

## 1. EXTENT OF WORKS

- INSPECTIONS.
- TESTING AND COMMISSIONING.
- MAINTENANCE.
- CABLING, CABLE SUPPORT SYSTEMS AND ACCESS.
- POWER DISTRIBUTION.
- LIGHTING.
- AS CONSTRUCTED DOCUMENTS.
- REMOVED THE CATENARY 100-VOLT LINE AND TWO
- ALL MINOR COMPONENTS AND INCIDENTAL WORKS

NECESSARY TO COMPLETE THE ELECTRICAL SERVICES  
OVER COMPLETE, OPERATIONAL AND FIT FOR THE IN

SUPPLY ALL LABOUR, MATERIALS, EQUIPMENT, AND ALL OTHER ITEMS, WHETHER MENTIONED IN  
DETAIL OR NOT, REQUIRED FOR THE SATISFACTORY COMPLETION OF THE ELECTRICAL SERVICES  
INSTALLATION, LEAVING IN FULL WORKING ORDER TO THE SATISFACTION OF THE PROJECT  
MANAGER.

ACCEPT FULL RESPONSIBILITY FOR LIASING, ARRANGING AND CO-ORDINATION OF ALL WORKS THAT HAVE AN EFFECT ON OR WILL BE AFFECTED BY THE ELECTRICAL SERVICES.

COORDINATE WITH THE FOLLOWING:

- GRAHAM KNIGHT 0419 024 124 K&G ELECTRICAL WILL REMOVE THE CCTV CAMERAS FROM THE BUILDING PRIOR TO ANY WORKS COMMENCING AND AS SUCH THERE IS NO CCTV COMPONENT TO BE INCLUDED IN THE BUILDING WORKS.
- GRAHAM KNIGHT 0419 024 124 K&G ELECTRICAL WILL REMOVE THE SOLAR PV SYSTEM FROM THE BUILDING PRIOR TO ANY WORKS COMMENCING AND AS SUCH THERE IS NO SOLAR PV COMPONENT TO BE INCLUDED IN THE BUILDING WORKS.
- GRAHAM KNIGHT 0419 024 124 K&G ELECTRICAL WILL ADDRESS ANY SPEAKER REQUIREMENTS / RECONNECTIONS IN THE PONY CLUB.

## 2. WORKMANSHIP

ENSURE THAT THE ELECTRICAL WORK IS PERFORMED BY THE HOLDER OF A CURRENT ELECTRICAL SUB CONTRACTOR LICENSE AND THE SERVICES COVERED BY THE ACMA IS PERFORMED BY THE HOLDER OF THE APPROPRIATE CURRENT ACMA LICENSE. ENSURE THE INSTALLATION AND ALL COMPONENTS, FIXTURES, FITTINGS, OUTLETS AND CABLES ARE SUPPLIED AND INSTALLED TO A HIGH STANDARD THROUGHOUT, AND INSTALLED IN A NEAT AND TRADESMAN LIKE MANNER, TO THE CURRENT INDUSTRY STANDARDS. ENSURE ALL MATERIALS AND COMPONENTS OF A SIMILAR TYPE ARE OF THE SAME MANUFACTURER AND INSTALLED IN A UNIFORM MANNER.

IT IS THE ELECTRICAL SUB CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE INSTALLATION IS FIT FOR PURPOSE AND IS PROVIDED AS A COMPLETE WORKING INSTALLATION. IT IS THE ELECTRICAL SUB CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL COMPONENTS, FITTINGS, FIXTURES, SYSTEMS, PROGRAMMING ETC IRRESPECTIVE OF THE LEVEL DETAILED IN THE DOCUMENTS SUCH THAT THE INSTALLATION IS PROVIDED AS A COMPLETE WORKING INSTALLATION.

CONCEAL ALL WIRING AND CONDUITS. EXPOSED CABLEING OR CONDUITS ARE GENERALLY NOT ACCEPTABLE. IT IS NOTED THAT CHASING AND REINSTATEMENT WILL BE REQUIRED. ENSURE ALL COMPONENTS, EQUIPMENT AND MATERIALS SUPPLIED ARE NEW, UNUSED, DESIGNED AND SELECTED TO ENSURE SATISFACTORY OPERATION UNDER VARYING ATMOSPHERIC, CLIMATIC, HUMID TROPICAL CONDITIONS WITHOUT DISTORTION AND DETERIORATION IN ANY PART. EFFECTIVE, EFFICIENT AND RELIABLE OF THE SYSTEMS DESIGN AND SELECT ALL EQUIPMENT TO PROVIDE THE NECESSARY SAFETY TO HUMAN LIFE AND PROPERTY DURING OPERATION AND MAINTENANCE WITH PARTICULAR ATTENTION GIVEN TO ELECTRICAL SAFETY AND SEGREGATION PRECAUTIONS.

CHECK THE FINISHED PAINTWORK AROUND THE AREA OF EACH INSTALLATION AND TOUCH UP ALL DAMAGED PARTS AND FINISHES AFTER THE INSTALLATION OF THE ELECTRICAL SERVICES.

ALL WORKS ARE TO BE CARRIED OUT IN ACCORDANCE WITH THE BUILDER'S PROGRAM. ENSURE ALL FINAL LOCATIONS OF OUTLETS AND FITTINGS ARE CO-ORDINATED ONSITE WITH THE ARCHITECT AND ALL OTHER SERVICES, TO THE APPROVAL OF THE PROJECT MANAGER. ALLOW TO CO-ORDINATE THE FINAL LOCATION OF ALL EQUIPMENT, FITTINGS, & OUTLETS, SUCH THAT THEY ARE INSTALLED IN ACCORDANCE WITH THE AS3000 RESTRICTED ZONES, AND ARE NOT COVERED INAPPROPRIATELY.

ENSURE THAT ALL METAL SURFACES ARE SUITABLY PROTECTED AGAINST CORROSION, AND THAT ALL PLASTIC MATERIALS ARE UV STABILISED.

PROVIDE ALL MATERIALS AS NEW, AND OF THE HIGHEST CLASS AVAILABLE FOR THEIR RESPECTIVE TYPES. ENSURE ALL ASPECTS OF THE WORK ARE OF A HIGH STANDARD THROUGHOUT, AND INSTALLED IN A NEAT AND TRADESMAN LIKE MANNER, TO THE CURRENT INDUSTRY STANDARDS.

### 3. STANDARDS

RESPECTIVE OF INFORMATION CONTAINED IN THE ELECTRICAL SERVICES DOCUMENTS OR IN INSTRUCTIONS, IT IS THE ELECTRICAL SUB CONTRACTOR'S RESPONSIBILITY TO ENSURE ALL ELECTRICAL SERVICES WORKS ARE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE FOLLOWING. REFER ANY DISCREPANCIES BETWEEN THE REQUIREMENTS OF THE FOLLOWING AND/OR THE ELECTRICAL SERVICES DOCUMENTS AND INSTRUCTIONS TO THE ARCHITECT FOR CLARIFICATION PRIOR TO THE PLACING OF ORDERS, FABRICATION OR INSTALLATION OF THE ITEMS/METHODS IN DISCREPANCY.

- NCC BUILDING CODE OF AUSTRALIA.
- ELECTRICITY ACT.
- ELECTRICAL SAFETY ACT.
- AS/NZS3000.
- AS3008.
- AS1670. 1.
- WORKPLACE HEALTH AND SAFETY ACT.
- TELECOMMUNICATIONS ACT.
- ACMA REQUIREMENTS.

#### 4. AUTHORITIES

ENSURE ALL OF THE ELECTRICAL SERVICES COMPLY WITH THE REQUIREMENTS OF ALL REGULATORY AUTHORITIES HAVING JURISDICTION OVER THE SITE INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

- ACMA.
- LOCAL COUNCIL.
- LOCAL SUPPLY AUTHORITY.
- STATE GOVERNMENT DEPARTMENT OF ENVIRONMENT AND HERITAGE.
- QLD GOVERNMENT, DIVISION OF WORKPLACE, HEALTH AND SAFETY.
- QLD FIRE AND EMERGENCY SERVICES.

## 5. CABLES

UNLESS OTHERWISE SPECIFIED, INSTALL AND TERMINATE CABLES IN ACCORDANCE WITH THE MANUFACTURERS' RECOMMENDATIONS. DETERMINE THE FINAL ROUTES TO SUIT THE BUILDING STRUCTURE AND SITE CONDITIONS. UNLESS NOTED OTHERWISE, PROVIDE ALL 240 VOLT POWER AND LIGHTING WIRING AS 2.5mm<sup>2</sup> TWIN & EARTH STRANDED COPPER CONDUCTORS, PVC INSULATED 0.6/1KV V75 GRADE TO AS3174, PROTECTED BY A 20 AMP CIRCUIT BREAKER. ALL CONDUIT AND FITTINGS TO BE RIGID UPVC TO AS2053, UNLESS NOTED OTHERWISE.

## 6. POWER DISTRIBUTION

THE POWER DISTRIBUTION COMPONENT OF THIS CONTRACT INCLUDES THE REMOVAL OF THE EXISTING POWER SERVICES MADE REDUNDANT BY THE WORKS. REPLACE THE EXISTING AMENITY BUILDING DISTRIBUTION BOARD WITH A NEW DISTRIBUTION BOARD DB-A AND THE EXISTING AMENITY CLUB DISTRIBUTION BOARD WITH A NEW DB-B. PROVIDE A NEW THREE PHASE 40 AMP 3 CORE COMB SUBMAIN RUN UNDERGROUND BETWEEN THE BUILDINGS TO SUPPLY DB-B FROM DB-A. PROVIDE DB-A AS:-

- WALL MOUNTED MECHANICALLY FIXED TO THE WALL.
- IP66 FORM 1
- 316 STAINLESS STEEL OR ALUMINIUM ENCLOSURE, DOORS AND ESCUTCHEONS.
- POWDER COATED GLOSS WHITE ESCUTCHEONS.
- DOOR WITH 3 POINT 92268 KEY LOCKABLE FLUSH HANDLE.
- LIFT OFF HINGES ON THE DOOR AND ESCUTCHEON.
- 1/4 TURN LATCHES AND D HANDLES ON ALL ESCUTCHEONS.
- ALL SWITCHGEAR TO BE SCHNEIDER OR NHP/ TERASAKI.
- PROVIDE A SHOP DRAWING FOR APPROVAL.
- ALL COMPONENTS ARE TO BE LABELLED WITH NON-STICK LABELS.
- 160 AMP LOAD BREAK MAIN SWITCH.
- 36 POLE VERTICAL DIN STYLE 250 AMP 3 PHASE CHASSIS.
- AS2293 EMERGENCY LIGHT TESTING FACILITY.
- SPARE FULL WIDTH HORIZONTAL DIN RAIL FOR FUTURE CONTROLS.
- CIRCUIT SCHEDULE.
- RECONNECT THE EXISTING SUBMAIN THAT SUPPLIES THE AMENITIES BUILDING DISTRIBUTION BOARD TO DB-A.

PROVIDE DB-B AS A 24 POLE WALL MOUNTED LOAD CENTRE C/W A 100 AMP MAIN SWITCH AND A THREE PHASE 100 AMP BUS COMB. RECONNECT ALL OF THE EXISTING PONY CLUB CIRCUITS AND CONTROLS.

ENSURE ALL OUTLETS AND ISOLATORS ARE POSITIONED SUCH THAT THEY ARE NOT COVERED BY THE EQUIPMENT. THE FINAL POSITION OF ALL OUTLETS AND ISOLATORS ARE TO BE CONFIRMED ON SITE BY THE CLUBS REPRESENTATIVE.

## 6. POWER CONTINUED

PROVIDE CIRCUITS DB-A - P1, DB-A - P2, DB-A - P3, DB-A - P4 AND DB-A - P5 AS SINGLE PHASE 20 AMP 2.5MM RCBO CIRCUITS FROM DB-A TO SUPPLY THE OUTLETS SHOWN. PROVIDE CIRCUIT DB-A - P6 AS A SINGLE PHASE 20 AMP 2.5MM RCBO CIRCUIT FROM DB-A CONTROLLED VIA A PROGRAMMABLE TIME CLOCK TO SUPPLY THE OUTLETS SHOWN. CONFIGURE THE TIME CLOCK TO TURN ON CIRCUIT DB-A - P6 AT 5.00 AM AND OFF AT 10.00PM. THE POWER DISTRIBUTION COMPONENT OF THIS CONTRACT INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING EXTENT OF WORK:

- POWER DISTRIBUTION.
- REPLACEMENT OF DB-A.
- REPLACEMENT OF DB-B.
- DB-B SUBMAIN.
- CABLE ACCESS WAYS INCLUDING NEW POWER AND COMMUNICATIONS CONDUITS AND CABLE ACCESS DUCTS.
- CIRCUITS.
- ISOLATORS AND OUTLETS.
- TESTING AND COMMISSIONING.
- REMOVAL OF ALL EXISTING REDUNDANT SERVICES.

UTILISE THE EXISTING SPARE POLES IN THE DISTRIBUTION BOARDS AND EXISTING CIRCUITS MADE REDUNDANT BY THE WORKS TO SUPPLY THE NEW POWER AND LIGHTING CIRCUITS. UPDATE THE DISTRIBUTION BOARD SCHEDULES AT PRACTICAL COMPLETION.

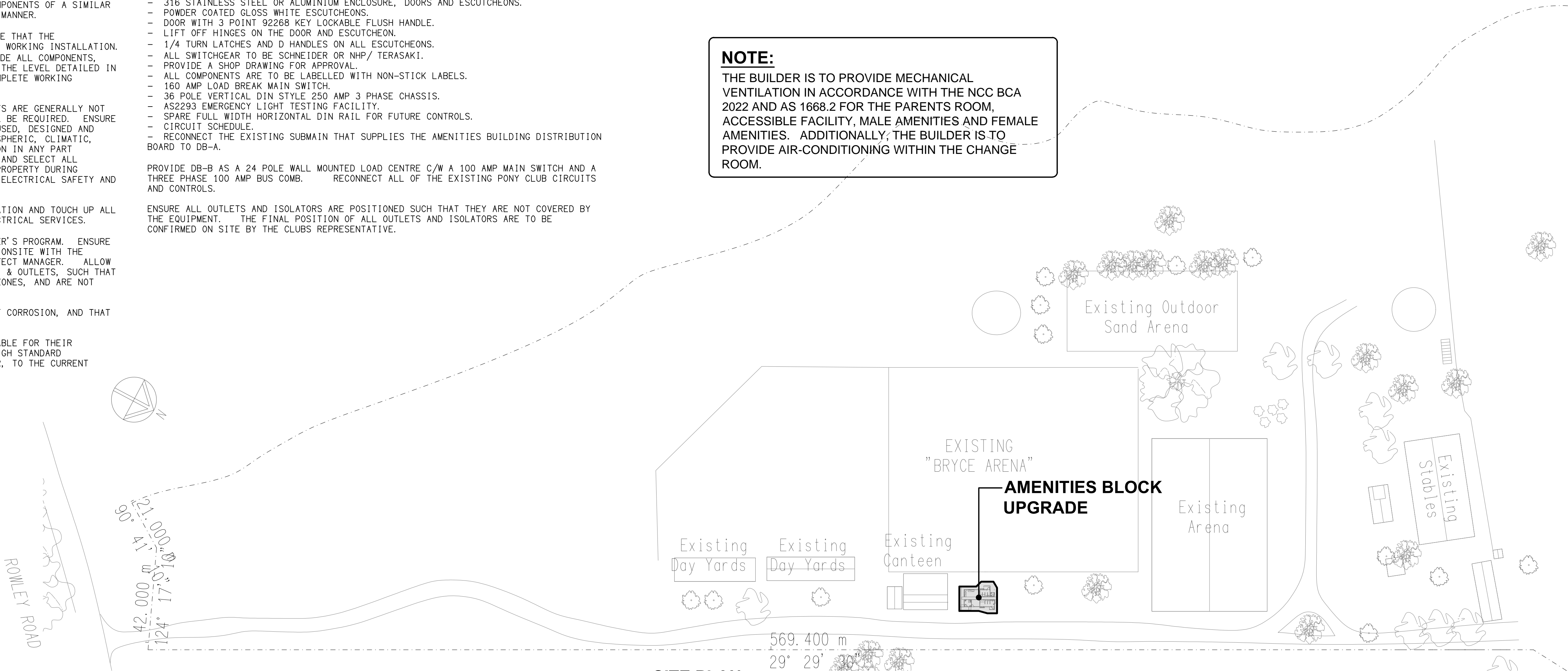
## 7. LIGHTING

ALL OF THE LIGHT FITTINGS, LAMPS AND ACCESSORIES ARE TO BE PROVIDED AS PART OF THIS CONTRACT. THE LIGHTING COMPONENT OF THIS CONTRACT INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING EXTENT OF WORK:

- LIGHTING.
- LIGHT FITTINGS AND ACCESSORIES.
- EMERGENCY AND EXIT LIGHTING.
- EARTHING OF THE LIGHTING INSTALLATION.
- LIGHTING CONTROL.
- LIGHTING SUBCIRCUITS.
- TESTING AND COMMISSIONING.
- RECONNECTION OF THE EXISTING LIGHTING THAT REMAINS.
- REMOVAL OF ALL EXISTING REDUNDANT LIGHTING SERVICES.

PROVIDE TWO SINGLE PHASE 20 AMP 2.5MM RCBO LIGHTING CIRCUITS FROM DB-A WITH THE FIRST CIRCUIT USED TO SUPPLY THE L1, L2 AND L4 FITTINGS. THE SECOND LIGHTING CIRCUIT IS TO BE CONTROLLED BY AN ADJUSTABLE PE CELL AND USED TO CONTROL THE L3 FITTINGS TO TURN ON AUTOMATICALLY 30 MINUTES PRIOR TO DUST AND OFF AT DAWN. THE L1, L2 AND L4 FITTINGS ARE TO BE PROVIDED WITH ADJUSTABLE INTEGRAL OCCUPANCY SENSORS TO TURN ON AUTOMATICALLY FOR TEN MINUTES WHEN OCCUPANCY IN THE ASSOCIATED SPACE IS DETECTED.

THE BUILDER IS TO PROVIDE MECHANICAL VENTILATION IN ACCORDANCE WITH THE NCC BCA 2022 AND AS 1668.2 FOR THE PARENTS ROOM, ACCESSIBLE FACILITY, MALE AMENITIES AND FEMALE AMENITIES. ADDITIONALLY, THE BUILDER IS TO PROVIDE AIR-CONDITIONING WITHIN THE CHANGE ROOM.



## SITE PLAN

AMENITIES BLOCK UPGRADE  
SCALE 1:1000

DB-A  DB-A: AMENITIES BUILDING ELECTRICAL SERVICES SWITCHBOARD REFER TO THE NOTES FOR THE REQUIREMENTS.

DB-B  DB-B: PONY CLUB BUILDING ELECTRICAL SERVICES SWITCHBOARD REFER TO THE NOTES FOR THE REQUIREMENTS.

SINGLE 10 AMP POWER OUTLET UNLESS NOTED AS 15 AMP. PROVIDE WP  
 OUTLETS AS IP54. MOUNT AB OUTLETS 150 ABOVE BENCH. MOUNT  
 OUTLETS WITH A NUMERIC VALUE AT THAT HEIGHT ABOVE THE FLOOR AND  
 THE OUTLETS DESIGNATED CS WITHIN THE CEILING SPACE.

DOUBLE 10 AMP POWER OUTLET. PROVIDE WP OUTLETS AS IP54. MOUNT  
AB OUTLETS 150 ABOVE BENCH. MOUNT OUTLETS WITH A NUMERIC VALUE  
AT THAT HEIGHT ABOVE THE FLOOR.

**HD** SINGLE 10 AMP POWER OUTLET ADJACENT THE HAND DRYER. CONFIRM THE HEIGHT AND LOCATION ON SITE.

DB-x - Py POWER CIRCUIT DESIGNATION. DENOTES DB AND CIRCUIT.

**L1** L1: 1200 LONG IP66 4000K 4000 LUMEN +/- 10% LED SURFACE MOUNTED  
BATTEN C/W ADJUSTABLE INTEGRAL OCCUPANCY SENSOR AND DRIVER.

**L2:** 600 LONG IP66 4000K 2000 LUMEN +/- 10% LED SURFACE MOUNTED  
BATTEN C/W ADJUSTABLE INTEGRAL OCCUPANCY SENSOR AND DRIVER.

**L3** L3: 600 LONG IP66 4000K 200 LUMEN +/- 10% LED SURFACE MOUNTED  
BATTEN C/W INTEGRAL DRIVER.

 L4: 1200 LONG IP66 4000K 4000 LUMEN +/- 10% LED SURFACE MOUNTED  
BATTEN C/W ADJUSTABLE INTEGRAL OCCUPANCY SENSOR, DRIVER AND  
NON-MAINTAINED EMERGENCY BATTERY PACK TO AS2293.

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PROJECT:  
BURPENGARY EQUESTRIAN CENTRE  
AMENITIES BLOCK UPGRADE

LOT 159 SL9727, 350A-354A ROWLEY ROAD, BURPENGARY

DRAWING:  
ELECTRICAL SERVICES  
LEGEND, NOTES & SITE PLAN

SCALE:  
1:1000

AT A1

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