







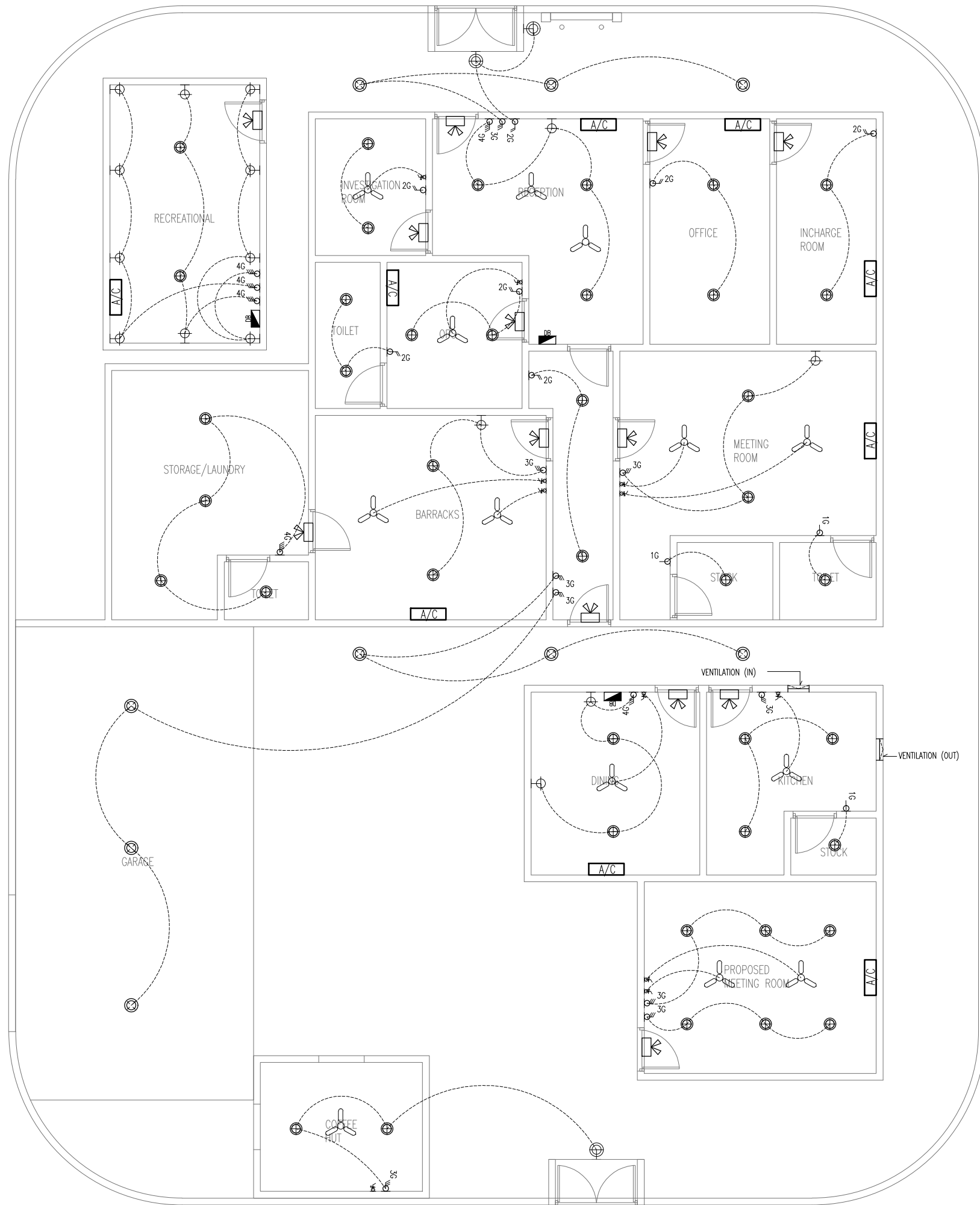


INFRASTRUCTURE AND BUILDING DEVELOPMENT

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# ELECTRICAL PLANS

HA. IHAVANDHOO



ELECTRIC AND A/C LEGEND	
	SWITCH WITH DIMMER
	1GNG SWITCH
	2GNG SWITCH
	3GNG SWITCH
	4GNG SWITCH
	CEILING MOUNT 18W LED LIGHT
	CEILING MOUNT 18W LED LIGHT WEATHER PROOF, LIGHT SENSOR SWITCH
	FAN
	ELECTRICAL DISTRIBUTION BOARD
	WALL MOUNT LED EMERGENCY LIGHT (PROVIDE 1.3A SINGLE SOCKET @ 2.8M I.E. INSIDE CEILING)
	A/C INDOOR UNIT WITH 15A POWER SOCKET
	VENTILATION
	WALL FIXED LIGHT @ 2.4M
	WALL FIXED WEATHER PROOF LIGHT @ 2.4M

PROJECT TITLE:  
 HA. IHAVANDHOO POLICE STATION  
 ELECTRICAL PLAN

ARCHITECT/DESIGNER	DRAFTED BY
	TSO SADIN SHAREEF
STRUCTURAL ENGINEER	DRAFTED BY
CHECKED BY	CHECKED BY
ADMINISTRATIVE DIRECTOR AHMED SADHEEM	INSP OF POLICE AHMED NIZAL

ARCHITECTURAL DRAWINGS  
 SHEET NO.                      DATE: 17-JUL-2025

# E-01

LIGHTING AND A/C PLAN  
 1:100



INFRASTRUCTURE & BUILDING DEVELOPMENT  
MALDIVES POLICE SERVICE

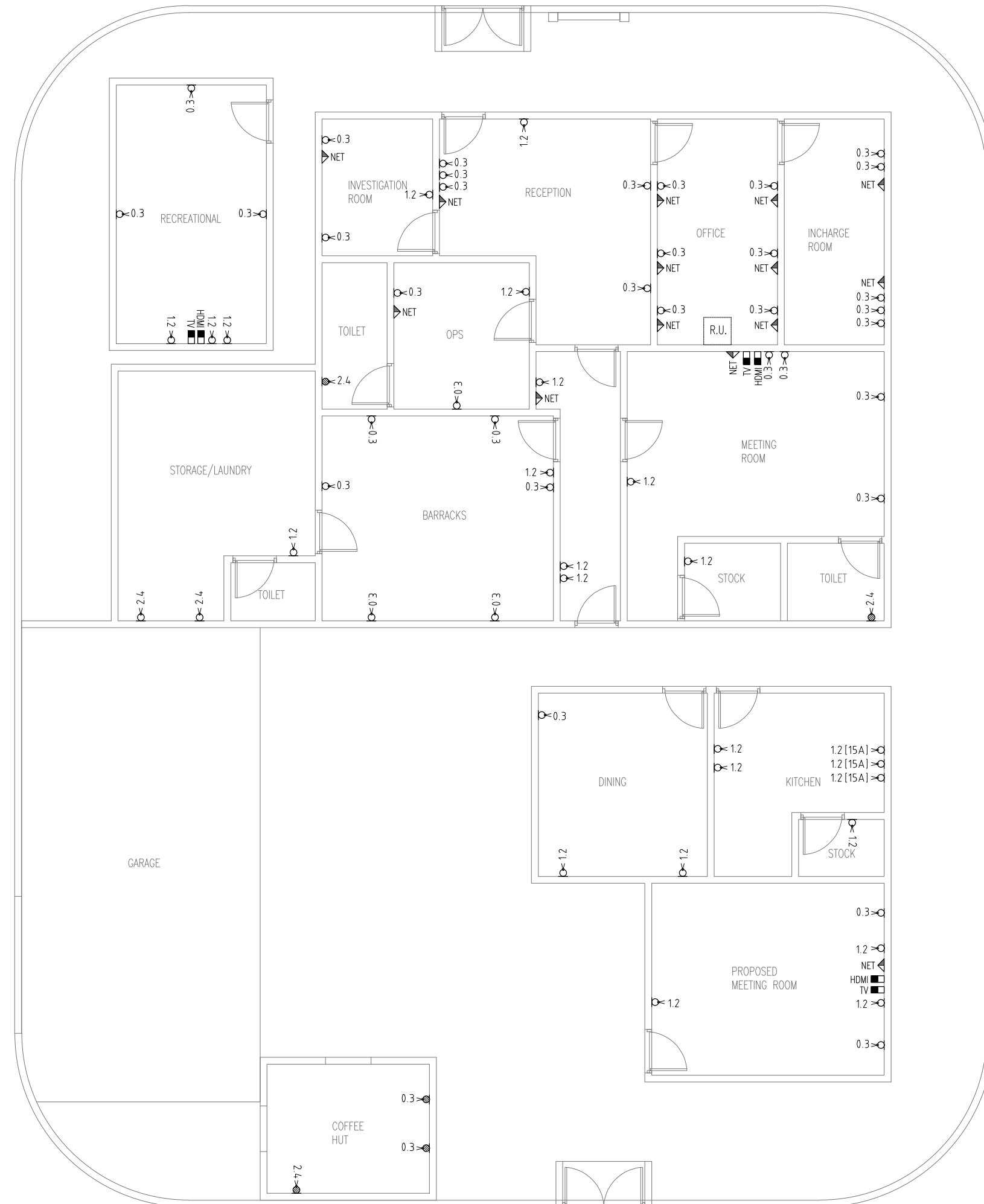
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HA. IHAVANDHOO POLICE STATION  
ELECTRICAL PLAN

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ARCHITECTURAL DRAWINGS	
SHEET NO.	DATE: 17-JUL-2025

E-02



	POWER SOCKET 2.4M (2GNG)
	POWER SOCKET 1.2M (2GNG)
	POWER SOCKET 0.3M (2GNG)
	POWER SOCKET[WEATHER PROOF] 0.3M (2GNG)
	POWER SOCKET[WEATHER PROOF] 1.2M (2GNG)
	POWER SOCKET 0.3M 15 AMPERE (2GNG)
	POWER SOCKET 1.2M 15 AMPERE (2GNG)
	POWER SOCKET[WEATHER PROOF] 2.4M (2GNG)
	INTRANET DOUBLE GANG WITH SEPARATE CABLE
	CABLE TV POINT
	HDMI
	RACK UNIT

ELECTRICAL NETWORK PLAN  
1:100



INFRASTRUCTURE & BUILDING DEVELOPMENT  
MADHYES POLICE SERVICE



PROJECT TITLE:

HA. IHANANDHOO POLICE STATION  
ELECTRICAL PLAN

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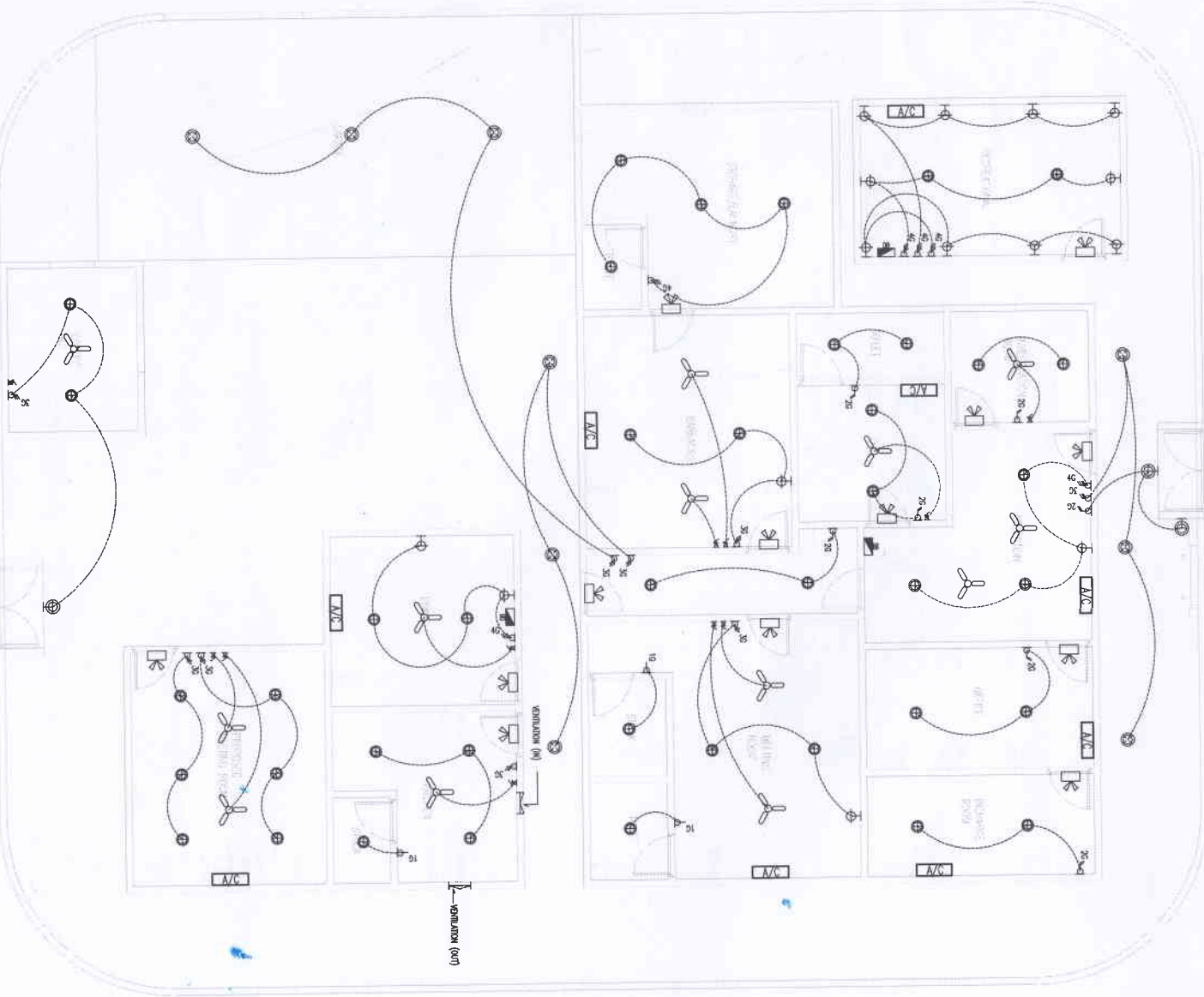
ARCHITECTURAL DRAWINGS

SHEET NO.

DATE: 17-11-2023

E-0

ELECTRIC AND A/C LEGEND	
SW	SWITCH WITH NUMBER
1W	1ONG SWITCH
2W	2ONG SWITCH
3W	3ONG SWITCH
4W	4ONG SWITCH
5W	5ONG SWITCH
6W	6ONG SWITCH
7W	7ONG SWITCH
8W	8ONG SWITCH
9W	9ONG SWITCH
10W	10ONG SWITCH
11W	11ONG SWITCH
12W	12ONG SWITCH
13W	13ONG SWITCH
14W	14ONG SWITCH
15W	15ONG SWITCH
16W	16ONG SWITCH
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90W	90ONG SWITCH
91W	91ONG SWITCH
92W	92ONG SWITCH
93W	93ONG SWITCH
94W	94ONG SWITCH
95W	95ONG SWITCH
96W	96ONG SWITCH
97W	97ONG SWITCH
98W	98ONG SWITCH
99W	99ONG SWITCH
100W	100ONG SWITCH



LIGHTING AND A/C PLAN  
1:100

## SPECIFICATION

### Outdoor LED Motion Sensor Ceiling Light

**Item:** Outdoor LED Motion Sensor Ceiling Light (IP65)

#### Specification

- Type: Surface-mounted LED ceiling light with integrated PIR motion sensor.
- Housing: Die-cast aluminum or UV-resistant polycarbonate body with frosted polycarbonate diffuser.
- Wattage: 18–24 W.
- Input Voltage: 220–240 V AC, 50/60 Hz.
- Luminous Output: Minimum 1,800 lumens.
- Colour Temperature: 4000K (Neutral White) or 6500K (Cool White).
- Colour Rendering Index (CRI):  $\geq 80$ .
- Beam Angle: 120°.
- Motion Sensor Range: 5–8 m.
- Detection Angle: 120°–360° (depending on model).
- Time Delay: Adjustable from 10 seconds to 5 minutes.
- Ambient Light Control: Adjustable daylight sensor.
- Protection Rating: IP65 suitable for outdoor installation.
- Impact Resistance: IK08 minimum.
- Operating Temperature: -20°C to +50°C.
- Rated Lifetime: Minimum 50,000 hours.
- Mounting: Surface ceiling or soffit mounting.
- Certification: IEC, CE, RoHS compliant.
- Warranty: Minimum 2 years.



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### Silicone Acetate Sanitary Sealant

**Item:** Acetate Cure Silicone Sealant

#### Specification

- Type: One-component acetoxy curing silicone sealant.
- Colour: White, Clear, Black or as specified.
- Cartridge Size: 280–300 ml.

## SPECIFICATION

- Cure System: Moisture curing.
- Skin Formation Time: 10–20 minutes.
- Full Cure Rate: Approximately 2–3 mm per 24 hours.
- Service Temperature: -40°C to +150°C.
- Application Temperature: +5°C to +40°C.
- Excellent adhesion to:
  - Glass
  - Ceramic
  - Aluminium
  - Enamel
  - Non-porous surfaces
- Resistant to:
  - Water
  - UV radiation
  - Weathering
  - Mildew and fungi
- Suitable for:
  - Bathrooms
  - Kitchens
  - Wash basins
  - Shower enclosures
  - Window sealing
- Shelf Life: Minimum 12 months in unopened container.
- Manufacturer: Würth or approved equivalent.



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## Surface Mount PVC Switch Box (Pattress Box)

**Item:** Surface Mounted PVC Back Box

### Specification

- Material: Flame-retardant rigid PVC.
- Colour: White.
- Type: Surface mounting.
- Size:
  - 1 Gang

## SPECIFICATION

- 2 Gang
- As indicated on drawings.
- Depth: 25 mm or 35 mm.
- Knockouts: Multiple cable entry points.
- Mounting Holes: Pre-moulded fixing holes.
- Brass Inserts: Corrosion-resistant brass threaded inserts.
- Insulation Voltage: 500 V.
- Impact Resistance: High impact PVC.
- UV Resistant: Yes.
- Standard: BS 4662 / IEC compliant.
- Suitable for switches, sockets and accessories.
- Operating Temperature: -5°C to +60°C.



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## Twin 13A Switched Universal Socket Outlet

**Item:** Double Universal Switched Socket Outlet

### Specification

- Type: Twin switched universal socket outlet.
- Rated Voltage: 250 V AC.
- Rated Current: 13 A.
- Frequency: 50/60 Hz.
- Configuration: Universal socket compatible with multiple international plug types.
- Material:
  - Flame-retardant polycarbonate front plate.
  - High conductivity brass contacts.
- Colour: White.
- Finish: Gloss.
- Earth Terminal: Included.
- Terminal Type: Screw terminal.
- Mounting: Flush or surface.
- Protection: Shuttered socket outlets.
- Standard: BS 1363 / IEC 60884.
- Operating Temperature: -5°C to +40°C.
- Mechanical Life: Minimum 40,000 switching operations.
- Warranty: Minimum 2 years.
- 



## SPECIFICATION

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### Triple Gang 1-Way Light Switch

**Item:** 3 Gang 1-Way Switch

#### Specification

- Type: Three-gang one-way light switch.
- Rated Voltage: 250 V AC.
- Rated Current: 10 A.
- Frequency: 50/60 Hz.
- Material:
  - Flame-retardant polycarbonate faceplate.
  - Brass terminals.
- Colour: White.
- Finish: Gloss.
- Mounting: Flush mounting.
- Terminal Type: Screw terminals.
- Contact Material: Silver alloy contacts.
- Mechanical Life: Minimum 40,000 operations.
- Electrical Life: Minimum 10,000 operations.
- Protection: IP20 (Indoor use).
- Standard: BS EN 60669-1 / IEC 60669.
- Operating Temperature: -5°C to +40°C.
- Warranty: Minimum 2 years.



### 6 Outdoor Switched Socket Outlet

Weatherproof double-gang switched socket outlet, 13A, 250V AC, IP66 rated, UV-resistant polycarbonate enclosure, hinged transparent cover, suitable for outdoor installation, complying with BS 1363.



## SPECIFICATION

### 6 PVC Casing / Trunking

PVC cable trunking/casing, white color, self-extinguishing rigid PVC, complete with cover, suitable for surface wiring installation. Typical size: 25mm × 16mm (or as specified).



### Dimmer Switch

1-Gang rotary dimmer switch, 220–240V AC, compatible with dimmable LED lamps, trailing-edge technology, white finish, rated 100W–250W depending on load.



### LED Panel Light (Round Recessed)

Round recessed LED panel light, 36W, 220–240V AC, 4000K neutral white, luminous output approximately 1500–1800 lumens, CRI >80, beam angle 120°, complete with LED driver.



## SPECIFICATION

### Outdoor LED Bulkhead Light

LED bulkhead wall/ceiling light, 18W, 2200 lumens, 4000K neutral white, beam angle 110°, IK08 impact resistance, IP65 weatherproof rating, suitable for outdoor use, wall or ceiling mounted.



### 2.5 mm<sup>2</sup> Electrical Cable Specification

- Conductor size: **2.5 mm<sup>2</sup>**
- Conductor material: **Annealed stranded copper**
- Number of cores: **Single core** (or as specified)
- Insulation type: **PVC insulated**
- Rated voltage: **450/750V**
- Operating temperature: **70°C**
- Conductor class: **Class 2 stranded conductor**
- Standard: **IEC 60227 / BS 6004 compliant**
- Flame retardant: **Self-extinguishing PVC insulation**
- Suitable for: **Power outlets, lighting circuits, and general wiring**
- Installation method: **Conduit, trunking, casing, or concealed wiring**
- Current carrying capacity: **Approximately 20–24A** (depending on installation conditions)
- Colour: **Red, Black, Blue, Yellow/Green or as required**
- Complete with: **Terminations, testing, and commissioning**



## SPECIFICATION

### 20 mm PVC Conduit Pipe (50 m Roll) Specification

- Conduit size: **20 mm diameter**
- Length: **50 m roll**
- Material: **High-quality PVC (Polyvinyl Chloride)**
- Type: **Flexible conduit pipe**
- Colour: **White/Grey/Black (as specified)**
- UV resistant: **Suitable for indoor and outdoor use**
- Flame retardant: **Self-extinguishing PVC**
- Corrosion resistant: **Yes**
- Moisture resistant: **Yes**
- Installation: **Suitable for concealed and surface wiring**
- Application: **Protection and routing of electrical cables and wires**
- Standard: **IEC/BS compliant or equivalent**
- Temperature resistance: **Suitable for normal electrical installation conditions**
- Complete with: **All necessary fittings and accessories where specified**



### Miniature Circuit Breaker (MCB) – 10A

- Type: **Miniature Circuit Breaker (MCB)**
- Current Rating: **10 Ampere (A)**
- Poles: **Single Pole (SP)**
- Rated Voltage: **230/240V AC**
- Frequency: **50/60 Hz**
- Breaking Capacity: **6 kA (minimum)**
- Tripping Curve: **Type B or Type C**
- Mounting: **DIN Rail Mounted**
- Standard: **IEC 60898-1**
- Application: **Lighting circuits and low-power electrical loads**
- Housing: **Flame-retardant thermoplastic**



## SPECIFICATION

### Distribution Board (DB) Box – 20 Way

- Type: **Electrical Distribution Board (DB)**
- Capacity: **20 Way / 20 Module**
- Mounting: **Surface Mounted** or **Flush Mounted**
- Material: **Powder-coated galvanized steel**
- Door Type: **Metal door / Transparent hinged door**
- Rated Voltage: **230/400V AC**
- Frequency: **50/60 Hz**
- Ingress Protection: **IP40 minimum (indoor use)**
- Busbar: **Copper busbar**
- Neutral Bar: **Included**
- Earth Bar: **Included**
- DIN Rail: **Included for MCB installation**
- Standard: **IEC 61439 or equivalent**
- Finish: **Corrosion-resistant powder coating**
- Application: **Housing and protection of MCBs, RCCBs, and electrical circuits**
- Complete with: **Mounting accessories, labeling, and internal wiring arrangements**



### 15A Switched Socket Outlet Specification

- Type: **Switched Socket Outlet**
- Current Rating: **15 Ampere (A)**
- Rated Voltage: **250V AC**
- Frequency: **50/60 Hz**
- Configuration: **Single Socket**
- Material: **High-impact flame-retardant polycarbonate**
- Contact Material: **Brass terminals**
- Mounting: **Flush mounted or surface mounted**

## SPECIFICATION

- Colour: **White (or as specified)**
- Standard: **BS 546 / IEC compliant**
- Earth Terminal: **Included**
- Switch Type: **Integrated ON/OFF switch**
- Application: **Heavy-duty appliances, air conditioners, water heaters, and general power outlets**
- Complete with: **Back box, faceplate, fixing screws, and accessories**



### 6 mm<sup>2</sup> Electrical Cable Specification

- Conductor size: **6 mm<sup>2</sup>**
- Conductor material: **Annealed stranded copper**
- Number of cores: **Single core** (or as specified)
- Insulation type: **PVC insulated**
- Rated voltage: **450/750V**
- Operating temperature: **70°C**
- Conductor class: **Class 2 stranded conductor**
- Standard: **IEC 60227 / BS 6004 compliant**
- Flame retardant: **Self-extinguishing PVC insulation**
- Current carrying capacity: **Approximately 38–47A** (depending on installation method)
- Colour: **Red, Black, Blue, Yellow/Green** or as required
- Suitable for: **Main power supply circuits, sub-main circuits, distribution boards, air conditioners, water heaters, and heavy electrical loads**
- Installation method: **Conduit, trunking, casing, or concealed wiring**
- Complete with: **Terminations, testing, and commissioning**

