

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.
- AS BUILT DRAWINGS.
- MAINTENANCE MANUAL.
- CABLING, CABLE SUPPORT SYSTEMS AND ACCESS.
- POWER DISTRIBUTION.
- LIGHTING.
- COMMUNICATIONS CABLING.
- PUBLIC ADDRESS SYSTEM.
- ACCESS CONTROL.
- INTRUDER DETECTION.
- FIRE ALARM SYSTEM.
- CERTIFIED FIRE RATING OF ALL PENETRATIONS THROUGH THE FLOOR SLABS.
- CORROSION PROTECTION
- ALL WORKS AND MATERIALS TO CREATE A SAFE WORK SITE INCLUDING RESTRICTING ACCESS TO NON-AUTHORISED PEOPLE.
- ALL MACHINERY REQUIRED TO COMPLETE THE INSTALLATION INCLUDING LIFTING AND HOISTING MACHINERY, TRANSPORTATION MACHINERY, WINCHES, FORKLIFTS. SCISSOR LIFTS, HOISTS, BOOMS, CHERRY PICKERS.
- ALL NECESSARY WASTE MANAGEMENT AND WASTE REMOVAL.
- 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.

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.

CONFIRM THE POSITION OF ALL OUTLETS ON SITE WITH THE COLLEGE PRIOR TO ROUGH-IN.

UPDATE THE COLLEGES EXISTING AS BUILT DOCUMENTS AND MAINTENANCE MANUAL TO INCLUDE THE NEW 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 CONDUITS WILL NEED TO BE INCLUDED WITHIN THE PRECAST PANELS. 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.

ALL WORK IS TO BE UNDERTAKEN IN SUCH A MANNER THAT THE OPERATION OF THE REMAINING COLLEGE AREAS ARE NOT UNDULY EFFECTED BY THE WORKS.

3. STANDARDS

IRRESPECTIVE OF INFORMATION CONTAINED IN THE FIRE ALARM SYSTEM DOCUMENTS OR IN INSTRUCTIONS, IT IS THE FIRE ALARM SYSTEM SUB CONTRACTOR'S RESPONSIBILITY TO ENSURE ALL FIRE ALARM SYSTEM WORKS ARE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE FOLLOWING. REFER ANY DISCREPANCIES BETWEEN THE REQUIREMENTS OF THE FOLLOWING AND/OR THE FIRE ALARM SYSTEM 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.
- FIRE ENGINEERING REPORT.
- ELECTRICITY ACT.
- ELECTRICAL SAFETY ACT.
- AS/NZS3000.
- AS3008.
- AS1670.1.
- AS/NZS 5033:2021.
- AS/NZS 4777.1:2024
- 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 WORKPLACE, HEALTH AND SAFETY AUTHORITY.
- LOCAL FIRE AND RESCUE AUTHORITY.
- SOLAR ACCREDITATION AUSTRALIA.

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 MODIFYING THE EXISTING MSB AND REPLACING THE TWIN OLD MSB WITH A NEW CUBICAL. THE EXISTING MSB IS TO BE KNOWN AS MSB-A AND THE NEW CUBICAL IS TO BE KNOWN ASS MSB-B. THE EXISTING MDB-8 SUBMAIN IS TO BE RELOCATED FROM MSB-A TO MSB-B. THE SPACE IN MSB-A CREATED BY THE RELOCATION OF THE MDB-8 SUBMAIN IS TO BE USED TO SUPPLY A NEW SUBMAIN TO THE NEW MDB-9. THE EXISTING MCCB SUPPLYING THE OLD MSB IS TO BE USED TO SUPPLY MSB-B VIA A NEW UNDERGROUND SUBMAIN. THE EXISTING MDB-5 AND MDB-7 SWITCHBOARDS AND ASSOCIATED SUBMAINS ARE TO BE REMOVED. THE EXISTING UNDERGROUND SUBMAINS FROM MDB-6, MDB-4, MDB-3, MDB-2 AND MDB-1 ARE TO BE REDIRECTED / EXTENDED TO MDB-B. THE MODIFICATIONS TO MSB-A DO NOT NEED TO COMPLY WITH AS61439. MDB-B IS TO CONTAIN A DISTRIBUTION BOARD DB-M. ALL EXISTING CIRCUITS SUPPLIED FROM THE OLD MSB THAT REMAIN ARE TO BE RESUPPLIED FROM DB-M VIA NEW AS3000 COMPLIANT SWITCHGEAR WITH SIMILAR CAPACITY AND FUNCTIONS AS THE EXISTING.

THE NEW MDB-9 IS TO BE USED TO SUPPLY NEW SWITCHBOARDS IN THE LIBRARY / BLOCK P.

TO FACILITATE THE CONSTRUCTION STAGING TEMPORARY SUBMAINS ARE REQUIRED FROM THE EXISTING MDB-7 TO DB-1 AND DB-2. AS PART OF THE MDB-9 WORKS THE TEMPORARY DB-1 AND DB-2 SUBMAINS ARE TO BE REMOVED AND NEW PERMANENT SUBMAINS ARE TO BE PROVIDED FROM MDB-9 TO DB-1 AND DB-2. THE EXISTING MDB-8 IS TO BE MODIFIED TO SUPPLY NEW SWITCHBOARDS IN BLOCK K.

PROVIDE AN ENERGY MONITORING SYSTEM AS PER J9D3 OF THE NCC BCA 2022 THAT COLLATES THE TIME-OF-USE ENERGY DATA TO A SINGLE INTERFACE WHERE IT CAN BE STORED, ANALYSED AND REVIEWED. SUBMIT DETAILS OF THE ENERGY MONITORING SYSTEM FOR APPROVAL.

PROVIDE A REINFORCED MASONRY INSITU PIT / TRENCH UNDER MSB-B AS PER THE MSB-B TRENCH DETAIL. REFER TO THE STRUCTURAL / CIVIL DOCUMENTS FOR THE NECESSARY DETAILS. PROVIDE AS PART OF THE ELECTRICAL WORKS THE SWITCHBOARD AND LID SUPPORT SYSTEM AND THE TRENCH LIDS. PROVIDE THE TRENCH LIDS AND STRUCTURAL SUPPORT SYSTEM AS HOT DIPPED GALVANISED STEEL. PROVIDE THE TRENCH LIDS WITH LIFTING HOLES CHECKER PLATE R10 ANTI SLIP PATTERNING WITH EACH PART NO HEAVIER THAN 20 kg. FIX THE LIDS IN PLACE SUCH THAT A TOOL IS REQUIRED TO REMOVE THEM. PROVIDE THE TRENCH WITH AN AUTOMATIC SUMP PUMP TO DRAIN TO THE STORMWATER SYSTEM. PROVIDE CABLE SUPPORTS WITHIN THE TRENCH TO ENSURE THAT THERE ARE NO CABLES WITHIN 50MM OF THE TRENCH FLOOR. THE PIT / TRENCH UNDER MSB-B WILL NEED TO BE CONSTRUCTED UNDER AND AROUND EXISTING LIVE CABLING WHICH WILL NEED TO BE ACCOMMODATED DURING EXCAVATION AND CONSTRUCTION.

THE EXISTING ART MSB IS TO REMAIN AS IS.

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

- POWER DISTRIBUTION.
- EARTHING.
- MSB-A MODIFICATIONS.
- NEW MSB-B.
- REMOVAL OF THE OLD MSB.
- NEW UNDERGROUND PIT AND CONDUIT SYSTEM.
- NEW SUBMAINS FROM THE MSB-A TO MDB-9.
- REDIRECTION / EXTENSION OF THE EXISTING SUBMAINS FROM THE OLD MSB SUPPLYING EXISTING MDBS THAT REMAIN TO MSB-B.
- NEW MAIN DISTRIBUTION BOARD MDB-9.
- ENERGY MONITORING SYSTEM.
- DISTRIBUTION BOARDS.
- SUBMAINS FROM MDB-8 AND MDB-9 TO THE ASSOCIATED DISTRIBUTION BOARDS, SOLAR INVERTERS AND THE MSSBS.
- PROVIDE AN INFRARED SCAN OF THE MSB AND ALL DISTRIBUTION BOARDS PROVIDED AS PART OF THE WORKS ONE WEEK AFTER PRACTICAL COMPLETION. PROVIDE A LOGGING CHART RECORDING OF THE DB-A MAINS CURRENT, VOLTAGE, FREQUENCY FOR THE FIRST 14 DAYS FOLLOWING PRACTICAL COMPLETION AND SUBMIT THE THERMOSCAN AND CHART RECORDING AND FOR APPROVAL.
- CIRCUITS.
- ISOLATORS AND OUTLETS.
- EMERGENCY SHUT OFFS.
- TESTING AND COMMISSIONING.
- SWITCHBOARD SHOP DRAWING.

PROVIDE THE MAIN SWITCHBOARD (MSB-B) AS FOLLOWS:

- REFER TO THE POWER SCHEMATIC.
- PLINTH MOUNTED FREE STANDING.
- 92268 KEY LOCKABLE IP66 316 STAINLESS STEEL FINISHED TO MATCH THE EXISTING MSB-A FINISH.
- INTERNAL TEMPERATURE CONTROLLED ANTI CONDENSATION HEATERS IN EACH CUBICAL.
- ENSURE MSB-B IS DESIGNED TO OPERATE IN DIRECT SUNLIGHT WITH AN AMBIENT TEMPERATURE OF 40 DEGREES.
- WHITE ESCUTCHEON.
- BOTTOM ENTRY CABLE ACCESS ONLY.
- SUN / RAIN HOOD.
- 36 POLE 250A 3 PHASE VERTICAL DIN STYLE CHASSIS DISTRIBUTION BOARD DB-M INTEGRAL TO THE MSB-B.
- TWO 600 WIDE HORIZONTAL DIN RAILS.
- DOORS ON ALL CUBICLES WITH 3 POINT 92268 KEY LOCKABLE HANDLES.
- LIFT OFF HINGES ON ALL DOORS AND ESCUTCHEONS.
- 1/4 TURN LATCHES AND D HANDLES ON ALL ESCUTCHEONS.
- ALL SWITCHGEAR TO BE NHP/TERASAKI.
- TWO 92268 KEYS.

PROVIDE THE MDB-9 AS FOLLOWS:

- REFER TO THE POWER SCHEMATIC.
- PLINTH MOUNTED FREE STANDING.
- IP44 WILD STEEL LIGHT GRAY ENCLOSURE.
- WHITE ESCUTCHEON.
- BOTTOM ENTRY CABLE ACCESS ONLY.
- SUN / RAIN HOOD.
- LIFT OFF HINGES ON ALL DOORS AND ESCUTCHEONS.
- 1/4 TURN LATCHES AND D HANDLES ON ALL ESCUTCHEONS.
- ALL SWITCHGEAR TO BE NHP/TERASAKI.

PROVIDE THE DISTRIBUTION BOARDS AS FOLLOWS:

- REFER TO THE POWER SCHEMATIC.
- REFER TO THE DISTRIBUTION BOARD SCHEDULES.
- WALL MOUNTED.
- 92268 KEY LOCKABLE.
- IP44 WILD STEEL LIGHT GRAY ENCLOSURE.
- WHITE ESCUTCHEON.
- LIFT OFF HINGES ON ALL DOORS AND ESCUTCHEONS.
- 1/4 TURN LATCHES AND D HANDLES ON ALL ESCUTCHEONS.
- ALL SWITCHGEAR TO BE NHP/TERASAKI.
- FIXED LABEL DETAILING THE SOURCE LOCATION, SOURCE CABLE TYPE, SIZE AND LENGTH AND THAT CASCADING IS UTILISED TO ACHIEVE THE FAULT CURRENT REQUIREMENTS.
- PROVIDE SHOP DRAWINGS FOR APPROVAL.

THE POWER SUPPLY TO THE REMAINDER OF THE COLLEGE MUST BE MAINTAINED AT ALL TIMES THE COLLEGE IS OPEN INCLUDING THE AFTER HOURS CARE. ANY INTERRUPTION TO THE POWER SUPPLY MUST BE ADVISED TO THE COLLEGE IN WRITING TWO WEEKS PRIOR.

REFER TO THE POWER SCHEMATIC AND DISTRIBUTION BOARD SCHEDULES FOR ADDITIONAL REQUIREMENTS AND CIRCUIT DETAILS.

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 COLLEGE.

NOTES

7. LIGHTING

THE LIGHTING COMPONENT OF THIS CONTRACT INCLUDES INTERNAL LIGHTING TO ALL AREAS OF THE BUILDING, EXTERNAL LIGHTING, GENERAL LIGHTING CONTROL, EMERGENCY AND EVACUATION LIGHTING AND THE LIGHTING SUB CIRCUIT WIRING. ALL OF THE LIGHT FITTINGS AND ACCESSORIES ARE TO BE PROVIDED AS PART OF THIS CONTRACT. ALL LIGHT SOURCES ARE TO BE SOLID STATE LED WITH A 5-YEAR MANUFACTURERS WARRANTY. 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:

- INTERNAL AND EXTERNAL LIGHTING.
- EMERGENCY AND EXIT LIGHTING.
- EARTHING OF THE LIGHTING INSTALLATION.
- LIGHTING CONTROL.
- INTERFACE THE INTERNAL LIGHTING TO THE SECURITY SYSTEM SUCH THAT WHEN THE SECURITY SYSTEM IS ARMED THE INTERNAL LIGHTS ARE DISABLED / OFF.
- LIGHTING SUBCIRCUITS.
- TESTING AND COMMISSIONING.

RESUPPLY ALL EXISTING BLOCK K LIGHTING THAT REMAINS FROM DB-K1 WITH NEW SWITCHGEAR AND CONTROLS WITH THE CAPACITY AND FUNCTION OF THE ORIGINAL.

INTERNAL LIGHT FITTINGS THAT ARE ON CIRCUITS NOT CONTROLLED BY THE SECURITY SYSTEM OR DO NOT HAVE ANY FORM OF LOCAL CONTROL ARE TO OPERATE PERMANENTLY FOR SECURITY / SAFETY. INTERNAL LIGHT FITTINGS THAT ARE ON CIRCUITS CONTROLLED BY THE SECURITY SYSTEM AND DO NOT HAVE ANY FORM OF LOCAL CONTROL ARE TO OPERATE AUTOMATICALLY WHEN THE SECURITY IS DISABLED.

PROVIDE A SINGLE POINT EMERGENCY LIGHTING SYSTEM THAT COMPLIES WITH THE LATEST ISSUE OF ALL PARTS AS2293 AND THE RELEVANT PARTS OF THE NCC BCA. INSTALL EMERGENCY LIGHT FITTINGS NOMINATED AS MAINTAINED WITH THE LAMP PERMANENTLY ON 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 SUPPLIED BY THE EMERGENCY PACK. SINGLE LAMP MAINTAINED EMERGENCY LIGHTS ARE 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

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

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.

8. COMMUNICATIONS CABLING

THE COMMUNICATIONS CABLING COMPONENT OF THIS CONTRACT INCLUDES A NEW COMMUNICATION RACK CR-P TO SUPPORT CAT 6A RJ45 OUTLETS CABLED TO MODULAR PATCH PANELS IN THE COMMUNICATIONS RACK CR-A VIA CAT 6A UTP CABLING. PROVIDE THE FOLLOWING THE EXISTING RACKS CRHS, CRGB AND THE NEW RACK CR-P WITH 12 CORE OS2 OPTICAL FIBRE CABLES FULLY TERMINATED WITH LC CONNECTORS RUN BACK TO THE EXISTING SERVER RACK CR-CORE. THE FOLLOWING EXISTING FIBRE CABLES ARE TO BE REMOVED:

- CR-K TO CR-P17.
- CR-CORE TO CR-P11.
- CR-CORE TO CR-IT.
- CR-IT TO CR- H5.
- CR-IT TO CR-G8.
- CR-G8 TO CR-G6.

THE EXISTING COMMUNICATIONS RACK CR-CORE IS TO BE PROVIDED WITH ADDITIONAL PATCH PANELS AS NECESSARY TO ACCOMMODATE THE BLOCK L COMMUNICATIONS OUTLETS. THE NEW CR-CORE PATCH PANELS ARE TO BE LOCATED AS DIRECTED BY THE COLLEGES IT STAFF.

THE LIBRARY COMMUNICATIONS OUTLETS ARE TO BE CABLED BACK TO CR-CORE. BLOCK I COMMUNICATIONS OUTLETS ARE TO BE CABLED BACK TO CR-P. THE BLOCK K COMMUNICATIONS OUTLETS ARE TO BE CABLED BACK TO THE EXISTING RACK CR-K.

PROVIDE THE COMMUNICATIONS SYSTEM AS A PROPRIETY MOLEX STRUCTURED CABLING SYSTEM WITH A COMPONENT MANUFACTURERS 25-YEAR WARRANTY OVER THE COMMUNICATIONS INSTALLATION. INCLUDE A COPY OF THE PROPRIETY STRUCTURED CABLING SYSTEM MOLEX MANUFACTURERS WARRANTY IN THE OPERATIONS AND MAINTENANCE MANUAL.

THE CCTV UTP CABLING IS TO BE WIRED TO DEDICATED CCTV PATCH PANELS UTILISING A UNIQUELY COLOURED UTP CABLE OF WHICH THE COLOUR IS TO BE CONFIRMED WITH THE COLLEGES IT STAFF.

PROVIDE A DIGITAL FREE TO AIR TELEVISION ANTENNA ON THE LIBRARY SERVICING A TV OUTLET IN CR-COREK.

AS PART OF THE COMMUNICATIONS CABLING COMPONENT OF THIS CONTRACT PROVIDE CAT 6 RJ45 CCTV ACCESS CONTROL GATEWAY PLUGS AS WELL AS THE ACCESS CONTROL CABLING. THE COMMUNICATIONS CABLING COMPONENT OF THIS CONTRACT INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING EXTENT OF WORK:

- COMMUNICATIONS OUTLETS AND CABLING.
- CCTV PLUGS AND CABLING.
- ACCESS CONTROL CABLING.
- COMMUNICATIONS RACK CR-P.
- PATCH PANELS.
- FIBOT.
- OPTICAL FIBRE CABLES.
- TV ANTENNA AND OUTLET.
- ACCESS CONTROL CABLING.
- LABELLING.
- CABLE ACCESS WAYS.
- TESTING AND COMMISSIONING.

ENSURE THE ACCESS CONTROL CABLING IS COORDINATED WITH THE REQUIREMENTS OF THE NOMINATED ACCESS CONTROL SUB-CONTRACTOR AND DOES NOT EXCEED THE SALTO APPROVED LENGTHS.

ALL COMMUNICATIONS CABLING IS TO BE UNDERTAKEN BY AN ACMA LICENCE HOLDER. THE PATCH LEADS, FLY LEADS, UPS, VAPE SENSORS, CCTV CAMERAS AND ACTIVE COMMUNICATIONS EQUIPMENT WILL BE PROVIDED BY THE COLLEGE.

NOTES

9. PUBLIC ADDRESS SYSTEM

THE PUBLIC ADDRESS SYSTEM COMPONENT OF THIS CONTRACT INCLUDES MULTI TAP 100V SPEAKERS AND HORNS CABLED TO POWER AMPLIFIERS MOUNTED WITH IN THE TOP OF THE NOMINATED COMMUNICATIONS RACKS. PROVIDE A TEMPORARY MUSIC SOURCE TO AIM / BALANCE THE SPEAKERS AND HORNS ON SITE AS DIRECTED BY THE COLLEGE.

PROVIDE THE FOLLOWING AMPLIFIERS / ZONES: BUILDING I – EXTERNAL LOCATED IN CR-P. BUILDING I – LOWER GROUND STUDENT ACCESSIBLE SPACES LOCATED IN CR-P. BUILDING I – GROUND STUDENT ACCESSIBLE SPACES LOCATED IN CR-P. BUILDING I – LEVEL 1 STUDENT ACCESSIBLE SPACES LOCATED IN CR-P. BUILDING I – COMMON TO ALL LEVELS NON STUDENT ACCESSIBLE SPACES LOCATED IN CR-P. BUILDING L – EXTERNAL LOCATED IN CR-CORE. BUILDING L – LOWER GROUND STUDENT ACCESSIBLE SPACES LOCATED IN CR-CORE. BUILDING L – GROUND STUDENT ACCESSIBLE SPACES LOCATED IN CR-CORE. BUILDING L – COMMON TO ALL LEVELS NON STUDENT ACCESSIBLE SPACES LOCATED IN CR-CORE. BUILDING K – EXTERNAL LOCATED IN CR-K. BUILDING K – INTERNAL LOCATED IN CR-K.

RESUPPLY ALL EXISTING BLOCK K SPEAKERS THAT REMAIN FROM THE NEW BUILDING K AMPLIFIERS.

ALL AMPLIFIERS ARE TO BE SIZED SUCH THAT THEY ARE ONLY LOADED TO 75% WHEN ALL OF THE CONNECTED SPEAKERS AND HORNS ARE TAPPED AT 100% WITH MAXIMUM VOLUME.

THE PUBLIC ADDRESS SYSTEM COMPONENT OF THIS CONTRACT INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING:

- SPEAKERS AND HORNS.
- RACK MOUNTED AMPLIFIERS.
- CO-ORDINATION.
- TESTING, COMMISSIONING AND BALANCING.
- MAINTENANCE.
- AS CONSTRUCTED DOCUMENTS INCLUDING DRAWINGS DETAILING THE LOOP PATH OF EACH SPEAKER CABLE.
- OPERATION AND MAINTENANCE MANUAL.
- CABLING, CABLE SUPPORT SYSTEMS AND ACCESS.
- ALL MINOR COMPONENTS AND INCIDENTAL WORKS NOT SPECIFICALLY REFERRED TO, HOWEVER NECESSARY TO COMPLETE THE PUBLIC ADDRESS SYSTEM INSTALLATION SUCH THAT IT IS HANDED OVER COMPLETE, OPERATIONAL AND FIT FOR THE INTENDED USE.

ALL PUBLIC ADDRESS SYSTEM WORKS MUST BE UNDERTAKEN BY AN ACMA LICENCE HOLDER. THE AUDIO / IP CONVERTERS, THE CONNECTION OF THE AMPLIFIERS TO THE AUDIO / IP CONVERTERS AND PATCH LEADS WILL BE PROVIDED BY THE COLLEGE.

PROVIDE COMPREHENSIVE DETAILS OF THE PROPOSED EQUIPMENT AND COMPONENTS OF THE PA SYSTEM FOR APPROVAL.

10. SECURITY

QUEENSLAND ASSET PROTECTION SERVICES DANIEL SPREADBOROUGH 0437 677 213 DANIEL@QAPSERVICES.COM.AU IS TO BE ENGAGED AS A NOMINATED SUB-CONTRACTOR TO UNDERTAKE THE SUPPLY INSTALLATION AND ALL WORKS ASSOCIATED WITH THE SECURITY INTRUDER DETECTION SERVICES.

THE SECURITY SYSTEM COMPONENT OF THIS CONTRACT INCLUDES THE EXPANSION OF THE COLLEGES EXISTING INNER RANGE INTEGRITY SECURITY SYSTEM INTO THE RENOVATED BUILDINGS AND NEW BUILDING TO PROVIDE INTRUDER DETECTION AND ACCESS CONTROL VIA THE SALTO ACCESS CONTROL SYSTEM. PROVIDE EACH MSWB WITH A LOW-LEVEL SIGNAL TO INDICATE THE ARMING STATUS OF THE SECURITY SYSTEM. COORDINATE THE CONNECTION WITH THE MECHANICAL CONTRACTOR ON SITE.

CONNECT THE BUILDING SECURITY EQUIPMENT TO THE EXISTING SYSTEM VIA THE COLLEGES ETHERNET NETWORK VIA A COLE ETHERNET BRIDGE. THE ETHERNET SETTINGS ARE TO BE COORDINATED WITH THE COLLEGES IT STAFF.

RESUPPLY ALL EXISTING BLOCK K SECURITY SERVICES THAT REMAIN.

INTERFACE THE SECURITY SYSTEM TO THE COLLEGES SALTO ACCESS CONTROL SYSTEM.

THE SECURITY SYSTEM COMPONENT OF THIS CONTRACT INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING EXTENT OF WORK:

- INTRUDER DETECTION SYSTEM POWER SUPPLY AND DISTRIBUTION.
- EARTHING.
- MOVEMENT DETECTORS.
- PIEZO ALARMS.
- KEY PANELS.
- ZONE EXPANDERS.
- CABLING.
- CABLE ACCESS WAYS.
- COMMISSIONING IN ACCORDANCE WITH THE COLLEGES OPERATING REQUIREMENTS.

11. ACCESS CONTROL

BLA SECURITY STEVEN JUMISIC steven@blasec.com.au 0402269871 IS TO BE ENGAGED AS A NOMINATED SUB-CONTRACTOR TO UNDERTAKE THE SUPPLY INSTALLATION AND ALL WORKS ASSOCIATED WITH THE ACCESS CONTROL SYSTEM WHICH INCLUDES THE EXPANSION OF THE COLLEGES EXISTING SALTO SYSTEM INTO THE RENOVATED BUILDINGS AND NEW BUILDINGS. CONNECT THE ACCESS CONTROL SYSTEM TO THE EXISTING SYSTEM VIA THE COLLEGES ETHERNET NETWORK. THE ETHERNET SETTINGS ARE TO BE COORDINATED WITH THE COLLEGES IT STAFF.

THE ACCESS CONTROL SYSTEM COMPONENT OF THIS CONTRACT INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING EXTENT OF WORK:

- SALTO DOOR CONTROLLERS LOCATED IN THE POSITIONS NOTED AS SECURITY EQUIPMENT..
- AUTO DOOR INTERFACES.
- ROLLER SHUTTER DOOR INTERFACES.
- ROLLER SHUTTER DOOR PUSH BUTTONS.
- LIFT INTERFACE.
- CARD READERS.
- SALTO GATEWAYS.
- SALTO NODES.
- SALTO WIRELESS ACCESS CONTROL DOOR HARDWARE.
- COMMISSIONING IN ACCORDANCE WITH THE COLLEGES OPERATING REQUIREMENTS.

THE CABLING REQUIRED BY THE ACCESS CONTROL SYSTEM IS TO BE PROVIDED AS PART OF THE COMMUNICATIONS SCOPE.

INTERFACE THE ACCESS CONTROL SYSTEM TO THE FIRE ALARM SYSTEM TO AUTOMATICALLY UNLOCK THE NOMINATED DOORS UPON A FIRE ALARM.

12. FIRE ALARM SYSTEM.

REMOVE THE EXISTING LIBRARY FIRE ALARM SYSTEM AND PROVIDE A NEW NON-BRIGADE MONITORED AS1670.1 COMPLIANT ADDRESSABLE FIRE ALARMS SYSTEM THROUGHOUT THE LIBRARY AND BLOCK I.

THERE ARE NO FIRE ALARM SYSTEM REQUIREMENTS IN BLOCK K.

THE FIRE ALARM SYSTEM COMPONENT OF THIS CONTRACT INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING EXTENT OF WORK:

- FIRE INDICATOR PANEL INCORPORATING THE EWIC AND FDCIE
- DETECTORS.
- SPEAKERS AND HORNS.
- DOOR INTERFACES.
- CABLING.
- CABLE ACCESS WAYS.

ELECTRICAL DESIGN GROUP BRISBANE PTY LTD ACN 092 710 793 TRADING AS: ELECTRICAL DESIGN GROUP		THE COPYRIGHT OF THIS DRAWING REMAINS THE PROPERTY OF THE ELECTRICAL DESIGN GROUP. USE FIGURED DIMENSIONS IN PREFERENCE TO SCALE. ALL DIMENSIONS TO BE VERIFIED ONSITE.		ELECTRICAL DESIGN GROUP ELECTRICAL BUILDING SERVICES CONSULTANTS BRISBANE GOLD COAST P.O.Box 15, Sherwood Q.4075 Phone: (07) 3278 4375 Email: brisbane@edg.net.au Web: www.edg.net.au		PROJECT: CANTERBURY COLLEGE SENIOR SCHOOL TALNGAI PRECINCT 182 OLD LOGAN VILLAGE ROAD, WATERFORD		DRAWING: ELECTRICAL SERVICES NOTES SCALE: NOT TO SCALE AT A1 PROJECT NO: C3631a DRAWING NO: E02 REVISION: T1	
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