### 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.

INSPECTIONS. TESTING AND COMMISSIONING.

MAINTENANCE.

- CABLING, CABLE SUPPORT SYSTEMS AND ACCESS. POWER DISTRIBUTION.

 LIGHTING. - FIRE ALARM SYSTEM.

- GAMING POWER AND COMMUNICATIONS CONDUITS CHASED INTO THE EXISTING SLAB. - MODIFICATION, RELOCATION AND EXTENSION AS NECESSARY OF ALL EXISTING SERVICES THAT ARE IMPACTED BY THE WORKS OR REQUIRED TO BE EXTENDED BY THE WORKS.

- REMOVAL OF ALL EXISTING SERVICES MADE REDUNDANT BY THE WORKS.

- AS CONSTRUCTED DOCUMENTS. - ANY TEMPORARY WORKS REQUIRED TO KEEP THE HOTEL OPERATING DURING THE

CONSTRUCTION PROCESS. - 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.

UNDERTAKE THE WORKS IN STAGES REFLECTING THE MAIN CONTRACT

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

REFER TO THE EQUIPMENT SCHEDULE FOR ADDITIONAL REQUIREMENTS

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 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.

– 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.

# NOTES

5. CABLES

UNLESS OTHERWISE SPECIFIED, INSTALL AND TERMINATE CABLES IN ACCORDANCE WITH THE PROVIDE A SINGLE POINT EMERGENCY LIGHTING SYSTEM THAT COMPLIES WITH THE LATEST MANUFACTURERS' RECOMMENDATIONS. DETERMINE THE FINAL ROUTES TO SUIT THE BUILDING ISSUE OF ALL PARTS AS2293 AND THE RELEVANT PARTS OF THE NCC BCA. INSTALL STRUCTURE AND SITE CONDITIONS. UNLESS NOTED OTHERWISE, PROVIDE ALL 240 VOLT POWER EMERGENCY LIGHT FITTINGS NOMINATED AS MAINTAINED WITH THE LAMP PERMANENTLY ON AND LIGHTING WIRING AS 2.5mm<sup>2</sup> TWIN & EARTH STRANDED COPPER CONDUCTORS, PVC INSULATED SUPPLIED VIA AN UNSWITCHED ACTIVE MAINS SUPPLY WHEN THE MAINS SUPPLY IS AVAILABLE. WHEN THE MAINS SUPPLY IS NOT AVAILABLE, THE LAMP IS TO REMAIN ON 0. 6/1kV V75 GRADE TO AS3174. PROTECTED BY A 20 AMP CIRCUIT BREAKER. ALL CONDUIT SUPPLIED BY THE EMERGENCY PACK. SINGLE LAMP MAINTAINED EMERGENCY LIGHTS ARE AND FITTINGS TO BE RIGID UPVC TO AS2053, UNLESS NOTED OTHERWISE.

6. POWER DISTRIBUTION

THE POWER DISTRIBUTION COMPONENT OF THIS CONTRACT INCLUDES: - PROVIDING A NEW DISTRIBUTION BOARD DB-A. (GAMING) - THE EXISTING DISTRIBUTION BOARD DB-G AND ALL ASSOCIATED LOAD CENTRES / DIMMERS AND CONTROLS TO BE REMOVED. ANY EXISTING CIRCUITS THAT REMAIN ARE TO BE RESUPPLIED FROM THE NEW DB-A VIA NEW AS3000 COMPLIANT SWITCHGEAR WITH THE SAME CAPACITY AND CONTROL FUNCTION AS THE ORIGINAL. - REMOVE ALL EXISTING CIRCUITS AND ASSOCIATED CABLING FROM DB-T THAT BECOMES REDUNDANT DUE TO THE PROPOSED WORKS. - PROVIDE THE DB-T MCCB CHASSIS WITH A NEW MCCB TO SUPPLY DB-A. PROVIDE A SUBMAIN FROM THE NEW MCCB TO DB-A. ALL OF THE EXISTING SWITCHBOARDS, CIRCUITS, CABLING AND OUTLETS THAT BECOME REDUNDANT ARE TO BE REMOVED. - THE EXISTING CIRCUITS THAT REMAIN WITHIN THE AREA OF WORKS ARE TO BE RECONNECTED TO THE DB-A WITH NEW SWITCHGEAR AND CONTROLS. - ANY INTERRUPTION TO THE POWER SUPPLY TO ANY SERVICES OUTSIDE OF THE AREA OF WORKS MUST BE RESTRICTED TO OUTSIDE OF THE HOTELS OPERATING HOURS AND MUST BE ADVISED TO THE OPERATOR IN WRITING AT LEAST ONE WEEK PRIOR.

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

- POWER DISTRIBUTION. - NEW SWITCHBOARDS, SUBMAINS AND CIRCUIT BREAKERS. - CABLE ACCESS WAYS.

- CIRCUITS.
- ISOLATORS AND OUTLETS.
- TESTING AND COMMISSIONING. - REMOVAL OF ALL EXISTING REDUNDANT SERVICES.
- RECONNECTION OF ALL EXISTING SERVICES THAT REMAIN.

DETAILS.

- PROVIDE DISTRIBUTION BOARD DB-A AS FOLLOWS:
- WALL MOUNTED. - EACH CUBICAL IS TO HAVE A MINIMUM WIDTH OF 700MM.
- IP44 FORM 1.
- LIGHT GREY ENCLOSURE WHITE ESCUTCHEON.
- 3 POINT LOCKABLE HANDLES ON ALL DOORS. - LIFT OFF HINGES ON ALL DOORS AND ESCUTCHEONS.
- 1/4 TURN LATCHES AND D HANDLES ON ALL ESCUTCHEONS.
- ALL SWITCHGEAR TO BE SCHNEIDER OR NHP/ TERASAKI.
- PROVIDE SHOP DRAWINGS FOR APPROVAL.
- 25% SPARE POLES AT PRACTICAL COMPLETION. - ALL COMPONENTS ARE TO BE LABELLED WITH NON-STICK LABELS.

ENSURE ALL THREE PHASE CIRCUITS ARE PROVIDED WITH CORRECT PHASE ROTATION.

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 TENANTS REPRESENTATIVE.

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. - CEILING FANS.
- HEATERS.
- LIGHT FITTINGS AND ACCESSORIES.
- EMERGENCY AND EXIT LIGHTING.
- EARTHING OF THE LIGHTING INSTALLATION. – LIGHTING CONTROL
- PHILIPS DYNALITE LIGHTING CONTROL SYSTEM.
- LIGHTING SUBCIRCUITS.

TESTING AND COMMISSIONING.

- RECONNECTION OF THE EXISTING LIGHTING THAT REMAINS. - REMOVAL OF ALL EXISTING REDUNDANT LIGHTING SERVICES INCLUDING THE REDUNDANT LIGHTING CONTROL SYSTEM.

COMMISSION THE LIGHTING CONTROL AT PRACTICAL COMPLETION AND AGAIN THREE TIMES DURING THE DEFECTS AND LIABILITY PERIOD TO THE SATISFACTION OF THE OPERATOR. DALI TO PHASE DIMMING CONVERTERS ARE NOT ACCEPTABLE.

# NOTES

REFER TO THE DISTRIBUTION BOARD SCHEDULES FOR ADDITIONAL REQUIREMENTS AND CIRCUIT

NOT SWITCHED WITH THE LOCAL GENERAL AREA LIGHTING. (THE LAMP IS ALWAYS ON.) INSTALL EMERGENCY LIGHT FITTINGS NOMINATED AS NON-MAINTAINED AS FOLLOWS: - IF THE FITTING IS NOT BEING SWITCHED, THE LAMP IS TO REMAIN OFF WHEN THE MAINS SUPPLY IS AVAILABLE. WHEN THE MAINS SUPPLY IS NOT AVAILABLE THE LAMP IS TO BE SWITCHED ON SUPPLIED BY THE EMERGENCY PACK. UNSWITCHED SINGLE LAMP NON-MAINTAINED EMERGENCY LIGHTS ARE NOT SWITCHED WITH THE LOCAL GENERAL AREA LIGHTING. (THE LAMP IS ON ONLY WHEN THE MAINS SUPPLY IS NOT AVAILABLE. - IF THE FITTING IS BEING SWITCHED, THE LAMP IS TO BE SUPPLIED AND CONTROLLED WITH THE LOCAL GENERAL AREA LIGHTING WHEN THE MAINS SUPPLY IS AVAILABLE. WHEN THE MAINS SUPPLY IS NOT AVAILABLE THE LAMP IS TO BE SWITCHED ON, SUPPLIED BY THE EMERGENCY PACK. (THE LAMP IS ON WHEN TURNED ON WITH THE LOCAL GENERAL LIGHTING OR THE MAIN SUPPLY IS NOT AVAILABLE.)

INSTALL EMERGENCY LIGHTS SUCH THAT THE STATUS INDICATOR L.E.D. IS CLEARLY VISIBLE AND THE TEST BUTTONS ARE READILY ACCESSIBLE. LABEL EACH CIRCUIT BREAKER WHICH CONTROLS THE UNSWITCHED ACTIVE TO EXIT LIGHTS WITH A LABEL FIXED ADJACENT: ENGRAVED PLASTIC LAMINATE, GREEN BACKGROUND WITH WHITE CHARACTERS: -

WARNING INTERRUPTING SUPPLY WILL DISCHARGE EMERGENCY LIGHTING BATTERIES

8. EMERGENCY AND EXIT LIGHTING

PROVIDE WRITTEN EVIDENCE OF THE INITIAL COMMISSIONING AND TESTING AND TESTING FOR THE DURATION OF THE MAINTENANCE PERIOD IN ACCORDANCE WITH AS 2293.2.

THIS EVIDENCE IS TO BE IN THE FORM OF A LOG BOOK SIMILAR TO THE GENERAL LIGHTING SERVICE PTY LTD "EMERGENCY LIGHTING MAINTENANCE LOG BOOK AND MANUAL WHICH IS TO BE PROVIDED BY THE ELECTRICAL SUB-CONTRACTOR AND HAVE ALL ENTRIES FULLY COMPLETED AND BE PRESENTED FOR INSPECTION AT PRACTICAL COMPLETION. THE LOG BOOK IS TO BE RETAINED BY THE ELECTRICAL SUB-CONTRACTOR FOR THE DURATION OF THE MAINTENANCE PERIOD, AND THE SIX MONTHLY TEST AND MAINTENANCE RESULTS ENTERED. THE LOG BOOK IS TO BE PRESENTED FOR APPROVAL AT FINAL COMPLETION (EXPIRY OF THE MAINTENANCE PERIOD) AND WILL BE FORWARDED TO THE OPERATOR FOR THEIR USE.

PROVIDE MAINTENANCE OF THE EMERGENCY AND EXIT LIGHTING INSTALLATION INCLUDING RECORDS IN ACCORDANCE WITH THE LATEST ISSUE OF ALL PARTS AS2293 AND THE RELEVANT PARTS OF THE NCC BCA. PROVIDE THE EMERGENCY LIGHTING SYSTEM WITH A SUPPLY SENSING AND TESTING FACILITY IN ACCORDANCE WITH AS 2293. 1.

9. FIRE ALARM SYSTEM.

THE FIRE ALARM SYSTEM COMPONENT OF THIS CONTRACT INCLUDES THE REPLACEMENT OF THE ENTIRE EXISTING FIRE ALARM SYSTEM THROUGHOUT THE RENOVATED AREAS INCLUDES REPLACING THE EXISTING FIP WITH A NEW LOCAL ALARM ONLY AMPAC FIRE FINDER PLUS FIRE INDICATOR PANEL. THE EXISTING DETECTION AND SPEAKERS OUTSIDE OF THE RENOVATED AREAS ARE TO BE RECONNECTED AND REPLACED WITH NEW IF THEY ARE NOT COMPATIBLE WITH THE NEW FIRE ALARM SYSTEM. THE NEW FIRE ALARM SYSTEM IS TO BE PROVIDED AS AN AS1670. 1 COMPLIANT ADDRESSABLE SYSTEM. THE FIRE ALARM SYSTEM COMPONENT OF THIS CONTRACT INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING EXTENT OF WORK:

- REPLACING THE FIRE INDICATOR PANEL INCORPORATING AN FDCIE AND EWCIE. HORNS AND SPEAKERS.

- VISUAL ALARM DEVICE IF THE EXISTING IS DAMAGED OR NOT COMPATIBLE WITH THE NEW SYSTEM. - LIFT SHAFT ASPIRATING SMOKE DETECTION.

- SMOKE DETECTORS.
- THERMAL DETECTORS
- CONCEALED SPACE DETECTORS. - CONCEALED SPACE DETECTOR ACCESS.

- REPLACE THE EXISTING DETECTORS AND SPEAKERS IF THE EXISTING IS DAMAGED OR NOT COMPATIBLE WITH THE NEW SYSTEM.

- WALL MOUNTED ENGRAVED ZONE PLAN ADJACENT THE FIP. CABLING.
- INTERFACE TO THE KITCHEN GAS CONTROL SYSTEMS.
- INTERFACE TO THE SECURITY SYSTEM. - INTERFACE TO THE AUDIO SYSTEM.
- CABLE ACCESS WAYS.
- TESTING AND COMMISSIONING.

ANY INTERRUPTION TO THE EXISTING FIRE ALARM SYSTEM MUST BE RESTRICTED BETWEEN 9. OOAM AND 4. OOPM MONDAY TO FRIDAY AND MUST BE ADVISED TO THE OPERATOR IN WRITING AT LEAST ONE WEEK PRIOR.

- 10. 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. DW – DISHWASHER.
- HP HOT PLATE.
- HWS HOT WATER SYSTEM MCB – MINIATURE CIRCUIT BREAKER.
- MSB MAIN SWITCHBOARD.
- MSSB MECHANICAL SERVICES SWITCHBOARD. MW - MICROWAVE.
- N NEON / LED INDICATOR WHEN ON.
- NTS NOT TO SCALE. OV – OVEN.
- QDC QUEENSLAND DEVELOPMENT CODE.
- RCBO CIRCUIT BREAKER C/W AN INTEGRAL 30mA RESIDUAL CURRENT DEVICE.
- RCD CIRCUIT PROTECTED VIA A 30mA RESIDUAL CURRENT DEVICE. REF – REFRIGERATOR.
- UNO UNLESS NOTED OTHERWISE.
- WP WEATHERPROOF TO IP56 UNO.
- 500 NUMBER DENOTES MOUNTING HEIGHT AFFL.

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USE FIGURED DIMENSIONS IN PREFERENCE TO SCALE.

ALL DIMENSIONS TO BE VERIFIED ONSITE.

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