

**GENERAL SPECIFICATION**

PROPOSED BETTY'S BURGER FITOUT AT BETTY'S BURGERS TENANCY R02-R03, EASTLANDS SHOPPING CENTRE, 175 MAROONDAH HIGHWAY, RINGWOOD VIC.

A THE ELECTRICAL SERVICES INSTALLATION SHALL COMPRIZE OF THE FOLLOWING ITEMS:

THE POWER SUPPLY IS 415V/240VOLT, 50 HERTZ, 3 PHASE AND EXISTING.

TENACY SHALL BE PROVIDED WITH 160A 3PH POWER SUPPLY

ALL WORK SHALL BE IN ACCORDANCE WITH BCA, SERVICES AND INSTALLATION RULES - VIC, FOXTEL'S LATEST RULES AND REGULATIONS, TELSTRA'S RULES AND REGULATIONS, NBN CO LTD RULES AND REGULATIONS, ACMA REGULATIONS AND REQUIREMENTS, AS-3000:2018, AS-3008.1, AS 3786, AS 1680, AS 1851.8, AS 1428.1, AS 1367, AS 1768, AS 3439, AS 3003, AS 3080, AS 3084, AS 3085.1, AS IEC 61935.1, AS/CA S008, AS/ACIF S009 AND ANY OTHER RELEVANT AUSTRALIAN STANDARDS. THIS ALSO INCLUDES COMPLIANCE WITH BCA SECTIONS J6 AND J8.

THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL, STRUCTURAL AND OTHER CONSULTING SERVICES DRAWINGS AND SPECIFICATIONS. ALL POWER, DATA AND LIGHTING REQUIREMENT SHALL BE CO-ORDINATED WITH BETTY'S BURGER ARCHITECTURAL/SERVICES DRAWING.

THE LIGHTING DRAWING SHALL BE READ IN CONJUNCTION WITH THE ARK LIGHTING LAYOUT.

CO-ORDINATE ALL ELECTRICAL WORKS WITH ALL OTHER SERVICES PRIOR TO COMMENCEMENT OR WORKS TO ELIMINATE CLASHES.

ALL CABLING SHALL BE INSTALLED CONCEALED IN FALSE CEILING SPACES, ROOF SPACES, STUD WALLS, VOIDS, CLIPPED TO PURLINS, ETC. LIGHTING AND POWER CABLES MAY BE INSTALLED ON CATENARIES CONCEALED IN FALSE CEILING AND ROOF SPACES. PROVIDE SEPARATE CATENARIES FOR SUB-MAINS, LIGHTING AND POWER SUB-CIRCUITS, TELEPHONE, DATA, MATV, PAY TV, SECURITY, FIRE DETECTION AND ALARM SYSTEM, EVACUATION SPEAKERS, ETC. ALL CABLING SHALL BE INSTALLED WITHDRAWABLE AND NO JOINTS PERMITTED. WIRING TO LIGHT FITTINGS IN FALSE CEILING SPACES SHALL BE SUITABLE FOR FLEX AND PLUG ARRANGEMENT.

FOR ROOMS AND AREAS WHICH ARE NOT PROVIDED WITH FALSE CEILINGS OR CEILING WIRING CAVITIES. WIRING SHALL BE INSTALLED IN SURFACE MOUNTED MINI DUCT OR CONDUIT AND INSTALLED CONCEALED AS MUCH AS POSSIBLE, SUCH AS AT BEAM CORNERS AND ANY OTHER SIMILAR LOCATIONS.

SWITCHES, GPO'S, 15A AND 20A OUTLETS, DATA AND TELEPHONE OUTLETS SHALL BE CLIPSAL 2000 SERIES ORHPM EXCL RANGE. 3 PHASE POWER OUTLETS AND ISOLATORS SHALL BE POLYCARBONATE TYPE OF IP56 RATINGS, EQUAL TO CLIPSAL OR HPM.

ELECTRICAL CONTRACTOR SHALL COORDINATE THE FINAL LOCATION OF ALL LIGHTING FITTINGS, GPO'S POWER OUTLETS, DATA, TELEPHONE, ETC. WITH ARCHITECTURAL DRAWINGS AND IN CONSULTATION WITH BETTY'S BURGER PROJECT MANAGER.

SAMPLES OF ALL LIGHTING FITTINGS SHALL BE SUBMITTED TO BETTY BERGER'S PROJECT MANAGER PRIOR TO ORDERING AND INSTALLATION. NO ALTERNATIVES ARE ALLOWED. CONTRACTOR SHALL PROVIDE THE LIGHT FITTINGS AS DOCUMENTED. ESSAY CONSULTING ENGINEERS WILL NOT APPROVE OR TAKE RESPONSIBILITY FOR THE ALTERNATIVE LIGHT FITTINGS. ALL RESPONSIBILITY SHALL BE BORNE BY THE BUILDER.

C ALL MCCB'S SHALL BE ADJUSTABLE SOLID STATE (ELECTRONIC) TYPE WITH TRIP FREE MECHANISMS.

CABLE TRAYS SHALL BE PERFORATED CABLE TRAY. THE MINIMUM MOUNTING HEIGHT SHALL BE 2700MM TO UNDERSIDE OF CABLE TRAY. IN CAR PARKS MINIMUM MOUNTING HEIGHT SHALL BE 2150MM TO UNDERSIDE OF CABLE TRAY. PROVIDE PROTECTIVE COVERS WHERE CABLE TRAYS ARE INSTALLED UPSIDE DOWN AND WHERE NOMINATED ON DRAWINGS.

ALL ELECTRICAL AND VARIOUS COMMS CABLES ENTERING THE BUILDING BELOW GROUND LEVEL SHALL BE FIXED TO VERTICAL MOUNTED CABLE TRAY BETWEEN ENTRY POINT AND UP TO THE UNDERSIDE OF THE FLOOR SLAB AND PROVIDED WITH PROTECTIVE COVERS.

PROVIDE 3 COPIES OF "AS BUILT" DRAWINGS (AUTOCAD 2010 DRAWING FORMAT) AND MAINTENANCE MANUALS. ALL SYSTEMS AND EQUIPMENT DETAILS, BROCHURES, SCHEMATIC DIAGRAMS, MAINTENANCE ITEMS, TEST RESULTS AND DISC FOR DRAWINGS SHALL BE INCLUDED IN THE MANUAL.

A LIST OF ALL CONTRACTORS, SUB-CONTRACTORS AND SUPPLIERS UTILISED FOR THE PROJECT WITH CONTACT DETAILS SHALL BE PROVIDED IN THE MANUAL. A LIST OF SPARE PARTS FOR MAINTENANCE SHALL ALSO BE INCLUDED IN THE MANUAL.

ALL LIGHTING SWITCHES, GPO'S, 1 PHASE AND 3 PHASE POWER OUTLETS AND ISOLATORS, EXHAUST FANS, ETC. SHALL BE PROVIDED WITH CIRCUIT IDENTIFICATION VIA IP STUDS AT REAR OF PLATE SURROUNDS.

D SUBMIT SHOP DRAWINGS OF DISTRIBUTION BOARDS TO THE SUPERINTENDENT FOR APPROVAL PRIOR TO ORDERING AND MANUFACTURE.

ALL PENETRATIONS WHICH PASS THROUGH SMOKE AND FIRE WALLS, SLABS, ETC. SHALL BE FIRE SEALED AFTER CABLES ARE INSTALLED, USING APPROVED FIRE RETARDANT MATERIAL BY THE ELECTRICAL CONTRACTOR. WHERE LIGHTING SWITCHES, GPO'S, POWER OUTLETS, TELEPHONE, DATA, TV OUTLETS, SECURITY, ETC. ARE RECESSED IN FIRE WALLS, PROVIDE FIRE AND ACOUSTIC RATINGS FOR THESE WALL BOXES TO MATCH THE FIRE RATINGS OF WALLS. WHERE THESE OUTLETS ARE INSTALLED BACK-TO-BACK, THEY SHALL BE INSTALLED OFF-SET.

E THE MINIMUM SIZE CABLING FOR LIGHTING AND POWER SUB-CIRCUITS SHALL BE 2.5MM SQ. PVC/PVC (TPS). ALL OTHER SUB-CIRCUITS CABLING SHALL MATCH THE CIRCUIT BREAKER RATINGS. CABLES SHALL BE MULTI-STANDED COPPER CONDUCTORS 0.6/1KV GRADE 70C RATED, WHITE SHEATH FOR LIGHTING AND BLACK SHEATH FOR POWER.

PROVIDE CIRCUIT BREAKERS (CB'S) ON SWITCHBOARDS TO SUIT RATINGS OF MECHANICAL SERVICES, INDOOR AND OUTDOOR A/C UNITS, EXHAUST FANS, ETC. MECHANICAL CONTRACTOR SHALL PROVIDE ISOLATORS, WIRING AND TERMINATIONS TO ALL MECHANICAL EQUIPMENT, FROM RESPECTIVE SWITCHBOARDS, INCLUDING CONTROLS. ELECTRICAL CONTRACTOR SHALL CONFIRM RATINGS OF CB'S AND SUB-CIRCUITS WITH MECHANICAL CONTRACTOR PRIOR TO INSTALLATION.

F DRIVERS FOR LED LIGHTING SHALL BE ELECTRONIC HIGH FREQUENCY TYPE, EQUAL TO OSRAM OR TRIDONIC MANUFACTURE. LIGHT FITTINGS WHICH REQUIRE DIMMING SHALL BE PROVIDED WITH DIMMABLE BALLASTS AND DRIVERS. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH LIGHT FITTING SUPPLIER. FOR DIMMABLE LED LIGHT FITTINGS, A UNIVERSAL OR LEADING EDGE TYPE DIMMING SYSTEM SHALL BE USED.

G CONDUITS SHALL BE MINIMUM 25MM DIAMETER PVC INSTALLED VERTICALLY AND HORIZONTALLY TO BUILDING LINES. PROVIDE EASY SETS AND BENDS. PROVIDE STEEL CONDUITS GALVANISED FINISHED WHERE MECHANICAL PROTECTION IS REQUIRED SUCH AS IN PLANT ROOMS AND IN EXTERNAL AREAS. UNDERGROUND CONDUITS SHALL BE HD PVC ORANGE FOR ELECTRICAL AND WHITE FOR TELSTRA AND ALL OTHER VARIOUS COMMS SERVICES. PITS SHALL BE HEAVY DUTY POLYPROPYLENE TYPE, EQUAL TO GVK OR DULMISON. UTILISE LIGHT DUTY LIDS IN NON-TRAFFICABLE AREAS AND HEAVY DUTY LIDS IN TRAFFICABLE AREAS. PROVIDE DRAW WIRES FOR ALL UNDERGROUND CONDUITS WITH ENDS CAPPED TO AVOID SOIL ENTRY, RUBBISH, ETC.

H ELECTRICAL CONTRACTOR SHALL PROVIDE WALL AND FLOOR CHASING, MAKING GOOD AND PAINTING TO MATCH EXISTING BUILDING FINISHES FOR THE INSTALLATION OF POWER AND COMMS WIRING IN EXISTING BUILDING FINISHES WHERE THERE ARE NO STUD WALLS, CAVITIES, VOIDS, ETC. NOTE THAT ALL WIRING MUST BE INSTALLED WITHDRAWABLE AND IN CONDUITS.

I PROVIDE 12 MONTHS DEFECTS LIABILITY PERIOD, INCLUDING ALL MAINTENANCE AND CALL OUTS DURING THE MAINTENANCE PERIOD AND ANY NECESSARY RE-PROGRAMMING OF ANY SYSTEMS AS DIRECTED BY THE SUPERINTENDENT.

J PROVIDE COMMISSIONING AND TESTING FOR ALL ITEMS OF THE ELECTRICAL SERVICES AND RECORD ALL TEST RESULTS IN THE LOG BOOK.

K THE ELECTRICAL CONTRACTOR SHALL ALLOW TIME FOR TRAINING AND INSTRUCTION OF ALL MAINTENANCE PERSONNEL AND ALL OTHER ASSOCIATED COUNCIL STAFF ON ALL ASPECTS OF OPERATING AND MAINTENANCE PROCEDURES REQUIRED FOR EACH SEPARATE ITEM OF THE ELECTRICAL AND COMMS SERVICES.

LIGHTING SWITCHES AND GPO'S MUST BE MOUNTED MINIMUM 500MM AWAY FROM INTERNAL CORNERS. SWITCHES SHALL BE MOUNTED 900MM CONTRACTOR TO SUPPLY AND INSTALL POWER OUTLETS FOR MECHANICAL AND HYDRAULIC SERVICES AS INDICATED ON THE DRAWING. FINAL LOCATIONS TO BE CO-ORDINATED WITH THE RESPECTIVE CONTRACTORS.

NOTE: THE CONTRACTOR MUST MAKE ADJUSTMENT OF LIGHTING, POWER & DATA LAYOUTS TO CATER FOR SITE CONDITIONS INCLUDING THE MECHANICAL SERVICES INSTALLATIONS

TO 1100MM AFL AND LEVEL WITH DOOR HANDLES. GPO'S SHALL BE MOUNTED 600MM AFL AND NOT MORE THAN 1100MM AFL ALL IN ACCORDANCE WITH AS1428.1.

NOTE: THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH BETTY'S BURGERS LIGHTING & POWER DRAWING

FOR PARTIALLY REDUNDANT LIGHTING AND POWER SUB-CIRCUITS, REMOVE WIRING FROM THE REDUNDANT SECTION AND RETAIN WIRING IN THE NON-REDUNDANT SECTION. FOR BOTH SECTIONS MAKE WIRING SAFE.

ALL ELECTRICAL SERVICES TENDERERS SHALL VISIT THE SITE AND ASCERTAIN EXISTING CONDITIONS PRIOR TO TENDERING. NO VARIATION WILL BE ALLOWED ARISING DUE TO THE EXISTING SITE CONDITION.

THE ELECTRICAL SERVICES CONTRACTOR SHALL INCLUDE FOR ALL SUPPLY AUTHORITY FEES AND CHARGES FOR INSPECTIONS, METERING, CALL OUTS, ETC.

THE ELECTRICAL CONTRACTOR SHALL INCLUDE FOR ALL COSTS IN THE TENDER PRICE FOR STAGING OF WORKS, OUT OF HOURS WORK, SHUTDOWNS OF SWITCHBOARDS, DISTRIBUTION BOARDS, COMMS PANELS, MDF, ETC. FOR ADDITIONS AND ALTERATIONS DURING OUT OF HOURS AND ANY OTHER SUCH LIKE WORKS. THESE ITEMS TO BE COORDINATED WITH THE CLIENT AND SUPERINTENDENT.

EARTHING SHALL BE IN ACCORDANCE WITH AS3000 AND ACMA.

ALL MCCB'S SHALL BE ADJUSTABLE SOLID STATE (ELECTRONIC) TYPE WITH TRIP FREE MECHANISMS.

WHERE SWITCHBOARDS ARE LOCATED ON WALLS FACING ROOMS AND/OR CORRIDORS AT THE REAR OF SWITCHBOARDS, PROVIDE A PROTECTIVE SHEET METAL PANEL AT THE REAR OF SWITCHBOARD SO THAT IF OWNER/TENANT INSTALLS A NAIL IN THE WALL FOR HANGING PICTURES OR OTHER SUCH LIKE ITEMS, THE SWITCHBOARD IS MECHANICALLY PROTECTED FOR SUCH AN OCCURRENCE.

WHERE METERED SUB-MAINS ARE LARGER THAN THE ISOLATOR TERMINALS, PROVIDE SEPARATE JUNCTION BOX FOR TERMINATING SUB-MAINS IN DB WITH BUS-BAR LINKS TO THE DB MAIN SWITCH.

CONTRACTOR TO PROVIDE TEST RESULTS OF ALL RCDs EMERGENCY AND EXIT LIGHTS, DATA OUTLETS ETC.

SUPPLY AND INSTALL 12RU DATA RACK AS PER BETTY'S BURGER SPECIFICATION C/W CABLING FROM NTD/IDF. PROVIDE CAT6 DATA OUTLETS AS INDICATED. PROVIDE PATCH PANELS AS REQUIRED AND 2 OFF 24 WAY SPARE PATCH PANELS. PROVIDE ONE FLY LEAD AND ONE PATCH LEAD PER EACH DATA OUTLET. CO-ORDINATE ALL WORK WITH PROJECT MANAGER AND/OR BETTY'S BURGER IT TEAM.

**LIGHTING CONTROL SYSTEM SPECIFICATION****INDIVIDUAL LUMINAIRE CONTROL**

ALL LUMINAIRES SHOULD HAVE THE FOLLOWING MINIMUM CONTROL CAPABILITIES WITH THE EXCEPTION OF THE FL1 (FAIRY LIGHTS), KITCHEN HOOD LIGHTING AND THE PROPRIETARY COOL/FREEZER ROOM LIGHTING WHICH WILL BE ON/OFF ONLY (VIA DYNALITE SWITCH PANEL).

ON/OFF.

ADJUSTABLE, FLICKER FREE, OUTPUT (DIMMING) LEVEL.

**CONTROL SYSTEM CAPABILITIES**

THE FOLLOWING CONTROL FEATURES ARE REQUIRED:

- THE LIGHTING CONTROLS SYSTEM IS TO HAVE THE CAPABILITY TO AUTOMATICALLY CONTROL LIGHTING TO EMULATE PRE-SET CUSTOMIZED SCENES.
- SCENES TO AUTOMATICALLY ACTIVATE VIA CUSTOMIZABLE PRE-SET CALENDAR AND TIME SCHEDULING.
- SCENES CAN BE AUTOMATICALLY OVERRIDDEN BY STAFF IN CERTAIN CIRCUMSTANCES (SEE LIGHTING CONTROL SCENES BELOW FOR THE CIRCUMSTANCES WHERE THIS IS REQUIRED).
- WHERE APPLICABLE, EACH INDIVIDUAL LUMINAIRE IS TO BE INDIVIDUALLY ADDRESSABLE TO BE CONTROLLED ON/OFF/DIM. WHERE THE LUMINAIRE CONTROL OPTION TO BE INDIVIDUALLY ADDRESSABLE IS NOT APPLICABLE TO THE TYPE OF LUMINAIRE, THE LUMINAIRE IS TO BE GROUPED WITH LUMINAIRES OF THE SAME TYPE AND CONTROLLED ON/OFF/DIM WITH THAT GROUP. GROUPS ARE TO BE SPLIT FRONT/REAR OF STORE.
- THE LIGHTING CONTROL SYSTEM PRE-SETS ARE TO BE FULLY ADJUSTABLE BY THE END USER POST COMMISSIONING.
- LIGHTING TO BE CONTROLLED IN ZONES. THE AREA(S) WITH HIGHER DAYLIGHT CONTRIBUTIONS TO BE CONTROLLED SEPARATE TO THE LIGHTING WITHOUT DAYLIGHT CONTRIBUTIONS (SITE SPECIFIC MANUAL ASSESSMENT REQUIRED I.E. NOT VIA AUTOMATIC PHOTOCELL DAYLIGHT CONTROL). THIS IS TO BE DETERMINED ON-SITE BY THE CONTRACTOR WITH CLIENT (BETTY'S BURGERS) PRIOR TO INSTALLATION.

**LIGHTING CONTROL SCENES**

THE FOLLOWING PRE-SET LIGHTING CONTROL SCENES ARE REQUIRED AS A MINIMUM:

- STAFF OPEN (FIRST ARRIVAL)
  - A MOTION SENSOR SHOULD ACTIVATE TYPE P1 FITTINGS FROM THE ENTRY TO THE WASH & PREP AREA.
- TO BE MANUALLY PRESSED ON SWITCH PLATE(LSP LOCATED WITHIN THE WASH & PREP AREA) ON FIRST STAFF ARRIVAL.
  - LIGHTING WILL AUTOMATICALLY COME ON THE REQUIRED LEVELS FOR STORE OPENING DUTIES.
- STAFF CLOSED (LAST LEAVE)
  - TO BE MANUALLY PRESSED ON SWITCH PLATE(LSP) ON LAST STAFF LEAVE.
    - LIGHTING WILL AUTOMATICALLY SLOWLY DIM TO ALL OFF. NOTE THAT SOME LIGHTS MAY BE REQUIRED TO STAY ON AFTER HOURS - THESE LIGHTS ARE TO BE ON A SEPARATE LIGHTING CONTROL CHANNEL(S). ALLOW FOR MIN. TWO CIRCUITS AND CHANNELS. LIGHTS ON THIS CIRCUIT WILL NEED TO BE CONFIRMED WITH THE BETTY'S BURGERS PROJECT MANAGER.
- CUSTOMER OPEN (STORE OPEN TO CUSTOMERS)
  - 'STORE OPEN' TO BE MANUALLY ACTIVATED VIA SWITCH PLATE(LSP) AND THE SCENE IS TO BE AUTOMATICALLY ACTIVATED IN ACCORDANCE WITH THE INDICATIVE AUTOMATIC TIME/CALENDAR SCHEDULING BELOW:
- BREAKFAST/MORNING SCENE (STORE OPEN-11AM)
  - LUNCH/AFTERNOON SCENE (11AM-4PM)
  - DINNER/LATE AFTERNOON SCENE (4PM-CLOSE)
- NOTE: THE ABOVE IS TO BE DEVELOPED WITH THE END-USER (BETTY'S BURGERS) PRIOR TO INSTALLATION. CONTRACTOR SHALL PROGRAM THE CONTROL ACCORDINGLY IN CONSULTATION WITH THE DYNALITE SUPPLIER.
- CLEANING (STORE CLOSED - CLEANING)
  - TO BE MANUALLY PRESSED ON SWITCH PLATE ON WHEN STORE IS CLOSED FOR CLEANING.
- AFTER-HOURS/EXTENT CURRENT LIGHTING SCENE (WHEN AN EXTENSION OF LIGHTING TIME-ON IS REQUIRED BEFORE THE PRE-SET SCHEDULING TURNS THE LIGHTING OFF)
  - TO BE MANUALLY PRESSED WHEN OPERATIONS NEED TO CONTINUE PAST THE PRE-SET SCHEDULED TIME. THE CURRENT LIGHTING SCENE WILL EXTEND BY 30 MINUTES.

O IMPORTANT: THE LIGHTING IS TO DIM & FLASH AT 50%, 5 MINUTES & 2 MINUTES BEFORE LIGHTING IS SCHEDULED TO AUTOMATICALLY SWITCH OFF BY THE PRE-SET SCHEDULING. THIS IS TO NOTIFY STAFF THAT THE AFTERHOURS BUTTON IS REQUIRED TO BE PRESSED TO ALLOW FOR AN EXTRA 30 MINUTES OF LIGHTING.

**SYSTEM DESCRIPTION & COMPONENTS**

THE LIGHTING CONTROL SYSTEM (LCS) UTILISES A PHILIPS DYNALITE MICROPROCESSOR BASED CONTROL SYSTEM INCORPORATING PROPRIETARY RELAY, UNIVERSAL PHASE DIMMING, 1-10V DIMMING AND DALI CONTROLLERS, SWITCHES, MOTION SENSORS (MOTION SENSORS WITHIN MANAGERS' OFFICE AND STORE AREAS ONLY), INPUT AND INTERFACE DEVICES TO AUTOMATICALLY CONTROL VARIOUS FORMS OF LIGHTING, PROVIDED FOR LIGHTING INSTALLED.

THE PHILIPS DYNALITE CONTROL EQUIPMENT IS INSTALLED WITHIN CUSTOM BUILT DIN-RAIL ENCLOSURES ADJACENT TO ASSOCIATED DISTRIBUTION BOARDS.

TO ACHIEVE THE CONTROL FUNCTIONS DESCRIBED EARLIER IN THE BRIEF, THE FOLLOWING OUTLINES THE SYSTEM COMPONENTS REQUIRED. HOWEVER, THE FINAL QUANTITIES AND ITEMS TO BE CONFIRMED WITH THE DYNALITE SUPPLIER.

**PHILIPS DYNALITE LIGHTING CONTROL SYSTEM COMPONENTS**

- 1) PHILIPS DYNALITE ANTUMBRA DISPLAY LIGHTING SWITCH PLATE (WHERE NOTED LSP ON DESIGN LAYOUTS)
  - ANTUMBRA DISPLAY LIGHTING SWITCH PLATE IS TO BE LOCATED AT ALL ADDITIONAL ENTRANCES (NOTE - ONLY APPLICABLE TO SPECIFIC STORES WHERE INDICATED ON THE LIGHTING LAYOUT).
  - SWITCH PLATE TO INITIATE ONE OF THE 4NO LIGHTING SCENE INITIATION OPTIONS (STAFF OPEN / STAFF CLOSED / CUSTOMER OPEN / CLEANING).
  - SWITCH PLATE TO HAVE DYNAMIC LABELLING TO IDENTIFY THE CONTROL OPTION.
  - BUTTONS TO BE PRESSED FOR GREATER THAN 5 SECONDS TO CHANGE/INITIATE A SCENE. THIS IS TO MITIGATE NUISANCE TAMPERING OR ACCIDENTAL SCENE CHANGES.

**2) PHILIPS DYNALITE DDMC802GL (PHASE) DIMMING CONTROLLERS**

- DDMC802GL DIMMING CONTROLLER WITH DGM402 TRAILING PHASE DIMMED MODULES TO CONTROL LUMINAIRES WITH PREFERABLE TRAILING EDGE DIMMING CONTROL GEAR.

**3) PHILIPS DYNALITE DDBC1200 ANALOGUE 1-10V/DALI DIMMING CONTROLLER**

- DDBC1200 DIN RAIL MOUNTED ANALOGUE OUTPUT UNIT DIMMING CONTROLLER TO CONTROL LUMINAIRES WITH 1-10V DIMMING CONTROL GEAR.

**4) PHILIPS DYNALITE DDRC1220FR-GL RELAY CONTROLLER**

- DDRC1220FR-GL 12-CHANNEL RELAY CONTROLLER TO CONTROL LUMINAIRES WITH STANDARD ON/OFF CONTROL GEAR.

**5) PHILIPS DYNALITE DDBC300-DALI CONTROLLER**

- DDBC300-DALI CONTROLLER TO INDIVIDUALLY CONTROL THE DALI LUMINAIRES (MAX TOTAL 3 DALI LINES AT 64 ADDRESSES PER LINE).

**6) PHILIPS DYNALITE DUS360-CR 360° / DUS90CS PIR DETECTOR (WITH PE CELL WHERE APPLICABLE)**

- TO AUTOMATICALLY CONTROL THE OFFICE OR STOREROOM LIGHTING ON/OFF.

**SUPPLIER**

THE SYSTEM SHALL BE SUPPLIED BY LIGHT MOVES.