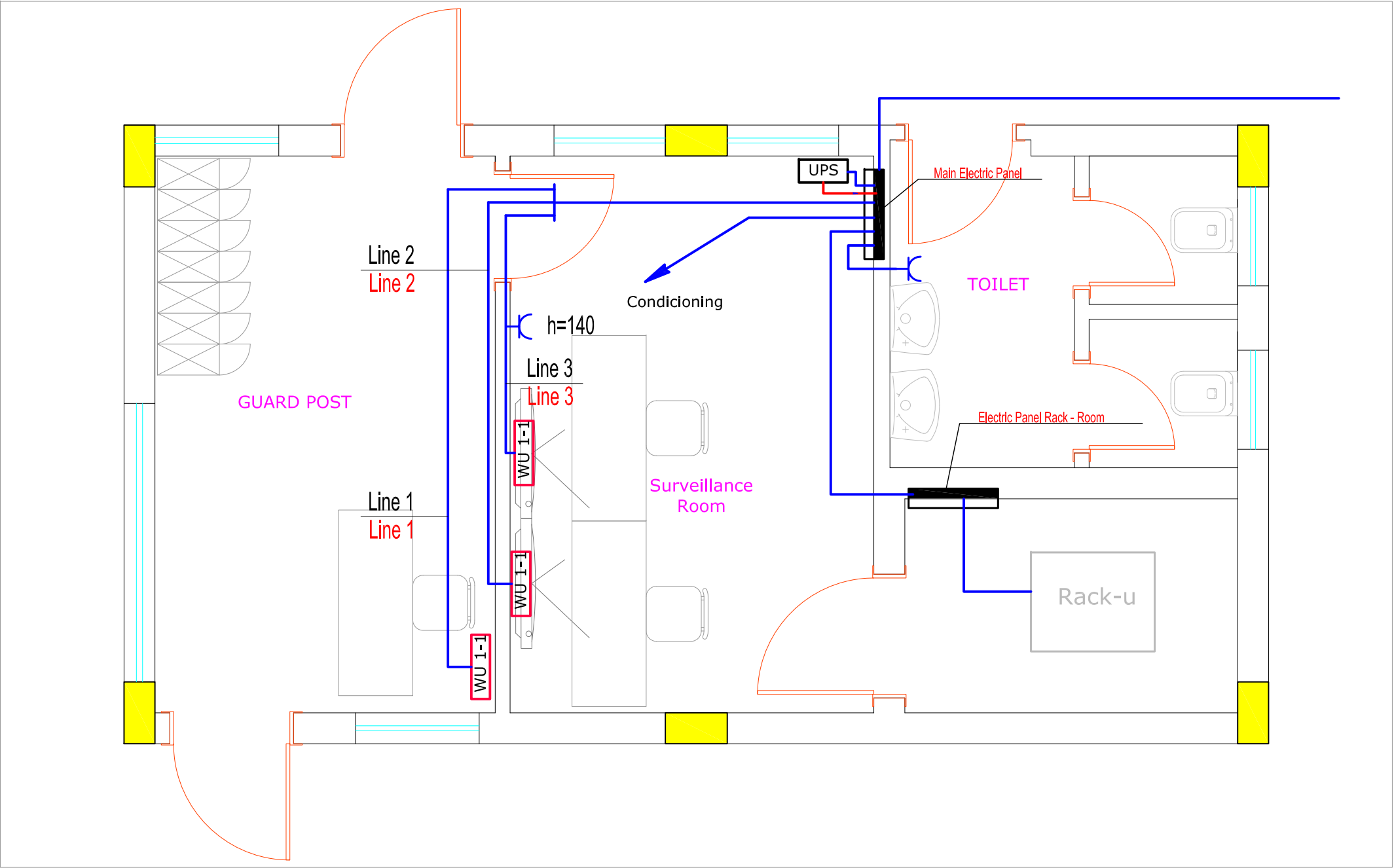
Electric Network-Lighting



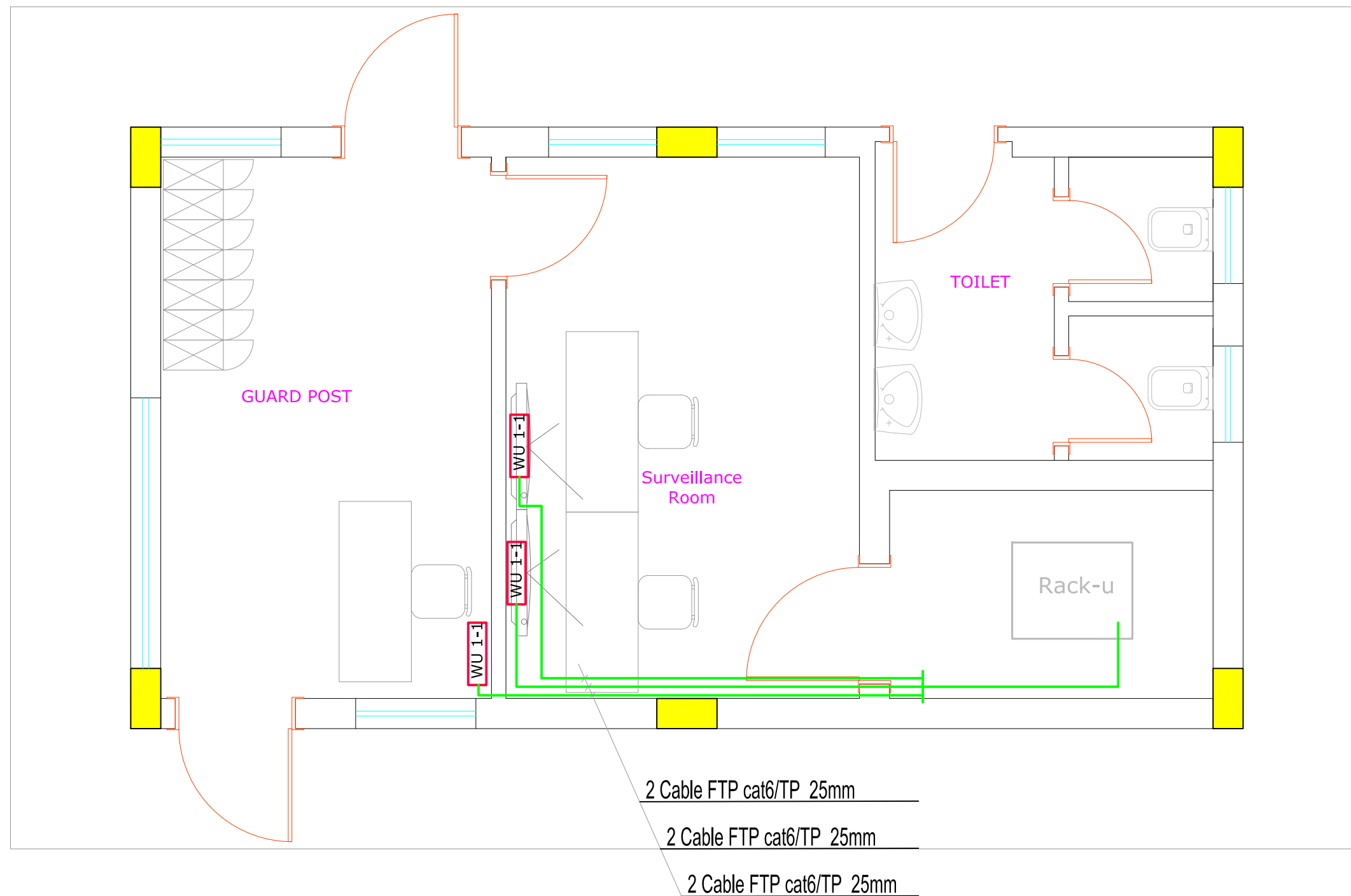
Electric Network Emergency Lighting



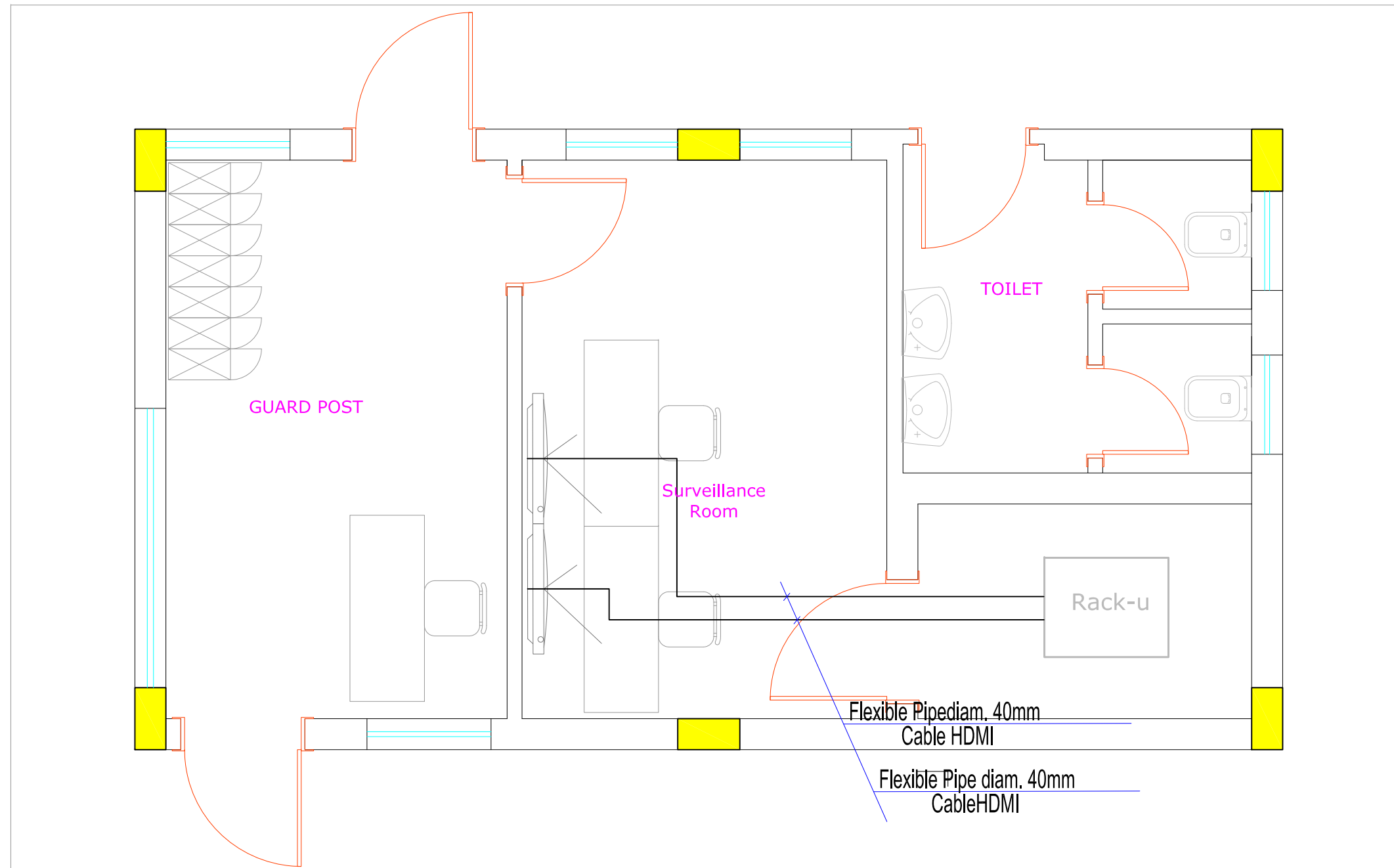
Electric Network - Power



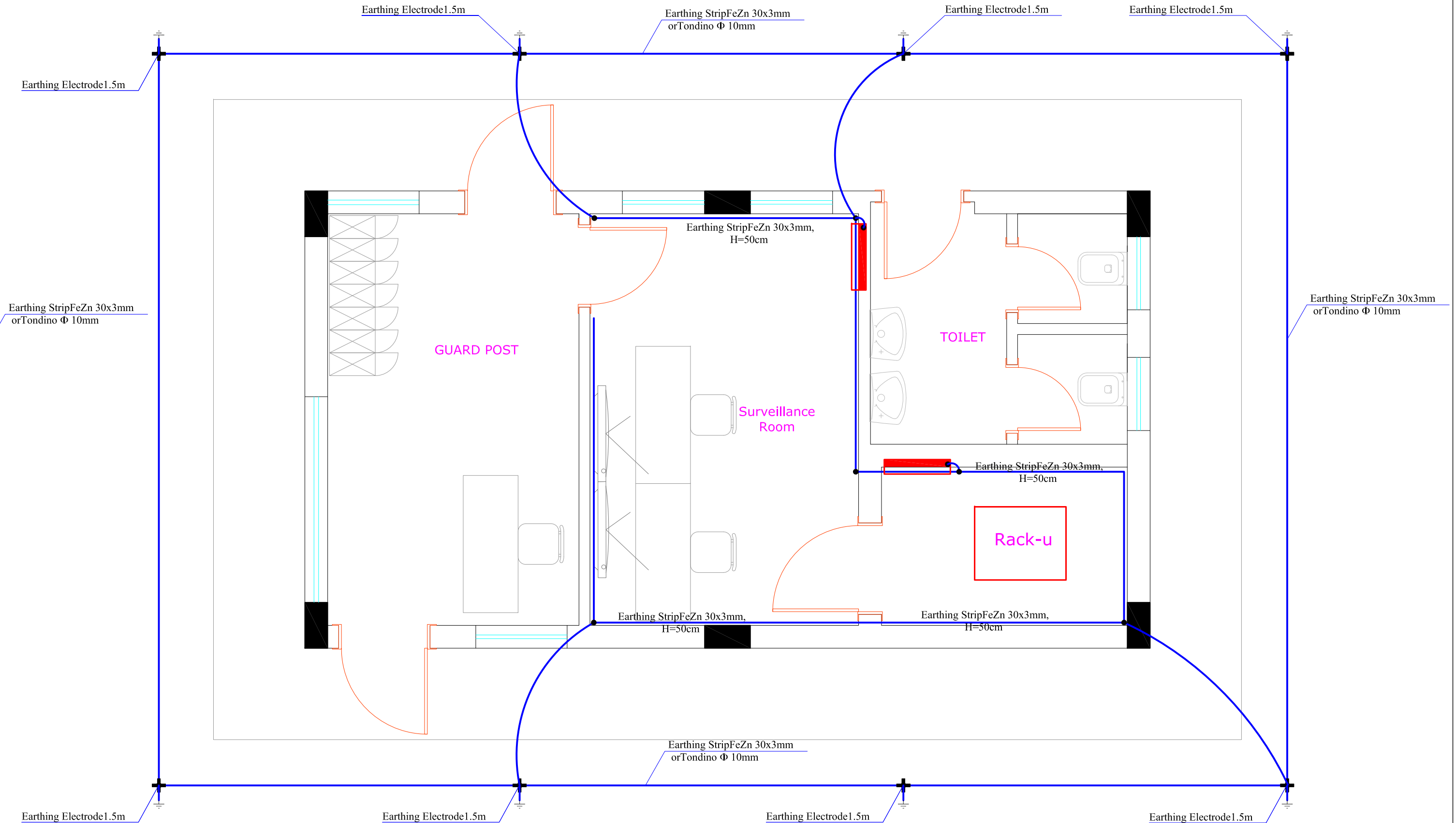
Telecomunitation Network



Telecomunitation Network

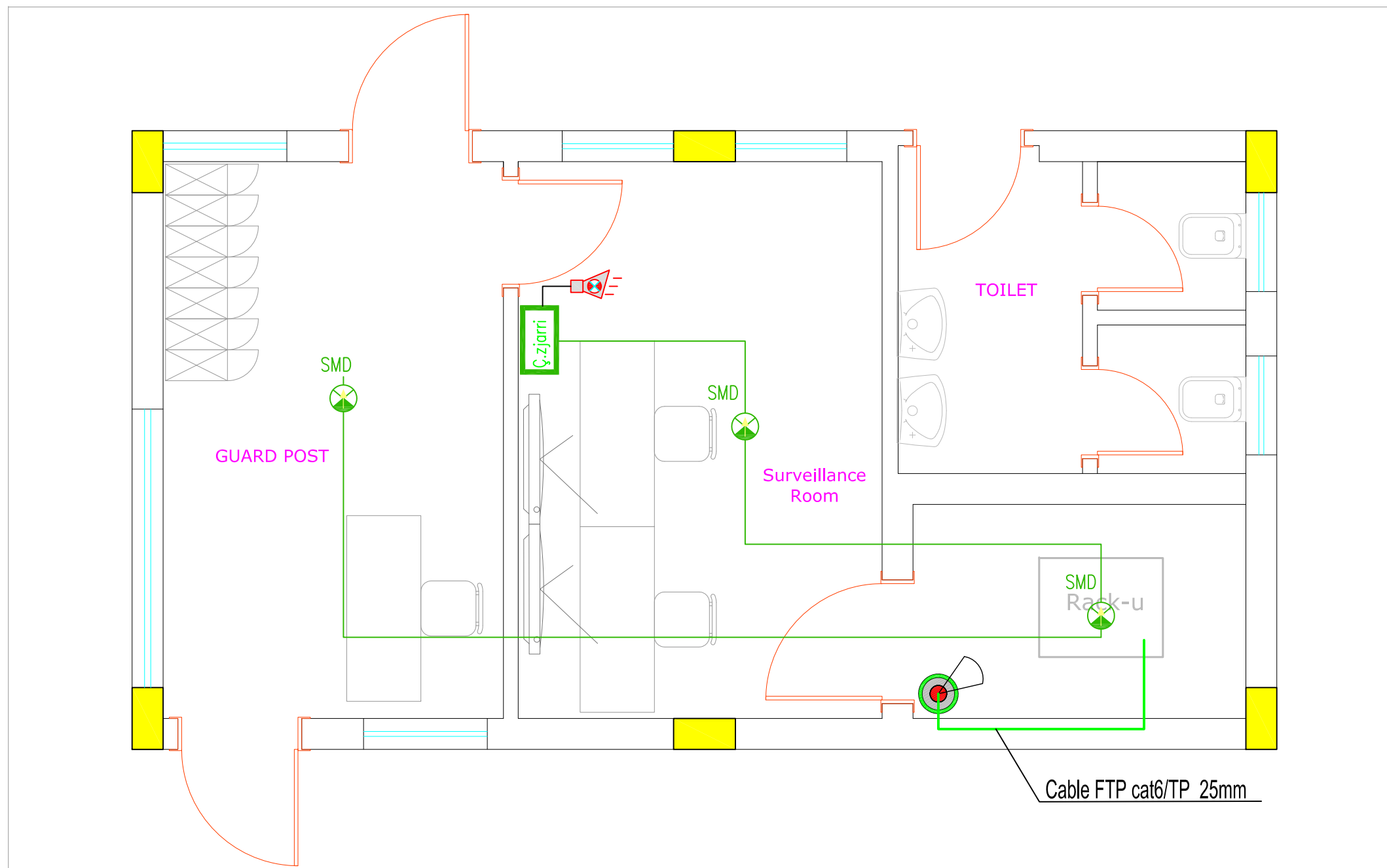


Electric Network - Earthing System

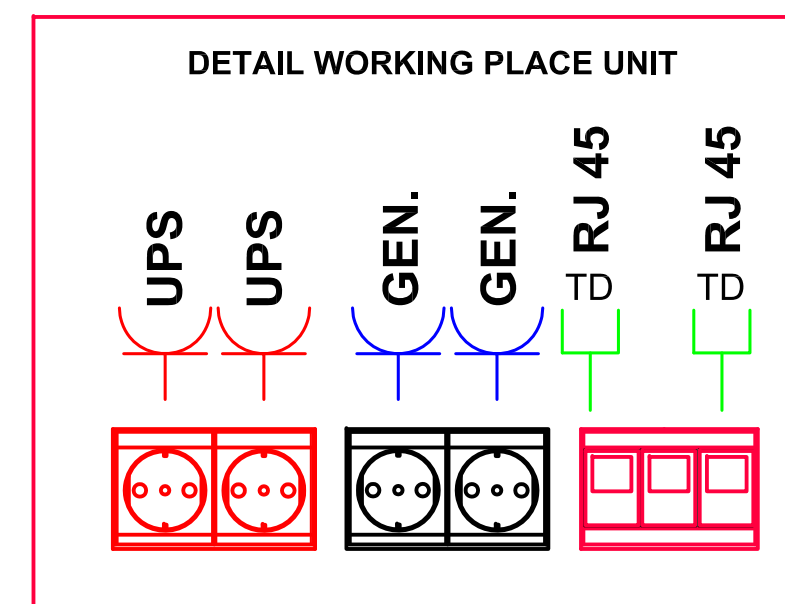
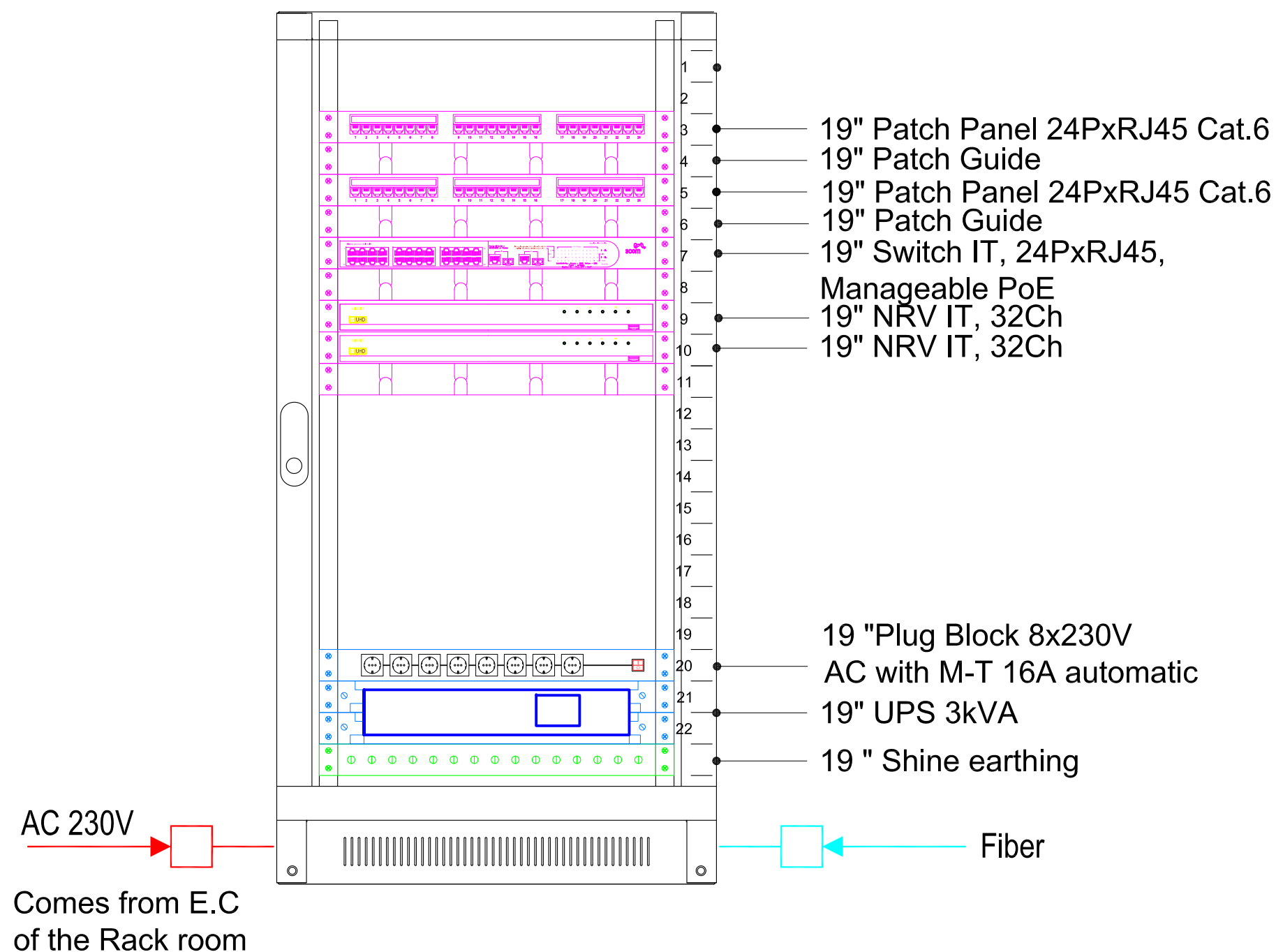


Note: The earthing resistance (R_t) must be not greater than or equal to 2 Ohm, if R_t , after the measurement is greater than the value 2 Ohm then the electrodes must be added until the value 2 Ohm is reached.

Fire Alarm System



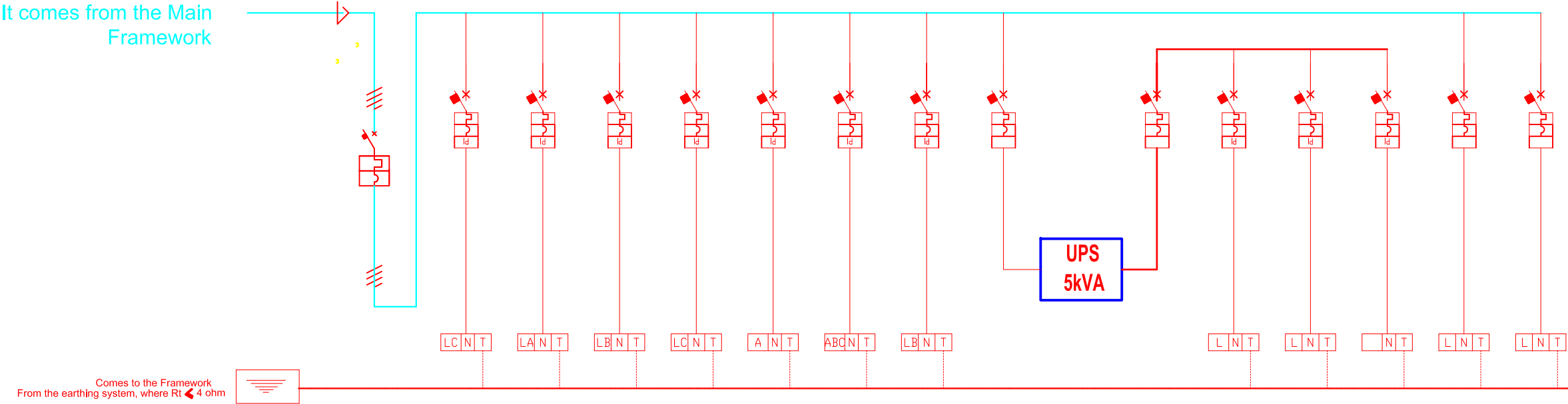
RACK UNIT (19", 22U) **DIM(W.600xD.600xH.1100)mm** **Rack Room**



Conventional Work Post Signal 1

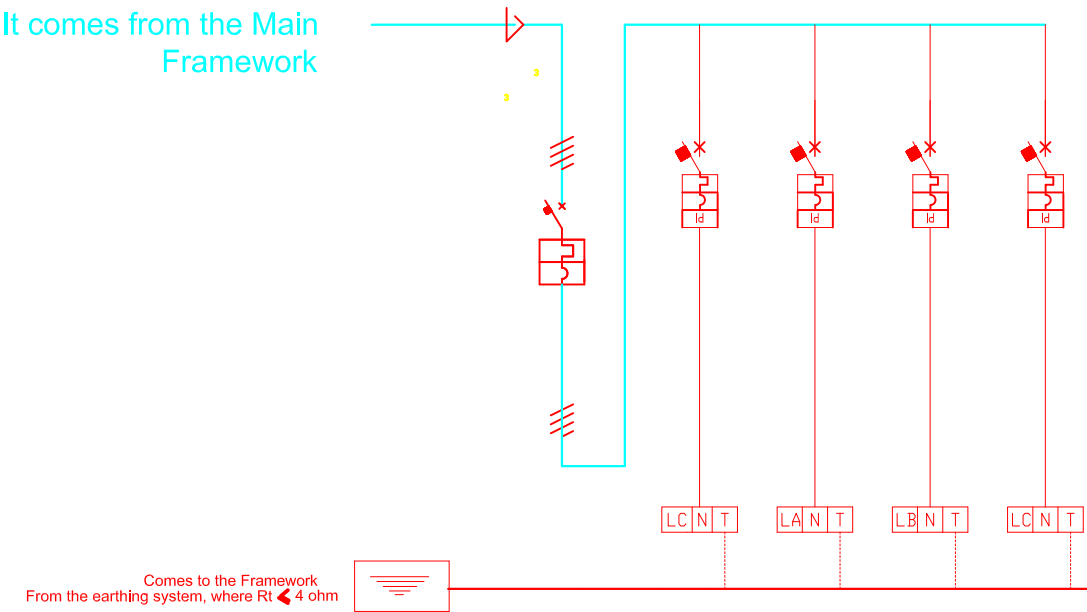
WU 1-1

Main Electrical Framework



Circuit No.				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
User		EQUIPOTENCIAL CONNECTION	MAIN	Plug Work Station Line 1	Plug Work Station Line 2	Plug Work Station Line 3	Plug Toilet Line 4	Lighting Line 5	Lighting Emergences Line 6	Lighting Toilet Line 7	UPS Entry		UPS Exit	Plug Work Station Line 1	Plug Work Station Line 2	Plug Work Station Line 3	E.Cab Rack Room Line 9	Kondic. Line 10			
Calculated power		KW	8.66	2.5	2.5	2.5	2.5	0.18	1.8	0.06	4		3.6	2.5	2.5	2.5	4	3			
Calculated current		A	15.67	10.86	10.86	10.86	10.86	0.782	7.82	0.3	20.86		15.65	10.86	10.86	10.86	20.86	13.63			
Number of modules		Nº	4	2	2	2	2	2	2	2	2		2	2	2	2	2	2			
Differential	Type																				
	Registration	A		0.03A	0.03A	0.03A	0.03A	0.03A	0.03A	0.03A				0.03A	0.03A	0.03A					
	Intervention time	ms																			
Magneto-Thermal	Type		C	C	C	C	C	C	C	C	C		C	C	C	C	C	C			
	Registration	A	4x20A	2x16A	2x20A	2x16A	2x16A	2x6A	2x10A	2x6A	2x25A		2x20A	2x16A	2x16A	2x16A	2x25A	2x20A			
	P.d.i.	KA	6KA	4.5KA	4.5KA	4.5KA	4.5KA	4.5KA	4.5KA	4.5KA	4.5KA		4.5KA	4.5KA	4.5KA	4.5KA	4.5KA	4.5KA			
FUSIBLE	Registration	A																			
Contactors	Type																				
	Registration	A																			
TERMIC RELE	Type																				
	Regulating	A																			
DEFINITION SECTION IN KUADER-NO7V-K				2x1x2.5	2x1x2.5	2x1x2.5	2x1x2.5	2x1x1.5	2x1x1.5	2x1x1.5	2x1x2.5		2x1x2.5	2x1x2.5	2x1x2.5	2x1x2.5	2x1x2.5	2x1x2.5			
MORSETE TYPE		CU15x5																			
LINE DEVELOPMENT SECTION		mmq.	PE-1x16	5x4	3 x 2.5	3 x 2.5	3 x 2.5	3 x 2.5	3 x 1.5	3 x 1.5	3 x 1.5	3 x 4		3 x 2.5	3 x 2.5	3 x 2.5	3 x 2.5	3 x 4	3 x 2.5		
DEFINITION TYPE			N07V-K	FG70-R	FROR	N07V-K	FROR	N07V-K	N07V-K	N07V-K	FROR		FROR	FROR	N07V-K	FROR	FROR	FROR	N07V-K		
MAXIMAL LENGTH PROTECTION		mt.		12	12	10	10	20	20	20	10		10	12	12	10	20				

Rack Room Electrical Frame



Circuit No.				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
User		EQUIPOTENCIAL CONNECTION	MAIN	Lighting Line 1	Lighting Emergences Line 2	Kondic. Line 3	UPS Rack											Kondic.			
Calculated power		KW	4	0.04	0.6	1.8	2.4														
Calculated current		A	20.86	0.217	2.6	7.82	10.43														
Number of modules		Nº	2	2	2	2	2														
Differential	Type																				
	Registration	A		0.03A	0.03A																
	Intervention time	ms																			
Magneto-Thermal	Type		C	C	C	C	C														
	Regjistrimi	A	2x25A	2x6A	2x6A	2x10A	2x16A														
	P.d.i.	KA	4.5KA	4.5KA	4.5KA	4.5KA	4.5KA														
FUSIBLE	Regjistrimi	A																			
Contactors	Type																				
	Regjistrimi	A																			
TERMIC RELE	Type																				
	Regulating	A																			
DEFINITION SECTION IN KUADER-N07V-K			2x1x2.5	2x1x1.5	2x1x1.5	2x1x2.5	2x1x2.5														
MORSETE TYPE		CU15x5																			
LINE DEVELOPMENT SECTION		mmq.	PE-1x16	3 x 1.5	3 x 1.5	3 x 2.5	3 x 2.5														
DEFINITION TYPE			N07V-K	FROR	N07V-K	N07V-K	N07V-K														
MAXIMAL LENGTH PROTECTION		mt.		6	6																

LEGEND

	Fire detection plant	RxTx 	Linear smoke detector
	Interior Alarm		Reflective mirror for infrared pulse
	Smoke detector		Manual fire alarm button
	Temperature detector		
	Surveillance apparatus		

LEGEND

	Nd. ceiling light with LED lamp E27 7W		Distribution box
	Spot LED lights		Box 3 modular
	60x60cm square light, P = 46W, LED		Box 4 modular
	Lighting Type FLC, P = 2x36W Comp. LED lamp		Toilet electric aspirator
	LED Tip Lighting with dim. 120x30, P = 48W		Line Lighting ,cableFG70R-1KV S=5x1.5mm2
	Complete 1x18W Fluorescent Lighting with Kit. My emergency. 120 min.		180 'Detector
	360 'motion detector		Internal siren with optical signalization
	Lighting Button Command for Lobby		Funnel Type Lighting 250 W Metal-Halide /150W LED
	Poles Lighting		Oriented lighting for placement on the rails
	Plug Lighting deviat		Emergency light, discount, EXIT
	Plug Lighting inverter		Emergency light, left-right direction EXIT
	Hermetic distribution box		Emergency light, down-up direction EXIT

LEGEND OF ELECTRICAL IMPIANITY	
	Electric panel board.
	Switch 1 way. Celes 1 Polar
	Deviat Switch Plug deviat
	Inverter switch. Plug invertitor
	Push buton. Pulsant
	Push buton with line. Pulsant with tirant
	Electrical socket.
	Socket 2P+T 220 V, 16 A. Plug 2P+T 220V,16A Socket 3P+N+T 380 V, 50 Hz. Plug 3P+N+T 380V,50 Hz,
	Telephonic socket RJ 11, TV Socket. Plug telefonike RJ 11, Plug TV
	Data transmetion socket RJ 45.
	Switch 1 way with light.
	Wall iluminant.
	Ceiling iluminant.
	Luminaire iluminant 2x36W.
	Luminaire iluminant 2x58W.
	Luminare iluminant 4x18W.
	Luminare iluminant 1x18W.
	Excape iluminant.
	Smoke detector.
	Smoke detector up to ceiling.
	Temperature detector.
	Manual push buton.
	Outdoor Sirene.
	Switch of fire alarm.
	Indoor Sirene.
	Optical and acoustic alarms for fire alarms
	Ground.

LEGEND OF ELECTRICAL IMPIANITY	
	Electric panel board.
	Switch 1 way. Celes 1 Polar
	Deviat Switch Celes deviat
	Inverter switch. Celes invertitor
	Push buton. Pulsant
	Push buton with line.
	Electrical socket.
	Module case circuit breaker.
	Electrical Generator.
	Automatic panel of generator. Wall iluminant.
	Ceiling iluminant.
	Luminaire iluminant 2x36W.
	Luminaire iluminant 2x58W.
	Luminare iluminant 4x18W.
	Luminare iluminant 1x18W.
	Excape iluminant.
	Smoke detector.
	Smoke detector up to ceiling.
	Temperature detector.
	Manual push buton.
	Outdoor Sirene.
	Switch of fire alarm.
	Indoor Sirene.
	Optical and acoustic alarms for fire alarms
	Ground.