

## 1. EXTENT OF WORKS

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, HUMIDITY AND VIBRATION 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 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 2.5mm<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 UPGRADING OF THE EXISTING DISTRIBUTION BOARD DB-2 TO ACCOMMODATE THE ADDITIONAL CIRCUITS AND CHANGES. A NEW MCCB IS TO BE PROVIDED IN THE MSB ALONG WITH A NEW SUBMAIN TO THE NEW MSSB3 LOCATED INT EH ROOF LEVEL MECHANICAL PLANT ROOM. THE POWER DISTRIBUTION COMPONENT OF THIS CONTRACT INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING EXTENT OF WORK:

- DB-2 MODIFICATIONS.
- EARTHING.
- REMOVAL OF EXISTING REDUNDANT CIRCUITS.
- CIRCUITS.
- ISOLATORS AND OUTLETS.
- MSB MCCB.
- MSSB3 SUBMAIN.
- CABLE SUPPORT SYSTEMS.
- TESTING AND COMMISSIONING.

PROVIDE A NEW THREE PHASE 160 AMP MCCB IN THE MSB LABELLED MSSB3. THE NEW MCCB AND LABEL ARE TO MATCH THE EXISTING MCCBS AND LABELS. PROVIDE A NEW 4C#E 70mm<sup>2</sup> Cu XLPE / PVC RUN CONCEALED FROM THE NEW MCCB TO THE NEW MSSB3 LOCATED IN THE ROOF LEVEL MECHANICAL PLANT ROOM. 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 SCHOOL MUST BE PROVIDED WITH TWO WEEKS NOTICE PRIOR TO THE INTERRUPTION.

## 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.
- REMOVAL OF EXISTING REDUNDANT LIGHTING SERVICES.
- RELOCATION OF THE EXISTING LIGHTING SERVICES AS NOTED.
- EARTHING OF THE LIGHTING INSTALLATION.
- EMERGENCY AND EXIT LIGHTING.
- LIGHTING CONTROL.
- LIGHTING SUBCIRCUITS.
- TESTING AND COMMISSIONING.

THE GLAS ARE TO BE PROVIDED WITH SWITCH PANELS C/W FACILITY TO CONTROL THE ROOMS BLINDS AND AIRCONDITIONING.

## 8. COMMUNICATIONS

PROVIDE CAT 6 UTP COMMUNICATIONS OUTLETS CABLED TO CR-A. ALL OF THE EXISTING COMMUNICATION CABLES THAT BECOME REDUNDANT ARE TO BE REMOVED. REARRANGE THE PORTS WITHIN THE EXISTING CR-A PATCH PANELS AS DIRECTED BY THE SCHOOLS IT STAFF SUCH THAT THE TOP TWO PATCH PANELS BECOME FREE AND IN TURN ARE THEN TO BE USED TO FACILITATE THE CONNECTION OF THE NEW COMMUNICATIONS OUTLETS. THE COMMUNICATIONS CABLING COMPONENT OF THIS CONTRACT INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING EXTENT OF WORK:

- REMOVAL OF EXISTING REDUNDANT CABLING.
- NEW COMMUNICATIONS OUTLETS.
- MODIFICATION TO THE ARRANGEMENT OF THE EXISTING PATCH PANELS WITHIN CR-A AS REQUIRED.
- UPDATE THE PORT AND OUTLET LABELLING TO REFLECT THE FINAL AS CONSTRUCTED ARRANGEMENT AT PRACTICAL COMPLETION.
- HDMI OUTLETS.
- TESTING AND COMMISSIONING.

## 9. ELECTRONIC SECURITY

THE SECURITY COMPONENT OF THIS CONTRACT INCLUDES, BUT IS NOT LIMITED TO THE REMOVAL OF THE EXISTING INTRUDER DETECTION SERVICES WITHIN THE AREA OF THE WORKS.

EXPAND THE SCHOOLS EXISTING SALTO SYSTEM INTO THE BUILDING TO CONTROL THE NEW SALTO WIRELESS HARDWARE. THE WIRELESS DOOR HARDWARE WILL BE SUPPLIED AS PART OF THE DOOR HARDWARE PACKAGE. TURNKEY LOCKSMITHS, WARREN TURNBULL, 0410 007 124, locksmith@turnkeygld.com IS TO BE ENGAGED AS A NOMINATED SUBCONTRACTOR TO THE ELECTRICAL SUBCONTRACTOR TO SUPPLY AND COMMISSION THE SALTO SYSTEM.

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

- REMOVAL OF EXISTING INTRUDER DETECTION SERVICES WITHIN THE AREA OF THE WORKS.
- EXPANSION OF THE SCHOOLS EXISTING SALTO SYSTEM.
- SALTO HUB CABLE.
- SALTO HUB.
- TESTING AND COMMISSIONING.

10. SCHOOL BELL / PA SYSTEM

MODIFY THE EXISTING SCHOOL BELL / PA SYSTEM WITH NEW SPEAKERS OUTSIDE OF THE GLA'S CABLED BACK TO THE SCHOOL BELL RACK AND CONNECTED TO THE EXISTING AMPLIFIER. THE PA SYSTEM COMPONENT OF THIS CONTRACT INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING EXTENT OF WORK:

- NEW SPEAKERS AND CABLEING AS REQUIRED;
- REMOVAL OF EXISTING REDUNDANT PA SYSTEM CABLEING WITHIN THE SCOPE OF THE WORKS.

DISCONNECTION OF THE SCHOOL BELL PA SYSTEM TO THE HEAR AND LEARN SOUND HOUSE HEARING AUGMENTATION SYSTEM IN EACH OF THE FOUR GLA ROOMS.

- TESTING AND COMMISSIONING.

THE EXISTING CABLING AND SPEAKERS CAN BE REUSED IF IT IS IN APPROPRIATE CONDITION AND THE CONTRACTOR ASSUMES FULL WARRANTY OVER IT AS IF THEY HAVE INSTALLED IT AS PART OF THESE WORKS.

## 11. FIRE ALARM

THE FIRE ALARM COMPONENT OF THIS CONTRACT IS TO INCLUDE UPGRADING / MODIFYING THE EXISTING AS1670.1 FIRE DETECTION AND ALARM SYSTEM TO ACCOMMODATE THE PROPOSED WORKS.

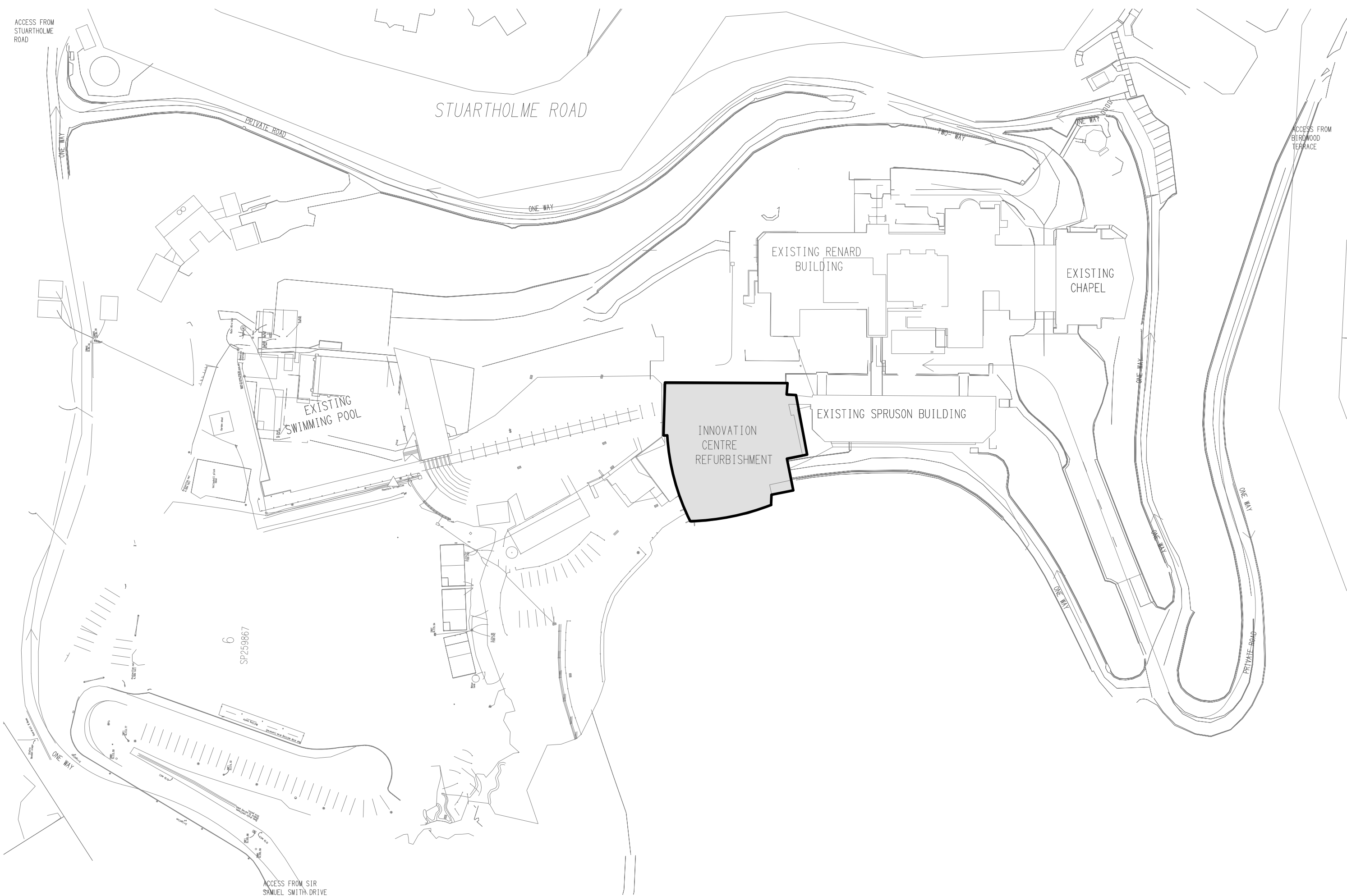
THE FIRE ALARM COMPONENT OF THIS CONTRACT IS TO INCLUDE, BUT IS NOT LIMITED TO THE FOLLOWING EXTENT OF WORK:

- FIRE INDICATOR PANEL UPGRADE / MODIFICATION.
- SMOKE DETECTORS.
- CONCEALED SPACE DETECTORS.
- CABLING.
- PROVISION OF ANY ADDITIONAL SPEAKERS TO ACHIEVE EVACUATION SOUND LEVELS WITH A MINIMUM OF 10DB (A) ABOVE AMBIENT, AND NOT LESS THAN 65DB (A) AND NO MORE THAN 105DB (A).
- TESTING AND COMMISSIONING.
- LOG BOOK UPDATE.
- MAINTENANCE DURING THE DEFECTS AND LIABILITY PERIOD IN ACCORDANCE WITH MP6.1 OF THE ODC AND AS1851.
- PAY ALL COSTS ASSOCIATED WITH THE ISOLATION AND RECONNECTION OF THE BRIGADE MONITORING OF THE FIRE ALARM SYSTEM.

REMOVE ALL EXISTING REDUNDANT FIRE ALARM SERVICES.

THE CONTRACTOR IS RESPONSIBLE FOR PAYING ANY CALL OUT FEES ISSUED BY QFES THAT ARE THE RESULT OF DEFECTIVE WORKS, CABLING OR SYSTEM COMPONENTS

ENSURE ALL WORKS INSTALLED UNDER THE FIRE ALARM SYSTEM COMPONENT OF THE ELECTRICAL SUB-CONTRACT IS UNDERTAKEN BY, OR UNDER THE DIRECTION OF A SUITABLY QUALIFIED AND EXPERIENCED FIRE ALARM SYSTEM INSTALLER WHO HOLD THE REQUIRED QBCC AND FIRE PROTECTION CONTRACTORS REGISTRATION BOARD OF QUEENSLAND INC REGISTRATIONS.



## INNOVATION CENTRE REFURBISHMENT

SCALE 1: 1000

## 12. HEARING AUGMENTATION


PROVIDE THE FOUR GLA ROOMS WITH A UCONNECT SOUND HOUSE HEARING AUGMENTATION SYSTEM. CONNECT THE HEARING AUGMENTATION SYSTEM TO THE EXISTING SCHOOL BELL / PA SYSTEM TO PROVIDED SCHOOL BELL / PA SYSTEM SERVICES THROUGH THE GLAS AS A PRIORITY SERVICE. THE ELECTRICAL SUB CONTRACT IS TO INCLUDE THE SUPPLY AND INSTALLATION OF ALL HEARING AUGMENTATION SYSTEM COMPONENTS. HEAR AND LEARN (03)9370 9355 ARE TO BE ENGAGED AS A NOMINATED SUBCONTRACTOR TO THE ELECTRICAL SUBCONTRACTOR TO COMMISSION THE HEARING AUGMENTATION SYSTEM AND PROVIDE STAFF TRAINING.

THE HEARING AUGMENTATION COMPONENT OF THIS CONTRACT IS TO INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING EXTENT OF WORK:

- A UCONNECT SOUNDHOUSE SYSTEM WITHIN EACH OF THE FOUR GLAS.
- FLUSH RECESSED SPEAKERS.
- INTERFACES TO THE PA / SCHOOL BELL SYSTEM WITHIN EACH OF THE FOUR TEACHING SPACES.
- SOUND HOUSE ENCLOSURE C/W THE ASSOCIATED HEARING AUGMENTATION EQUIPMENT.
- INTERFACES TO THE TVS WITHIN EACH OF THE FOUR GLAS.
- A SYSTEM TO ALLOW THE HEAR AND LEARN SOUND HOUSE HEARING AUGMENTATION SYSTEMS IN GLAS 1, 2 AND 3 TO BE JOINED.
- TESTING, COMMISSIONING AND STAFF TRAINING.

### 13. ABBREVIATIONS

- AMP - 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.
- MCB - MINIAITRE CIRCUIT BREAKER.
- MSB - MAIN SWITCHBOARD.
- MSW - MECHANICAL SERVICES SWITCHBOARD.
- WW - MICROWAVE.
- 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.
- REF - REFRIGERATOR.
- SC - OUTLETS MOUNTED ON THE SUPPORT STRUCTURE AS PER THE SC DETAIL.
- USC - MOUNT SUSPENDED FROM CEILING.
- SUS - UNLESS NOTED OTHERWISE.
- WP - WEATHERPROOF TO IP56 UNO.
- 500 - NUMBER DENOTES MOUNTING HEIGHT AFFL.

<div>ELECTRICAL DESIGN GROUP BRISBANE PTY LTD ACN 092 710 793</div> <div>TRADING AS: ELECTRICAL DESIGN GROUP</div>	<div>THE COPYRIGHT OF THIS DRAWING REMAINS THE PROPERTY OF THE ELECTRICAL DESIGN GROUP.</div> <div>USE FIGURED DIMENSIONS IN PREFERENCE TO SCALE.</div> <div>ALL DIMENSIONS TO BE VERIFIED ONSITE.</div>		<div><div><div><div></div><div><div>ELECTRICAL DESIGN GROUP</div><div>ELECTRICAL BUILDING SERVICES CONSULTANTS</div><div>BRISBANE</div><div>GOLD COAST</div></div></div><div><div>P.O.Box 15, Sherwood Q.4075 Phone: (07) 3278 4375 Email: brisbane@edg.net.au Web: www.edg.net.au</div></div></div></div>	<div>PROJECT: STUARTHOLME SCHOOL INNOVATION CENTRE REFURBISHMENT</div> <div>365 BIRDWOOD TERRACE, TOOWONG, QUEENSLAND</div>	<div>DRAWING: ELECTRICAL SERVICES NOTES</div> <div>SCALE: NOT TO SCALE AT A1</div> <div><div>PROJECT NO: C3581a</div><div>DRAWING NO: E02</div><div>REVISION: B</div></div>
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