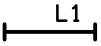



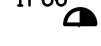












LEGEND

THE LIGHT FITTING SUPPLIER CONTACT DETAILS MAY BE AVAILABLE ON THE EDG WEBSITE VIA THE FOLLOWING LINK www.edg.net.au/Links/Lighting.htm

TYPE	LAMPS	DESCRIPTION	COLOUR / ACCESSORY	CATALOGUE No
 L1	36W LED 4000K	1200 LONG IP65 DIFFUSED BATTEN C/W INTEGRAL ELECTRONIC CONTROL GEAR AND A PRESENCE DETECTION SENSOR MOUNT THE FITTING AT HIGH LEVEL COORDINATED WITH THE WASHTEC EQUIPMENT AND SERVICES ON SITE.	LIGHT GREY	GAMMA STORM 1558-CCT-36-MS
 L2	40W LED 4000K	1200 LONG IP65 DIFFUSED BATTEN C/W INTEGRAL ELECTRONIC CONTROL GEAR AND A PRESENCE DETECTION SENSOR MOUNT THE FITTING AT HIGH LEVEL COORDINATED WITH THE WASHTEC EQUIPMENT AND SERVICES ON SITE.	LIGHT GREY	GAMMA STORM 1558-CCT-40W-MS
 EMERGENCY PACK		LIGHT FITTINGS THAT ARE DESIGNATED AS BEING PROVIDED WITH AN EMERGENCY PACK ARE TO BE PROVIDED WITH AN INTEGRAL AS2293 EMERGENCY PACK. THE FITTINGS ARE TO BE NON MAINTAINED WITH ALL LAMPS SWITCHED AS PER THE LIGHTING CONTROL FOR THAT SPACE UNLESS NOTED OTHERWISE. REFER TO THE SPECIFICATION FOR FURTHER DETAILS OF THE CONFIGURATION AND SWITCHING OF EMERGENCY LIGHTS.		
 EX	LED	EXIT LIGHT: MAINTAINED 24M VIEWING DISTANCE EXIT LIGHT C/W DIFFUSERS & DIRECTIONAL ARROWS AS SHOWN AND A IP65 HOUSING CEILING MOUNT COORDINATED WITH THE WASHTEC EQUIPMENT AND SERVICES ON SITE. AS2293 CLASSIFICATION C0-D3.2 - C90-E2.	WHITE LOGO GREEN BACKGROUND WHITE BODY	STANILITE LED LEGEND QUICKFIT WEATHERPROOF PWQFLEDP
 IP66		SINGLE IP66 POWER OUTLET	WHITE UNLESS NOTED AS BLACK (BK)	CLIPSAL 56C315-CG
 BOLLARD		CUSTOM MADE FULLY WELDED HOT DIPPED GALVANIZED STEEL BOLLARD C/W MOUNTING PLATE BOLTED TO THE FLOOR WITH FACILITY FOR THE CLIPSAL IP66 OUTLET TO BE MOUNTED AT 900. PROVIDE A SHOP DRAWING OF THE BOLLARD FOR APPROVAL. PROVIDE EACH BOLLARD WITH A DEDICATED SPARE 32DIA CONDUIT C/W DRAW WIRE TO EDB FOR FUTURE CIRCUIT UPGRADE.		
 DOUBLE POWER OUTLET		DOUBLE 10 AMP POWER OUTLET MOUNTED WITHIN THE COMMUNICATIONS RACK	WHITE	CLIPSAL STANDARD SERIES FACEPLATE
 SINGLE-PHASE ISOLATOR		SINGLE-PHASE WEATHERPROOF ISOLATOR. MOUNT AT 1350mm AFFL U.N.O. RATING 20A U.N.O. CONNECT TO EQUIPMENT VIA FLEXIBLE CONDUIT.	-	CLIPSAL WHT20
 THREE-PHASE ISOLATOR		THREE-PHASE WEATHERPROOF ISOLATOR. MOUNT AT 1350mm AFFL U.N.O. RATING 20A U.N.O. CONNECT TO EQUIPMENT VIA FLEXIBLE CONDUIT.	-	CLIPSAL WHT35
 CCTV POINT		RJ45 CAT-6 CABLE TO BE COILED IN A FLUSH RECESSED IP65 JUNCTION BOX WITH A MALE RJ45 PLUG FOR CONNECTION TO A CCTV CAMERA BY THE SECURITY CONTRACTOR. CABLE THE CCTV POINT BACK TO COMMUNICATIONS RACK CR-A TERMINATED ONTO PATCH PANELS VIA 4-PAIR CAT-6 TWISTED PAIR CABLE.		
 CR-A		EXISTING LEVEL 1 COMMUNICATIONS RACK TO BE PROVIDED WITH A FOBOT TO ACCOMMODATE THE NEW FIBRE OPTIC CABLE TO CR-CW. CONFIRM THE LOCATION OF EXISTING RACK ON SITE.		
 CR-CW		PROVIDE CR-A AS A NEW 12 RU 600 DEEP WALL MOUNTED HINGED COMMUNICATIONS RACK C/W A KEY LOCKABLE DOOR. PROVIDE THE RACK WITH A FOBOT TO ACCOMMODATE THE FIBRE OPTIC CABLE FROM CR-A AND CAT 6 PATCH PANELS TO ACCOMMODATE THE COMMUNICATIONS OUTLETS AND CCTV POINTS. PROVIDE THE RACK WITH A 6 X 10 AMP REAR MOUNTED POWER BOARD. PROVIDE NEW CABLE ACCESS INCLUDING NEW UNDERGROUND CONDUITS TO INSTALL THE OPTICAL FIBRE CABLE FROM CR-A TO CR-CW. LOCATE CR-CW AT HIGH LEVEL COORDINATED ON SITE WITH THE WASHTEC EQUIPMENT AND SERVICES. ENSURE ALL UNDERGROUND CONDUITS ARE A MINIMUM OF 50 DIA AND INCLUDE 100% SPARE CAPACITY.		
 EDB		NEW CAR WASH DISTRIBUTION BOARD EDB REFER TO THE NOTES AND DISTRIBUTION BOARD EDB SCHEDULE FOR ADDITIONAL INFORMATION AND REQUIREMENTS. PROVIDE A SHOP DRAWING OF THE DB FOR APPROVAL. PROVIDE NEW CABLE ACCESS INCLUDING NEW UNDERGROUND CONDUITS TO INSTALL THE NEW SUBMAIN FROM THE MSB TO THE EDB. ENSURE ALL UNDERGROUND CONDUITS ARE A MINIMUM OF 100 DIA AND INCLUDE 100% SPARE CAPACITY.		
 DB-B		EXISTING DISTRIBUTION BOARD. REMOVE THE EXISTING CAR WASH SUPPLY AND ASSOCIATED CIRCUIT BREAKER FROM DB-B AND UPDATE THE LEGEND / LABELLING.		
 MSB		EXISTING MAIN SWITCHBOARD PROVIDE A NEW CIRCUIT BRAKER AS PER THE NOTES TO SUPPLY THE NEW EDB SUBMAIN. UPDATE THE MSB LABELLING AND SCHEDULE ONCE THE NEW CIRCUIT BREAKER IS INSTALLED.		

NOTES

1. EXTENT OF WORKS

THE ELECTRICAL SERVICES SUB-CONTRACT INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING:
 - SUPPLY AND INSTALLATION OF ALL COMPONENTS FORMING PART OF THE ELECTRICAL SERVICES.
 - CO-ORDINATION.
 - INSPECTIONS.
 - TESTING AND COMMISSIONING.
 - MAINTENANCE.
 - CABLING, CABLE SUPPORT SYSTEMS AND ACCESS.
 - POWER DISTRIBUTION.
 - LIGHTING.
 - COMMUNICATIONS CABLING.
 - ALL MINOR COMPONENTS AND INCIDENTAL WORKS NOT SPECIFICALLY REFERRED TO, HOWEVER NECESSARY TO COMPLETE THE ELECTRICAL SERVICES INSTALLATION SUCH THAT IT IS HANDED OVER COMPLETE, OPERATIONAL AND FIT FOR THE INTENDED USE.

PRIOR TO COMMENCING WORK CONSULT SITE MANAGEMENT FOR ANY HAZARDOUS MATERIAL AND OR ASBESTOS REGISTERS AS WELL AS UNDERTAKE A THOROUGH INSPECTION OF THE SITE TO IDENTIFY ANY POTENTIAL HAZARDOUS MATERIALS, ASBESTOS AND HEALTH OR SAFETY RISKS. ADVISE THE CONTRACTOR OF ANY POTENTIAL HAZARDOUS MATERIALS, ASBESTOS AND HEALTH OR SAFETY RISKS IF IDENTIFIED AND DO NOT COMMENCE WORK UNTIL AN APPROPRIATE MANAGEMENT PLAN HAS BEEN DEVELOPED AND AGREED TO BY ALL PARTIES.

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 ALL WORKS THAT HAVE AN EFFECT ON OR WILL BE AFFECTED BY THE ELECTRICAL SERVICES.

REMOVE ALL OF THE EXISTING ELECTRICAL SERVICES THAT BECOME REDUNDANT DUE TO THE WORKS.

2. WORKMANSHIP

ENSURE THAT THE WORK IS PERFORMED BY THE HOLDER OF A CURRENT ELECTRICAL SUB CONTRACTOR 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 CABLING 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 AFFECTING EFFICIENCY AND RELIABILITY 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

IRRESPECTIVE 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.
 - 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 RESCUE AUTHORITY.

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 2.5mm² 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.

NOTES

6. POWER DISTRIBUTION

THE POWER DISTRIBUTION COMPONENT OF THIS CONTRACT INCLUDES A NEW 125 AMP THREE PHASE MINIATURE C120 CIRCUIT BREAKER ON THE EXISTING HYBRID CHASSIS IN THE MAIN SWITCHBOARD TO SUPPLY THE NEW CAR WASH DISTRIBUTION BOARD EDB VIA A 4 CORE 50mm² Cu XLPE / PVC + E SUBMAIN.

THE EXISTING CARWASH SUBMAIN FROM DB-B IS TO BE REMOVED ALONG WITH THE ASSOCIATED SWITCHGEAR.

THE POWER DISTRIBUTION COMPONENT OF THIS CONTRACT INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING EXTENT OF WORK:

- POWER DISTRIBUTION.
- ALL ELECTRICAL SERVICES DETAILED ON THE WASHTEC DRAWINGS AS BEING BY THE CONTRACTOR.
- EARTHING.
- REMOVAL OF EXISTING CARWASH SUBMAIN.
- MSB CIRCUIT BREAKER.
- MSB LABELLING.
- CABLE ACCESS WAYS INCLUDING UNDERGROUND CONDUIT BETWEEN THE EXISTING BUILDING AND THE CARWASH.
- SUBMAIN FROM THE MSB TO THE CARWASH.
- CARWASH DISTRIBUTION BOARD EDB.
- CIRCUITS.
- ISOLATORS AND OUTLETS.
- TESTING AND COMMISSIONING.

ENSURE THAT POWER IS MAINTAINED TO THE REMAINING PARTS OF THE BUILDING THAT ARE NOT PART OF THE WORKS BETWEEN 6.00AM AND 11.00PM. ANY INTERRUPTIONS TO THE POWER SUPPLY MUST BE LIMITED TO LESS THAN FOUR HOURS BETWEEN 11.00PM AND 6.00AM AND THE OPERATOR MUST BE PROVIDED WITH TWO WEEKS NOTICE PRIOR TO THE INTERRUPTION.

THE NEW CARWASH DISTRIBUTION BOARD EDB IS TO BE PROVIDED AS PART OF THE ELECTRICAL SCOPE AS/WITH:

- SHOP DRAWINGS FOR APPROVAL.
- LIGHT GREY ENCLOSURE.
- WHITE ESCUTCHEONS WITH LIFT OFF HINGES AND 1/4 TURN LATCHES TO SECURE THE ESCUTCHEON THAT REMAIN PART OF THE ESCUTCHEON.
- DOORS ARE NOT REQUIRED.
- IP56
- FORM 1
- ENSURE ALL CABLE CONNECTIONS CAN BE THERMALLY SCANNED WITHOUT ISOLATING THE POWER

REFER TO THE DISTRIBUTION BOARD SCHEDULE FOR ADDITIONAL REQUIREMENTS.

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.
- LAMPS.
- EARTHING OF THE LIGHTING INSTALLATION.
- LIGHTING CONTROL.
- LIGHTING SUBCIRCUITS.
- TESTING AND COMMISSIONING.

8. COMMUNICATIONS

THE COMMUNICATIONS CABLING COMPONENT OF THIS CONTRACT INCLUDES THE PROVISION OF A FOBOT IN THE EXISTING COMMUNICATIONS RACK ON LEVEL 1 OF THE MAIN BUILDING AND A 6 COPE OS1 UNDERGROUND FIBRE OPTIC CABLE FULLY TERMINATED WITH LC CONNECTORS TO A NEW COMMUNICATIONS RACK CR-CW IN THE CAR WASH BUILDING. CAT 6 CCTV POINTS IN THE CAR WASH BUILDING ARE TO BE RUN TO MODULAR PATCH PANEL IN CR-CW. THE CCTV CAMERAS AND ALL ACTIVE EQUIPMENT WILL BE PROVIDED BY THE OPERATORS SPECIALIST CONTRACTOR. THE COMMUNICATIONS CABLING COMPONENT OF THIS CONTRACT INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING EXTENT OF WORK:
 - PROVISION OF A FOBOT IN CRA.
 - A NEW RACK IN THE CAR WASH CR-CW.
 - A NEW OPTICAL FIBRE CABLE FROM CR-A TO CR-CW.
 - REMOVAL OF EXISTING REDUNDANT CABLING.
 - NEW CCTV POINTS WITHIN THE CARWASH.
 - CABLE ACCESS INCLUDING UNDERGROUND CONDUITS FOR THE OPTICAL FIBRE CABLE.
 - TESTING AND COMMISSIONING.

9. ABBREVIATIONS

- A - AMP CURRENT RATING
- AB - MOUNT ABOVE BENCH.
- AFFL - ABOVE FINISHED FLOOR LEVEL.
- BB - MOUNT BELOW BENCH.
- BH - MOUNT ON BULKHEAD.
- CEIL - MOUNT ON CEILING.
- CS - MOUNT WITHIN CEILING SPACE.
- C/W - COMPLETE WITH.
- MCB - MINIATURE CIRCUIT BREAKER.
- MSB - MAIN SWITCHBOARD.
- N - NEON / LED INDICATOR WHEN ON.
- NTS - NOT TO SCALE.
- RCBO - CIRCUIT PROTECTED VIA A 30mA RESIDUAL CURRENT DEVICE INTEGRAL TO THE CIRCUIT BREAKER. 3-PHASE RCBO TO BE 4-POLE.
- SUS - MOUNT SUSPENDED FROM CEILING.
- UNO - UNLESS NOTED OTHERWISE.
- WP - WEATHERPROOF TO IP56 UNO.
- 500 - NUMBER DENOTES MOUNTING HEIGHT AFFL.

B	CONSTRUCTION	04/08/2023
REV:	DESCRIPTION:	DATE:

DRAWING:
ELECTRICAL SERVICES
LEGEND AND NOTES

SCALE: NOT TO SCALE AT A1	PROJECT NO: C3001a	DRAWING NO: E01	REVISION: B
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USE FIGURED DIMENSIONS IN PREFERENCE TO SCALE.

ALL DIMENSIONS TO BE VERIFIED ONSITE.

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PROJECT:
VON BIBRA - ROBINA CAR WASH

7-11 BRABHAM CIRCUIT, ROBINA, GOLD COAST