

GROUND FLOOR ELECTRICAL LIGHTING PLAN
PROPOSED PLAN
1 REF: A.03-100 SCALE: 1:50(A3)

	SINGLE SWITCHED WALL SOCKET		TV AERIAL POINT
	DOUBLE SWITCHED WALL SOCKET		IMMERSION HEATER AND THERMOSTAT
	SINGLE SWITCHED WALL SOCKET 1200MM ABOVE FLOOR LEVEL		MECHANICAL EXTRACT FAN
	DOUBLE SWITCHED WALL SOCKET 1200MM ABOVE FLOOR LEVEL		DOOR BELL PUSH
	SINGLE SWITCHED FUSE SPUR BELOW WORKTOP LEVEL		DOOR BELL CHIME
	FUSE SPUR FOR TOWEL RAIL		THERMOSTAT
	SINGLE SWITCHED FUSE SPUR AT HIGH LEVEL FOR EXTRACT FAN		SECURITY ALARM
	DOUBLE SWITCHED FLOOR SOCKETS		CONSUMER UNIT
	1 GANG LIGHT SWITCH		TELEPHONE POINT
	2 GANG LIGHT SWITCH		CAT 5 or 6 DATA SOCKET
	10 GANG 2 WAY LIGHT SWITCH		COOKER SWITCH
	2 GANG 2 WAY LIGHT SWITCH		MECHANICAL EXTRACT FAN SCREEN FOR HOOD
	10 GANG 3 WAY LIGHT SWITCH		COMBINED HEAT DETECTOR AND FIRE ALARM SOUNDER
	2 GANG 3 WAY LIGHT SWITCH		COMBINED SMOKE/HEAT DETECTOR AND FIRE ALARM SOUNDER
	1 GANG PULL CORD LIGHT SWITCH		AUDIO SPEAKER
	EXTERNAL LIGHT		RADIATOR
	EXTERNAL LIGHT - BULKHEAD TYPE		CAT 5E
	RECESSED DOWNLIGHTER		2 CORE SPEAKER CABLE
	WALL LIGHT		UNDERFLOOR HEATING MANIFOLD
	LIGHT POINT - PENDANT HOLDER (4 INCH)		
	LIGHT POINT - PENDANT HOLDER (6 INCH)		
	LIGHT POINT - BATTEN HOLDER		
	FLUORESCENT STRIP LIGHT		

NOTE:

The Electrical Lighting Layout Plan for The Meal Box Cafe, Unit 5, 120 Fenchurch Street, London, EC3M 5BA has been designed and developed in full compliance with the latest applicable codes and regulations to ensure safety, efficiency, and adherence to industry standards.

All lighting installations and electrical works conform to the following updated standards:

- BS 7671:2018+A3:2024 (IET Wiring Regulations, 18th Edition - Amendment 3) – Covers the requirements for the design, erection, and verification of electrical installations.
- BS 5266-1:2016 – Code of practice for emergency lighting to ensure safe evacuation in case of power failure.
- BS EN 12464-1:2021 – Specifies lighting requirements for indoor workspaces, ensuring proper illumination and energy efficiency.
- BS 8300-1:2018 – Ensures lighting design accommodates accessibility requirements for disabled persons.
- London Building Act (Amendment) Act 1939 – Ensures compliance with London-specific building regulations and safety measures.

This layout has been prepared following London, UK Product Approval Codes, ensuring all materials, fixtures, and installations meet the required safety and performance standards.

All work must be carried out by qualified personnel in accordance with these regulations. Any modifications or deviations must be reviewed and approved before implementation.



ENGINEER'S TEAM

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OWNER:

THE MEAL BOX CAFE

UNIT 5, 120 FENCHURCH, STREET,
LONDON, EC3M 5BA

SEAL:

Release for construction

ELECTRICAL LITGHING PLAN

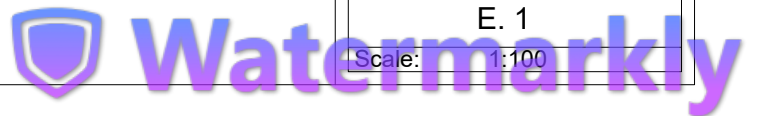
Drawn by: Engr. Al Amin

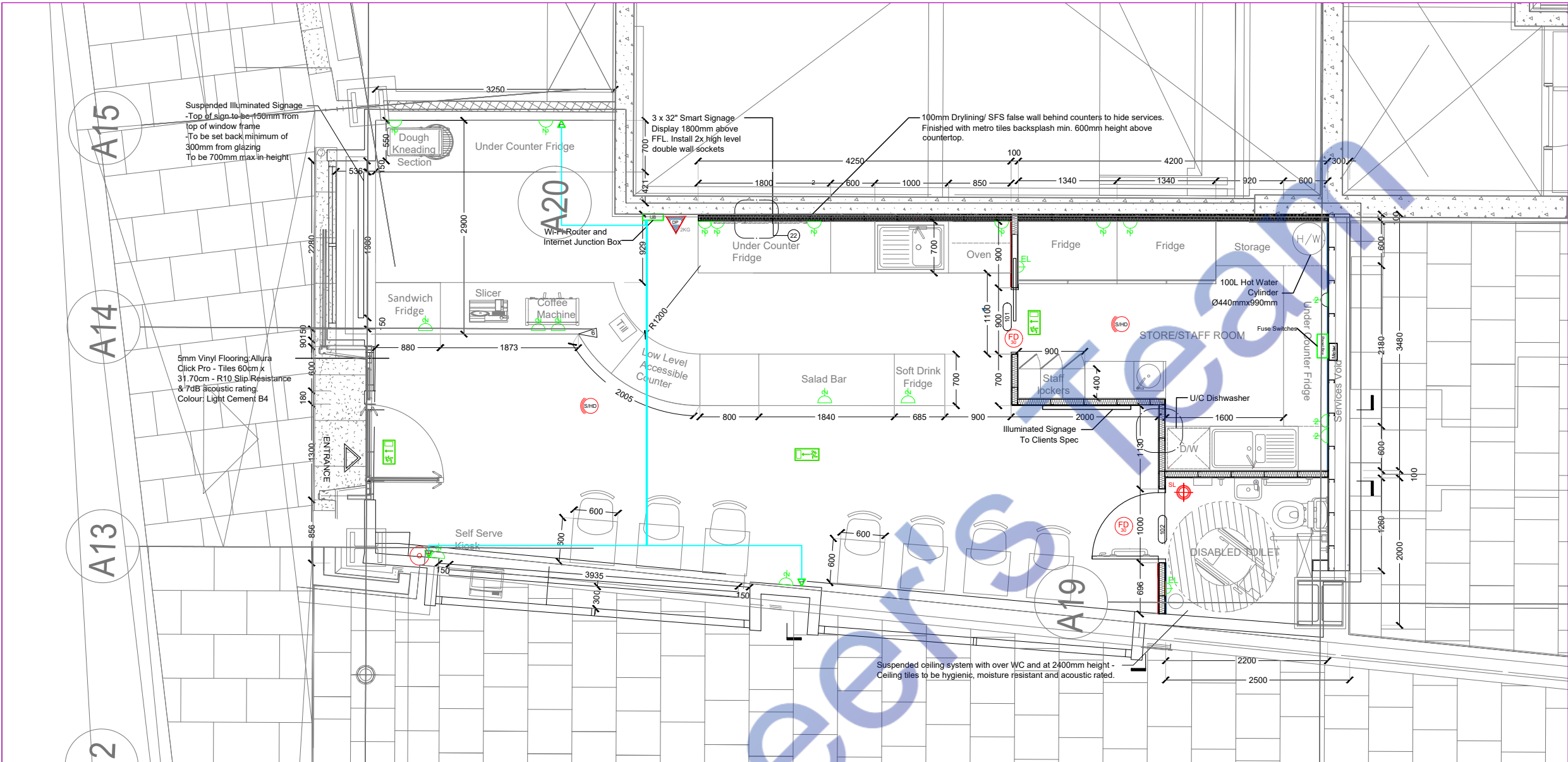
Checked:

Date: FEB, 06.

E. 1

Scale: 1:100





GROUND FLOOR ELECTRICAL POWER PLAN

PROPOSED PLAN

1 REF: A.03-100

SCALE: 1:50(A3)

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	EXTERNAL LIGHT		AUDIO SPEAKER
	EXTERNAL LIGHT - BULKHEAD TYPE		RADIATOR
	RECESSED DOWNLIGHTER		CAT 5E
	WALL LIGHT		2 CORE SPEAKER CABLE
	LIGHT POINT - PENDANT HOLDER (4 INCH)		UNDERFLOOR HEATING MANIFOLD
	LIGHT POINT - PENDANT HOLDER (6 INCH)		
	LIGHT POINT - BATTEN HOLDER		
	FLUORESCENT STRIP LIGHT		

NOTE:

This Electrical Power Layout Plan for The Meal Box Cafe, Unit 5, 120 Fenchurch Street, London, EC3M 5BA, has been meticulously designed in strict adherence to the following updated codes and regulations:

- BS 7671:2018+A3:2024 (18th Edition, Amendment 3) - Requirements for Electrical Installations (IET Wiring Regulations): This is the UK's national standard for electrical installation and the safety of electrical wiring systems. It covers circuits at voltages up to and including 1000V AC or 1500V DC and applies to the design, erection, and verification of electrical installations, including additions and alterations to existing installations.
- Part P of the Building Regulations (England and Wales): This regulation mandates that electrical installations in dwellings are designed and installed to protect persons from fire or injury. It emphasizes reasonable provision in design and installation to ensure safety.
- London, UK Product Approval Codes: All electrical products specified in this plan comply with the relevant British Standards and have been approved for use in London, ensuring they meet the necessary safety and performance criteria.

By following these codes and regulations, we ensure that the electrical installations are safe, reliable, and compliant with current standards.



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ELECTRICAL POWER PLAN

Drawn by: Engr. Al Amin

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E. 2
Scale: 1:100



230/415 VOLT 3 PHASE 4 WIRE ELECTRICAL SERVICE				
ITEM	CONN. LOAD (VA)	DEMAND F.	DEMAND LOAD (WATTS)	TOTAL (AMPS)
LIGHTING	1000	125%	1250	
WATER HEATERS	2000	100%	2000	
EQUIPMENT	15000	65%	9750	
HVAC LOADS	-	100%	-	
SUB-TOTAL	18000		13000	
LARGEST MOTOR	0	125%	0	
TOTAL @ 230V/415 V	18000		13000	57

1

E200

PANEL SCHEDULE & SERVICE CALCULATION

ELECTRICAL PANEL - MAIN																	
LOAD SERVED	CKT #	TYPE	BKR TRIP	WIRE SIZE	PHASE A	PHASE B	PHASE C	PHASE A	PHASE A	PHASE A	BKR TRIP	WIRE SIZE	TYPE	CKT #	LOAD SERVED		
Oven	1		20	#12	340			1500			20	#12		2	Dough Mixer 30L		
	3		20	#12		340			275		20	#12		4	Under Counter Fridge - 282L		
	5		20	#12			340			250	20	#12		6	Sandwich Display Fridge -160L		
Under Counter Fridge - 420L	7		20	#12	230			240			20	#12		8	Meat Slicer		
Salad Bar Fridge	9		20	#12		530			4600		25	#12		10	2 Group Coffee Machine		
Under Counter Dishwasher	11		20	#12			3900			730	20	#12		12	Soft Drink Fridge -110L		
Hot Water Tank - 100L	13		20	#12	2000			450			20	#12		14	Storage Fridge - 1200L		
Electric Hand Dryer	15		20	#12		1000			50		15	#12		16	32 inch Digital POS		
Lighting Load	17		20	#14			1000			-	-	-		18	SPARE		
TOTAL VA PHASE A					2570			2190							4760		
TOTAL VA PHASE B							1870	4925							6795		
TOTAL VA PHASE C							4240	980							5220		
TOTAL VOLT-AMPS															16775		
DIVIDE TOTAL VOLT-AMPS BY SYSTEM VOLTAGE (PHASE)								230		AMPS				73			
DIVIDE TOTAL VOLT-AMPS BY THREE PHASE VOLTAGE DIVIDER								1.734		AMPS				42			
TOTAL CONNECTED LOAD (AMPS) @ 125%								53									
MAIN TYPE AND AMPERE RATING								60-80 AMP MCCB									
PANEL FEEDER SIZE - SEE RISER DIAGRAM																	

EQUIPMENT SCHEDULE										
Item #	Room	Name	Finish	Dimensions (mm)	Power Req (W)	Power (V)	Quantity	Supplier	Product Code	Notes
1	Bar	Dough Mixer 30L	Premium Stainless Steel	W770xD550xH850	1500W	230V/ 1 PHASE	1	Adexa Catering Equipment Direct	SH30	Professional Spiral Dough Mixer 30 Litres Fixed Head Fixed Bowl 2 Speeds
2	Bar	Under Counter Fridge - 282L	Stainless Steel	W1360xD700xH860	275W	230V/ 1 PHASE	1	Adexa Catering Equipment Direct	THP2100TN	Commercial Refrigerated Counter 2 doors Depth
3	Bar	Sandwich Display Fridge -160L White		W880xD568xH686	250W	230V/ 1 PHASE	1	Adexa Catering Equipment Direct	CW160	Display Merchandiser Fridge 160 litres 2 shelves White
4	Bar	Meat Slicer	Aluminium	W420xD265xH390	240W	230V/ 1 PHASE	1	Adexa Catering Equipment Direct	BF220ROUGE	Commercial Meat slicer 8"/220mm Aluminium Coated Red
5	Bar	2 Group Coffee Machine	Stainless Steel	W710xD590xH533	4600W	220V/ 3 PHASE	1	La Marzocco	N/A	The Linea PB, 2 Group
6	Bar	Till	Black	N/A	N/A	N/A	1	Toast	N/A	Toast Flex, Didigital Screen POS, IP54
7	Bar	Low Level Counter	Marble/Oak	N/A	N/A	N/A	1	TBC	N/A	800mm max height for accessibility
8	Bar	Oven	Stainless Steel	W850xD842xH754	10250W	N/A	1	Rational Online UK	~6-1/1	Icombi Pro 6-1/1 with Steam extraction hood
9	Bar	Under Counter Fridge - 420L	Stainless Steel	W1795xD700xH950	230W	230V/ 1 PHASE	2	Adexa Catering Equipment Direct	2DRG32V	Commercial Refrigerated Counter 2 doors 2 drawers Depth 420L
10	Bar	Salad Bar Fridge	White	W1840xD688xH1410	530W	230V/ 1 PHASE	1	Adexa Catering Equipment Direct	CW571WHITE	Display Merchandiser Fridge 810 litres White
11	Bar	Soft Drink Fridge -110L	Black	W685xD620xH1450	730W	230V/ 1 PHASE	1	Adexa Catering Equipment Direct	VC14F102I	Multi Deck Refrigerator 110 litres with Night Curtain Black
12	Store	Under Counter Dishwasher	Stainless Steel	W565xD610xH825	3900W	230V/ 1 PHASE	1	Adexa Catering Equipment Direct	ADX50B	Commercial Dishwasher Premium 500mm basket 20 baskets/hour Break tank Drain Pump Detergent dosing pump, 62 dB(A)
13	Bar	Sink	Stainless Steel	W1000xD600xH900	N/A	N/A	1	Adexa Catering Equipment Direct	VS106LBS	Commercial Sink Stainless steel 1 bowl Left Bottom shelf Splashback, Adjustable feet
14	Store	Storage Fridge - 1200L	Stainless Steel	W1340xD845xH2000	450W	230V/ 1 PHASE	2	Adexa Catering Equipment Direct	R1200S	1200lt Commercial Refrigerator Stainless steel Upright cabinet Twin door GN2/1 Fan assisted cooling
15	Store	Storage Shelves	Powder Coated Steel	W1220xD610xH1980	N/A	N/A	1	Adexa Catering Equipment Direct	TY6101220	Industrial Shelving Unit Heavy duty 4 shelves 400 kg/shelf Powder coated steel
16	Store	Hot Water Tank - 100L	White	W440xD440xH990	2000W	220V	1	Amazon UK	B07PMDXYP5	Tesy Bi-light Electric Un-Vented Vertical Hot Water Cylinder - To be mounted high in line wih MEP services above - G3 registered installer required for installation
17	Store	Lockers	Grey	W900xD400xH1830	N/A	N/A	1	Adexa Catering Equipment Direct	SART238	Commercial Grey 6 Door Locker with 1 Shelf
18	Store	Sink	Stainless Steel	W1400xD600xH900	N/A	N/A	1	Adexa Catering Equipment Direct	DBS14060LEFT	Commercial Double Sink Stainless steel, 2 bowl left, 100mm Splashback, Adjustable Feet
19	Toilet	Electric Hand Dryer	Sprayed Nickel	W234xD100xH394	1000W	240V	1	Dyson UK	307170-01	Dyson Airblade V hand dryer, Hygienic performance with HEPA filter
20	Seating	Self Service Till/Kiosk	Black	N/A	N/A	N/A	1	Toast	N/A	Restaurant Self-Ordering Kiosks
21	Store	Handwash Sink	Stainless Steel	W400xD400xH240	N/A	N/A	1	Adexa Catering Equipment Direct	THHWR44	Commercial Hand wash sink Stainless steel Knee control, 79 dB(A)
22	Bar	32 inch Digital POS	Charcoal Black	W727.3xD28.5xH421.9	50W	100-240V	3	Samsung	LH32QMCEBGCXUE	Samung 32" Smart Signage QM32C. Array of 3 units mounter in portait orientation.Uses100x100mm Vesamount.



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