

INSTITUTE OF OCEAN SCIENCES SECURITY GATE UPGRADES

ISSUED FOR TENDER

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				CLIENT Fisheries and Oceans Canada			TITLE COVER SHEET & DRAWING INDEX					
				PROJECT INSTITUTE OF OCEAN SCIENCES SECURITY GATE UPGRADES			SCALE AS SHOWN		PROJECT NUMBER 17470		DRAWING NUMBER E000	
Rev.	DATE	ISSUE / REVISION DESCRIPTION	DESN	QC	QA	SCALE AS SHOWN		PROJECT NUMBER 17470		DRAWING NUMBER E000		REV. 2

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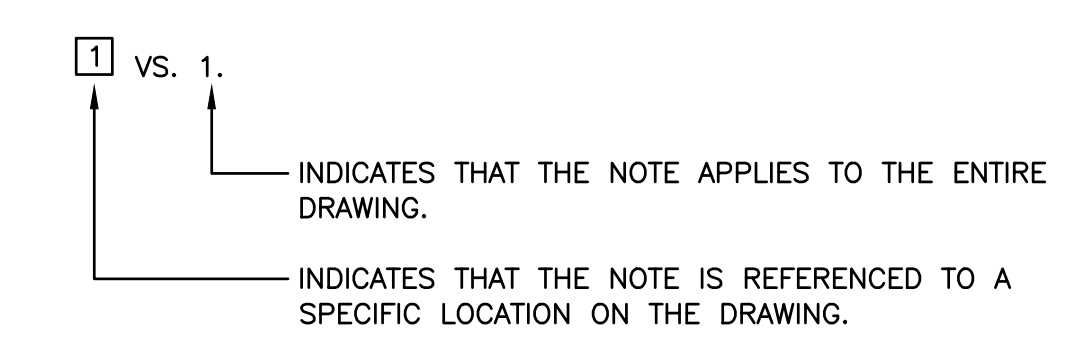
SYMBOL LEGEND			
POWER		LIGHTING	
	DUPLEX RECEPTACLE (5-15R TYPE UNLESS INDICATED OTHERWISE)		WALL MOUNTED FIXTURE
	DUPLEX RECEPTACLE (5-20R)		POLE MOUNTED FIXTURE
	ISOLATED GROUND DUPLEX RECEPTACLE	COMMUNICATIONS	
	SPLIT RECEPTACLE		WALL STRUCTURED WIRING OUTLET - #: NUMBER OF DROPS
	SINGLE RECEPTACLE		FLOOR STRUCTURED WIRING OUTLET - #: NUMBER OF DROPS
	DIRECT CONNECTION (OR CONNECTION TYPE AS INDICATED)		CEILING STRUCTURED WIRING OUTLET - #: NUMBER OF DROPS
	QUAD RECEPTACLE		WALL COAXIAL OUTLET - #: NUMBER OF DROPS
	SPECIAL RECEPTACLE - TYPE AS INDICATED		FLOOR COAXIAL OUTLET - #: NUMBER OF DROPS
	FLOOR RECEPTACLE (DUPLEX)		CEILING COAXIAL OUTLET - #: NUMBER OF DROPS
	CEILING RECEPTACLE (DUPLEX)		INTERCOM STATION
	FLOOR RECEPTACLE (QUAD)		FIBRE OPTIC OUTLET - #: NUMBER OF DROPS, SM: SINGLE MODE, MM: MULTIMODE
	CEILING RECEPTACLE (QUAD)	SECURITY / LOW TENSION	
	ISOLATED GROUND FLOOR RECEPTACLE		AUDIBLE ALARM
	ISOLATED GROUND CEILING RECEPTACLE		PTZ CAMERA
	JUNCTION BOX (WALL, CEILING, IN GROUND)		CARD READER
	MOTOR		CARD READER KEYPAD COMBINATION
	PANEL - TYPE AS INDICATED		SECURITY KEYPAD (OR KEYPAD TYPE AS INDICATED)
	SURFACE MOUNTED PANEL - TYPE AS INDICATED		KEYSWITCH OVERRIDE
	GROUND/BOND BUS BAR		REQUEST TO EXIT PUSH BUTTON
	CONTROLLER CABINET		REQUEST TO EXIT SENSOR
	CONDUIT STUB		PANIC BUTTON
	CONDUIT UP		BUZZER AND KEYSWITCH
	CONDUIT DOWN		ELECTROMAGNETIC LOCK
	GROUND ROD COMPLETE WITH INSPECTION WELL		ELECTRIFIED DOOR HARDWARE
EQUIPMENT IDENTIFIERS			DOOR POSITION SWITCH
	INDICATES DEVICE IS ABOVE COUNTER		POWER SUPPLY
	EQUIPMENT IDENTIFIER		
	LUMINAIRE TYPE TAG		
	DIRECTIONAL LUMINAIRE INDICATOR		

LINE TYPE LEGEND	
LINE	DESCRIPTION
	120/240V CONDUIT/CABLE
	347/600V CONDUIT/CABLE
	OVER 600V CONDUIT/CABLE
	COMMUNICATIONS CONDUIT/CABLE
	TECK CONDUIT/CABLE
	IN SLAB CONDUIT/CABLE

ABBREVIATIONS:

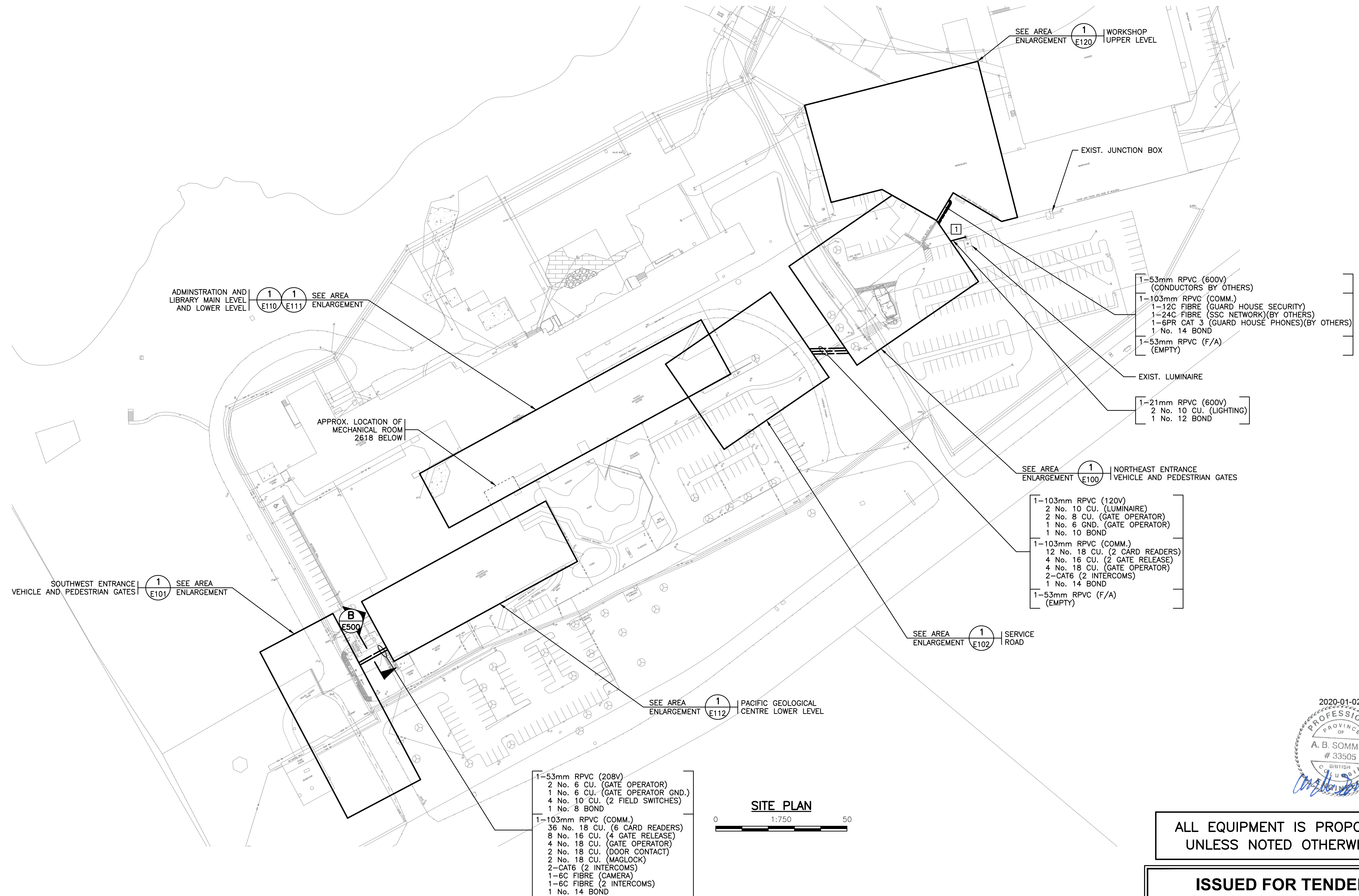
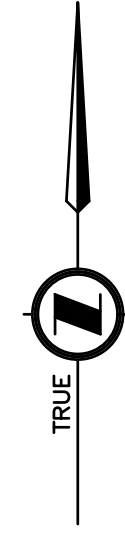
SSC - SHARED SERVICES CANADA
F/A - FIRE ALARM

NOTES LEGEND:



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				PROJECT			INSTITUTE OF OCEAN SCIENCES SECURITY GATE UPGRADES		SYMBOL LEGEND & GENERAL NOTES	
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2	20JAN03	ISSUED FOR TENDER		ABS	RG	RG	AS SHOWN	17470	E001	2



- 1-53mm RPVC (600V) (CONDUCTORS BY OTHERS)
 - 1-103mm RPVC (COMM.)
 - 1-12C FIBRE (GUARD HOUSE SECURITY)
 - 1-24C FIBRE (SSC NETWORK)(BY OTHERS)
 - 1-6PR CAT 3 (GUARD HOUSE PHONES)(BY OTHERS)
 - 1 No. 14 BOND
 - 1-53mm RPVC (F/A) (EMPTY)
- EXIST. LUMINAIRE
- 1-21mm RPVC (600V)
 - 2 No. 10 CU. (LIGHTING)
 - 1 No. 12 BOND

- SEE AREA ENLARGEMENT E100
- 1-103mm RPVC (120V)
 - 2 No. 10 CU. (LUMINAIRE)
 - 2 No. 8 CU. (GATE OPERATOR)
 - 1 No. 6 GND. (GATE OPERATOR)
 - 1 No. 10 BOND
- 1-103mm RPVC (COMM.)
 - 12 No. 18 CU. (2 CARD READERS)
 - 4 No. 16 CU. (2 GATE RELEASE)
 - 4 No. 18 CU. (GATE OPERATOR)
 - 2-CAT6 (2 INTERCOMS)
 - 1 No. 14 BOND
- 1-53mm RPVC (F/A) (EMPTY)

- 1-53mm RPVC (208V)
 - 2 No. 6 CU. (GATE OPERATOR)
 - 1 No. 6 CU. (GATE OPERATOR GND.)
 - 4 No. 10 CU. (2 FIELD SWITCHES)
 - 1 No. 8 BOND
- 1-103mm RPVC (COMM.)
 - 36 No. 18 CU. (6 CARD READERS)
 - 8 No. 16 CU. (4 GATE RELEASE)
 - 4 No. 18 CU. (GATE OPERATOR)
 - 2 No. 18 CU. (DOOR CONTACT)
 - 2 No. 18 CU. (MAGLOCK)
 - 2-CAT6 (2 INTERCOMS)
 - 1-6C FIBRE (CAMERA)
 - 1-6C FIBRE (2 INTERCOMS)
 - 1 No. 14 BOND



**ALL EQUIPMENT IS PROPOSED
UNLESS NOTED OTHERWISE**

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- NOTES:**
- 1 INTERRUPT EXISTING CONDUIT AND EXTEND TO NEW LUMINAIRE.
 - 2 RESTORE ALL SURFACES TO EXISTING CONDITION OR BETTER.

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PROJECT

**INSTITUTE OF OCEAN SCIENCES
SECURITY GATE UPGRADES**

ENGINEERING

TITLE

SITE PLAN

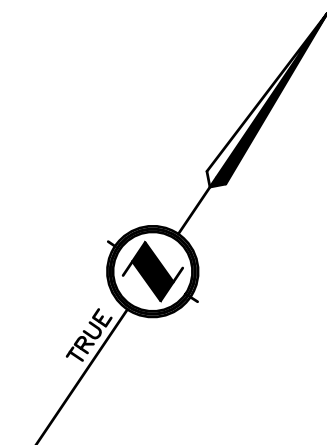
SCALE AS SHOWN

PROJECT NUMBER **17470**

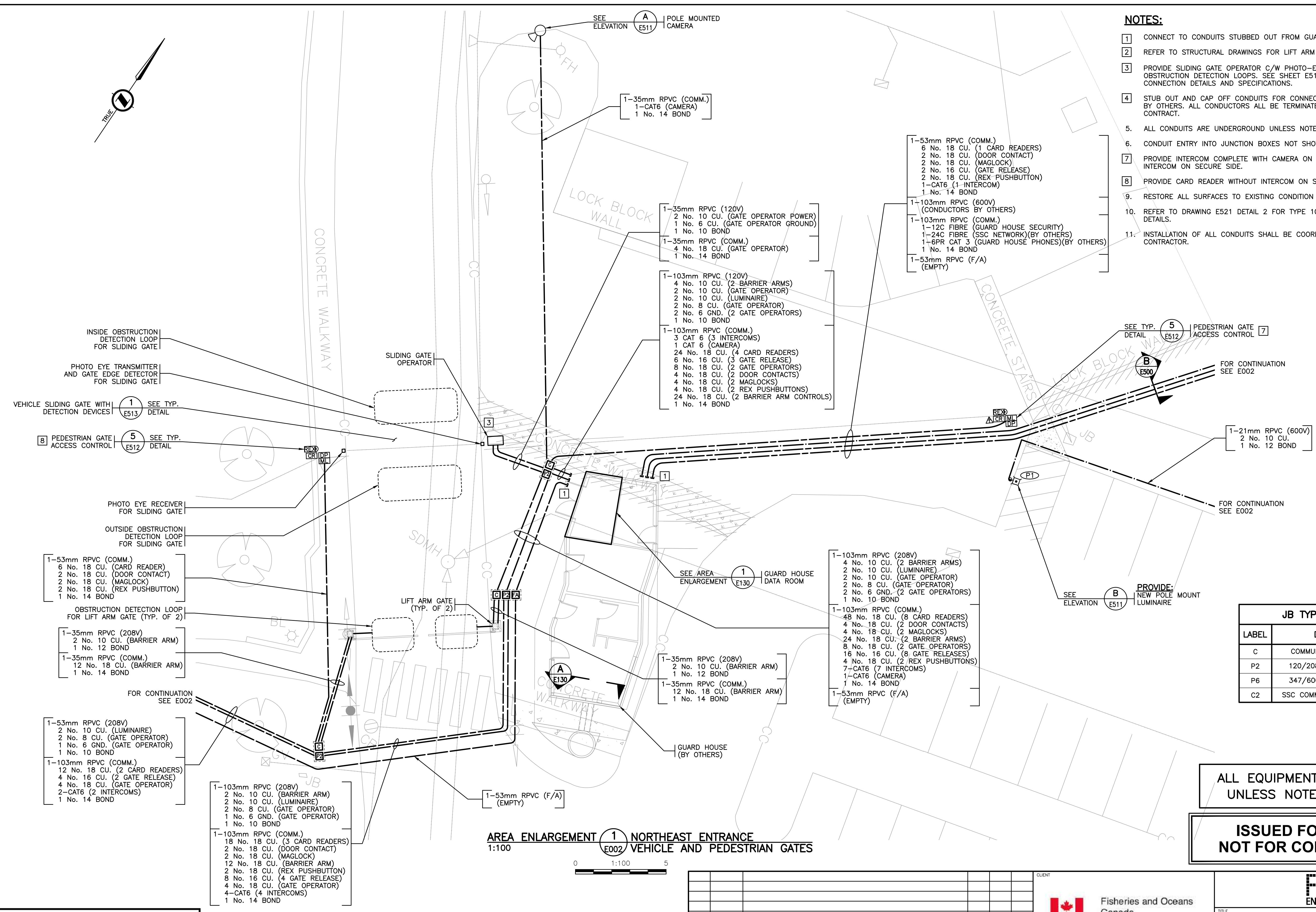
DRAWING NUMBER **E002**

REV. **2**

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- NOTES:**
1. CONNECT TO CONDUITS STUBBED OUT FROM GUARD HOUSE BY OTHERS.
 2. REFER TO STRUCTURAL DRAWINGS FOR LIFT ARM GATE INSTALLATION DETAILS.
 3. PROVIDE SLIDING GATE OPERATOR C/W PHOTO-EYE, GATE EDGE DETECTOR AND OBSTRUCTION DETECTION LOOPS. SEE SHEET E513 FOR INSTALLATION AND CONNECTION DETAILS AND SPECIFICATIONS.
 4. STUB OUT AND CAP OFF CONDUITS FOR CONNECTION OF CONDUIT TO GUARD HOUSE BY OTHERS. ALL CONDUCTORS ALL BE TERMINATED IN GUARD HOUSE UNDER THIS CONTRACT.
 5. ALL CONDUITS ARE UNDERGROUND UNLESS NOTED OTHERWISE.
 6. CONDUIT ENTRY INTO JUNCTION BOXES NOT SHOWN FOR CLARITY.
 7. PROVIDE INTERCOM COMPLETE WITH CAMERA ON UNSECURE SIDE AND AUDIO ONLY INTERCOM ON SECURE SIDE.
 8. PROVIDE CARD READER WITHOUT INTERCOM ON SECURE AND UNSECURE SIDES.
 9. RESTORE ALL SURFACES TO EXISTING CONDITION OR BETTER.
 10. REFER TO DRAWING E521 DETAIL 2 FOR TYPE 10 JUNCTION BOX INSTALLATION DETAILS.
 11. INSTALLATION OF ALL CONDUITS SHALL BE COORDINATED WITH GUARD HOUSE CONTRACTOR.



INSIDE OBSTRUCTION DETECTION LOOP FOR SLIDING GATE

PHOTO EYE TRANSMITTER AND GATE EDGE DETECTOR FOR SLIDING GATE

VEHICLE SLIDING GATE WITH DETECTION DEVICES

PEDESTRIAN GATE ACCESS CONTROL

PHOTO EYE RECEIVER FOR SLIDING GATE

OUTSIDE OBSTRUCTION DETECTION LOOP FOR SLIDING GATE

OBSTRUCTION DETECTION LOOP FOR LIFT ARM GATE (TYP. OF 2)

FOR CONTINUATION SEE E002

FOR CONTINUATION SEE E002

FOR CONTINUATION SEE E002

1-53mm RPVC (COMM.)
6 No. 18 CU. (CARD READER)
2 No. 18 CU. (DOOR CONTACT)
2 No. 18 CU. (MAGLOCK)
2 No. 18 CU. (REX PUSHBUTTON)
1 No. 14 BOND

1-35mm RPVC (208V)
2 No. 10 CU. (BARRIER ARM)
1 No. 12 BOND

1-35mm RPVC (COMM.)
12 No. 18 CU. (BARRIER ARM)
1 No. 14 BOND

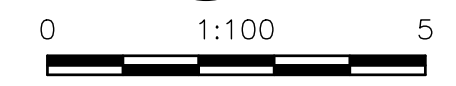
1-53mm RPVC (208V)
2 No. 10 CU. (LUMINAIRE)
2 No. 8 CU. (GATE OPERATOR)
1 No. 6 GND. (GATE OPERATOR)
1 No. 10 BOND

1-103mm RPVC (COMM.)
12 No. 18 CU. (2 CARD READERS)
4 No. 16 CU. (2 GATE RELEASE)
4 No. 18 CU. (GATE OPERATOR)
2-CAT6 (2 INTERCOMS)
1 No. 14 BOND

1-103mm RPVC (208V)
2 No. 10 CU. (BARRIER ARM)
2 No. 10 CU. (LUMINAIRE)
2 No. 8 CU. (GATE OPERATOR)
1 No. 6 GND. (GATE OPERATOR)
1 No. 10 BOND

1-103mm RPVC (COMM.)
18 No. 18 CU. (3 CARD READERS)
2 No. 18 CU. (DOOR CONTACT)
2 No. 18 CU. (MAGLOCK)
12 No. 18 CU. (BARRIER ARM)
2 No. 18 CU. (REX PUSHBUTTON)
8 No. 16 CU. (4 GATE RELEASE)
4 No. 18 CU. (GATE OPERATOR)
4-CAT6 (4 INTERCOMS)
1 No. 14 BOND

AREA ENLARGEMENT (1) NORTHEAST ENTRANCE
1:100



JB TYPE LEGEND	
LABEL	DESCRIPTION
C	COMMUNICATIONS (TYPE 10)
P2	120/208V POWER (TYPE 10)
P6	347/600V POWER (TYPE 10)
C2	SSC COMMUNICATIONS (TYPE 10)

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CHECK BEFORE YOU DIG
CONTRACTOR SHALL CONFIRM THE LOCATIONS OF ALL UNDERGROUND UTILITIES.

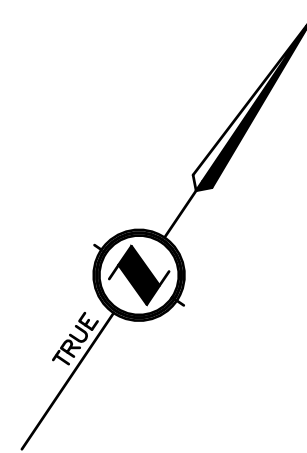
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AREA PLAN - NORTHEAST ENTRANCE

SCALE AS SHOWN PROJECT NUMBER 17470 DRAWING NUMBER E100 REV. 2



- 1-35mm RPVC (COMM.)
- 6 No. 18 CU. (1 CARD READER)
- 2 No. 18 CU. (DOOR CONTACT)
- 2 No. 18 CU. (MAGLOCK)
- 2 No. 18 CU. (REX PUSHBUTTON)
- 1 No. 14 BOND

PROVIDE:
CARD READER INSTALLED IN
WEATHERPROOF SURFACE MOUNT
BOX ON BUILDING EXTERIOR

PEDESTRIAN GATE ACCESS CONTROL SEE TYP. DETAIL E512

FOR CONTINUATION
SEE E111

- 1-35mm RPVC (208V)
- 2 No. 8 CU. (GATE OPERATOR)
- 1 No. 6 GND. (GATE OPERATOR)
- 1 No. 10 BOND
- 1-35mm RPVC (COMM.)
- 4 No. 18 CU. (GATE OPERATOR)
- 1 No. 14 BOND

- 1-35mm RPVC (208V)
- 2 No. 10 CU. (LUMINAIRE)
- 1 No. 12 BOND

- 1-35mm RPVC (COMM.)
- 6 No. 18 CU. (CARD READER)
- 2 No. 16 CU. (GATE RELEASE)
- 1-CAT6 (INTERCOM)
- 1 No. 14 BOND

- 1-35mm RPVC (COMM.)
- 6 No. 18 CU. (CARD READER)
- 2 No. 16 CU. (GATE RELEASE)
- 1 CAT6 (INTERCOM)
- 1 No. 14 BOND

SLIDING GATE OPERATOR

INSIDE OBSTRUCTION DETECTION LOOP FOR SLIDING GATE

PHOTO EYE TRANSMITTER AND GATE EDGE DETECTOR FOR SLIDING GATE

SEE TYP. DETAIL E513 VEHICLE SLIDING GATE WITH DETECTION DEVICES

PHOTO EYE RECEIVER FOR SLIDING GATE

SEE ELEVATION E511 LUMINAIRE POLE

OUTSIDE OBSTRUCTION DETECTION LOOP FOR SLIDING GATE

SEE ELEVATION E510 SINGLE HEIGHT CARD READER AND INTERCOM PEDESTAL

FOR CONTINUATION
SEE E002

- 1-103mm RPVC (208V)
- 2 No. 10 CU. (LUMINAIRE)
- 2 No. 8 CU. (GATE OPERATOR)
- 1 No. 6 GND. (GATE OPERATOR)
- 1 No. 10 BOND

- 1-103mm RPVC (COMM.)
- 12 No. 18 CU. (2 CARD READERS)
- 4 No. 16 CU. (2 GATE RELEASE)
- 4 No. 18 CU. (GATE OPERATOR)
- 2-CAT6 (2 INTERCOMS)
- 1 No. 14 BOND

- 1-53mm RPVC (F/A) (EMPTY)

JB TYPE LEGEND	
LABEL	DESCRIPTION
C	COMMUNICATIONS (TYPE 10)
P2	120/208V POWER (TYPE 10)
P6	347/600V POWER (TYPE 10)
C2	SSC COMMUNICATIONS (TYPE 10)

NOTES:

- 1 SINGLE HEIGHT PEDESTAL C/W CARD READER AND AUDIO-VISUAL INTERCOM STATION INSTALLED IN WEATHER PROOF ENCLOSURES AT CAR LEVEL.
- 2 SINGLE HEIGHT PEDESTAL C/W CARD READER AND AUDIO ONLY INTERCOM STATION INSTALLED IN WEATHERPROOF ENCLOSURES AT CAR LEVEL.
- 3 PROVIDE SLIDING GATE OPERATOR C/W PHOTO-EYE, GATE EDGE DETECTOR AND OBSTRUCTION DETECTION LOOPS. SEE SHEET E513 FOR INSTALLATION AND CONNECTION DETAILS AND SPECIFICATIONS.
- 4 ALL CONDUITS ARE UNDERGROUND UNLESS NOTED OTHERWISE.
- 5 CONDUIT ENTRY INTO JUNCTION BOXES NOT SHOWN FOR CLARITY.
- 6 RESTORE ALL SURFACES TO EXISTING CONDITION OR BETTER.
- 7 REFER TO DRAWING E521 DETAIL 2 FOR TYPE 10 JUNCTION BOX INSTALLATION DETAILS.
- 8 PROVIDE CARD READER ENCLOSURES WITH TAMPER PROOF SCREWS.

AREA ENLARGEMENT 1 SERVICE ROAD VEHICLE GATE AND LIBRARY PEDESTRIAN GATE
1:100



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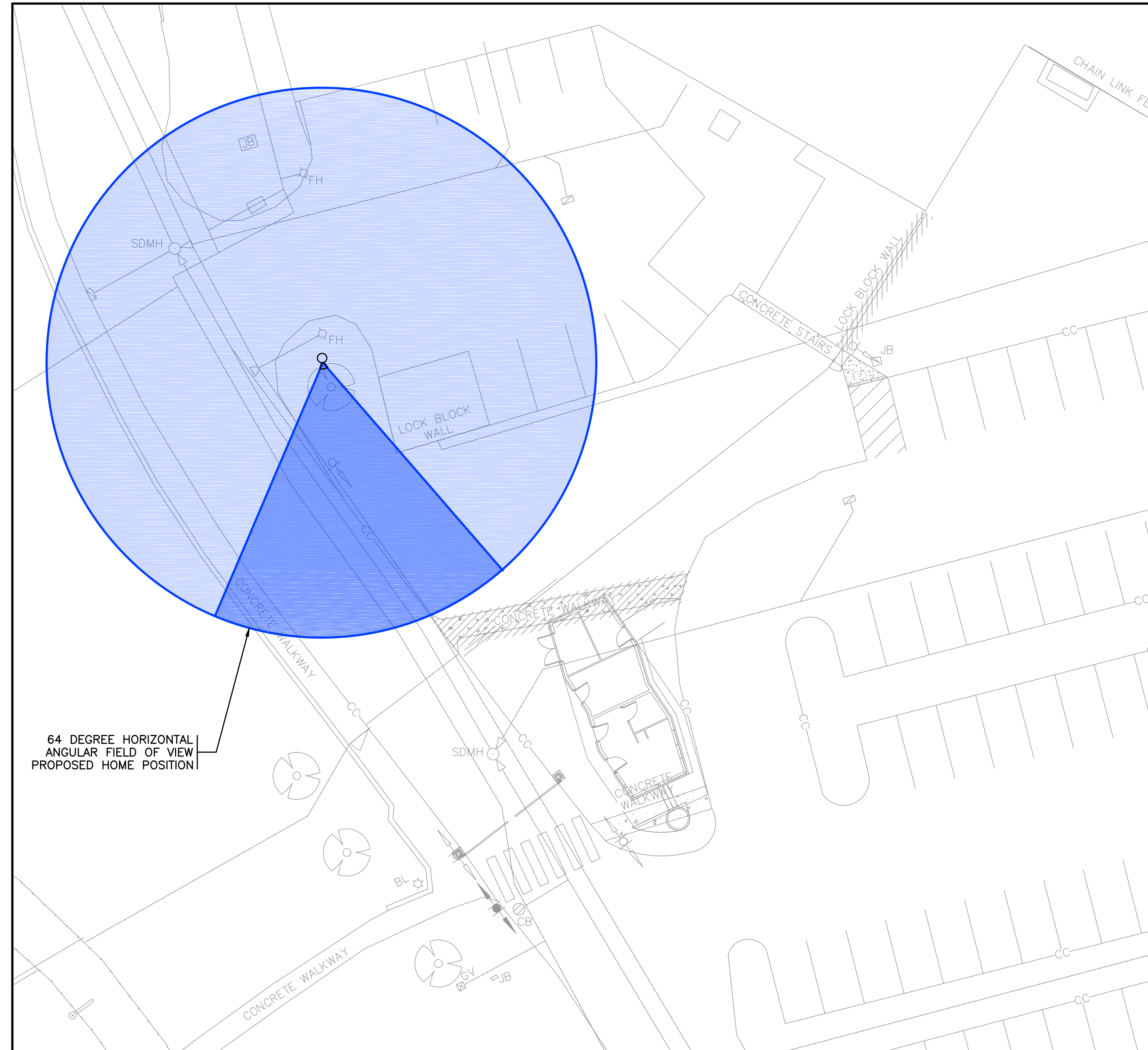
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TITLE
AREA PLAN - SERVICE ROAD

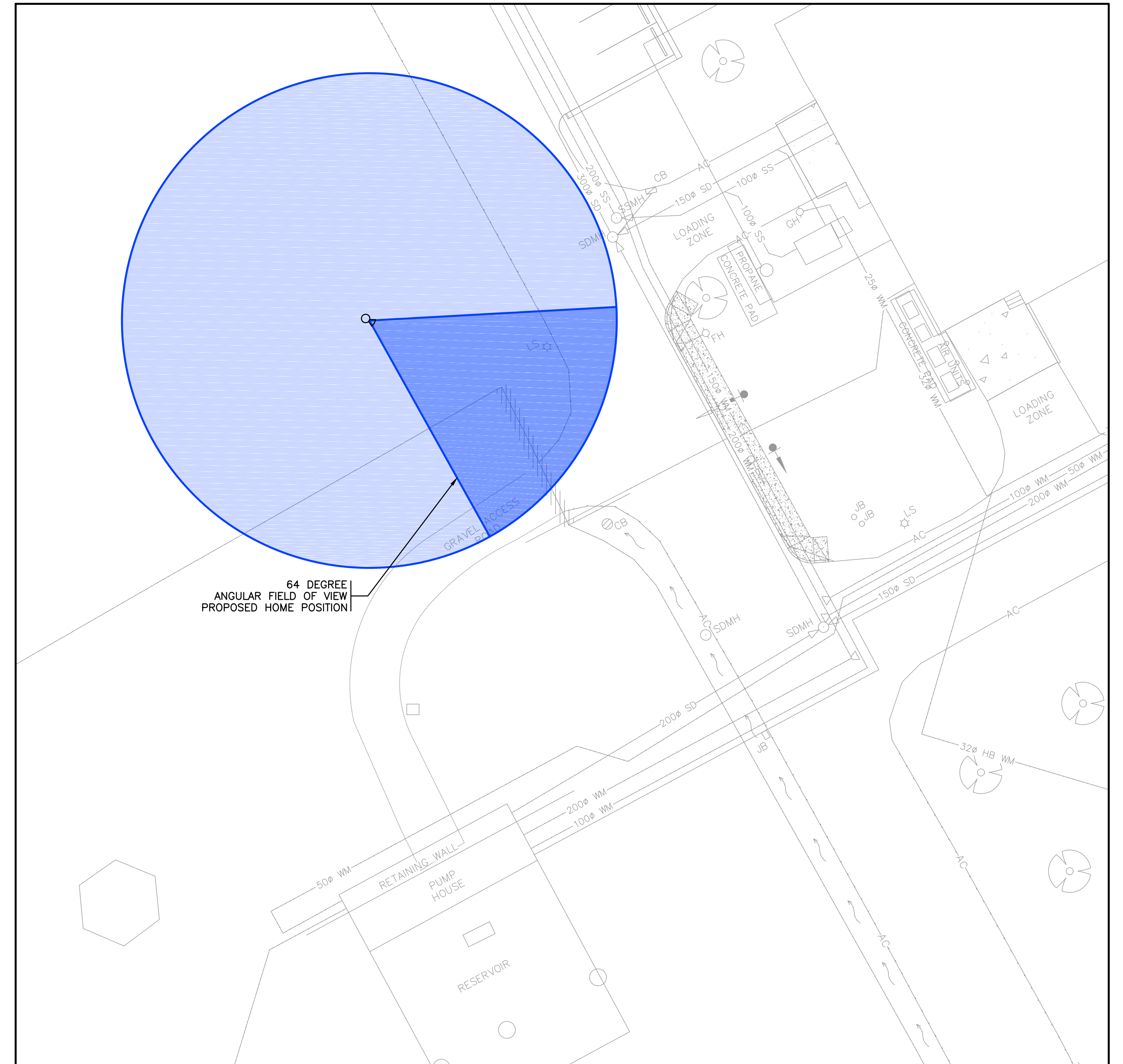
SCALE AS SHOWN PROJECT NUMBER **17470** DRAWING NUMBER **E102** REV. **2**

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64 DEGREE HORIZONTAL
ANGULAR FIELD OF VIEW
PROPOSED HOME POSITION

DETAIL 1 FIELD OF VIEW
- NORTHEAST ENTRANCE
1:200
0 1:200 10



64 DEGREE
ANGULAR FIELD OF VIEW
PROPOSED HOME POSITION

DETAIL 2 FIELD OF VIEW
- SOUTHWEST ENTRANCE
1:200
0 1:200 10

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- NOTES:**
- CAMERAS ARE PTZ AND CAN PROVIDE VIEWS TO THE PROPERTY LINE AS REQUIRED.
 - ALL CONDUITS ARE UNDERGROUND UNLESS NOTED OTHERWISE.
 - CONDUIT ENTRY INTO JUNCTION BOXES NOT SHOWN FOR CLARITY.



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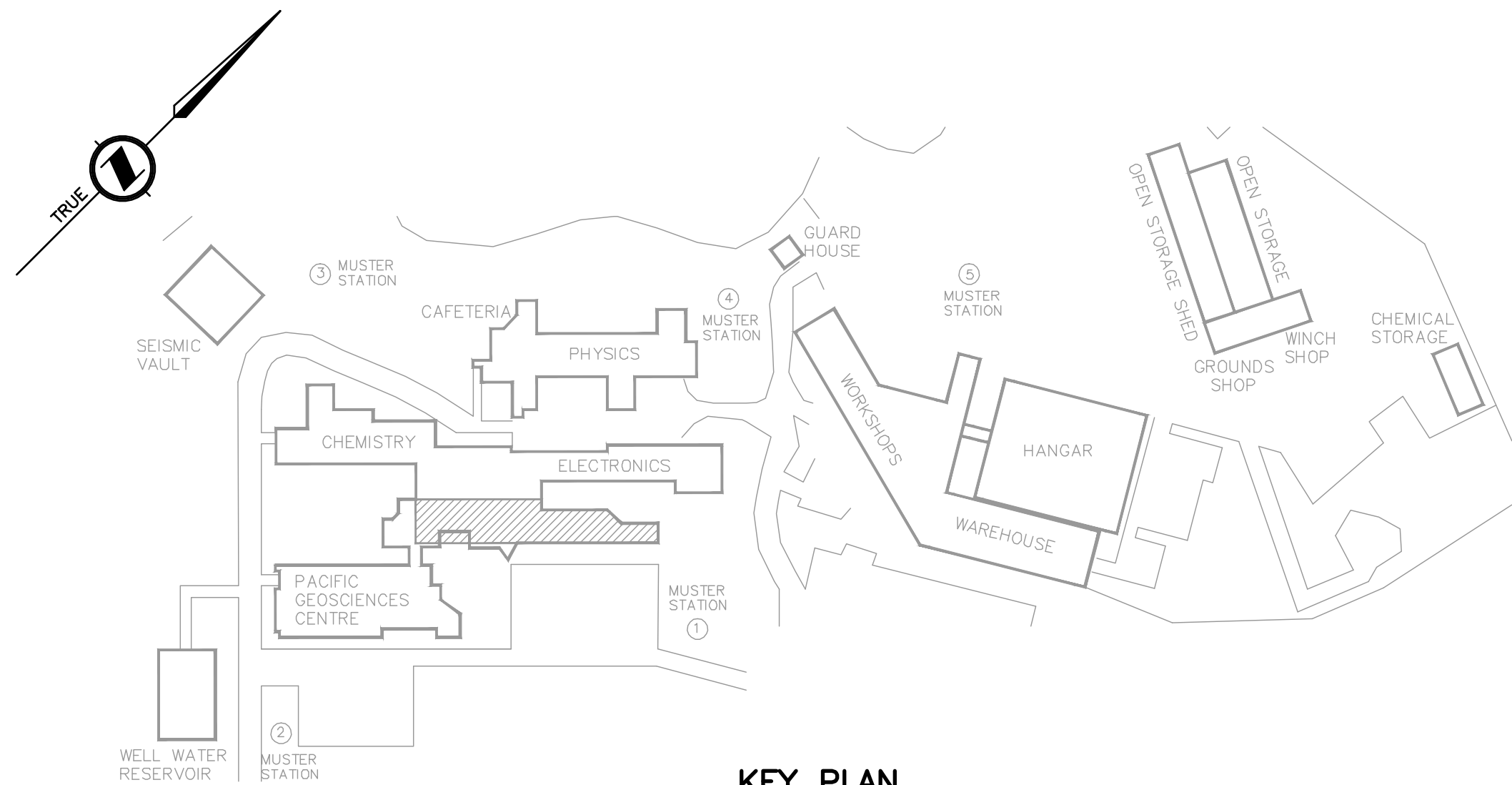
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**INSTITUTE OF OCEAN SCIENCES
SECURITY GATE UPGRADES**

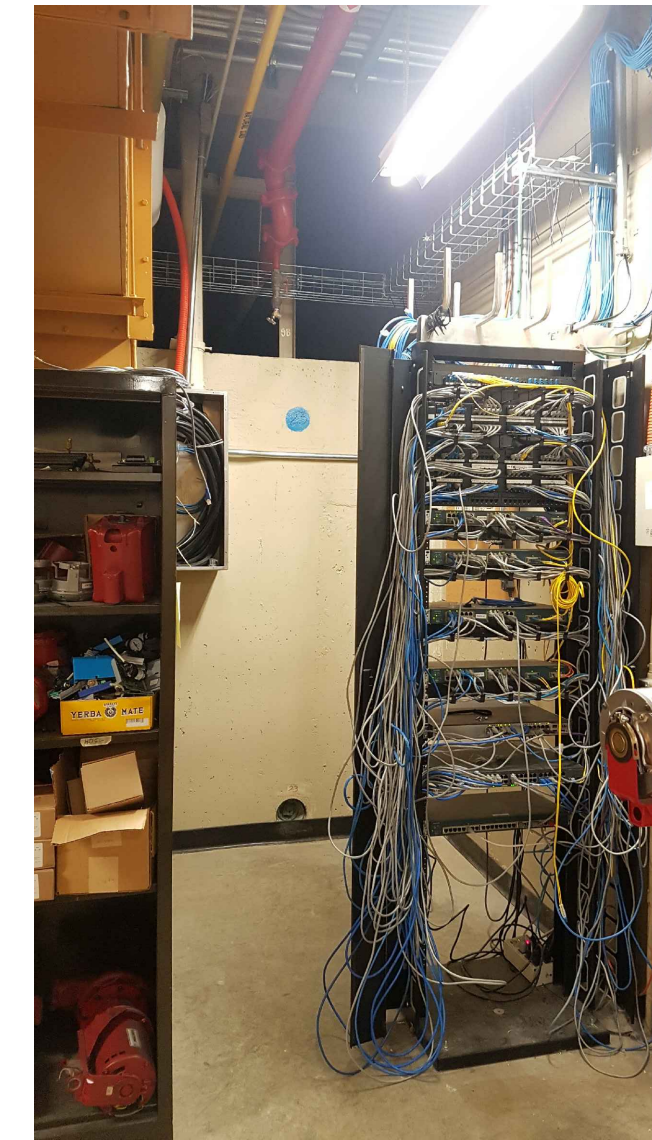
TITLE
CAMERA FIELDS OF VIEW

SCALE AS SHOWN PROJECT NUMBER 17470 DRAWING NUMBER E105 REV. 2

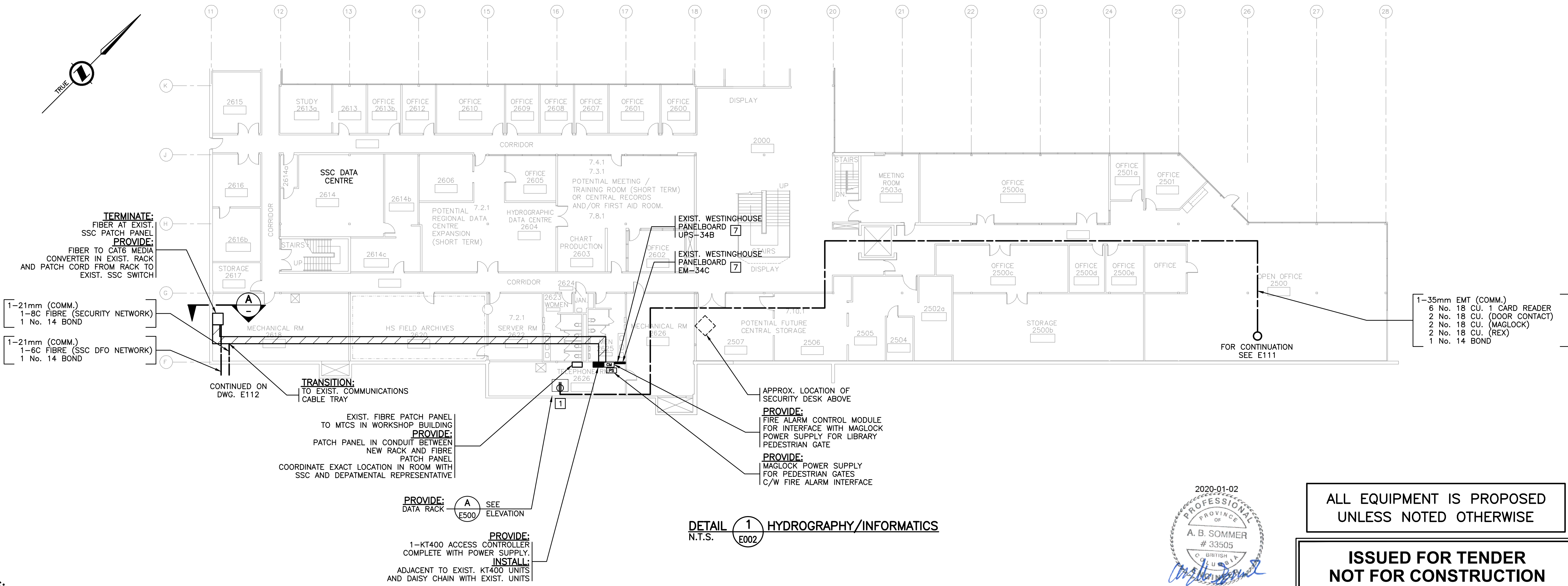
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KEY PLAN
N.T.S.



ELEVATION A EXIST. UTILITY TUNNEL
N.T.S.



TERMINATE:
FIBER AT EXIST. SSC PATCH PANEL
PROVIDE:
FIBER TO CAT6 MEDIA CONVERTER IN EXIST. RACK AND PATCH CORD FROM RACK TO EXIST. SSC SWITCH

- 1-21mm (COMM.)
- 1-8C FIBRE (SECURITY NETWORK)
- 1 No. 14 BOND

- 1-21mm (COMM.)
- 1-6C FIBRE (SSC DFO NETWORK)
- 1 No. 14 BOND

- 1-35mm EMT (COMM.)
- 6 No. 18 CU. 1 CARD READER
- 2 No. 18 CU. (DOOR CONTACT)
- 2 No. 18 CU. (MAGLOCK)
- 2 No. 18 CU. (REX)
- 1 No. 14 BOND

CONTINUED ON DWG. E112

TRANSITION:
TO EXIST. COMMUNICATIONS CABLE TRAY

EXIST. FIBRE PATCH PANEL TO MTCs IN WORKSHOP BUILDING
PROVIDE:
PATCH PANEL IN CONDUIT BETWEEN NEW RACK AND FIBRE PATCH PANEL
COORDINATE EXACT LOCATION IN ROOM WITH SSC AND DEPARTMENTAL REPRESENTATIVE

PROVIDE: DATA RACK SEE ELEVATION E500

PROVIDE: 1-KT400 ACCESS CONTROLLER COMPLETE WITH POWER SUPPLY.
INSTALL: ADJACENT TO EXIST. KT400 UNITS AND DAISY CHAIN WITH EXIST. UNITS

APPROX. LOCATION OF SECURITY DESK ABOVE

PROVIDE: FIRE ALARM CONTROL MODULE FOR INTERFACE WITH MAGLOCK
POWER SUPPLY FOR LIBRARY PEDESTRIAN GATE

PROVIDE: MAGLOCK POWER SUPPLY FOR PEDESTRIAN GATES C/W FIRE ALARM INTERFACE

DETAIL 1 HYDROGRAPHY/INFORMATICS
N.T.S.



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NOTES:

- 1 L-30R RECEPTACLE FOR RACK-MOUNT UPS. COORDINATE CEILING MOUNT RECEPTACLE WITH CONSULTANT.
2. PROVIDE VERIFICATION OF MAGLOCK INTEGRATION WITH FIRE ALARM SYSTEM.
3. CONDUITS ROUTED FROM ELECTRICAL ROOM 3742 TO SERVE ACCESS CONTROL AND SECURITY DEVICES WITHIN THE BUILDING ARE NOT SHOWN. SIZE CONDUITS AND CONDUCTORS PER CEC REQUIREMENTS.
4. REFER TO DRAWING E610 FOR PANEL SCHEDULES.
5. CONTRACTOR SHALL INCLUDE TO TERMINATE ALL EXISTING FIBRES IN EXIST. PATCH PANEL.
6. REFER TO DRAWING E515 DETAIL 1 FOR TELECOMMUNICATIONS BONDING.
7. CONTRACTOR SHALL METER PANEL BOARD FOR A MINIMUM OF 7 DAYS PRIOR TO INSTALLING BREAKERS OR CONNECTING EQUIPMENT. PROVIDE RESULTS TO DEPARTMENTAL REPRESENTATIVE. METERING SHALL INCLUDE SINGLE PHASE AND 3 PHASE KW, KVA, AND AMPS.
8. ALL PATCH CABLES INSTALLED BETWEEN NEW RACK AND EXIST. FIBRE PATCH PANEL SHALL BE INSTALLED IN EMT.

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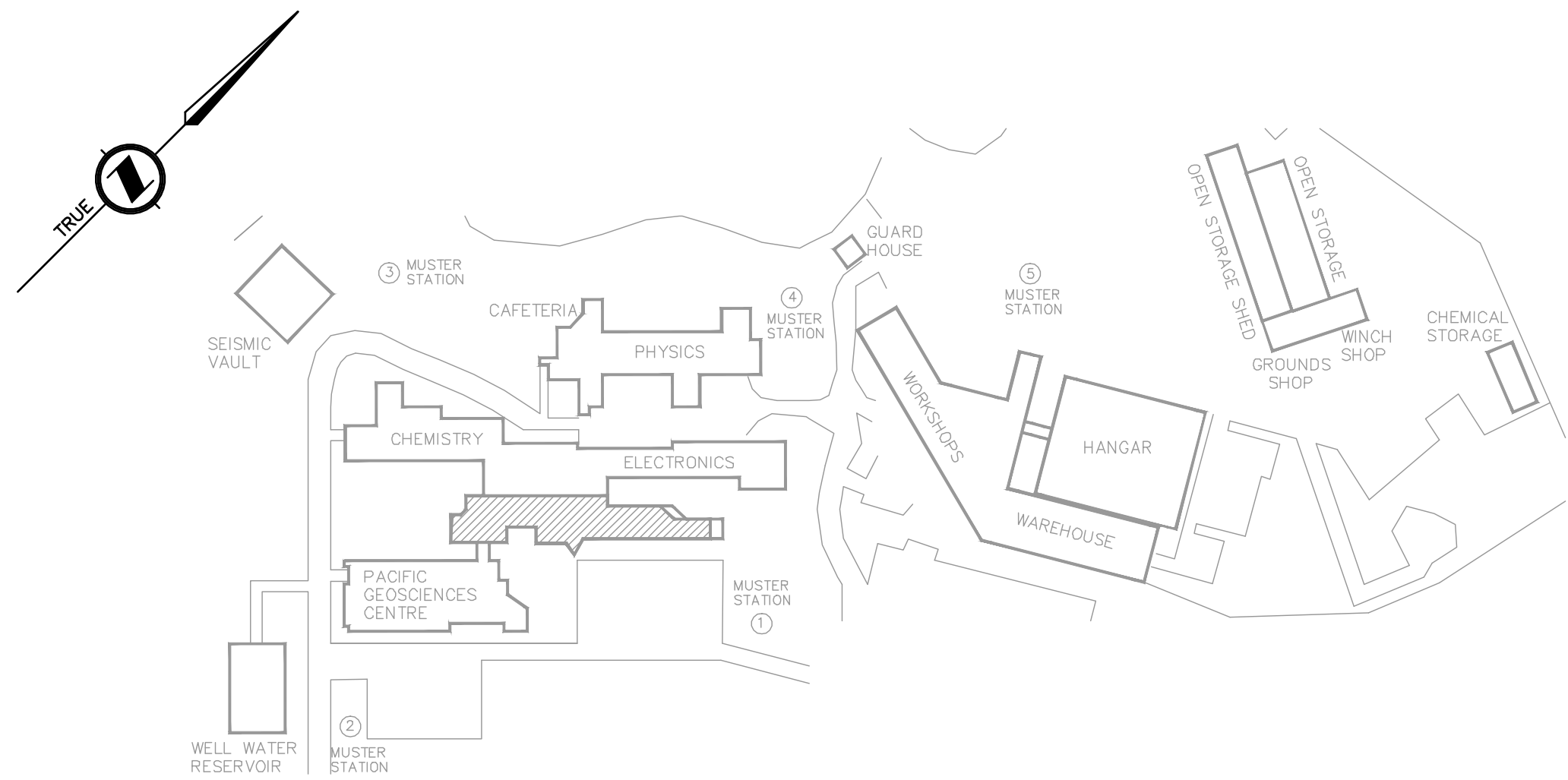
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PEX ENGINEERING

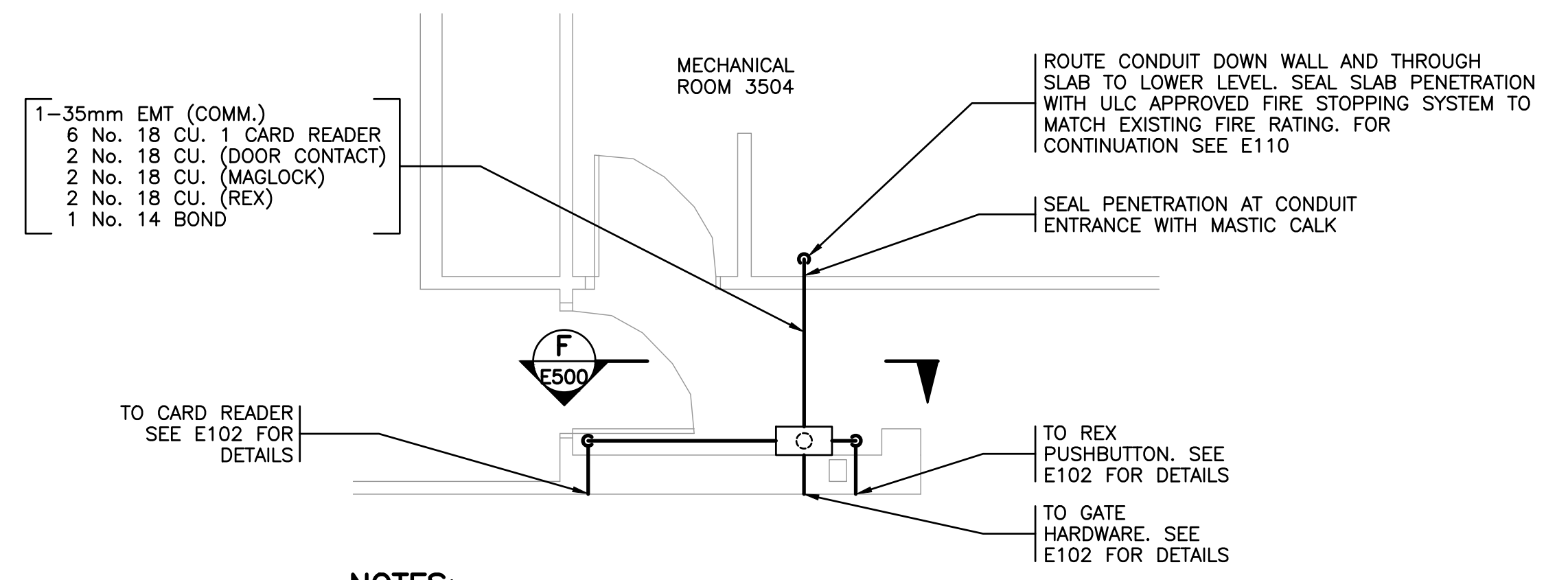
TITLE
HYDROGRAPHY/INFORMATICS (ADMINISTRATION LOWER LEVEL)

SCALE AS SHOWN PROJECT NUMBER 17470 DRAWING NUMBER E110 REV. 2

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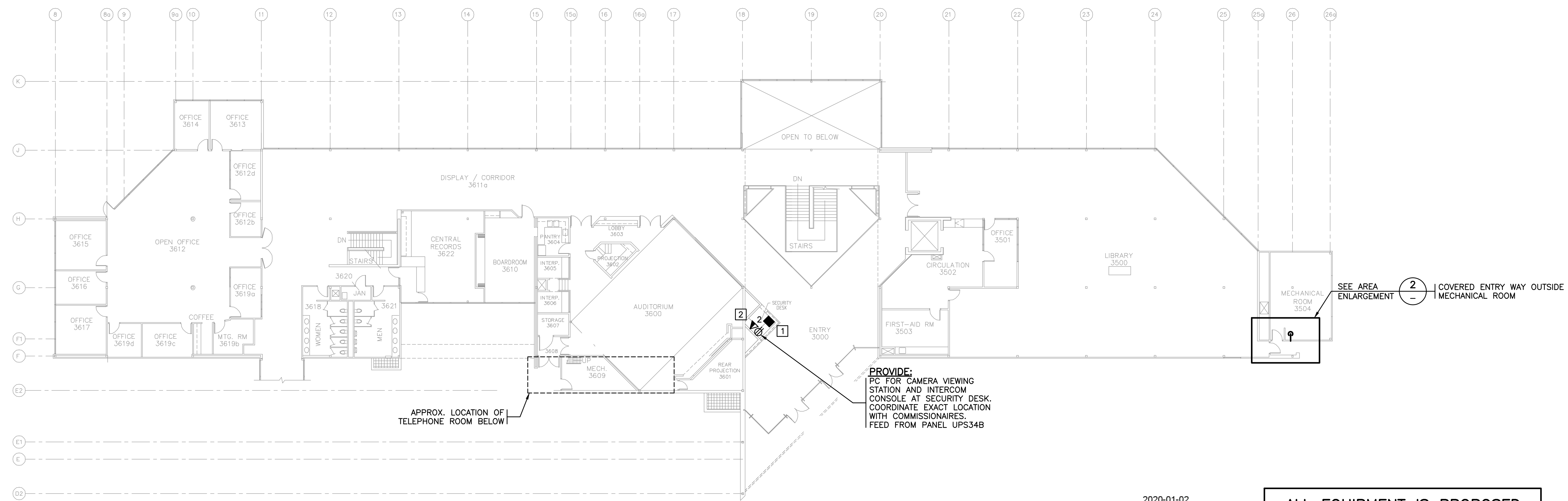
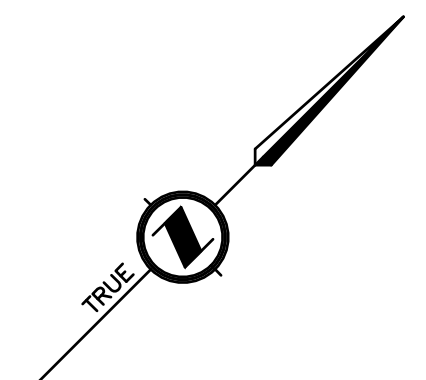
KEY PLAN
N.T.S.



NOTES:

- CONFIRM CONDUIT ROUTING ON SITE WITH DEPARTMENTAL REPRESENTATIVE PRIOR TO INSTALLATION.

AREA ENLARGEMENT 2 COVERED ENTRY WAY OUTSIDE MECHANICAL ROOM
N.T.S.



DETAIL 1 ADMINISTRATION/LIBRARY
N.T.S.

PROVIDE:
PC FOR CAMERA VIEWING STATION AND INTERCOM CONSOLE AT SECURITY DESK. COORDINATE EXACT LOCATION WITH COMMISSIONAIRES. FEED FROM PANEL UPS34B

ALL EQUIPMENT IS PROPOSED UNLESS NOTED OTHERWISE

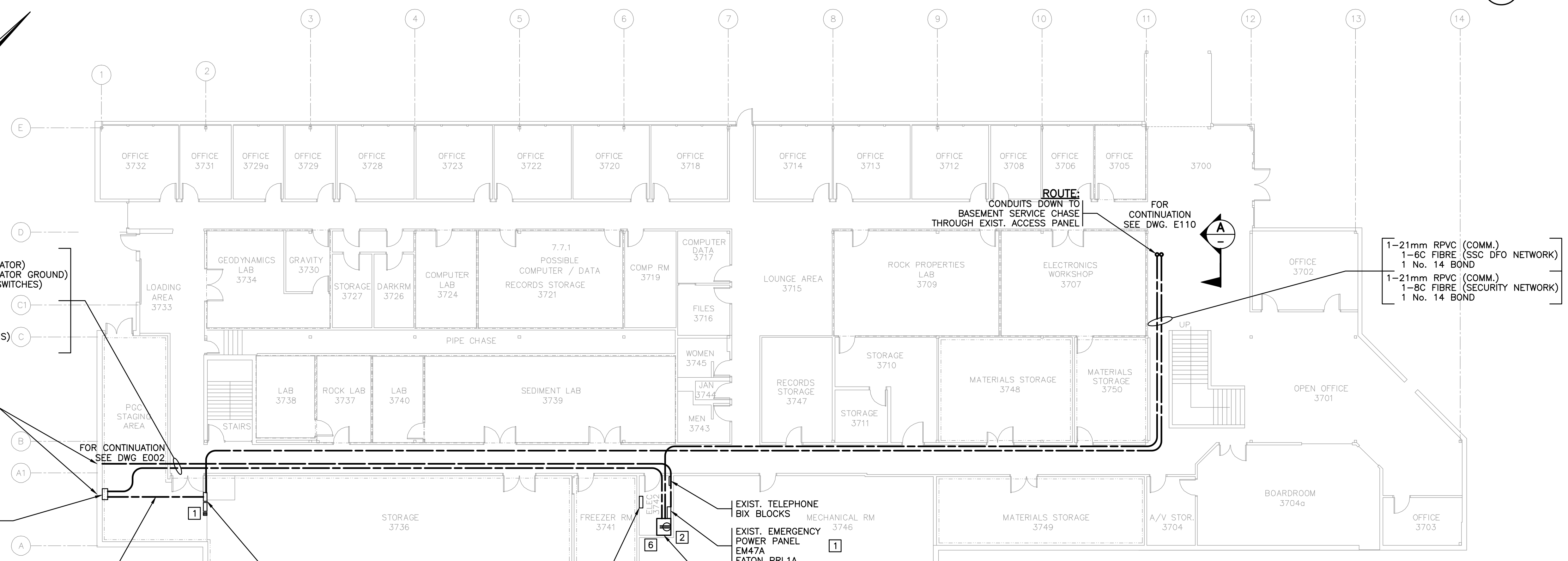
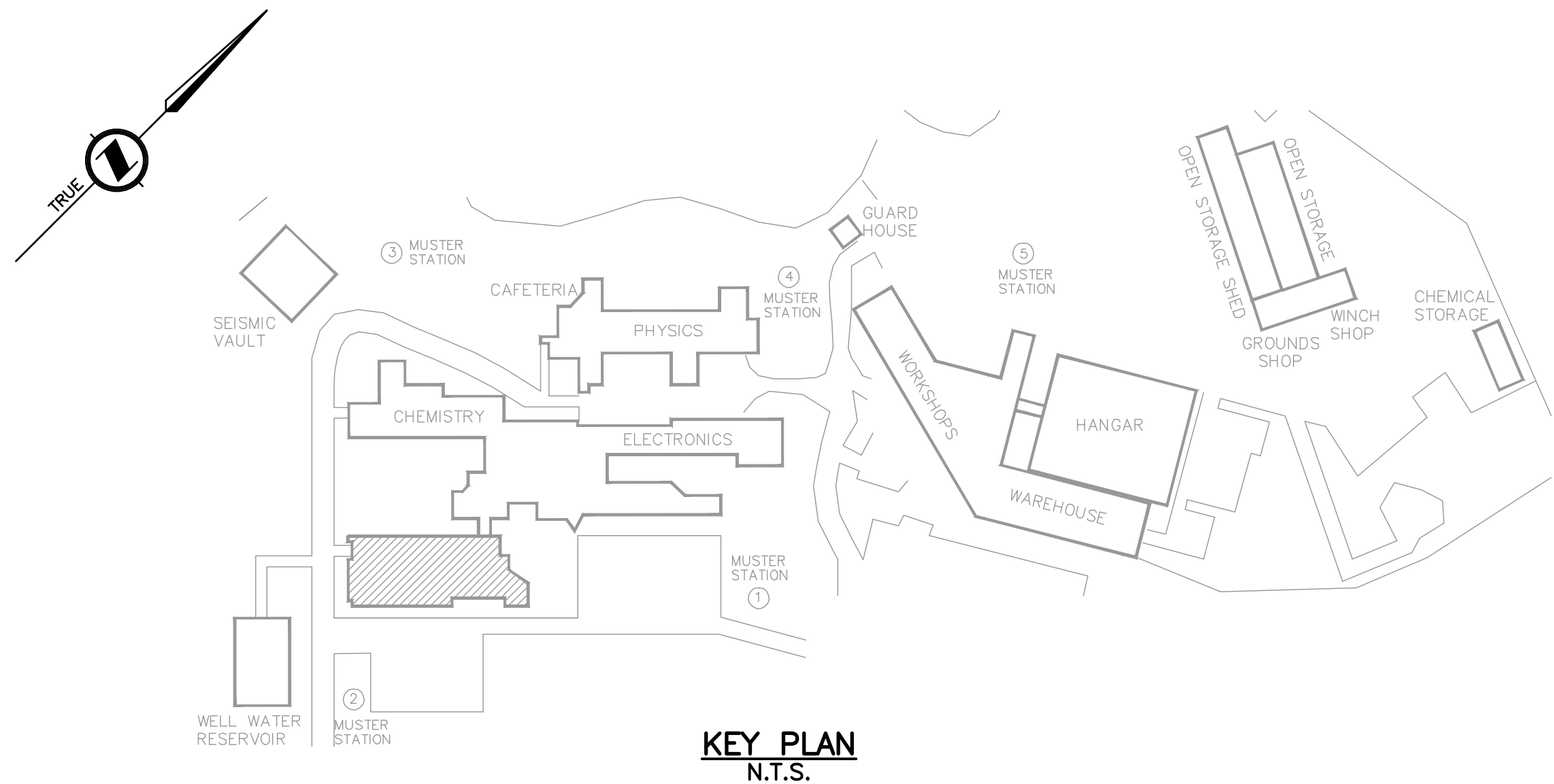
ISSUED FOR TENDER
NOT FOR CONSTRUCTION



- NOTES:**
- INTERCOM MASTER STATION. COORDINATE EXACT LOCATION WITH OWNER.
 - NETWORK DROP FED FROM NEW SECURITY NETWORK SWITCH IN TELEPHONE ROOM.

Rev.		DATE	ISSUE / REVISION DESCRIPTION	DESN	QC	QA	CLIENT Fisheries and Oceans Canada		PROJECT INSTITUTE OF OCEAN SCIENCES SECURITY GATE UPGRADES	SCALE AS SHOWN	PROJECT NUMBER 17470	DRAWING NUMBER E111	REV. 2
2	20JAN03	ISSUED FOR TENDER		ABS	RG	RG	TITLE ADMINISTRATION & LIBRARY						

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- 1-35mm RPVC (120V)
- 2 No. 6 CU. (GATE OPERATOR)
- 1 No. 6 CU. (GATE OPERATOR GROUND)
- 4 No. 10 CU. (2 FIELD SWITCHES)
- 1 No. 8 BOND

- 1-21mm RPVC (COMM.)
- 1-6C FIBRE (SSC DFO NETWORK)
- 1 No. 14 BOND
- 1-21mm RPVC (COMM.)
- 1-8C FIBRE (SECURITY NETWORK)
- 1 No. 14 BOND

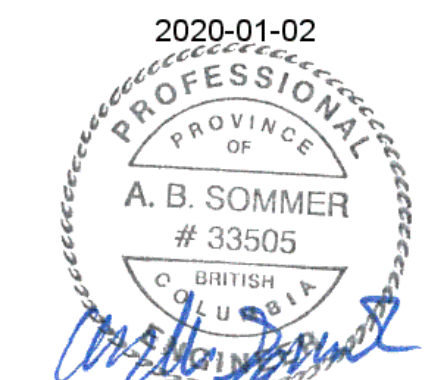
BUILDING CONDUIT EXIT SEE ELEVATION E500

PROVIDE: JUNCTION BOX TO COMBINE CONTROL AND COMM. WIRING PRIOR TO EXITING BUILDING. SIZE PER CEC REQUIREMENTS INCLUDING TO ALLOW FOR A MIN. OF TWO ADDITIONAL 35mm CONDUIT TO ENTER THE BOX.

- 1-53mm RPVC (COMM.)
- 36 No. 18 CU. (6 CARD READERS)
- 8 No. 16 CU. (4 GATE RELEASE)
- 4 No. 18 CU. (GATE OPERATOR)
- 2 No. 18 CU. (DOOR CONTACT)
- 2 No. 18 CU. (MAGLOCK)
- 1 No. 14 BOND

PROVIDE: 2-KT400 CONTROLLERS C/W ENCLOSURE AND POWER SUPPLY, 1-EXTERNAL POWER SUPPLIES FOR LONG-RANGE CARD READERS AT VEHICLE GATES TO SUPPORT FOUR (4) READERS TOTAL, 1-EXTERNAL MAGNETIC LOCK POWER SUPPLY FOR PEDESTRIAN GATE LOCKS TO SUPPORT TWO (2) PEDESTRIAN GATES
 INSTALL: ON G1S PLYWOOD BACKBOARD. PAINT WITH FIRE-RETARDANT PAINT.

DETAIL 1 PACIFIC GEOLOGICAL CENTRE LOWER LEVEL N.T.S.



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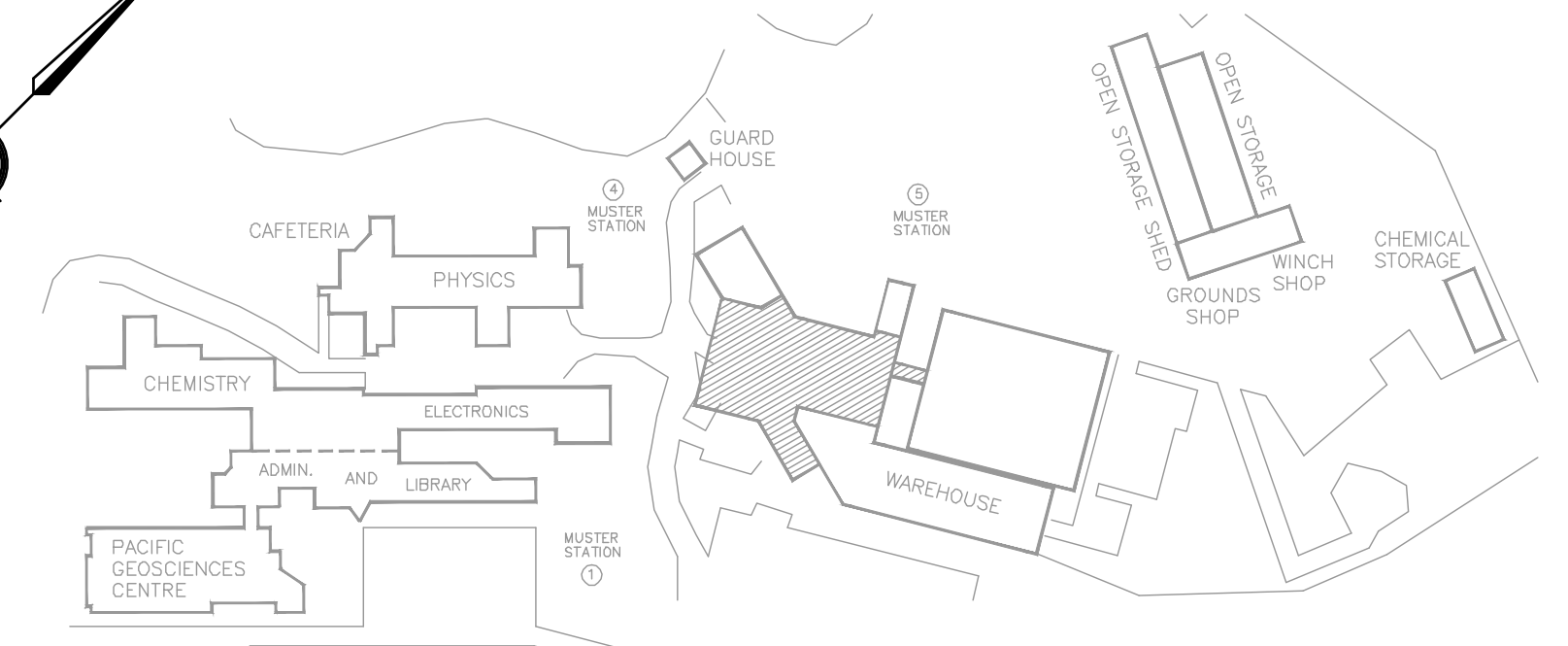
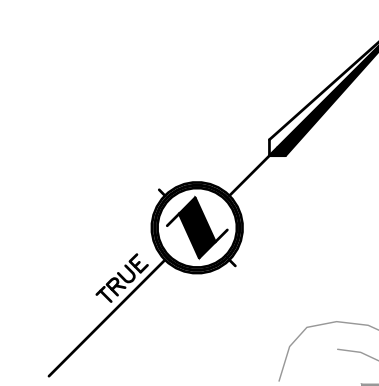
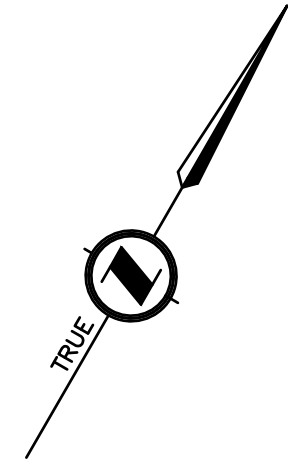
- NOTES:**
- 1 ALL ACCESS CONTROL AND SECURITY EQUIPMENT IN TELEPHONE ROOM AND PGC STAGING AREA SHALL BE FED FROM THIS PANEL. PROVIDE NEW BREAKERS AS REQUIRED. REFER TO PANEL SCHEDULES.
 - 2 L-20R RECEPTACLE FOR RACK-MOUNT UPS.
 - 3 CONDUITS ROUTED FROM ELECTRICAL ROOM 3742 TO SERVE ACCESS CONTROL AND SECURITY DEVICES WITHIN THE BUILDING ARE NOT SHOWN. SIZE CONDUITS AND CONDUCTORS PER CEC REQUIREMENTS.
 - 4 REFER TO DRAWING E610 FOR PANEL SCHEDULES.
 - 5 REFER TO DRAWING E515 DETAIL 1 FOR TELECOMMUNICATIONS BONDING.
 - 6 CONTRACTOR SHALL METER PANEL BOARD FOR A MINIMUM OF 7 DAYS PRIOR TO INSTALLING BREAKERS OR CONNECTING EQUIPMENT. PROVIDE RESULTS TO DEPARTMENTAL REPRESENTATIVE. MEETING SHALL INCLUDE SINGLE PHASE AND 3 PHASE KW, KVA, AND AMPS.

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2	20JAN03	ISSUED FOR TENDER	ABS	RG	RG

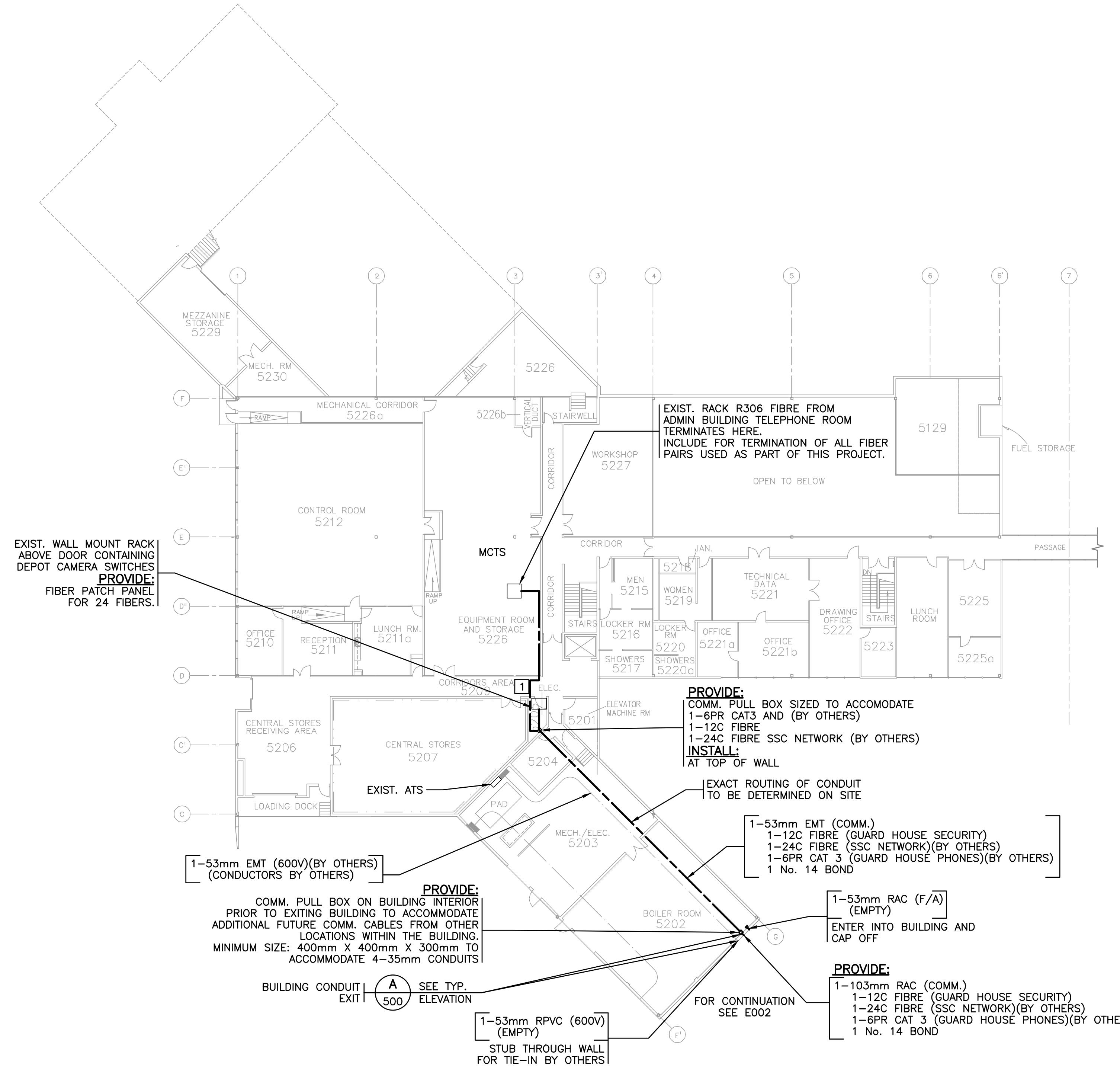
CLIENT
 Fisheries and Oceans Canada
 PROJECT
INSTITUTE OF OCEAN SCIENCES SECURITY GATE UPGRADES

PROFESSIONAL ENGINEER
 TITLE
PACIFIC GEOLOGICAL CENTRE - LOWER LEVEL
 SCALE AS SHOWN PROJECT NUMBER 17470 DRAWING NUMBER E112 REV. 2

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KEY PLAN
N.T.S.



DETAIL 1
N.T.S. **WORKSHOP/HANGAR**
E002 **UPPER LEVEL**



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**ISSUED FOR TENDER
NOT FOR CONSTRUCTION**

NOTES:

1 FIBRE FOR EXISTING DEPOT AD DOCK CAMERAS TERMINATE AT SWITCHES IN THIS ROOM. CONTRACTOR SHALL INVESTIGATE ROUTING AND NETWORK CONFIGURATION OR WIRING FOR ALL EXISTING CAMERAS AT START OF PROJECT AND PROVIDE INFORMATION TO DEPARTMENTAL REPRESENTATIVE. PROVIDE ALL INFORMATION ON EXISTING CONFIGURATION WHICH MAY BE REQUIRED FOR INTEGRATION INTO NEW SECURITY SYSTEM INCLUDING BUT NOT LIMITED TO: ALL FIBRE PATCH LOCATION, NETWORK SWITCH LOCATIONS AND CONFIGURATION, AND EXISTING FIBRE TYPE (SM, MM1, MM2, ETC).

Rev.	DATE	ISSUE / REVISION DESCRIPTION	DESN	QC	QA
2	20JAN03	ISSUED FOR TENDER	ABS	RG	RG

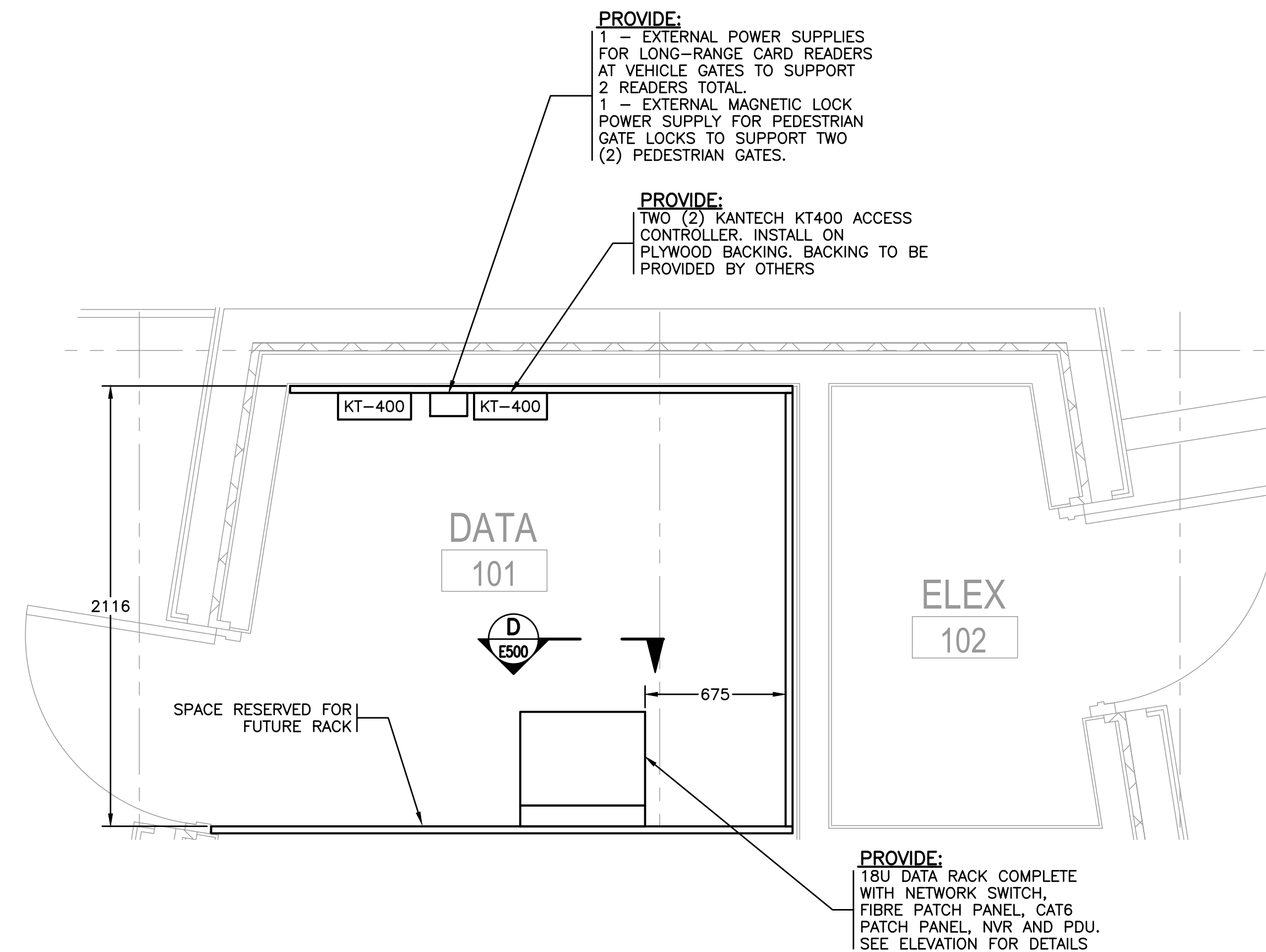
CLIENT
 Fisheries and Oceans Canada

PROJECT
**INSTITUTE OF OCEAN SCIENCES
SECURITY GATE UPGRADES**

TITLE
**WORKSHOP –
UPPER LEVEL**

SCALE AS SHOWN PROJECT NUMBER **17470** DRAWING NUMBER **E120** REV. **2**

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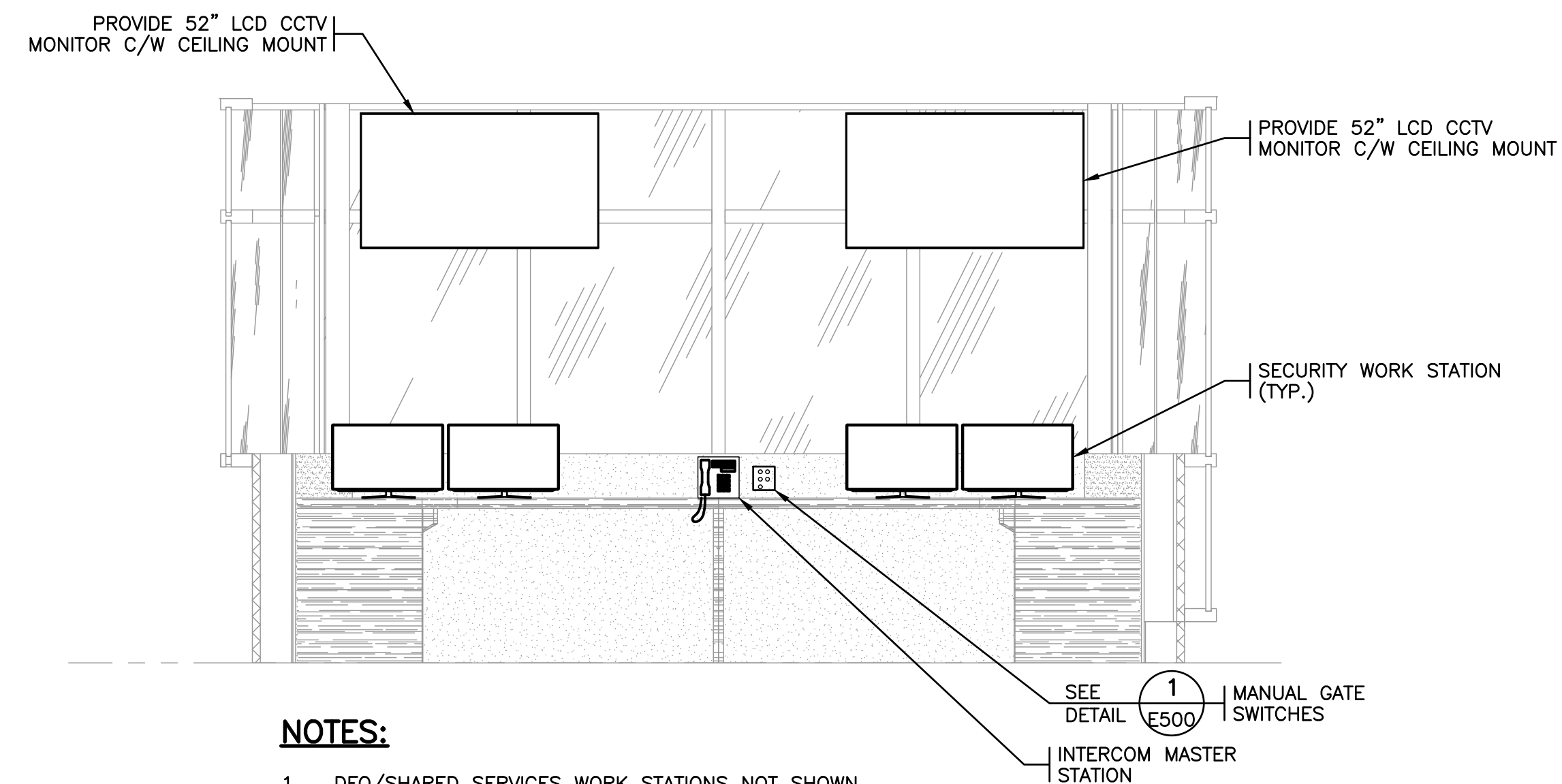


DETAIL 1 GUARD HOUSE DATA ROOM
1:20

PROVIDE:
18U DATA RACK COMPLETE WITH NETWORK SWITCH, FIBRE PATCH PANEL, CAT6 PATCH PANEL, NVR AND PDU. SEE ELEVATION FOR DETAILS

PROVIDE:
1 - EXTERNAL POWER SUPPLIES FOR LONG-RANGE CARD READERS AT VEHICLE GATES TO SUPPORT 2 READERS TOTAL.
1 - EXTERNAL MAGNETIC LOCK POWER SUPPLY FOR PEDESTRIAN GATE LOCKS TO SUPPORT TWO (2) PEDESTRIAN GATES.

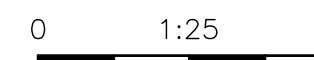
PROVIDE:
TWO (2) KANTECH KT400 ACCESS CONTROLLER. INSTALL ON PLYWOOD BACKING. BACKING TO BE PROVIDED BY OTHERS



NOTES:

- DFO/SHARED SERVICES WORK STATIONS NOT SHOWN.
- CONFIRM MOUNTING OF MANUAL GATE SWITCHES AND INTERCOM MASTER STATION WITH OWNER PRIOR TO INSTALLATION.

ELEVATION A GUARD HOUSE SECURITY ROOM SOUTH WALL
1:25



NOTES:

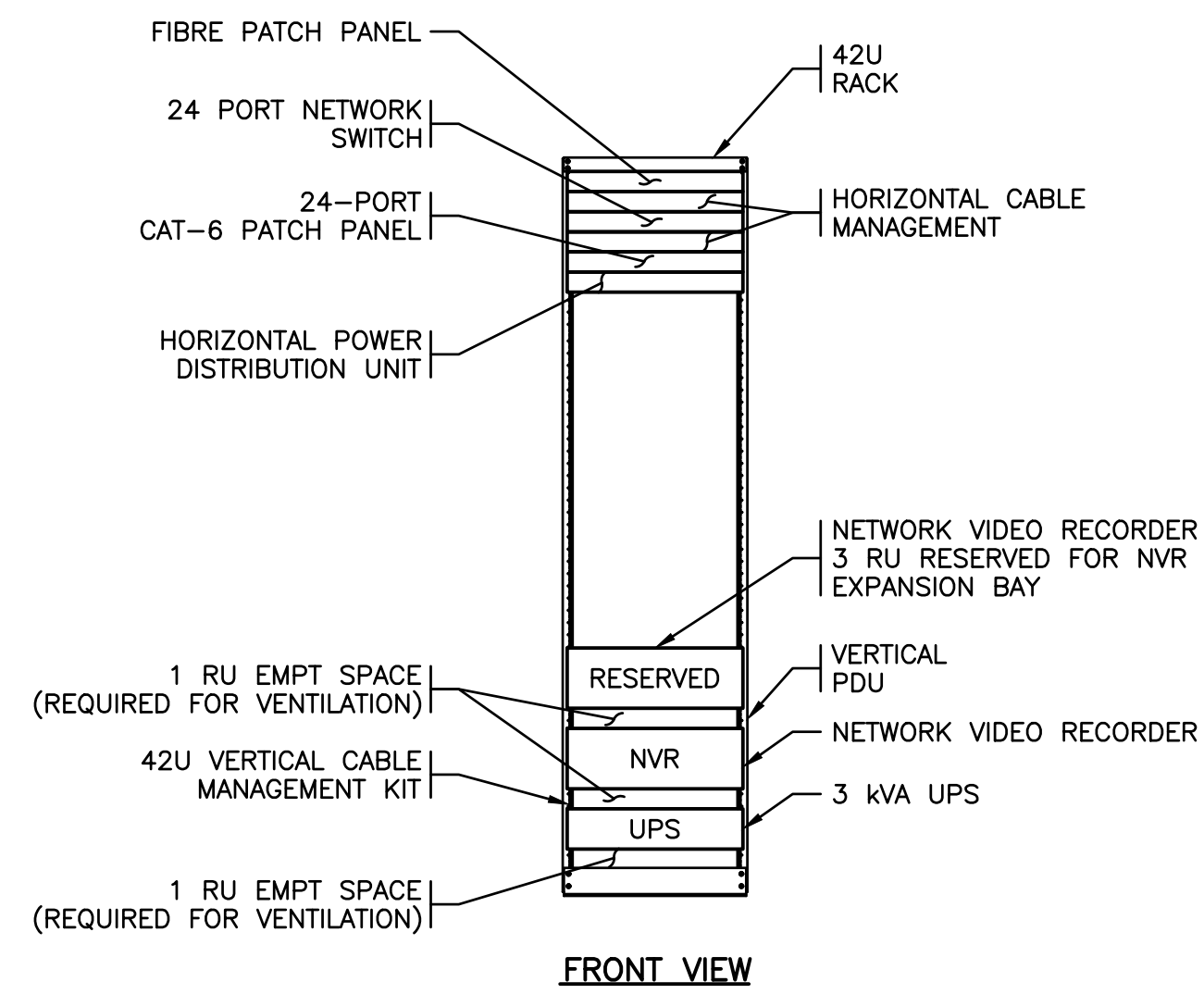
- COORDINATE INSTALLATION OF EQUIPMENT WITH GUARD HOUSE CONTRACTOR.
- ELECTRICAL DISTRIBUTION TO GUARD HOUSE WILL BE SUPPLIED AND INSTALLED BY GUARD HOUSE CONTRACTOR.
- ROOM LAYOUT IS INDICATIVE ONLY. COORDINATE FINAL INSTALLATION LOCATIONS WITH GUARD HOUSE CONSTRUCTION. GUARD HOUSE WILL BE DESIGNED AND CONSTRUCTED UNDER A SEPARATE CONTRACT.
- REFER TO DRAWING E515 DETAIL 2 FOR TELECOMMUNICATIONS BONDING.



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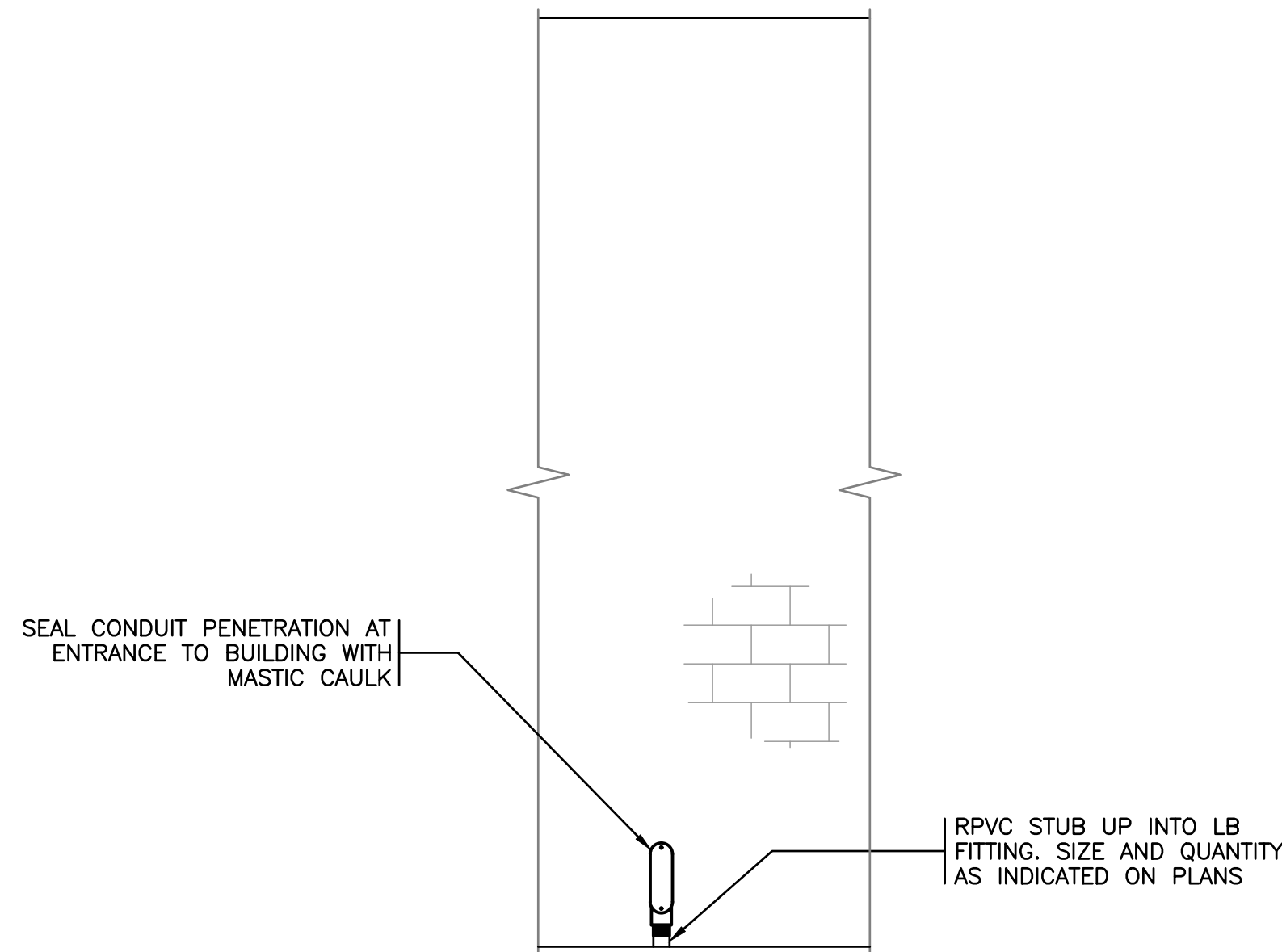
		CLIENT						
		PROJECT			INSTITUTE OF OCEAN SCIENCES SECURITY GATE UPGRADES		TITLE GUARD HOUSE DETAILS AND ELEVATIONS	
Rev.	DATE	ISSUE / REVISION DESCRIPTION	DESN	QC	QA	SCALE AS SHOWN	PROJECT NUMBER 17470	DRAWING NUMBER E130
2	20JAN03	ISSUED FOR TENDER	ABS	RG	RG			REV. 2



NOTES:

- CONTRACTOR SHALL FOLLOW THE ABOVE RACK CONFIGURATION. PATCH PANEL, PATCH CABLES, PATCH PANEL CONNECTORS, AND NETWORK SWITCH ARE TO BE PROVIDED BY THE CONTRACTOR.
- RACK SHALL BE OPEN 4-POST TYPE. STANDARD OF ACCEPTANCE: APC NETSHELTER
- NETWORK VIDEO RECORDER SUPPLIED BY OTHERS INSTALLED BY CONTRACTOR.
- UPS STANDARD OF ACCEPTANCE: APC SMART UPS 3000VA LCD RM 2U 120V C/W NETWORK MANAGEMENT CARD.

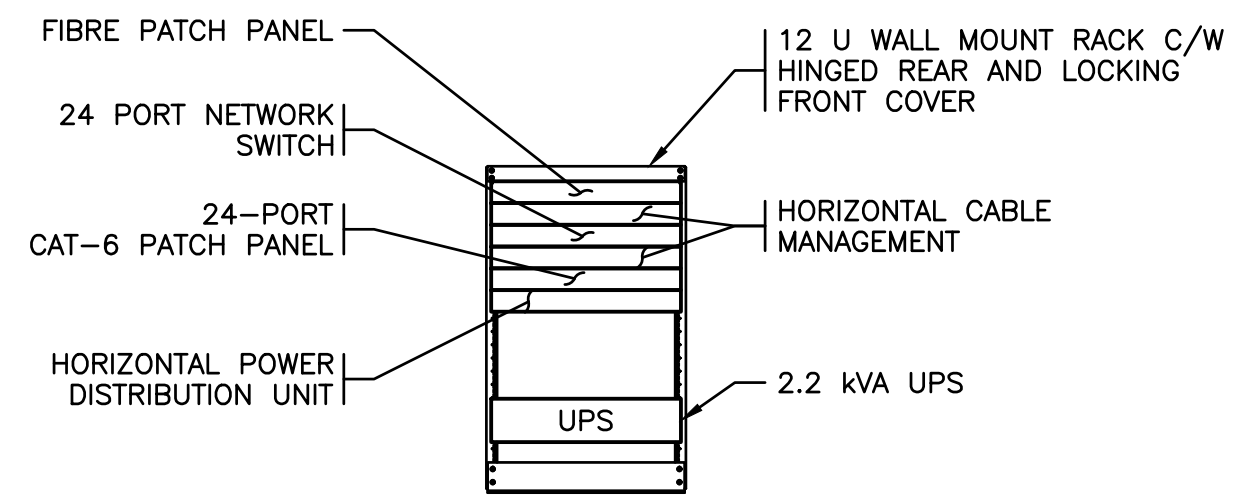
ELEVATION A NVR DATA RACK
N.T.S. E110 ADMIN. BUILDING



NOTES:

- SINGLE ENTRY SHOWN. SEE PLANS FOR EXACT NUMBER OF CONDUITS REQUIRED.
- PAINT CONDUIT TO MATCH BUILDING FINISH.

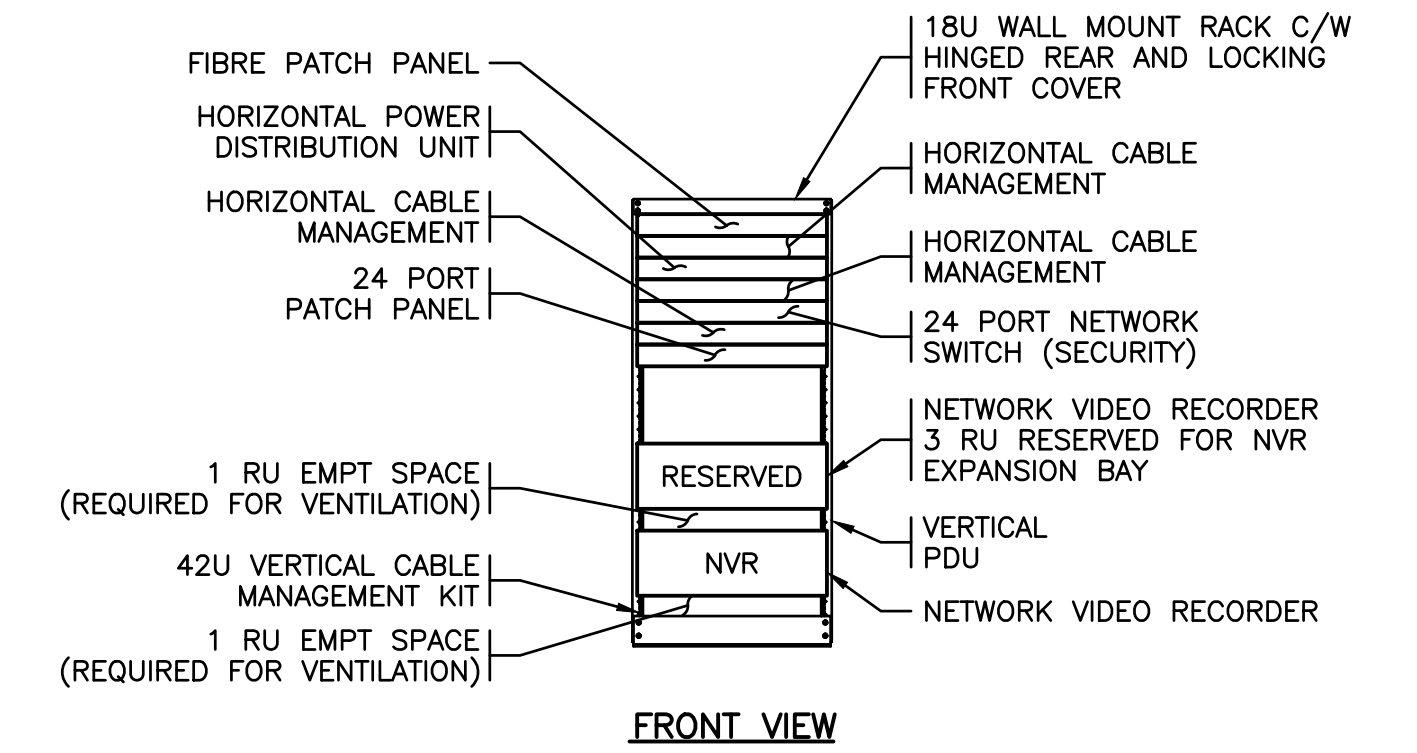
ELEVATION B BUILDING CONDUIT ENTRANCE
N.T.S. E002 E100 E102 EXTERIOR WALL



NOTES:

- CONTRACTOR SHALL FOLLOW THE ABOVE RACK CONFIGURATION. PATCH PANEL, PATCH CABLES, PATCH PANEL CONNECTORS, AND NETWORK SWITCH ARE TO BE PROVIDED BY THE CONTRACTOR.
- UPS STANDARD OF ACCEPTANCE: APC SMART UPS 2200VA LCD RM 2U 120V C/W MANAGEMENT NETWORK CARD.
- RACK SHALL BE LOCKING TYPE WITH FRONT WINDOW.

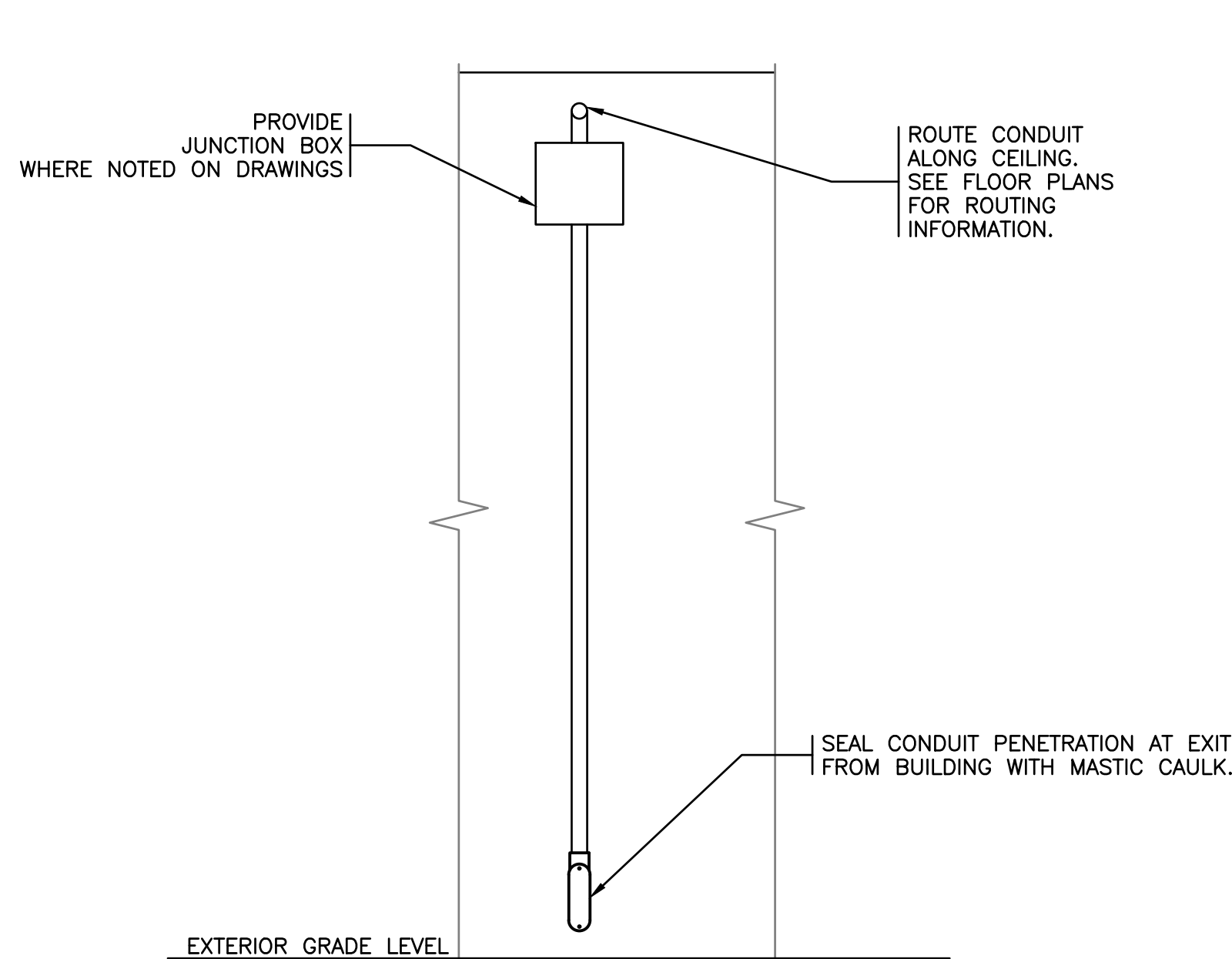
ELEVATION C WALL MOUNT DATA RACK
N.T.S. E112



NOTES:

- CONTRACTOR SHALL FOLLOW THE ABOVE RACK CONFIGURATION. PATCH PANEL, PATCH CABLES, PATCH PANEL CONNECTORS, AND NETWORK SWITCH ARE TO BE PROVIDED BY THE CONTRACTOR.
- RACK SHALL BE ENCLOSED, HINGED WALL MOUNT TYPE. STANDARD OF ACCEPTANCE: STARTECH RK1820WALHM.
- NETWORK VIDEO RECORDER SUPPLIED BY OTHERS INSTALLED BY CONTRACTOR.
- PROVIDE FLOOR-MOUNTED UPS FOR DATA RACK. UPS STANDARD OF ACCEPTANCE: APC SMART UPS 3000VA LCD RM 2U 120V C/W MANAGEMENT NETWORK CARD.

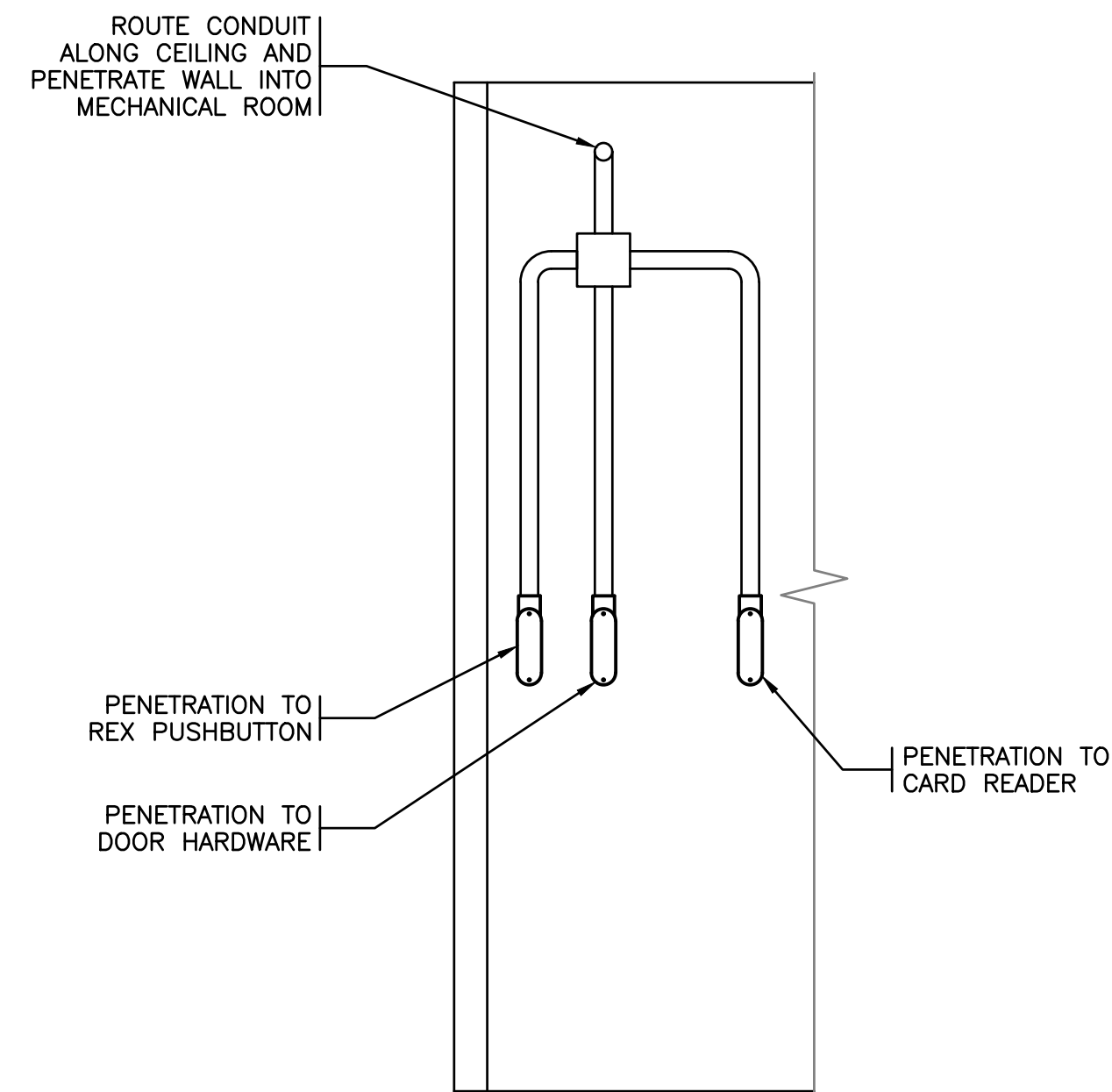
ELEVATION D NVR DATA RACK
N.T.S. E130 GATE HOUSE



NOTES:

- CONFIRM CONDUIT ROUTING WITH OWNER PRIOR TO INSTALLATION.
- PAINT CONDUIT TO MATCH EXISTING WALL COLOUR.

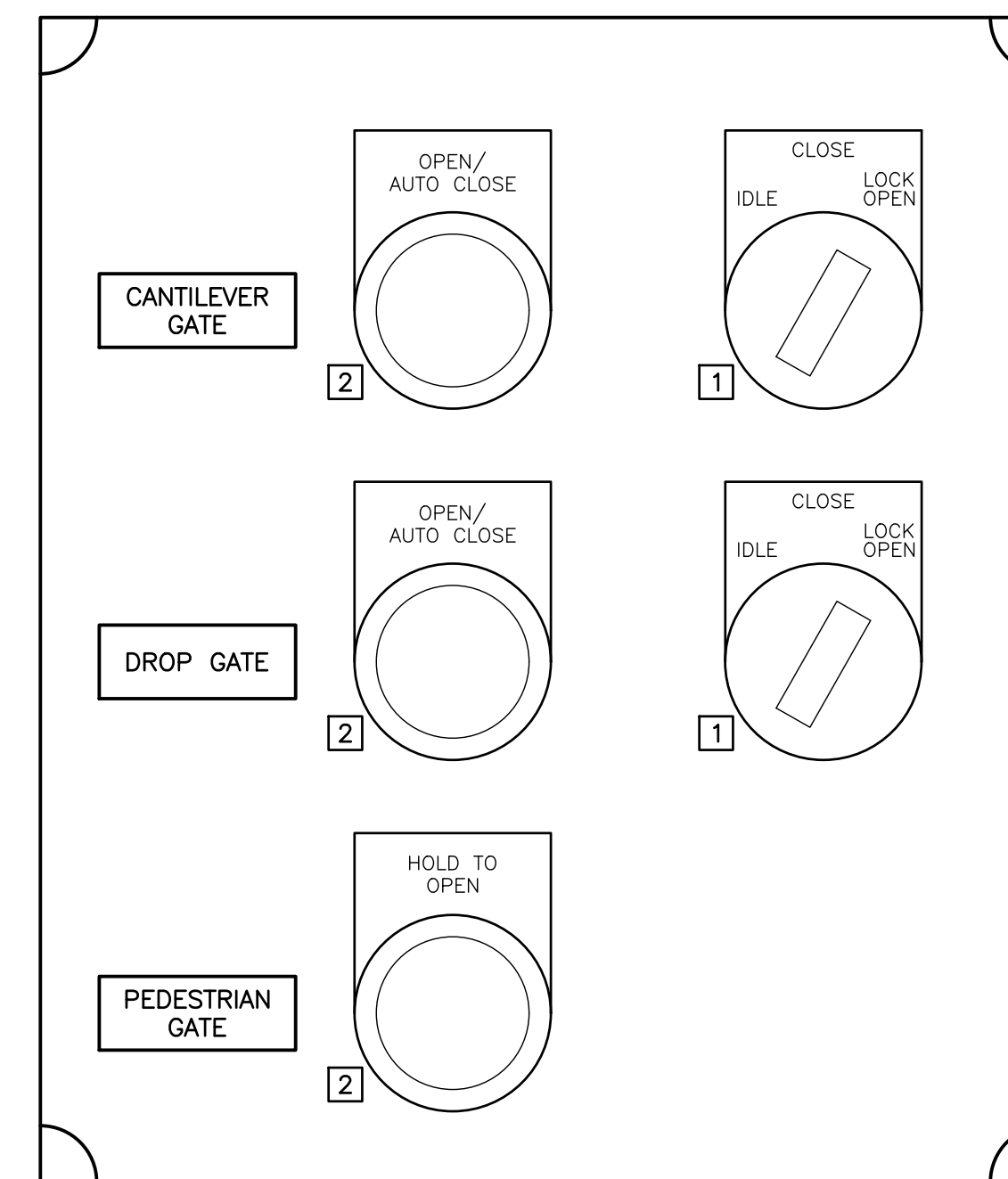
ELEVATION E BUILDING CONDUIT EXIT
N.T.S. E112 E120 INTERIOR WALL



NOTES:

- CONFIRM CONDUIT ROUTING ON SITE WITH DEPARTMENTAL REPRESENTATIVE PRIOR TO INSTALLATION.

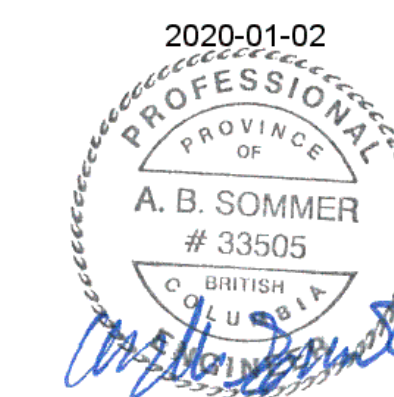
ELEVATION F LIBRARY PEDESTRIAN GATE CONDUIT EXIT
N.T.S. E111 INTERIOR WALL IN COVERED AREA



DETAIL A MANUAL GATE SWITCHES
N.T.S. E130

NOTES:

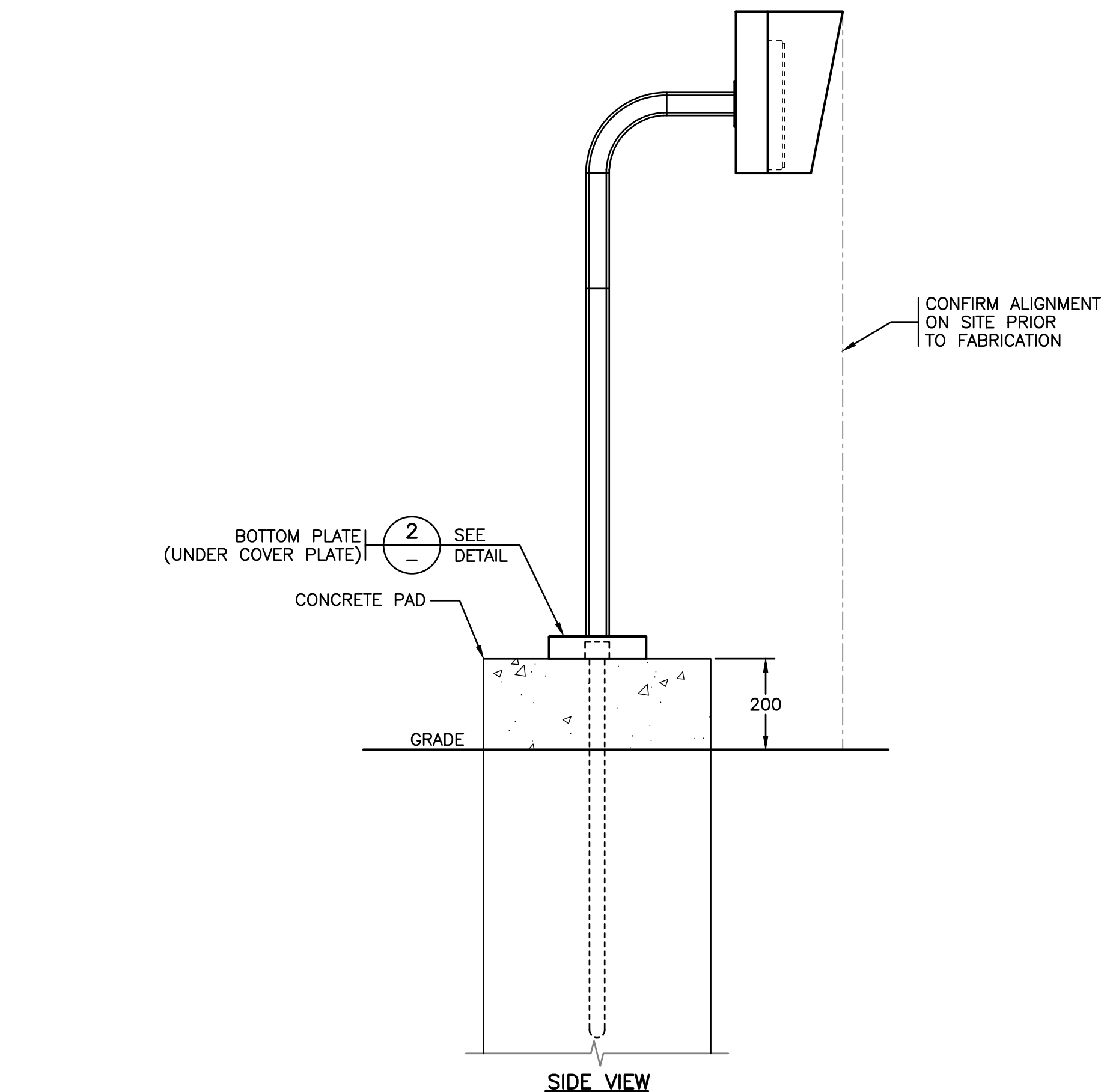
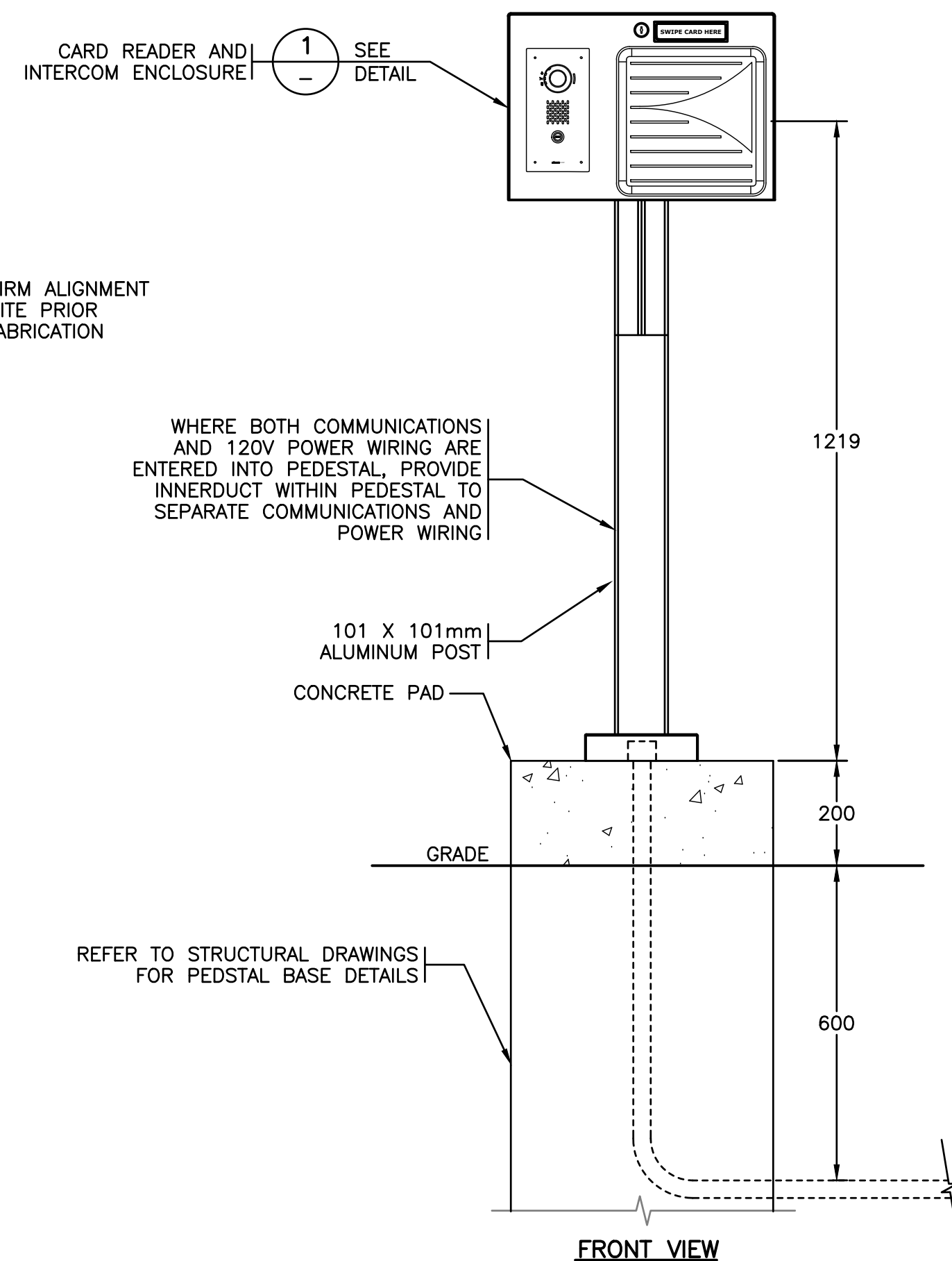
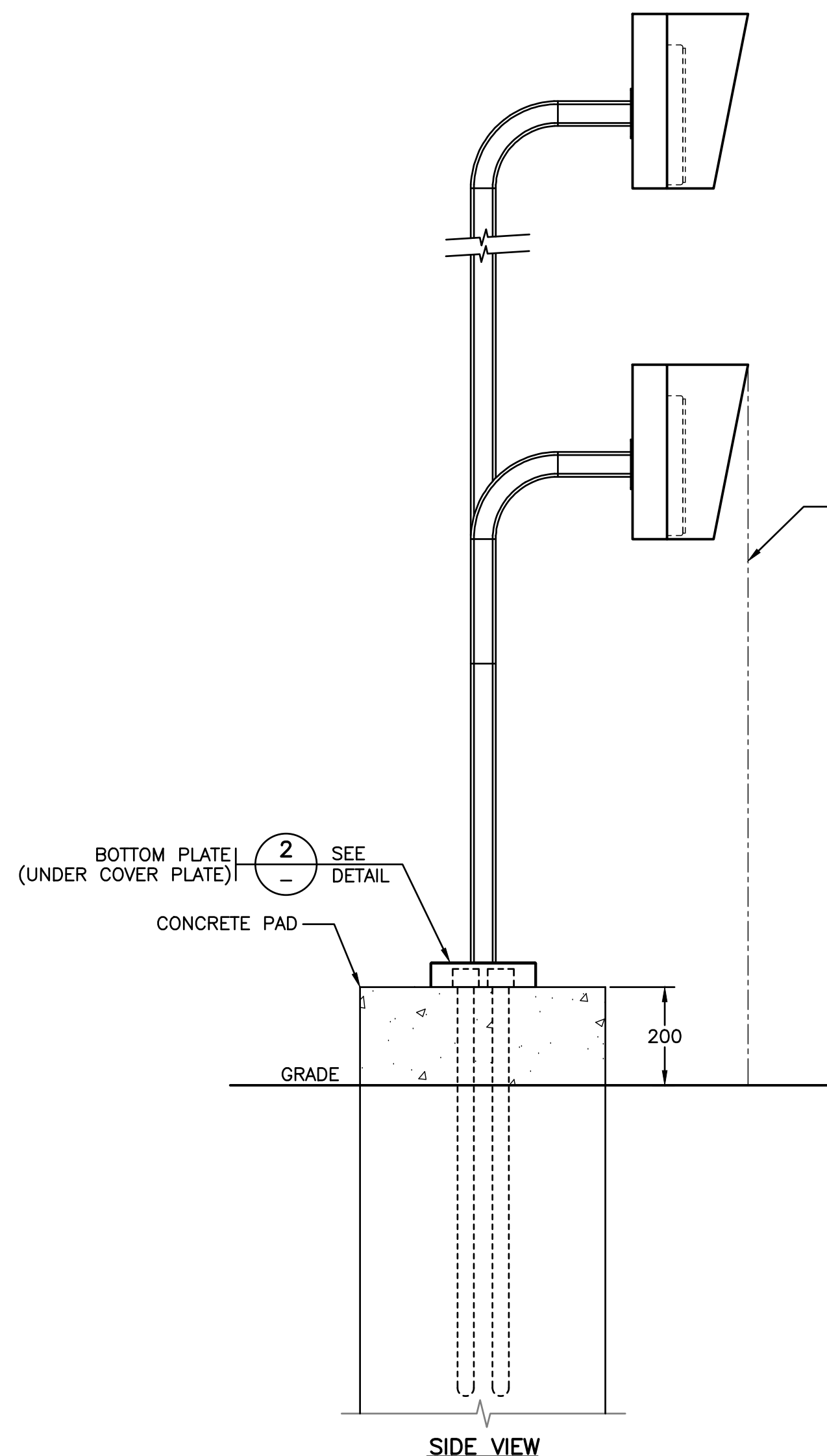
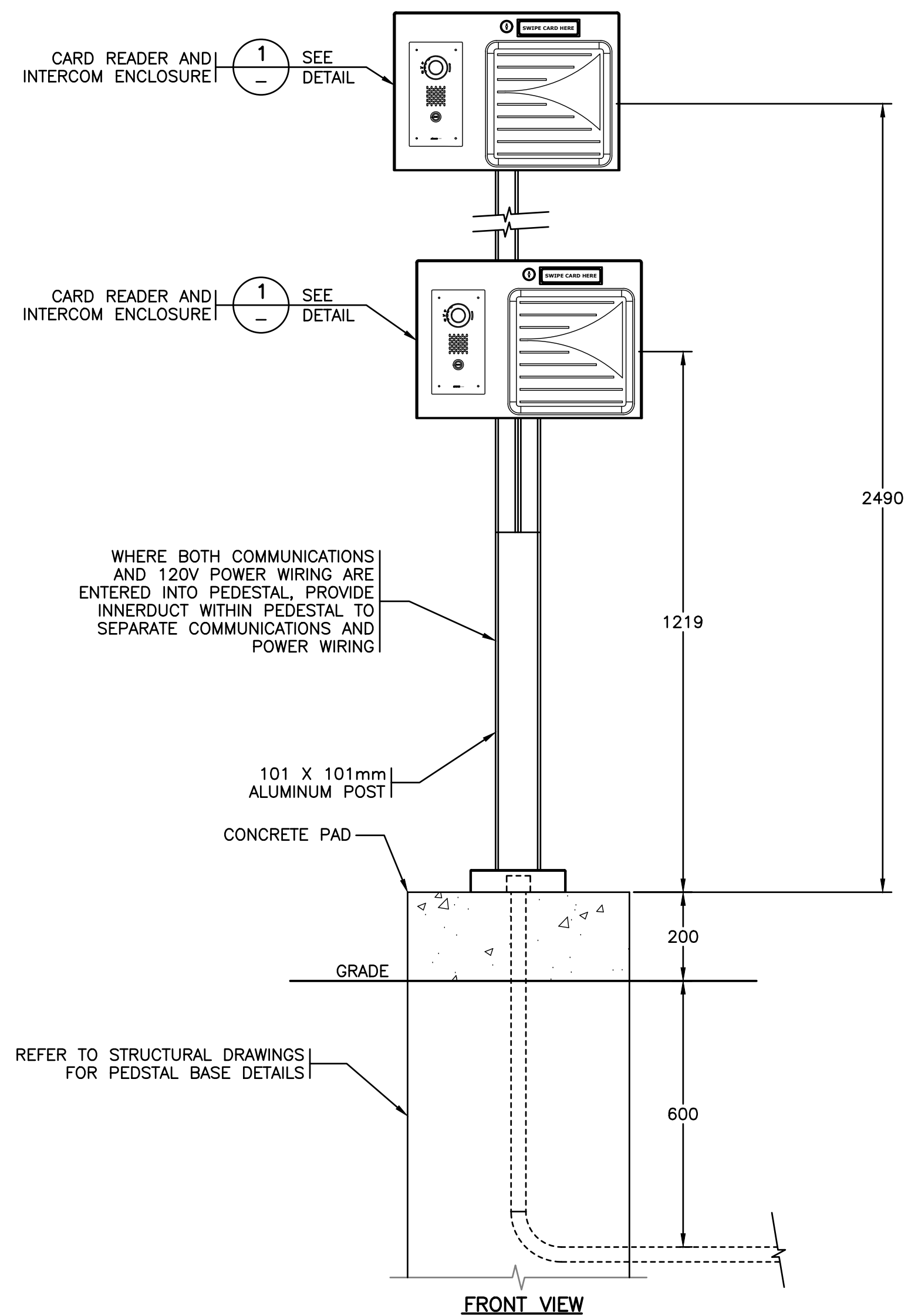
- 3-POSITION SELECTOR SWITCH WITH SPRING-RETURN FROM LEFT AND LOCK POSITION ON RIGHT. PROVIDE COMPLETE WITH ENGRAVED NAMEPLATE AS SHOWN. STANDARD OF ACCEPTANCE IS ALLEN-BRADLEY 800H SERIES
- MOMENTARY CONTACT PUSHBUTTON. PROVIDE COMPLETE WITH ENGRAVED NAMEPLATE AS SHOWN. STANDARD OF ACCEPTANCE IS ALLEN-BRADLEY 800H SERIES
- PROVIDE ALL SWITCHES COMPLETE WITH ENGRAVED LAMACOID LABELS INDICATING GATE CONTROLLED. LABELS SHALL BE BLACK WITH WHITE LETTERING
- DETAILS ARE FUNCTIONAL ONLY. CONTRACTOR SHALL SUPPLY SHOP DRAWINGS FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
- PROVIDE RPVC ENCLOSURE SIZED TO SUIT SWITCHES.



ALL EQUIPMENT IS PROPOSED UNLESS NOTED OTHERWISE

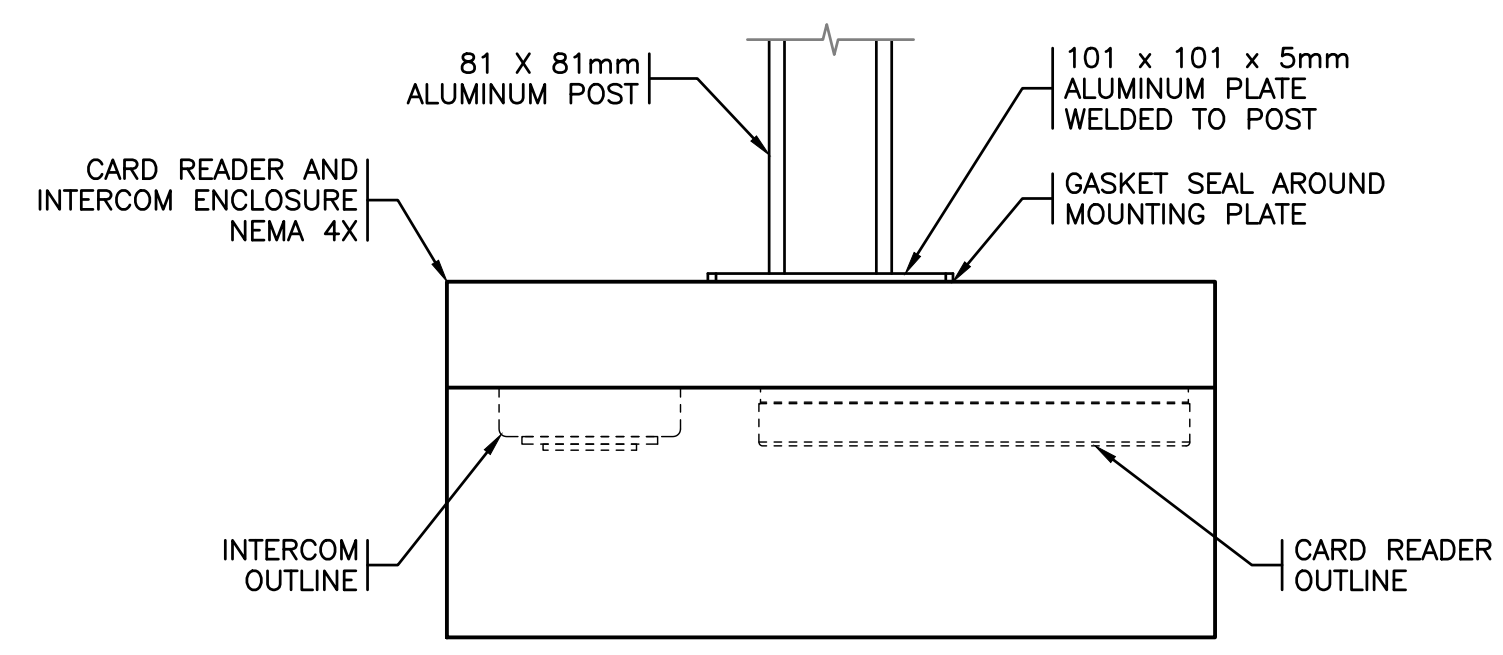
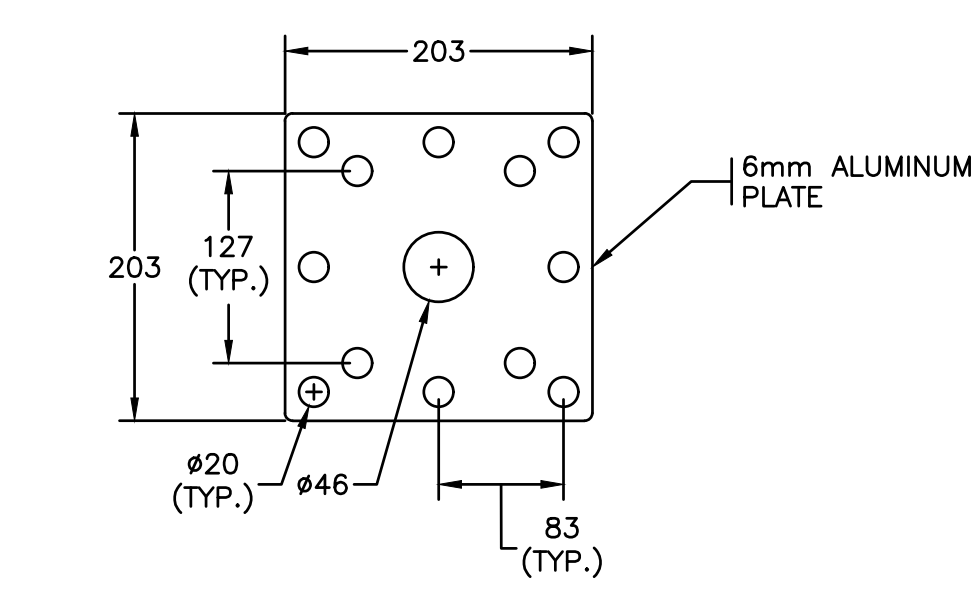
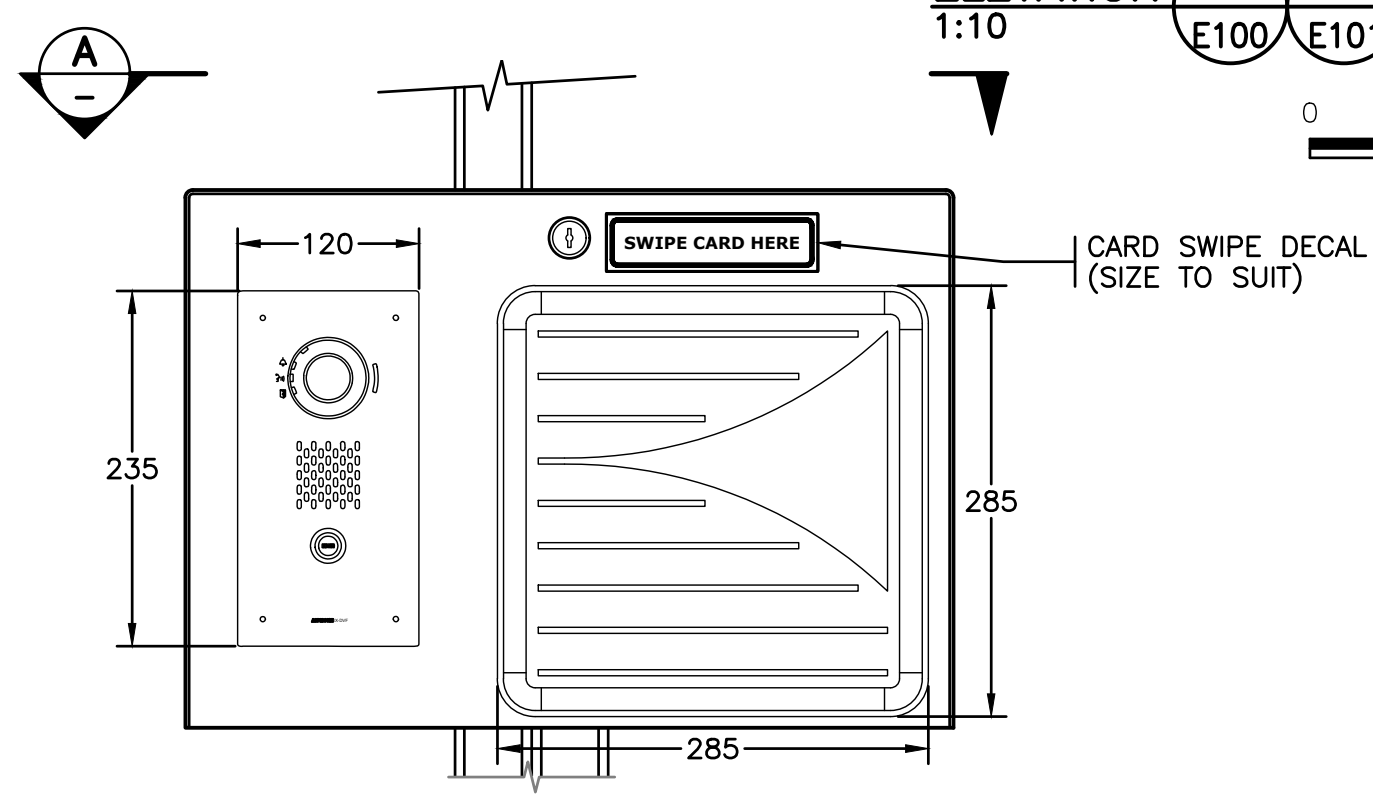
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				CLIENT						
				PROJECT			INSTITUTE OF OCEAN SCIENCES SECURITY GATE UPGRADES		TITLE ELEVATIONS	
2	20JAN03	ISSUED FOR TENDER		ABS	RG	RG	SCALE	PROJECT NUMBER	DRAWING NUMBER	REV.
Rev.	DATE	ISSUE / REVISION DESCRIPTION		DESN	QC	QA	AS SHOWN	17470	E500	2



ELEVATION A A DUAL HEIGHT CARD READER AND INTERCOM PEDESTAL
1:10

ELEVATION B SINGLE HEIGHT CARD READER AND INTERCOM PEDESTAL
1:10



DETAIL 1 CARD READER AND INTERCOM ENCLOSURE
1:5

DETAIL 2 BOTTOM PLATE (UNDER COVER PLATE)
1:5

SECTION A
1:5

NOTES:

1. DETAILS ARE FUNCTIONAL ONLY. CONTRACTOR SHALL SUPPLY SHOP DRAWINGS FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
2. CARD READER ENCLOSURE SHALL MEET IP54.
3. CARD READER AND PEDESTAL ENCLOSURE SHALL BE POWDER COATED SAFETY YELLOW.
4. ENCLOSURE SIZE APPROXIMATE. SELECT FINAL ENCLOSURE SIZE TO SUIT.
5. INTERCOM UNIT SHALL BE AUDIO-VISUAL OR AUDIO ONLY AS INDICATED ON PLAN DRAWINGS.
6. CONTRACTOR SHALL CONFIRM BOTTOM PLATE BOLT PATTERN OF SUPPLIED UNIT.
7. PROVIDE EXTRA DEEP ENCLOSURE BOX WHERE NOTED ON DRAWINGS. REFER TO DRAWING E514.
8. STANDARD OF ACCEPTANCE: BATCO OR APPROVED EQUAL.

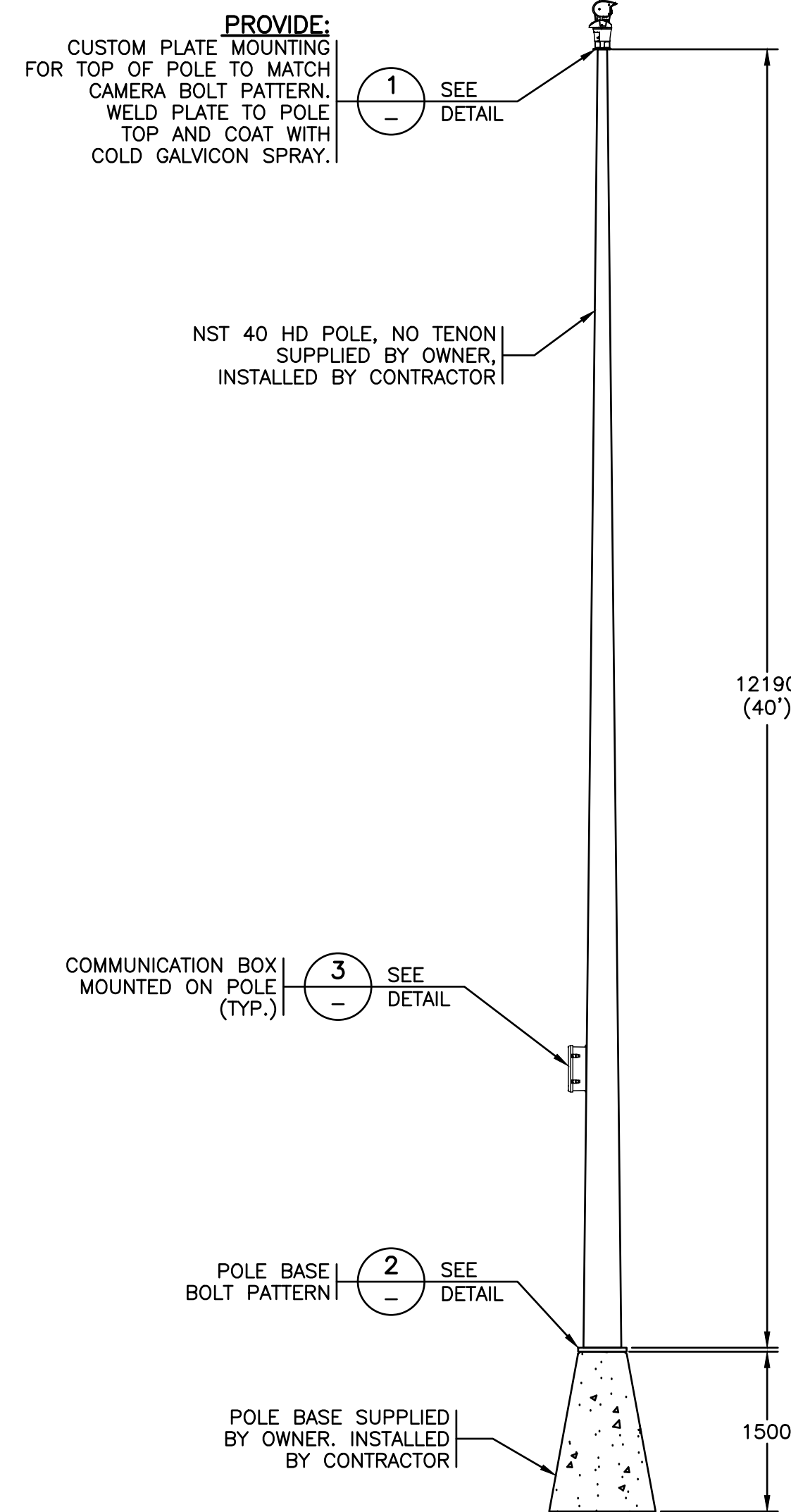
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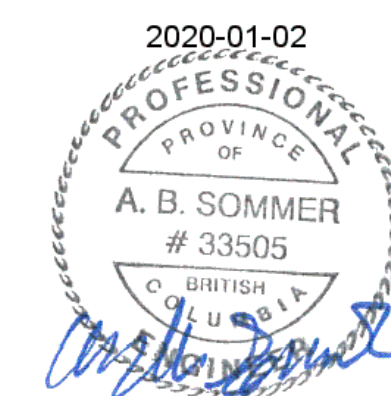
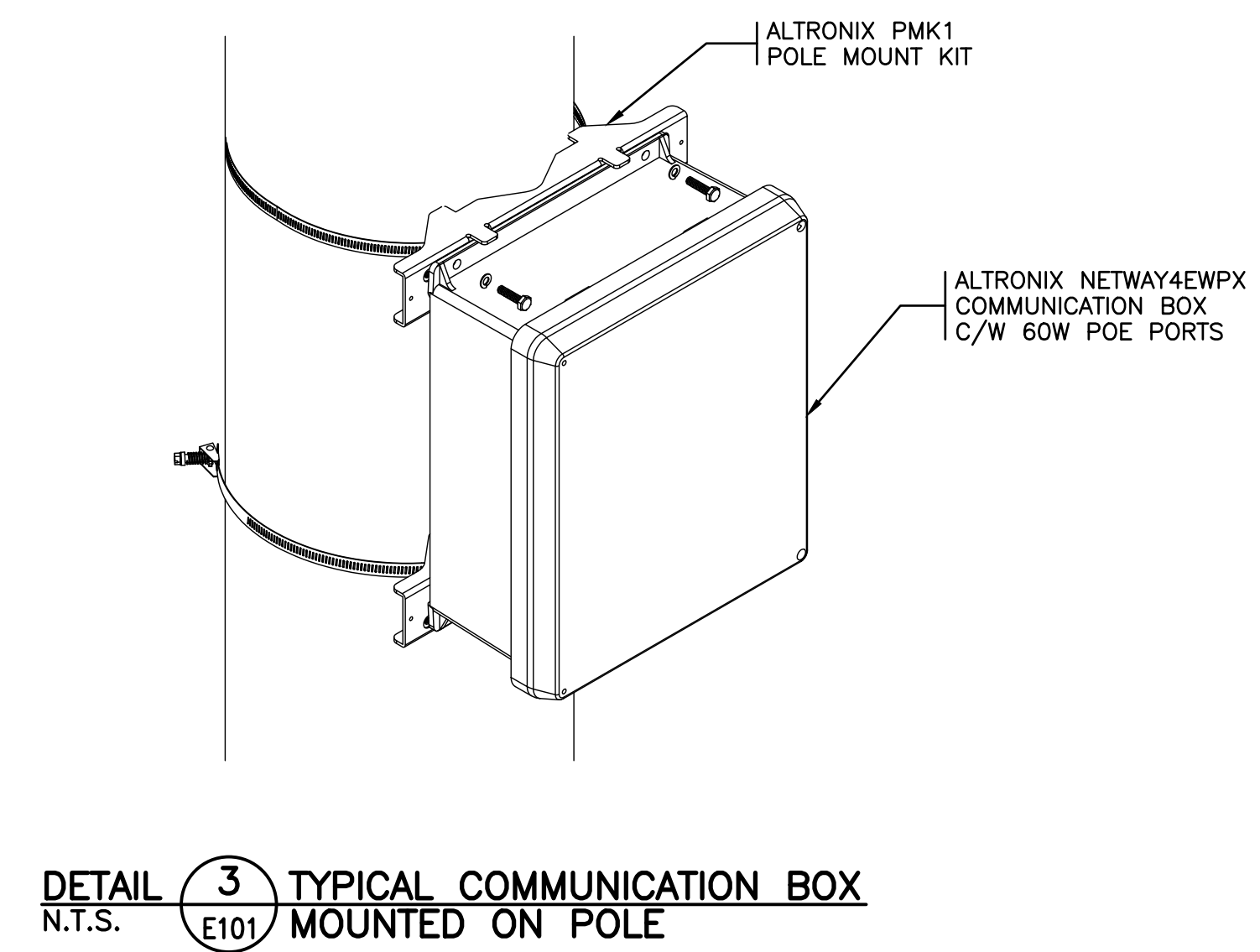
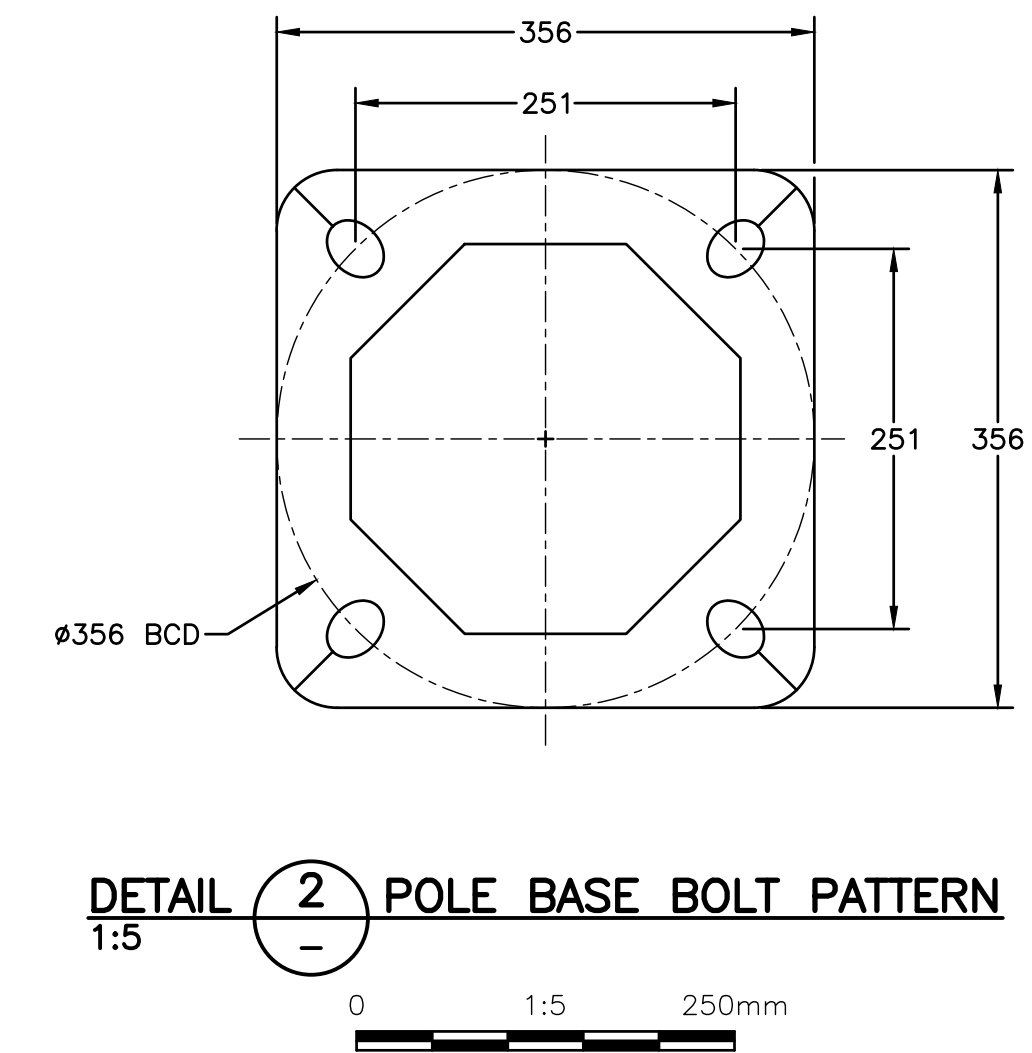
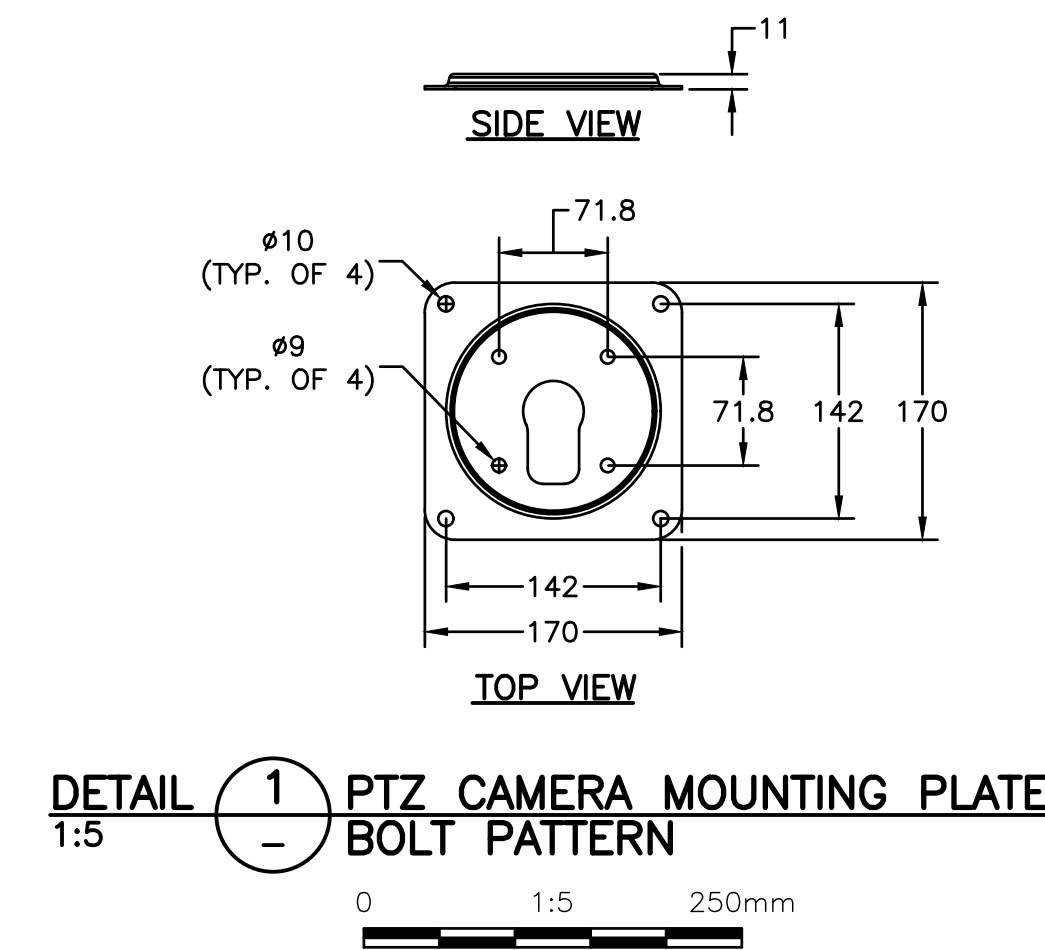
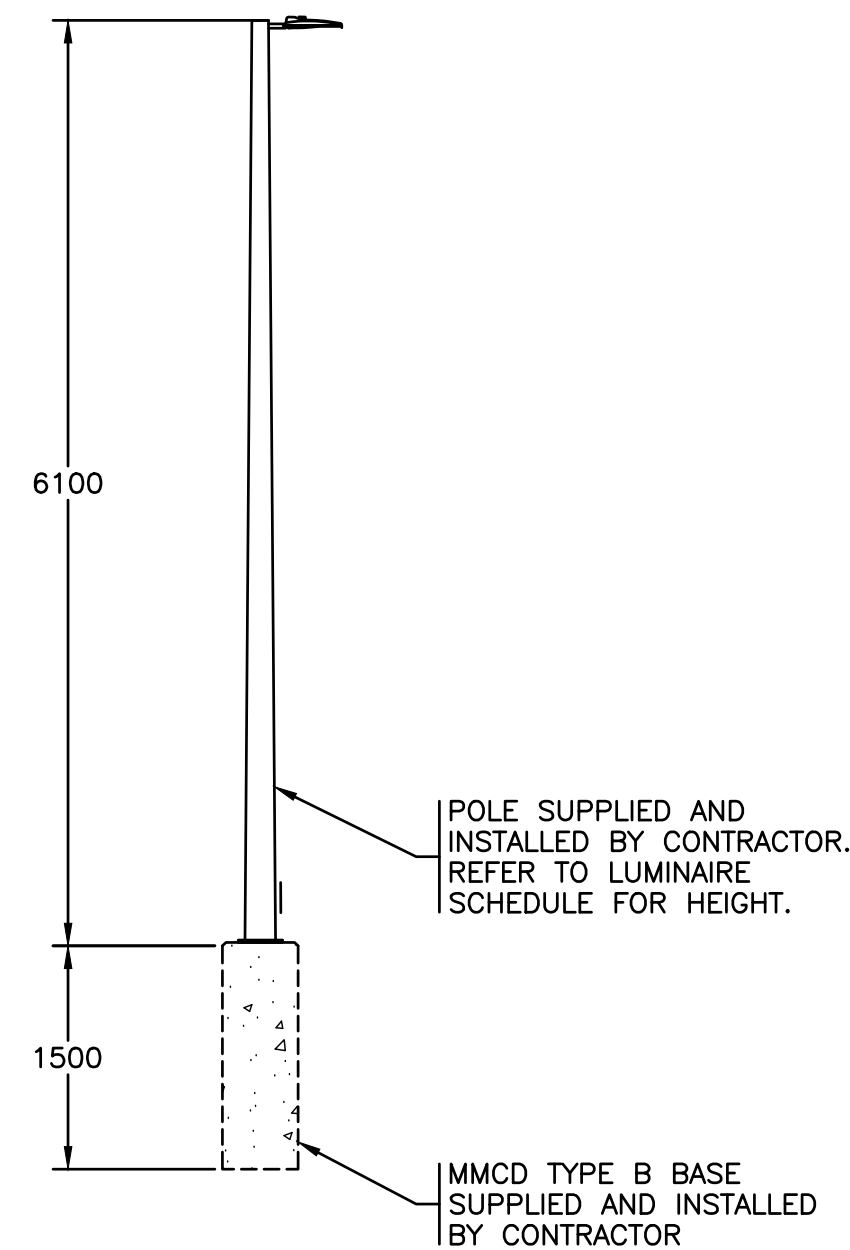
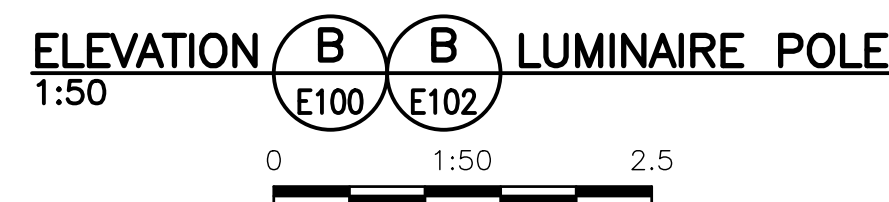
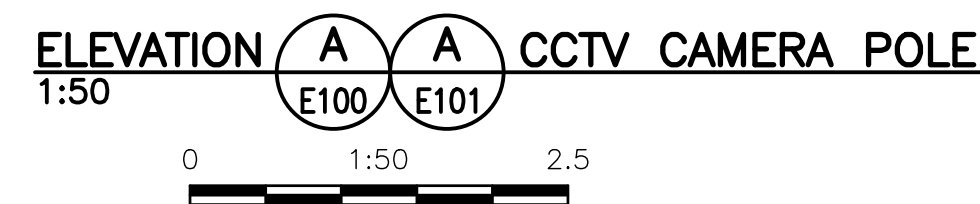
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					PROJECT		INSTITUTE OF OCEAN SCIENCES SECURITY GATE UPGRADES	
					TITLE		INTERCOM/CARD READER PEDESTAL DETAILS	
					SCALE		AS SHOWN	
					PROJECT NUMBER		17470	
					DRAWING NUMBER		E510	
					REV.		2	
Rev.	DATE	ISSUE / REVISION DESCRIPTION			DESN	QC	QA	
2	20JAN03	ISSUED FOR TENDER			ABS	RG	RG	

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NOTES:

1. POLES HAVE BEEN PRE-PURCHASED. CONTRACTOR SHALL CONFIRM BOTH PATTERN FOR EXISTING POLE PRIOR TO COMMENCING CONSTRUCTION
2. CAMERA HAS BEEN PRE-PURCHASED BY CLIENT. CONTRACTOR SHALL CONFIRM DIMENSIONS AND BOLT PATTERN PRIOR TO FABRICATING CUSTOM MOUNTING PLATE.
3. PROVIDE INNERDUCT IN POLE TO SEPARATE POWER AND COMMUNICATIONS WIRING.

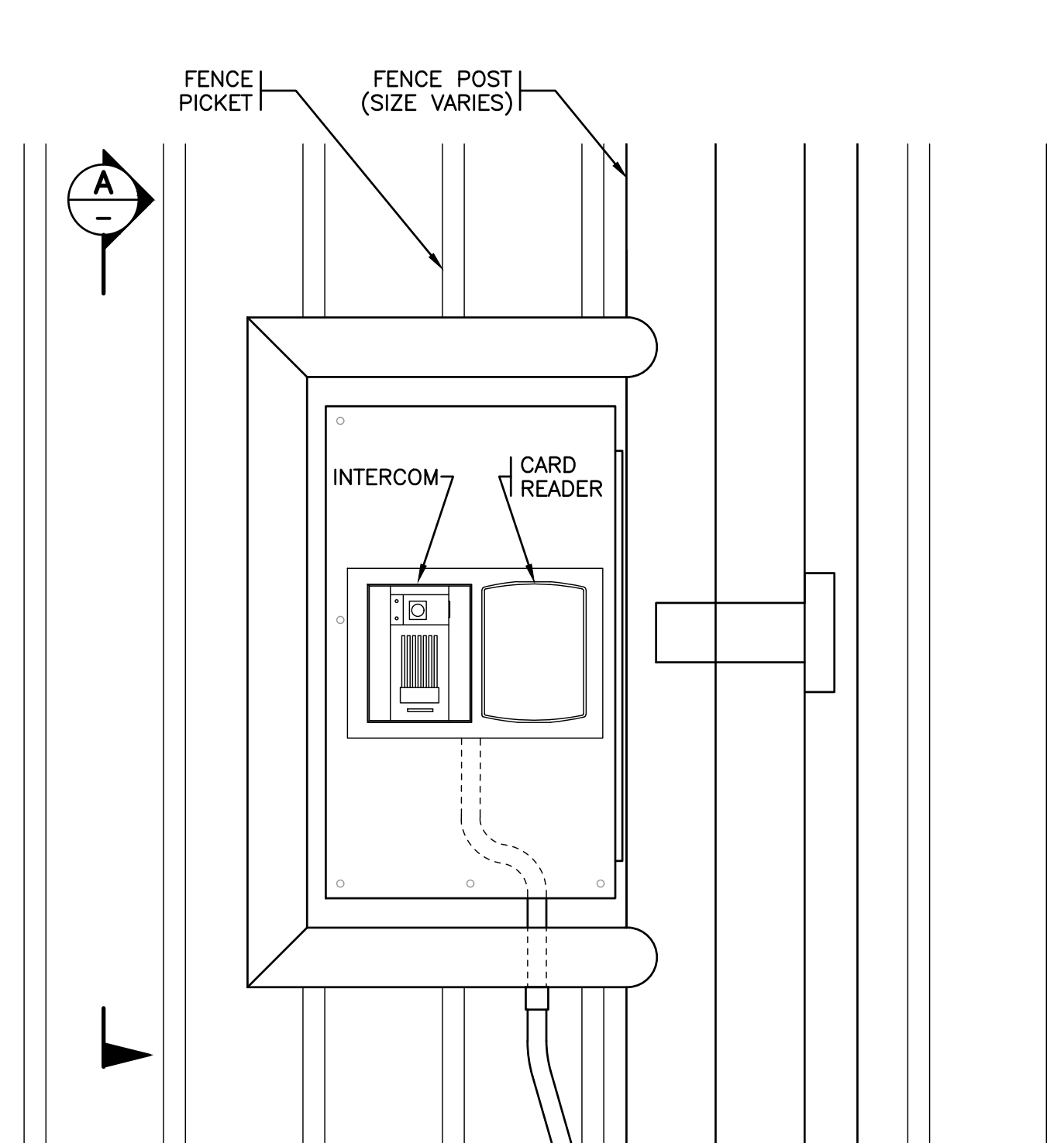


ALL EQUIPMENT IS PROPOSED
UNLESS NOTED OTHERWISE

ISSUED FOR TENDER
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		CLIENT						
		PROJECT			INSTITUTE OF OCEAN SCIENCES SECURITY GATE UPGRADES		TITLE LUMINAIRE & CAMERA POLE DETAILS	
Rev.	DATE	ISSUE / REVISION DESCRIPTION	DESN	QC	QA	SCALE AS SHOWN	PROJECT NUMBER 17470	DRAWING NUMBER E511
2	20JAN03	ISSUED FOR TENDER	ABS	RG	RG			REV. 2

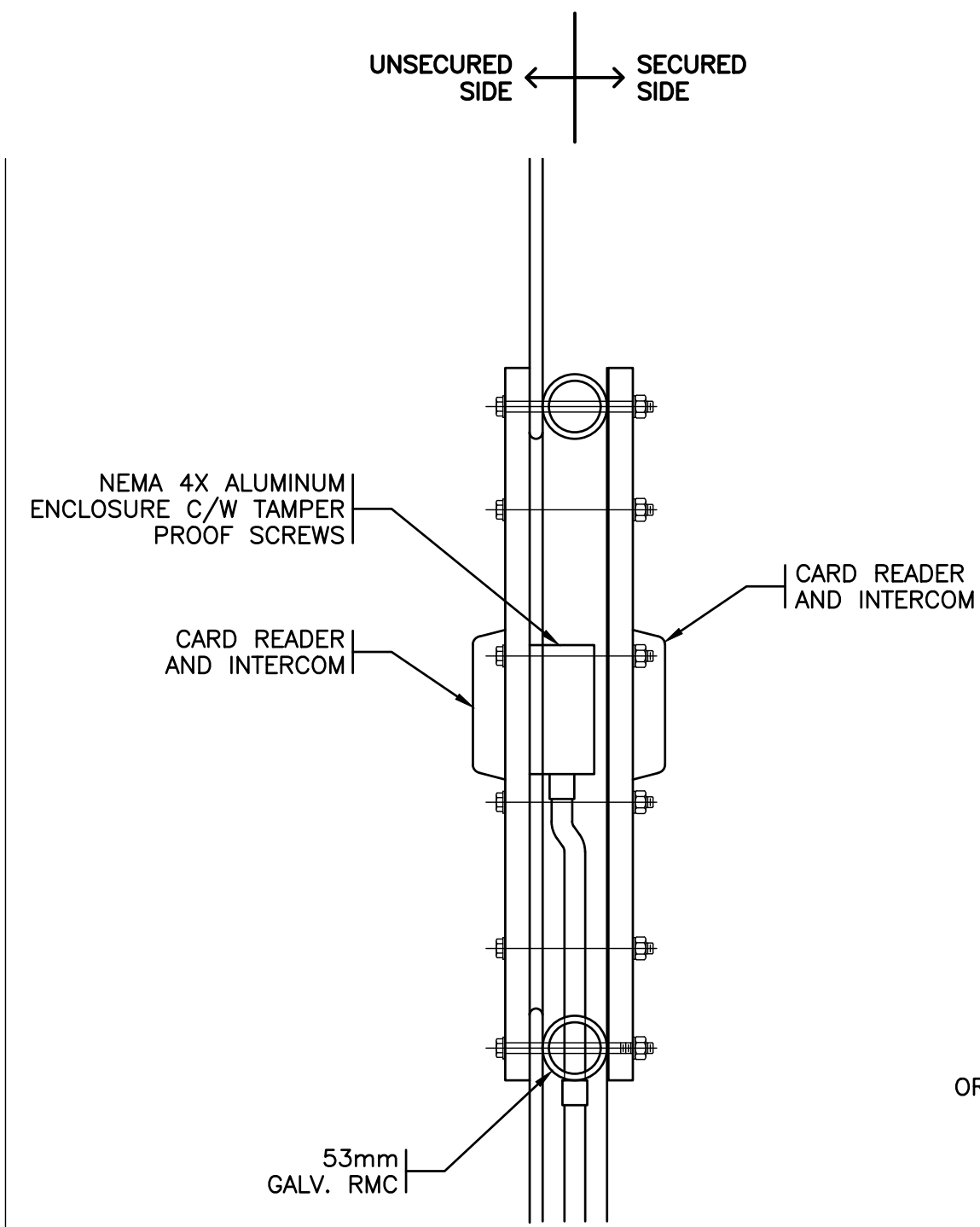
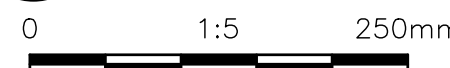
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NOTES:

1. PROVIDE CARD READER OR CARD READER AND INTERCOM AS INDICATED ON PLANS.

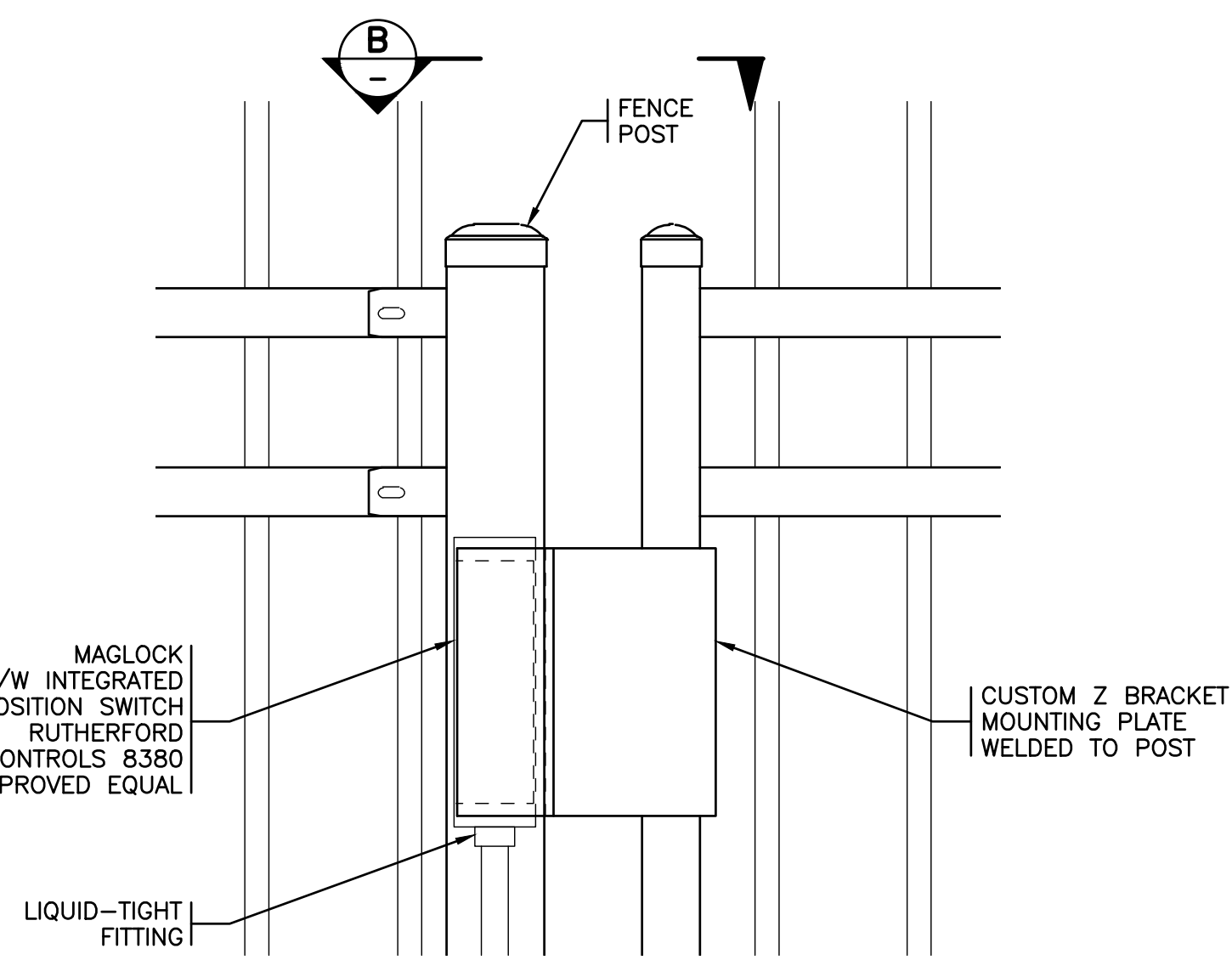
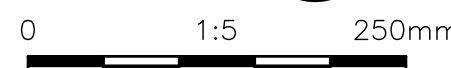
DETAIL 1 TYPICAL CARD READER AND ENCLOSURE
1:5



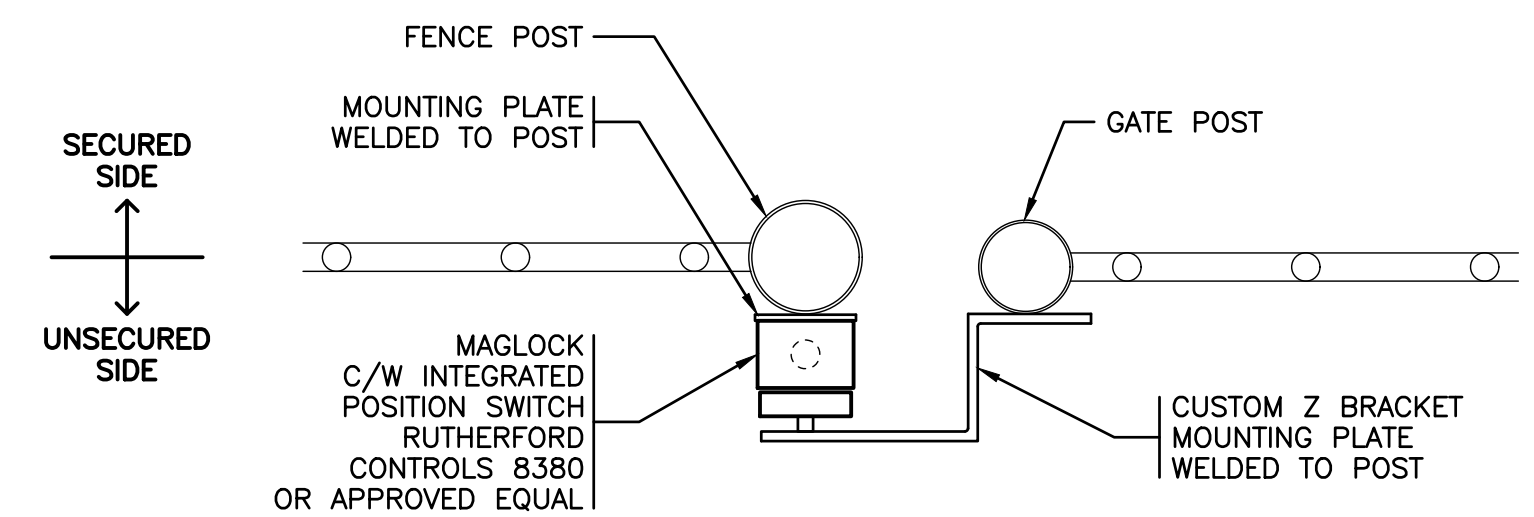
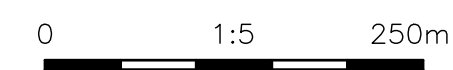
NOTES:

1. PROVIDE CARD READER OR CARD READER AND INTERCOM AS INDICATED ON PLANS.

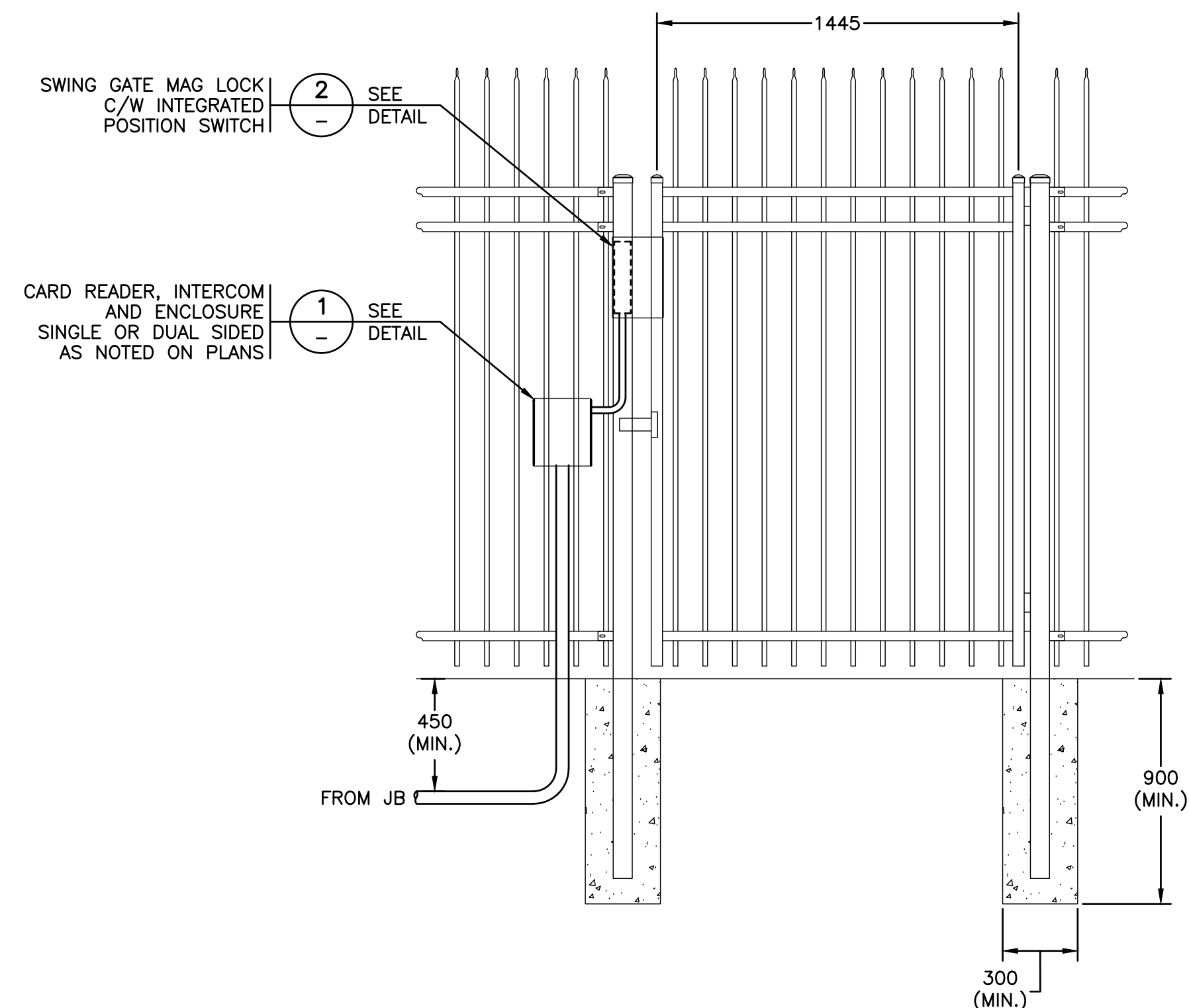
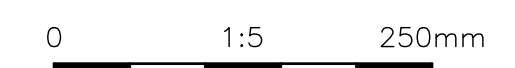
SECTION A
1:5



DETAIL 2 TYPICAL SWING GATE MAGLOCK MOUNTING
1:5



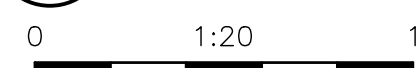
SECTION B
1:5



NOTES:

1. GATE SWING AND DEVICE POSITIONING FOR INDIVIDUAL GATES AS INDICATED ON PEDESTRIAN GATE PLAN VIEWS.

TYP. DETAIL 5 PEDESTRIAN GATE ACCESS CONTROL
1:20



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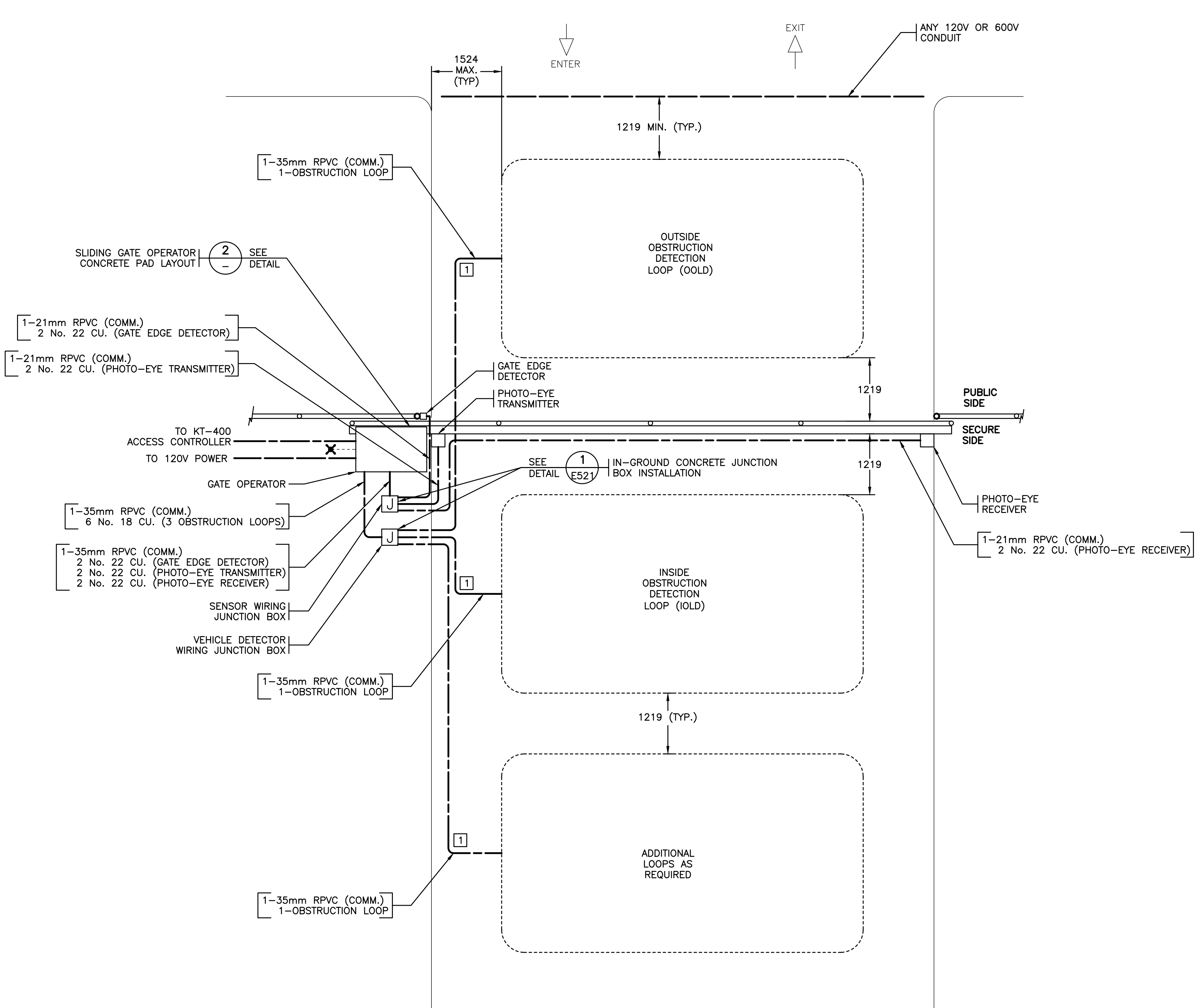


Rev.	DATE	ISSUE / REVISION DESCRIPTION	DESN	QC	QA
2	20JAN03	ISSUED FOR TENDER	ABS	RG	RG

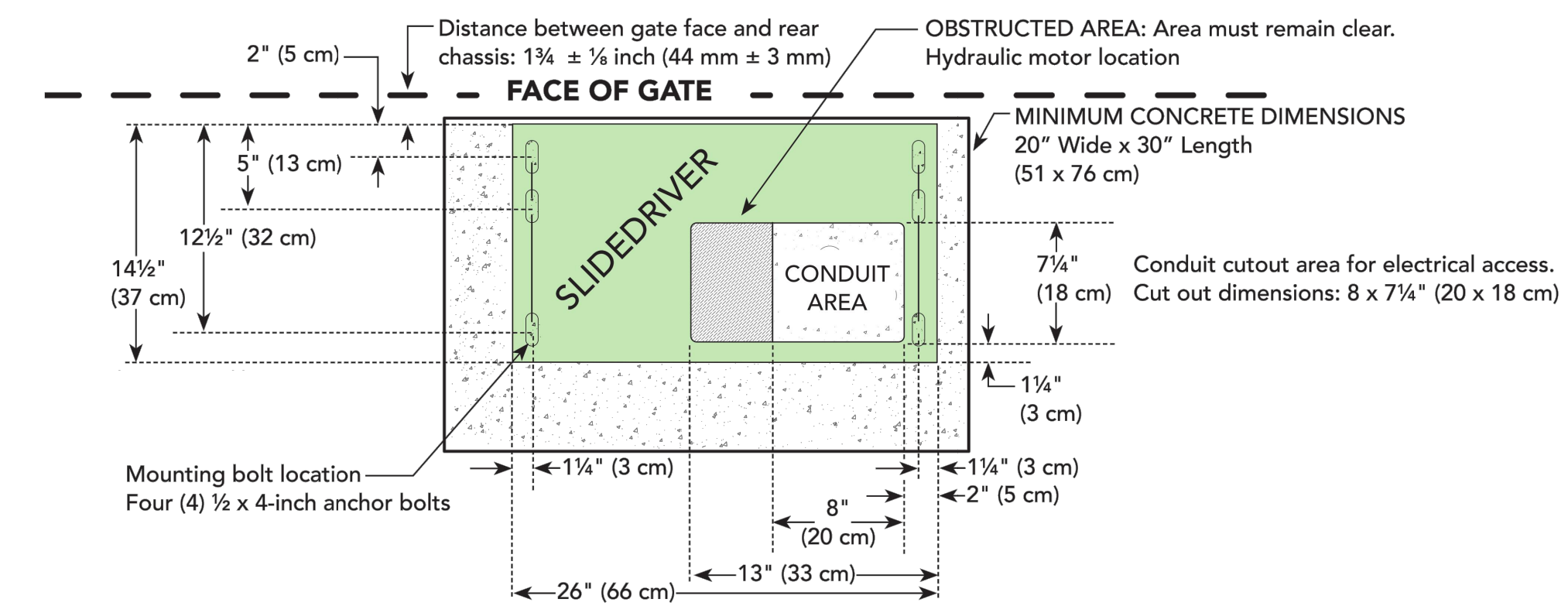
CLIENT
 Fisheries and Oceans Canada
 PROJECT
 INSTITUTE OF OCEAN SCIENCES SECURITY GATE UPGRADES

ENGINEERING
PBX
 TITLE
 PEDESTRIAN GATE DETAILS
 SCALE AS SHOWN PROJECT NUMBER 17470 DRAWING NUMBER E512 REV. 2

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GATE OPERATOR SCHEDULE		
EQUIPMENT NAME	STANDARD OF ACCEPTANCE	DESCRIPTION
GATE OPERATOR	HYSECURITY SLIDEDRIVER 15	SLIDING GATE OPERATOR CONTROLLER AND ENCLOSURE
INSIDE OBSTRUCTION DETECTION LOOP	N/A	INDUCTIVE LOOP FOR VEHICLE DETECTION ON THE SECURE SIDE OF THE GATE. LOOPS SHALL BE CONSTRUCTED ON SITE AND CONNECTED TO A VEHICLE DETECTOR MODULE (VD)
OUTSIDE OBSTRUCTION DETECTION LOOP	N/A	INDUCTIVE LOOP FOR VEHICLE DETECTION ON THE UNSECURE SIDE OF THE GATE. LOOPS SHALL BE CONSTRUCTED ON SITE AND CONNECTED TO A VEHICLE DETECTOR MODULE (VD)
VEHICLE DETECTOR	HYSECURITY HYSB	VEHICLE DETECTOR MODULE PROVIDES VOLTAGE SUPPLY AND DETECTION LOGIC FOR OBSTRUCTION DETECTION LOOPS. MODULE SHALL BE PLUGGED INTO SOCKET ON CONTROL BOARD IN SLIDING GATE OPERATOR
PHOTO-EYE TRANSMITTER	EMX IRM-MON	PROVIDES ENTRAPMENT PROTECTION FOR THE SLIDING GATE IN THE CLOSE DIRECTION. PHOTO-EYE SHALL BE THROUGH-BEAM TYPE. CONNECT BOTH TRANSMITTER AND RECEIVER TO GATE OPERATOR CONTROL BOARD.
PHOTO-EYE RECEIVER		PROVIDES ENTRAPMENT PROTECTION FOR THE SLIDING GATE IN THE OPEN DIRECTION. GATE EDGE DETECTOR SHALL BE MOUNTED ON THE LEADING FENCE POST BEHIND GATE AND CONNECTED TO THE GATE OPERATOR CONTROL BOARD
GATE EDGE DETECTOR	ASO SAFETY SENTIR SERIES	



NOTES:

1. THIS LAYOUT IS FOR THE HYSECURITY SLIDEDRIVER15 ONLY. IF USING ALTERNATE OPERATOR, CONTRACTOR SHALL SUBMIT PROPOSED LAYOUT WITH SHOP DRAWINGS.

DETAIL 2 SLIDING GATE OPERATOR CONCRETE PAD LAYOUT
N.T.S.

- NOTES:**
- 1 PROVIDE CONDUIT STUBBED OUT FROM CURB AT GRADE. OBSTRUCTION LOOP INSTALLER SHALL INSTALL OBSTRUCTION LOOP WIRING BACK TO GATE OPERATOR. COORDINATE COVER/SEALING OF CONDUIT OPENING AFTER LOOP INSTALLATION IS COMPLETE.
 2. SEE GATE OPERATOR SCHEDULE FOR DETAILS ON EACH COMPONENT.
 3. THIS LAYOUT IS FOR THE HYSECURITY SLIDEDRIVER15 ONLY. IF USING ALTERNATE OPERATOR, CONTRACTOR SHALL SUBMIT PROPOSED LAYOUT WITH SHOP DRAWINGS.
 4. CONDUITS FOR DETECTOR LOOPS SHALL NOT CROSS OVER ANY DIRECT BURIED CONDUCTORS OR CONDUITS CONTAINING WIRING AT 120V OR HIGHER.

DETAIL 1 1 1 SLIDING GATE OPERATOR TYPICAL LAYOUT
N.T.S. E100 E101 E102

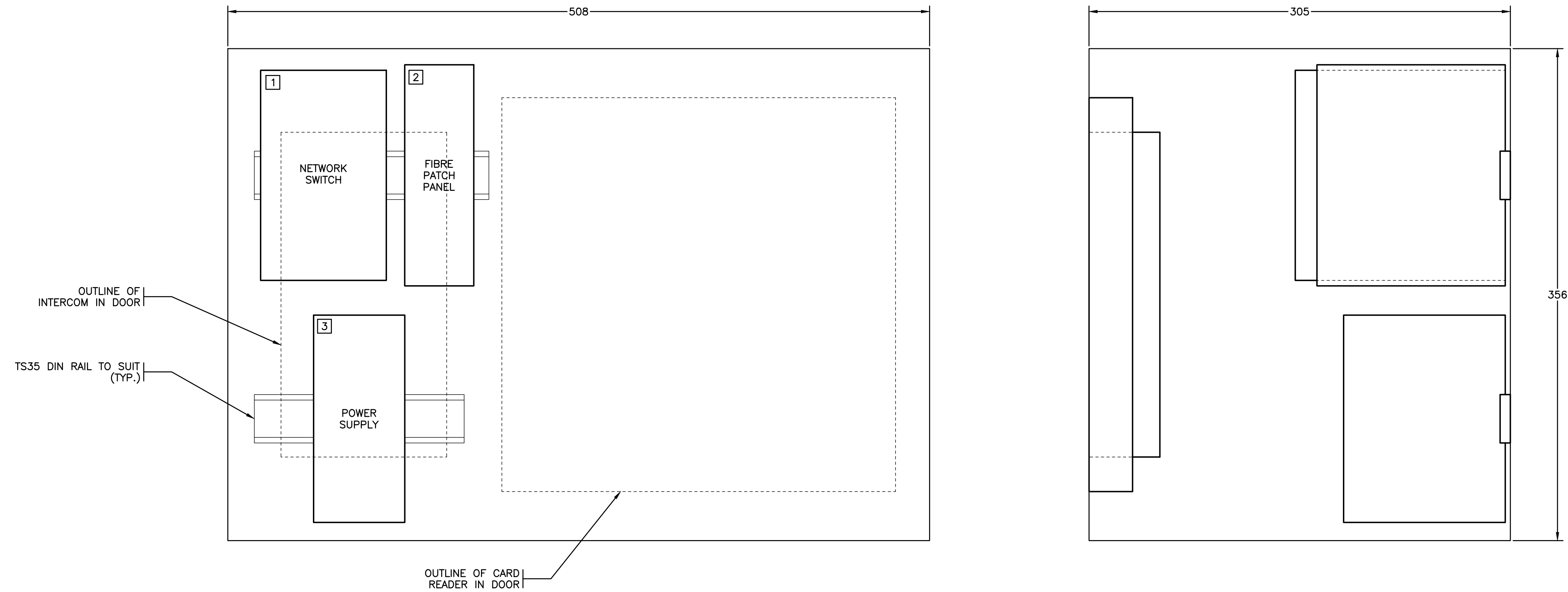
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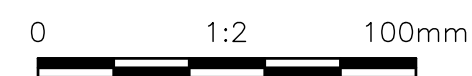


CLIENT: INSTITUTE OF OCEAN SCIENCES SECURITY GATE UPGRADES		TITLE: SLIDING GATE OPERATOR DETAILS	
20JAN03 ISSUED FOR TENDER	ABS RG RG	PROJECT NUMBER: 17470	DRAWING NUMBER: E513
Rev. DATE 20JAN03	ISSUE / REVISION DESCRIPTION ISSUED FOR TENDER	SCALE: AS SHOWN	REV. 2

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DETAIL 1 VEHICLE GATE ENCLOSURE COMPLETE WITH NETWORK SWITCH AND FIBRE CONVERSION
1:2



NOTES:

- 1 NETWORK SWITCH MAXIMUM DIMENSIONS: 152H X 91W X 152D. STANDARD OF ACCEPTANCE CISCO IE-3300-8P2S-E
- 2 FIBRE PATCH PANEL MAXIMUM DIMENSIONS: 160H X 140W X 50D. STANDARD OF ACCEPTANCE CORNING SPH-01P-DIN.
- 3 POWER SUPPLY MAXIMUM DIMENSIONS: 150H X 66W X 117D. STANDARD OF ACCEPTANCE CISCO PWR-IE170W-PC-AC.



ALL EQUIPMENT IS PROPOSED
UNLESS NOTED OTHERWISE

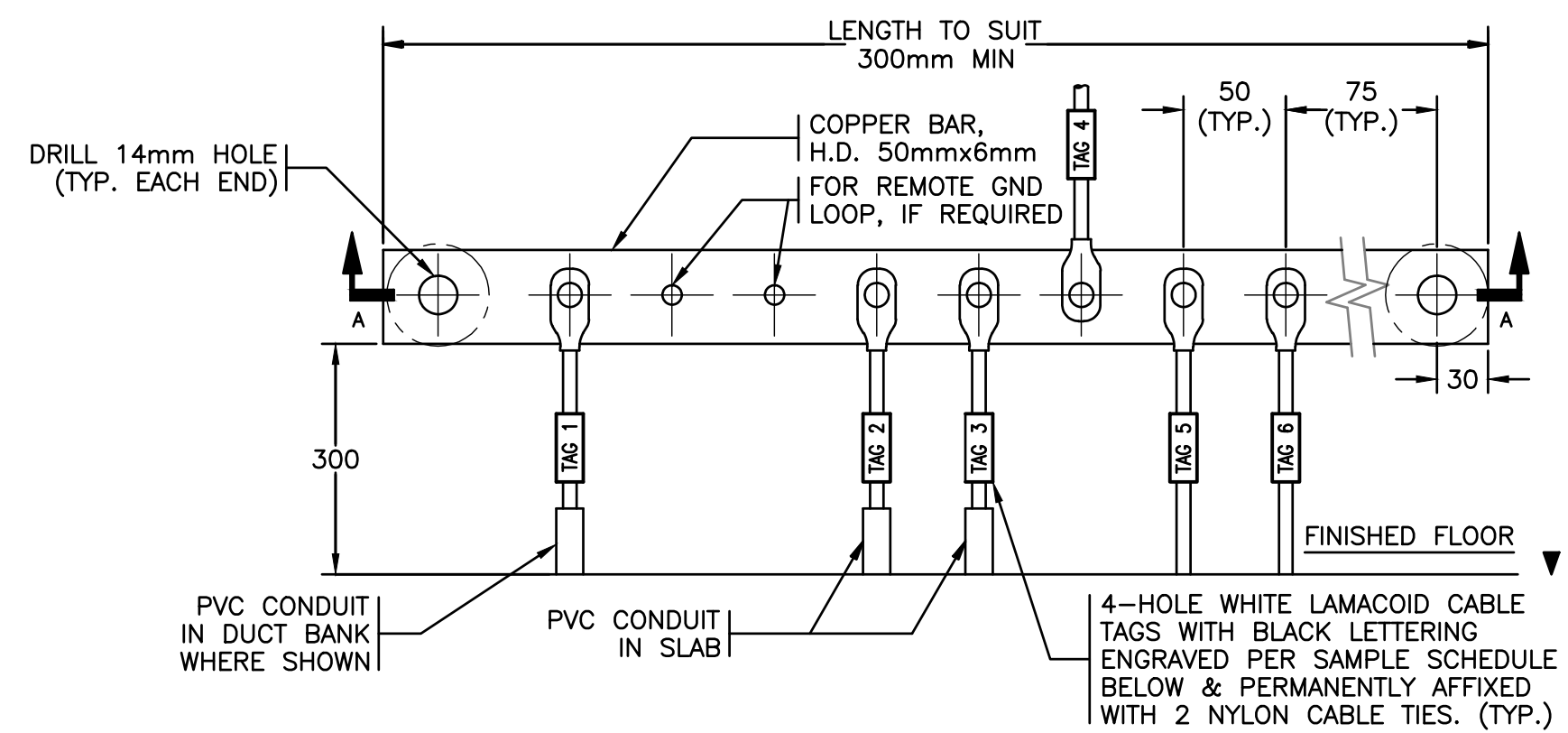
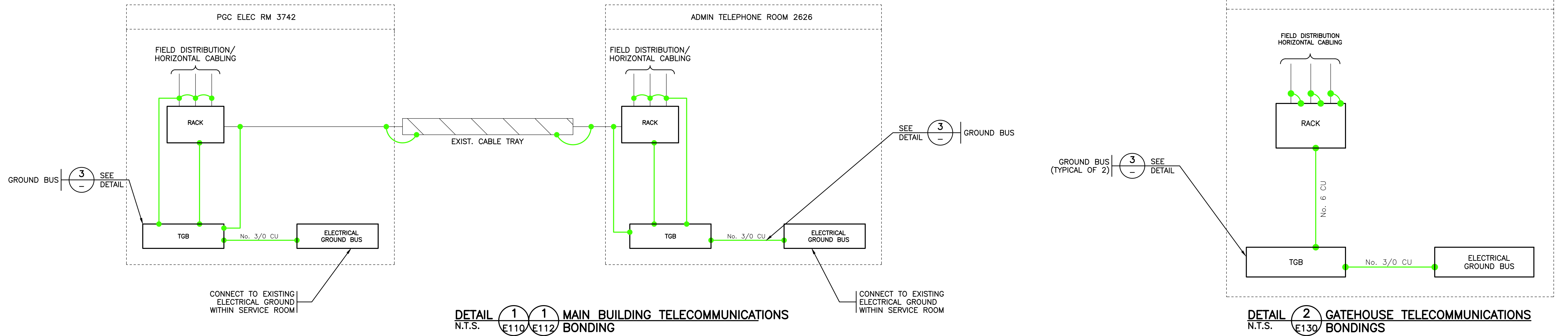
**ISSUED FOR TENDER
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Rev.	DATE	ISSUE / REVISION DESCRIPTION	DESN	QC	QA
2	20JAN03	ISSUED FOR TENDER	ABS	RG	RG

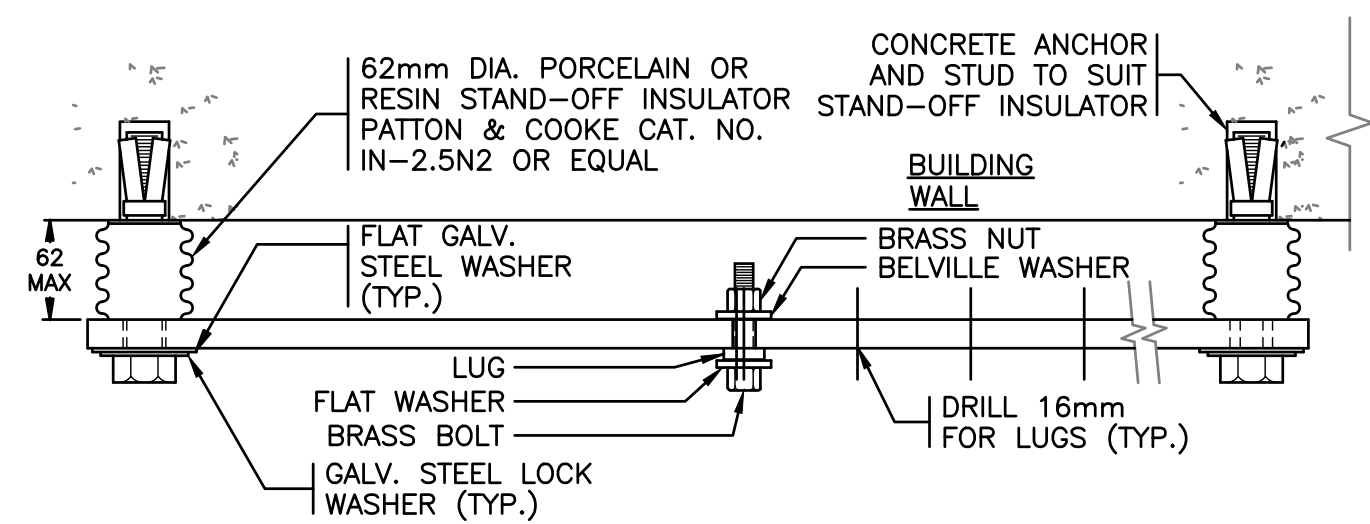
CLIENT
 Fisheries and Oceans Canada
 PROJECT
**INSTITUTE OF OCEAN SCIENCES
 SECURITY GATE UPGRADES**

PBX
ENGINEERING
 TITLE
DETAILS
 SCALE AS SHOWN PROJECT NUMBER **17470** DRAWING NUMBER **E514** REV. **2**

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FRONT ELEVATION



SECTION A-A

DETAIL 3 GROUNDING INSTALLATION DETAILS
N.T.S. - COPPER GROUNDING BAR - TYP.

NOTES:

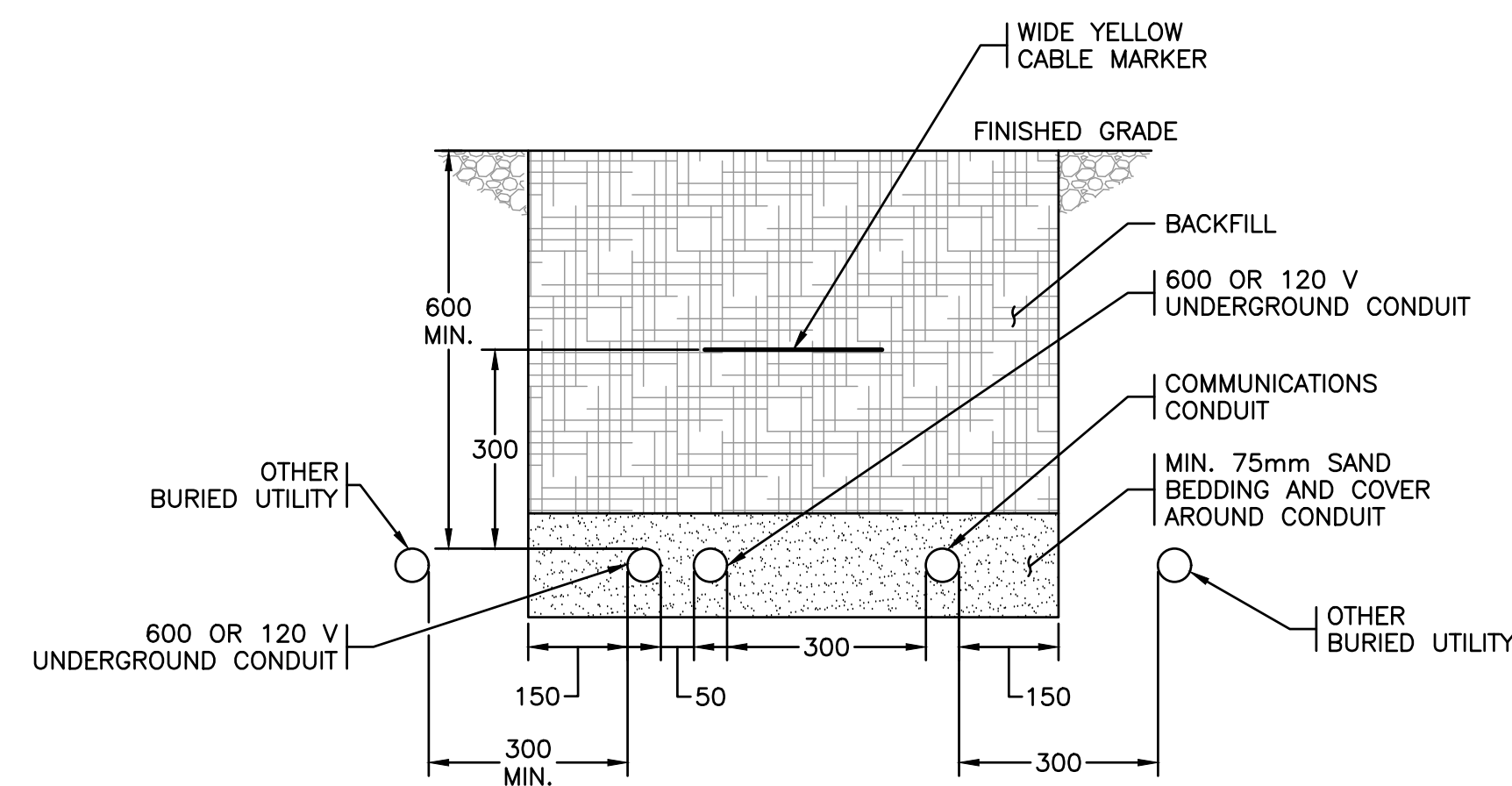
1. ALL EQUIPMENT TO BE PROVIDED NEW UNLESS NOTED OTHERWISE.
2. ALL GROUNDING AND BONDING CONDUCTORS SHALL BE GREEN-JACKETED UNLESS NOTED OTHERWISE.
3. FOR NEW CABLE TRAY WITHIN ROOMS HOUSING RACK EQUIPMENT, BOND No. 6 CONDUCTOR TWICE PER MECHANICAL SECTION.

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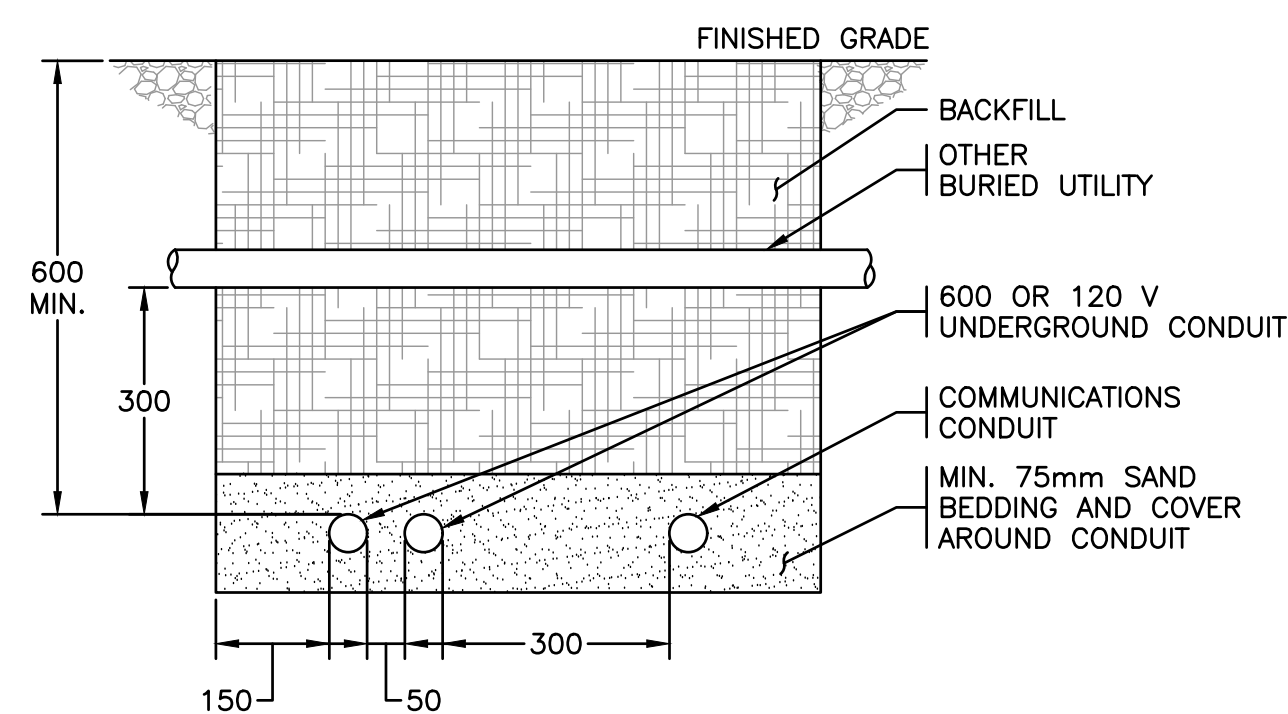
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					PROJECT		INSTITUTE OF OCEAN SCIENCES SECURITY GATE UPGRADES	
					SCALE		AS SHOWN	
					PROJECT NUMBER		17470	
					DRAWING NUMBER		E515	
					REV.		2	
Rev.	DATE	ISSUE / REVISION DESCRIPTION			DESN	QC	QA	
2	20JAN03	ISSUED FOR TENDER			ABS	RG	RG	



NOTES:

- COORDINATE WITH STRUCTURAL DETAILS FOR BACKFILL AND CONDUIT ROUTING DETAILS. COORDINATE PROTECTION OF EXISTING CURBS WITH STRUCTURAL DRAWINGS.

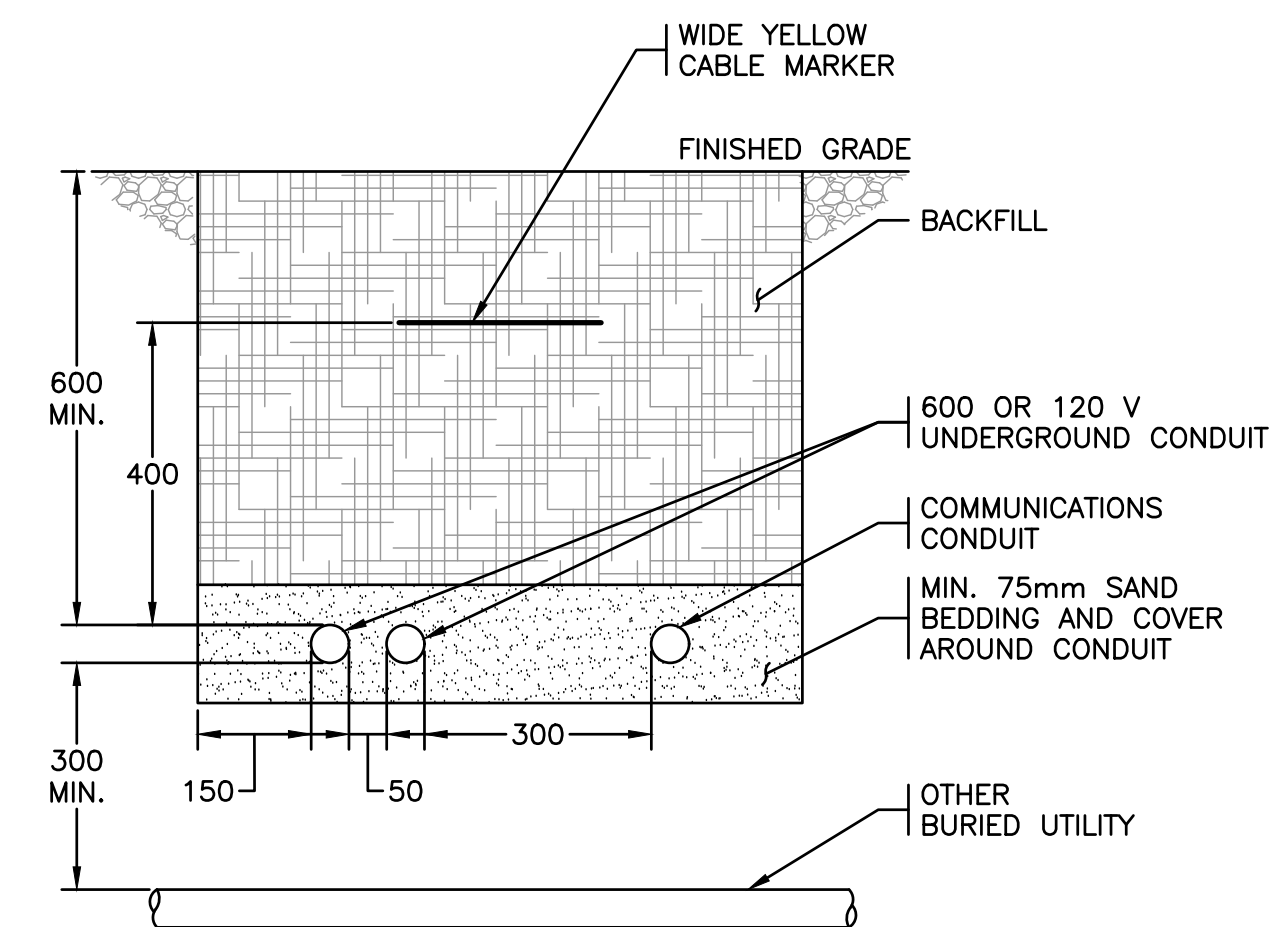
DETAIL 1
TYPICAL DUCTBANK SECTION
N.T.S.



NOTES:

- COORDINATE WITH STRUCTURAL DETAILS FOR BACKFILL AND CONDUIT ROUTING DETAILS. COORDINATE PROTECTION OF EXISTING CURBS WITH STRUCTURAL DRAWINGS.

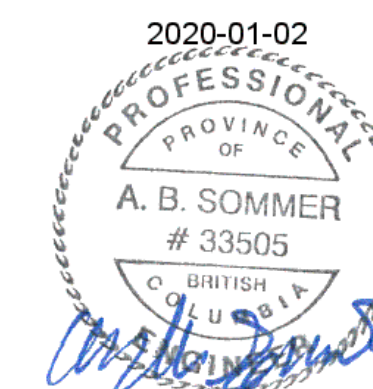
DETAIL 2
TYPICAL DUCTBANK UTILITY CROSSING
OTHER UTILITY AT SHALLOWER DEPTH
N.T.S.



NOTES:

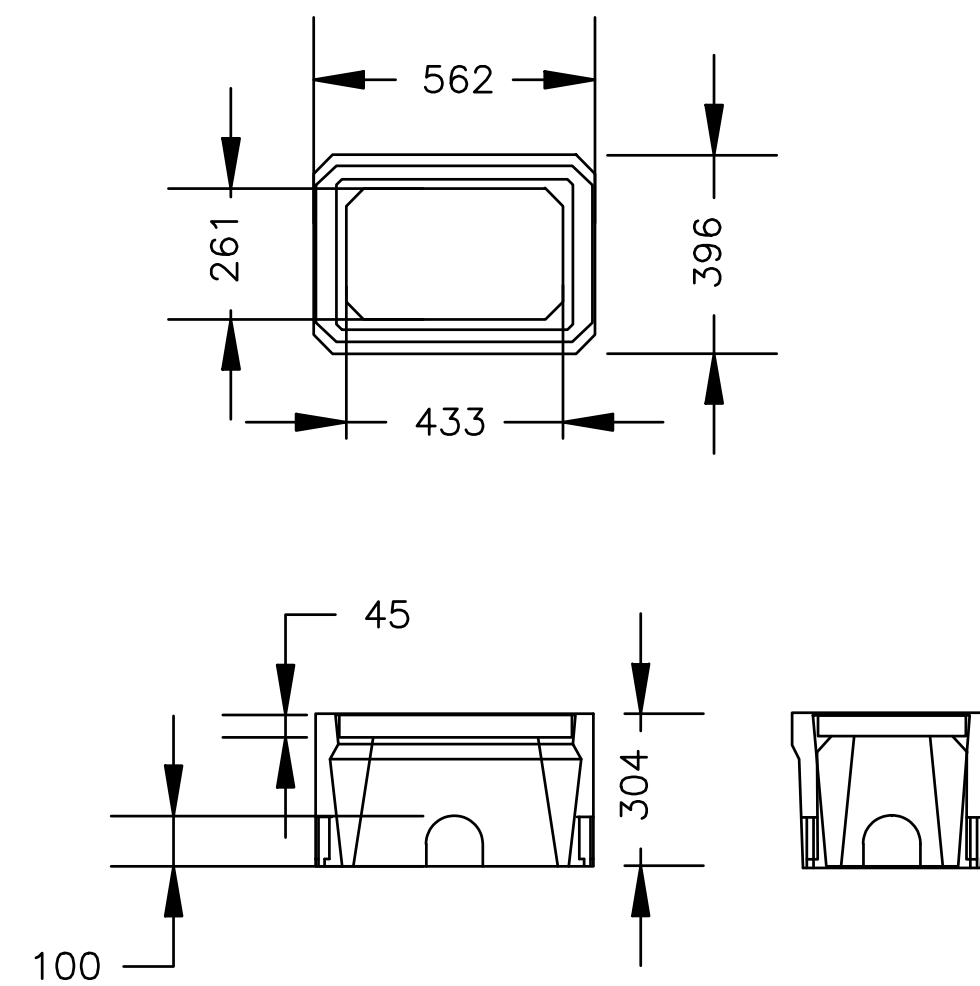
- COORDINATE WITH STRUCTURAL DETAILS FOR BACKFILL AND CONDUIT ROUTING DETAILS. COORDINATE PROTECTION OF EXISTING CURBS WITH STRUCTURAL DRAWINGS.

DETAIL 3
TYPICAL DUCTBANK UTILITY CROSSING
ELECTRICAL CONDUIT AT SHALLOWER DEPTH
N.T.S.



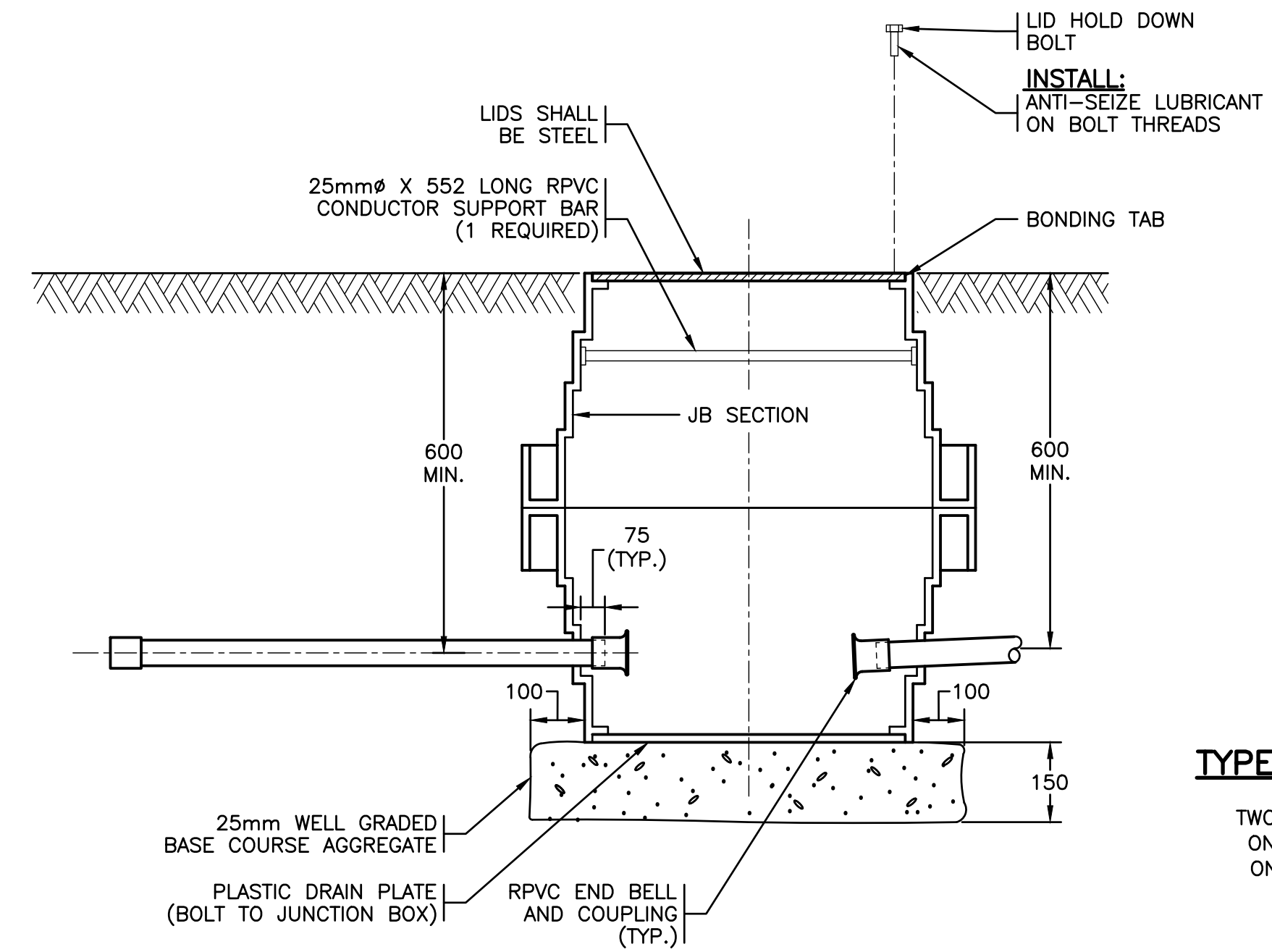
**ISSUED FOR TENDER
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						CLIENT						
						PROJECT		INSTITUTE OF OCEAN SCIENCES SECURITY GATE UPGRADES		TITLE DUCTBANK SECTIONS		
Rev.	DATE	ISSUE / REVISION DESCRIPTION				DESN	QC	QA	SCALE AS SHOWN	PROJECT NUMBER 17470	DRAWING NUMBER E520	REV. 2



1. ARMTEC BOX B937 OR EQUAL C/W STEEL CHECKERPLATE COVER SUITABLE TO PARKING LOTS.
2. PROVIDE MARKING "LTG" ON COVER.
3. PROVIDE 150mm BASE OF MINIMUM 300MM DRAIN ROCK (25mm GAP GRADED WASHED STONE).
4. PROVIDE H20 RATED BOXES IN VEHICULAR AREAS.
5. PROVIDE RISER SECTIONS AS REQUIRED TO MEET CONDUIT BURIAL DEPTH REQUIREMENTS

DETAIL 1 IN-GROUND CONCRETE JUNCTION BOX
N.T.S. E513 INSTALLATION DETAIL



TYPE 10 JUNCTION BOX

- TWO J.B. SECTIONS (SN1847R)
- ONE PLASTIC LID (SN1850R)
- ONE DRAIN PLATE (SN1849)

NOTES:

1. BOLT DOWN LID ON BOX BEFORE BACKFILLING, TAMPING, AND PAVING.
2. SN PART NUMBERS INDICATE BC MoTI STOCK NUMBERS.

DETAIL 2 TYPE 10 JUNCTION BOX INSTALLATION
N.T.S. E100 E101 E102

LUMINAIRE SCHEDULE

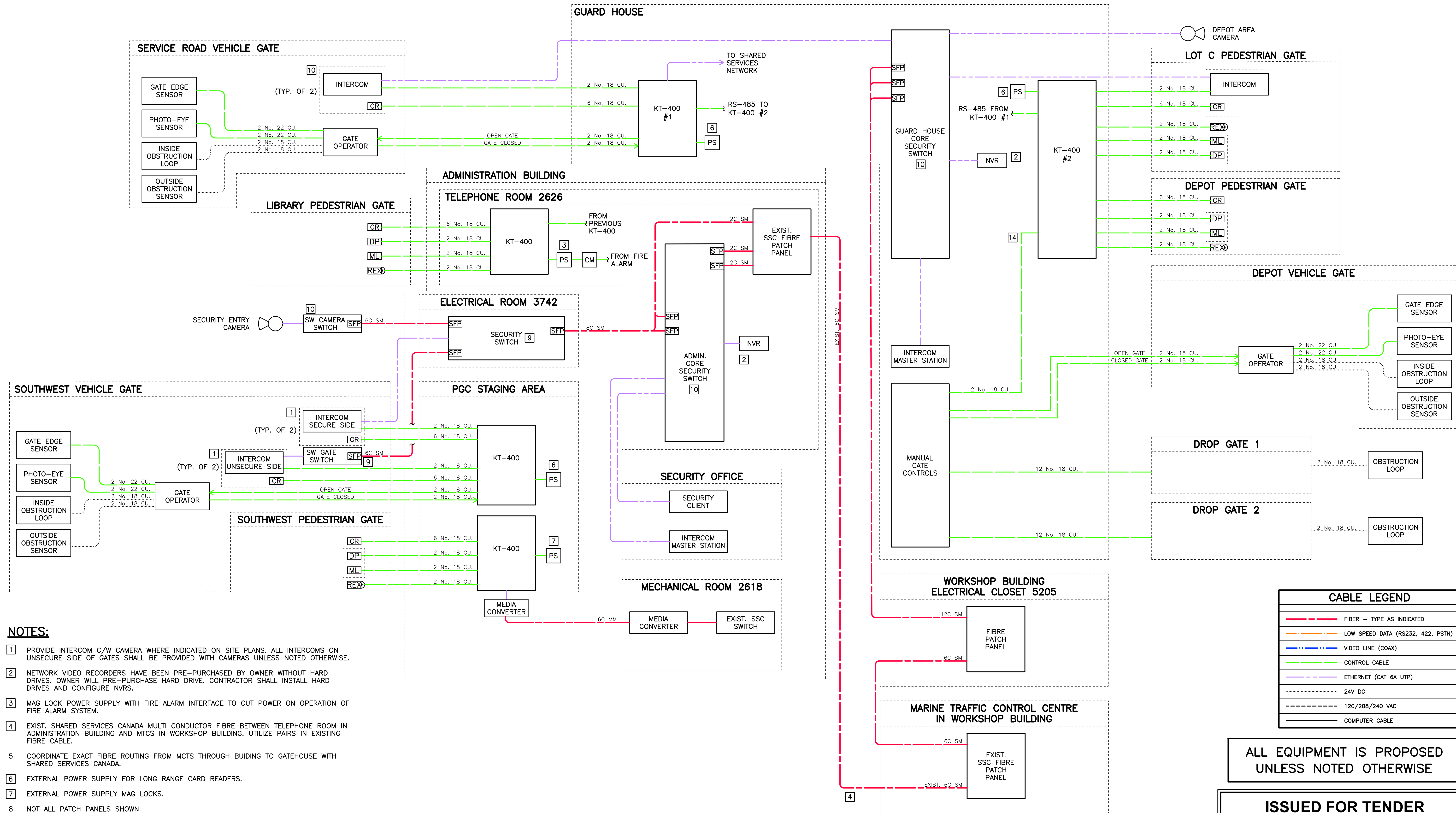
TYPE	LUMINAIRE DETAILS									
	DESCRIPTION	MAKE AND MODEL	DISTRIBUTION	DRIVER/ BALLAST	VOLTAGE	FINISH	POLE	MOUNTING HEIGHT	BASE	MOUNTING
P1	POLE MOUNT LUMINAIRE C/W POLE AND MOUNTING BRACKET	PHILIPS LUMEC ROAD FOCUS RFM-108W48LED4K-G2-R3S-HVU-DMG-RCD-BZ	III	LED	347	BRONZE TEXTURED (BRTX)	VALMONT 5SS-T-20-0.1 SQUARE, 6.1M (20'), BROWN POWDER COAT, C/W TENNON ADAPTOR FOR SIDE MOUNT FIXTURE. OR APPROVED EQUAL.	6.1 M (20')	MMCD TYPE B	RLAR-1A-GY3 BRACKET.
P2	POLE MOUNT LUMINAIRE C/W POLE AND MOUNTING BRACKET	PHILIPS LUMEC ROAD FOCUS RFM-108W48LED4K-G2-R3S-UNV-DMG-PH8-RCD7-BZ	III	LED	347	BRONZE TEXTURED (BRTX)	VALMONT 5SS-T-20-0.1 SQUARE, 6.1M (20'), BROWN POWDER COAT, C/W TENNON ADAPTOR FOR SIDE MOUNT FIXTURE. OR APPROVED EQUAL.	6.1 M (20')	MMCD TYPE B	RLAR-1A-GY3 BRACKET.



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				TITLE JUNCTION BOX DETAILS AND LUMINAIRE SCHEDULE			SCALE AS SHOWN		PROJECT NUMBER 17470		DRAWING NUMBER E521		REV. 2
Rev.	DATE	ISSUE / REVISION DESCRIPTION			DESN	QC	QA						
2	20JAN03	ISSUED FOR TENDER			ABS	RG	RG						



- NOTES:**
- 1 PROVIDE INTERCOM C/W CAMERA WHERE INDICATED ON SITE PLANS. ALL INTERCOMS ON UNSECURE SIDE OF GATES SHALL BE PROVIDED WITH CAMERAS UNLESS NOTED OTHERWISE.
 - 2 NETWORK VIDEO RECORDERS HAVE BEEN PRE-PURCHASED BY OWNER WITHOUT HARD DRIVES. OWNER WILL PRE-PURCHASE HARD DRIVE. CONTRACTOR SHALL INSTALL HARD DRIVES AND CONFIGURE NVRS.
 - 3 MAG LOCK POWER SUPPLY WITH FIRE ALARM INTERFACE TO CUT POWER ON OPERATION OF FIRE ALARM SYSTEM.
 - 4 EXIST. SHARED SERVICES CANADA MULTI CONDUCTOR FIBRE BETWEEN TELEPHONE ROOM IN ADMINISTRATION BUILDING AND MCTS IN WORKSHOP BUILDING. UTILIZE PAIRS IN EXISTING FIBRE CABLE.
 5. COORDINATE EXACT FIBRE ROUTING FROM MCTS THROUGH BUILDING TO GATEHOUSE WITH SHARED SERVICES CANADA.
 - 6 EXTERNAL POWER SUPPLY FOR LONG RANGE CARD READERS.
 - 7 EXTERNAL POWER SUPPLY MAG LOCKS.
 8. NOT ALL PATCH PANELS SHOWN.
 - 9 SWITCH WITH POE+ CAPABILITY.
 - 10 SWITCH WITH UPOE/POE++ (60W POE) CAPABILITY.
 11. CONTRACTOR SHALL TEST ALL EXISTING SPARE FIBRE PAIRS INDICATED TO BE USED AS PART OF THIS INSTALLATION PRIOR TO USE.
 12. ALL COMMUNICATIONS CABLING INCLUDING FIBER AND CAT6 SHALL BE TERMINATED BY THE CONTRACTOR.
 13. ALL CABLING SHALL BE INSTALLED ON CABLE TRAY OR CONDUIT.
 - 14 CONFIGURE INPUT TO RELEASE MAGLOCK ON DEPOT PEDESTRIAN GATE.
 15. CONFIRM SYSTEM CONDUCTOR SIZES WITH EQUIPMENT MANUFACTURERS AND VOLTAGE DROP LIMITATIONS PRIOR TO INSTALLATION.

CABLE LEGEND	
	FIBER - TYPE AS INDICATED
	LOW SPEED DATA (RS232, 422, PSTN)
	VIDEO LINE (COAX)
	CONTROL CABLE
	ETHERNET (CAT 6A UTP)
	24V DC
	120/208/240 VAC
	COMPUTER CABLE

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INSTITUTE OF OCEAN SCIENCES SECURITY GATE UPGRADES

ENGINEERING
NETWORK ARCHITECTURE DIAGRAM
 SCALE AS SHOWN PROJECT NUMBER **17470** DRAWING NUMBER **E600** REV. **2**

PANEL: EM34C										LOCATION: ROOM 2626			
NOTE	LOAD	TYPE	DESCRIPTION	BRKR	CCT	PHASE	CCT	BRKR	DESCRIPTION	TYPE	LOAD	NOTE	
			LTG. 2128	15A-1P	1	A	2	15A-1P	ADMIN WASHROOM DOORS				
			PLUGS 2128	15A-1P	3	B	4		SPACE				
			PLUGS 2128	15A-1P	5	C	6	15A-1P	PNL EM34C CCT6				
			EXHAUST FAN RM 2627	15A-1P	7	A	8	15A-1P	ADMIN MAIN DOORS				
			SPACE		9	B	10	30A-1P	SECURITY RACK UPS			1	
			BUFFALO A/C UNIT RM 2622	30A-1P	11	C	12		SPACE				
			SPACE		13	A	14		SPACE				
			SPACE		15	B	16		SPACE				
			SPACE		17	C	18		SPACE				
			SPACE		19	A	20		SPACE				
			SPACE		21	B	22		SPACE				
			SPACE		23	C	24		SPACE				
LOAD BREAKDOWN				CONNECTED	DERATED	PANEL DESCRIPTION							
L	LIGHTING:			0	100%	0			VOLTAGE	:	208	V	
C	COOLING:		A/C LOAD	0	100%	0			PHASE	:	3		
H	HEATING:		HEATING LOAD	0	100%	0			AMPERAGE	:	0	A	
M	MECHANICAL:		MECHANICAL LOAD	0	100%	0			PANEL AMPACITY	:	225	A	
R	GENERAL RECEPTACLES:		RECEPTACLES	0	100%	0			MAIN BREAKER	:	-	A	
E	OWNER EQUIPMENT:		EQUIPMENT LOAD	0	100%	0			# OF TUBS	:	1		
TOTAL:				0	W	0							
NOTE DESCRIPTION													
1	PROVIDE NEW CIRCUITS												
2													
3													

DETAIL 2 PANEL EM-34C
N.T.S. E110

PANEL: EM47A										LOCATION: ELEC RM 3742			
NOTE	LOAD	TYPE	DESCRIPTION	BRKR	CCT	PHASE	CCT	BRKR	DESCRIPTION	TYPE	LOAD	NOTE	
			UNKNOWN	XXA-1P	1	A	2	15A-1P	FREEZER/ COOLER EM LIGHTS				
			UNKNOWN	XXA-1P	3	B	4	15A-1P	UNKNOWN				
			UNKNOWN	XXA-1P	5	C	6	15A-1P	BELL				
			UNKNOWN	15A-1P	7	A	8	15A-1P	UNKNOWN				
			PGC ELEV	30A-2P	9	B	10	30A-2P	UNKNOWN				
					11	C	12						
			UNKNOWN	30A-2P	13	A	14	XXA-2P	UNKNOWN				
					15	B	16						
			EX. FAN RM, 3749	15A-1P	17	C	18	30A-2P	UNKNOWN				
			UNKNOWN	15A-1P	19	A	20						
			UNKNOWN	15A-1P	21	B	22	30A-2P	UNKNOWN				
1			RM 3742 RACK UPS	20A-1P	23	C	24						
			SPACE		25	A	26	15A-1P	CARD ACCESS			1	
			SPACE		27	B	28	15A-1P	CARD READER POWER SUPPLY			1	
			SPACE		29	C	30	15A-1P	MAG LOCK POWER SUPPLY			1	
			SPACE		31	A	32		SPACE				
			SPACE		33	B	34		SPACE				
			SPACE		35	C	36		SPACE				
			SPACE		37	A	38		SPACE				
			SPACE		39	B	40		SPACE				
			SPACE		41	C	42		SPACE				
LOAD BREAKDOWN				CONNECTED	DERATED	PANEL DESCRIPTION							
L	LIGHTING:			0	100%	0			VOLTAGE	:	208	V	
C	COOLING:		A/C LOAD	0	100%	0			PHASE	:	3		
H	HEATING:		HEATING LOAD	0	100%	0			AMPERAGE	:	0	A	
M	MECHANICAL:		MECHANICAL LOAD	0	100%	0			PANEL AMPACITY	:	150	A	
R	GENERAL RECEPTACLES:		RECEPTACLES	0	100%	0			MAIN BREAKER	:	150	A	
E	OWNER EQUIPMENT:		EQUIPMENT LOAD	0	100%	0			# OF TUBS	:	1		
TOTAL:				0	W	0							
NOTE DESCRIPTION													
1	PROVIDE NEW CIRCUITS FOR NEW LOADS												
2													
3													

DETAIL 3 PANEL EM-47A
N.T.S. E112

PANEL: UPS34B										LOCATION: TELEPHONE ROOM 2626			
NOTE	LOAD	TYPE	DESCRIPTION	BRKR	CCT	PHASE	CCT	BRKR	DESCRIPTION	TYPE	LOAD	NOTE	
			SPARE	XXA-3P	3	A	2		SPACE				
					3	B	4		SPACE				
					5	C	6		SPACE				
					7	A	8		SPACE				
			PANEL 2100	XXA-3P	9	B	10	15A-1P	CARD ACCESS				
					11	C	12	15A-1P	TEL OUTLET				
			RECT. #1 TEL. EQUIP.	30A-2P	13	A	14						
					15	B	16	XXA-3P	2500 PANEL CHART SALES				
			RECT. #2 TEL. EQUIP.	30A-2P	17	C	18						
					19	A	20						
			MAIN LOBBY COMMISSIONAIRE	15A-1P	21	B	22	XXA-3P	UNKNOWN				
			VENUS RECPT.	15A-1P	23	C	24						
			CATV. AMP	15A-1P	25	A	26						
			DATA COM.	15A-1P	27	B	28	100A-3P	PANEL C RM 2614				
			UNKNOWN	15A-1P	29	C	30						
			UNKNOWN	15A-1P	31	A	32	15A-1P	CARD ACCESS			1	
			SPACE		33	B	34	15A-1P	LIBRARY GATE MAG LOCK PS			1	
			SPACE		35	C	36	15A-1P	COMMISSIONAIRE CCTV STATION			1	
			SPACE		37	A	38		SPACE				
			SPACE		39	B	40		SPACE				
			SPACE		41	C	42		SPACE				
LOAD BREAKDOWN				CONNECTED	DERATED	PANEL DESCRIPTION							
L	LIGHTING:			0	100%	0			VOLTAGE	:	208	V	
C	COOLING:		A/C LOAD	0	100%	0			PHASE	:	3		
H	HEATING:		HEATING LOAD	0	100%	0			AMPERAGE	:		A	
M	MECHANICAL:		MECHANICAL LOAD	0	100%	0			PANEL AMPACITY	:	225	A	
R	GENERAL RECEPTACLES:		RECEPTACLES	0	100%	0			MAIN BREAKER	:	-	A	
E	OWNER EQUIPMENT:		EQUIPMENT LOAD	0	100%	0			# OF TUBS	:	1		
TOTAL:				0	W	0							
NOTE DESCRIPTION													
1	PROVIDE NEW CIRCUITS												
2													
3													

DETAIL 1 PANEL UPS34B
N.T.S. E110



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				CLIENT Fisheries and Oceans Canada			PROJECT INSTITUTE OF OCEAN SCIENCES SECURITY GATE UPGRADES			TITLE PANEL SCHEDULES					
2	20JAN03	ISSUED FOR TENDER	ABS	RG	RG	SCALE AS SHOWN			PROJECT NUMBER 17470			DRAWING NUMBER E610			REV. 2
Rev.	DATE	ISSUE / REVISION DESCRIPTION	DESN	QC	QA										

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