





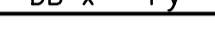










LEGEND

-  ELECTRICAL SERVICES SWITCHBOARD.
-  SINGLE 10A POWER OUTLET.
-  DOUBLE 10A POWER OUTLET.
-  GATE CONTROLLER, TYPE AS NOTED.
-  CONDUIT ROUTE AND CONDUIT TYPE AS NOTED.
-  ELECTRICAL PIT, TYPE AS NOTED.
-  POWER CIRCUIT DESIGNATION. DENOTES DB AND CIRCUIT.
-  EXHAUST FAN.
-  DIGITAL SIGN.
-  ACCESS CONTROL INDUCTIVE LOOP.
-  ACCESS CONTROL CARD READER.
-  ACCESS CONTROL INTERCOM CALL STATION.
-  ACCESS CONTROL MAGNETIC HOLDER.
-  ACCESS CONTROL MANUAL KEY.
-  ACCESS CONTROL PUSH BUTTON.

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.
 - COMMUNICATIONS CABLING.
 - ACCESS CONTROL.
 - 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 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 ON SITE 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.

5. CABLES

UNLESS OTHERWISE SPECIFIED, INSTALL AND TERMINATE CABLES IN ACCORDANCE WITH THE MANUFACTURERS' RECOMMENDATIONS. DETERMINE THE FINAL ROUTES TO SUIT THE FENCE 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 THE PROVISION OF THREE LOAD CENTRES DB-A, DB-B AND DB-C ALONG THE FRONT FENCE TO SUPPLY THE FRONT FENCE POWER OUTLETS AND POWER CONNECTIONS. THE NEW LOAD CENTRES ARE TO BE LOCATED IN THE THREE LOCKABLE WEATHER PROOF ROOMS PROVIDED AS PART OF THE BUILDING WORKS. PROVIDE NEW SUBMAINS FROM DB-56 TO SUPPLY DB-A, FROM DB-40 TO SUPPLY DB-B AND FROM MSB-P TO DB-C.

FROM THE NEW DISTRIBUTION BOARDS PROVIDE CIRCUITS TO THE GATE CONTROLLERS, DIGITAL SIGN, COMMUNICATIONS RACKS, ACCESS CONTROL EQUIPMENT, FANS AND SPARE GPDS.

PROVIDE EACH OF THE ROOMS WITH A VENTILATION FAN INCLUDING A DOOR GRILL.

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

- POWER DISTRIBUTION.
- UNDERGROUND PITS AND CONDUITS.
- EARTHING.
- DISTRIBUTION BOARDS (LOAD CENTRES).
- CIRCUITS.
- ISOLATORS AND OUTLETS.
- TESTING AND COMMISSIONING.

ENSURE THAT POWER IS MAINTAINED TO THE REMAINING PARTS OF THE SCHOOL 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. COMMUNICATIONS

EDC SYSTEMS PTY LTD, 3/40 PROPRIETARY ST, TINGALPA QUEENSLAND 4173 - ROBERT BLAKE 0422796412 PHONE 07 38907068 ROBERT.BLAKE@EDCSYSTEMS.COM.AU ARE TO BE ENGAGED AS A NOMINATED SUB-CONTRACTOR TO THE ELECTRICAL SUB-CONTRACT TO UNDERTAKE THE COMMUNICATIONS CABLING. THE COMMUNICATIONS CABLING COMPONENT OF THIS CONTRACT INCLUDES AN INTEGRATED TELEPHONE AND DATA EIA/TIA 568-A CATEGORY 6 MOLEX CERTIFIED RJ45 CABLING SOLUTION.

ALL CAT 6 CABLES ARE TO BE SHIELDED.

THE COMMUNICATIONS CABLING COMPONENT OF THIS CONTRACT INCLUDES THE PROVISION OF THREE COMMUNICATION RACKS CR-A, CR-B AND CR-C ALONG THE FRONT FENCE TO HOUSE THE FIBRE AND ACTIVE EQUIPMENT TO BE PROVIDED BY THE SCHOOL. THE NEW COMMUNICATIONS RACKS ARE TO BE LOCATED IN THE THREE LOCKABLE WEATHER PROOF ROOMS PROVIDED AS PART OF THE BUILDING WORKS.

PROVIDE NEW UNDERGROUND LOOSE TUBE GEL FILLED OPTICAL FIBRE CABLES FULLY TERMINATED FROM CORE A TO CR-A AND A FROM CR-42 TO CR-C.

THE EXISTING UNDERGROUND FIBRE CABLE SUPPLYING THE SIGN IS TO BE LOCATED AND REDIRECTED TO A NEW FIBRE IN CR-B. A NEW UNDERGROUND CAT 6 SERVICES IS TO BE PROVIDED FROM CR-B TO THE SIGN.

ALL FIBRES, OUTLETS AND PATCH PANELS THAT ARE REQUIRED TO TERMINATE THE CABLING PROVIDED AS PART OF THE COMMUNICATIONS CABLING ARE TO BE PROVIDED AS PART OF THESE WORKS. WITHIN ALL CASES IN THIS CONTRACT, CATEGORY 6 AND CAT 6 IS TO BE READ AS CATEGORY 6 CLASS E.

THE TERMS CATEGORY AND CAT ARE USED INTERCHANGEABLY THROUGHOUT THIS CONTRACT TO REFER TO CABLING TYPES AND STANDARDS. THE COMMUNICATIONS CABLING COMPONENT OF THIS CONTRACT INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING EXTENT OF WORK:

- FIBRE CABLING AND TERMINATIONS.
- FIBRES.
- COMMUNICATIONS RACKS CR-A, CR-B AND CR-C.
- UNDERGROUND PITS AND CONDUITS.
- CABLING.
- REDIRECTION OF THE EXISTING SIGN FIBRE CABLE TO CR-B.
- NEW CAT 6 UTP SERVICE FROM CR-B TO THE SIGN.
- INTERCOM DOOR STATIONS.
- INTERCOM IP CONTROLLERS.
- INTERFACE THE INTERCOM IP CONTROLLERS TO THE ACCESS CONTROL SYSTEM.
- TESTING AND COMMISSIONING.

THE SCHOOL WILL PROVIDE THE NETWORK SWITCH, UPS AND PATCH LEADS TO CONNECT THE IT NETWORK TO THE ACCESS CONTROL EQUIPMENT AND INTERCOM IP CONTROLLER.

8. ACCESS CONTROL

DJF SECURITY : DANIEL FARAGO 0451 871 932 dan@djfsecurity.com IS TO BE ENGAGED AS A NOMINATED SUB-CONTRACTOR TO THE ELECTRICAL SUB-CONTRACT TO UNDERTAKE THE ACCESS CONTROL WORKS.

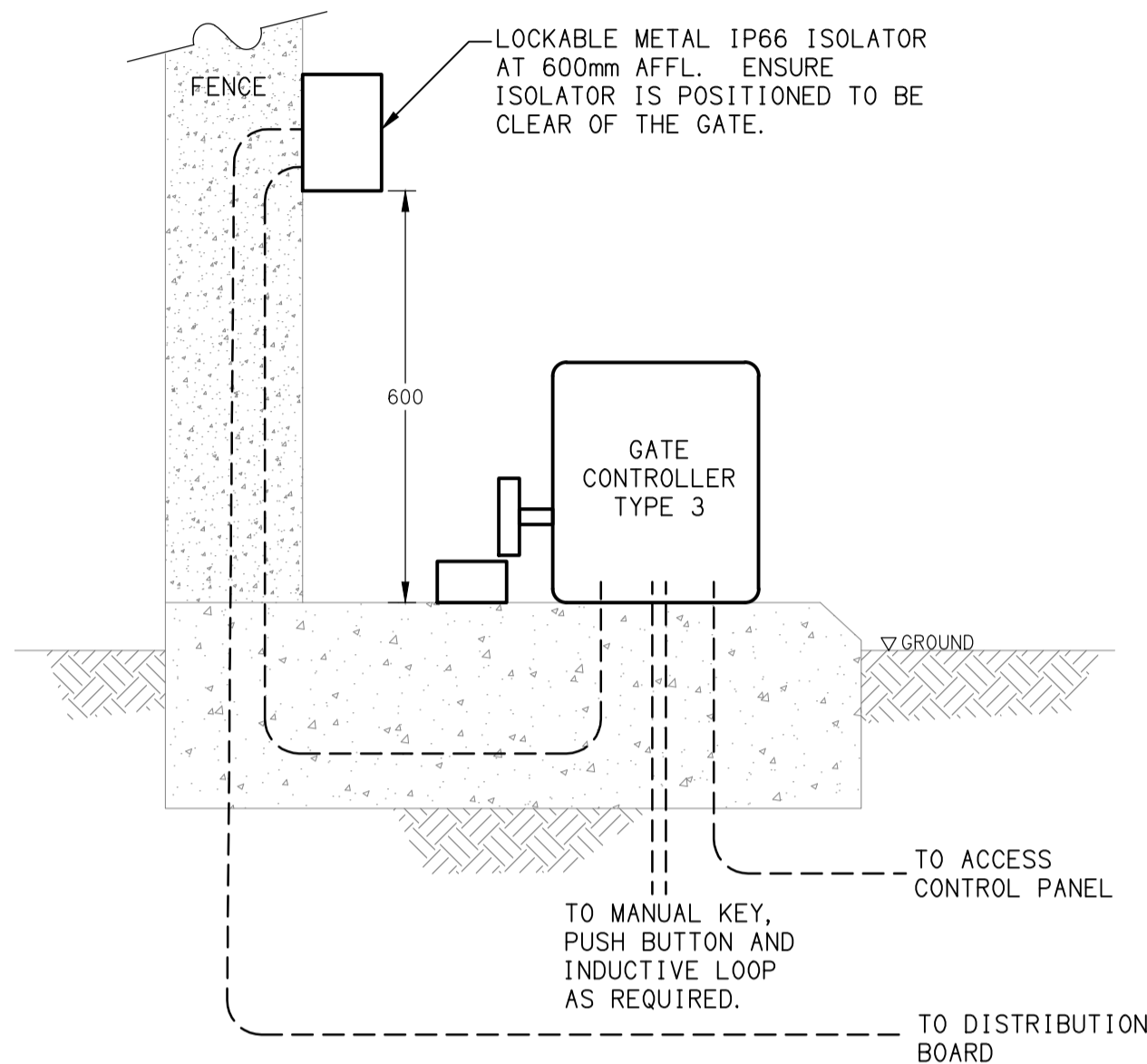
THE ACCESS CONTROL COMPONENT OF THIS CONTRACT INCLUDES THE EXPANSION OF THE SCHOOLS EXISTING INNER RANGE INTEGRITY SECURITY SYSTEM TO PROVIDE ACCESS CONTROL TO THE DUNDAS STREET FENCE GATES. CONNECT THE BUILDING SECURITY EQUIPMENT TO THE EXISTING SYSTEM VIA THE SCHOOLS ETHERNET NETWORK VIA A COLE ETHERNET BRIDGE. THE ETHERNET SETTINGS ARE TO BE COORDINATED WITH THE SCHOOLS IT STAFF. ASSIST THE SCHOOL WITH PROGRAMING AND CONFIGURING THE ACCESS CONTROL SYSTEM. THE NEW ACCESS CONTROL EQUIPMENT PANELS ARE TO BE LOCATED IN THE THREE LOCKABLE WEATHER PROOF ROOMS PROVIDED AS PART OF THE BUILDING WORKS.

CONFIRM THE LOCATION OF THE ACCESS CONTROL PANELS WITHIN THE ADMINISTRATION BUILDING ON SITE WITH THE SCHOOL, AND EXTENDING THE EXISTING POWER CIRCUIT TO A NEW GPO AS NECESSARY. THE SECURITY SYSTEM COMPONENT OF THIS CONTRACT INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING EXTENT OF WORK:

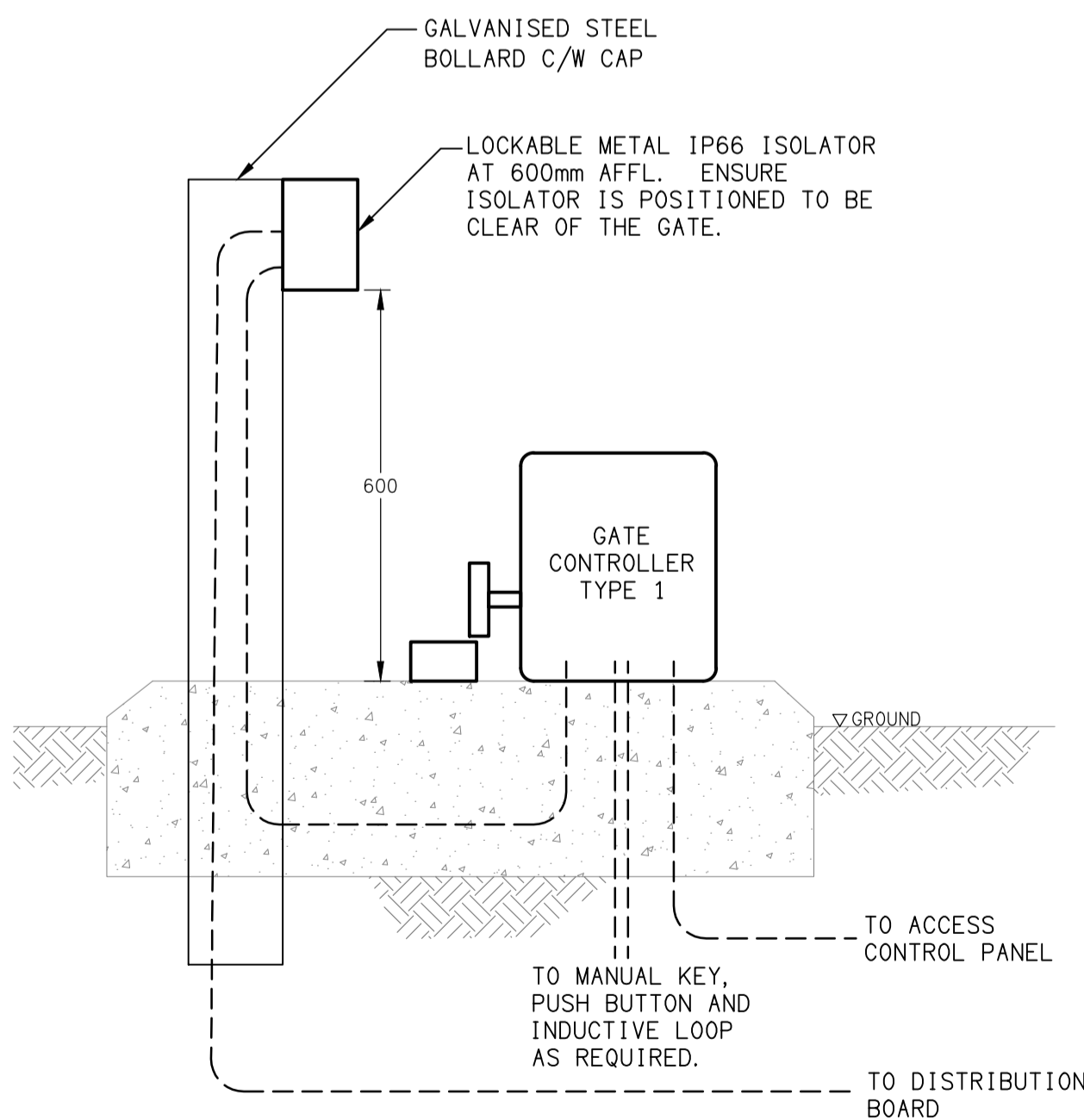
- ACCESS CONTROL SYSTEM POWER SUPPLIES.
- DOOR CONTROLLERS.
- EARTHING.
- COLE ETHERNET BRIDGES.
- CARD READERS.
- DOOR CONTROLLERS.
- UNDERGROUND PITS AND CONDUITS.
- CABLING.
- INTERFACE TO THE INTERCOM SYSTEMS.
- INTERFACE TO THE GATE CONTROLLERS.

PROVIDE CUSTOM FACEPLATES TO MOUNT THE USER INTERFACE POINTS ON INCLUDING CARD READERS, INTERCOM DOOR STATIONS, PUSH BUTTONS AND MANUAL KEYS.

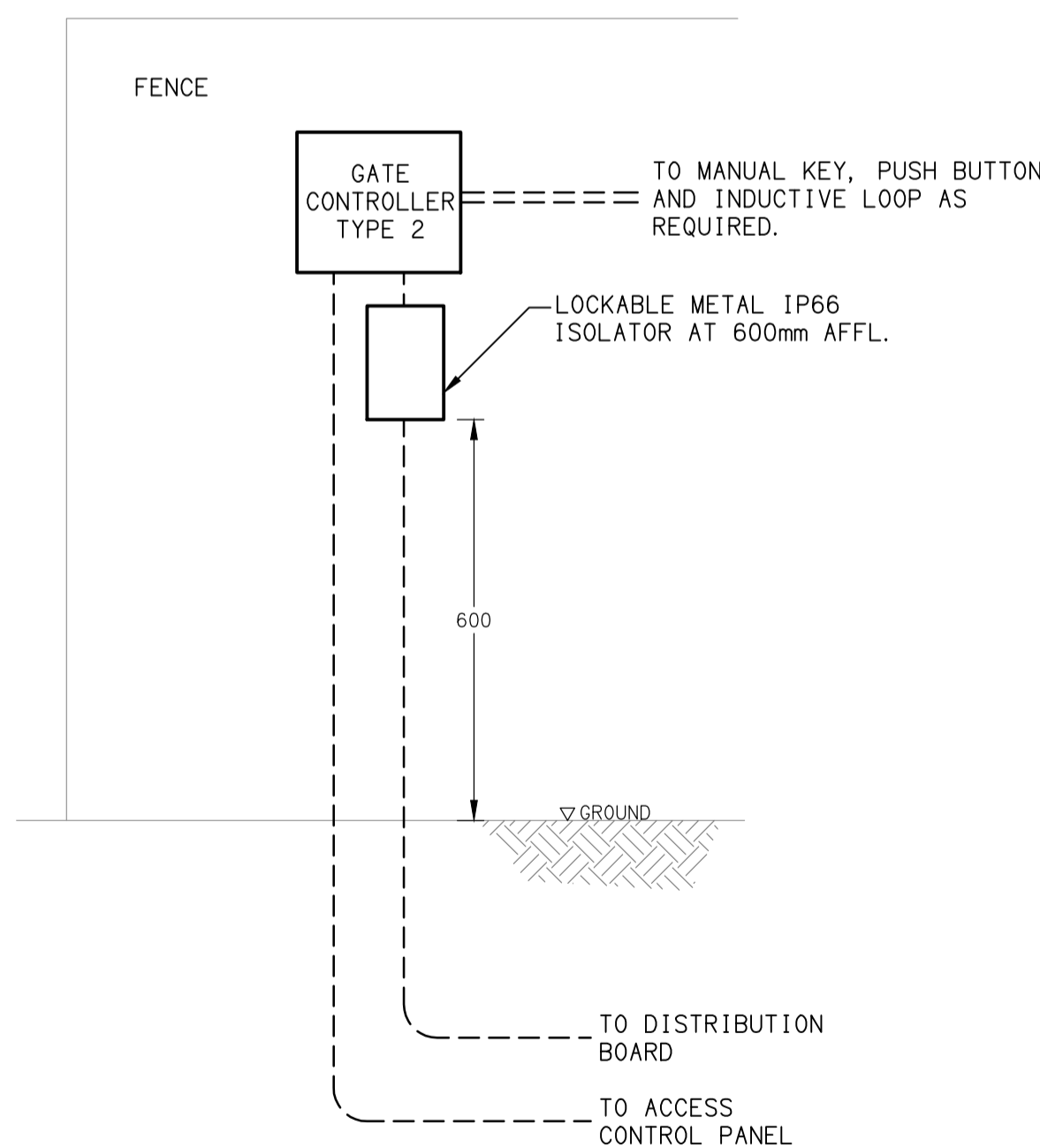
PROVIDE INGROUND INDUCTIVE LOOPS, PUSH BUTTONS AND MANUAL KEY SELECTOR SWITCHES INTERFACED DIRECTLY TO THE GATE CONTROLLERS.



DETAIL C
TYPICAL GATE CONTROL TYPE 3
NOT TO SCALE



DETAIL A
TYPICAL GATE CONTROL TYPE 1
NOT TO SCALE



DETAIL B
TYPICAL GATE CONTROL TYPE 2
NOT TO SCALE

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PROJECT:
**ORMISTON COLLEGE
FENCING MASTERPLAN**

97 DUNDAS STREET WEST, ORMISTON

C	PRELIMINARY	19/10/2002
REV:	DESCRIPTION:	DATE:

DRAWING:
**ELECTRICAL SERVICES
LEGEND & NOTES**

SCALE: NOT TO SCALE AT A1	PROJECT NO: C2642a	DRAWING NO: E01	REVISION: C
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