



Public Works and
Government Services
Canada

Real Property Services
Western Region

Travaux publics et
Services gouvernementaux
Canada

Service Immobiliers
Région de l'Ouest

STONY MOUNTAIN LAGOON UPGRADE

PROJECT NO.
R.075583.001

DRAWING LIST

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DWG NO.	TITLE
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E8	ELECTRICAL PROCESS LOOP DIAGRAMS
E9	ELECTRICAL PROCESS LOOP DIAGRAMS
E10	ELECTRICAL PROCESS LOOP DIAGRAMS
E11	ELECTRICAL PROCESS LOOP DIAGRAMS
E12	ELECTRICAL PROCESS LOOP DIAGRAMS
E13	ELECTRICAL PROCESS LOOP DIAGRAMS
E14	ELECTRICAL PROCESS LOOP DIAGRAMS

Record Drawing

Drawing compiled from visual observations of various parts of construction and/or from information by others. Accuracy not warranted. Independent verification required before application.

Canada

DRAWING LEGEND:

PIPING:

- EXISTING WATERMAIN
- PROPOSED WATERMAIN
- FUTURE WATERMAIN
- EXISTING SEWERMAIN
- PROPOSED SEWERMAIN
- FUTURE SEWERMAIN
- EXISTING FORCEMAIN
- PROPOSED FORCEMAIN
- FUTURE FORCEMAIN
- EXISTING DISCHARGE
- PROPOSED DISCHARGE
- FUTURE DISCHARGE
- PROPOSED FILTER FEED
- PROPOSED AERATION
- PROPOSED TREATED DISCHARGE
- EXISTING LAND DRAINAGE SEWER
- PROPOSED LAND DRAINAGE SEWER
- FUTURE LAND DRAINAGE SEWER
- FH EXISTING FIRE HYDRANT
- FH PROPOSED FIRE HYDRANT
- ⊗ EXISTING VALVE
- ⊙ PROPOSED VALVE
- CO EXISTING CLEANOUT
- CO PROPOSED CLEANOUT
- MH EXISTING MANHOLE
- MH PROPOSED MANHOLE
- EXISTING CURBSTOP
- PROPOSED CURBSTOP
- CB EXISTING CATCH BASIN
- CB PROPOSED CATCH BASIN

ROADS AND DRAINAGE:

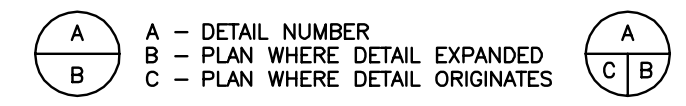
- EXISTING ROAD CENTERLINE
- PROPOSED ROAD CENTERLINE
- FUTURE ROAD CENTERLINE
- EXISTING ROAD SHOULDER
- PROPOSED ROAD SHOULDER
- EXISTING ROAD EDGE
- PROPOSED ROAD EDGE
- FUTURE ROAD EDGE
- EXISTING SIDEWALK
- PROPOSED SIDEWALK
- EXISTING DITCH
- PROPOSED DITCH
- EXISTING CULVERT
- PROPOSED CULVERT
- EXISTING DRAINAGE DIRECTION
- PROPOSED DRAINAGE DIRECTION
- CONTOURS - MAJOR INTERVALS
- CONTOURS - MINOR INTERVALS
- 100.00 EXISTING GROUND ELEVATION
- 100.00 PROPOSED GROUND ELEVATION
- 100.00 EXISTING ROAD ELEVATION
- 100.00 PROPOSED ROAD ELEVATION
- TOP EXISTING SLOPE
- TOP PROPOSED SLOPE

MISCELLANEOUS:

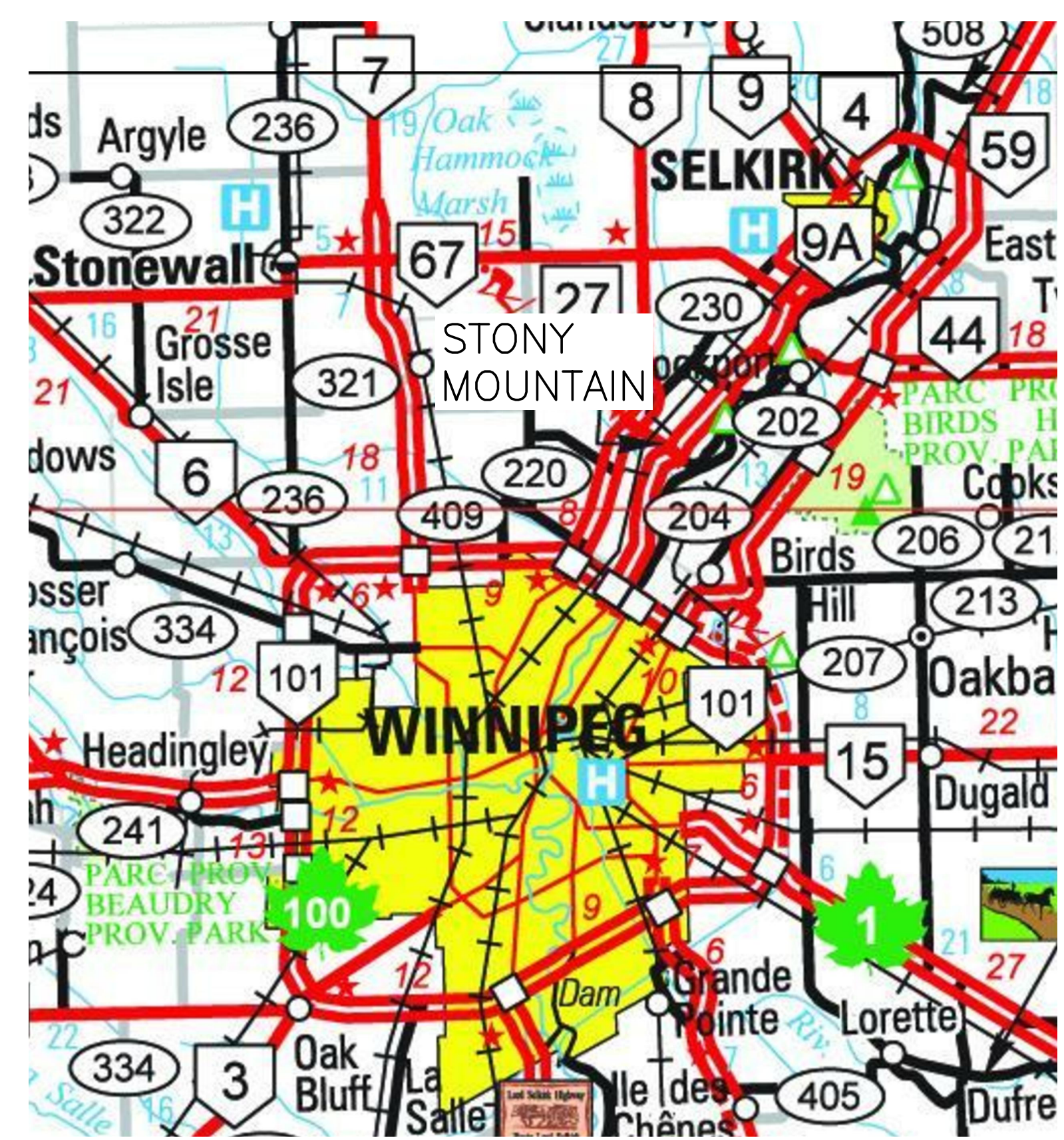
- EXISTING FENCE LINE
- PROPOSED FENCE LINE
- EXISTING HYDRO LINE
- PROPOSED HYDRO LINE
- EXISTING GAS LINE
- EXISTING MTS LINE
- EXISTING BUILDING
- LEGAL/LOT LINE
- ++++ RAILWAY LINE
- MATCH LINE
- HP HYDRO POLE
- ⊙ WATER HOLDING TANK
- ⊙ SEPTIC TANK
- ⊙ SEWAGE HOLDING TANK
- ⊕ SURVEY BAR
- ⊕ SURVEY MONUMENT/BENCHMARK
- ⊗ TEST HOLE
- ⊗ AMEC TH# TEST HOLE BY AMEC JANUARY 2014
- EXISTING VEGETATION
- PROPOSED VEGETATION
- ⊕ DOOR CONSTRUCTION TYPE
- ⊕ WALL CONSTRUCTION TYPE
- EASEMENT
- ⊕ NORTH ARROW

ABBREVIATIONS:

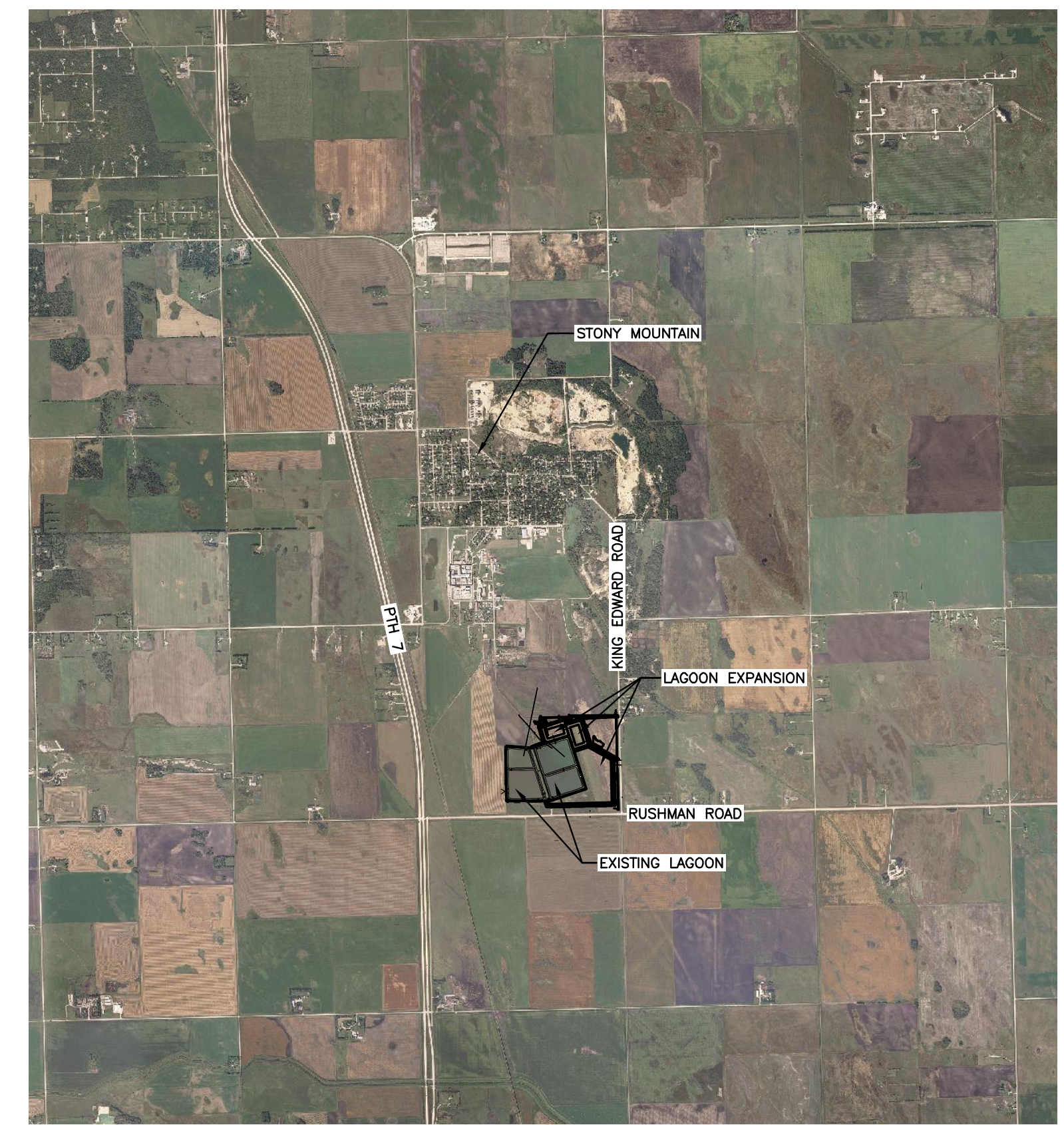
- | | | | |
|-------------------------------|--|----------------------------|---------------------------|
| ● AT | E EAST | JCT JUNCTION | RAD RADIUS |
| A/C AIR CONDITIONING | EC END OF CURVE | JP JOCKEY PUMP | RD ROAD |
| ALUM ALUMINUM | EL ELEVATION | LAB LABORATORY | REV REVISION |
| ASPH ASPHALT | ELEC ELECTRICAL | LAM LAMINATE | RM RIGHT OF WAY |
| AVE AVENUE | EP EDGE OF PAVEMENT | LAT LATITUDE | RM ROOM |
| AVG AVERAGE | ER EDGE OF ROAD | LDS LAND DRAINAGE SEWER | |
| | E/W EACHWAY | LF LEVEL FLOAT | S SOUTH |
| | EXT EXTERIOR | LLF LOW LEVEL FLOAT | SCH SCHEDULE |
| BD BOTTOM OF DITCH | FAX FAX MACHINE STAND | LONG LONGITUDE | SECT SECTION |
| BLDG BUILDING | FC FILE CABINET | LWL LOW WATER LEVEL | SHT SHEET |
| BLVD BOULEVARD | FD FLOOR DRAIN | | SIB STEEL IRON BAR |
| BM BENCHMARK | F/F FACE TO FACE | | SPEC SPECIFICATION |
| BOT BOTTOM | FH FIRE HYDRANT | M METRE | SQ SQUARE |
| BP BACKWASH PUMP | FM FORCEMAIN | MAX MAXIMUM | SS SOUTH SHORE |
| B/W BOTHWAYS | FP FIRE PUMP | MCC MOTOR CONTROL CENTER | ST STREET |
| | FT FOOT, FEET | MECH MECHANICAL | STD STANDARD |
| CB CATCH BASIN | | MEMB MEMBRANE | SUSP SUSPENDED |
| CI CAST IRON | | MH MANHOLE | SW SIDEWALK |
| CHKD CHECKED | | MIN MINIMUM | |
| CNR CANADIAN NATIONAL RAILWAY | GA GAUGE | MM MILLIMETRE | TEL TELEPHONE |
| CO CLEANOUT | GALV GALVANIZED | | TEMP TEMPORARY |
| COL COLUMN | GAV GATE VALVE | N NORTH | TP TRUCKFILL PUMP |
| CONC CONCRETE | | NAT NATURAL | TYP TYPICAL |
| CONST CONSTRUCTION | HA HECTARE | NBC NATIONAL BUILDING CODE | |
| CONT CONTINUOUS | HB HOSE BIBB | NS NORTH SHORE | VERT VERTICAL |
| COORD COORDINATE | HI HEIGHT OF INSTRUMENT | NTS NOT TO SCALE | VOL VOLUME |
| CPR CANADIAN PACIFIC RAILWAY | HLF HIGH LEVEL FLOAT | NWL NORMAL WATER LEVEL | |
| C/W COMPLETE WITH | HPW HIGH PRESSURE WATER LINE | | US ULTRASONICS TRANSDUCER |
| CSTE CUSTOMER SERVICE | HORIZ HORIZONTAL | O/C ON CENTRE | |
| | HP HYDRO POLE | O/D OUTSIDE DIAMETER | |
| | HST HYDROSTATIC TRANSDUCER | O/F OUTSIDE FACE | |
| | HR HOUR | O/H OVER HEAD | |
| | HVAC HEATING, VENTILATING AND AIR CONDITIONING | OD OUTSIDE DIAMETER | |
| DCW DOMESTIC COLD WATER | HW HOT WATER TANK | ORIG ORIGINAL | |
| DEG DEGREE | HWL HIGH WATER LEVEL | OWSJ OPEN WEB STEEL JOIST | |
| DHW DOMESTIC HOT WATER | | | |
| DIA DIAMETER | ID INSIDE DIAMETER | PLYWD PLYWOOD | |
| DIM DIMENSION | IL ICE LEVEL | PS PRESSURE SEWER | |
| DIST DISTANCE | INCL INCLUDE | POLY POLYETHYLENE | |
| DN DOWN | INT INTERIOR | PROP PROPERTY | |
| DP DUTY PUMP | INV INVERT | PVC POLY VINYL CHLORIDE | |
| DR DRIVE | | | |
| DWG DRAWING | | | |



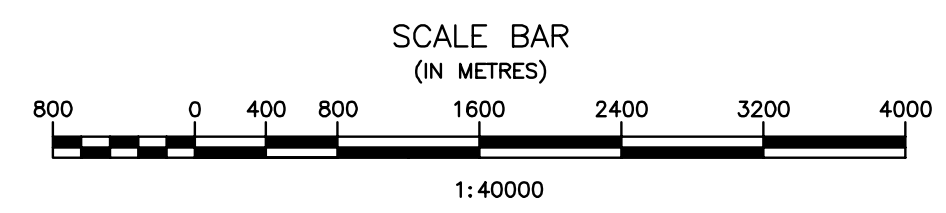
NOTE:
 - WHOLE NUMBERS INDICATE MILLIMETERS
 - DECIMALIZED NUMBERS REPRESENT METERS



1 KEY PLAN
 SCALE = NTS



2 LOCATION PLAN
 SCALE = 1:40,000



Record Drawing
 Drawing compiled from visual observations of various parts of construction and/or from information by others. Accuracy not warranted. Independent verification required before application.

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 www.jrcc.ca
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5		
4		
3		
2	RECORD DRAWING	FEB 2019
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	
Revision	Description	Date

Client client

Project title Project

STONY MOUNTAIN LAGOON UPGRADE

Designed by Conçu par
JRCC

Drawn by Dessiné par
OT

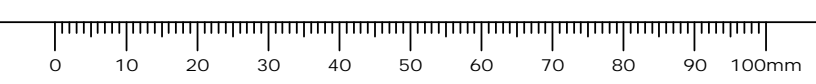
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JRCC

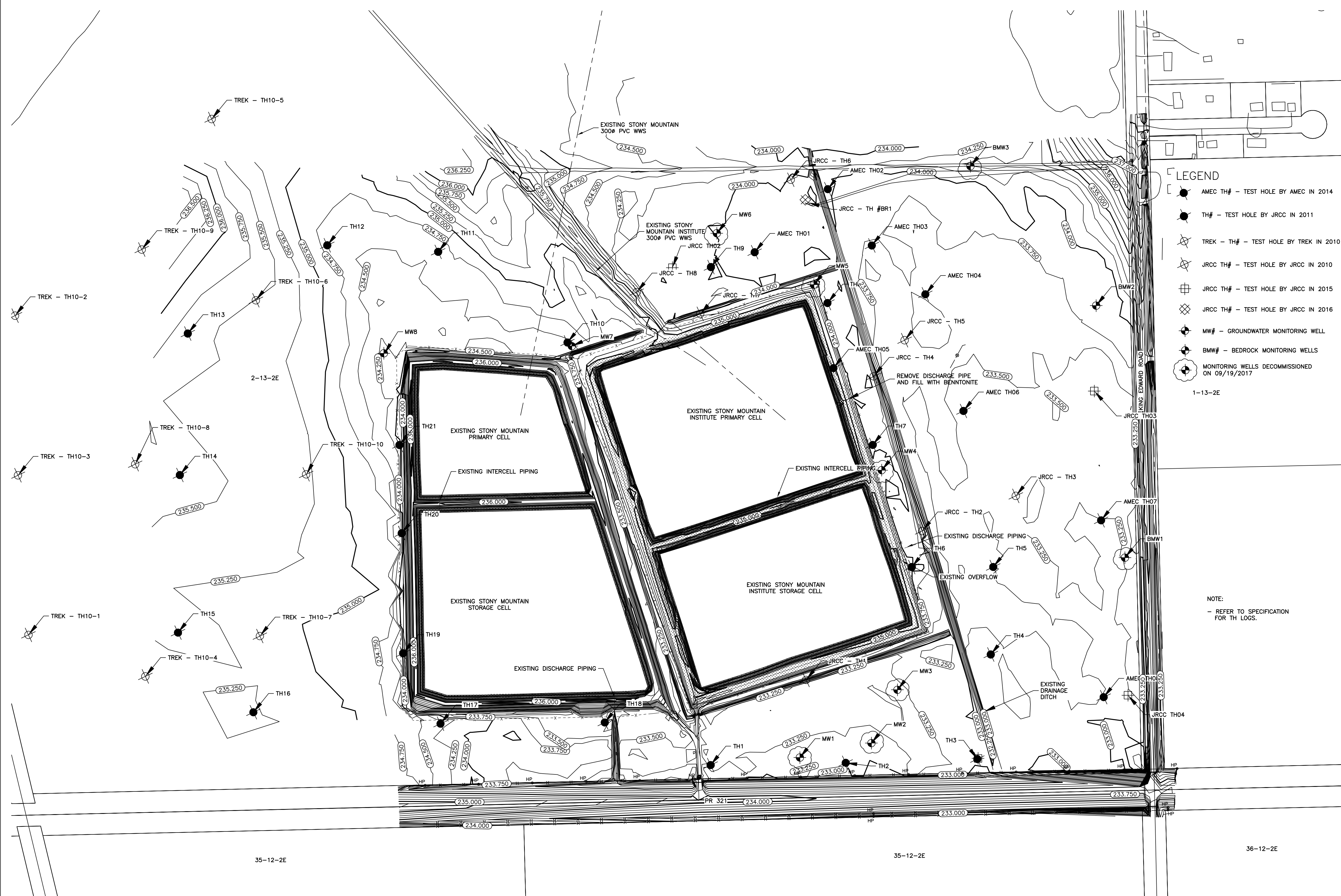
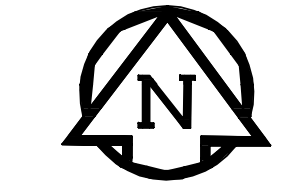
PM/CS: Project Manager Administrateur de Projets TPSGC
MARK MOGAN

Drawing title Titre du dessin

DRAWING LEGEND, ABBREVIATION INDEX, KEY PLAN AND LOCATION PLAN

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	G11 OF 1	0





- LEGEND**
- AMEC TH# - TEST HOLE BY AMEC IN 2014
 - TH# - TEST HOLE BY JRCC IN 2011
 - ⊗ TREK - TH# - TEST HOLE BY TREK IN 2010
 - ⊗ JRCC TH# - TEST HOLE BY JRCC IN 2010
 - ⊗ JRCC TH# - TEST HOLE BY JRCC IN 2015
 - ⊗ JRCC TH# - TEST HOLE BY JRCC IN 2016
 - ⊗ MW# - GROUNDWATER MONITORING WELL
 - ⊗ BMW# - BEDROCK MONITORING WELLS
 - ⊗ MONITORING WELLS DECOMMISSIONED ON 09/19/2017
- 1-13-2E

ORIGINAL DRAWING
SIGNED AND SEALED
BY
J.R.L. COUSIN
16/03/29

APCGM
Certificate of Authorization
J.R. Cousin Consultants Ltd.
No. 234 Date: 16/03/29

JRCC PROJECT # R-325.52

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2	RECORD DRAWING	FEB 2019
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	
Revision	Description	Date
Client		client

NOTE:
- REFER TO SPECIFICATION FOR TH LOGS.

Project title: Stony Mountain Lagoon Upgrade

STONY MOUNTAIN LAGOON UPGRADE

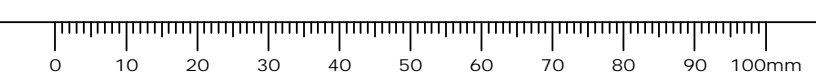
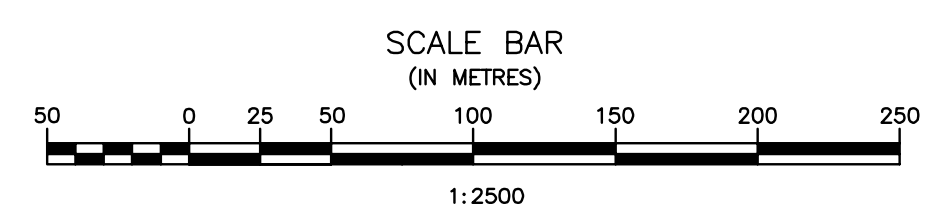
Designed by: JRCC
Drawn by: OT
Approved by: JRCC
PWSSC Project Manager: MARK MOGAN
Administrateur de Projets TPSGC

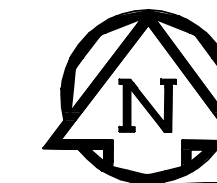
LAGOON TESTHOLES AND EXISTING GROUND CONTOURS

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	EX1 OF 2	0

LAGOON TESTHOLES AND EXISTING GROUND CONTOURS
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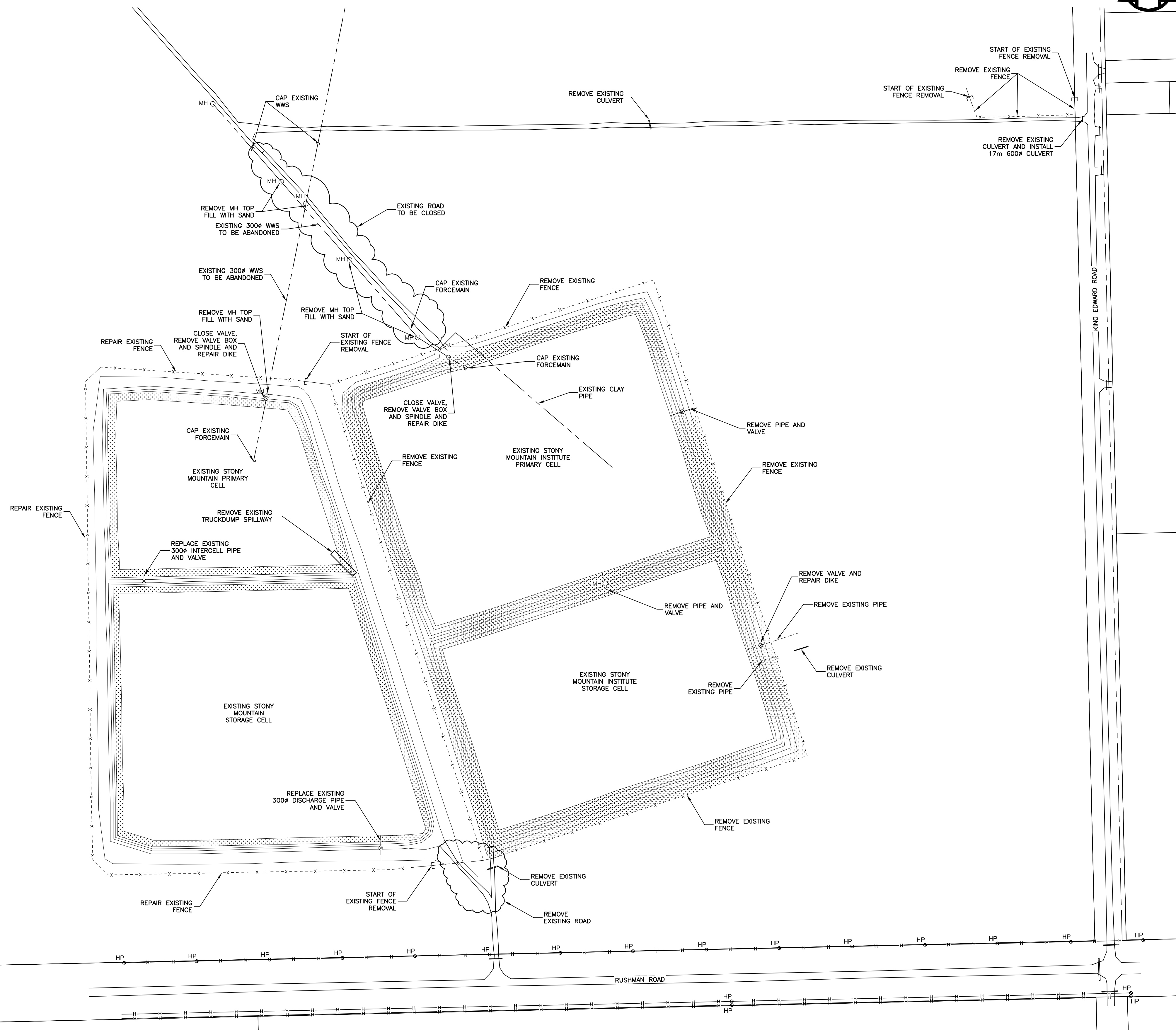
Record Drawing
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LEGEND:

EXISTING RIP RAP



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16/03/29

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2	RECORD DRAWING	FEB 2019
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	
Revision	Description	Date
Client		client

Project title: Project

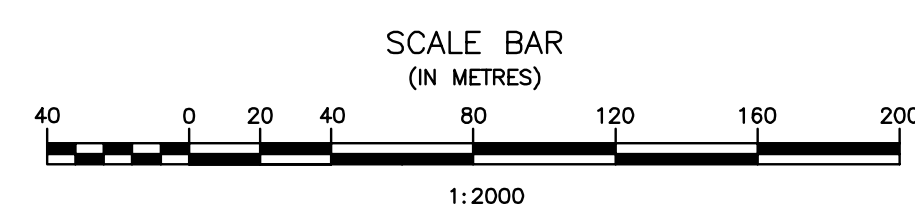
STONY MOUNTAIN LAGOON UPGRADE

Designed by: JRC Conçu par
Drawn by: OT Dessiné par
Approved by: JRC Approuvé par
PWSSC Project Manager / Administrateur de Projets TPSGC
MARK MOGAN

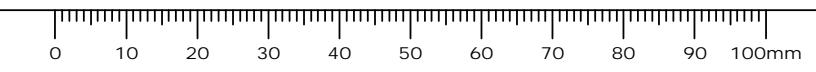
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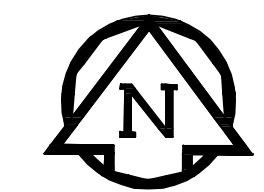
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R.075583.001	EX2	0
	OF 2	

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EXISTING LAGOON MODIFICATION
SCALE = 1:2000

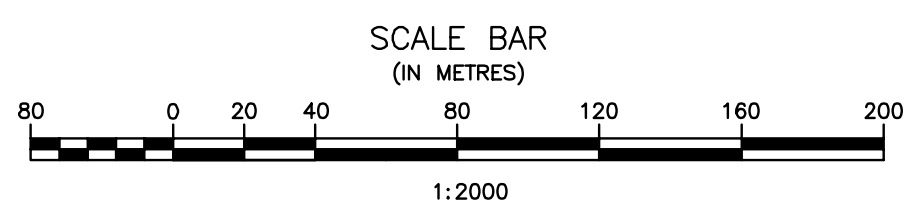
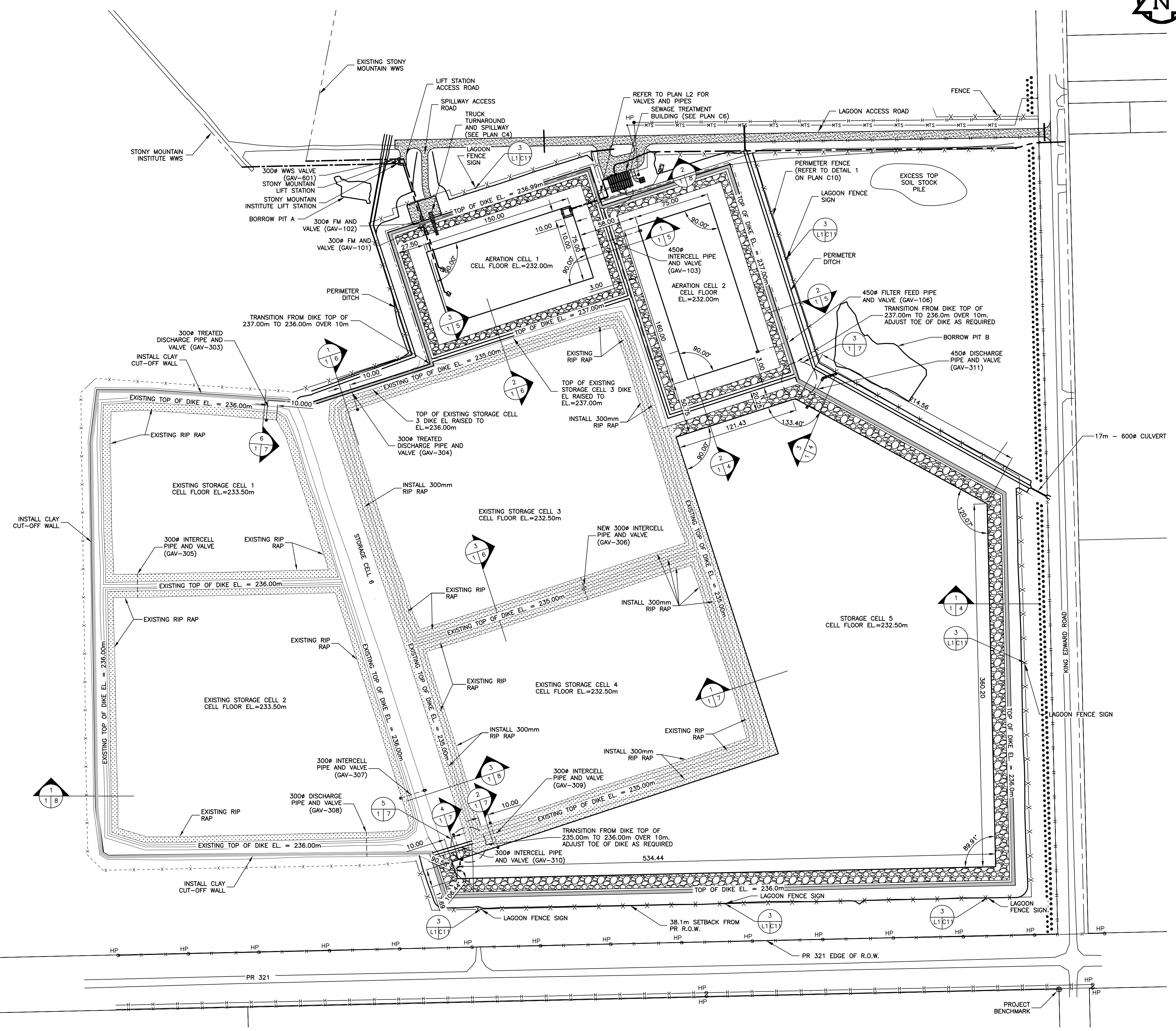




LEGEND:

- CLAY CUT-OFF WALL
- EXISTING RIP RAP
- PROPOSED RIP RAP

PROJECT BENCHMARK LOCATION:
SURVEY MONUMENT
N 5547245.993 E 628320.351
EL. 232.658



LAGOON LAYOUT PLAN
SCALE = 1:2000

Record Drawing
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SIGNED AND SEALED
BY
J.R.L. COUSIN
17/03/06

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No. 234 Date: 17/03/06

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Revision	Description	Date
5		
4		
3	RECORD DRAWING	FEB 2019
2	REVISED WWS	MARCH 2017
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	

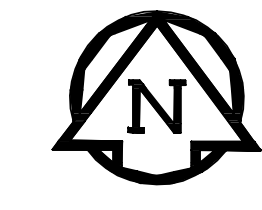
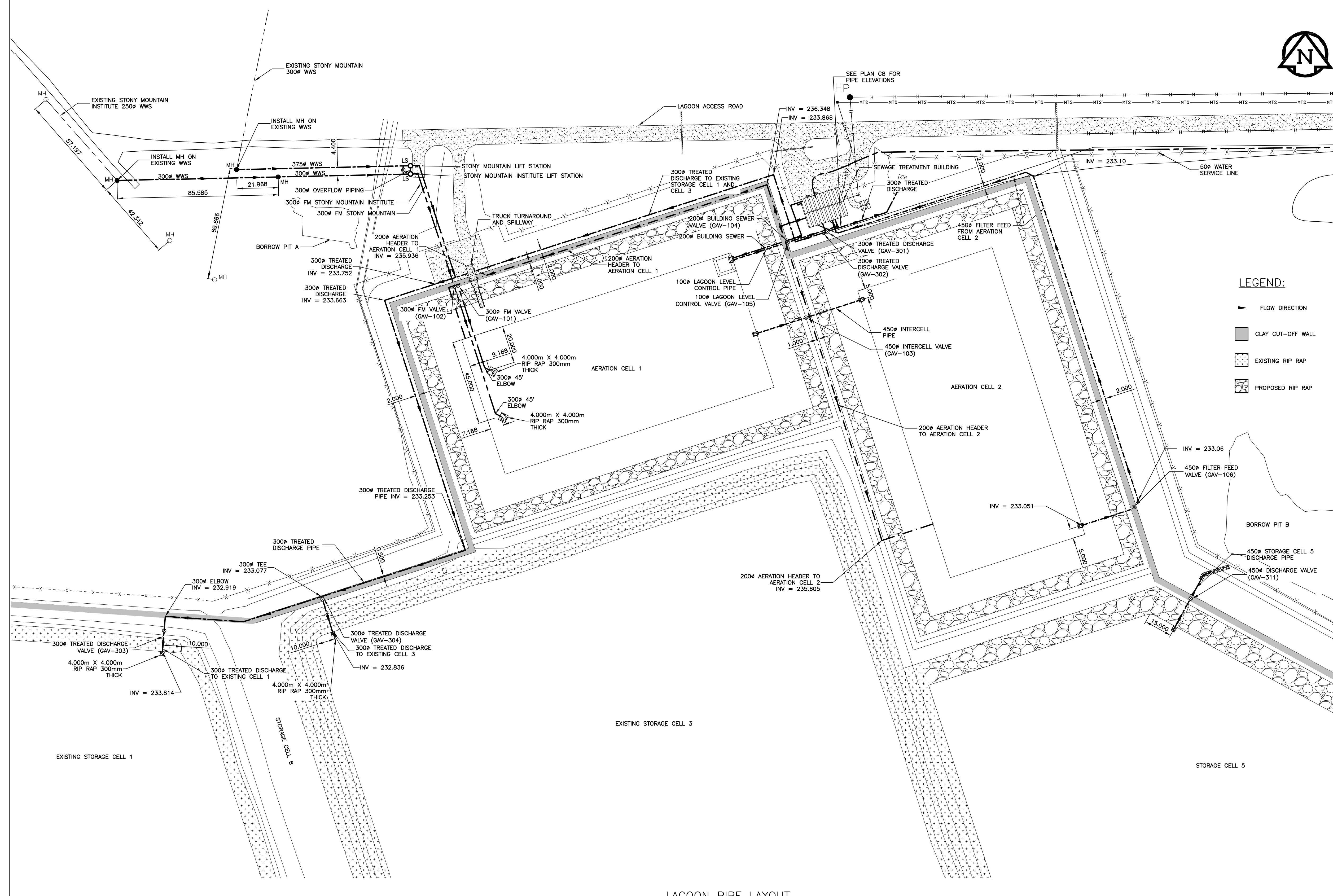
Client	client

Project title	Projet

STONY MOUNTAIN LAGOON UPGRADE

Designed by: Conçu par: JRC
Drawn by: Dessiné par: OT
Approved by: Approuvé par: JRC
PWSSC: Project Manager / Administrateur de Projets TPSGC: MARK MOGAN
Drawing title: Titre du dessin: **LAGOON LAYOUT PLAN**

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	L1 OF 9	0



LEGEND:

- ▶ FLOW DIRECTION
- ▬ CLAY CUT-OFF WALL
- ▨ EXISTING RIP RAP
- ▩ PROPOSED RIP RAP

ORIGINAL DRAWING
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 BY
 J.R.L. COUSIN
 17/03/06

APGM
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J.R. Cousin Consultants Ltd.
 No. 234 Date: 17/03/06

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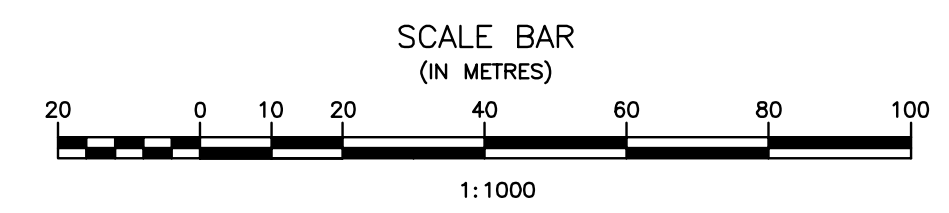
5		
4		
3	RECORD DRAWING	FEB 2019
2	REVISED WWS	MARCH 2017
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	
Revision	Description	Date
Client		client

Project title: **LAGOON PIPE LAYOUT PLAN**

STONY MOUNTAIN LAGOON UPGRADE

Designed by: **JRC** Conçu par
 Drawn by: **OT** Dessiné par
 Approved by: **JRC** Approuvé par
 PWGSC Project Manager Administrateur de Projets TPSGC
MARK MOGAN
 Drawing title: **LAGOON PIPE LAYOUT PLAN**

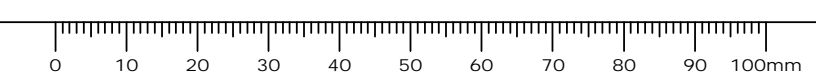
Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	L2	0
	OF 9	

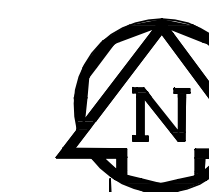


LAGOON PIPE LAYOUT
 SCALE = 1:1000

Record Drawing

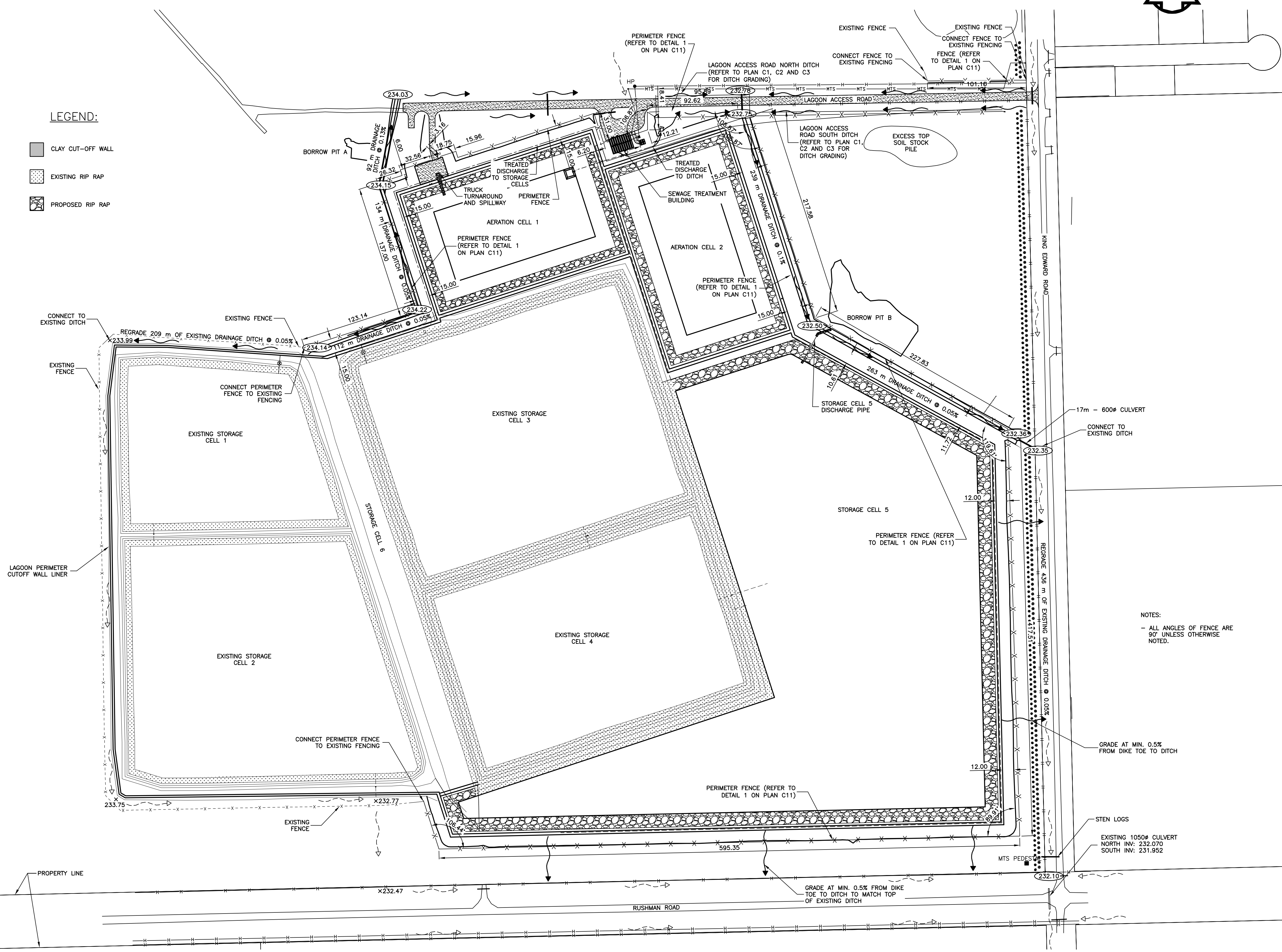
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LEGEND:

- CLAY CUT-OFF WALL
- EXISTING RIP RAP
- PROPOSED RIP RAP



ORIGINAL DRAWING
SIGNED AND SEALED
BY
J.R.L. COUSIN
17/03/06

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3	RECORD DRAWING	FEB 2019
2	REVISED TEXT	MARCH 2017
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	
Revision	Description	Date
Client		client

NOTES:
- ALL ANGLES OF FENCE ARE 90° UNLESS OTHERWISE NOTED.

Project title: Project

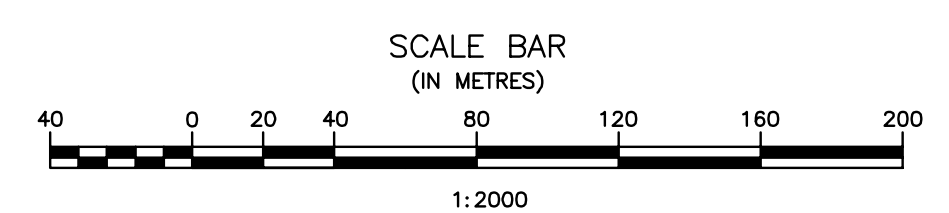
STONY MOUNTAIN LAGOON UPGRADE

Designed by: JRC Conçu par
Drawn by: OT Dessiné par
Approved by: JRC Approuvé par
Project Manager: MARK MOGAN Administrateur de Projets TPSGC
Drawing title: Site Drainage and Perimeter Fencing

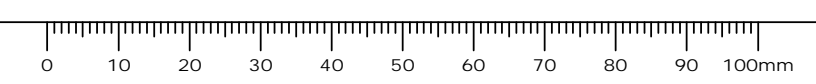
SITE DRAINAGE AND PERIMETER FENCING

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	L3	0
	OF 9	


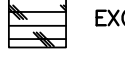




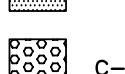


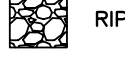





Record Drawing
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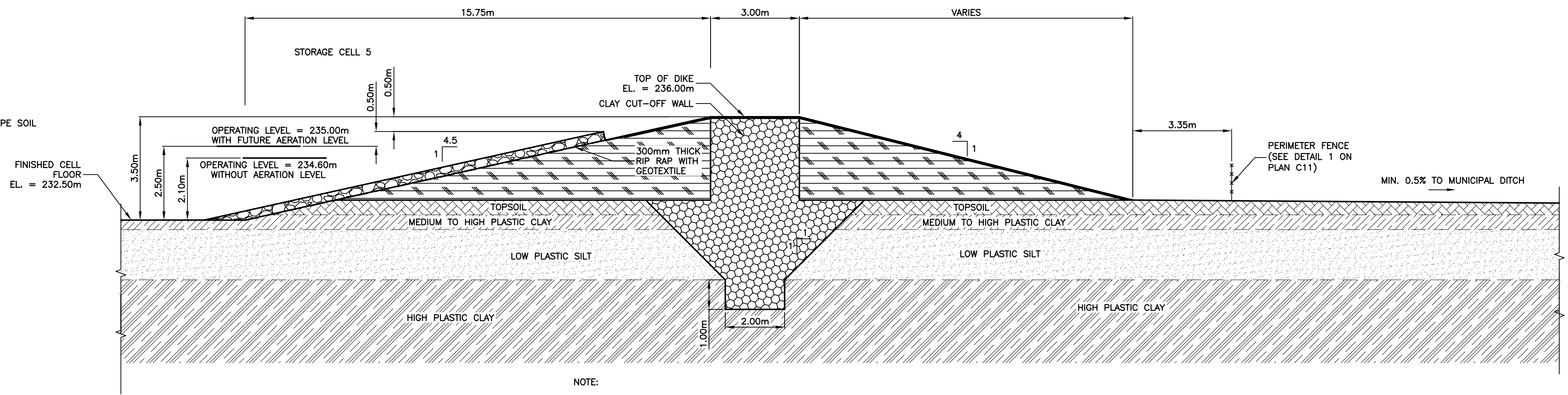


SITE DRAINAGE AND PERIMETER FENCING
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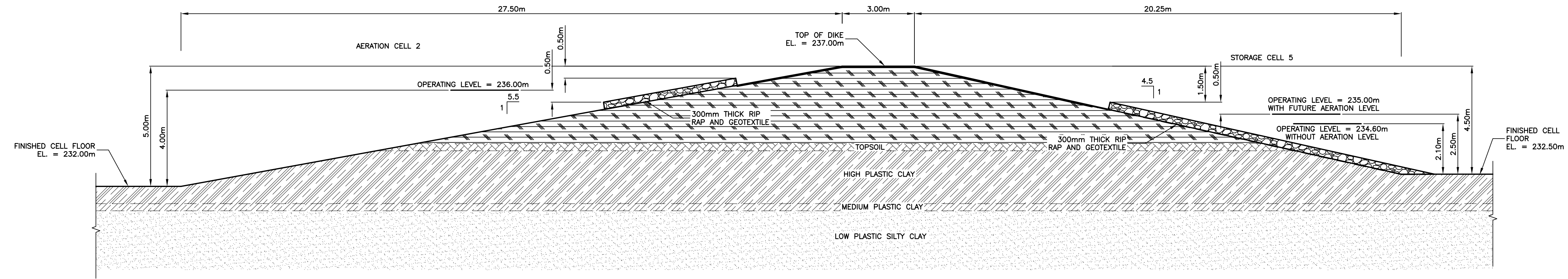


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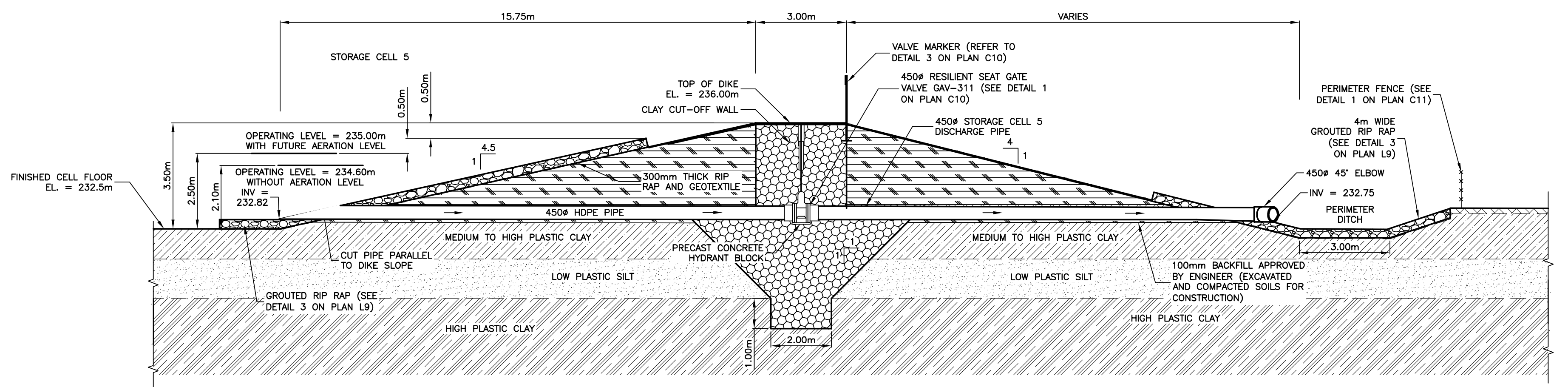
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-  EXCAVATED AND COMPACTED MATERIAL/BACKFILL
-  INSITU LOW PLASTIC SILTY CLAY TYPE SOIL
-  INSITU HIGH PLASTIC CLAY TYPE SOIL
-  INSITU MEDIUM TO HIGH PLASTIC CLAY TYPE SOIL
-  INSITU LOW-MEDIUM PLASTIC CLAY TYPE SOIL
-  A-BASE
-  C-BASE
-  CONCRETE
-  RIP RAP
-  EXISTING DIKE
-  EXISTING TOPSOIL
-  EXISTING RIP RAP
-  TOPSOIL/ORGANICS
-  MEDIUM PLASTIC CLAY TYPE SOIL



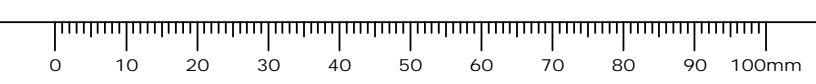
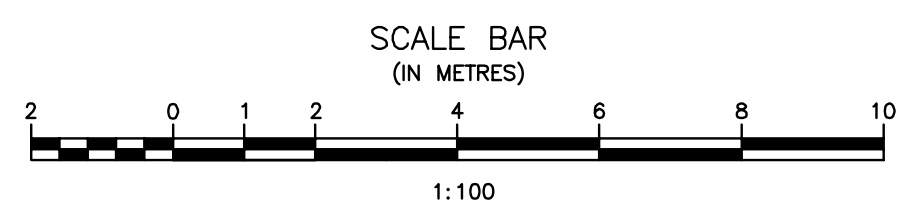
1 STORAGE CELL 5 PERIMETER DIKE
SCALE = 1:100



2 AERATION CELL 2 AND STORAGE CELL 5 INTERCELL DIKE
SCALE = 1:100



3 STORAGE CELL 5 PERIMETER DIKE AT DISCHARGE PIPE
SCALE = 1:100



ORIGINAL DRAWING
SIGNED AND SEALED
BY
J.R.L. COUSIN
16/03/29

APGM
Certificate of Authorization
J.R. Cousin Consultants Ltd.
No. 234 Date: 16/03/29

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0	Design Completion	
Revision	Description	Date
Client		client

Project title: Stony Mountain Lagoon Upgrade

STONY MOUNTAIN LAGOON UPGRADE



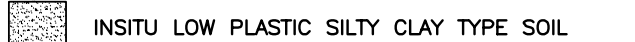












Designed by	JRC	Conçu par	
Drawn by	OT	Dessiné par	
Approved by	JRC	Approuvé par	
PM/CS: Project Manager	MARK MOGAN	Administrateur de Projets TPSGC	
Drawing title		Titre du dessin	

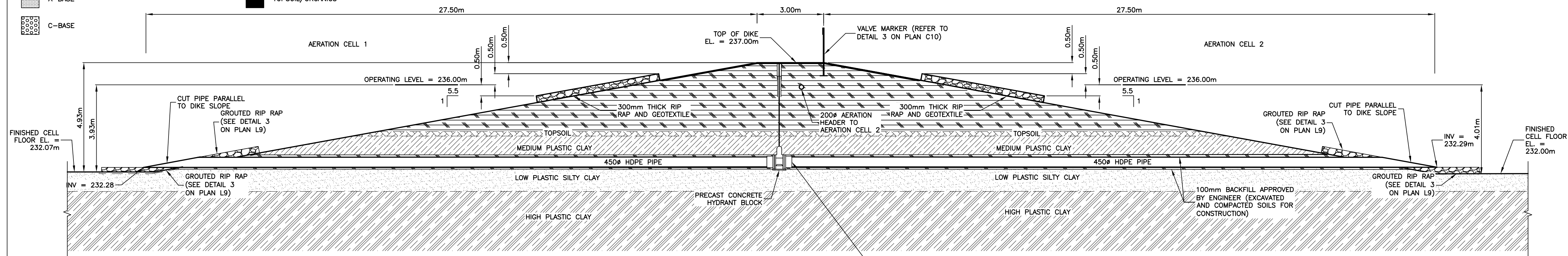
LAGOON SECTIONS STORAGE CELL 5 AND AERATION CELL 2

Project no./No. du projet	R.075583.001	Drawing no./No. du dessin	L4	Revision no.	0
			OF 9		

Record Drawing
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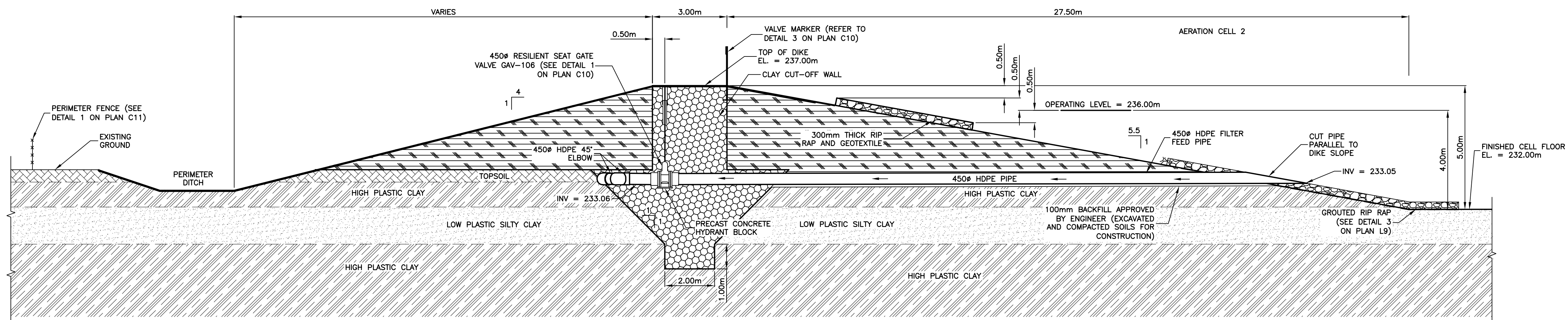
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-  EXCAVATED AND COMPACTED MATERIAL/BACKFILL
-  INSITU LOW PLASTIC SILTY CLAY TYPE SOIL
-  INSITU HIGH PLASTIC CLAY TYPE SOIL
-  INSITU MEDIUM TO HIGH PLASTIC CLAY TYPE SOIL
-  INSITU LOW-MEDIUM PLASTIC CLAY TYPE SOIL
-  A-BASE
-  C-BASE
-  CONCRETE
-  RIP RAP
-  EXISTING DIKE
-  EXISTING TOPSOIL
-  MEDIUM PLASTIC CLAY TYPE SOIL
-  EXISTING RIP RAP
-  TOPSOIL/ORGANICS



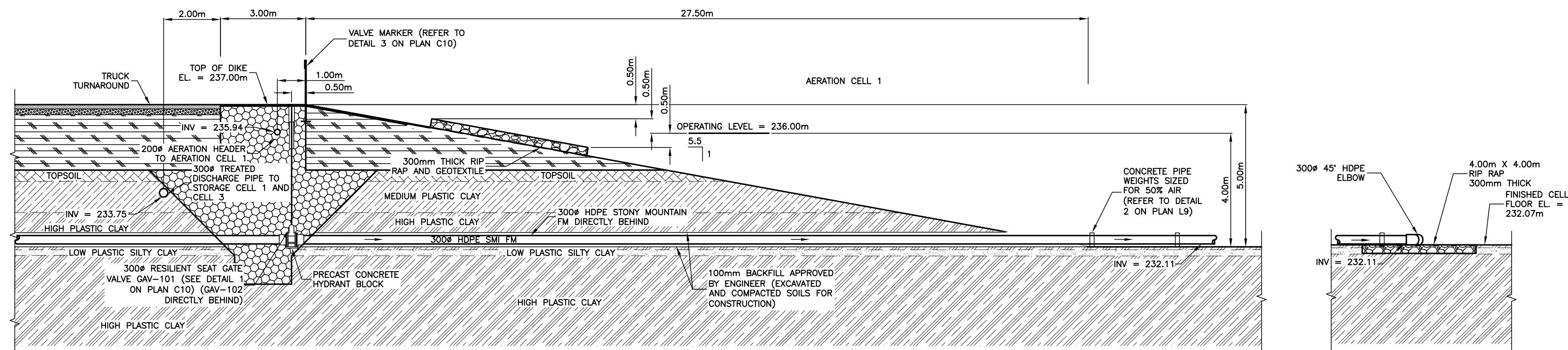
NOTE:
- SECTION MATERIAL IS BASED ON AMEC-T014 (2014).

1
1 5 AERATION CELL 1 AND AERATION CELL 2 INTERCELL PIPE
SCALE = 1:100



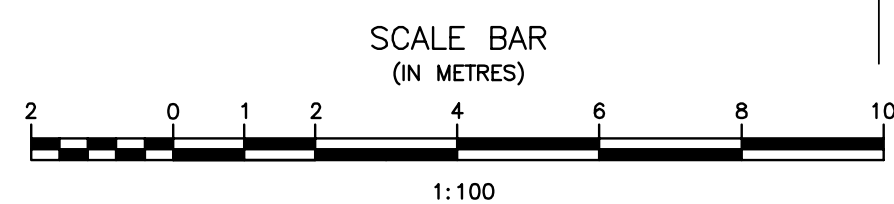
NOTE:
- SECTION MATERIAL IS BASED ON JRCC-TH5 (2010).

2
1 5 AERATION CELL 2 PERIMETER DIKE AT FILTER FEED VALVE
SCALE = 1:100



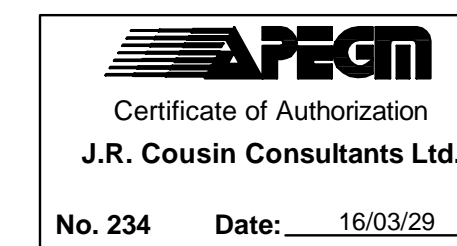
NOTE:
- SECTION MATERIAL IS BASED ON JRCC-TH5 (2010).

3
1 5 AERATION CELL 1 AT FORCEMAIN
SCALE = 1:100



Record Drawing
Drawing compiled from visual observations of various parts of construction and/or from information by others. Accuracy not warranted. Independent verification required before application.

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16/03/29



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1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	
Revision	Description	Date
Client		client

Project title: Stony Mountain Lagoon Upgrade

STONY MOUNTAIN LAGOON UPGRADE

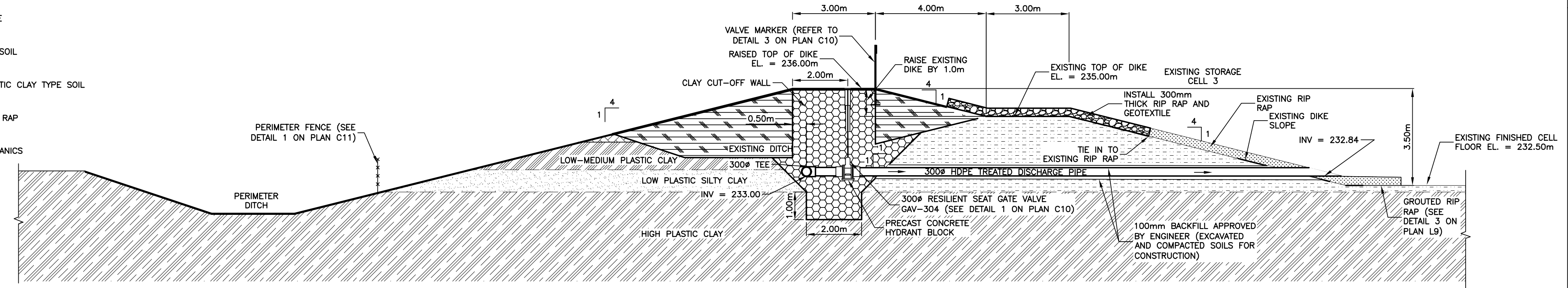
Designed by: JRC
Drawn by: OT
Approved by: JRC
PWSCC: Project Manager / Administrateur de Projets TPSGC
MARK MOGAN

LAGOON SECTIONS AERATION CELL 1 AND AERATION CELL 2

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	L5 OF 9	0

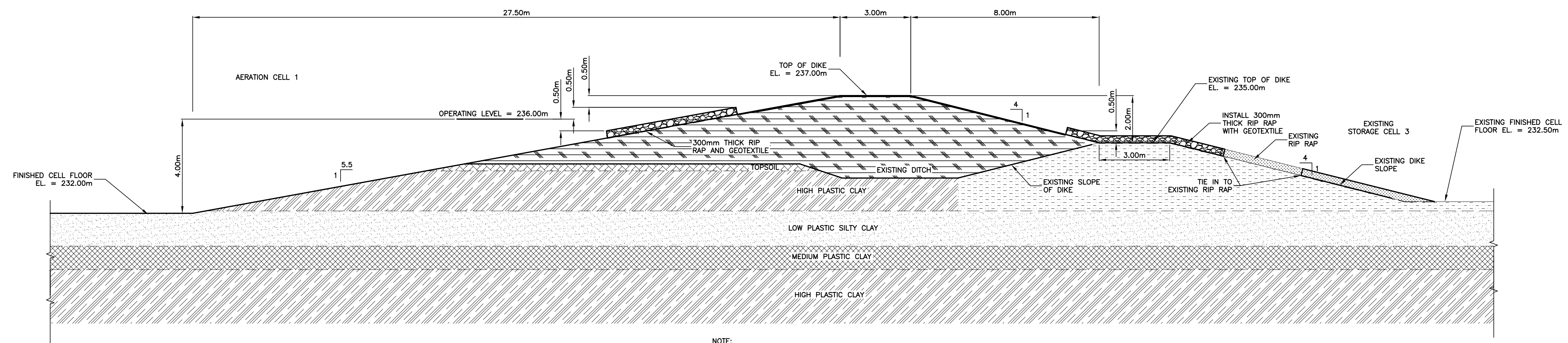
LEGEND:

- EXCAVATED AND COMPACTED HIGH PLASTIC CLAY TYPE SOIL
- EXCAVATED AND COMPACTED MATERIAL/BACKFILL
- INSITU LOW PLASTIC SILTY CLAY TYPE SOIL
- INSITU HIGH PLASTIC CLAY TYPE SOIL
- INSITU MEDIUM TO HIGH PLASTIC CLAY TYPE SOIL
- INSITU LOW-MEDIUM PLASTIC CLAY TYPE SOIL
- A-BASE
- C-BASE
- CONCRETE
- RIP RAP
- EXISTING DIKE
- EXISTING TOPSOIL
- MEDIUM PLASTIC CLAY TYPE SOIL
- EXISTING RIP RAP
- TOPSOIL/ORGANICS



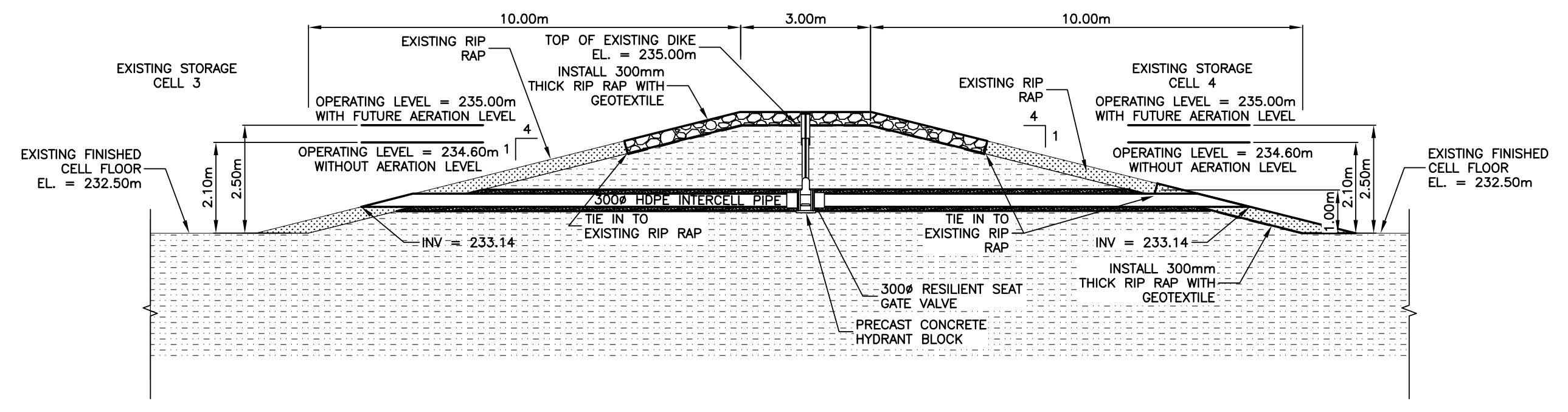
NOTE:
 - SECTION MATERIAL IS BASED ON TH10 (JRCC-2011).

1
 STORAGE CELL 3 RAISED DIKE AND DISCHARGE TO CELL 1
 SCALE = 1:100

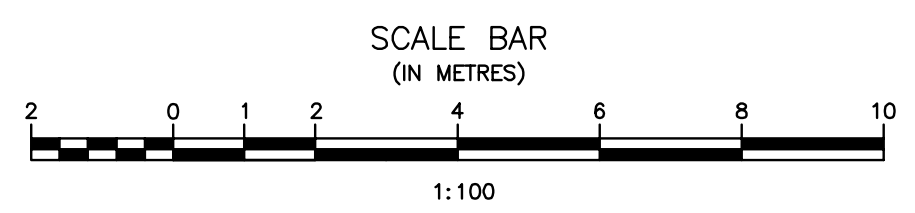


NOTE:
 - SECTION MATERIAL IS BASED ON JRCC-TH7 (2010).

2
 AERATION CELL 1 AND STORAGE CELL 3 INTERCELL DIKE
 SCALE = 1:100



3
 STORAGE CELL 3 AND 4 INTERCELL DIKE
 SCALE = 1:100



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 SIGNED AND SEALED
 BY
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 16/03/29

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5		
4		
3		
2	RECORD DRAWING	FEB 2019
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	

Client	client
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Project title
 Project
STONY MOUNTAIN LAGOON UPGRADE

Designed by	Conçu par	JRC
Drawn by	Dessiné par	OT
Approved by	Approuvé par	JRC
PM/ESC: Project Manager	Administrateur de Projets TPSGC	MARK MOGAN

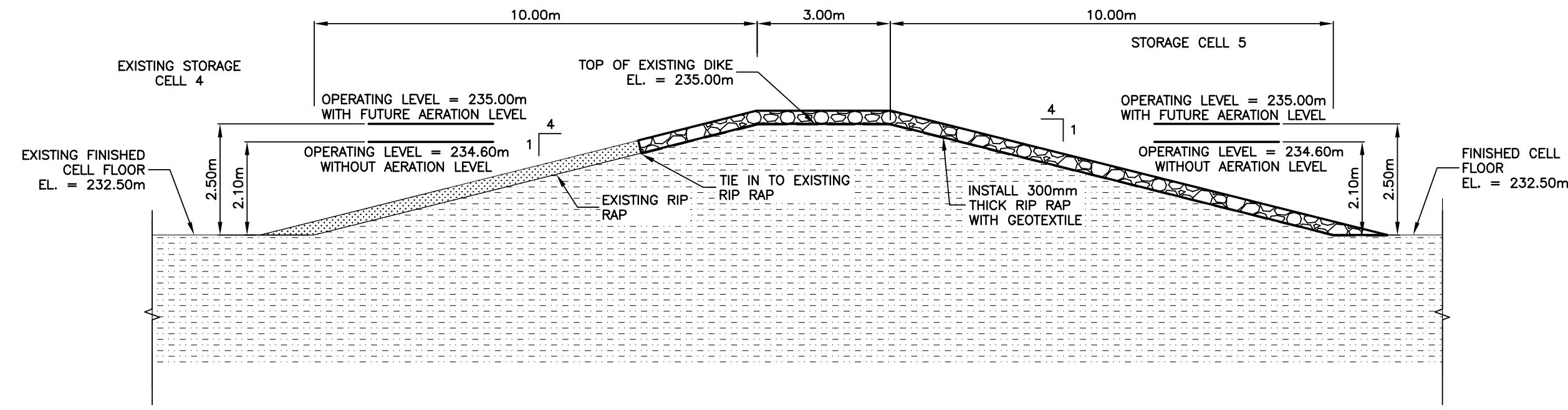
Drawing title
 Titre du dessin
**LAGOON SECTIONS
 AERATION CELL 1,
 STORAGE CELL 3 AND
 STORAGE CELL 4**

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	L6 OF 9	0

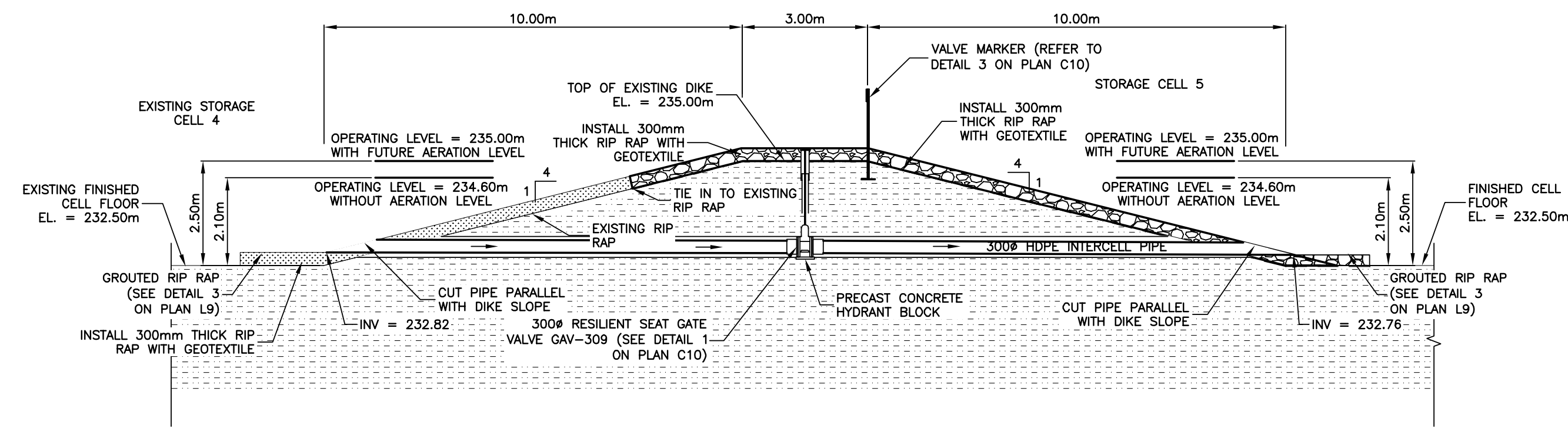
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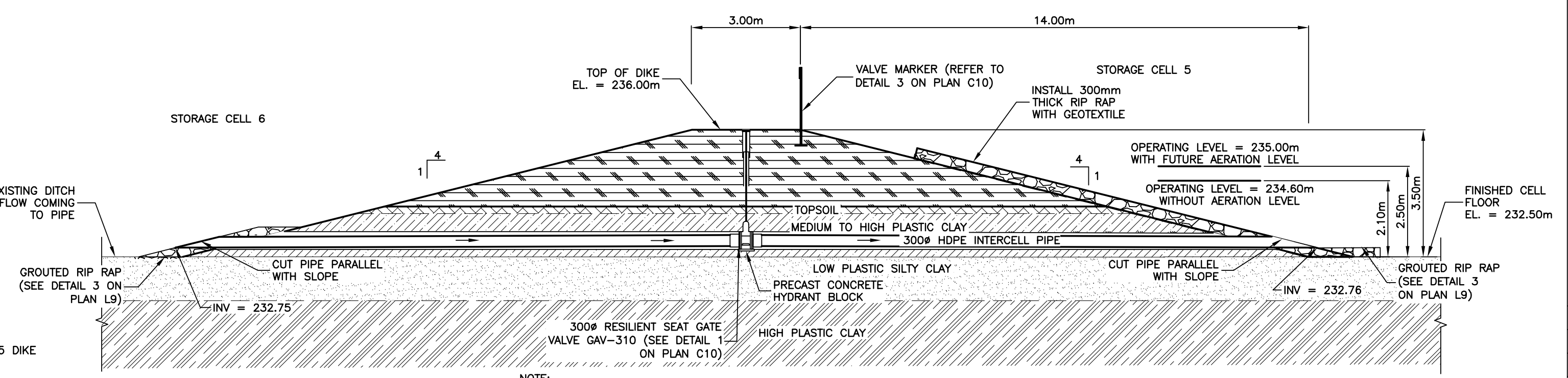
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- EXCAVATED AND COMPACTED MATERIAL/BACKFILL
- INSITU LOW PLASTIC SILTY CLAY TYPE SOIL
- INSITU HIGH PLASTIC CLAY TYPE SOIL
- INSITU MEDIUM TO HIGH PLASTIC CLAY TYPE SOIL
- INSITU LOW-MEDIUM PLASTIC CLAY TYPE SOIL
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- C-BASE
- CONCRETE
- RIP RAP
- EXISTING DIKE
- EXISTING TOPSOIL
- MEDIUM PLASTIC CLAY TYPE SOIL
- EXISTING RIP RAP
- TOPSOIL/ORGANICS



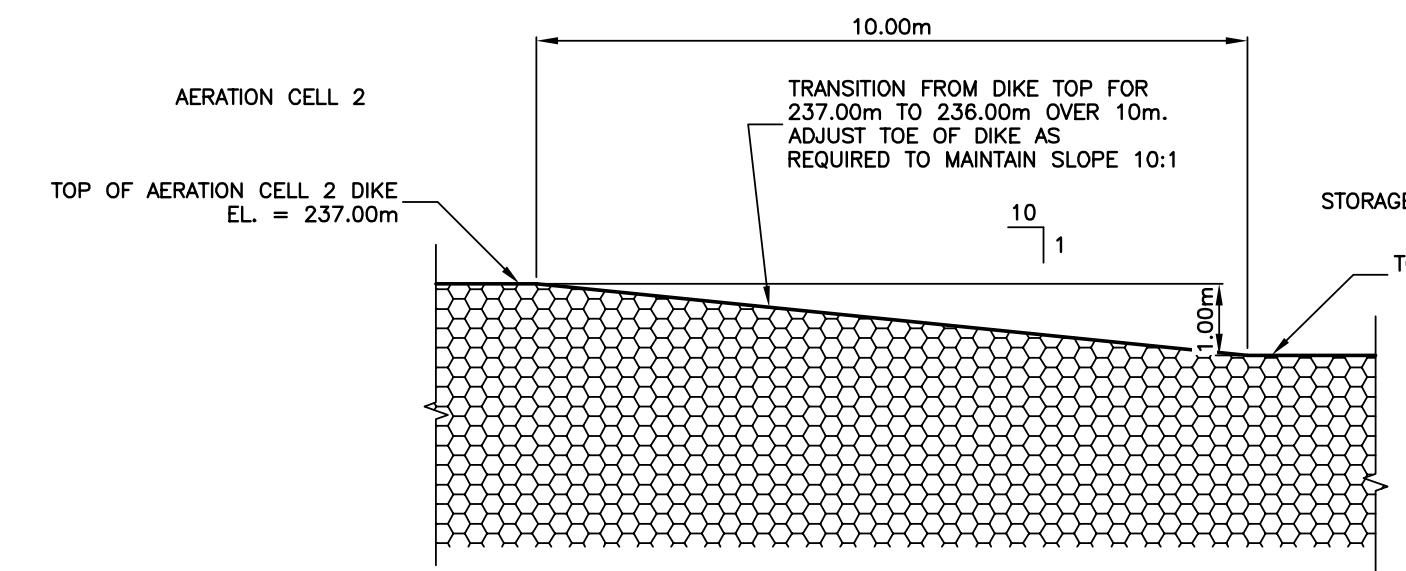
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1/7 **STORAGE CELL 4 AND 5 INTERCELL DIKE**
SCALE = 1:100



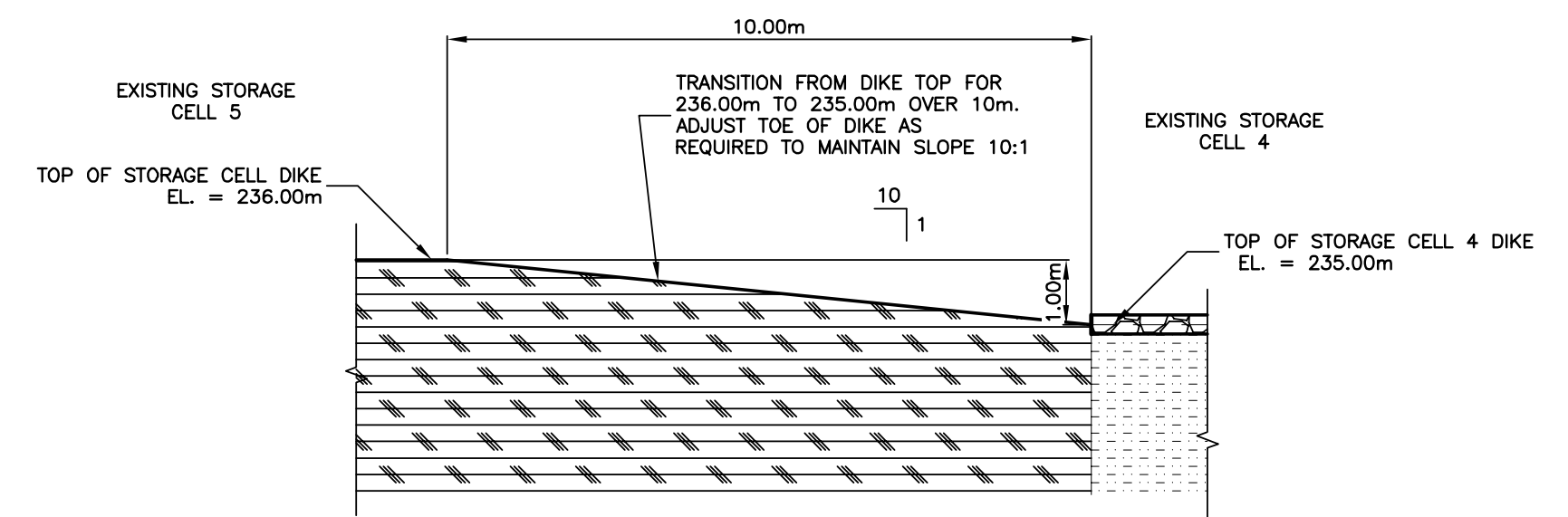
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1/7 **STORAGE CELL 4 AND 5 INTERCELL PIPE**
SCALE = 1:100



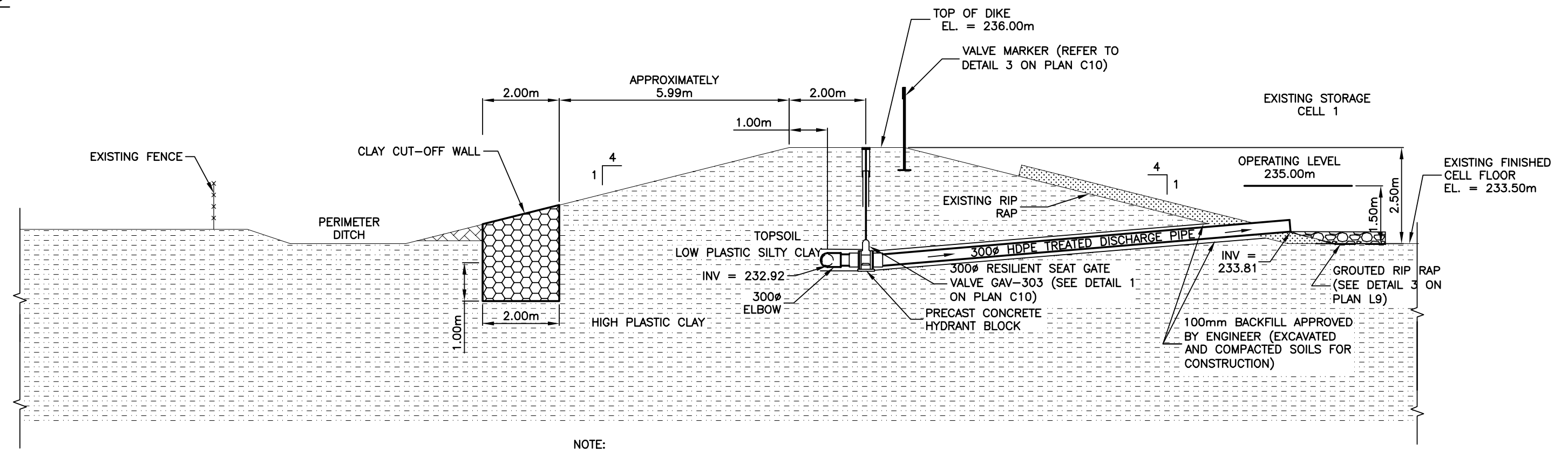
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1/7 **STORAGE CELL 5 AND 6 INTERCELL PIPE**
SCALE = 1:100



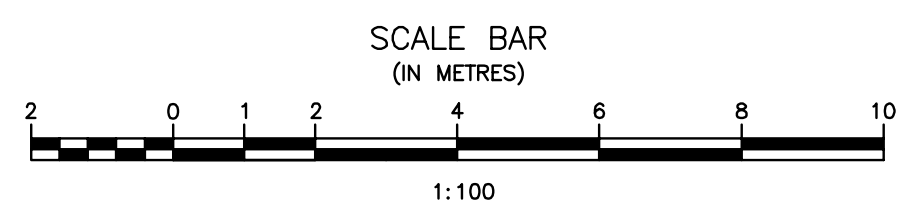
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1/7 **DIKE TRANSITION BETWEEN AERATION CELL 2 AND STORAGE CELL 5**
SCALE = 1:100



5
1/7 **DIKE TRANSITION BETWEEN STORAGE CELL 4 AND STORAGE CELL 5**
SCALE = 1:100



6
1/7 **EXISTING STORAGE CELL 1 AT DISCHARGE TO CELL 4**
SCALE = 1:100



ORIGINAL DRAWING
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BY
J.R.L. COUSIN
16/03/28

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 J.R. Cousin Consultants Ltd.
 No. 234 Date: 16/03/29

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2	RECORD DRAWING	FEB 2019
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0	Design Completion	
Revision	Description	Date
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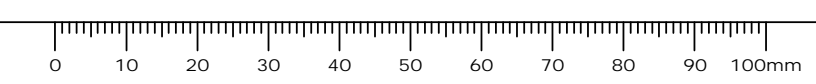
Project title: **STONY MOUNTAIN LAGOON UPGRADE** / Projet

Designed by	JRC	Conçu par	
Drawn by	OT	Dessiné par	
Approved by	JRC	Approuvé par	
PM/ESC: Project Manager	MARK MOGAN	Administrateur de Projets TPSGC	
Drawing title	LAGOON SECTIONS STORAGE CELL 1, AERATION CELL 2, STORAGE CELL 4, STORAGE 5, AND STORAGE CELL 6		

LAGOON SECTIONS
STORAGE CELL 1, AERATION CELL 2,
STORAGE CELL 4, STORAGE 5,
AND STORAGE CELL 6

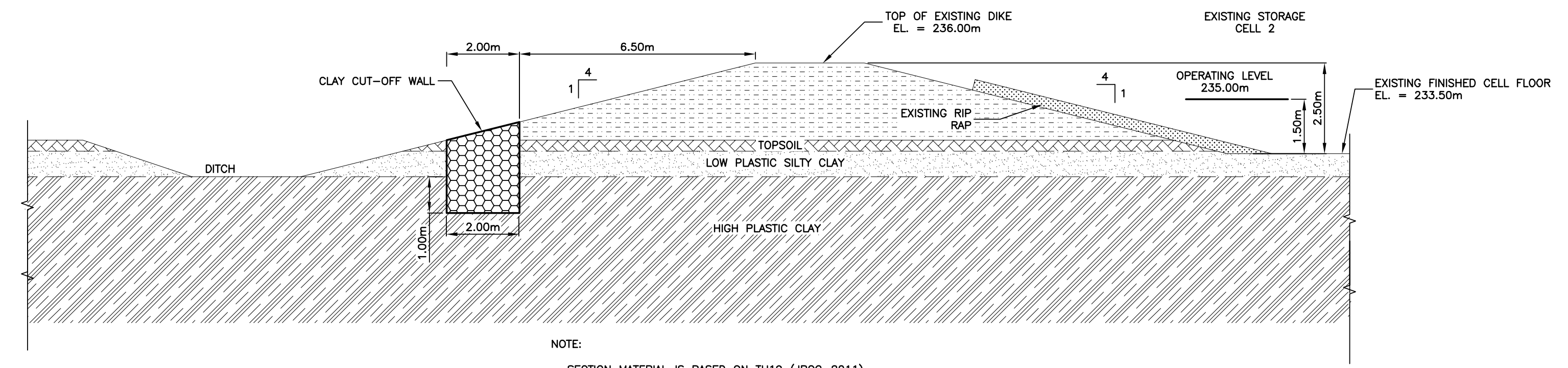
Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	L7	0
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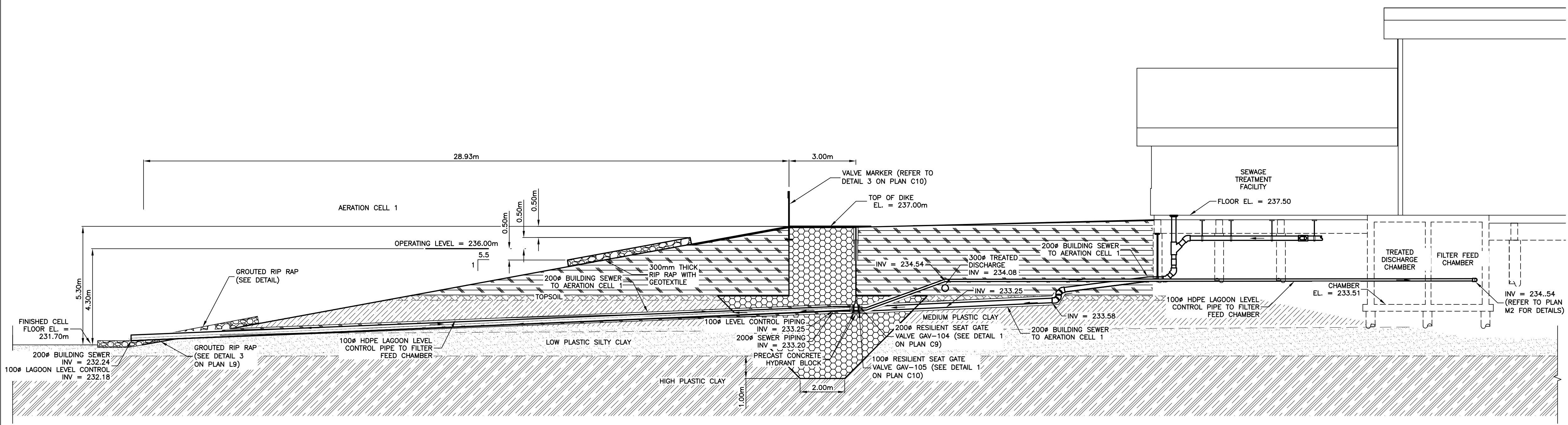
LEGEND:

- EXCAVATED AND COMPACTED HIGH PLASTIC CLAY TYPE SOIL
- EXCAVATED AND COMPACTED MATERIAL/BACKFILL
- INSITU LOW PLASTIC SILTY CLAY TYPE SOIL
- INSITU HIGH PLASTIC CLAY TYPE SOIL
- INSITU MEDIUM TO HIGH PLASTIC CLAY TYPE SOIL
- INSITU LOW-MEDIUM PLASTIC CLAY TYPE SOIL
- A-BASE
- C-BASE
- CONCRETE
- RIP RAP
- EXISTING DIKE
- EXISTING TOPSOIL
- MEDIUM PLASTIC CLAY TYPE SOIL
- EXISTING RIP RAP
- TOPSOIL/ORGANICS



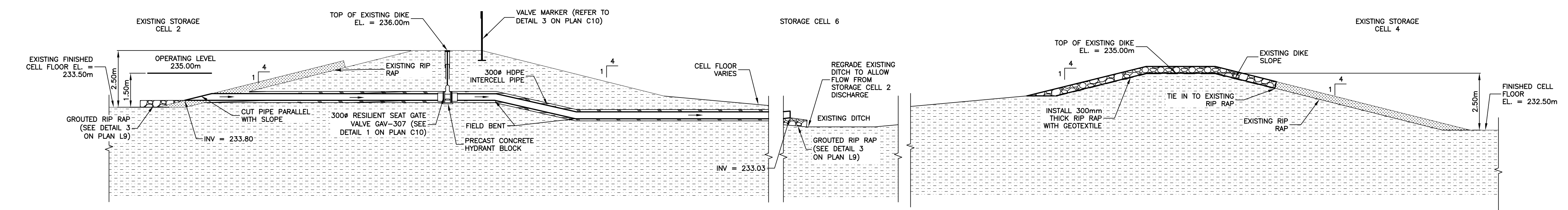
NOTE:
- SECTION MATERIAL IS BASED ON TH19 (JRCC-2011).

1
1 8 STORAGE CELL 2 AND CUT-OFF
SCALE = 1:100

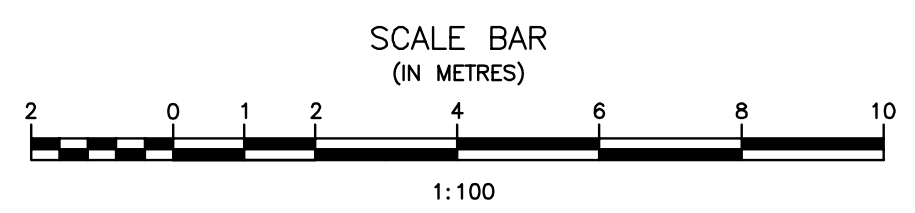


NOTE:
- SECTION MATERIAL IS BASED ON AMEC-TH1 (2014).

2
1 8 AERATION CELL 1 AT BUILDING SEWER AND LAGOON LEVEL PIPE
SCALE = 1:100



3
1 8 STORAGE CELL 6
SCALE = 1:100



Record Drawing
Drawing compiled from visual observations of various parts of construction and/or from information by others. Accuracy not warranted. Independent verification required before application.

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0	Design Completion	

Revision	Description	Date
Client		client

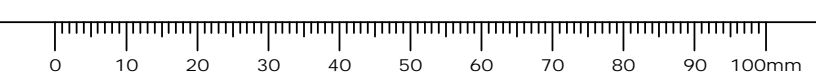
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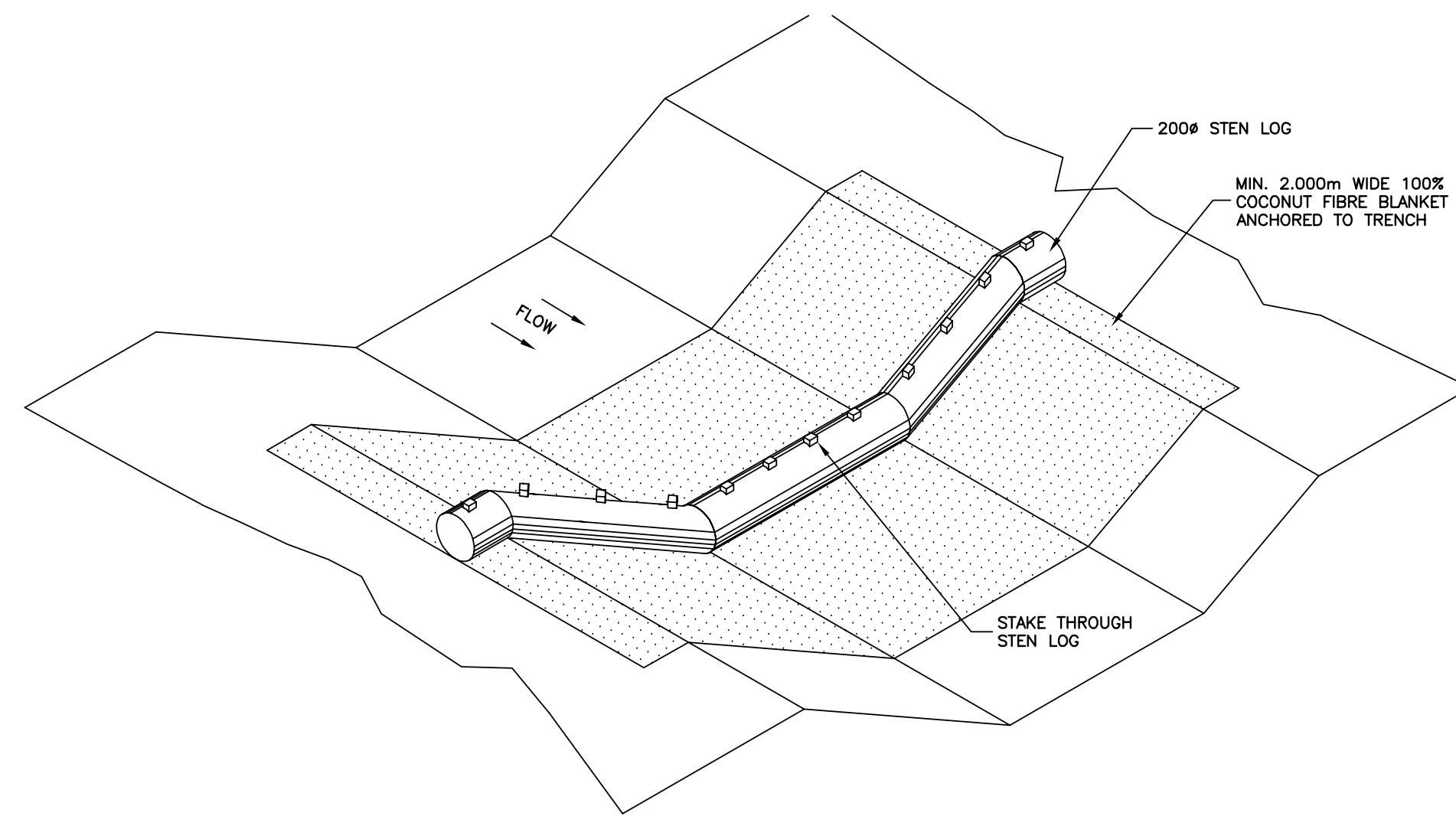
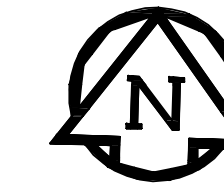
STONY MOUNTAIN LAGOON UPGRADE

Designed by	JRC	Conçu par	
Drawn by	OT	Dessiné par	
Approved by	JRC	Approuvé par	
PM/ESC: Project Manager	Administrateur de Projets TPSGC		
MARK MOGAN			

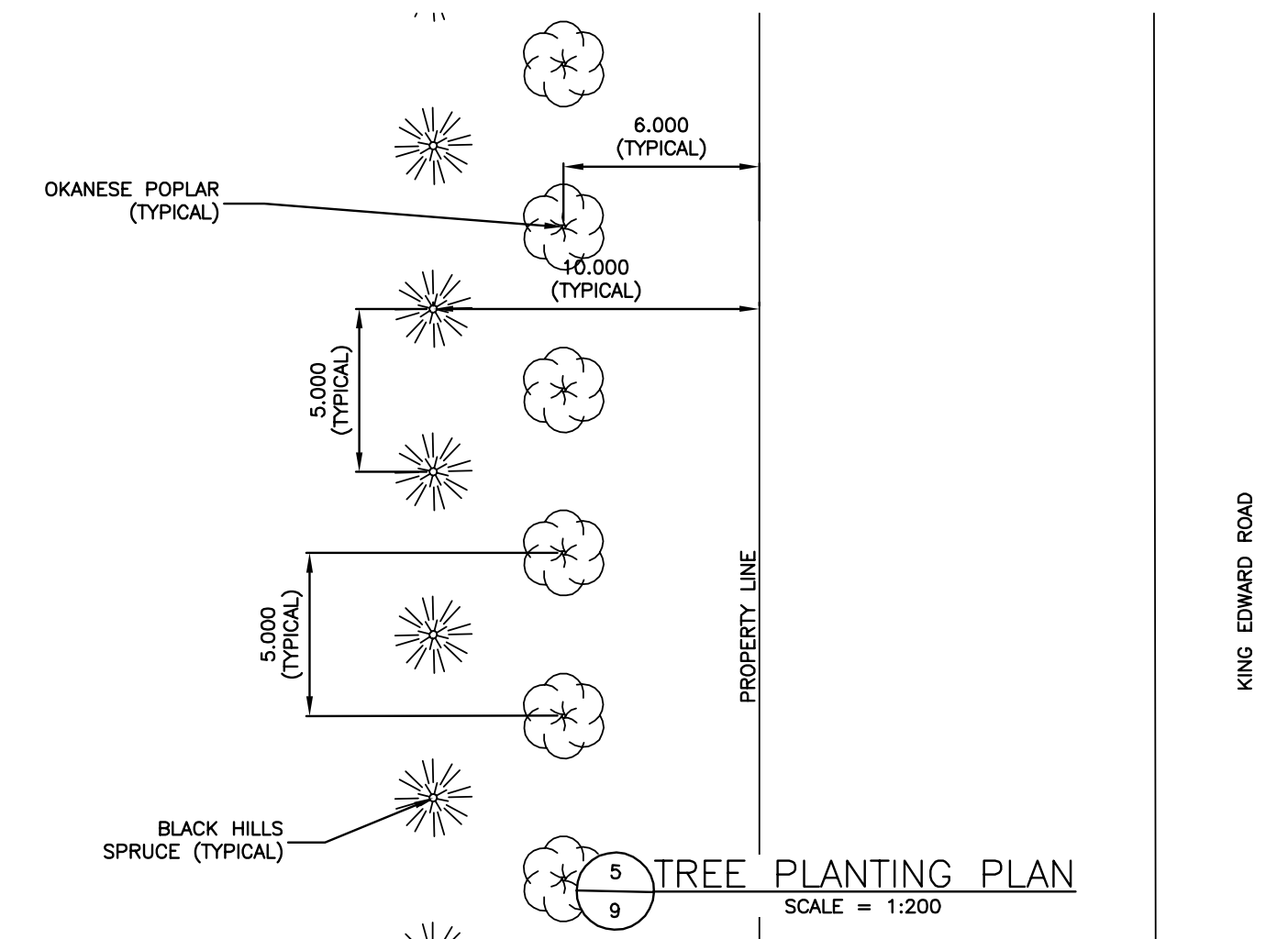
Drawing title: **LAGOON SECTIONS STORAGE CELL 2, AERATION CELL 1 AT BUILDING SEWER AND STORAGE CELL 6**

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	L8 OF 9	0

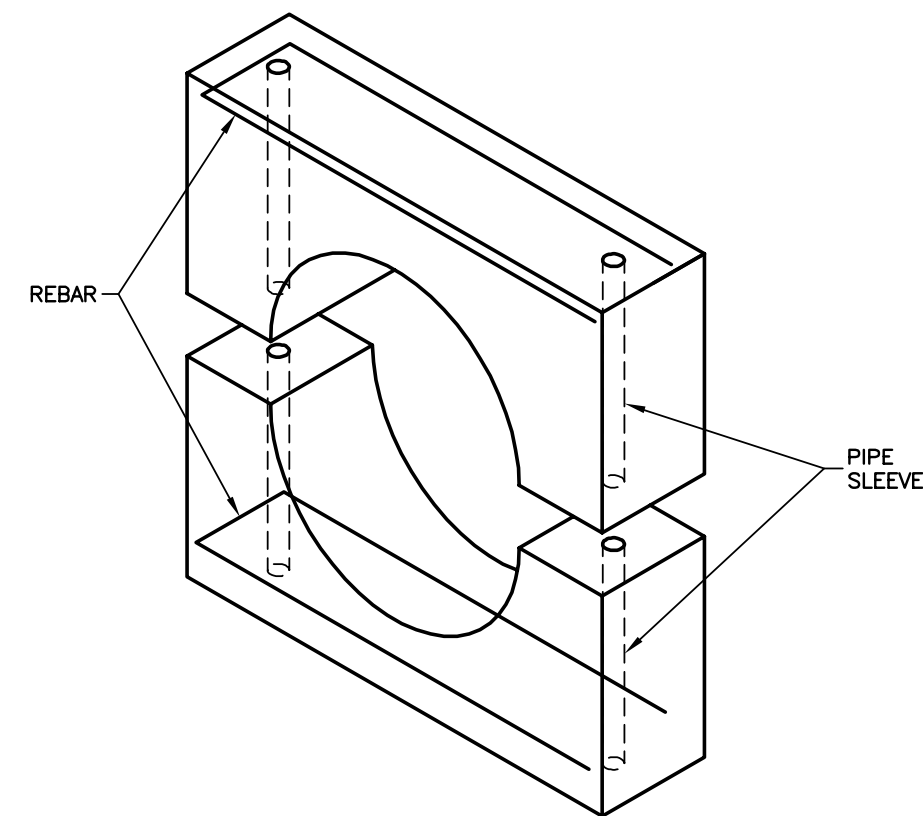




1 STEN LOG DETAIL
SCALE = 1:25

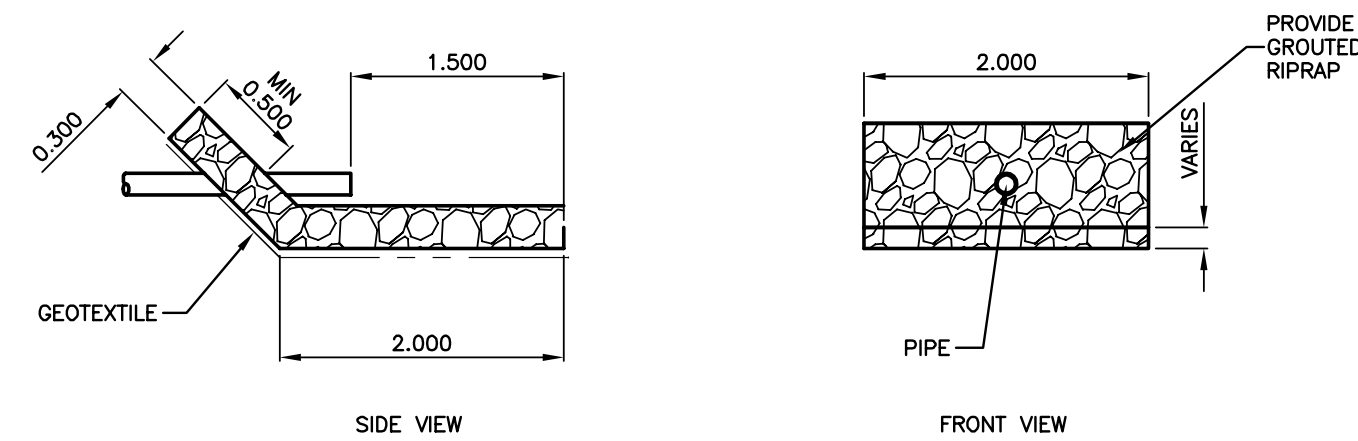


5 TREE PLANTING PLAN
SCALE = 1:200

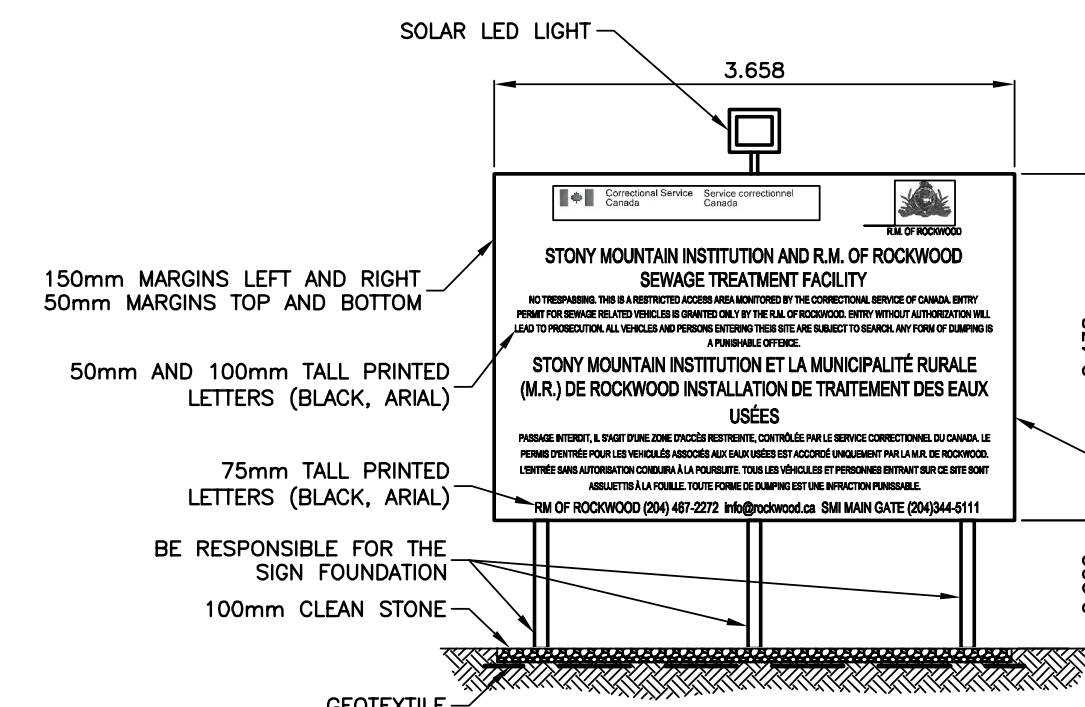


- BALLAST WEIGHT NOTES:**
- PROVIDE CONCRETE BALLAST WEIGHTS ON ALL PIPING AS SHOWN.
 - WEIGHTS TO BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
 - SPACING OF WEIGHTS TO ASSUME PIPE IS FILLED WITH 50% AIR, AND MAXIMUM 2.0m SPACING.
 - ALL BOLTS AND NUTS ON WEIGHTS TO BE STAINLESS STEEL.
 - USE MINIMUM 25MPa CONCRETE.
 - USE MINIMUM 3mm BLACK OR RED RUBBER SHEET BETWEEN WEIGHT AND PIPE.
 - USE REINFORCING STEEL IN WEIGHT TO PREVENT CRACKING.
 - PROVIDE SHOP DRAWINGS OF WEIGHTS AND PROPOSED SPACING.

2 BALLAST WEIGHT DETAIL FOR FORCEMAIN PIPING
SCALE = 1:10

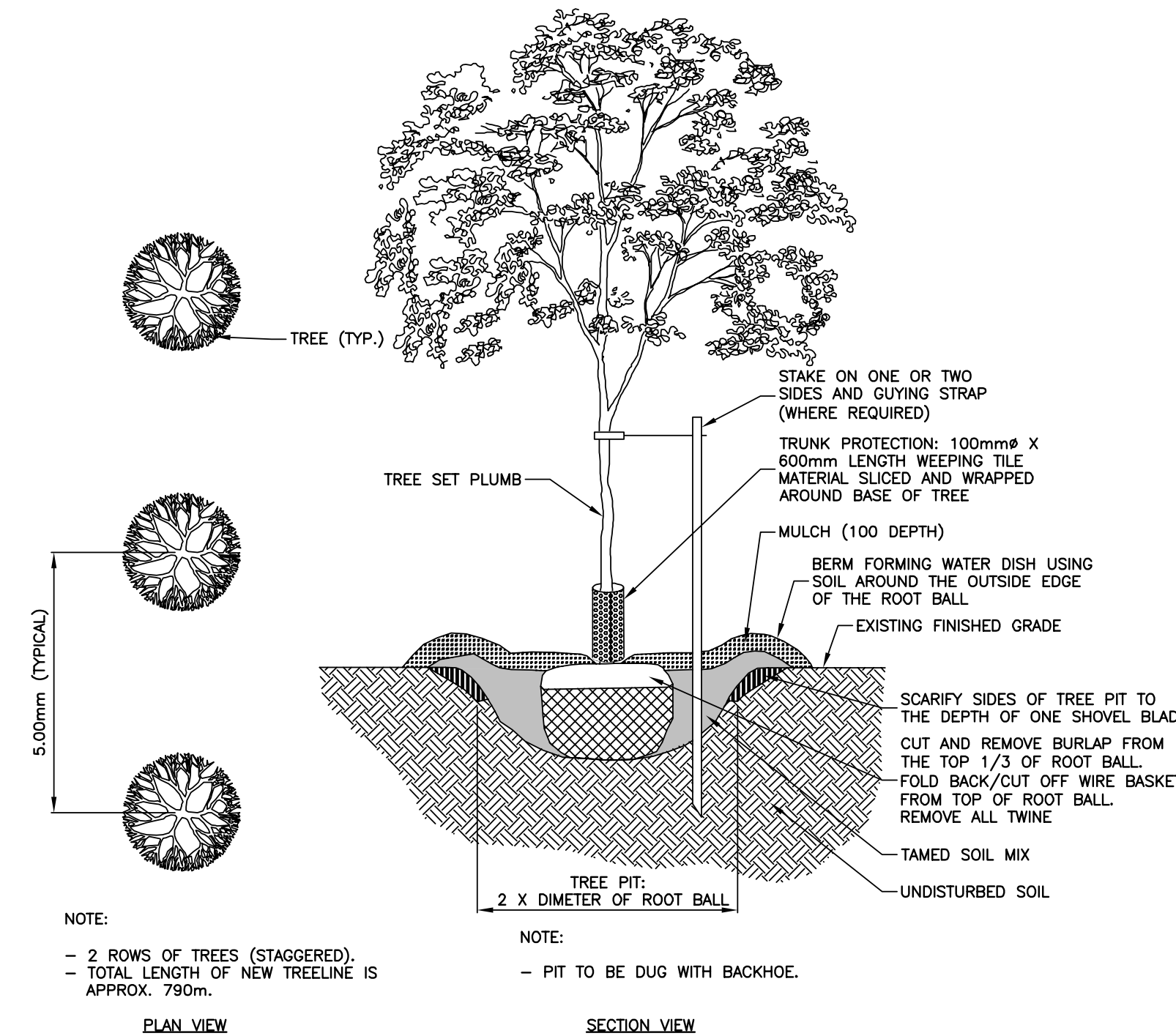


3 RIPRAP DETAIL
SCALE: 1:50



- NOTES:**
- SHRUBS NOT SHOWN
 - LOCATION TO BE SITE AS SHOWN ON PLAN L2

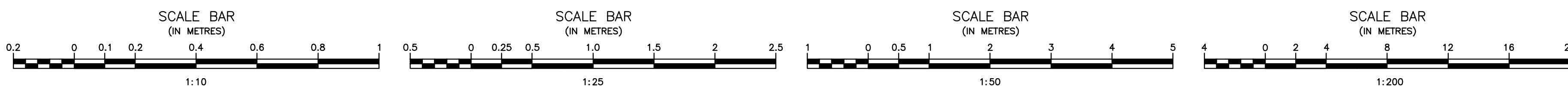
4 LAGOON SITE MARKER DETAIL
SCALE = 1:50



- NOTE:**
- 2 ROWS OF TREES (STAGGERED).
 - TOTAL LENGTH OF NEW TREELINE IS APPROX. 790m.

- NOTE:**
- PIT TO BE DUG WITH BACKHOE.

6 STANDARD DETAIL FOR TREE PLANTING
SCALE = NTS



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J.R. Cousin Consultants Ltd.
No. 234 Date: 16/03/29

JRCC PROJECT # R-325.52
JRCC JR Cousin Consultants Ltd.
91A Scarfield Blvd. Winnipeg MB R3Y 1G4
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Revision	Description	Date
5		
4		
3		
2	RECORD DRAWING	FEB 2019
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	

Client: client

Project title: Stony Mountain Lagoon Upgrade
Projet: Stony Mountain Lagoon Upgrade

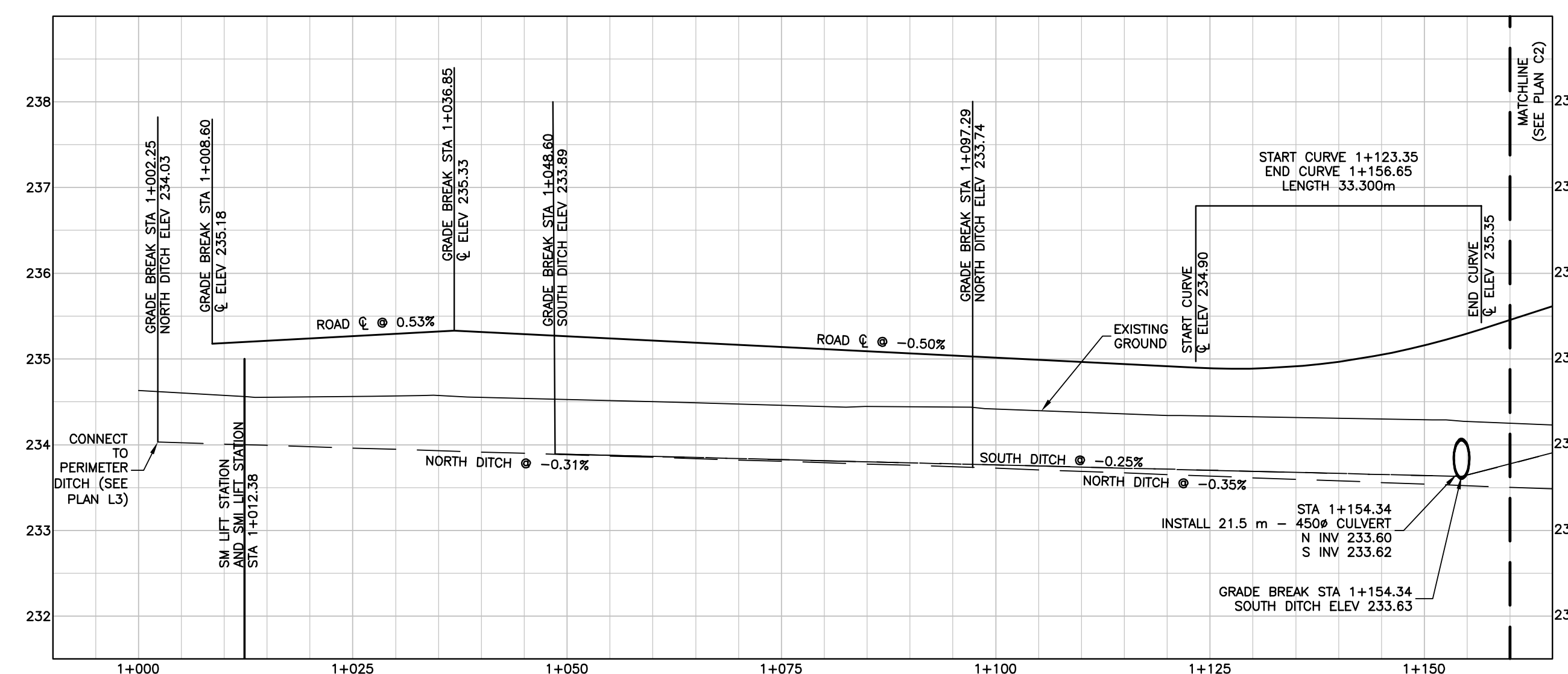
STONY MOUNTAIN LAGOON UPGRADE

Designed by: JRC
Drawn by: OT
Approved by: JRC

PM/SC: Project Manager / Administrateur de Projets TPSGC
MARK MOGAN

Drawing title: MISCELLANEOUS LAGOON DETAILS

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	L9 OF 9	0

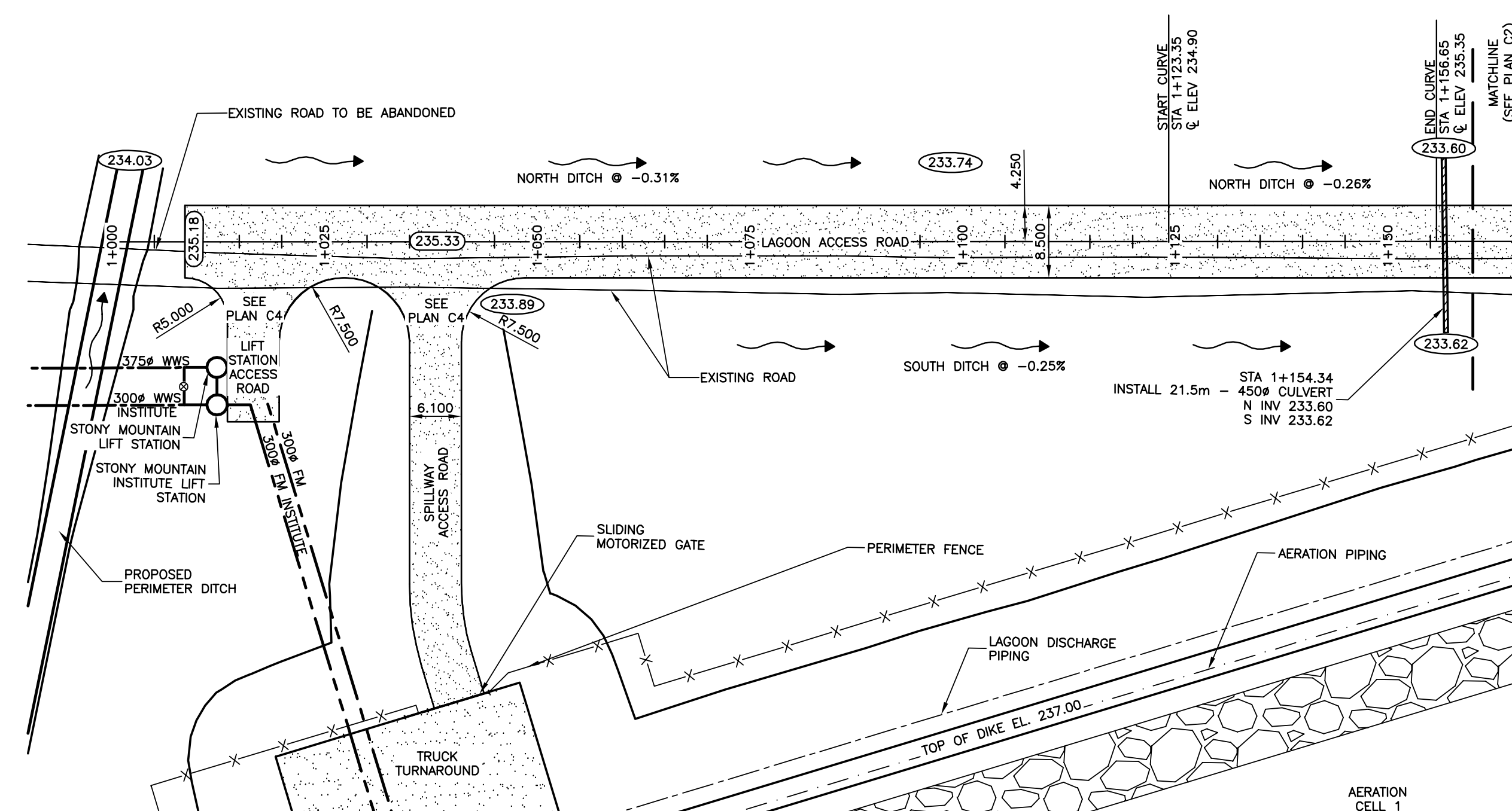


LAGOON ACCESS ROAD PROFILE - STA 1+000 TO STA 1+160

SCALE = 1:500 H 1:50 V

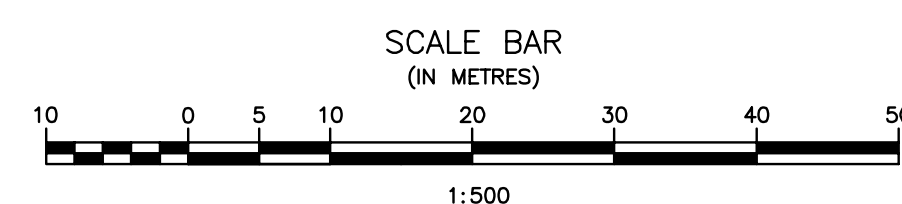
ORIGINAL DRAWING
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17/03/07

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No. 234 Date: 17/03/07



LAGOON ACCESS ROAD PLAN - STA 1+000 TO STA 1+160

SCALE = 1:500



Record Drawing

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3	RECORD DRAWING	FEB 2019
2	REVISED VWS	MARCH 2017
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	

Revision	Description	Date
Client		client

Project title: Stony Mountain Lagoon Upgrade

STONY MOUNTAIN LAGOON UPGRADE

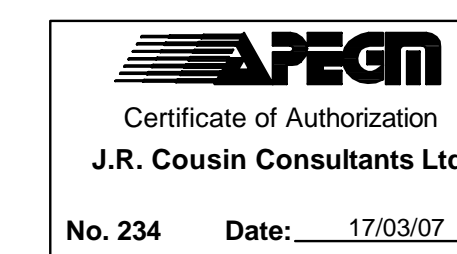
Designed by	Conçu par	MF
Drawn by	Dessiné par	DK
Approved by	Approuvé par	MF
PM/CSG: Project Manager	Administrateur de Projets TPSGC	MARK MOGAN

Drawing title: LAGOON ACCESS ROAD STA 1+000 TO STA 1+160

Project no./No. du projet: R.075583.001
Drawing no./No. du dessin: C1
Revision no.: 0

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	C1	0
	OF 11	

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JRCC PROJECT # R-325.52



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2	RECORD DRAWING	FEB 2019
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	

Revision	Description	Date
Client		client

Project title: Lagoon Access Road Upgrade

STONY MOUNTAIN LAGOON UPGRADE

Designed by MF Conçu par MF

Drawn by DK Dessiné par DK

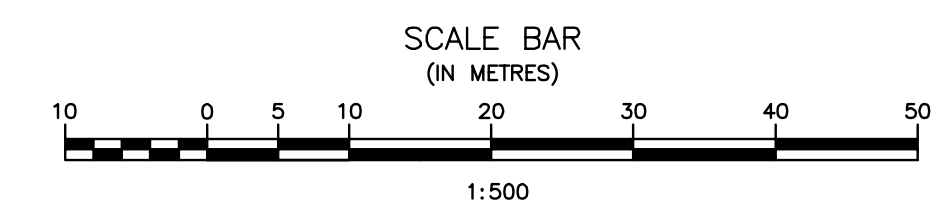
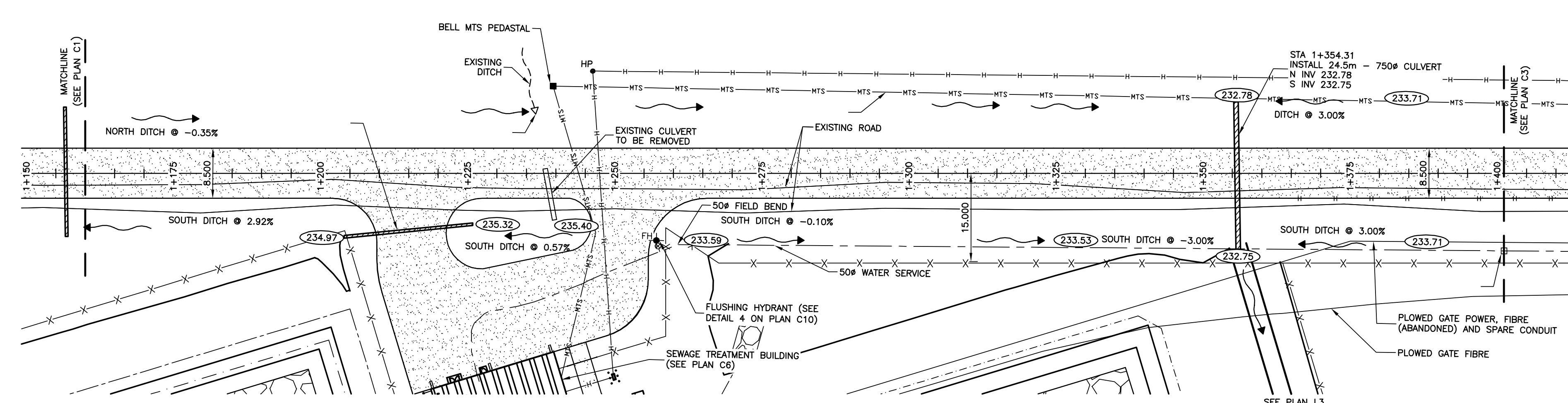
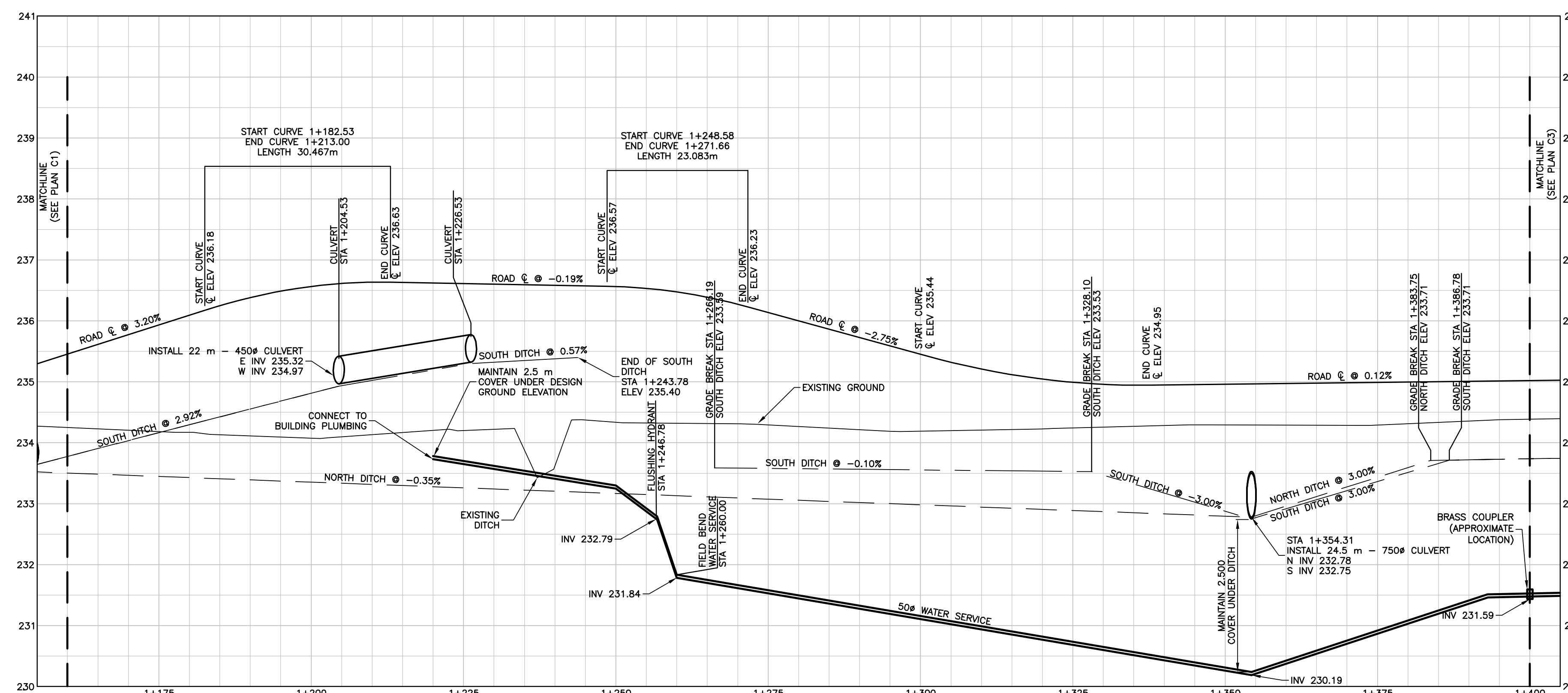
Approved by MF Approuvé par MF

PM/ESC: Project Manager / Administrateur de Projets TPSGC
MARK MOGAN

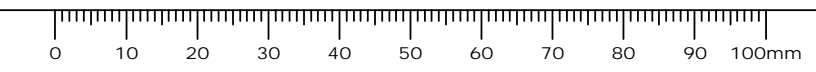
Drawing title: Lagoon Access Road STA 1+160 TO STA 1+400

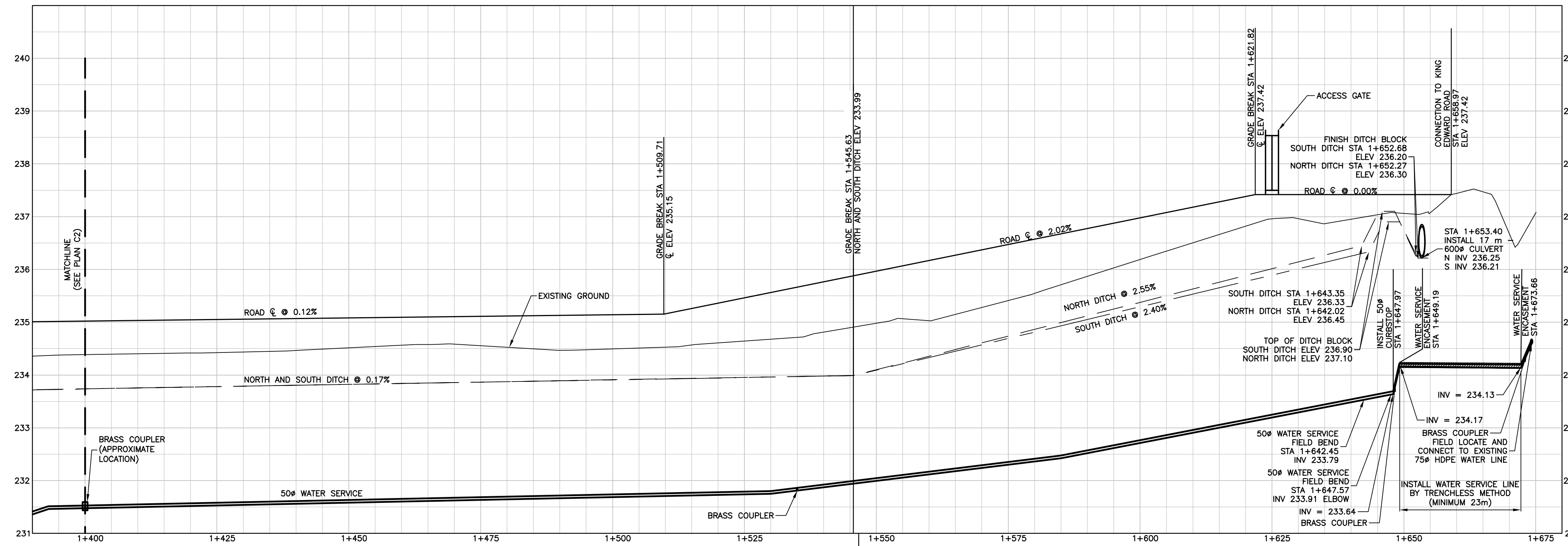
**LAGOON ACCESS ROAD
STA 1+160 TO STA 1+400**

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	C2	0

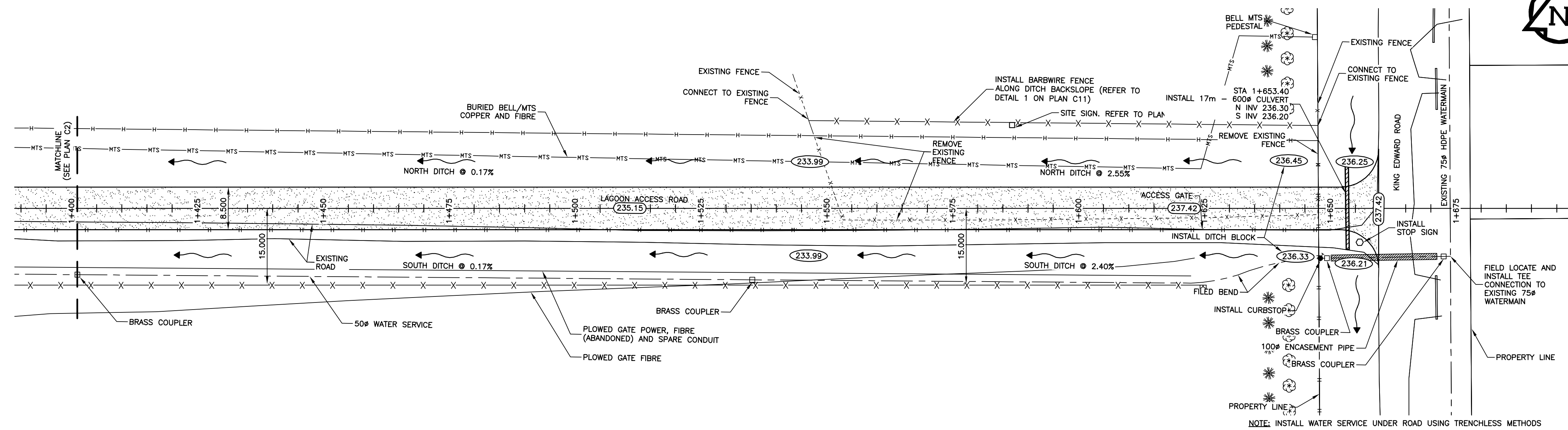


Record Drawing
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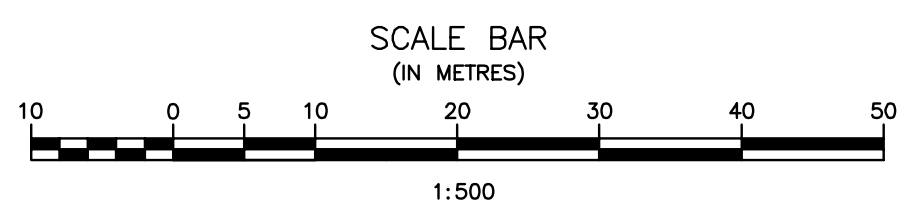




LAGOON ACCESS ROAD PROFILE - STA 1+400 TO STA 1+675
 SCALE = 1:500 H 1:50 V



LAGOON ACCESS ROAD PLAN - STA 1+400 TO STA 1+675
 SCALE = 1:500



Record Drawing
 Drawing compiled from visual observations of various parts of construction and/or from information by others. Accuracy not warranted. Independent verification required before application.

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 16/03/31

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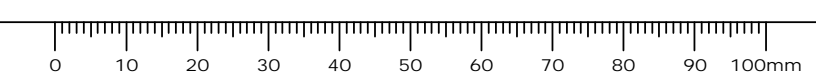
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2	RECORD DRAWING	FEB 2019
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	

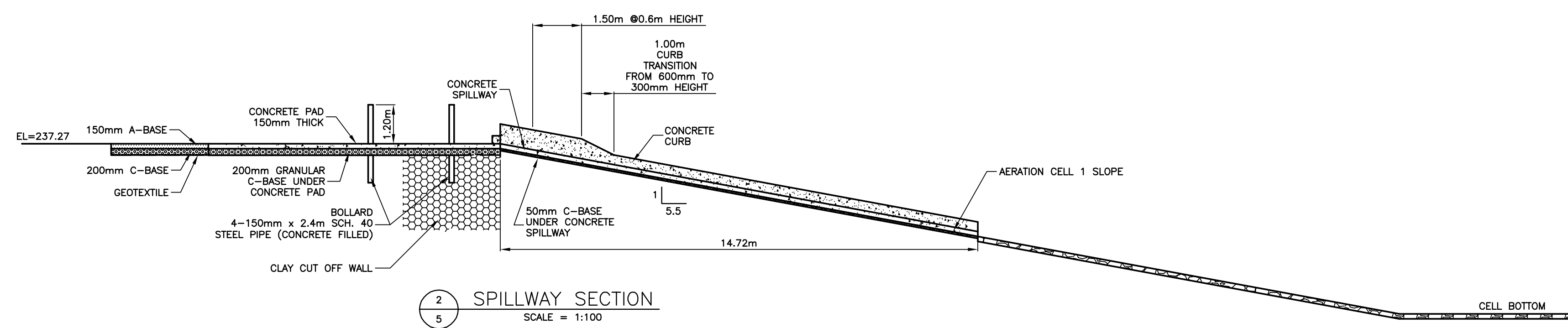
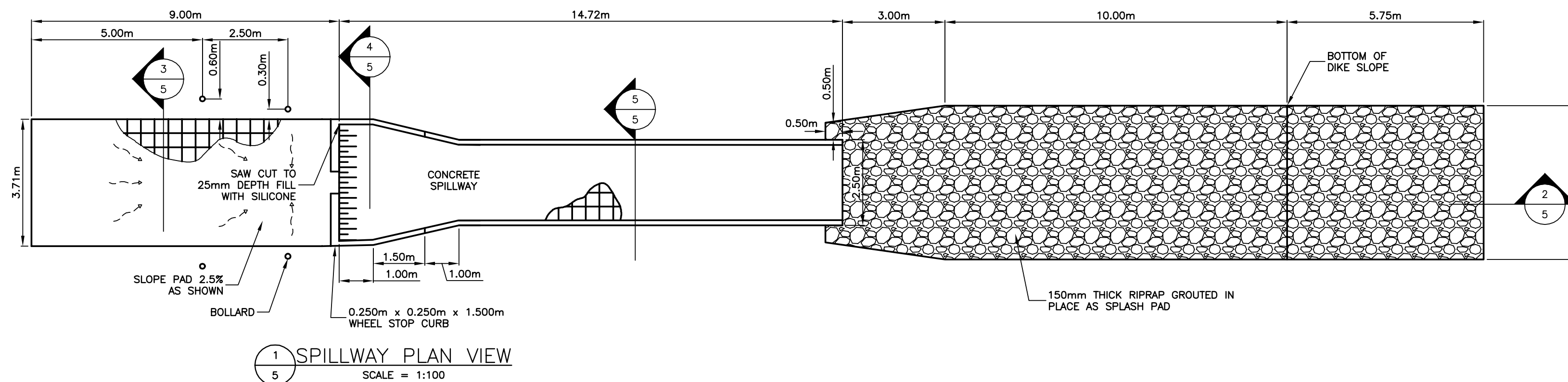
Revision	Description	Date
Client		client

Project title: **STONY MOUNTAIN LAGOON UPGRADE**

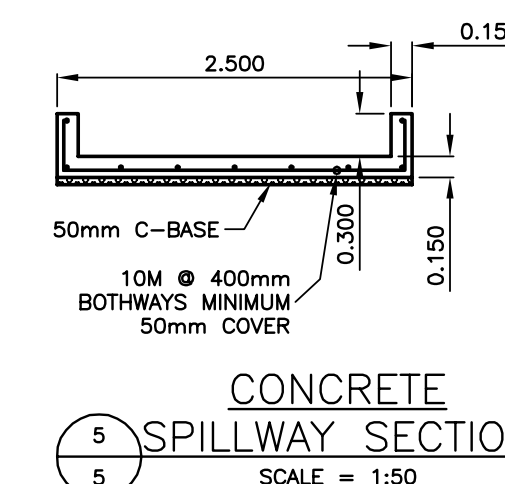
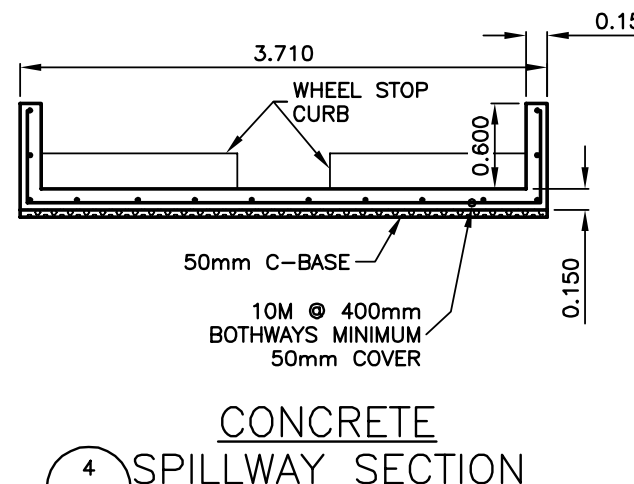
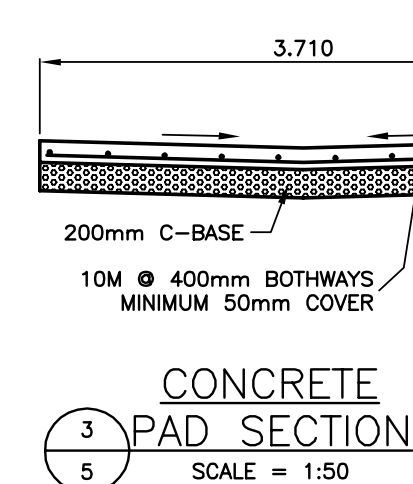
Designed by	Conçu par	MF
Drawn by	Dessiné par	DK
Approved by	Approuvé par	MF
PM/ESC: Project Manager	Administrateur de Projets TPSGC	MARK MOGAN
Drawing title	LAGOON ACCESS ROAD STA 1+400 TO STA 1+675	

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	C3	0
	OF 11	





- RIPRAP
- CONCRETE
- A-BASE
- C-BASE
- LAGOON CLAY LINER



ORIGINAL DRAWING
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BY
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16/03/16

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No. 234 Date: March 31/16

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Revision	Description	Date
5		
4		
3		
2	RECORD DRAWING	FEB 2019
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	

Client: client

Project title: Project

**STONY MOUNTAIN
LAGOON UPGRADE**

Designed by DK	Conçu par
Drawn by DK	Dessiné par
Approved by MF	Approuvé par
PM/CS: Project Manager MARK MOGAN	Administrateur de Projets TPSGC
Drawing title	Titre du dessin

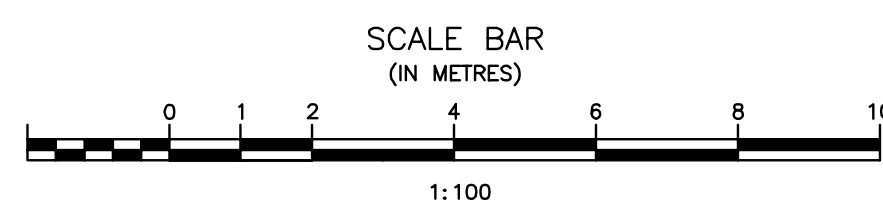
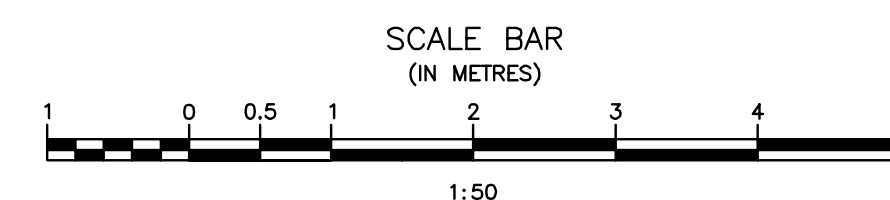
**LAGOON SPILLWAY
SECTIONS**

Project no./No. du projet R.075583.001	Drawing no./No. du dessin C5	Revision no. 0
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OF 11

Record Drawing

Drawing compiled from visual observations of various parts of construction and/or from information by others. Accuracy not warranted. Independent verification required before application.



ORIGINAL DRAWING SIGNED AND SEALED BY
 M.B. FISHER
 16/03/31

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 No. 234 Date: March 7/17

JRCC PROJECT # R-325.52

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3	RECORD DRAWING	FEB 2019
2	STORAGE SHED ADDED	MAY 2018
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	
Revision	Description	Date
Client		client

Project title: **STONY MOUNTAIN LAGOON UPGRADE**

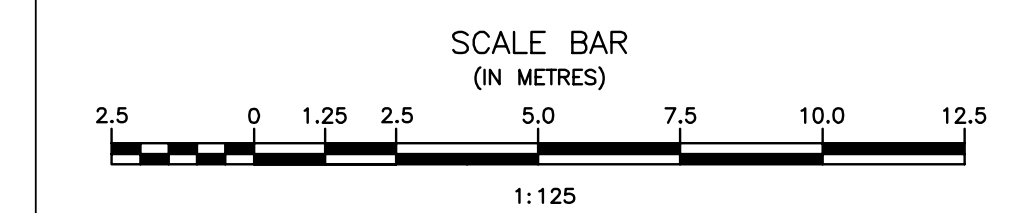
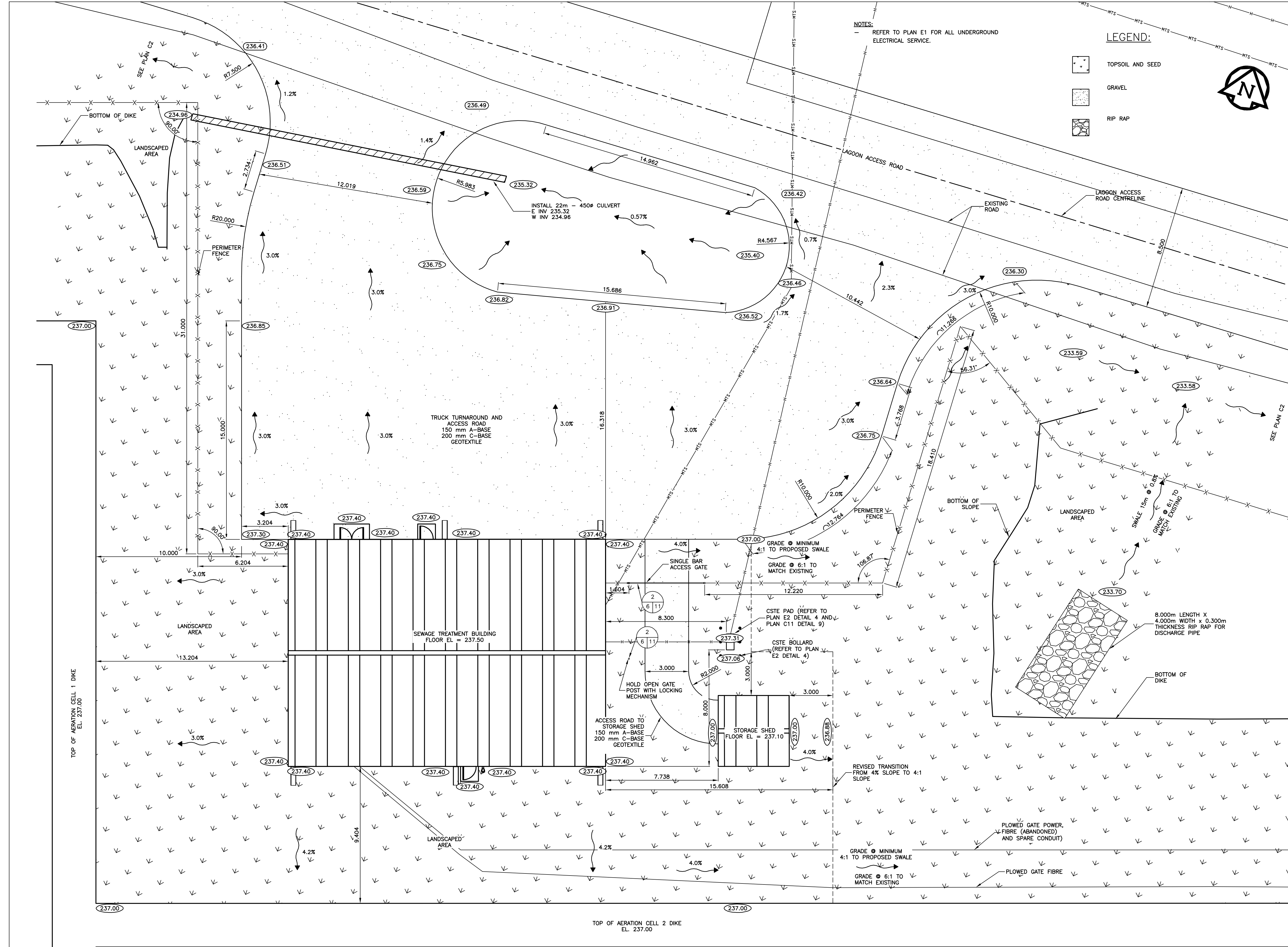
SEWAGE TREATMENT BUILDING GRADING PLAN

Designed by: **DK** Conçu par
 Drawn by: **DK** Dessiné par
 Approved by: **MF** Approuvé par

PM/ISSC: Project Manager / Administrateur de Projets TPSGC
MARK MOGAN

Drawing title: **SEWAGE TREATMENT BUILDING GRADING PLAN**

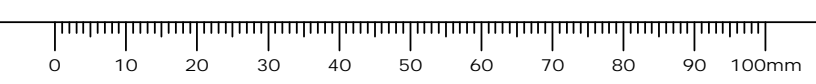
Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	C6	0
	OF 11	

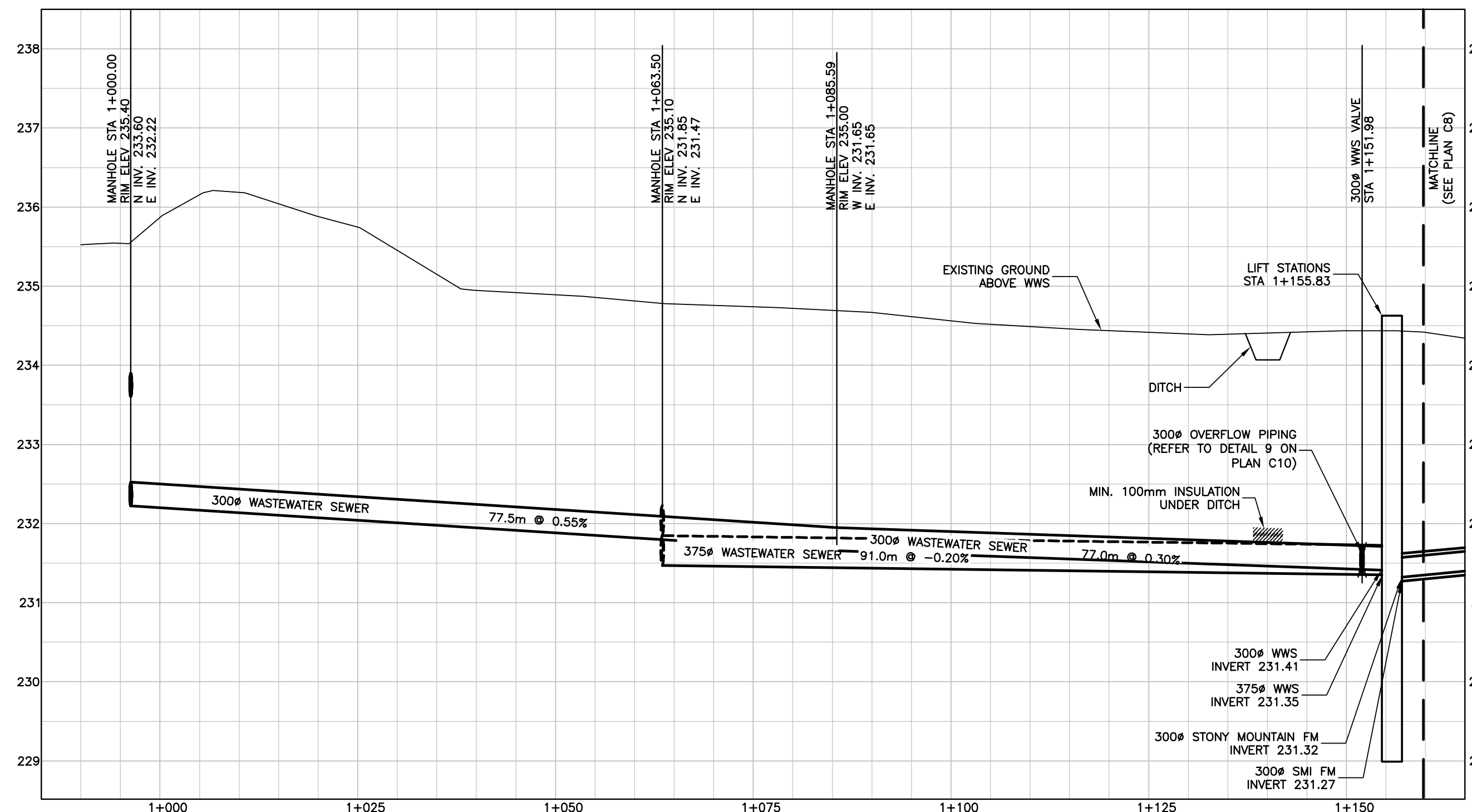


SEWAGE TREATMENT BUILDING GRADING PLAN
 SCALE = 1:125

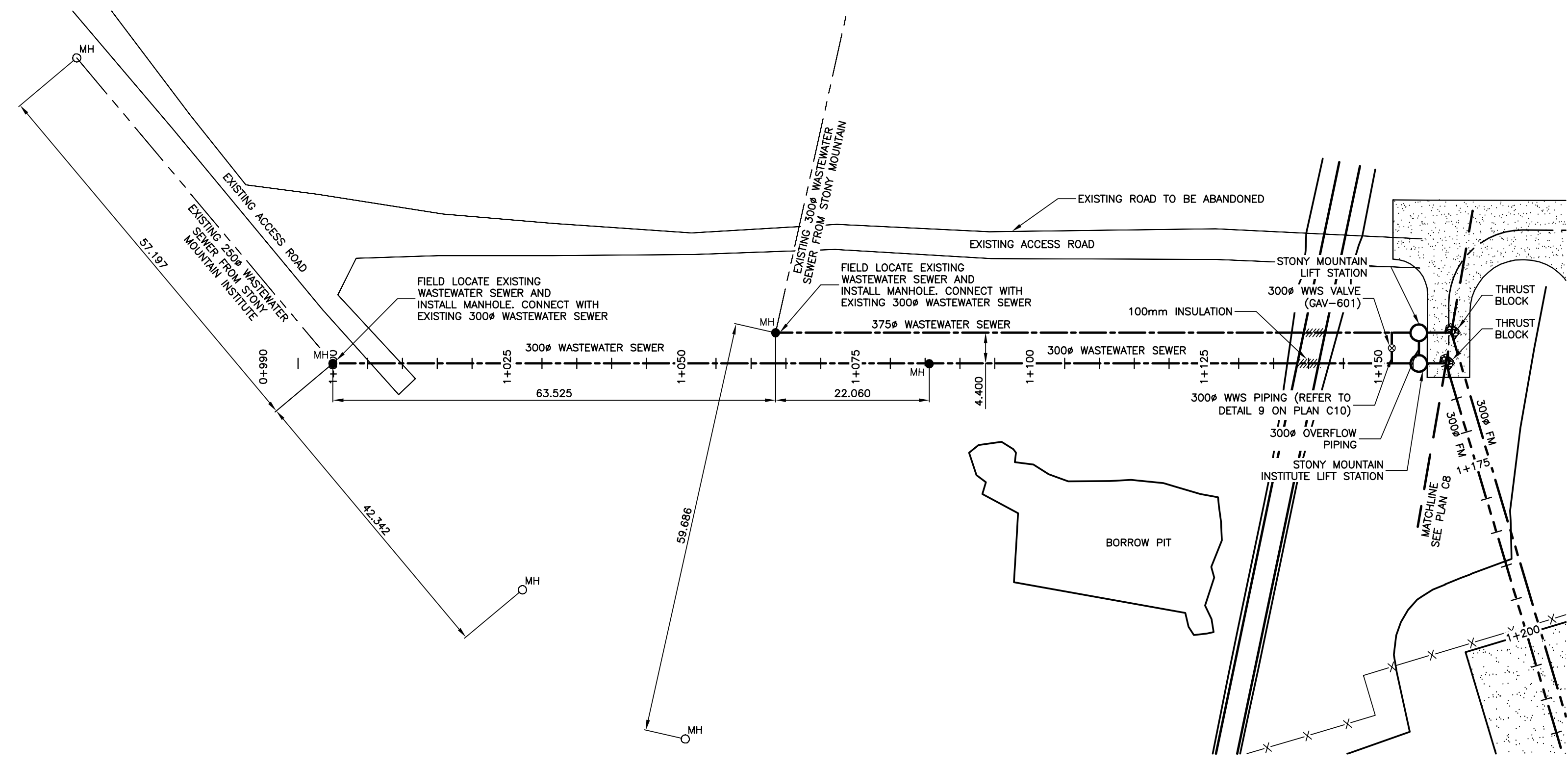
NOTE:
 - TOPSOIL AND SEEDING TO CONTINUE BEYOND LIMITS SHOWN TO ALL DISTURBED AREAS.

Record Drawing
 Drawing compiled from visual observations of various parts of construction and/or from information by others. Accuracy not warranted. Independent verification required before application.

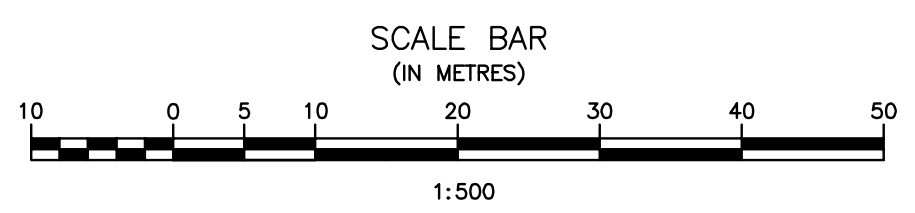
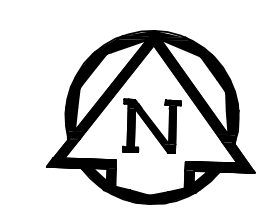




WASTEWATER SEWER PROFILE – STA 0+990 TO STA 1+160
SCALE = 1:500 H 1:50 V



WASTEWATER SEWER PLAN – STA 0+990 TO STA 1+160
SCALE = 1:500



Record Drawing
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SIGNED AND SEALED
BY
M.B. FISHER
17/03/07

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Certificate of Authorization
J.R. Cousin Consultants Ltd.
No. 234 Date: March 7/17

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JRCC JR Cousin Consultants Ltd.
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Revision	Description	Date
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3	RECORD DRAWING	FEB 2019
2	REVISED WWS	MARCH 2017
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	

Client: client

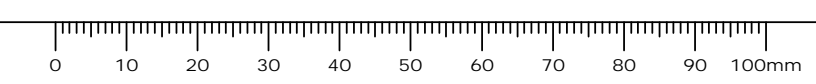
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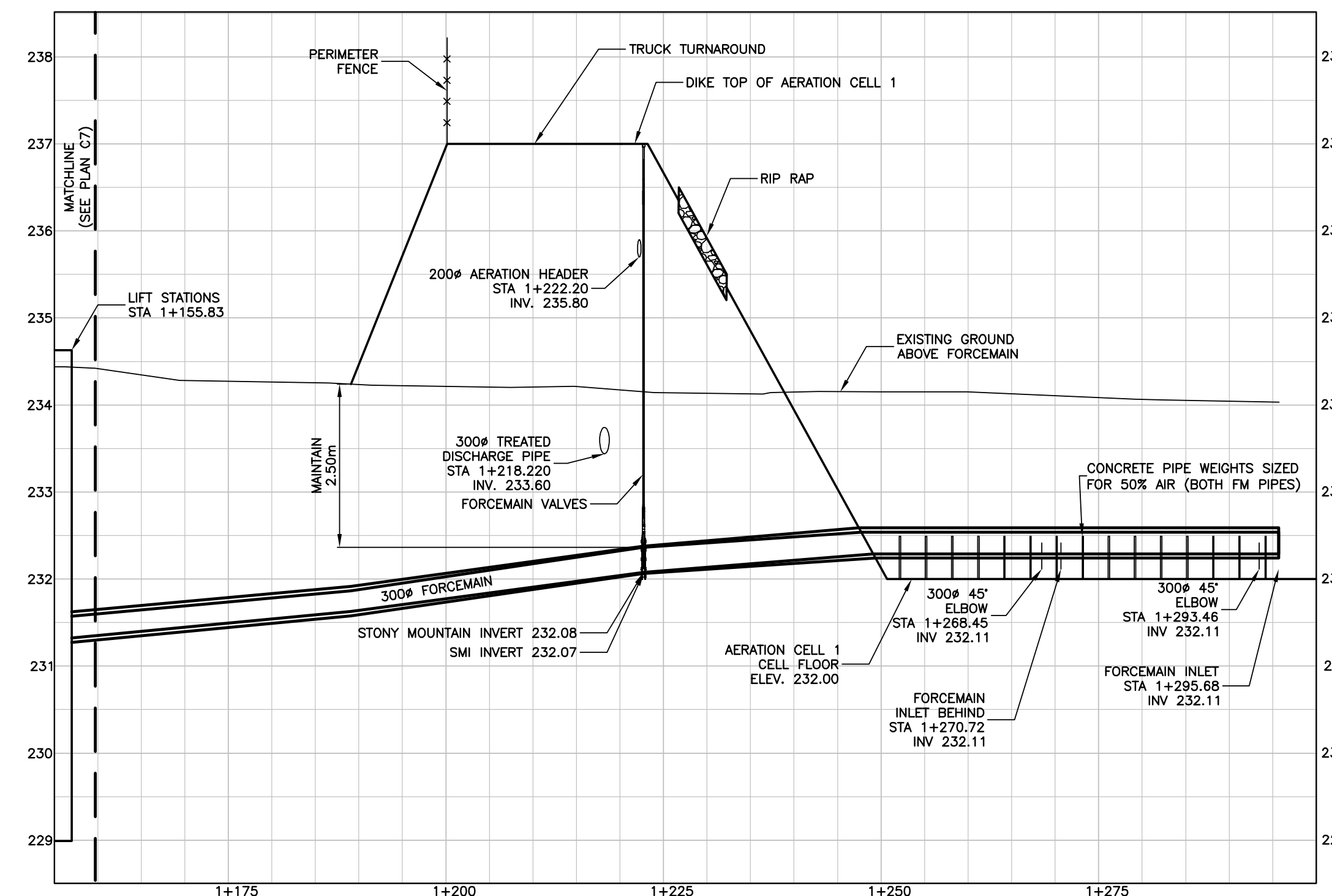
STONY MOUNTAIN LAGOON UPGRADE

Designed by: Conçu par DK
Drawn by: Dessiné par DK
Approved by: Approuvé par MF
PWSSC Project Manager Administrateur de Projets TPSGC
MARK MOGAN

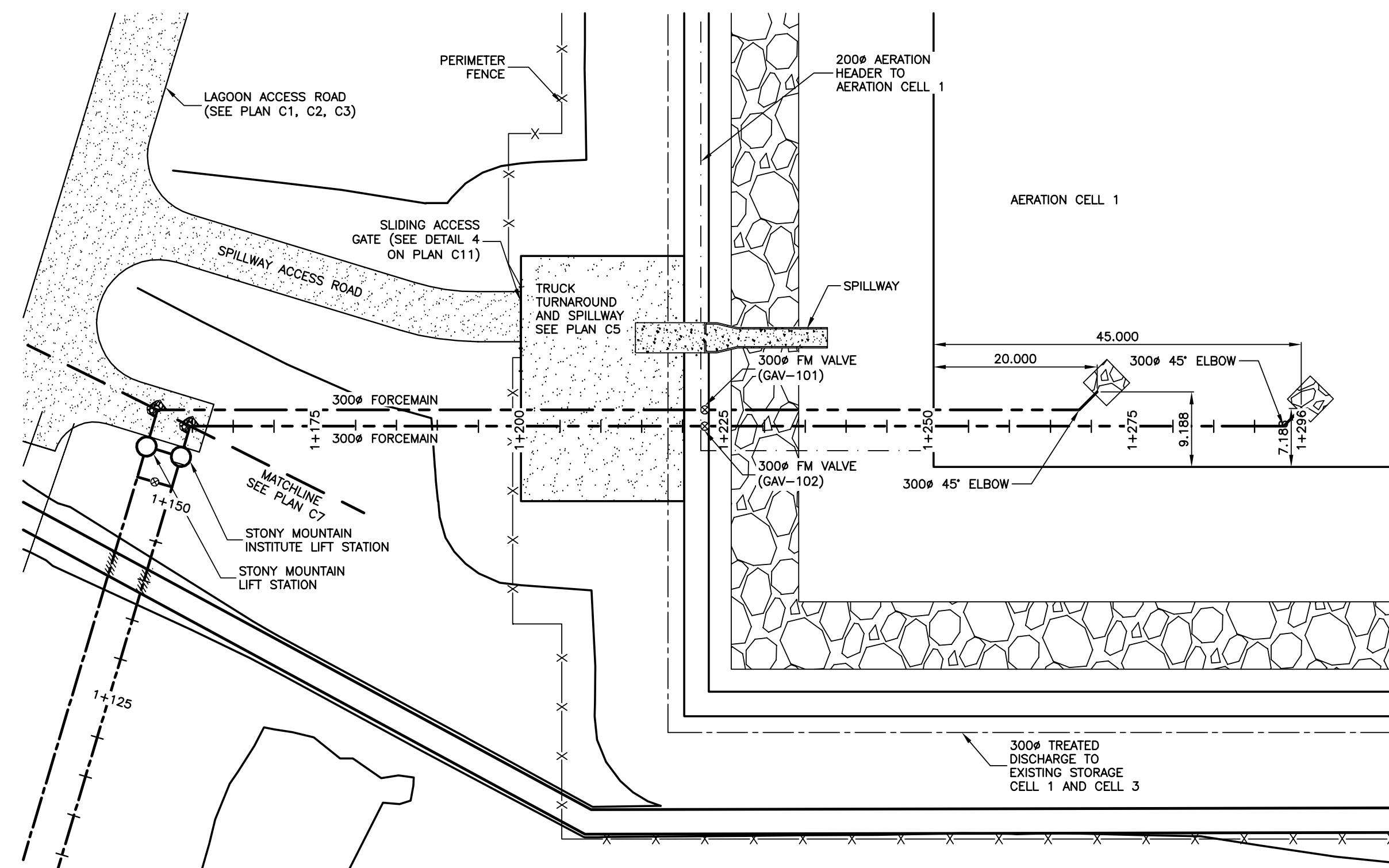
Drawing title: Titre du dessin
WASTEWATER SEWER PLAN AND PROFILE STA 0+990 TO STA 1+160

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	C7 OF 11	0

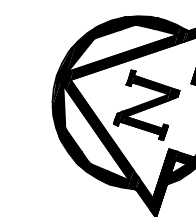
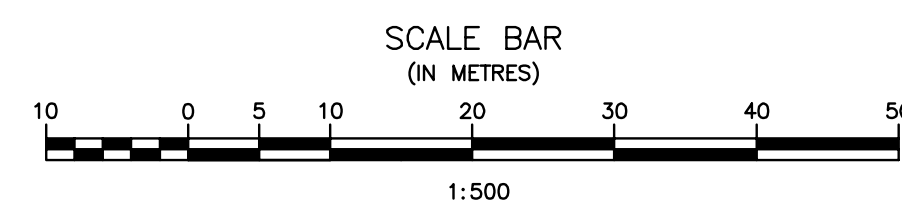




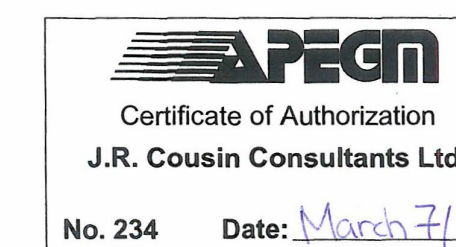
WASTEWATER SEWER PROFILE – STA 1+160 TO STA 1+296
SCALE = 1:500 H 1:50 V



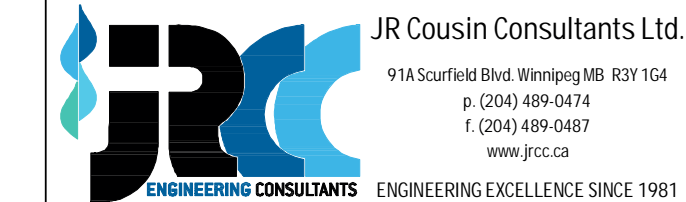
WASTEWATER SEWER PLAN – STA 1+160 TO STA 1+296
SCALE = 1:500



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17/03/07



JRCC PROJECT # R-325.52



Revision	Description	Date
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3	RECORD DRAWING	FEB 2019
2	REVISED VWS	MARCH 2017
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	

Client: client

Project title: Project

STONY MOUNTAIN LAGOON UPGRADE

Designed by: Conçu par DK

Drawn by: Dessiné par DK

Approved by: Approuvé par MF

PM/CS: Project Manager / Administrateur de Projets TPSGC
MARK MOGAN

Drawing title: Titre du dessin

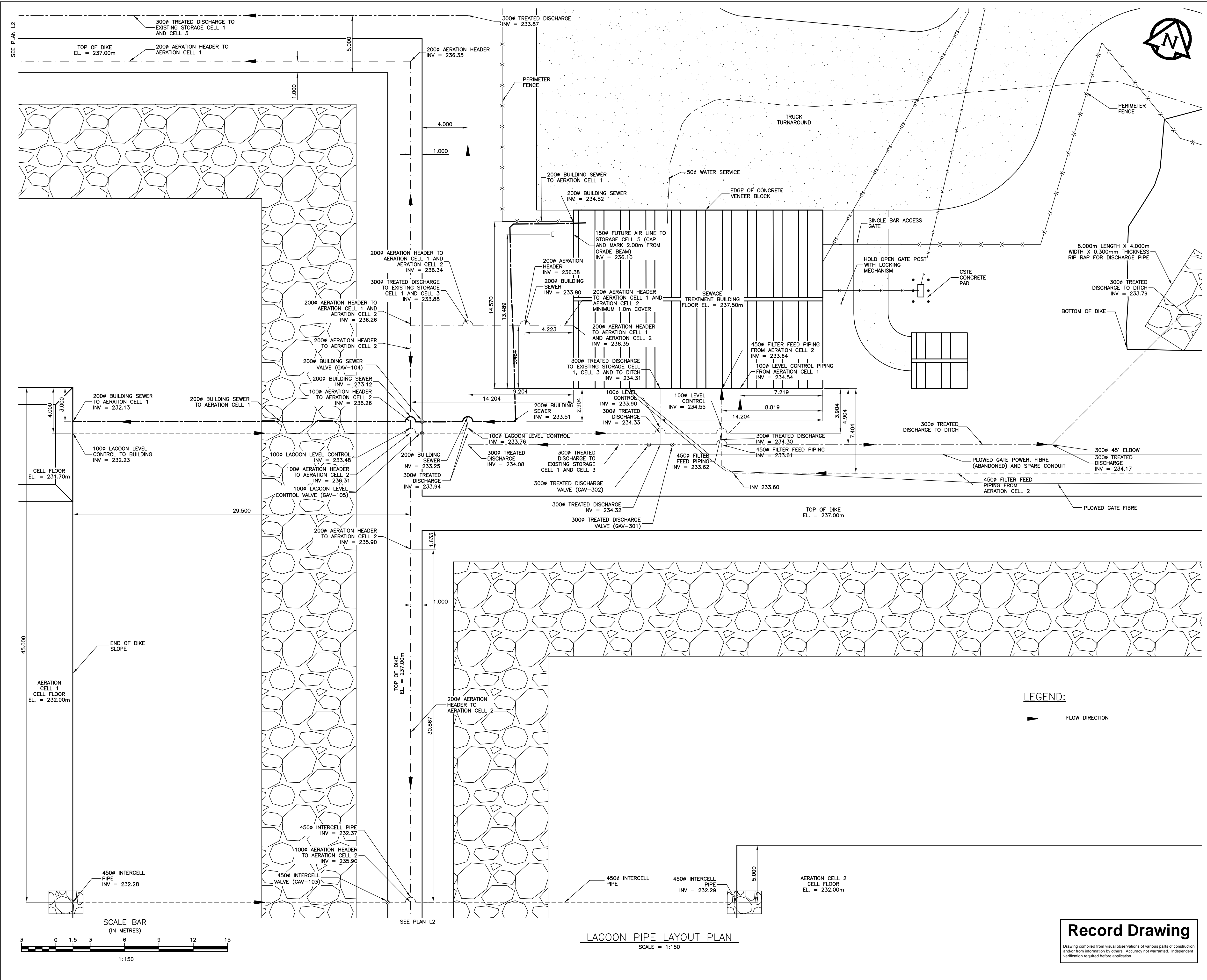
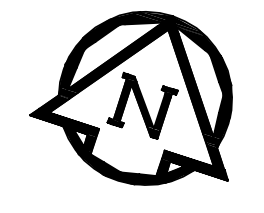
**WASTEWATER SEWER PLAN AND PROFILE
STA 1+160 TO STA 1+296**

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	C8	0

OF 11

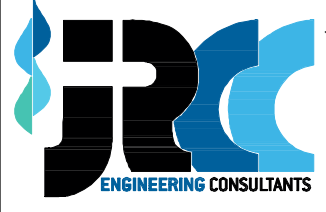
Record Drawing

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ORIGINAL DRAWING
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 BY
 M.B. FISHER
 16/03/31

25.52 RM SMI Lagoon Design and

JRCC PROJECT # R-325.52
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2	RECORD DRAWING	FEB 2019
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Revision	Description	Date
Client		client


Project title: Project

STONY MOUNTAIN LAGOON UPGRADE

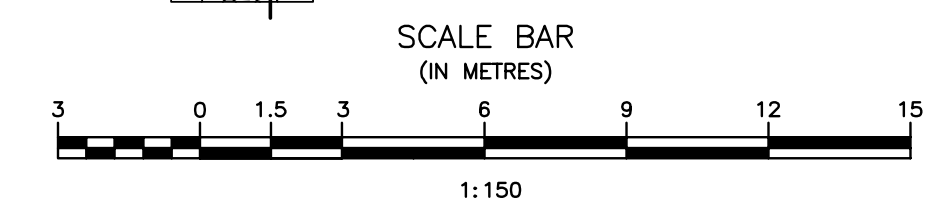
Designed by: Conçu par MF
 Drawn by: Dessiné par RH
 Approved by: Approuvé par MF
 PWSC: Project Manager / Administrateur de Projets TPSGC
 MARK MOGAN

Drawing title: Titre du dessin
LAGOON PIPE LAYOUT PLAN

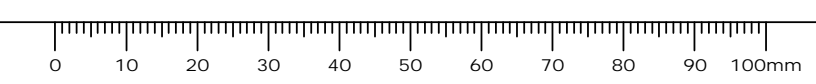
Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	C9	0
	OF 11	

LEGEND:
 FLOW DIRECTION

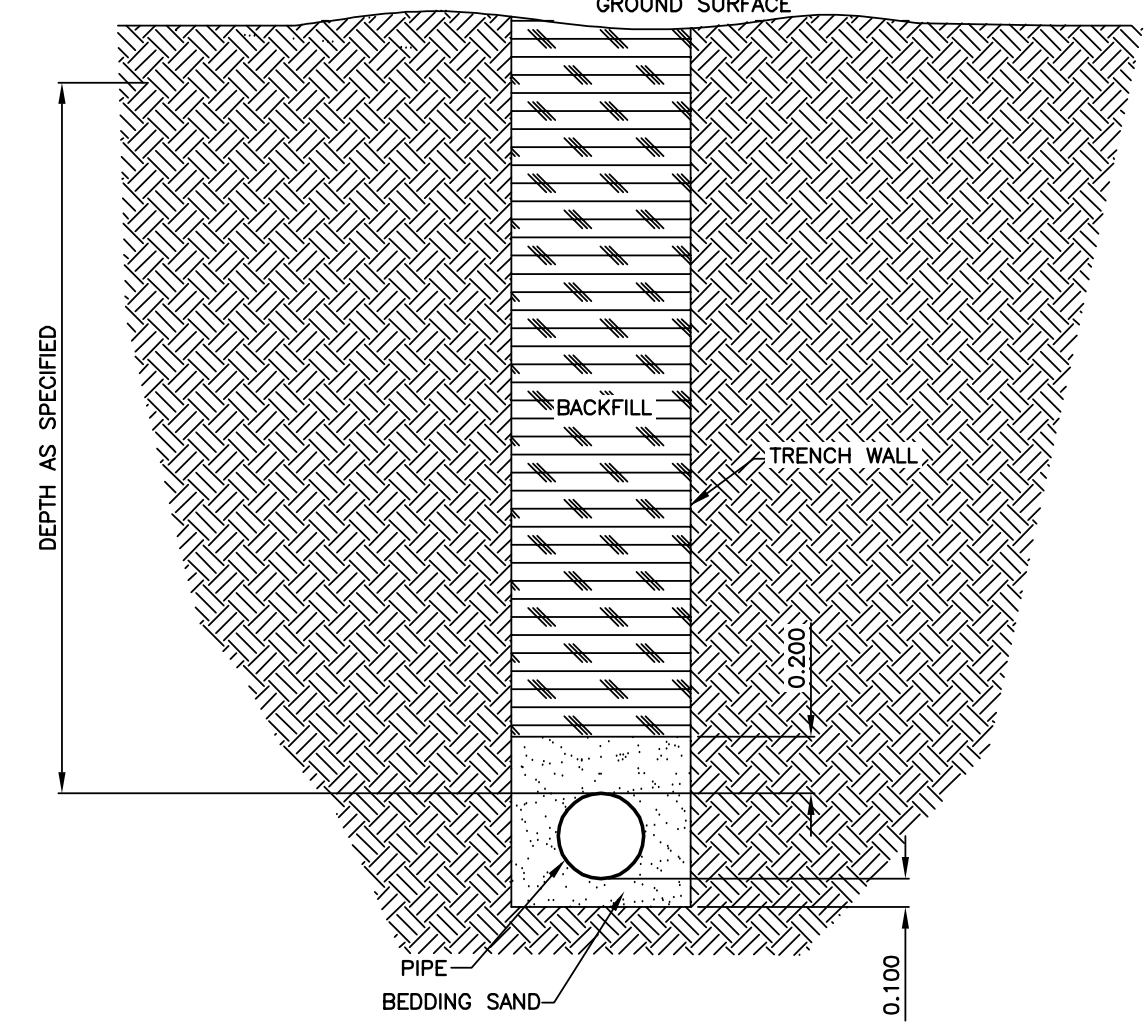
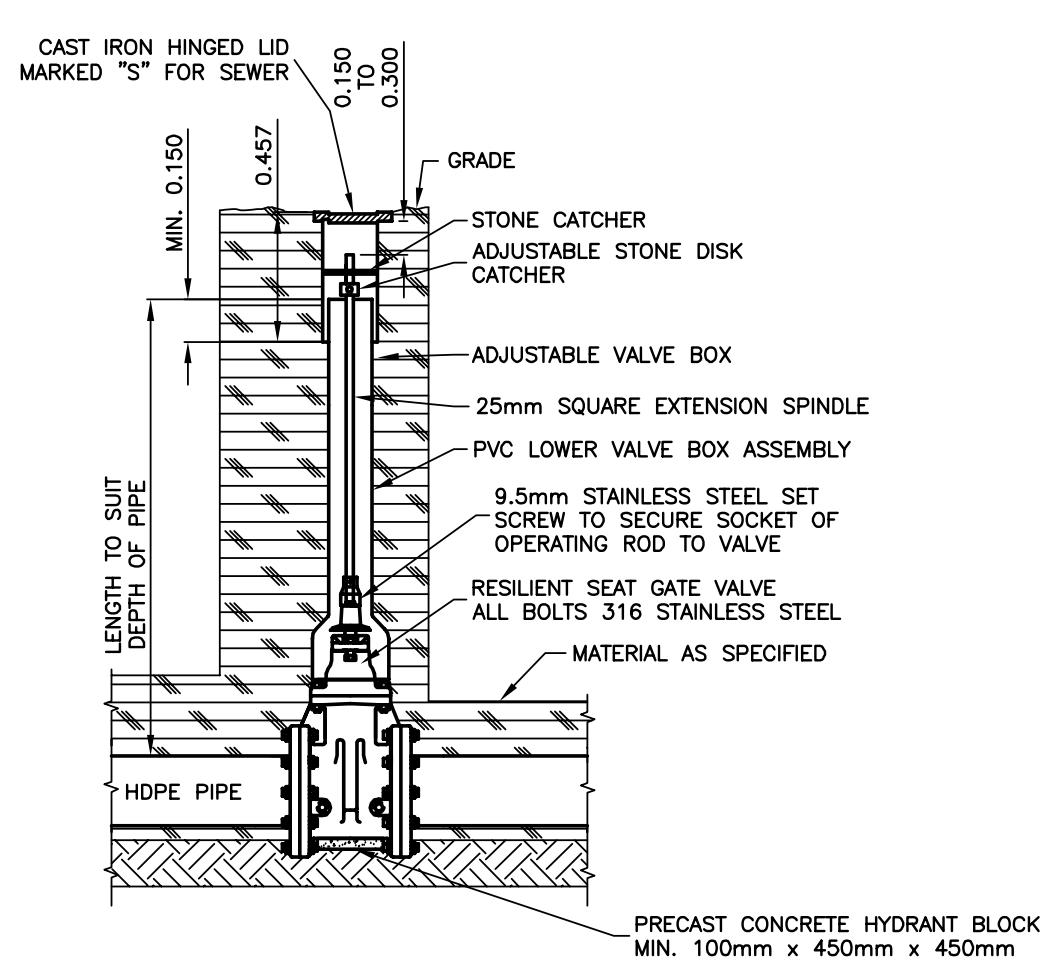
Record Drawing
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LAGOON PIPE LAYOUT PLAN
 SCALE = 1:150

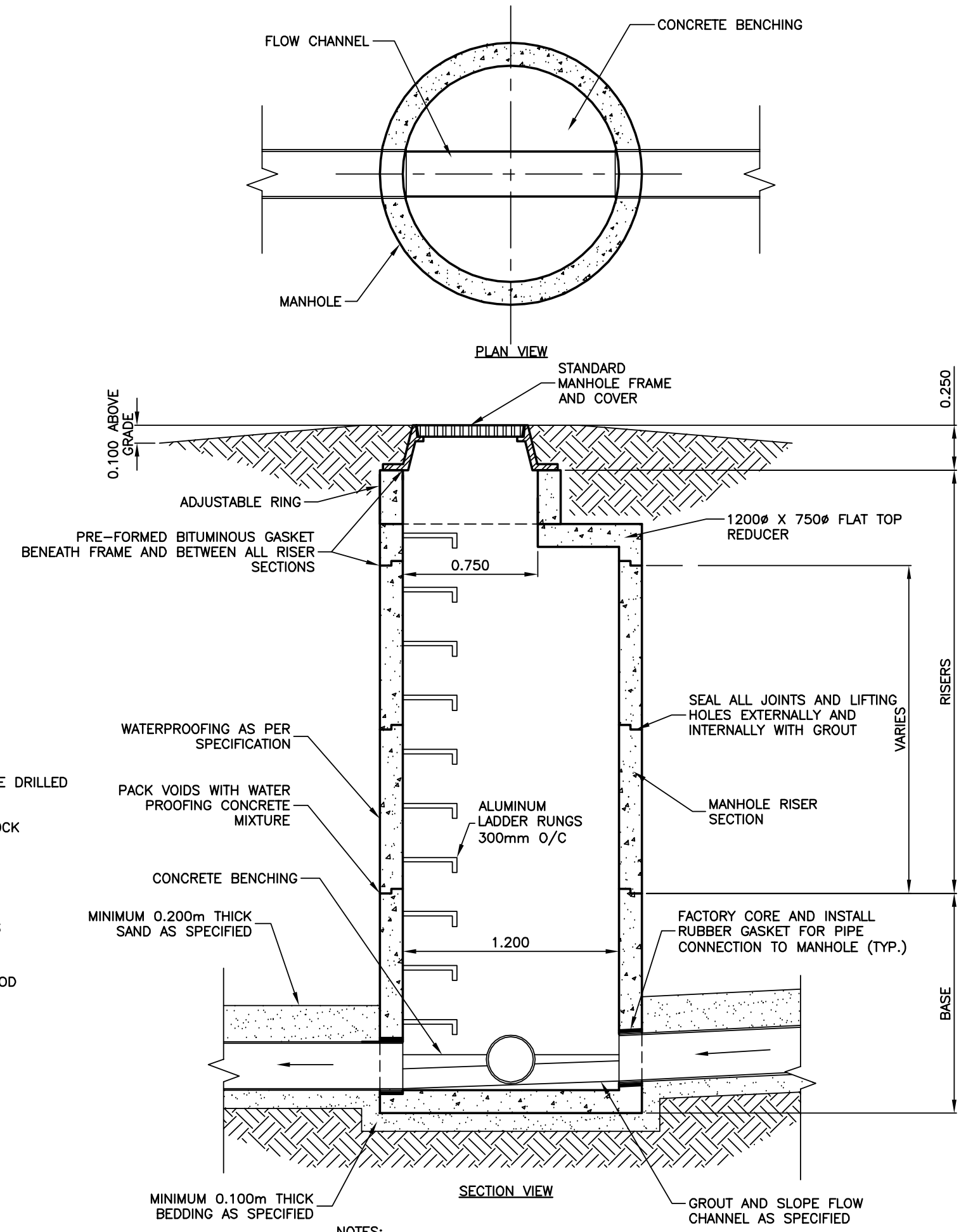


- LEGEND:**
- EXCAVATED AND COMPACTED MATERIAL AS SPECIFIED
 - A-BASE
 - C-BASE
 - DIFFERENT TYPE OF SOIL
 - CRASHED LIMESTONE
 - CONCRETE
 - CRASHED LIMESTONE
 - TOPSOIL/ORGANICS
 - SAND
 - WOOD



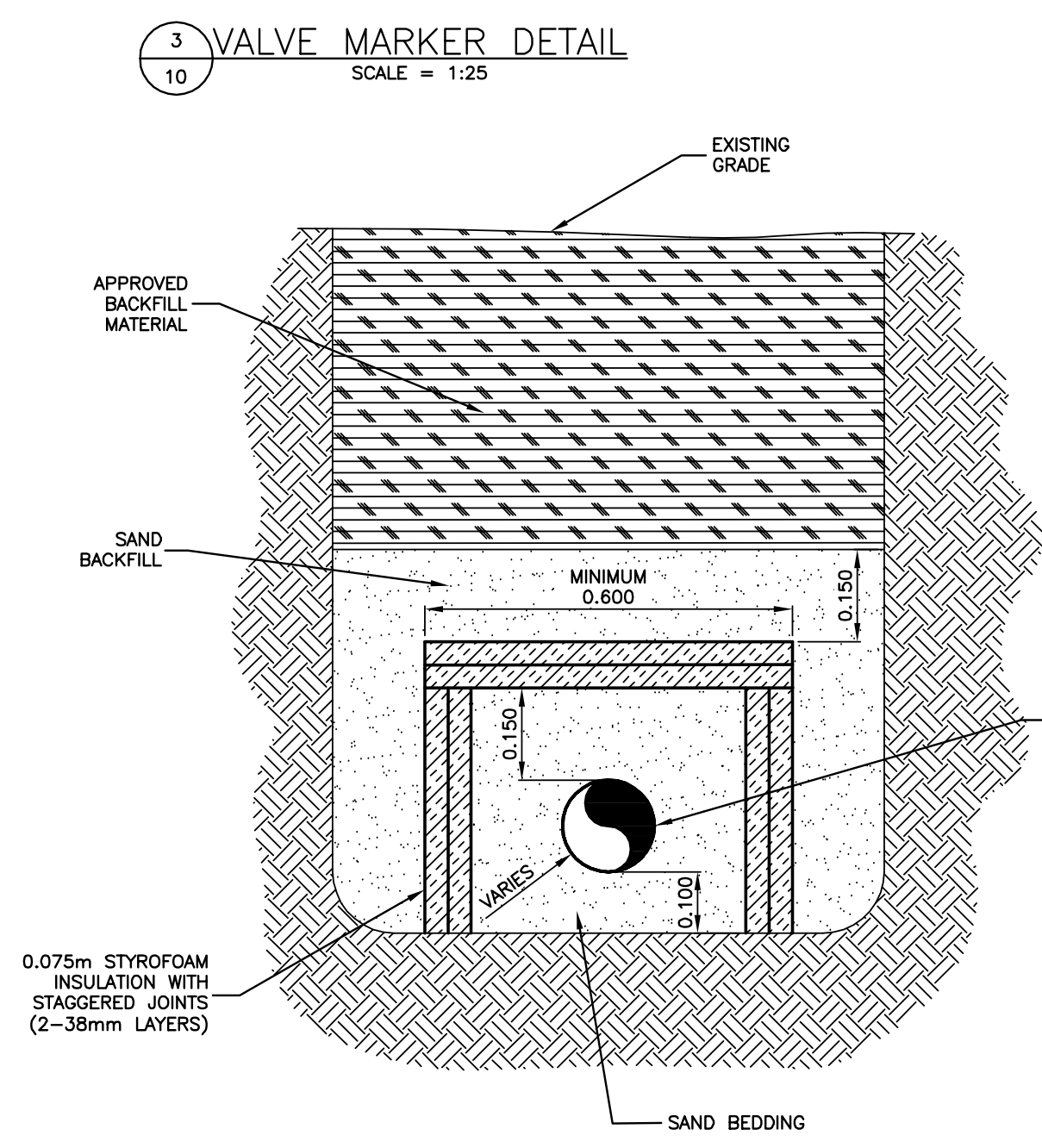
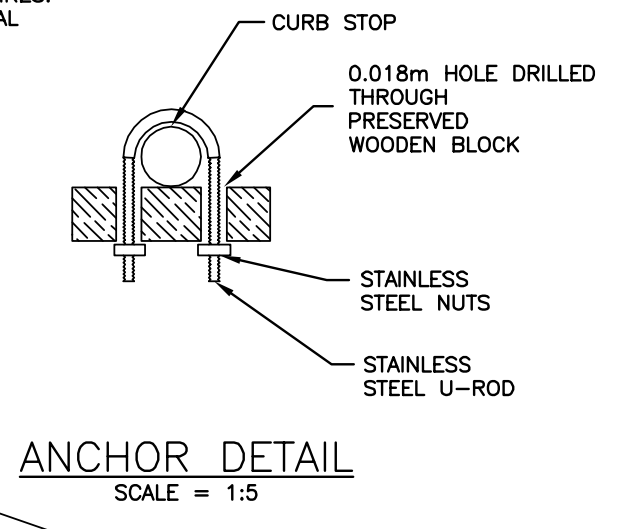
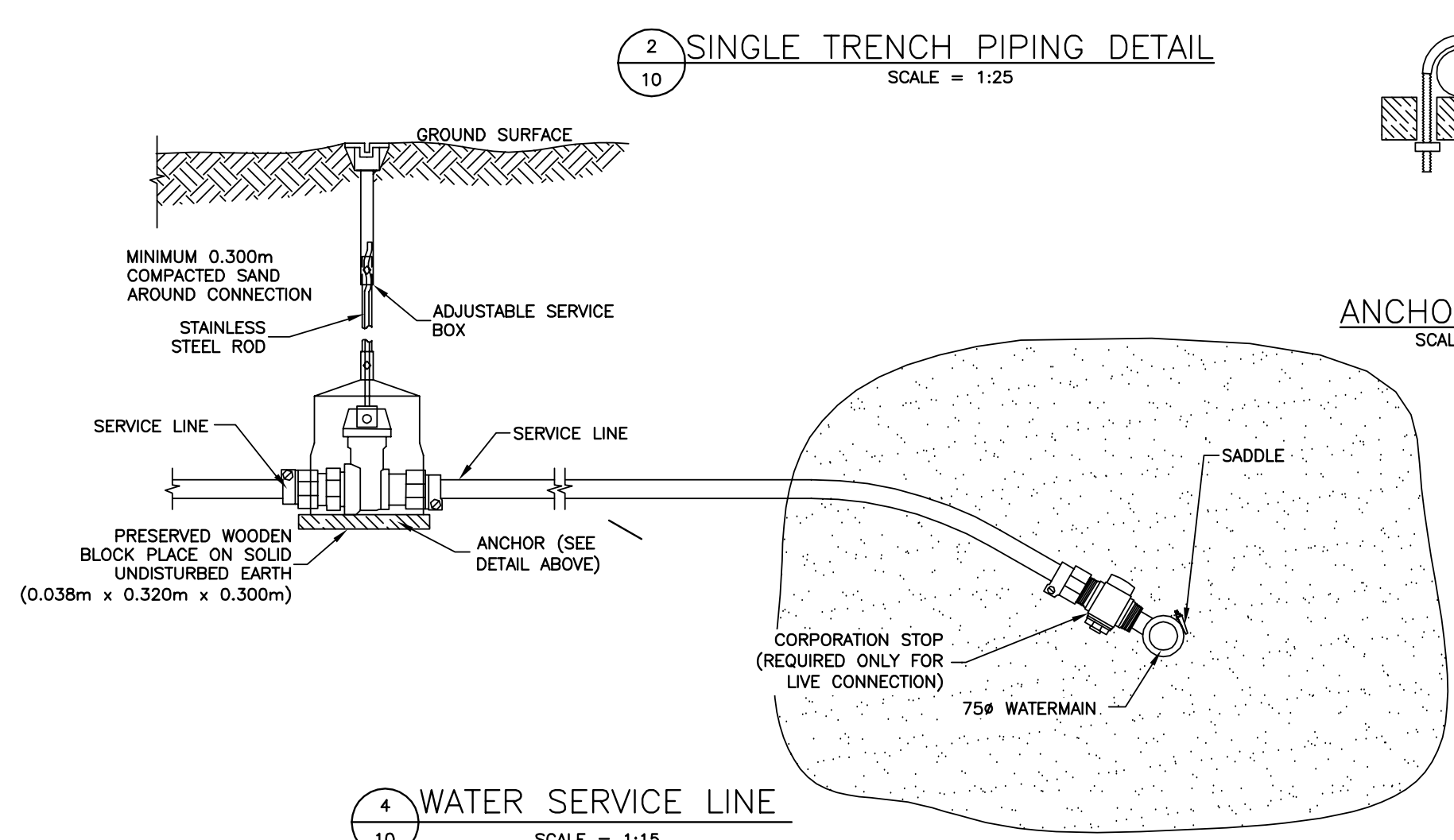
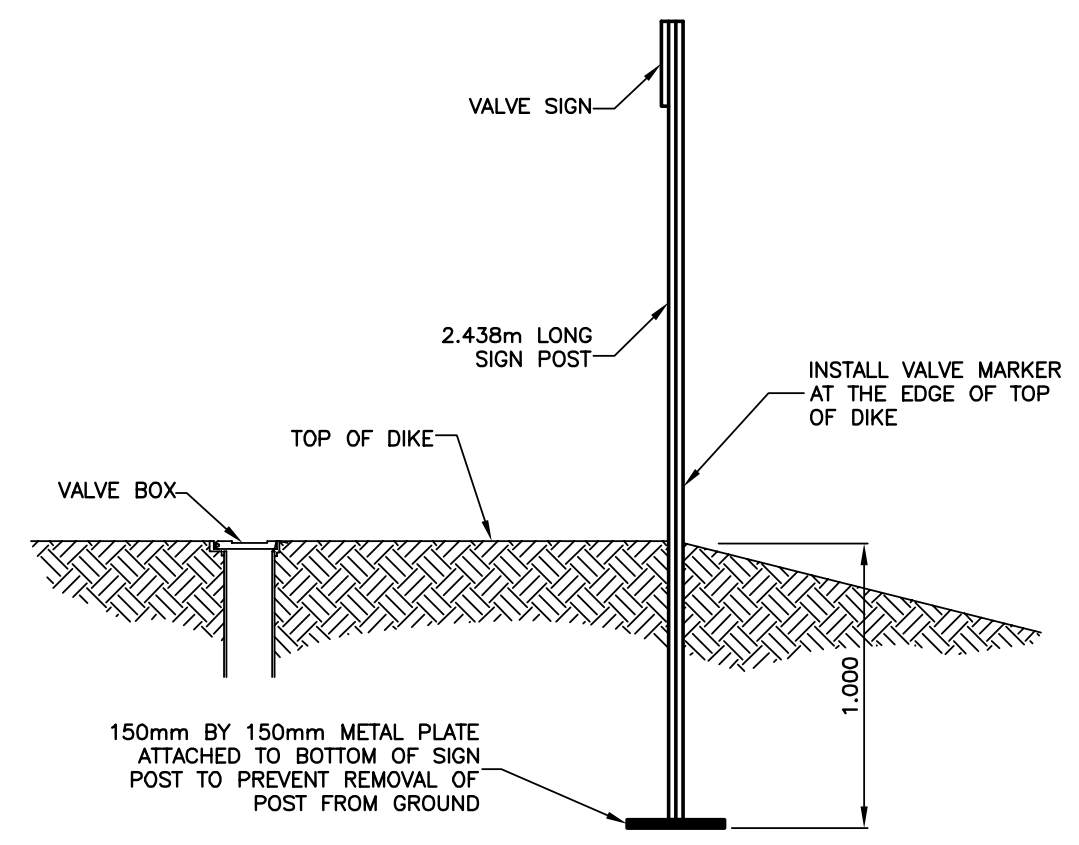
NOTES:

- USE COMPACTED HIGH PLASTIC CLAY BEDDING THROUGH LAAGOON DIKES.
- USE TRENCH CAGE UNLESS OTHERWISE APPROVED BY DEPARTMENTAL REPRESENTATIVE.



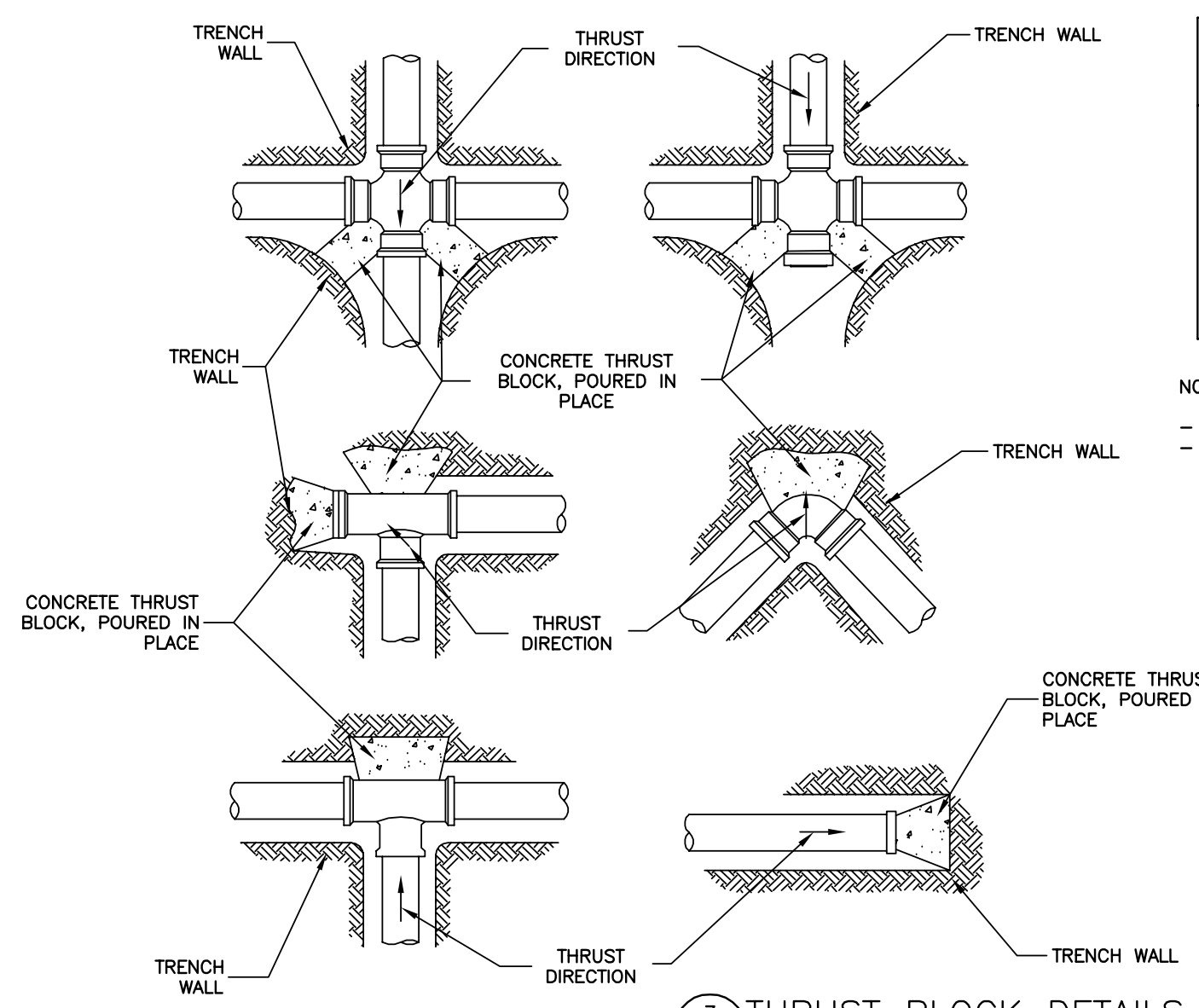
NOTES:

- MINIMIZE NUMBER OF MANHOLE JOINTS.
- MAXIMUM 0.300m ADJUSTABLE RING.
- PROVIDE CONCRETE BENCHING.
- PLACE LADDER RUNGS ON ROAD SIDE OF MANHOLE.
- TOP OF MANHOLE TO FIRST LADDER RUNG - MAX. 0.600m.
- BASE SECTION TO BE 1.220m C/W PRECAST FLOOR.



NOTES:

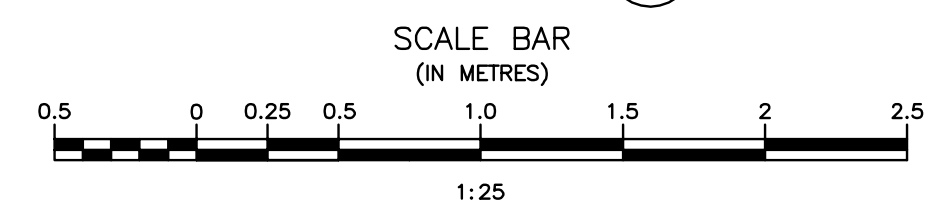
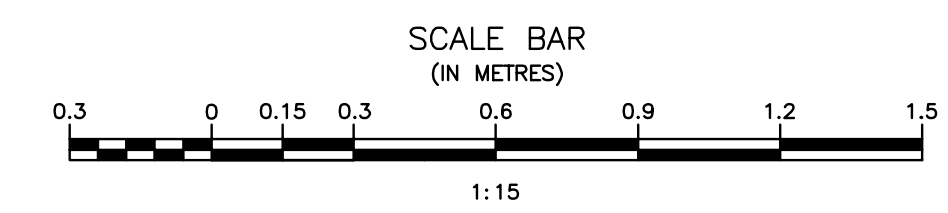
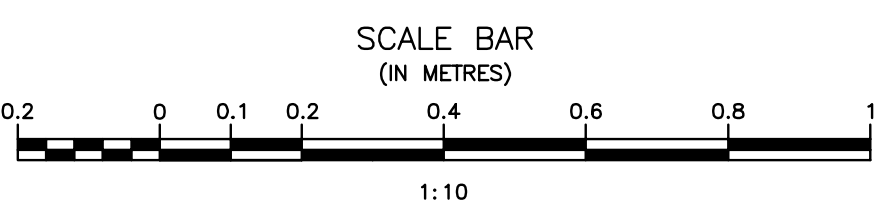
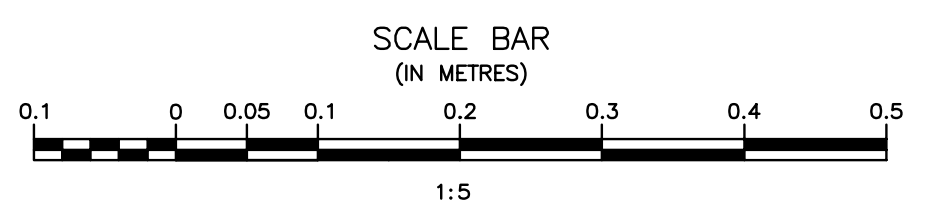
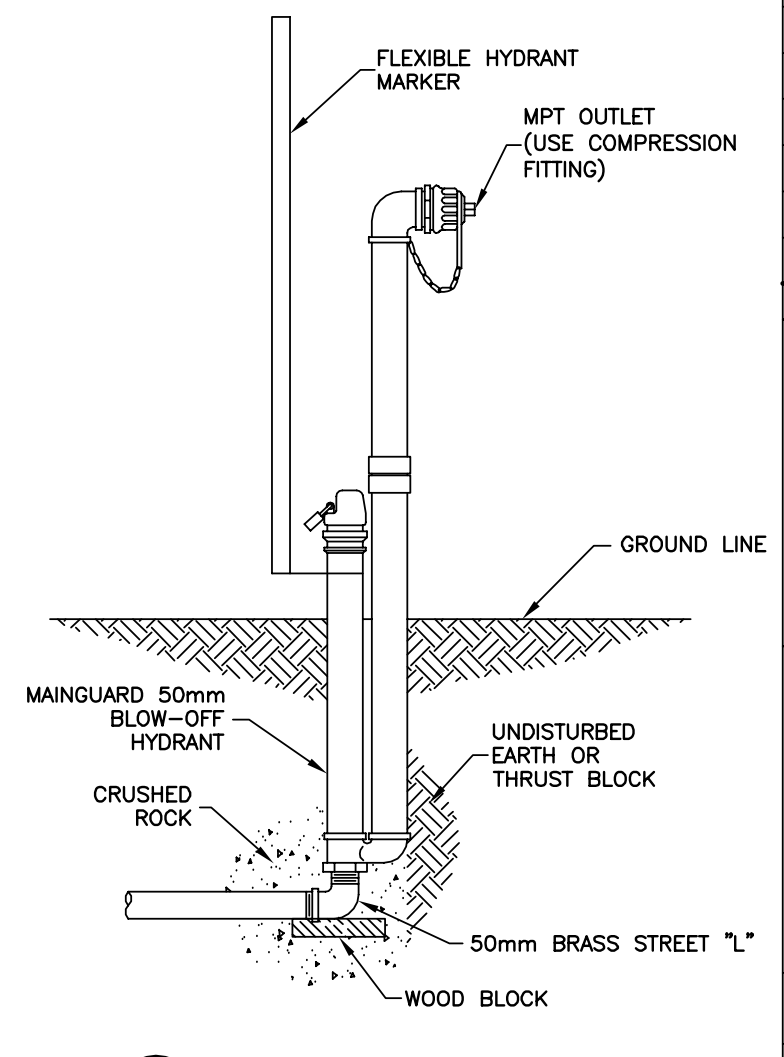
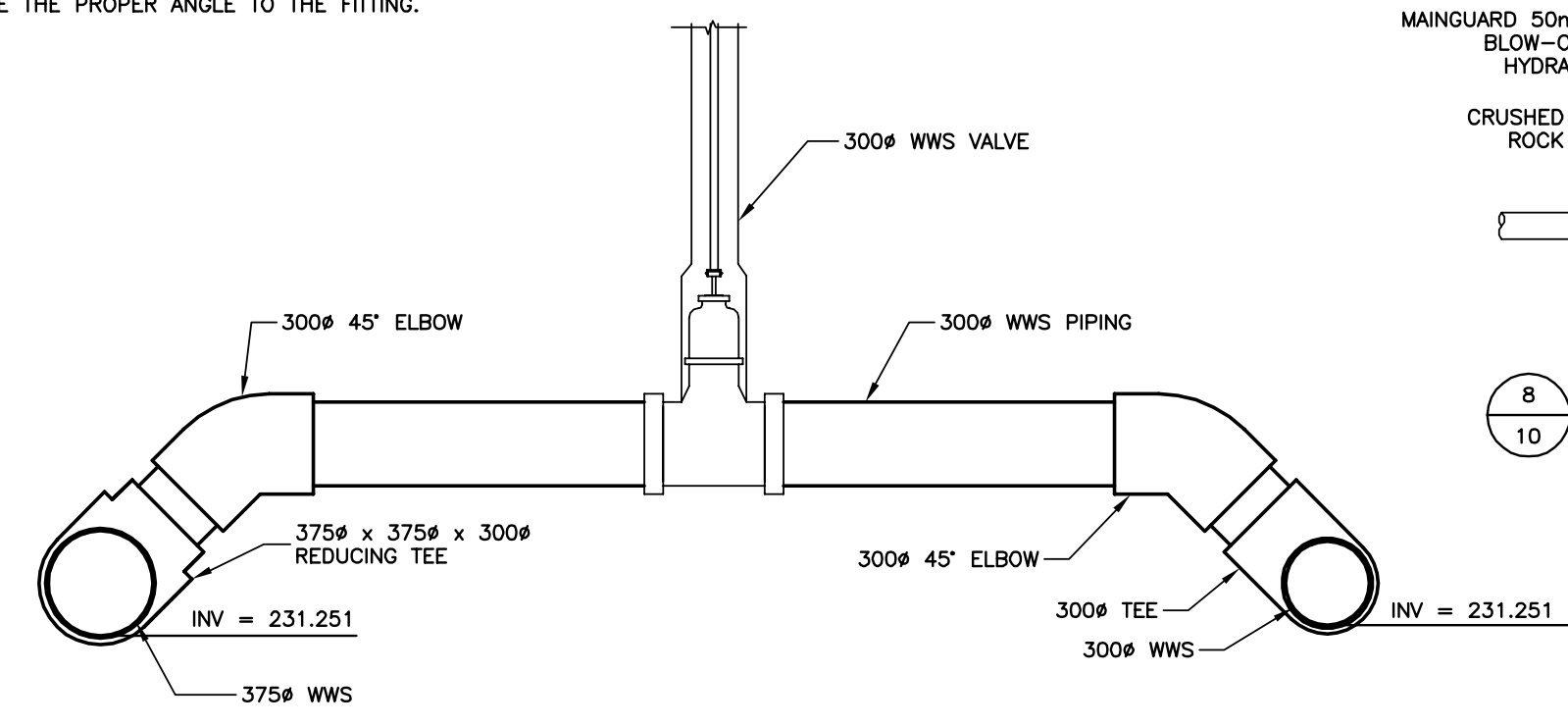
1. INSULATION SHALL BE USED WHERE PIPE COVER IS LESS THAN SPECIFIED.
2. ALL INSULATION SHALL BE STYROFOAM "SM" H=40 FOR INGROUND APPLICATION.
3. SAND BACKFILL SHALL BE CAREFULLY APPLIED BY HAND TO A DEPTH OF 0.150m OVER INSULATION. REMAINING TRENCH BACKFILL SHALL BE SUITABLE EXCAVATED MATERIAL.



PIPE DIA. (mm)	THRUST BLOCK SURFACE AREA ON UNDISTURBED TRENCH WALL	
	TEE & PLUG AND THRUST (m²)	BENDS (m²)
50	0.2	0.3
75	0.2	0.3
100	0.2	0.3
150	0.4	0.5
200	0.6	0.9
250	1.0	1.5
300	1.5	2.0
350	2.0	2.7
400	2.6	4.0
450	3.2	4.5

NOTE:

- DO NOT LOAD PIPE WITH CEMENT.
- INSTALL ALL CONCRETE THRUST BLOCKS TO BEAR AGAINST UNDISTURBED SOIL AND CUT SOIL TO HAVE A SMOOTH VERTICAL FACE AND TO BE THE PROPER ANGLE TO THE FITTING.



Record Drawing
 Drawing compiled from visual observations of various parts of construction and/or from information by others. Accuracy not warranted. Independent verification required before application.

ORIGINAL DRAWING
 SIGNED AND SEALED
 BY
 M.B. FISHER
 17/03/07

APEGM
 Certificate of Authorization
J.R. Cousin Consultants Ltd.
 No. 234 Date: March 7/17

JRCC PROJECT # R-325.52
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Revision	Description	Date
5		
4		
3	RECORD DRAWING	FEB 2019
2	REVISED WWS DETAIL	MARCH 2017
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	

Client: client

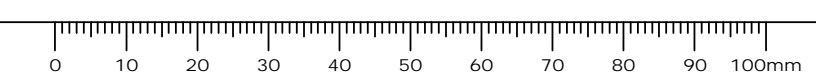
Project title: Stony Mountain Lagoon Upgrade

STONY MOUNTAIN LAGOON UPGRADE

Designed by: Conçu par DK
 Drawn by: Dessiné par RH
 Approved by: Approuvé par MF
 PWISSC: Project Manager / Administrateur de Projets TPSGC
 MARK MOGAN

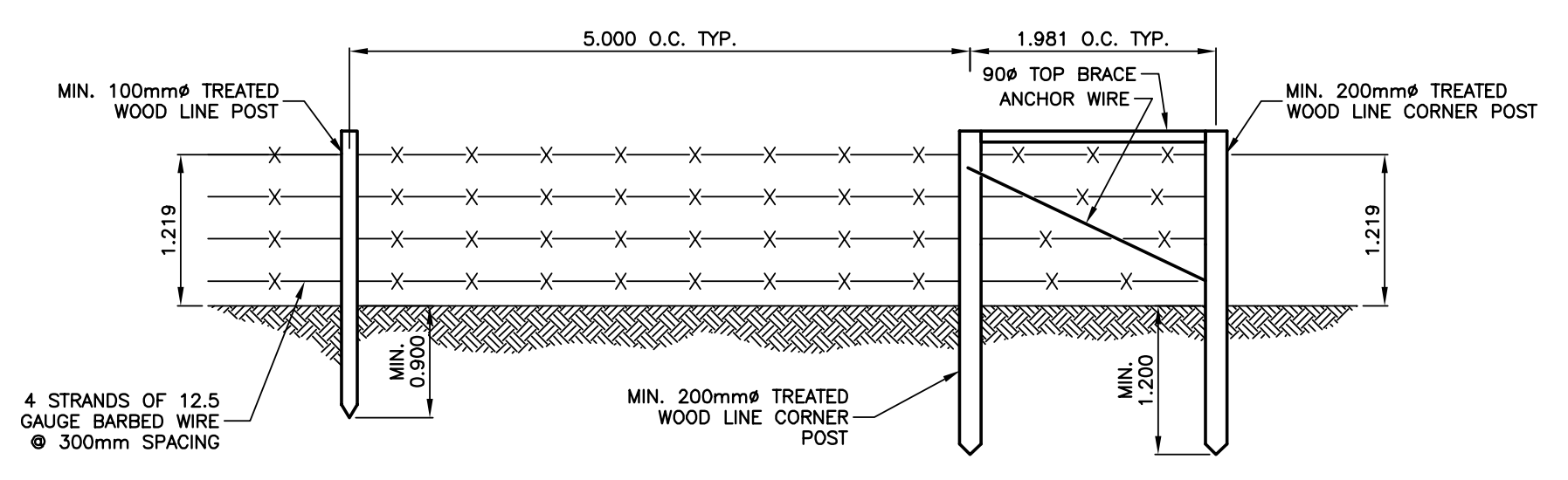
Drawing title: Titre du dessin
MANHOLE, VALVE, TRENCH PIPING AND MISCELLANEOUS DETAILS

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	C10	0
	OF 11	



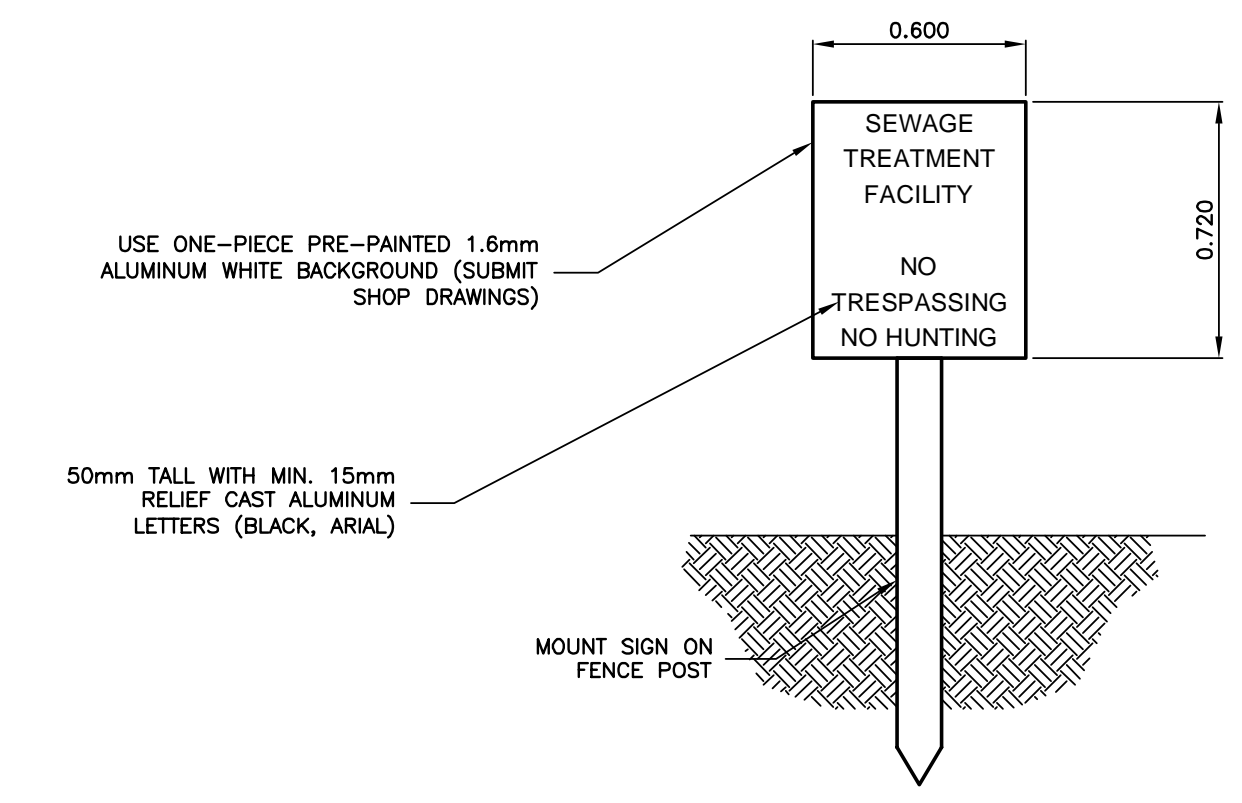
LEGEND:

	EXCAVATED AND COMPACTED MATERIAL AS SPECIFIED		CONCRETE
	A-BASE		CRASHED LIMESTONE
	C-BASE		TOPSOIL/ORGANICS
	DIFFERENT TYPE OF SOIL		SAND
	CRASHED LIMESTONE		WOOD



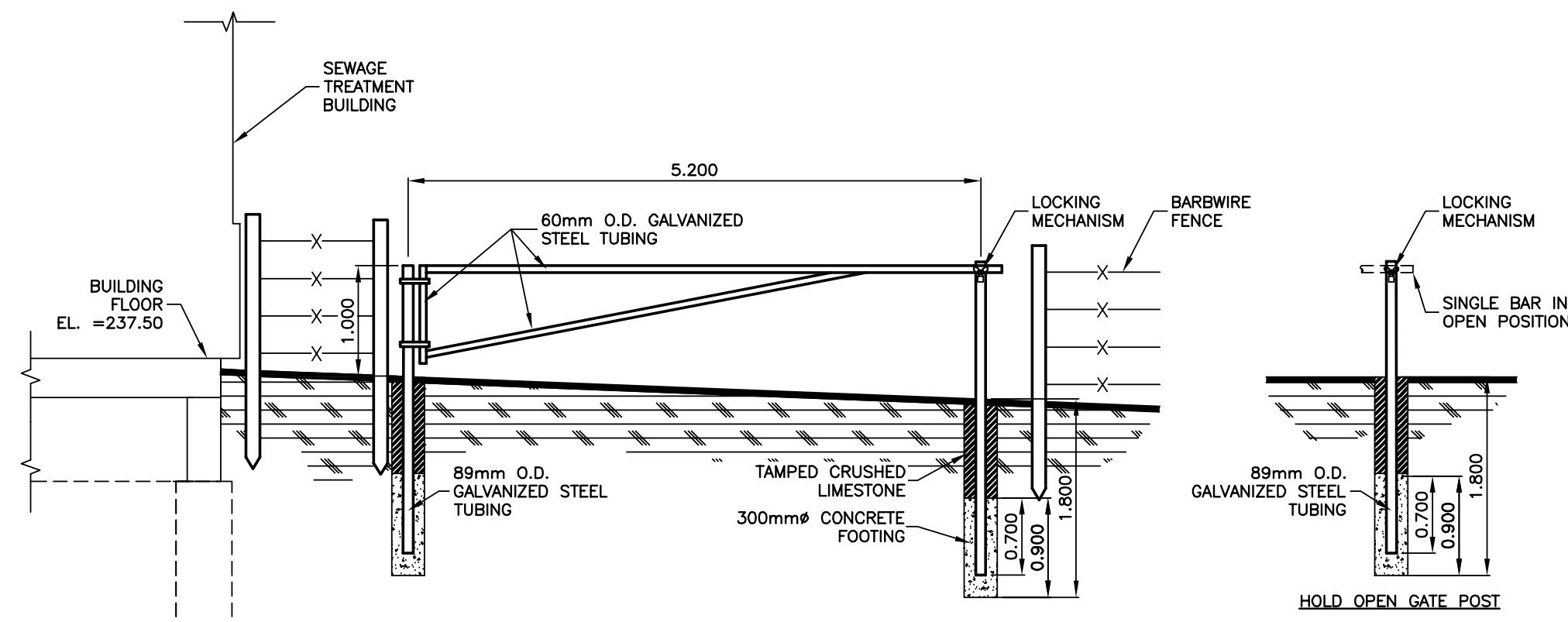
NOTE:
 - PROVIDE CROSS BRACING AT CORNER POSTS IN BOTH DIRECTIONS.
 - SHOWN DIAMETER REFERS TO SMALLEST END OF POST.

1 FENCE DETAIL
 SCALE = 1:50

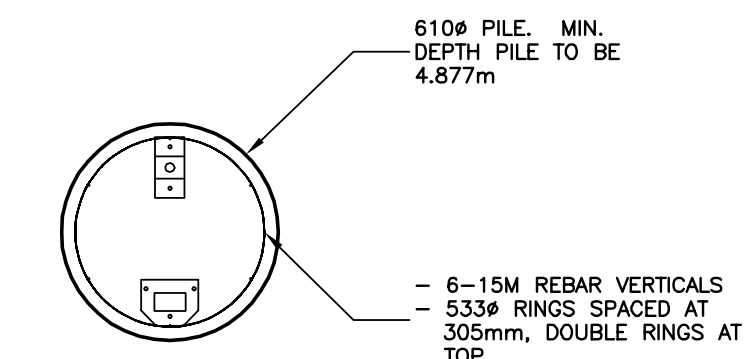


NOTES:
 - LOCATION AS SHOWN ON PLAN L1
 - PROVIDE COMPLETE SHOP DRAWINGS:
 1) CONSTRUCTION AND SIZE OF LETTERS
 2) SPACING OF CHARACTER STRINGS
 3) ALL FINAL DIMENSIONS
 4) PAINT COLOUR, THICKNESS AND TYPE USED
 5) FRAME CROSS SECTION AND STIFFENING DETAILS
 6) PROVIDE 6 UNITS

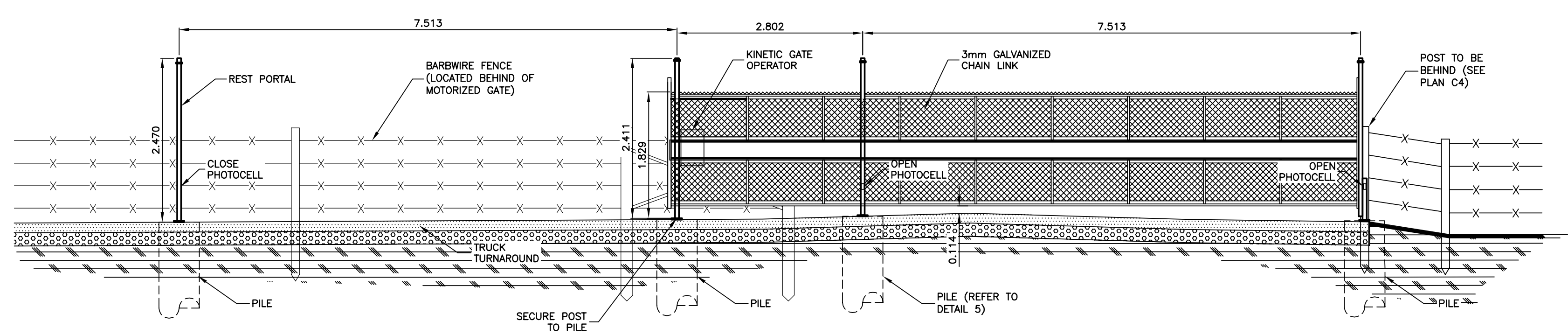
3 LAGOON FENCE SIGN DETAIL
 SCALE = 1:20



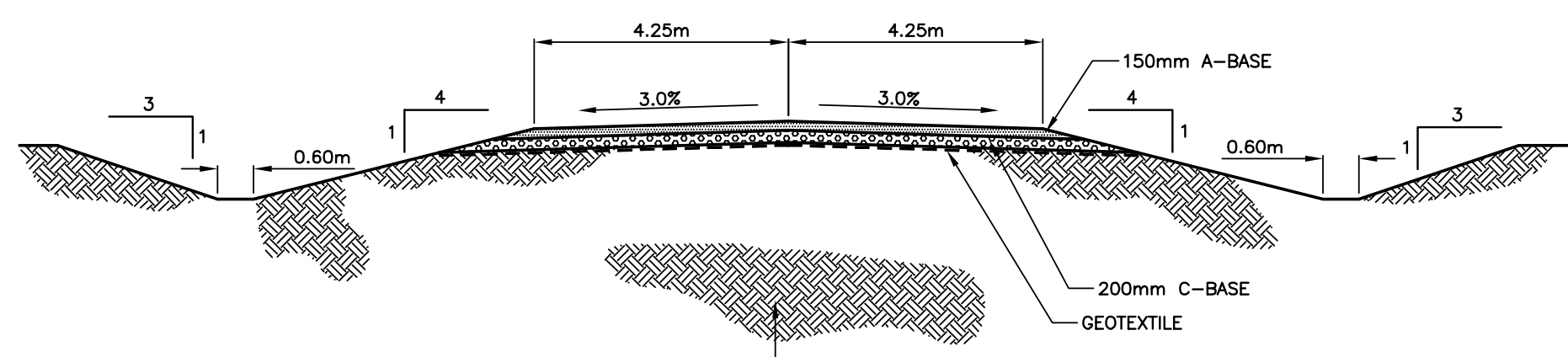
2 ACCESS GATE DETAIL
 SCALE = 1:50



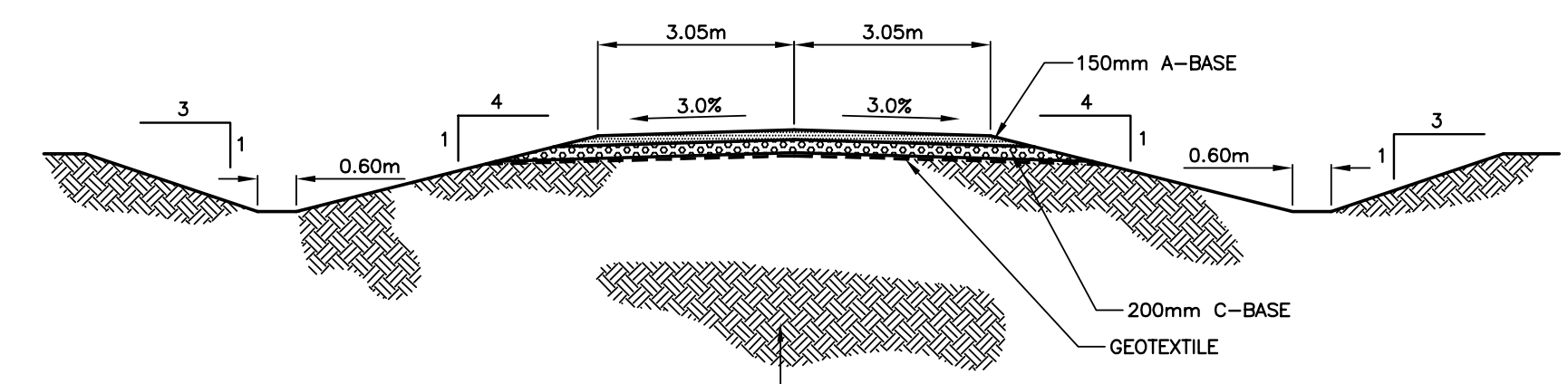
5 TYPICAL PILE DETAIL
 SCALE = 1:20



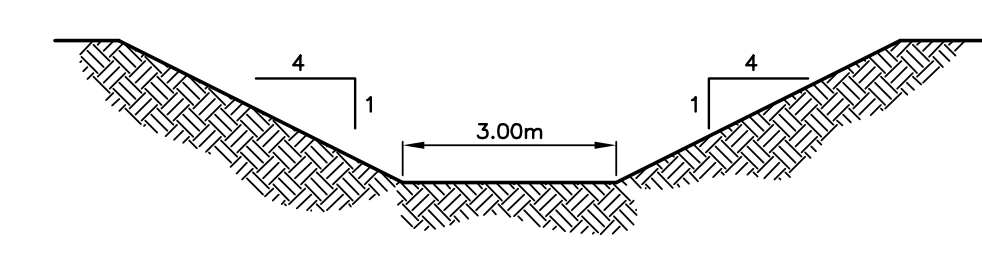
4 SLIDING MOTORIZED ACCESS GATE DETAIL
 SCALE = 1:50



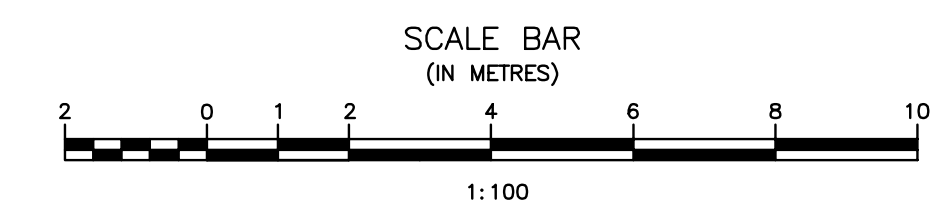
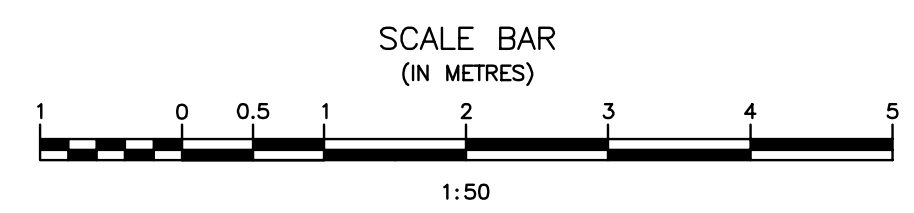
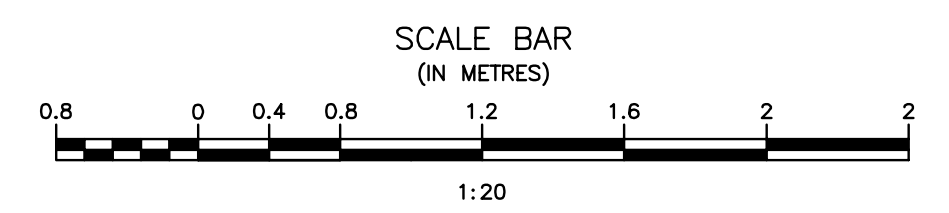
6 TYPICAL LAGOON ACCESS ROAD CROSS-SECTION
 SCALE = 1:100



7 SPILLWAY AND LIFT STATION ACCESS ROAD CROSS-SECTION
 SCALE = 1:100



8 LAGOON INTERIOR DITCH CROSS-SECTION
 HORIZONTAL SCALE = 1:100
 VERTICAL SCALE = 1:50



Record Drawing
 Drawing compiled from visual observations of various parts of construction and/or from information by others. Accuracy not warranted. Independent verification required before application.

ORIGINAL DRAWING SIGNED AND SEALED BY
 J.R.L. COUSIN
 16/03/29

APEGM
 Certificate of Authorization
J.R. Cousin Consultants Ltd.
 No. 234 Date: 16/03/29

JRCC PROJECT # R-325.52
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5		
4		
3		
2	RECORD DRAWING	FEB 2019
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	
Revision	Description	Date
Client		client

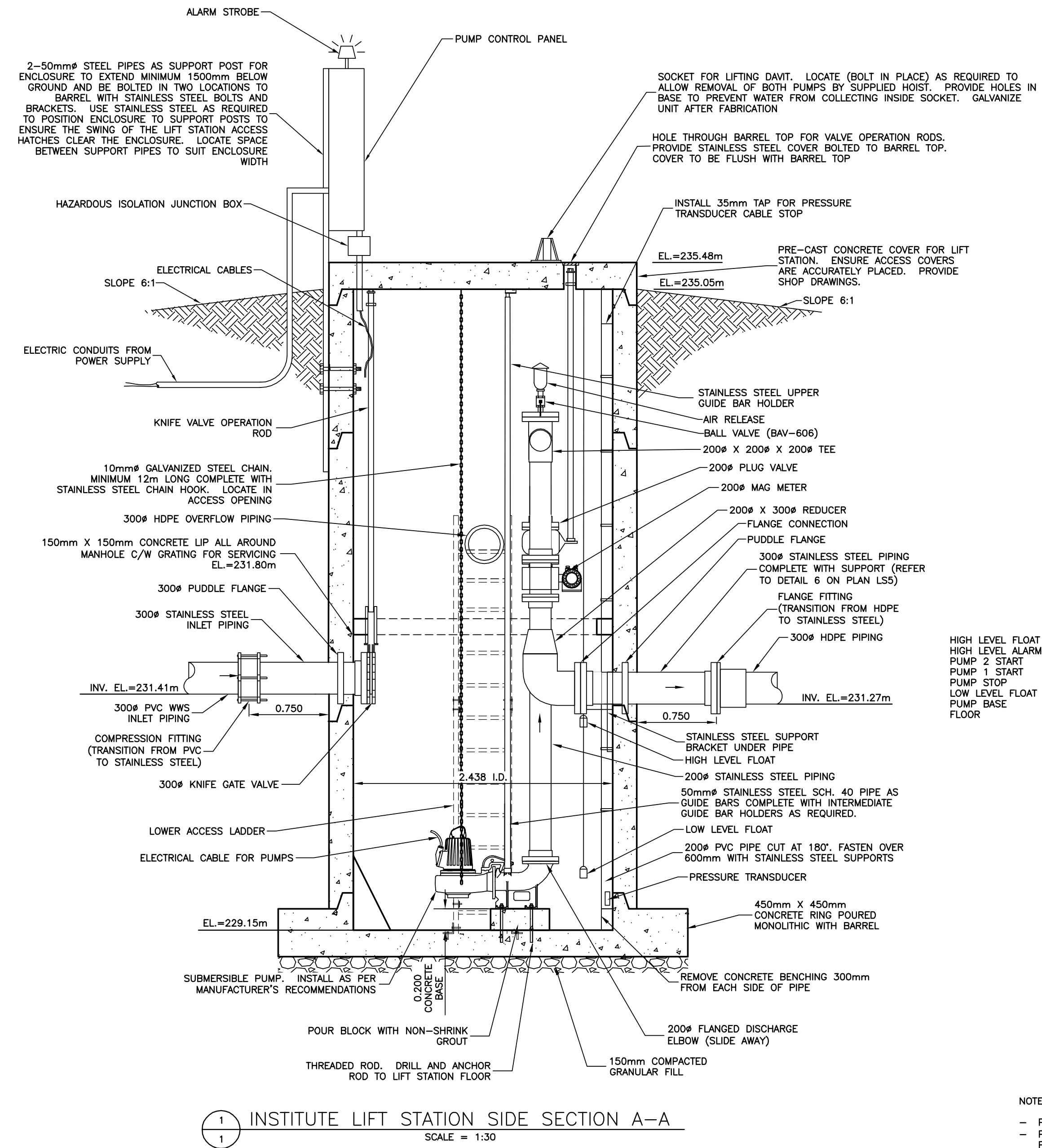
Project title: Stony Mountain Lagoon Upgrade

STONY MOUNTAIN LAGOON UPGRADE

Designed by: DK
 Drawn by: OT
 Approved by: JRC
 PMS/C: Project Manager / Administrateur de Projets TPSGC
 MARK MOGAN

FENCE, DITCH AND ROAD CROSS-SECTION DETAILS

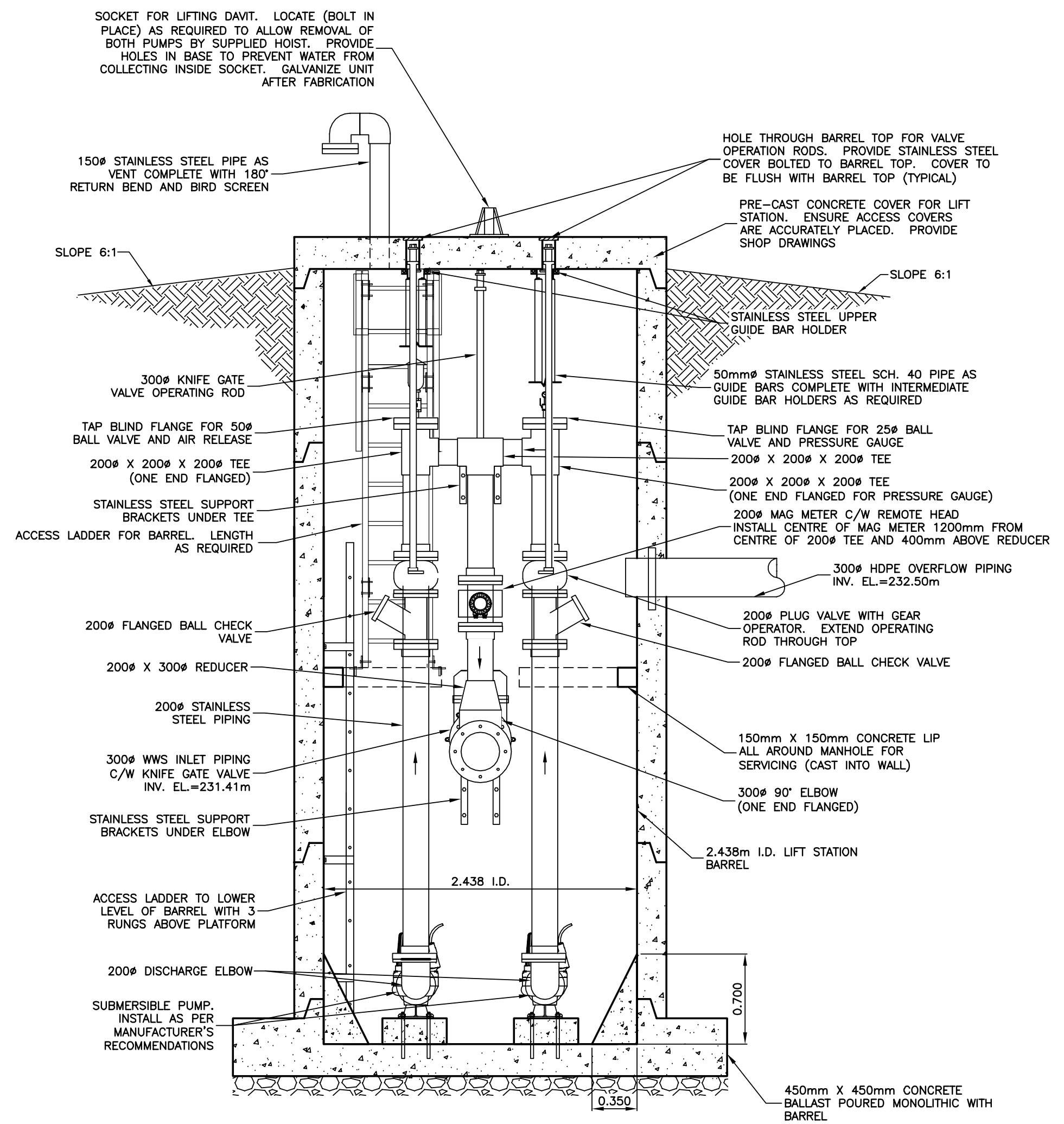
Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	C11	0
	OF 11	



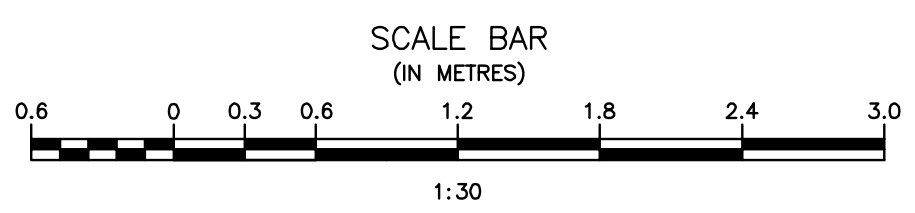
1 INSTITUTE LIFT STATION SIDE SECTION A-A
SCALE = 1:30

HIGH LEVEL FLOAT	231.76m
HIGH LEVEL ALARM	231.50m
PUMP 2 START	231.40m
PUMP 1 START	231.30m
PUMP STOP	229.80m
LOW LEVEL FLOAT	229.75m
PUMP BASE FLOOR	229.35m
	229.15m

- NOTES:
- PROVIDE VALVE ROD SUPPORTS.
 - PROVIDE SUPPORT/RESTRAINT FOR ALL PIPING AS REQUIRED.
 - ALL PIPING TO BE STAINLESS STEEL UNLESS OTHERWISE NOTED.



2 INSTITUTE LIFT STATION FRONT SECTION B-B
SCALE = 1:30



ORIGINAL DRAWING
SIGNED AND SEALED
BY
J.R.L. COUSIN
17/03/06

APCM
Certificate of Authorization
J.R. Cousin Consultants Ltd.
No. 234 Date: 17/03/06

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Revision	Description	Date
5		
4		
3	RECORD DRAWING	FEB 2019
2	REVISED ELEVATION, LADDER AND OVERFLOW	MARCH 2017
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	

Client	client
Project title	Project

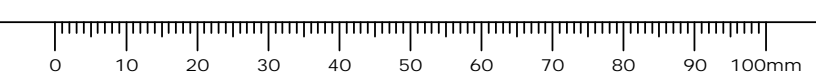
STONY MOUNTAIN LAGOON UPGRADE

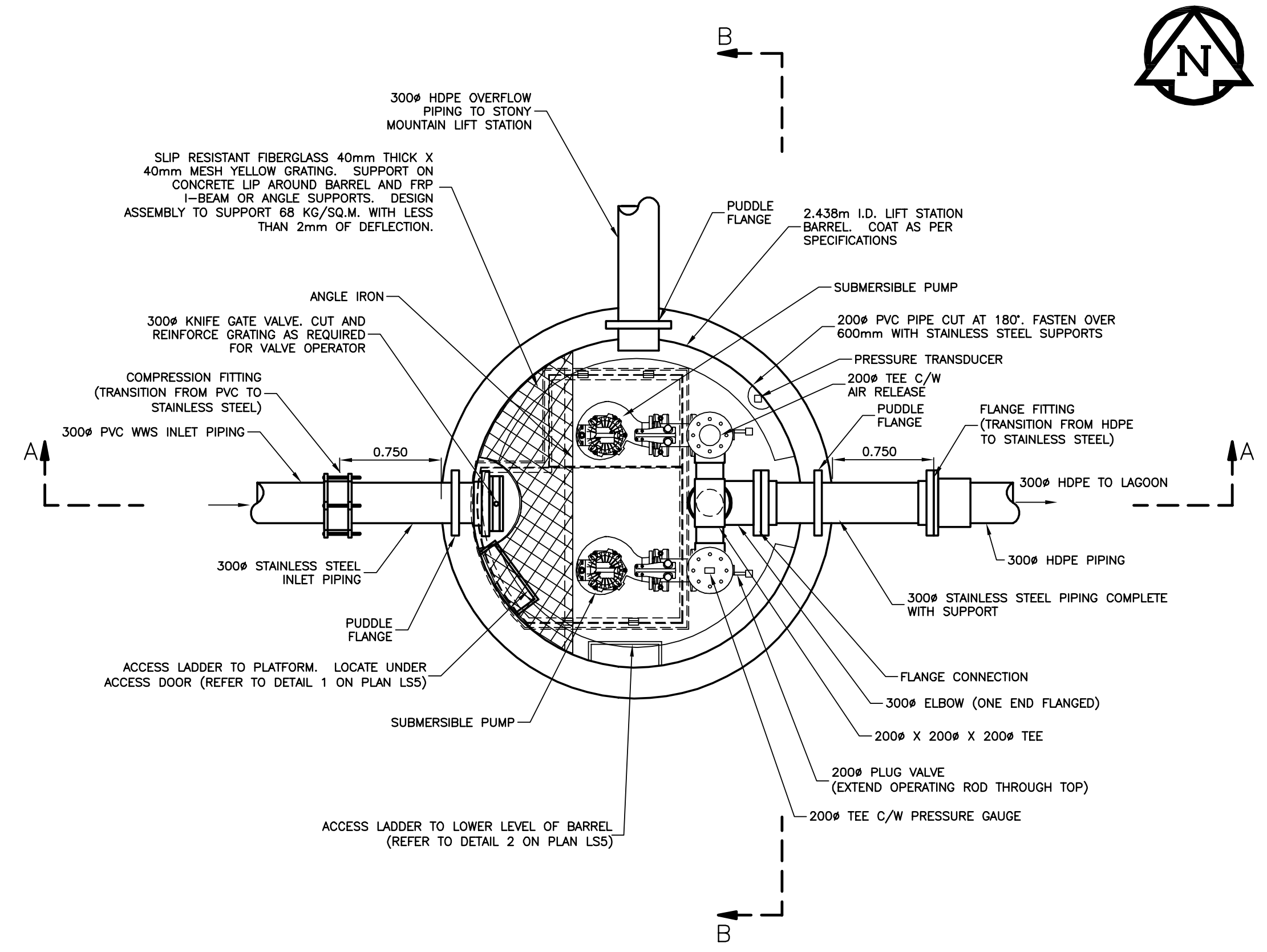
Designed by	Conçu par	JRC
Drawn by	Dessiné par	OT
Approved by	Approuvé par	JRC
PM/ESC: Project Manager	Administrateur de Projets TPSGC	MARK MOGAN
Drawing title	Titre du dessin	

STONY MOUNTAIN INSTITUTE LIFT STATION - SECTION VIEWS

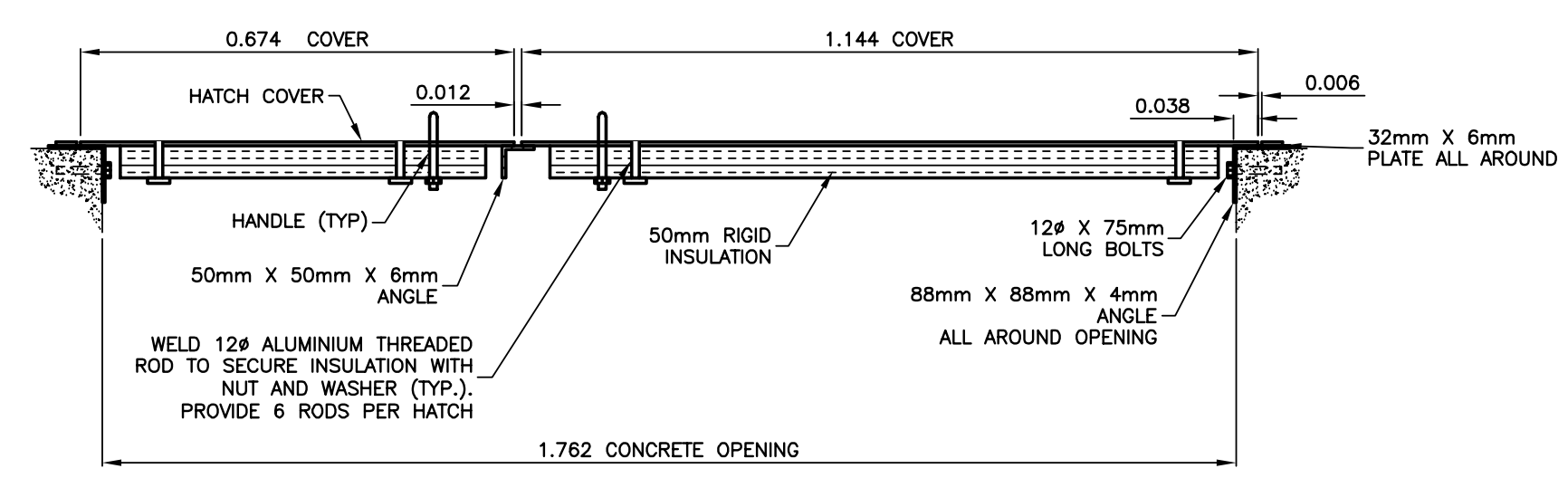
Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	LS1	0
	OF 5	

Record Drawing
Drawing compiled from visual observations of various parts of construction and/or from information by others. Accuracy not warranted. Independent verification required before application.

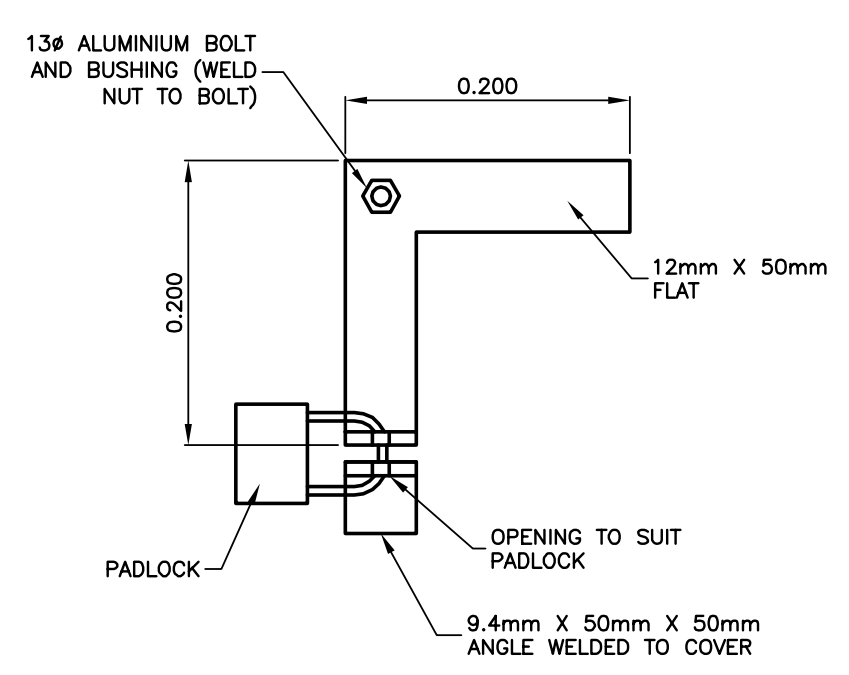




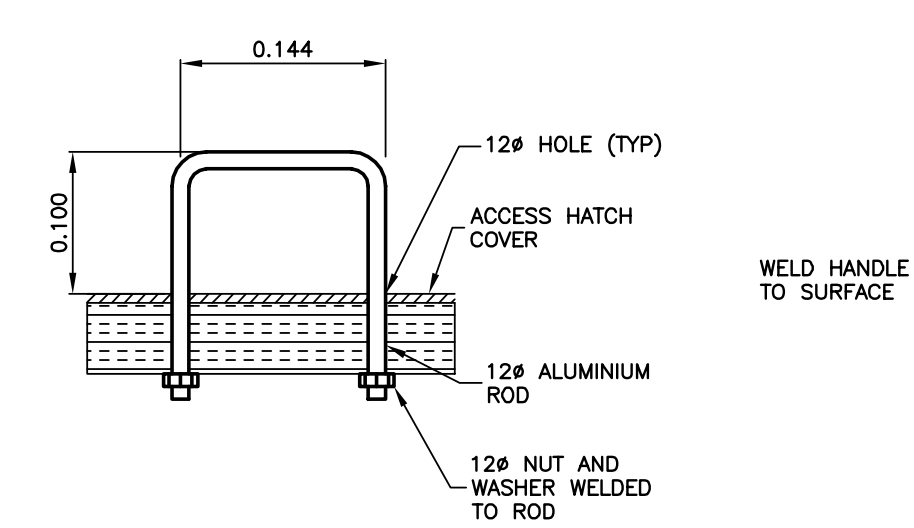
1 INSTITUTE LIFT STATION MANHOLE PIPING DETAIL – TOP VIEW
 SCALE = 1:30



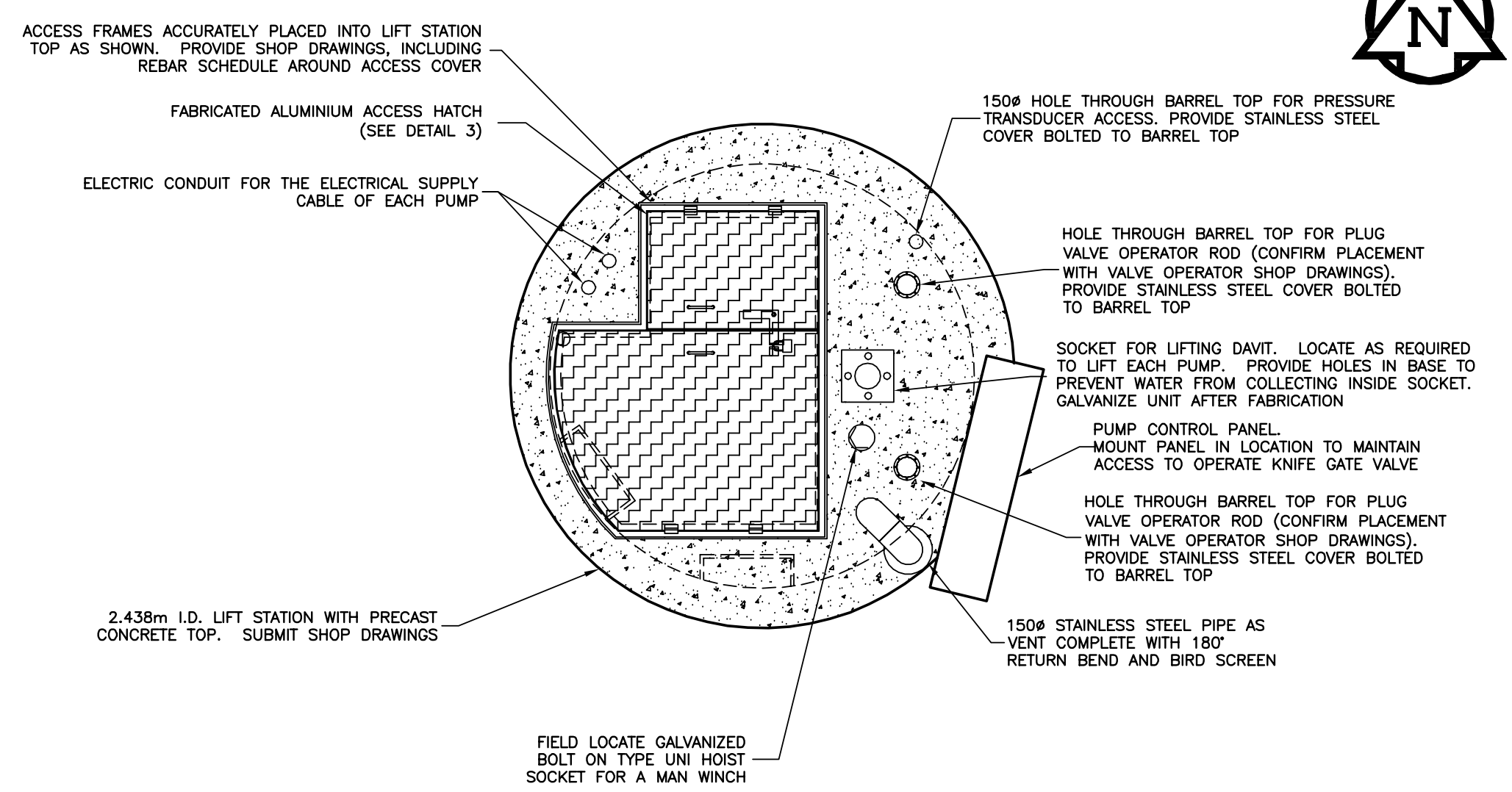
4 TYPICAL ACCESS HATCH – SECTION
 SCALE = 1:10



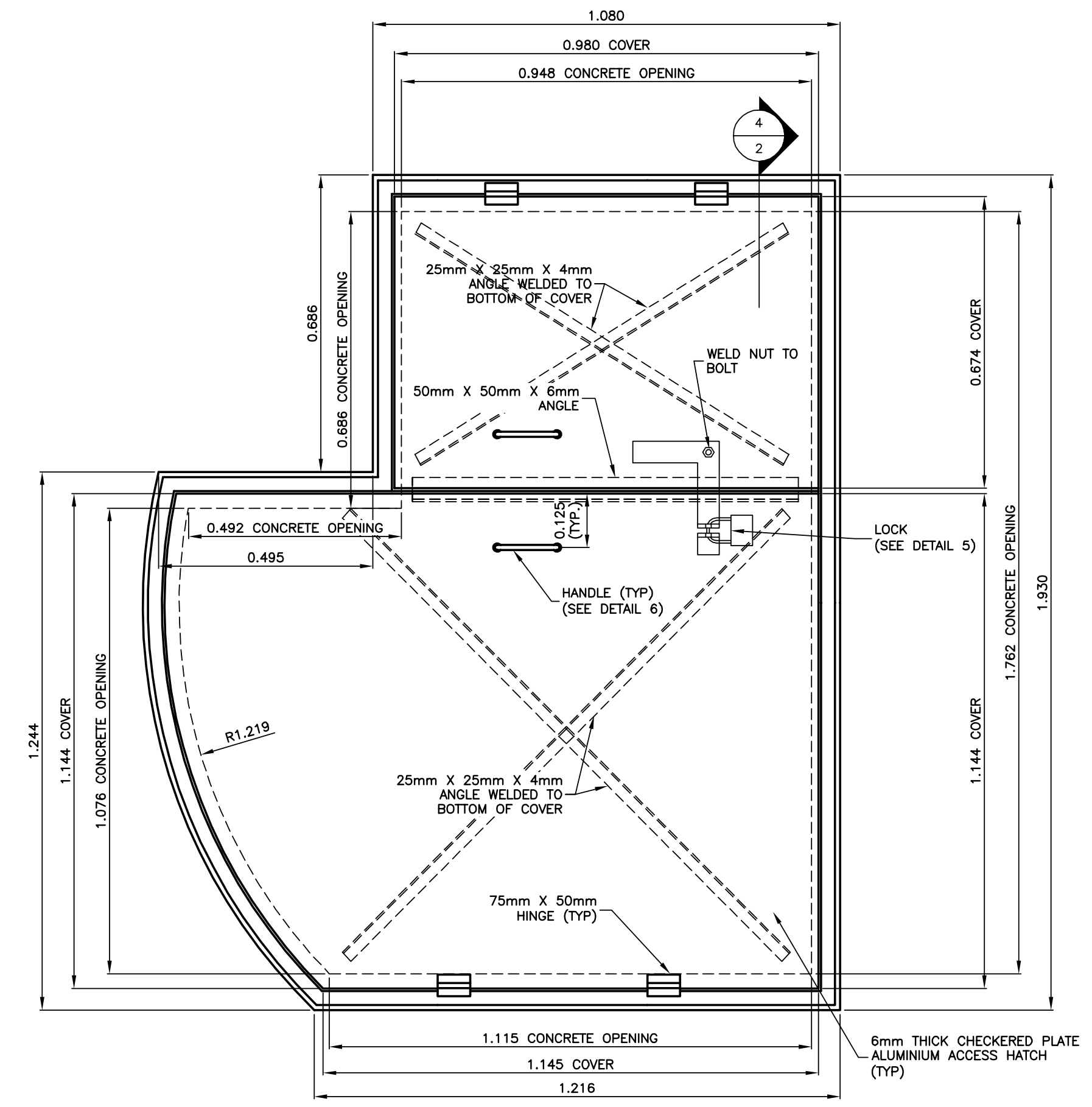
5 ACCESS HATCH LOCK DETAIL
 SCALE = 1:5



6 TYPICAL HATCH HANDLE DETAIL
 SCALE = 1:5

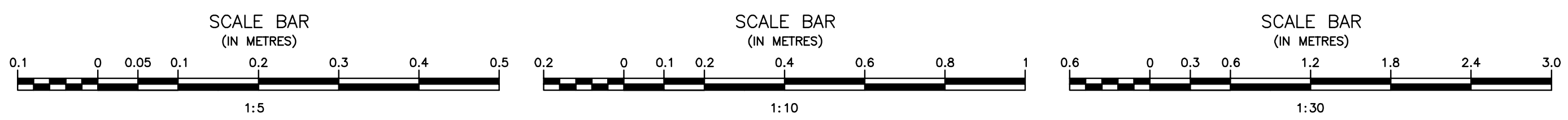


3 INSTITUTE LIFT STATION ACCESS HATCH – PLAN VIEW
 SCALE = 1:30



3 INSTITUTE LIFT STATION ACCESS HATCH – PLAN VIEW
 SCALE = 1:10

NOTES:
 - ALL METAL ASSOCIATED WITH HATCH, HINGES AND FRAMES TO BE ALUMINIUM



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ORIGINAL DRAWING
 SIGNED AND SEALED
 BY
 J.R.L. COUSIN
 17/03/06

APCGM
 Certificate of Authorization
J.R. Cousin Consultants Ltd.
 No. 234 Date: 17/03/06

JRCC PROJECT # R-325.52

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4		
3	RECORD DRAWING	FEB 2019
2	REVISED LADDER AND OVERFLOW	MARCH 2017
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	
Revision	Description	Date
Client	client	

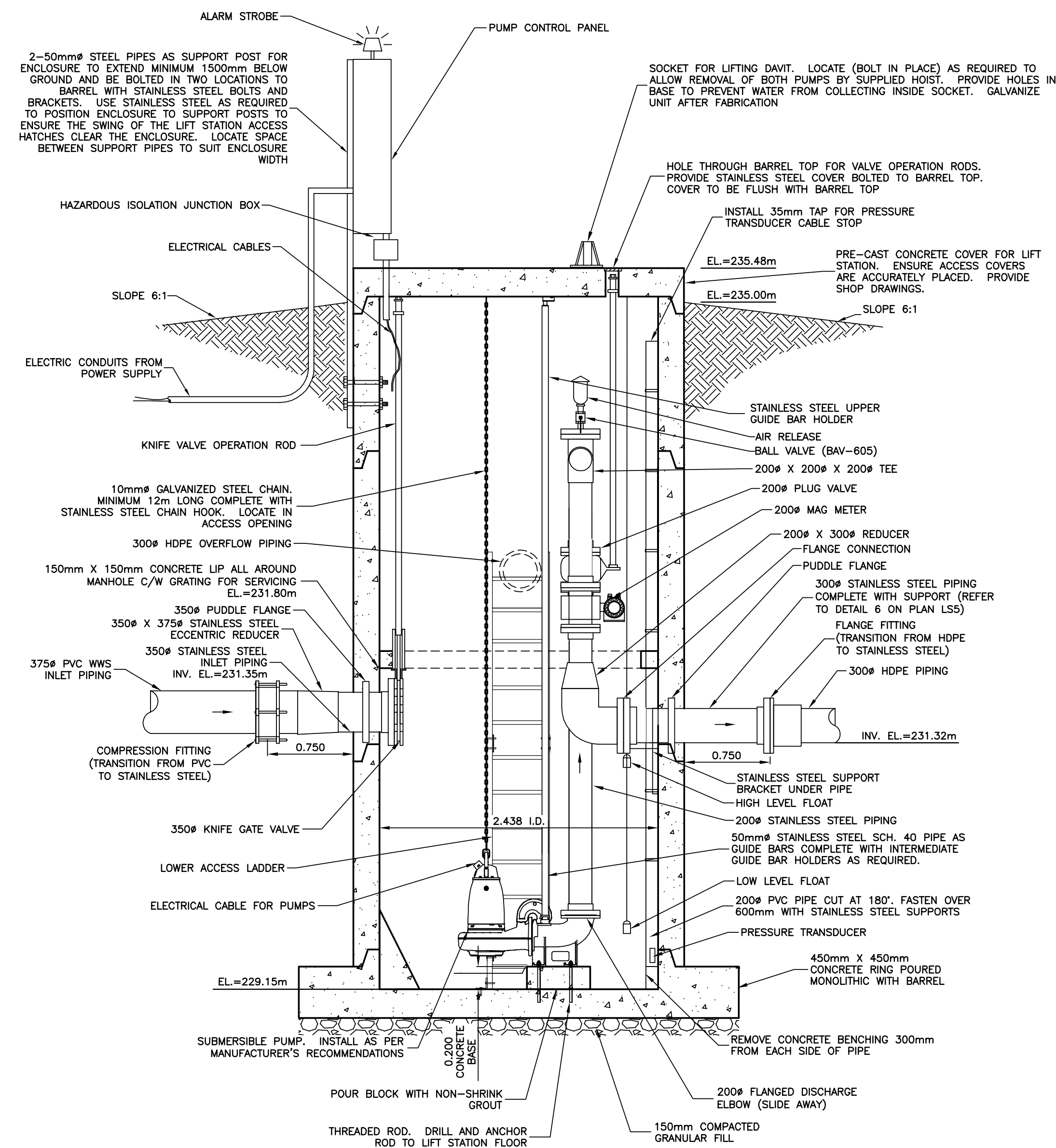
Project title: Stony Mountain Lagoon Upgrade

STONY MOUNTAIN LAGOON UPGRADE

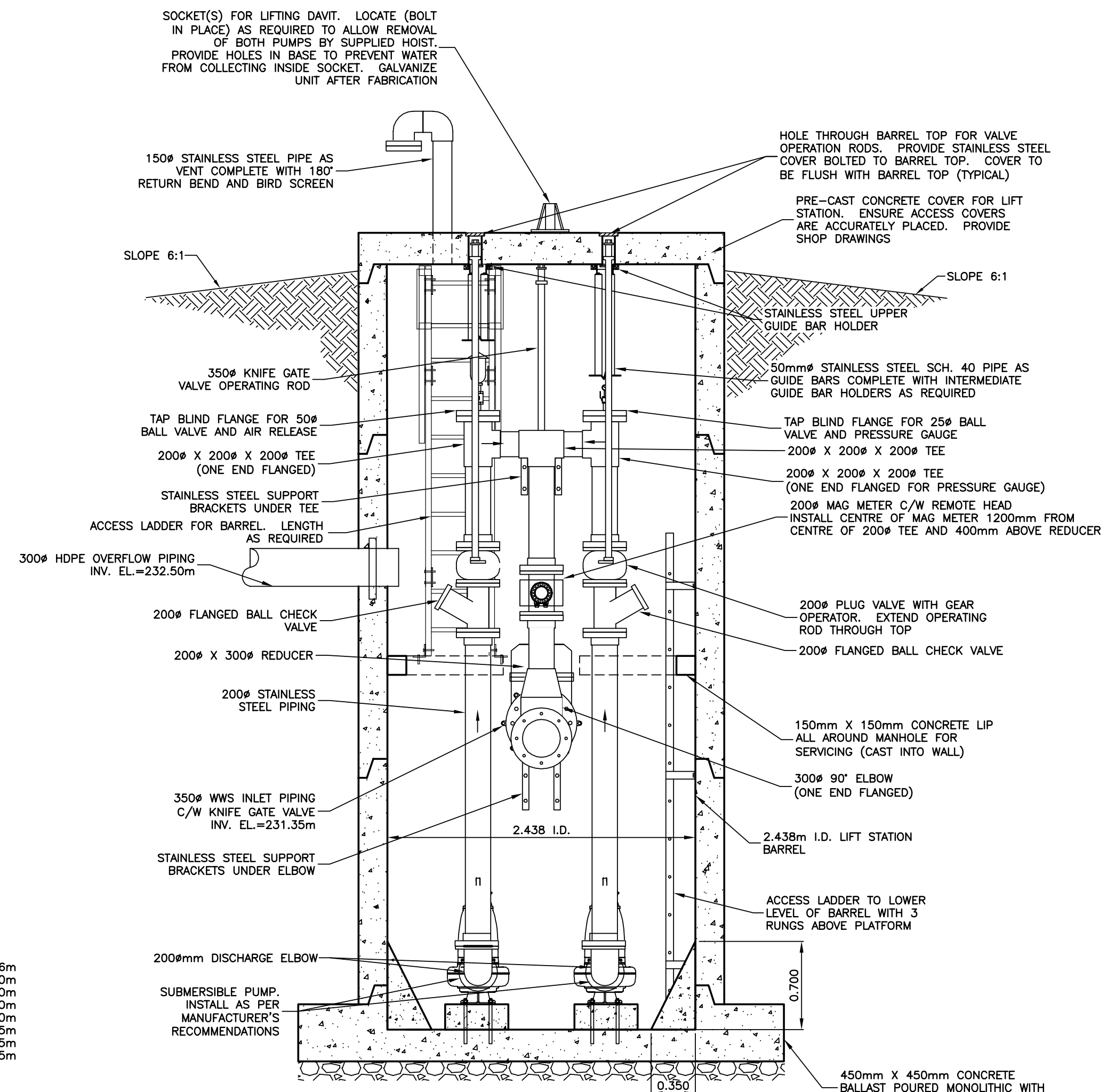
Designed by: JRC
 Drawn by: OT
 Approved by: JRC
 Project Manager: MARK MOGAN

STONY MOUNTAIN INSTITUTE LIFT STATION - PLAN VIEW PIPING AND ACCESS HATCH DETAILS

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	LS2	0
	OF 5	

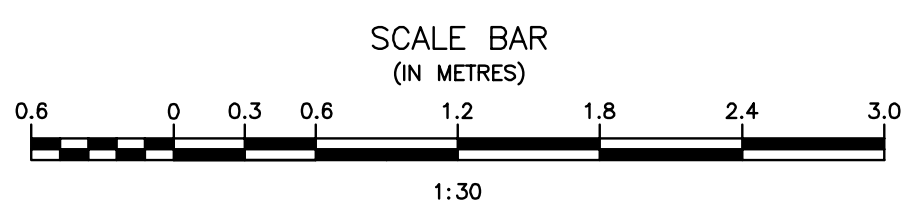


1 LIFT STATION SIDE SECTION A-A
SCALE = 1:30



2 LIFT STATION FRONT SECTION B-B
SCALE = 1:30

- NOTES:
- PROVIDE VALVE ROD SUPPORTS.
 - PROVIDE SUPPORT/RESTRAINT FOR ALL PIPING AS REQUIRED.
 - ALL PIPING TO BE STAINLESS STEEL UNLESS OTHERWISE NOTED.



ORIGINAL DRAWING
SIGNED AND SEALED
BY
J.R.L. COUSIN
17/03/06

APCM
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No. 234 Date: 17/03/06

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Revision	Description	Date
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4		
3	RECORD DRAWING	FEB 2019
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1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	

Client client

Project title Projet

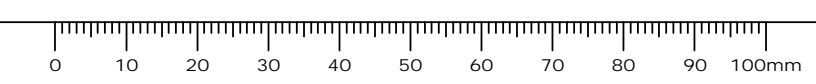
**STONY MOUNTAIN
LAGOON UPGRADE**

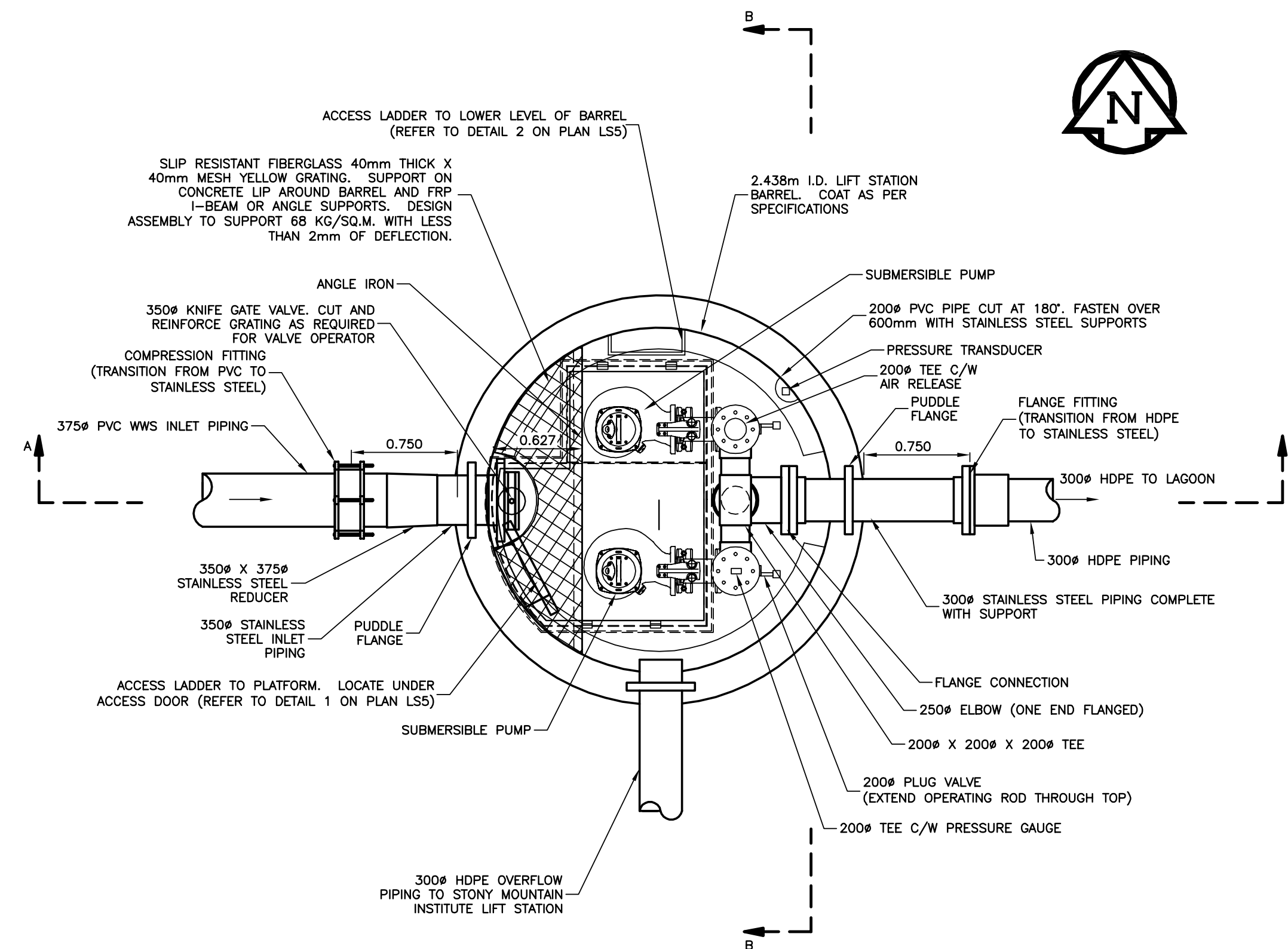
Designed by JRC	Conçu par Conçu par
Drawn by OT	Dessiné par Dessiné par
Approved by JRC	Approuvé par Approuvé par
PM/ESC: Project Manager MARK MOGAN	Administrateur de Projets TPSGC Administrateur de Projets TPSGC
Drawing title	Titre du dessin

**STONY MOUNTAIN
LIFT STATION - SECTION VIEWS**

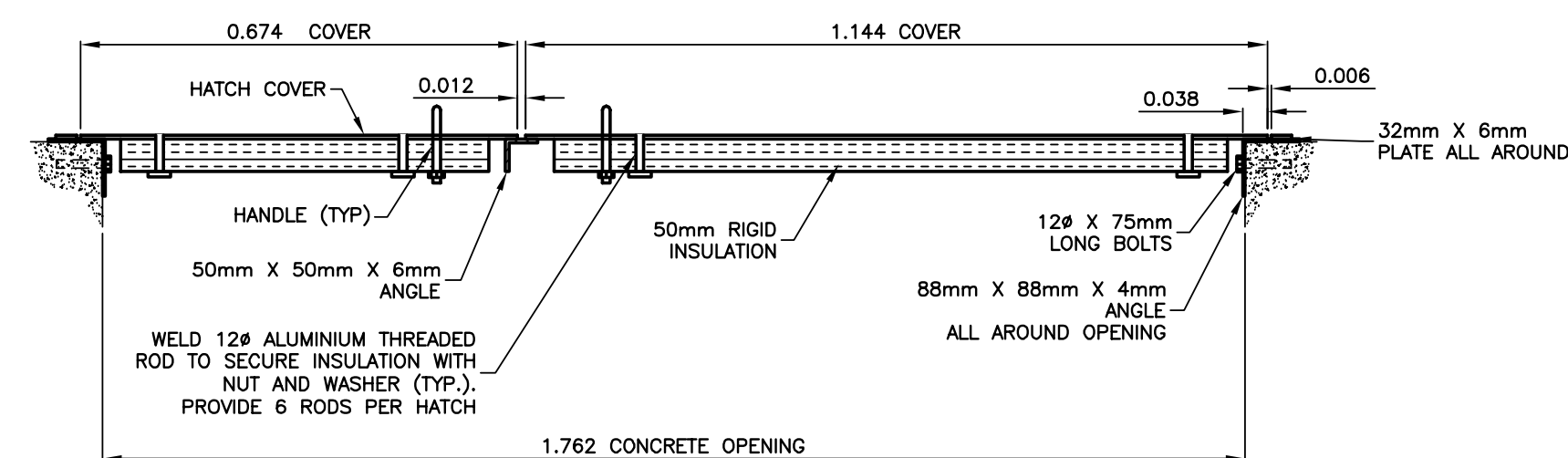
Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	LS3 OF 5	0

Record Drawing
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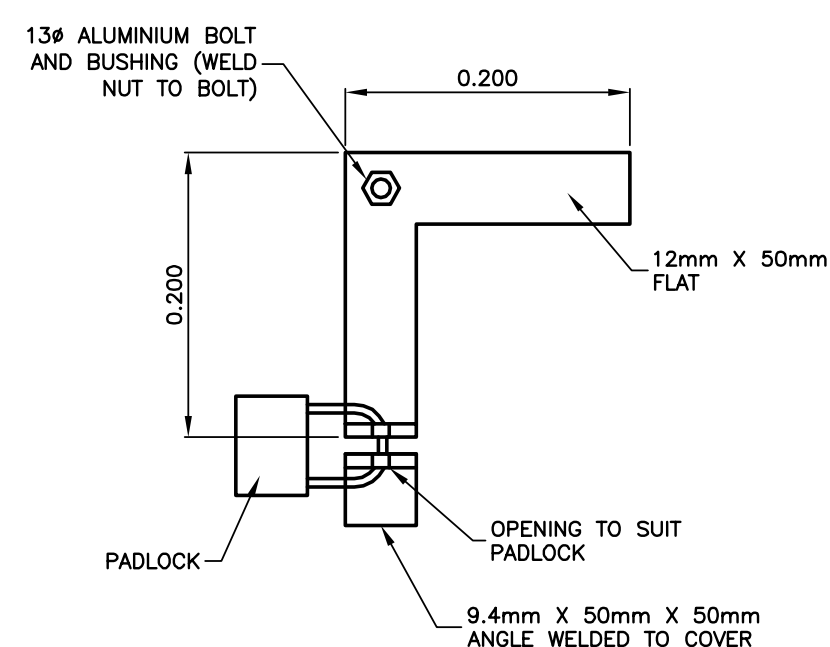




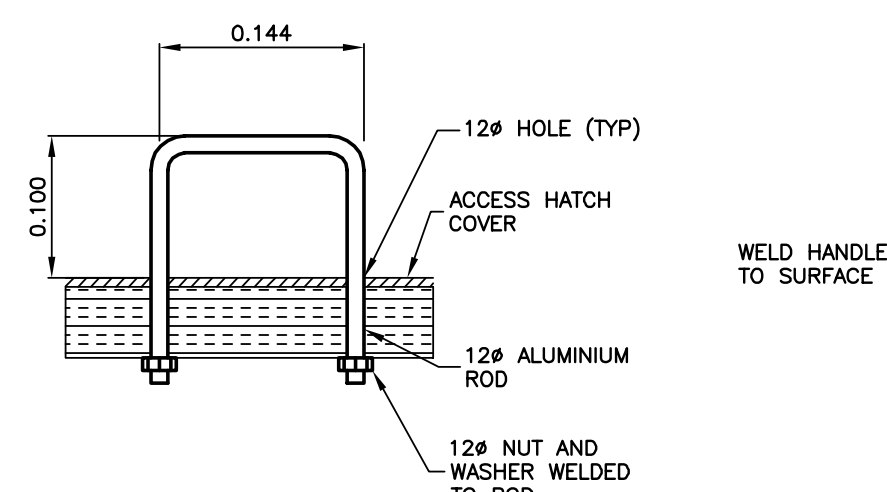
1 LIFT STATION MANHOLE PIPING DETAIL - TOP VIEW
SCALE = 1:30



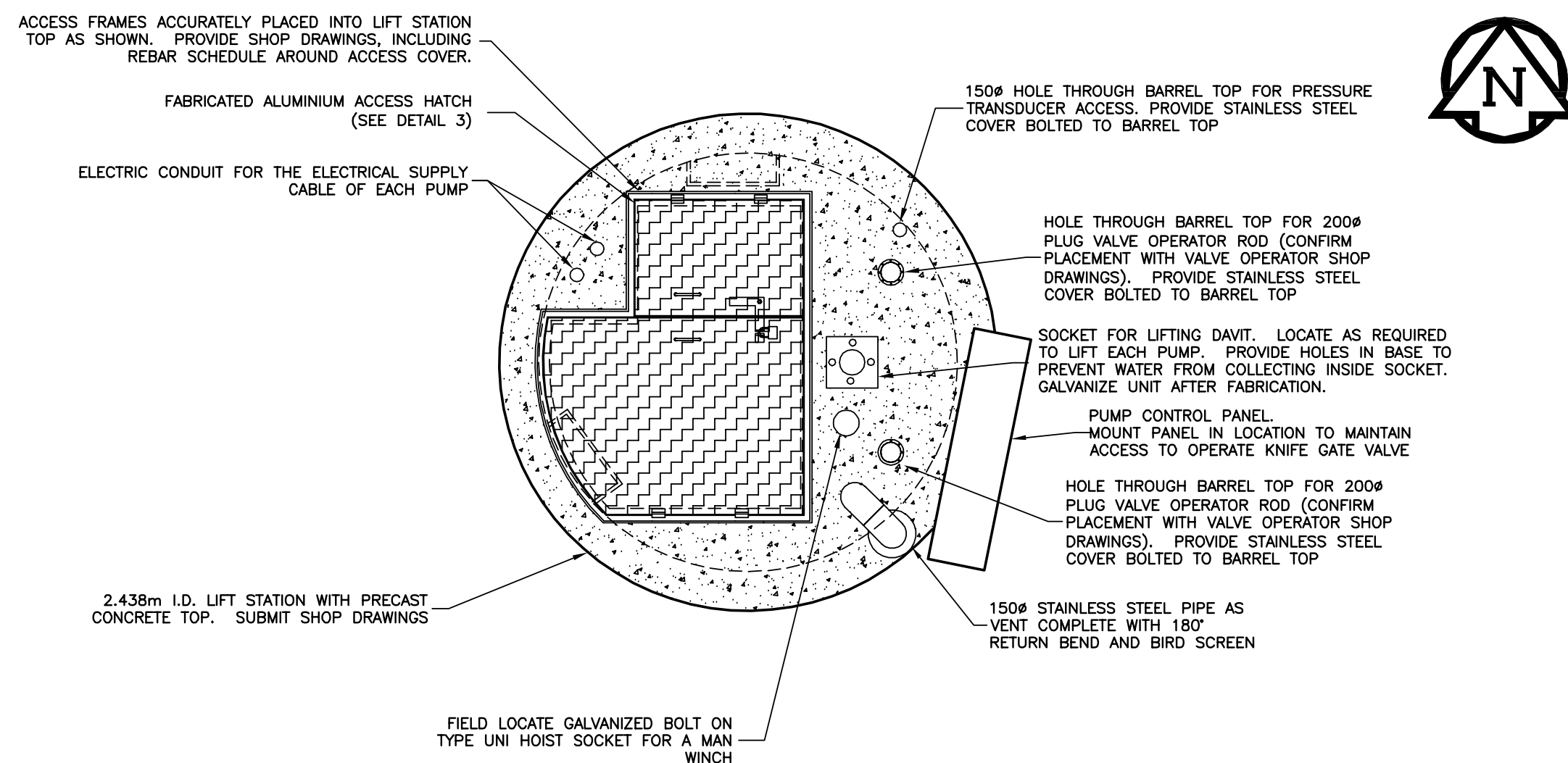
4 TYPICAL ACCESS HATCH - SECTION
SCALE = 1:10



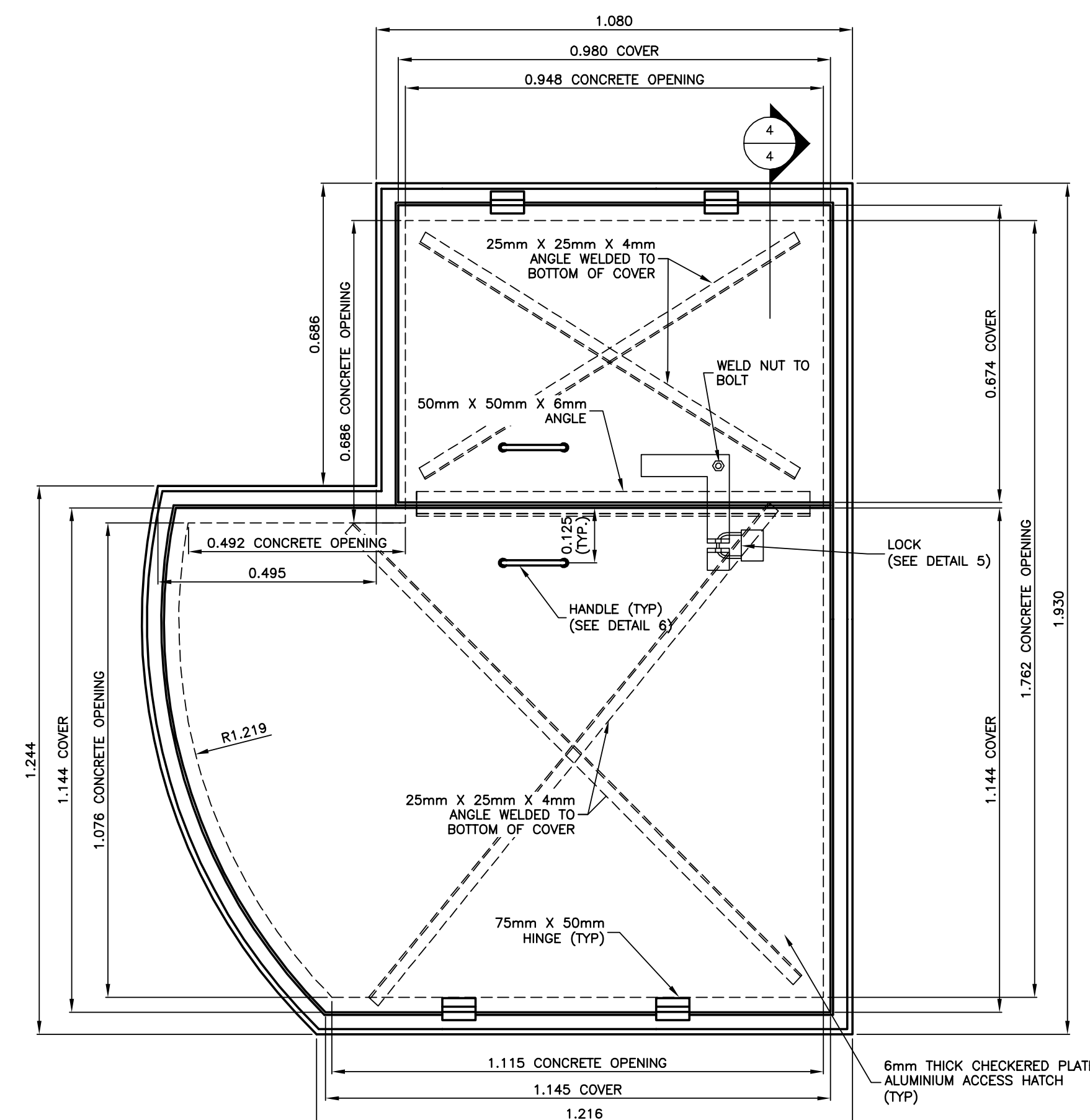
5 ACCESS HATCH LOCK DETAIL
SCALE = 1:5



6 TYPICAL HATCH HANDLE DETAIL
SCALE = 1:5

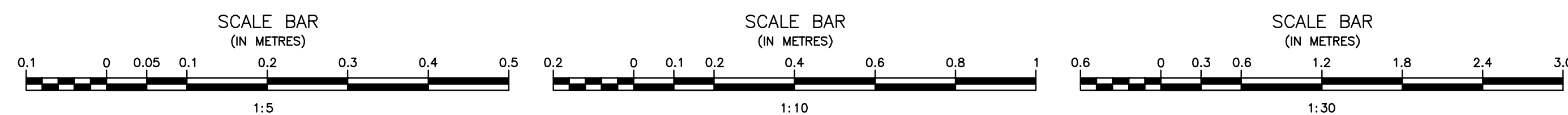


2 LIFT STATION MANHOLE PLACEMENT DETAIL
SCALE = 1:30



3 STATION ACCESS HATCH - PLAN VIEW
SCALE = 1:10

NOTES:
- ALL METAL ASSOCIATED WITH HATCH, HINGES AND FRAMES TO BE ALUMINIUM



Record Drawing

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ORIGINAL DRAWING
SIGNED AND SEALED
BY
J.R.L. COUSIN
17/03/06

APCGM
Certificate of Authorization
J.R. Cousin Consultants Ltd.
No. 234 Date: 17/03/06

JRCC PROJECT # R-325.52
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Revision	Description	Date
5		
4		
3	RECORD DRAWING	FEB 2019
2	REVISED LADDER AND OVERFLOW	MARCH 2017
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	

Client client

Project title Projet

STONY MOUNTAIN LAGOON UPGRADE

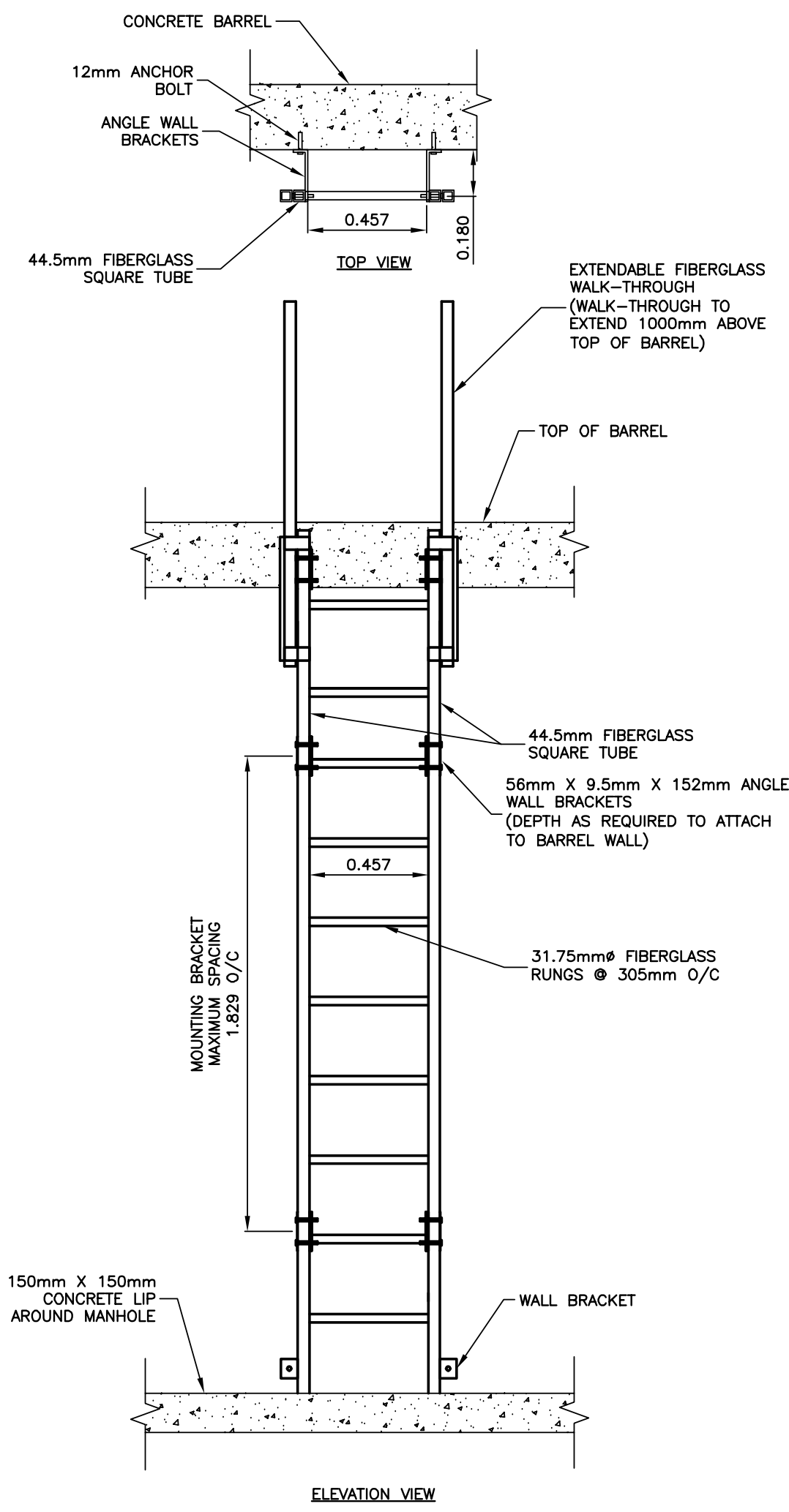
Designed by	Conçu par	JRC
Drawn by	Dessiné par	OT
Approved by	Approuvé par	JRC
PM/ESC: Project Manager	Administrateur de Projets TPSGC	MARK MOGAN

Drawing title Titre du dessin

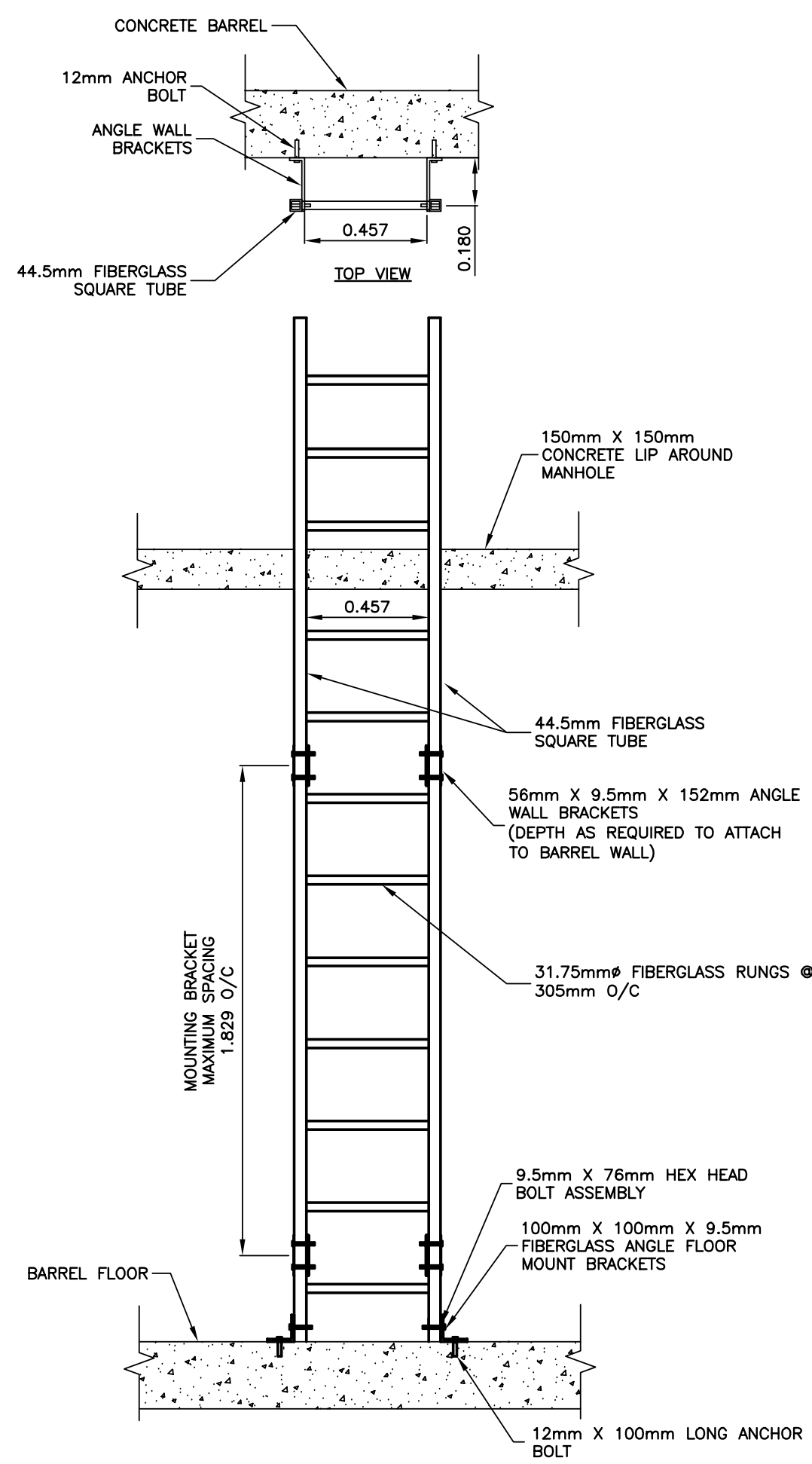
STONY MOUNTAIN LIFT STATION - PLAN VIEW, PIPING AND ACCESS HATCH DETAILS

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	LS4	0

OF 5

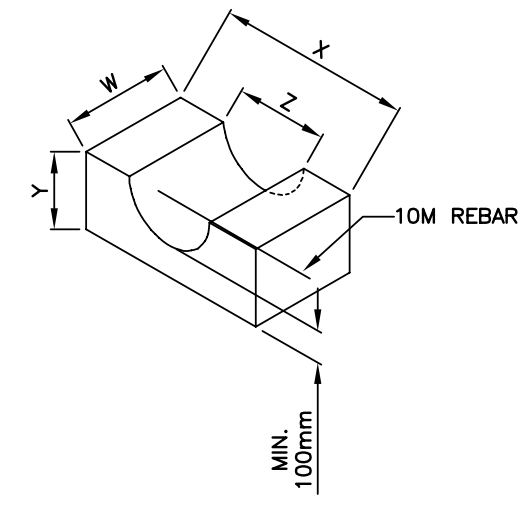


1 UPPER ACCESS LADDER DETAIL
SCALE = 1:20

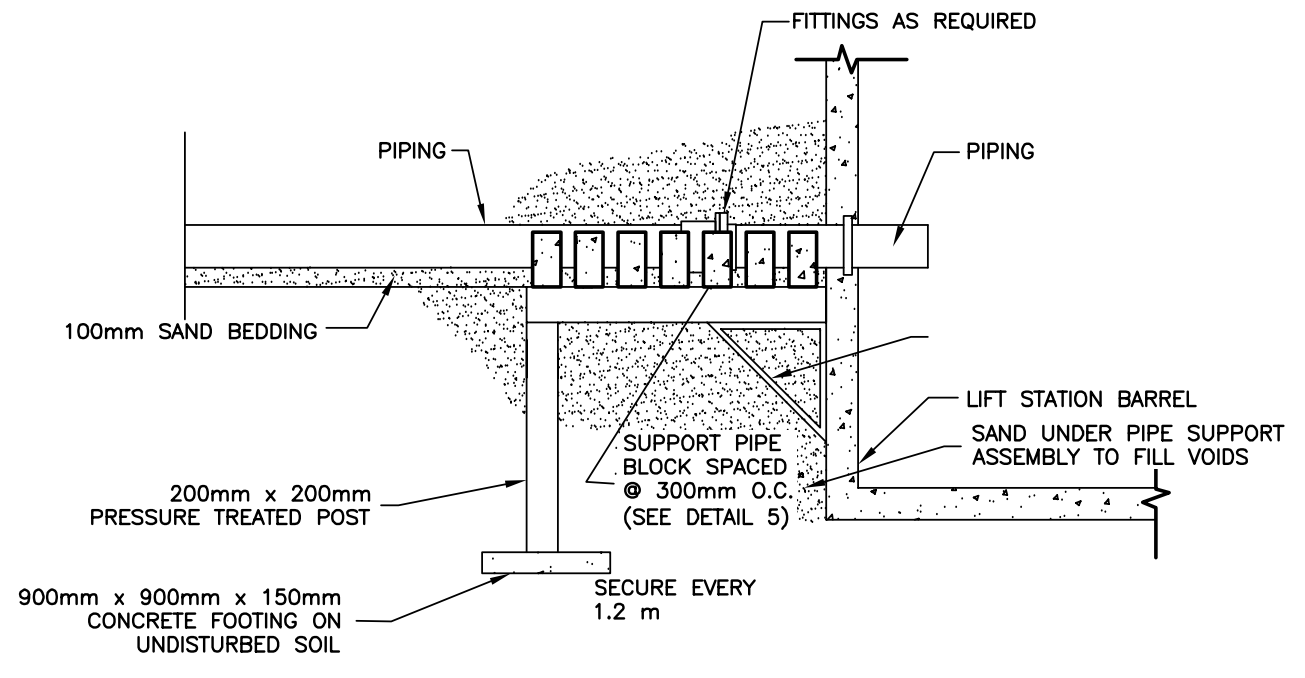


2 LOWER ACCESS LADDER DETAIL
SCALE = 1:20

PIPE Ø	Z	X	W	Y
200mm	235mm	387mm	107mm	175mm
250mm	288mm	489mm	107mm	219mm
300mm	336mm	540mm	127mm	244mm

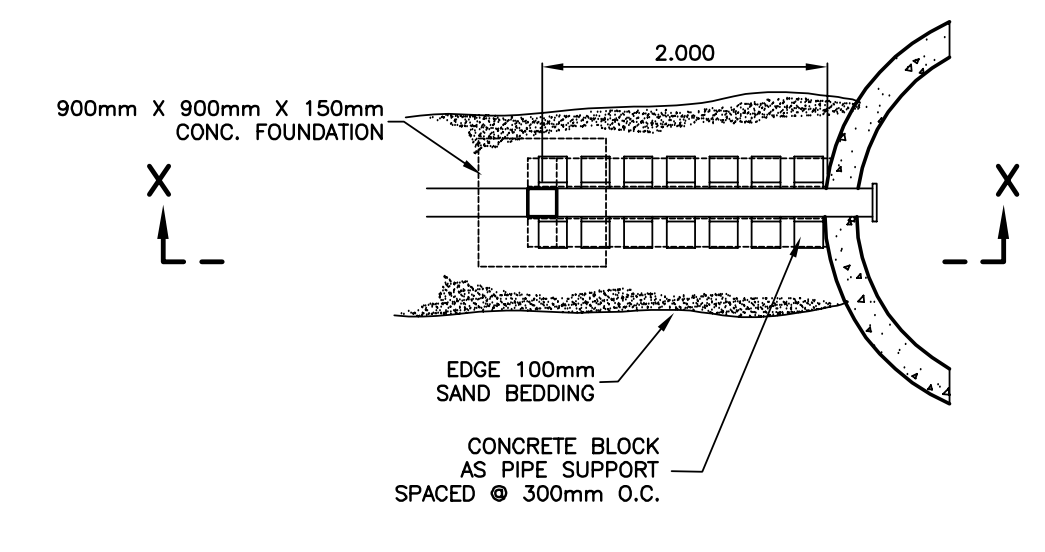


5 TYPICAL SUPPORT PIPE BLOCK
SCALE = NTS



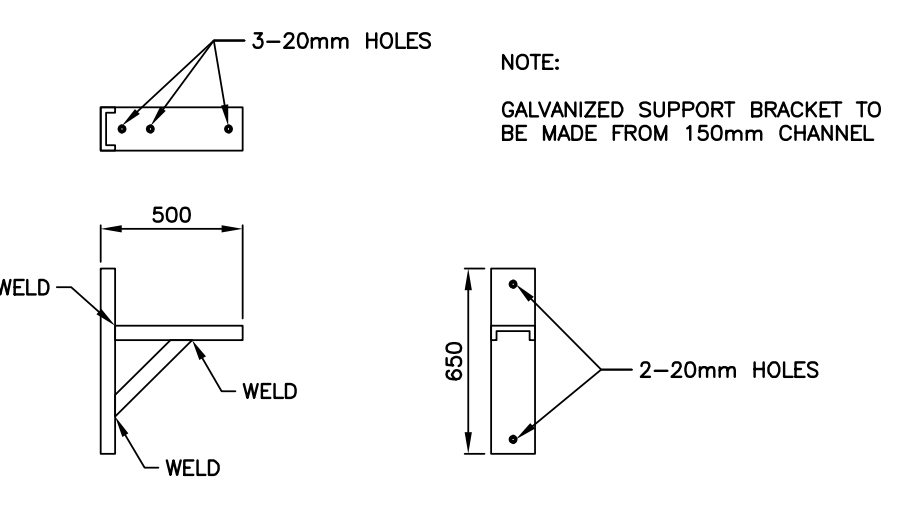
NOTES:
- PILE ASSEMBLY TO CONTINUE @ 2.0m O.C. UNTIL PIPE IS SUPPORTED ON UNDISTURBED SOIL
- USE THIS DETAIL FOR FORCEMAIN PIPING TO LAGOON

3 SECTION "X-X" - TYPICAL PIPING SUPPORT DETAIL
SCALE = 1:50

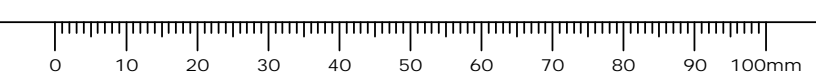
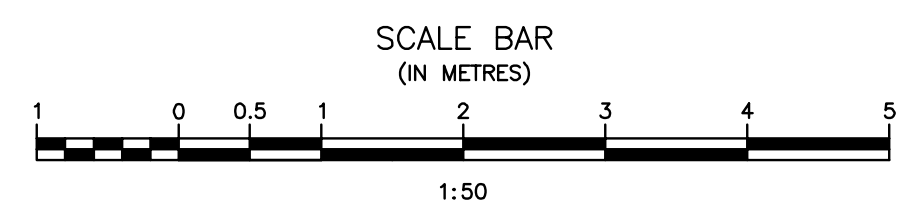
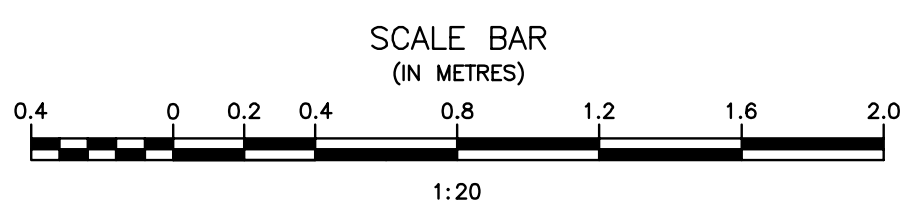


NOTE:
- 5 CONCRETE BLOCKS PER PIPE (4 CONCRETE BLOCKS FOR 375Ø WWS)

4 TYPICAL PIPING SUPPORT DETAILS
SCALE = 1:50



6 TYPICAL SUPPORT BRACKET
SCALE = NTS



ORIGINAL DRAWING
SIGNED AND SEALED
BY
J.R.L. COUSIN
16/03/29

APEGM
Certificate of Authorization
J.R. Cousin Consultants Ltd.
No. 234 Date: 16/03/29

JRCC PROJECT # R-325.52
JRCC JR Cousin Consultants Ltd.
91A Scarfield Blvd Winnipeg MB R3Y 1G4
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Revision	Description	Date
5		
4		
3		
2	RECORD DRAWING	FEB 2019
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	

Client client

Project title Projet

STONY MOUNTAIN LAGOON UPGRADE

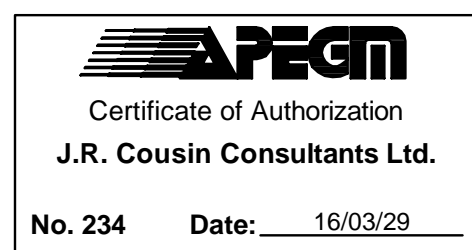
Designed by JRC	Conçu par	
Drawn by OT	Dessiné par	
Approved by JRC	Approuvé par	
PM/ESC: Project Manager MARK MOGAN	Administrateur de Projets TPSGC	
Drawing title	Titre du dessin	

LIFT STATION - MISCELLANEOUS DETAILS

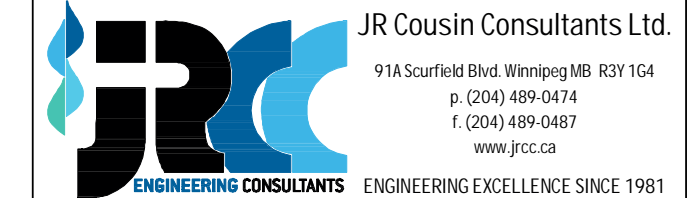
Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	LS5 OF 5	0

Record Drawing
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JRCC PROJECT # R-325.52



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1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	
Revision	Description	Date
Client		client

Project title: Stony Mountain Lagoon Upgrade

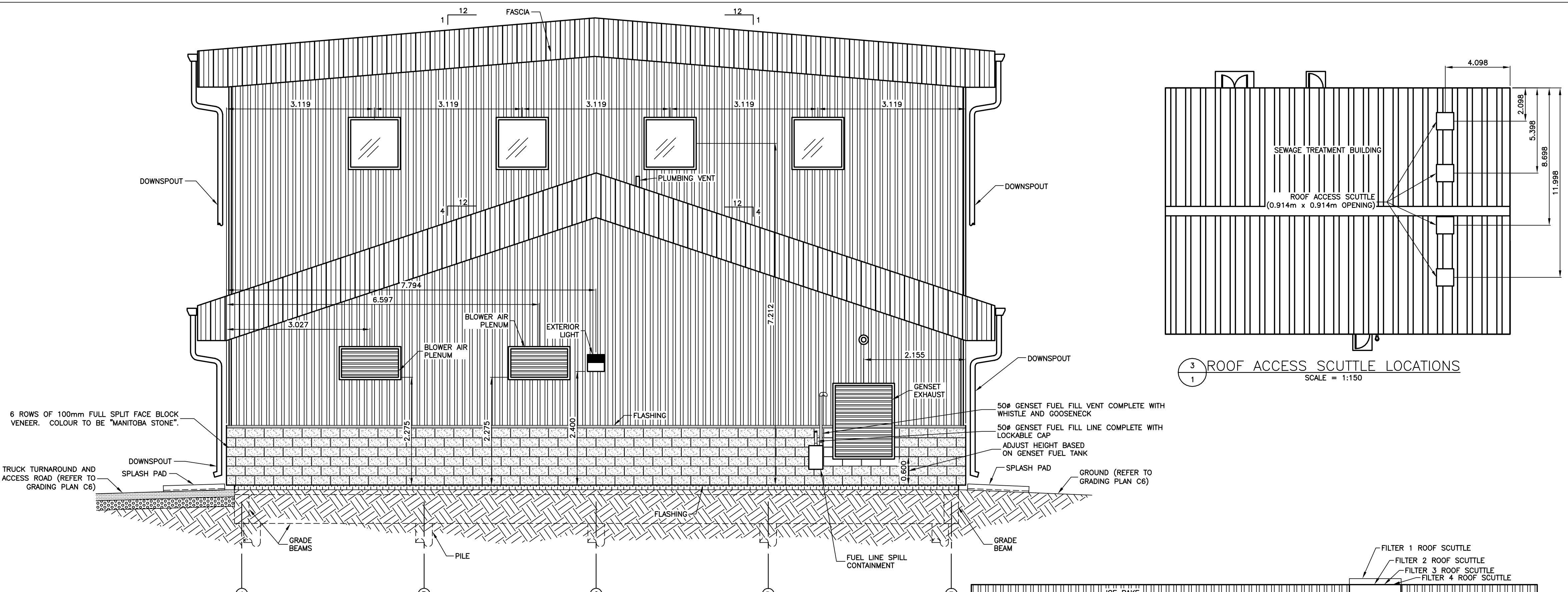
STONY MOUNTAIN LAGOON UPGRADE

Designed by	JRC	Conçu par	
Drawn by	OT	Dessiné par	
Approved by	JRC	Approuvé par	
PM/ES/C: Project Manager	MARK MOGAN	Administrateur de Projets TPSGC	
Drawing title	SEWAGE TREATMENT BUILDING SOUTH-WEST AND SOUTH-EAST ELEVATION		

SEWAGE TREATMENT BUILDING
SOUTH-WEST AND
SOUTH-EAST ELEVATION

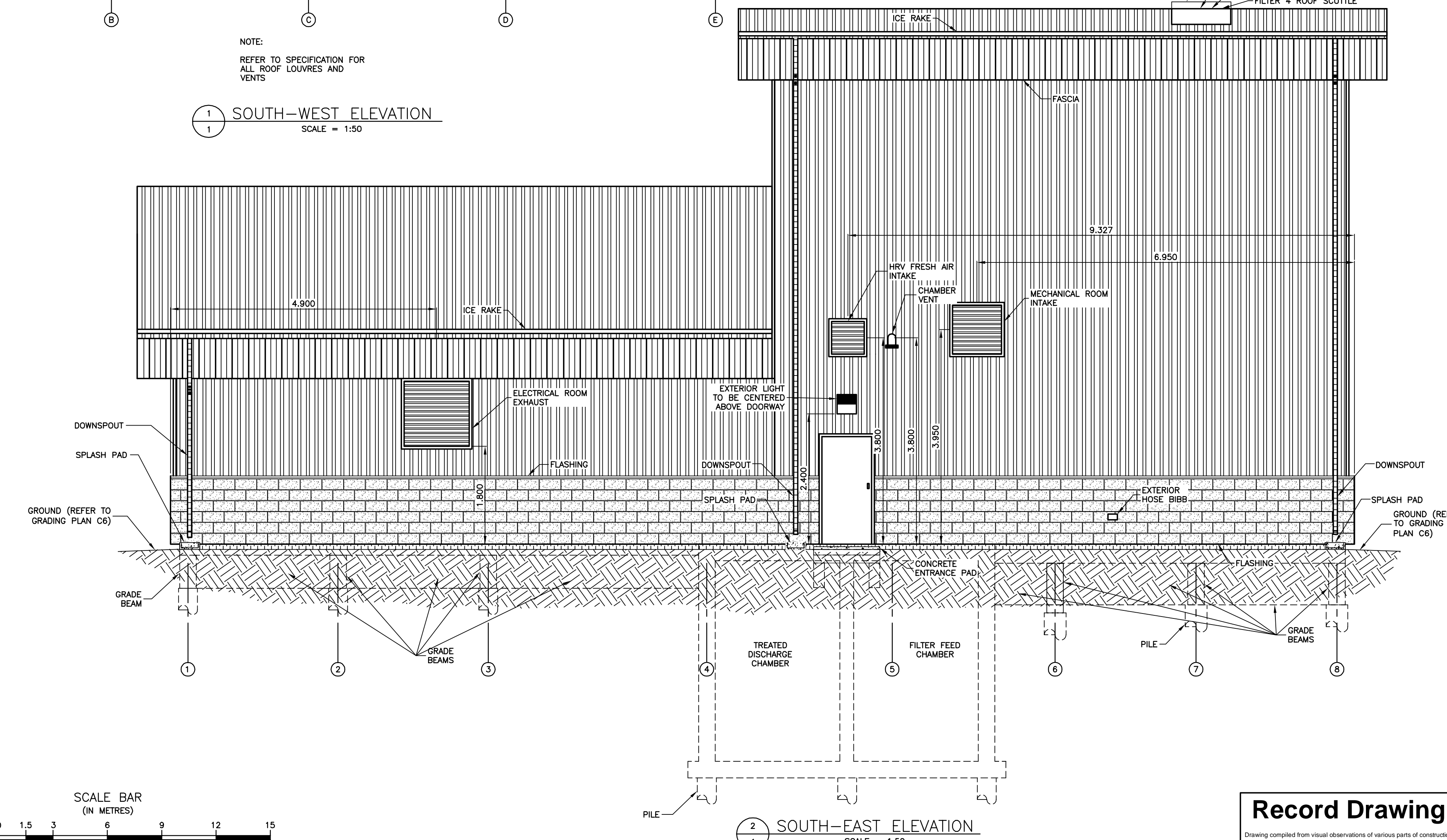
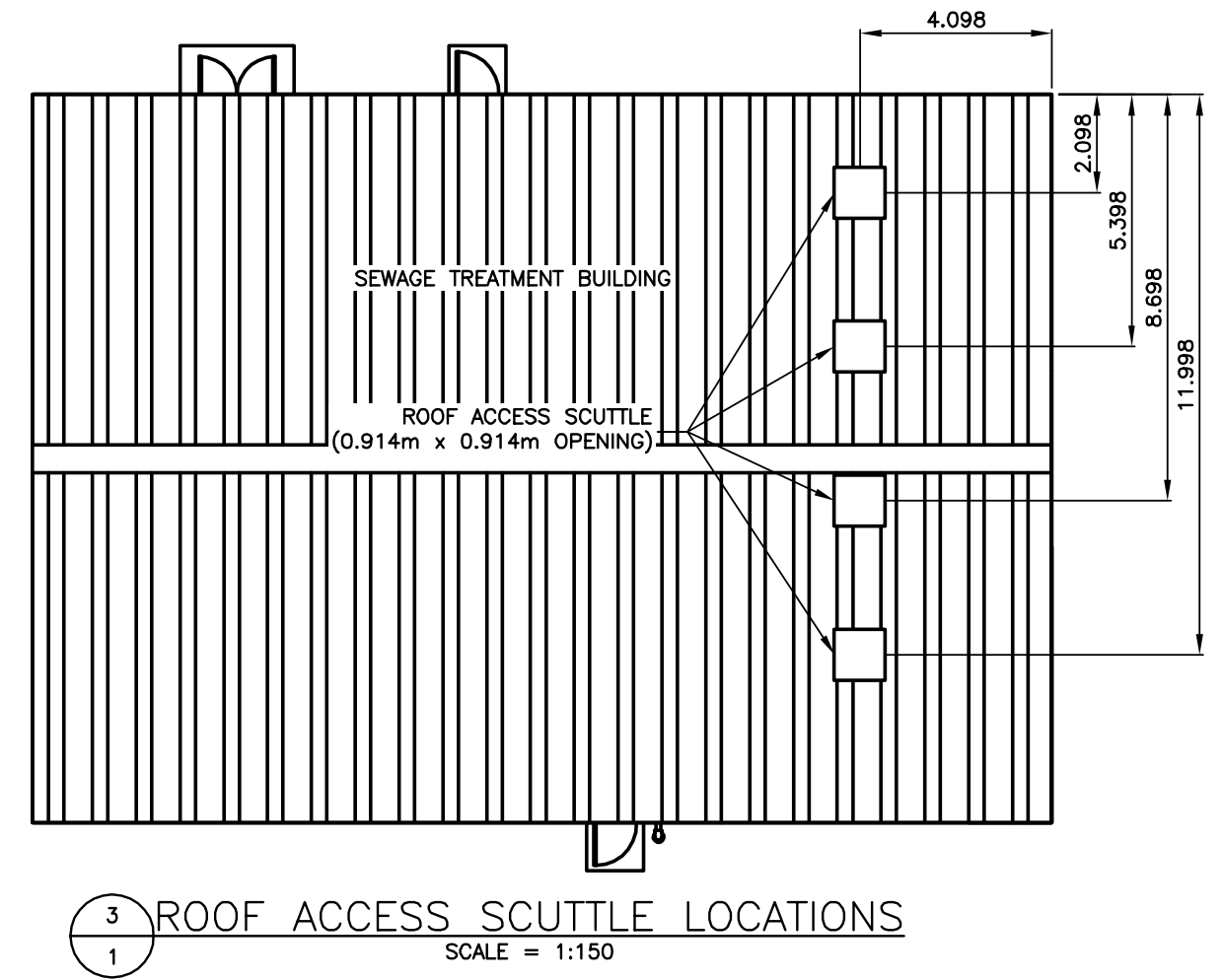
Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	A1	0
	OF 9	

Record Drawing
Drawing compiled from visual observations of various parts of construction and/or from information by others. Accuracy not warranted. Independent verification required before application.



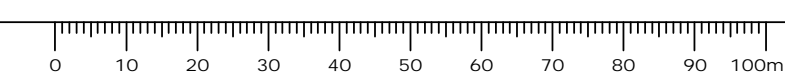
NOTE:
REFER TO SPECIFICATION FOR ALL ROOF LOUVRES AND VENTS

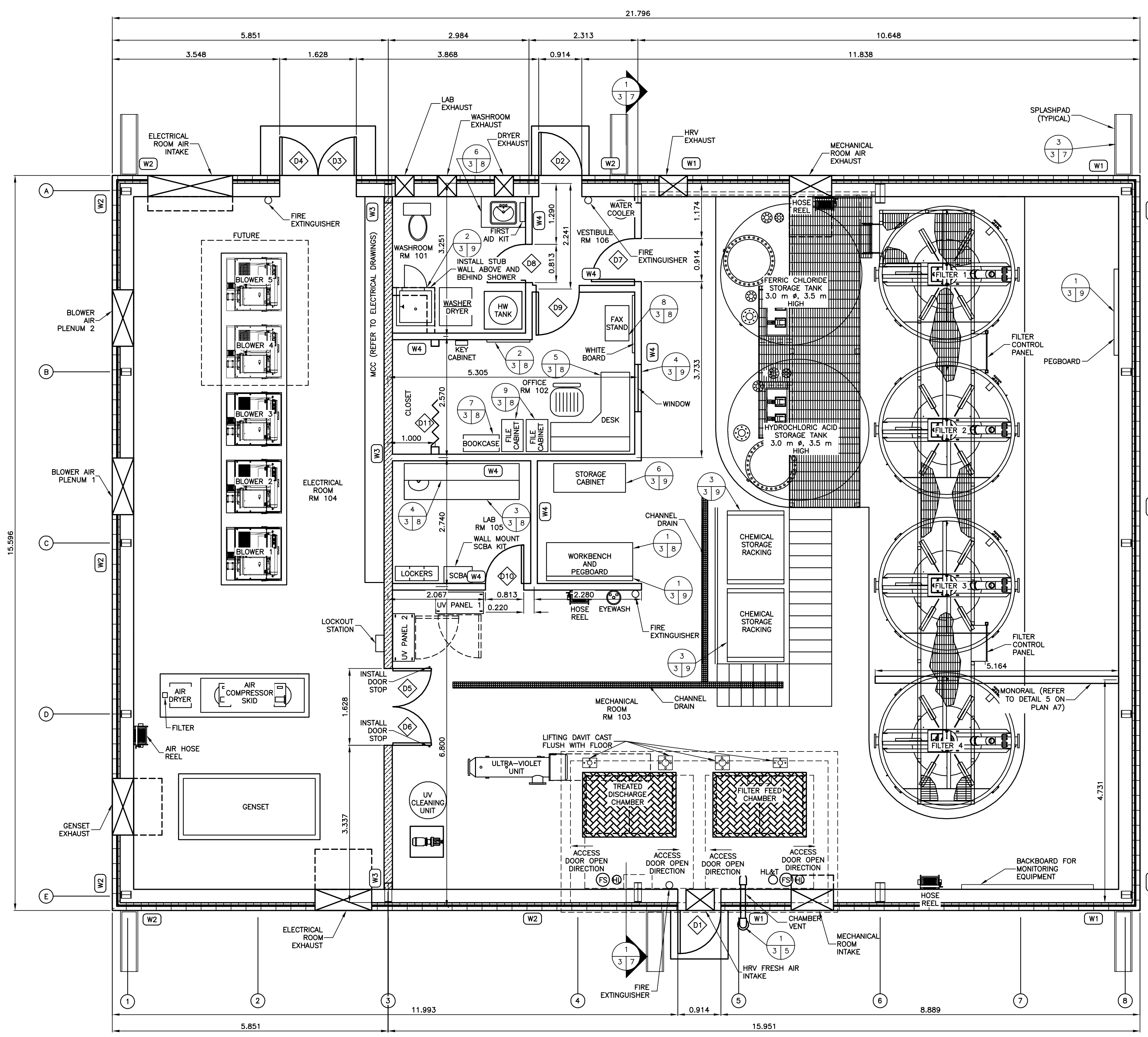
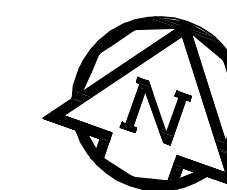
1 SOUTH-WEST ELEVATION
SCALE = 1:50



2 SOUTH-EAST ELEVATION
SCALE = 1:50

- NOTES:
- SUBMIT COLOUR SAMPLES FOR APPROVAL.
 - FINAL COLOURS TO BE DETERMINED BY DEPARTMENTAL REPRESENTATIVE DURING SHOP DRAWINGS REVIEW PROCESS.
 - COORDINATE PLACEMENT OF ALL LOUVRES WITH BUILDING SHOP DRAWINGS. ENSURE LOUVRE OPENINGS DON NOT INTERFERE WITH BUILDING COLUMN, BEAM, ETC.
 - PROVIDE EXPANSION JOINT AS PER MASONRY MANUFACTURER RECOMMENDATIONS.
 - REFER TO SPECIFICATION FOR ALL ROOF LOUVRES AND VENTS.
 - HORIZONTAL DIMENSION TO EDGE OF CONCRETE VENEER BLOCK.
 - USE DECOTTE BASE FOR ALL PLUMBING VENTS.
 - PLUMBING VENTS NOT SHOWN. VENT ACCORDING TO PLUMBING CODE.





WALL DETAIL:

- (W1) - SEE DETAIL ON PLAN A6
- (W2) - SEE DETAIL ON PLAN A6
- (W3) - 12 mm VERTICAL INTERLOCKING PVC PANELS
12 mm PLYWOOD
2 X 12mm TYPE "X" GYPSUM BOARD
92mm STEEL STUD
R-12 BATT SOUND PROOFING INSULATION
12mm TYPE "X" GYPSUM BOARD
12 mm PLYWOOD
12 mm VERTICAL INTERLOCKING PVC PANELS
(WALL TO EXTEND FROM FLOOR TO INTERIOR SIDE OF ROOF)
PROVIDE 1 HOUR FIRE RATING FOR ELECTRICAL ROOM INTERIOR WALL

- (W4) - 12 mm VERTICAL INTERLOCKING PVC PANELS
12 mm PLYWOOD
92mm STEEL STUD
12 mm PLYWOOD
12 mm VERTICAL INTERLOCKING PVC PANELS
FULL HEIGHT TO INSIDE OF ROOF

WALL NOTES:

- WALL "W1" APPROXIMATELY 451mm WIDE
- WALL "W2" APPROXIMATELY 451mm WIDE
- WALL "W3" APPROXIMATELY 176mm WIDE
- WALL "W4" APPROXIMATELY 140mm WIDE

INSULATED INTERIOR WALL

NOTES:

- REFER TO PLAN M8 AND M9 FOR VENTILATION LAYOUT AND DETAILS.
- REFER TO SPECIFICATION DOCUMENTS FOR DOOR SCHEDULE AND HARDWARE INFORMATION.
- REFER TO PLAN M1 FOR PIPING LAYOUT.
- ACOUSTIC CEILINGS AT 2.74m IN VESTIBULE, LAB, WASHROOM, OFFICE AND OFFICE CLOSET.
- INTERIOR WALL DIMENSIONS TO CENTERLINE OF WALL.
- SUPPLY OF WASHER AND DRYER NOT IN CONTRACT.

ORIGINAL DRAWING
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16/03/29

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Revision	Description	Date
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3		
2	RECORD DRAWING	FEB 2019
1	ISSUED FOR TENDER	MARCH 2016
0	REVISED BUILDING LAYOUT 2	2015/11/06

Client	client

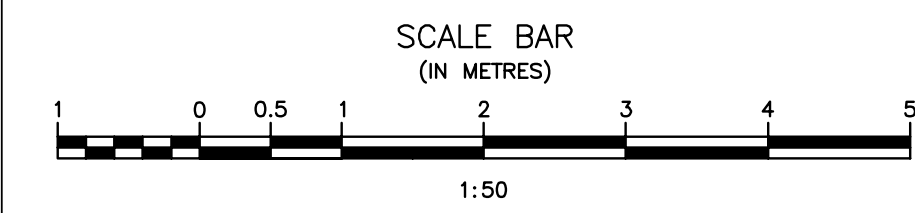
Project title: Stony Mountain Lagoon Upgrade

Designed by	Conçu par	JRC
Drawn by	Dessiné par	OT
Approved by	Approuvé par	JRC
PM/ESC: Project Manager	Administrateur de Projets TPSGC	MARK MOGAN

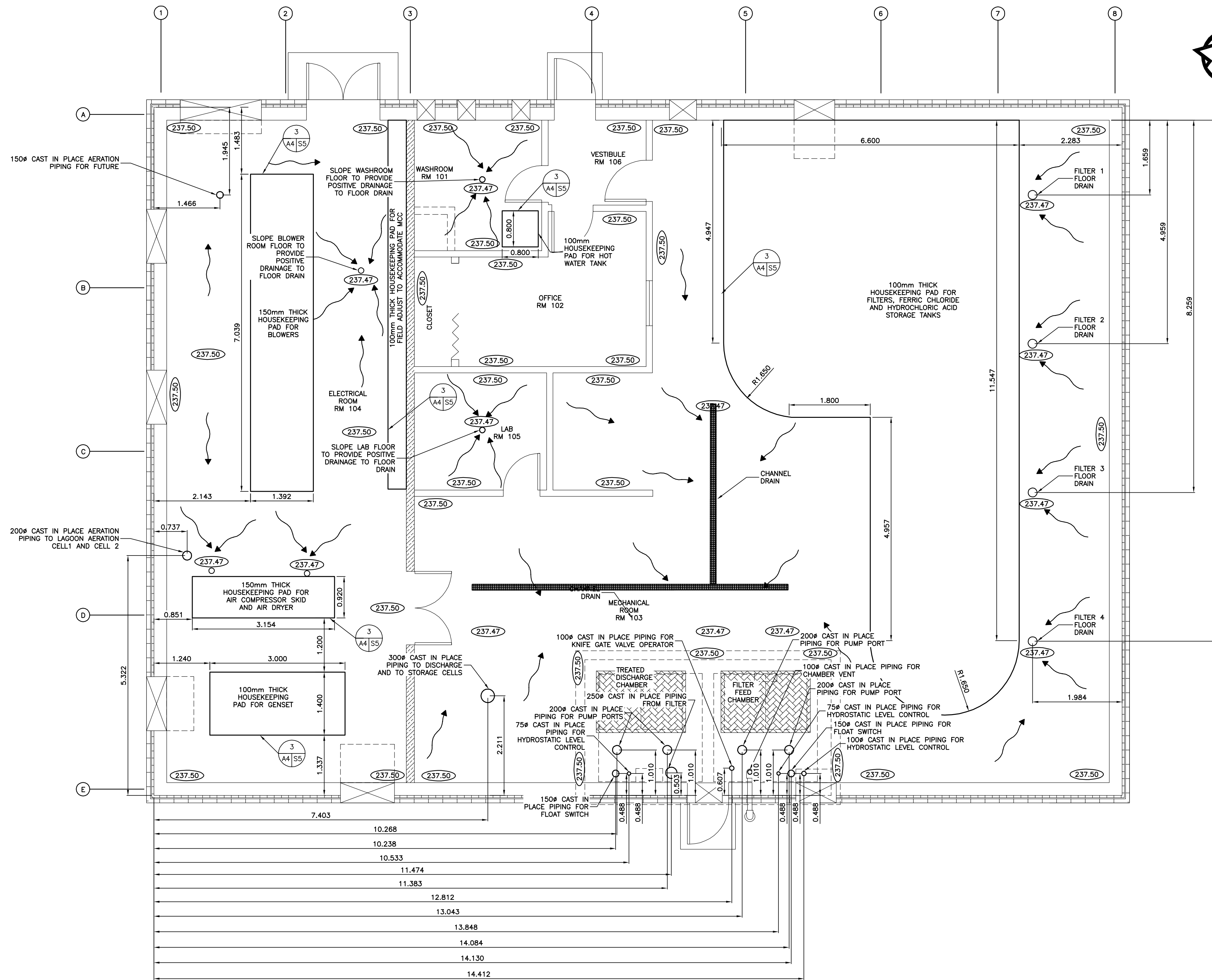
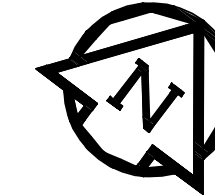
Drawing title: **SEWAGE TREATMENT BUILDING OVERALL LAYOUT - EQUIPMENT**

Record Drawing
Drawing compiled from visual observations of various parts of construction and/or from information by others. Accuracy not warranted. Independent verification required before application.

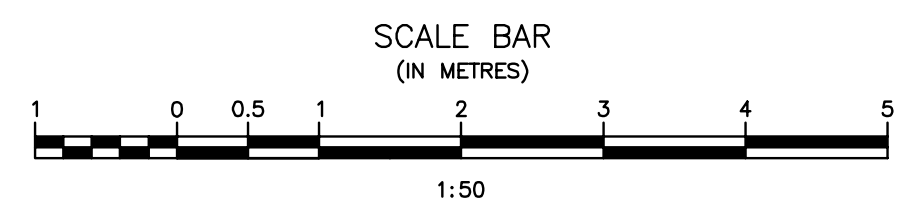
Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	A3	0
	OF 9	



OVERALL LAYOUT
SCALE = 1:50



HOUSEKEEPING PAD NOTES:
 - THICKNESS OF ALL HOUSEKEEPING PADS ARE AS NOTED (SEE DETAIL 3 ON SS).
 - CONTRACTOR TO ENSURE THAT ALL HOUSEKEEPING PADS ARE LEVEL. HOUSEKEEPING PADS MAY REQUIRE ADDITIONAL CONCRETE IN LOW AREAS OF THE FLOOR.
 - CONFIRM ALL HOUSEKEEPING PAD SIZES WITH EQUIPMENT SHOP DRAWINGS.
 - ALL DIMENSIONS TO EDGE OF CONCRETE SLAB.



FLOOR DRAINAGE, HOUSEKEEPING PAD AND PORT LOCATION PLAN
 SCALE = 1:50

Record Drawing
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ORIGINAL DRAWING
 SIGNED AND SEALED
 BY
 J.R.L. COUSIN
 16/03/29

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1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	

Client	client
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Project title	Projet
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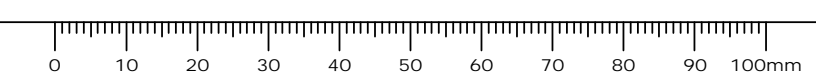
STONY MOUNTAIN LAGOON UPGRADE

Designed by	Conçu par	JRC
Drawn by	Dessiné par	OT
Approved by	Approuvé par	JRC

PM/CS: Project Manager Administrateur de Projets TPSGC
MARK MOGAN

Drawing title Titre du dessin
SEWAGE TREATMENT BUILDING FLOOR DRAINAGE, HOUSEKEEPING PAD AND PORT LOCATION PLAN

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	A4	0
	OF 9	



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2	RECORD DRAWING	FEB 2019
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	
Revision	Description	Date
Client		client

Project title: Project

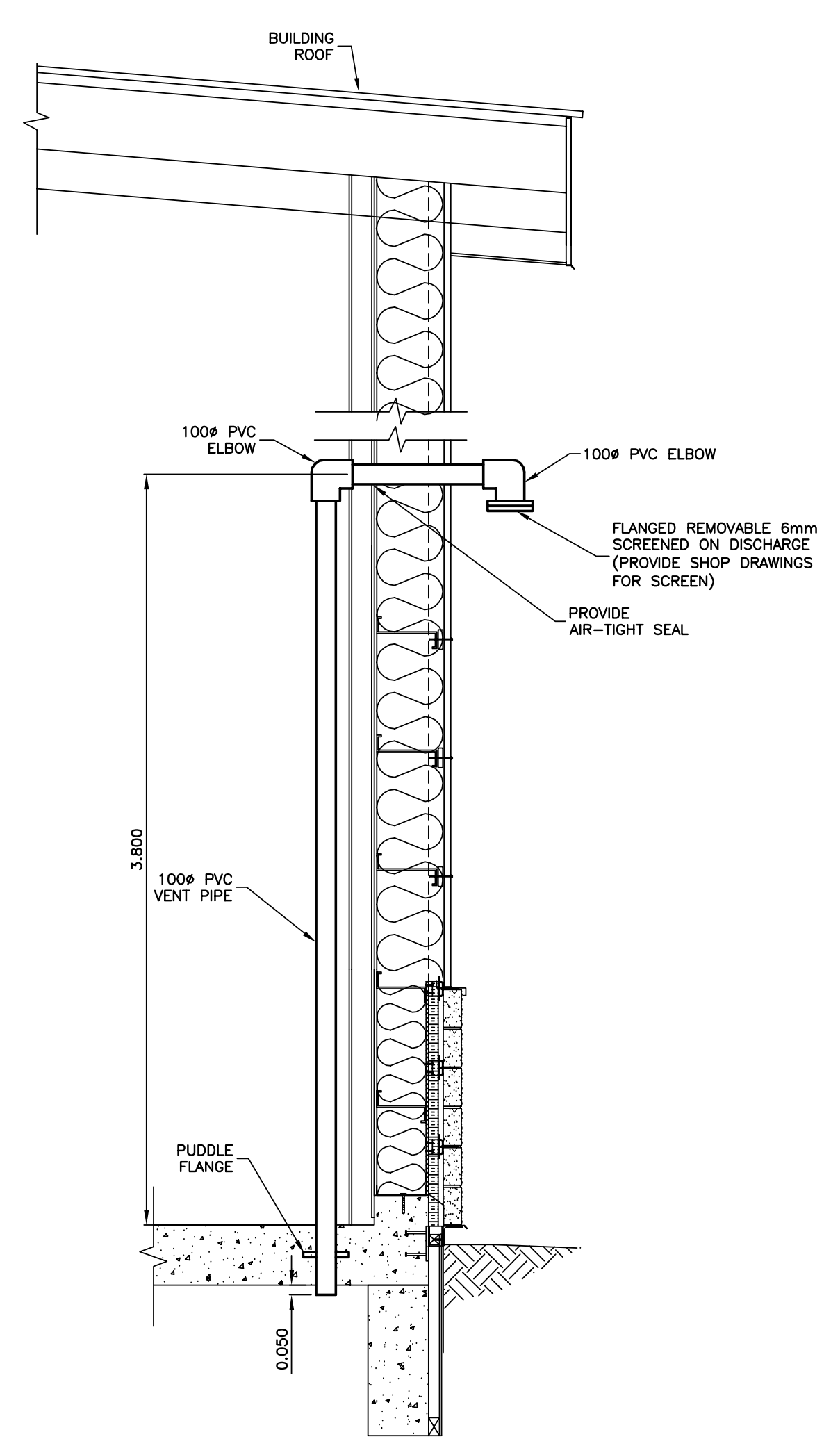
STONY MOUNTAIN LAGOON UPGRADE

Designed by	Conçu par	JRC
Drawn by	Dessiné par	OT
Approved by	Approuvé par	JRC
PNWSC Project Manager	Administrateur de Projets TPSGC	MARK MOGAN
Drawing title	Titre du dessin	

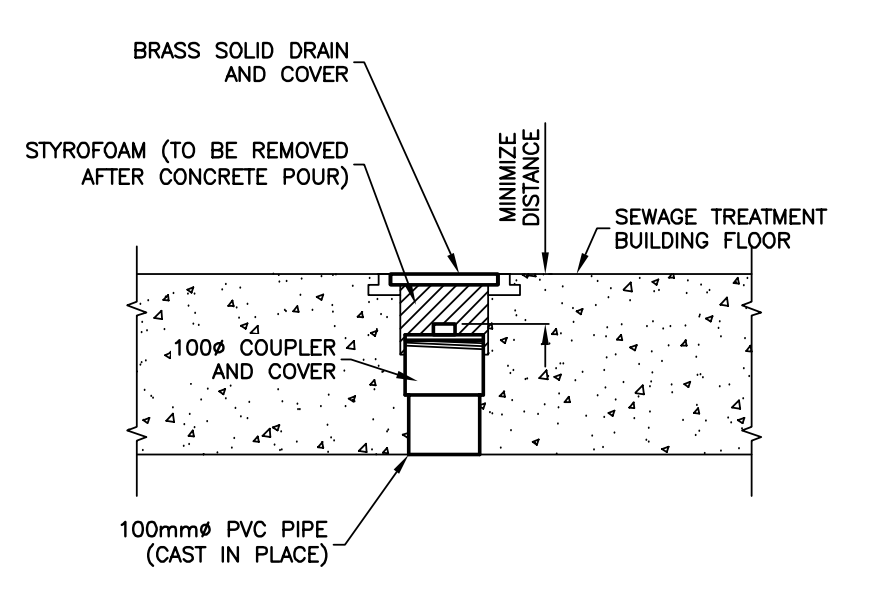
SEWAGE TREATMENT BUILDING ACCESS HATCH, LEVEL FLOAT, HYDROSTATIC AND MISCELLANEOUS DETAILS

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	A5 OF 9	0

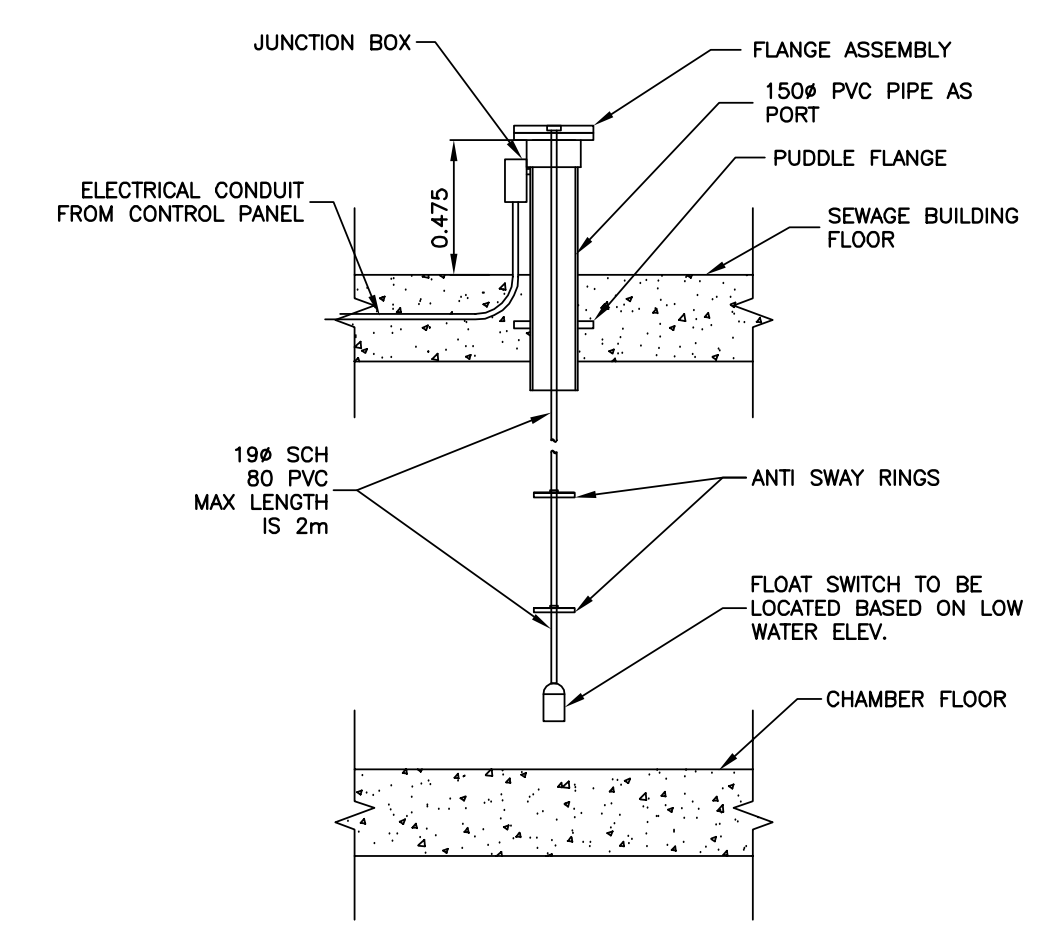
Record Drawing
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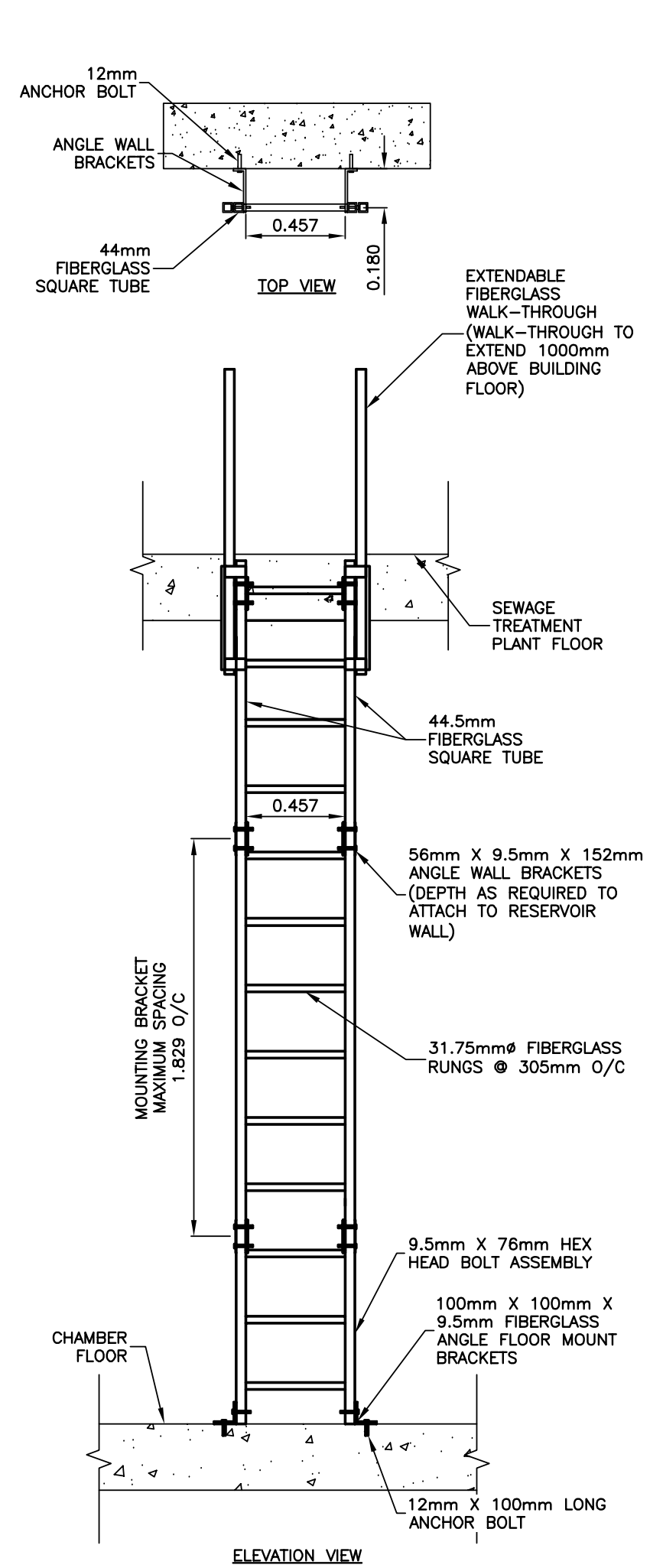
1/3/5 TYPICAL RESERVOIR VENT DETAIL
SCALE = 1:25



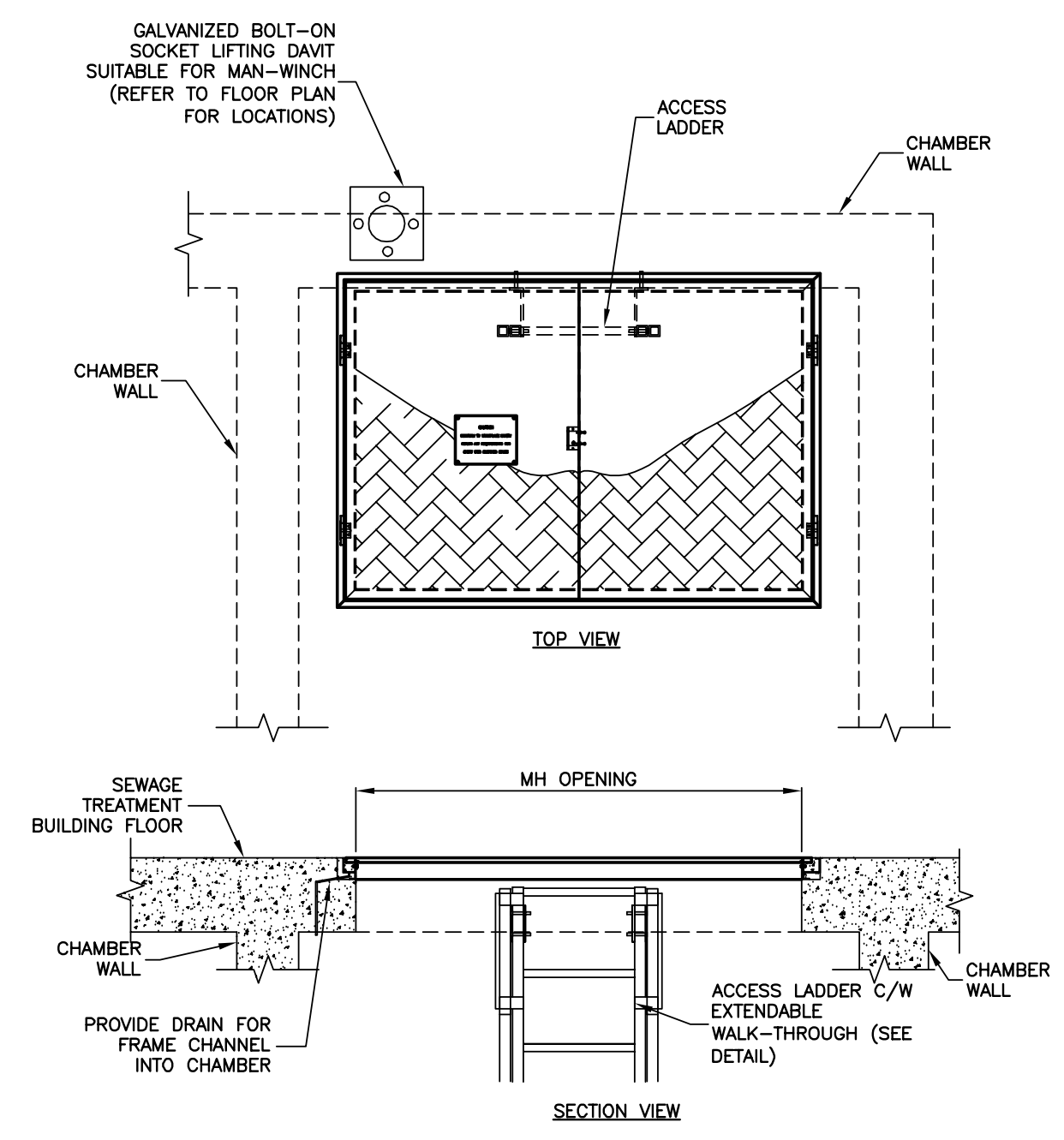
2/5 KNIFE GATE VALVE COVER DETAIL
SCALE = 1:10



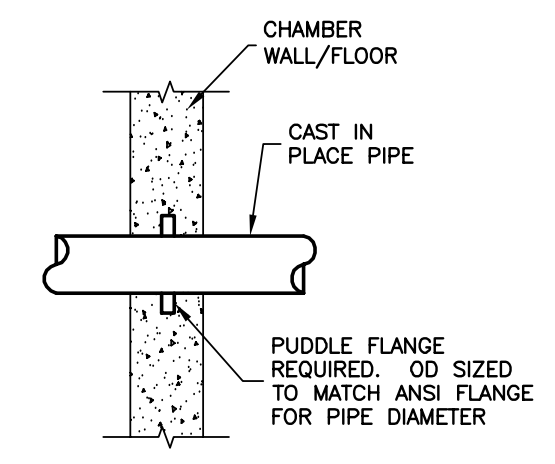
3/5 TYPICAL LEVEL FLOAT ENCASEMENT DETAIL
SCALE = 1:25



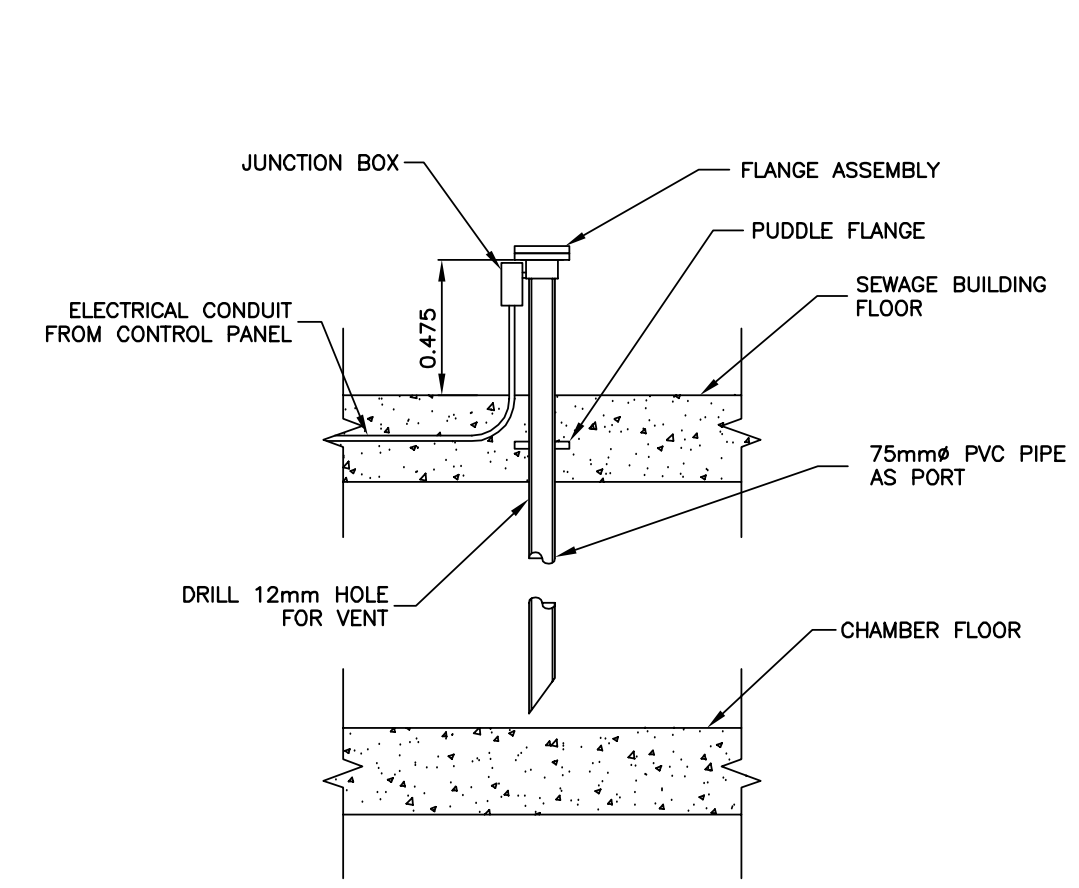
6/5 TYPICAL ACCESS DOOR LADDER DETAIL
SCALE = 1:25



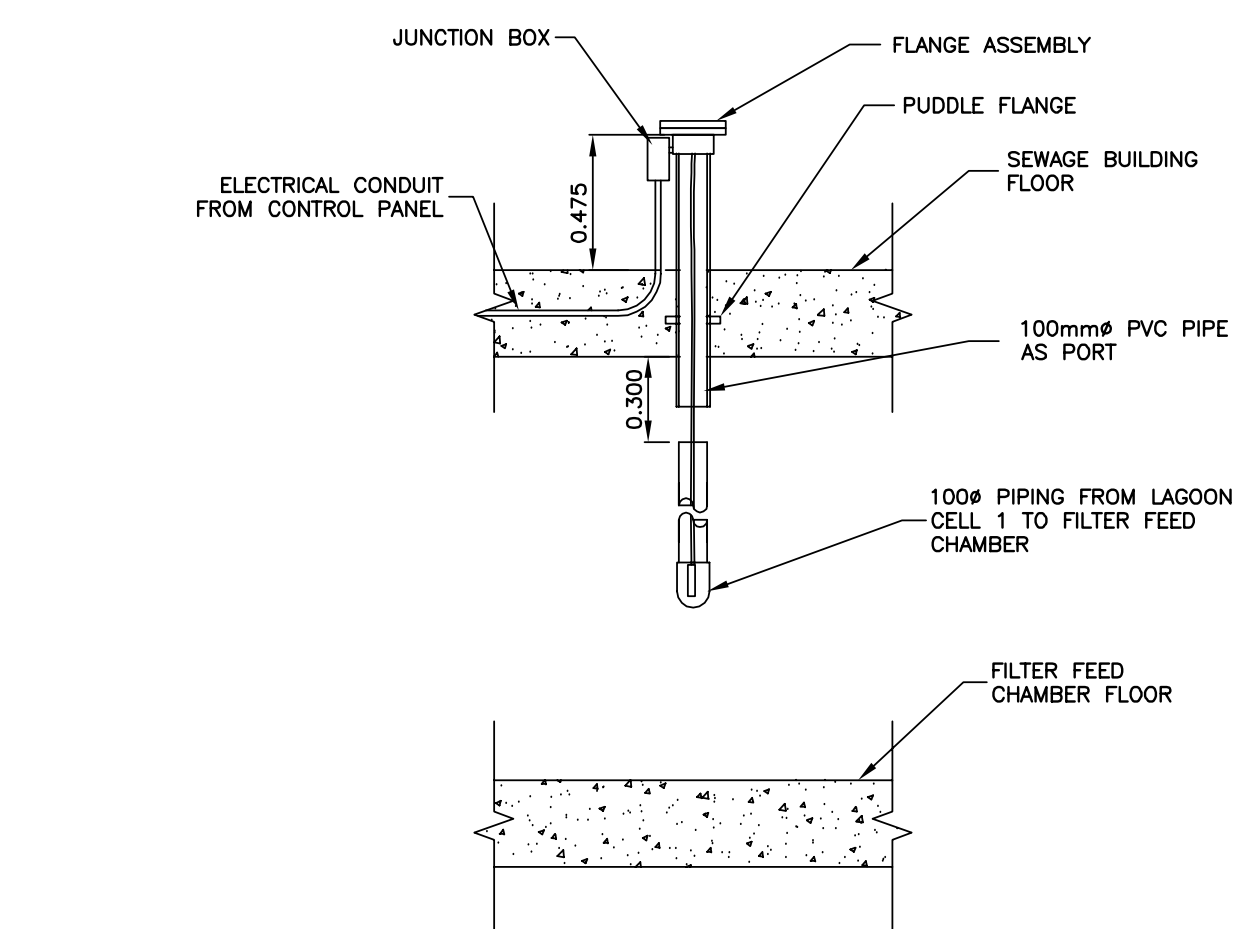
7/5 TYPICAL CHAMBER ACCESS DOOR DETAIL
SCALE = 1:25



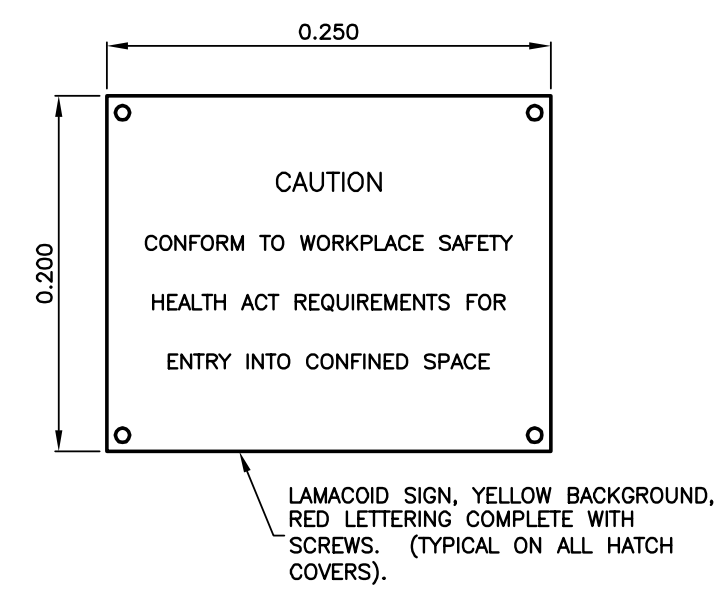
10/5 TYPICAL PUDDLE FLANGE DETAIL
SCALE = 1:25



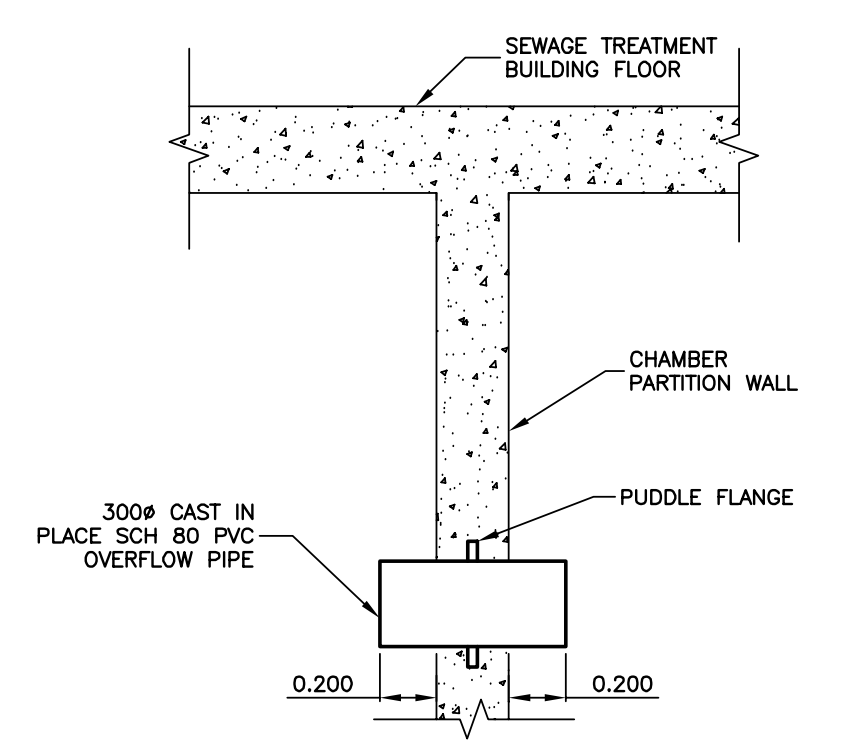
4/5 TYPICAL HYDROSTATIC ENCASEMENT DETAIL
SCALE = 1:25



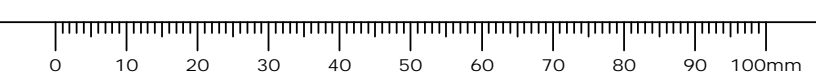
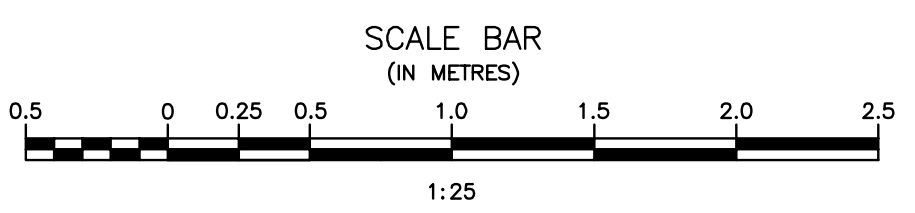
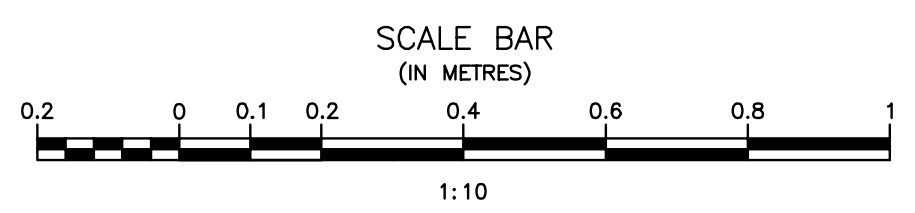
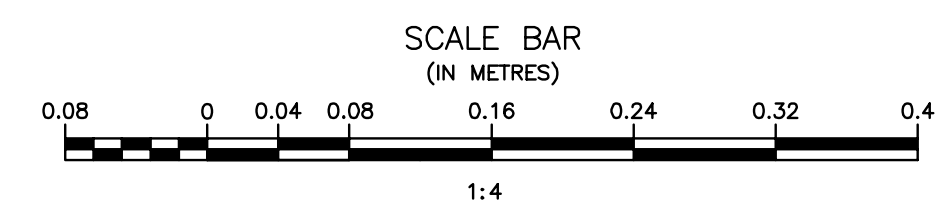
5/5 HYDROSTATIC ENCASEMENT DETAIL FOR LAGOON LEVEL
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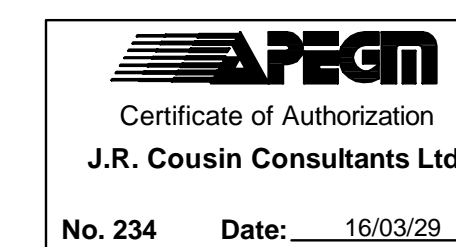
8/5 TYPICAL ACCESS SIGN
SCALE = 1:4



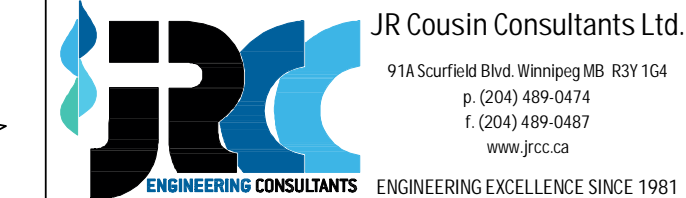
9/5 INTERCELL OVERFLOW PIPING
SCALE = 1:25



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JRCC PROJECT # R-325.52



Revision	Description	Date
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0	Design Completion	

Client: client

Project title: Stony Mountain Lagoon Upgrade

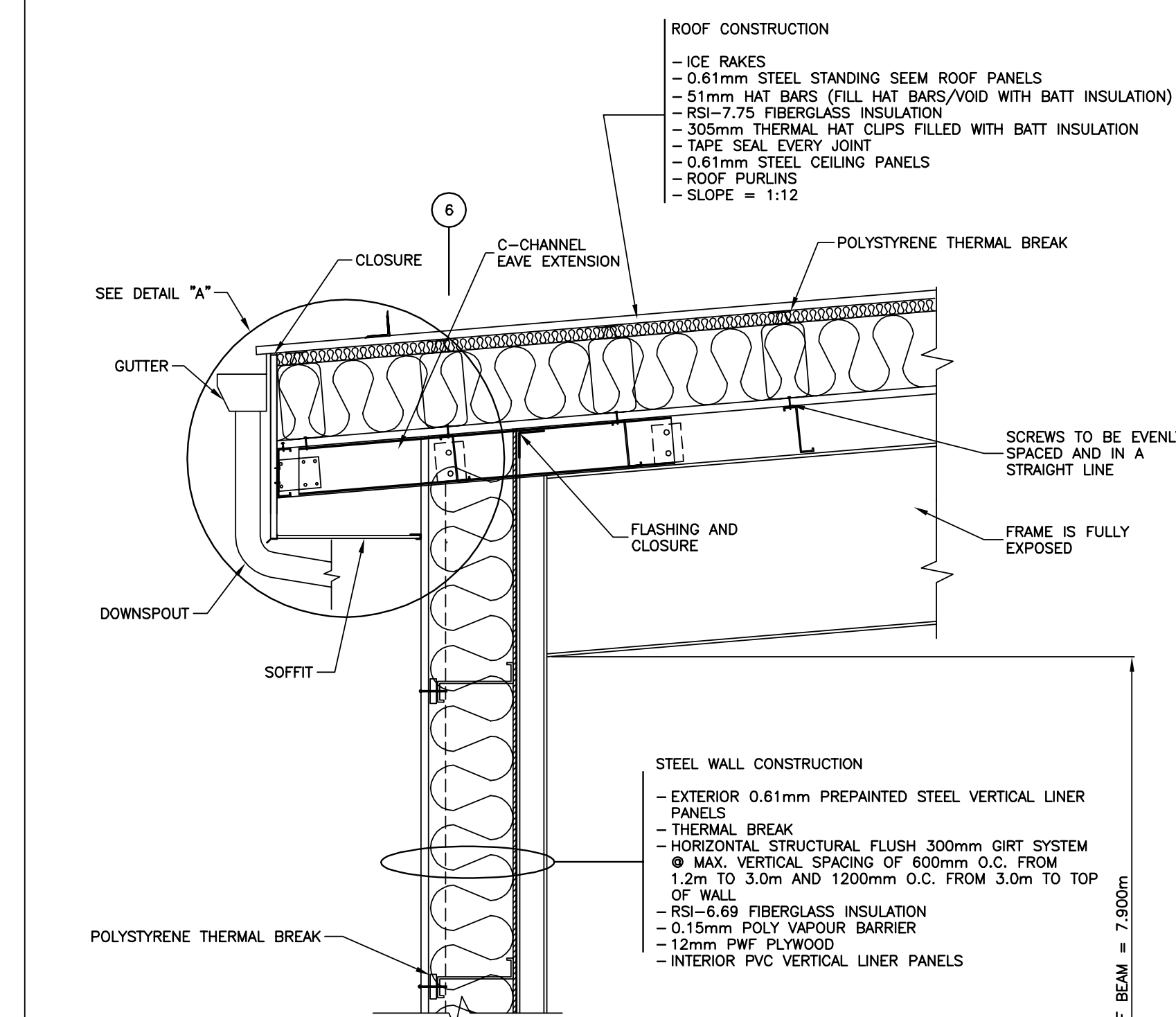
STONY MOUNTAIN LAGOON UPGRADE

Designed by	Conçu par	JRC
Drawn by	Dessiné par	OT
Approved by	Approuvé par	JRC
Project Manager	Administrateur de Projets	TPSGC
MARK MOGAN		

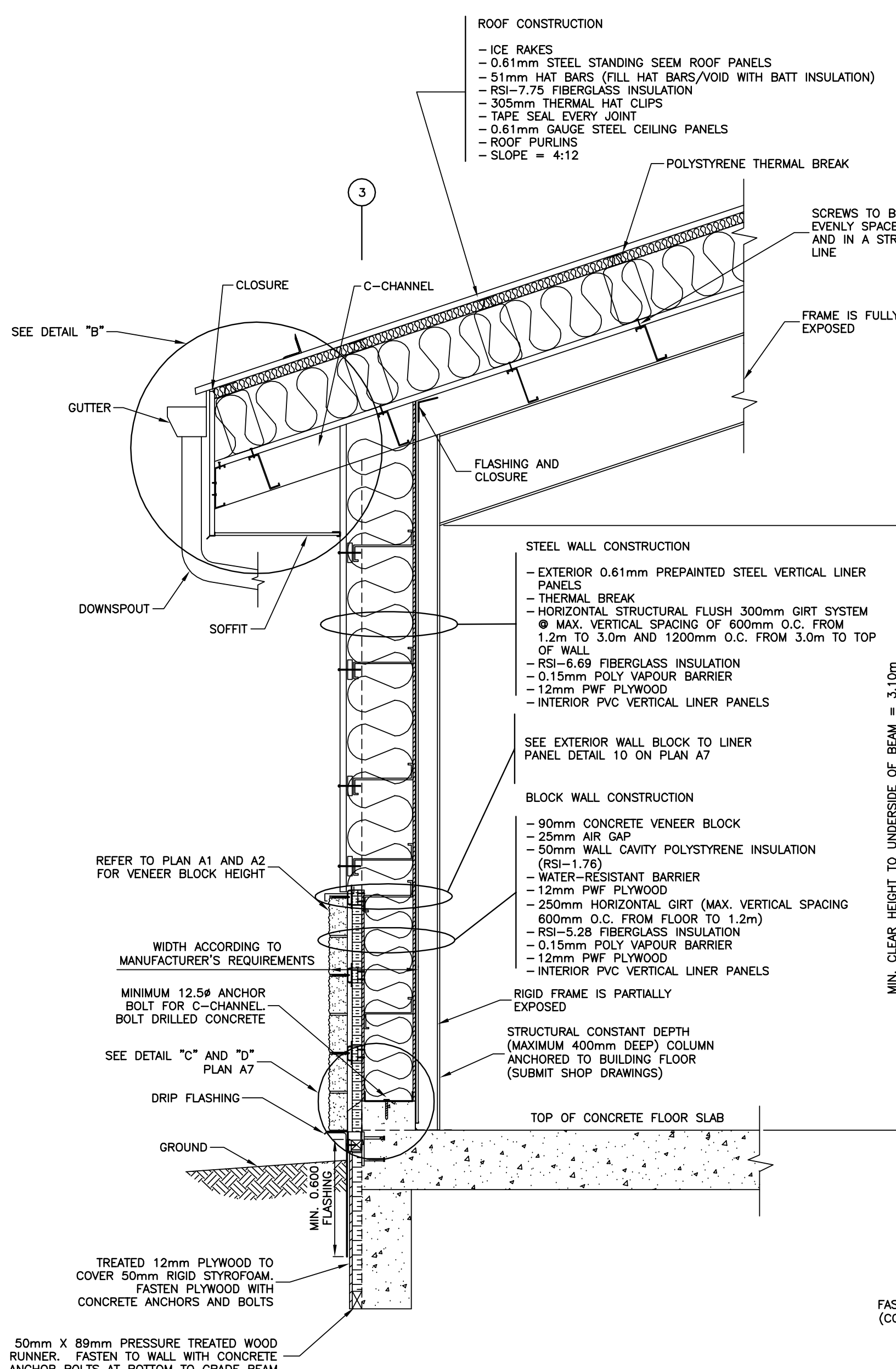
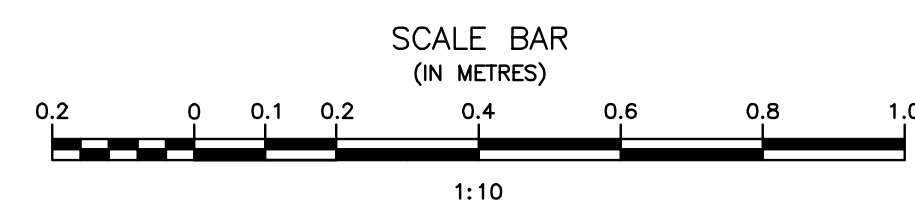
Drawing title: Sewage Treatment Building Wall Sections

SEWAGE TREATMENT BUILDING WALL SECTIONS

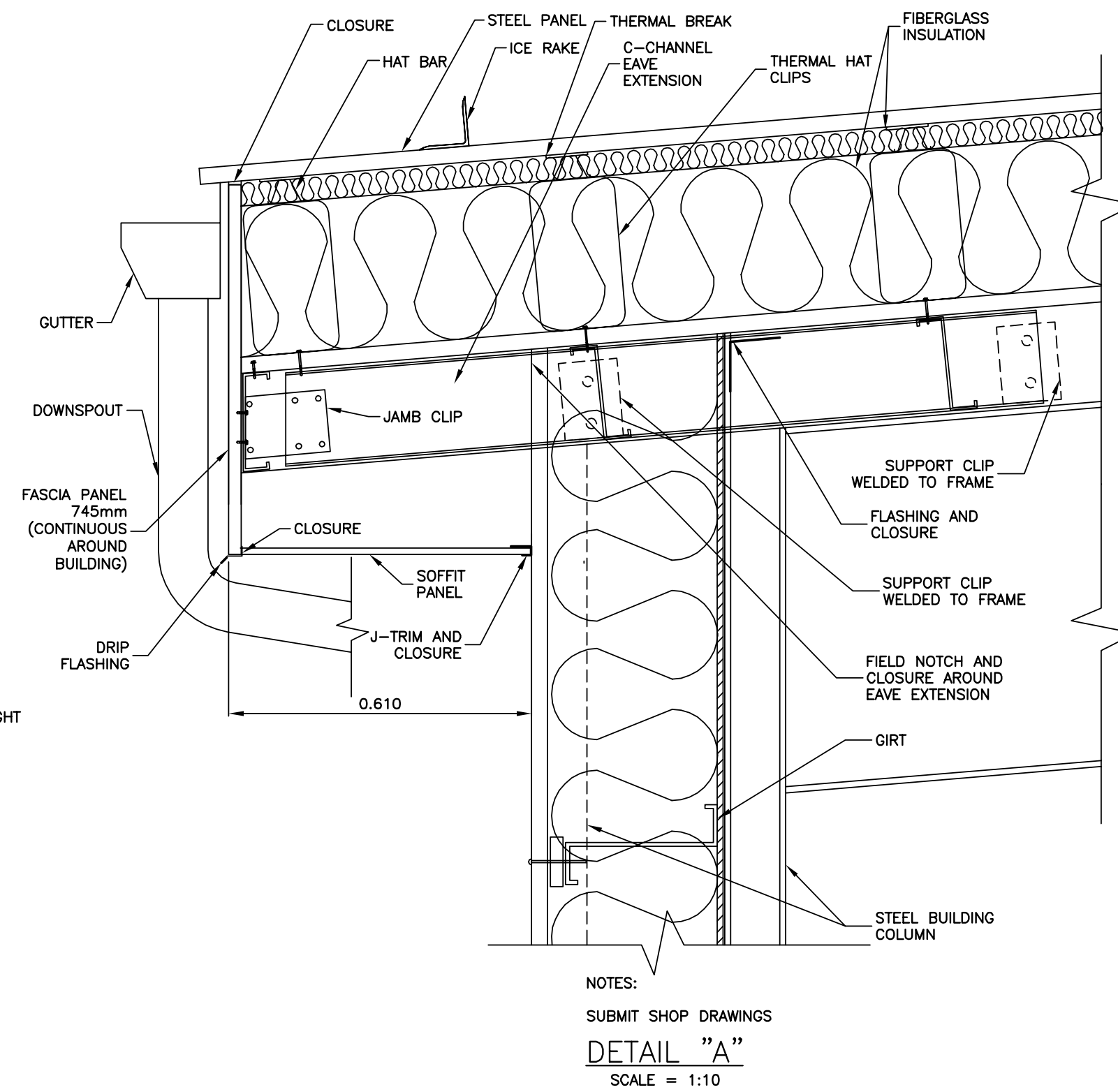
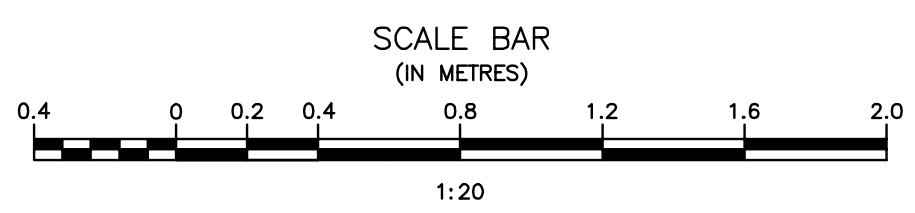
Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	A6	0



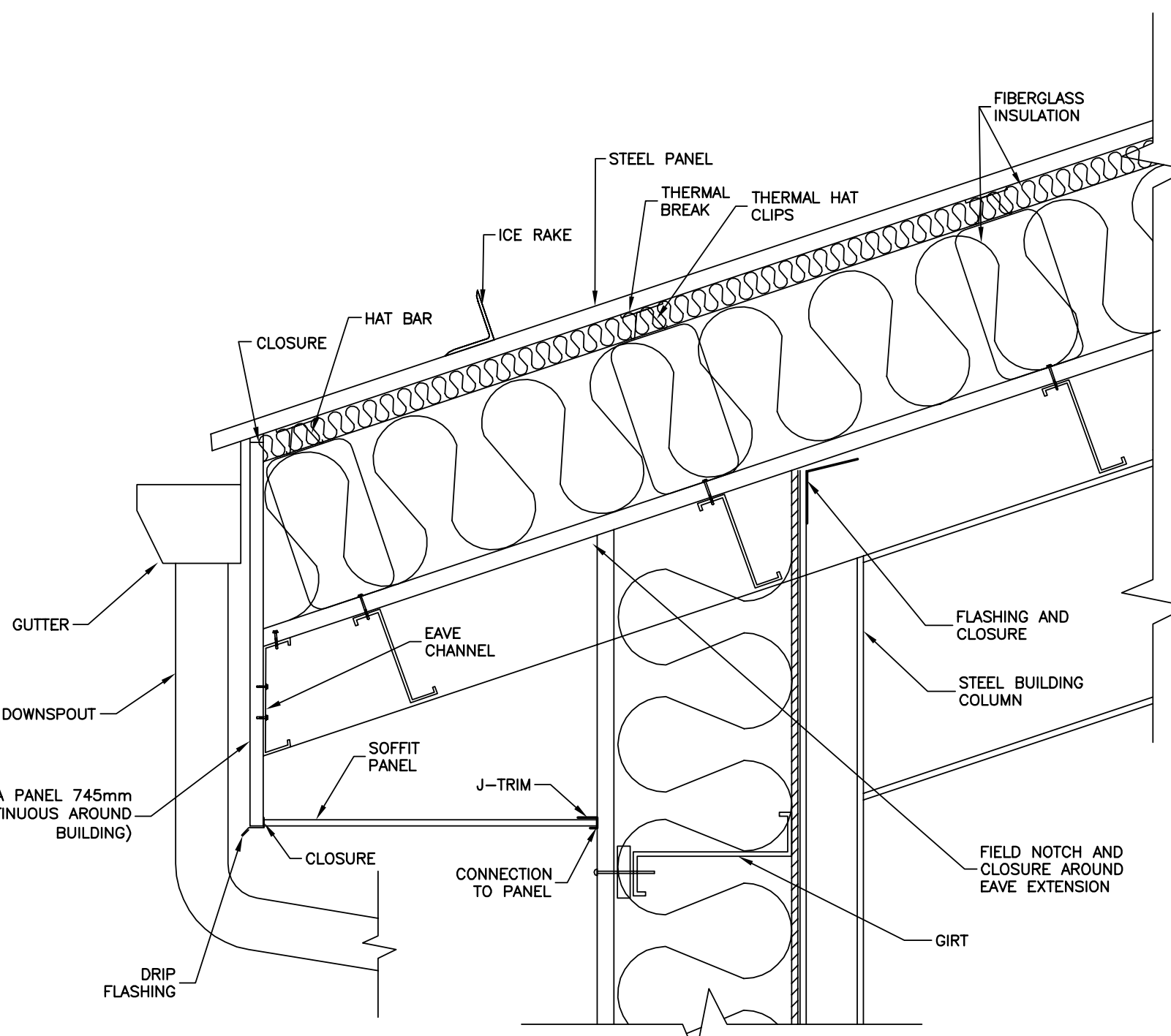
"W1" WALL SECTION
SCALE = 1:20



"W2" WALL SECTION
SCALE = 1:20



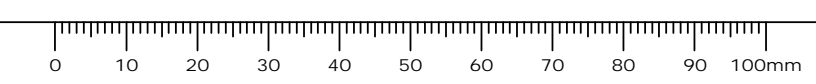
DETAIL "A"
SCALE = 1:10



DETAIL "B"
SCALE = 1:10

Record Drawing

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0	Design Completion	

Client: client

Project title: Stony Mountain Lagoon Upgrade

STONY MOUNTAIN LAGOON UPGRADE

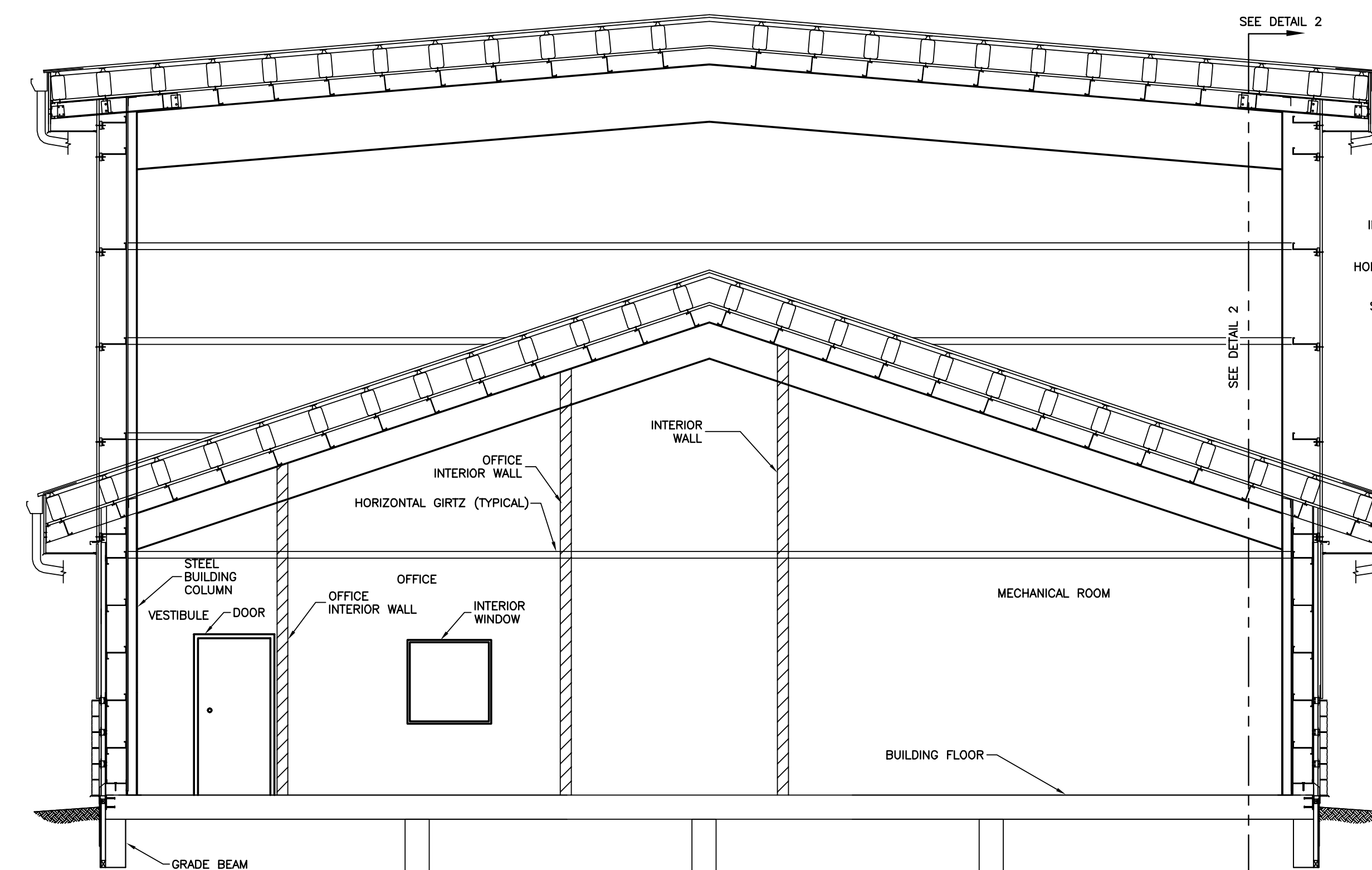
Designed by: JRC
Drawn by: OT
Approved by: JRC

PM/ESC: Project Manager Administrateur de Projets TPSGC
MARK MOGAN

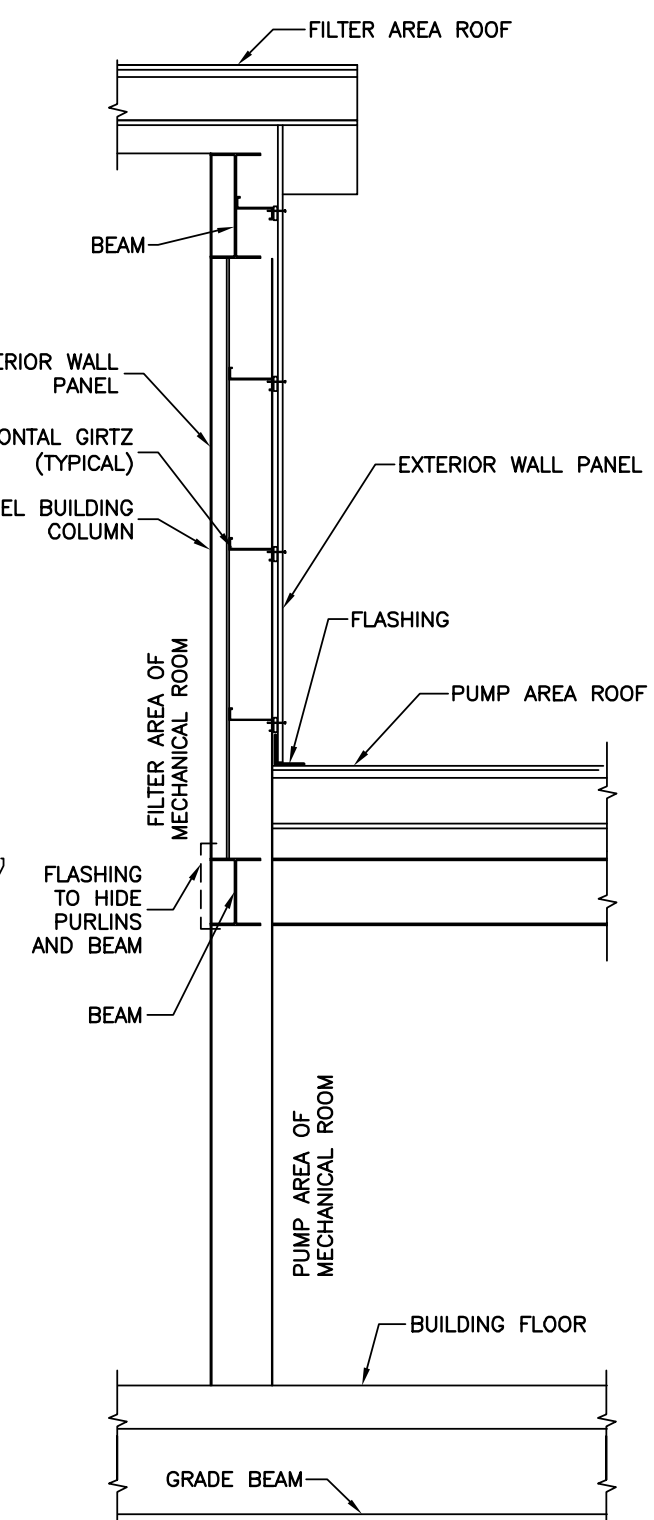
Drawing title: Sewage Treatment Building Wall and Roof Details

SEWAGE TREATMENT BUILDING WALL AND ROOF DETAILS

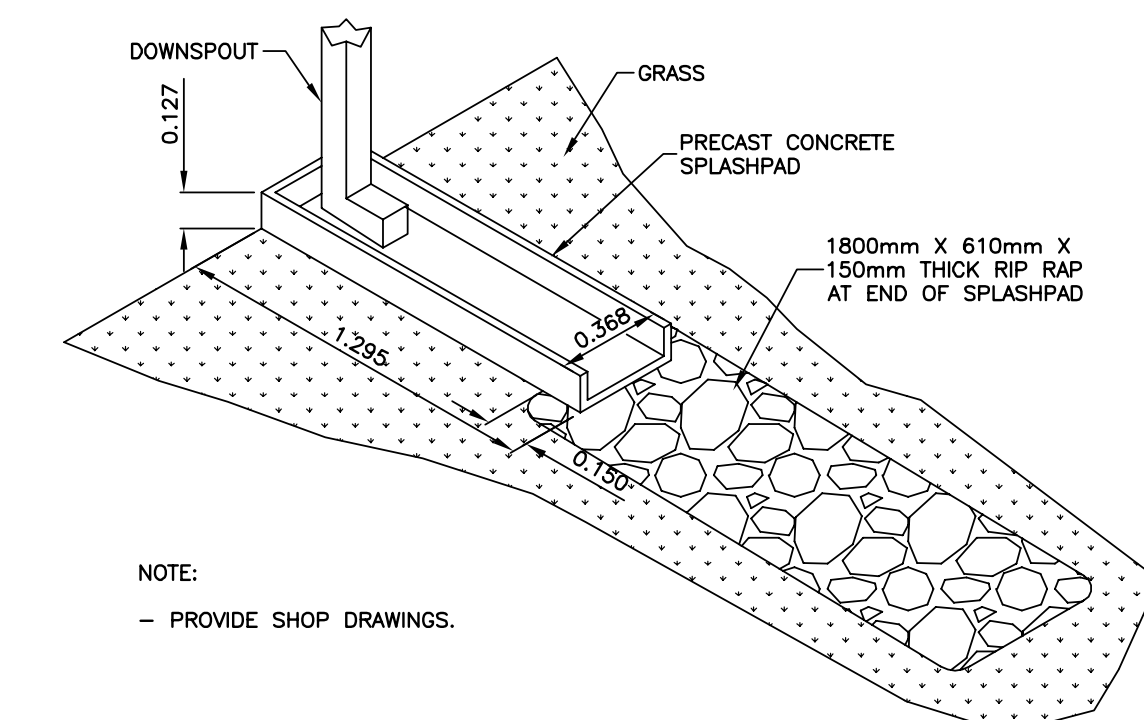
Project no./No. du projet: R.075583.001
Drawing no./No. du dessin: A7
Revision no.: 0



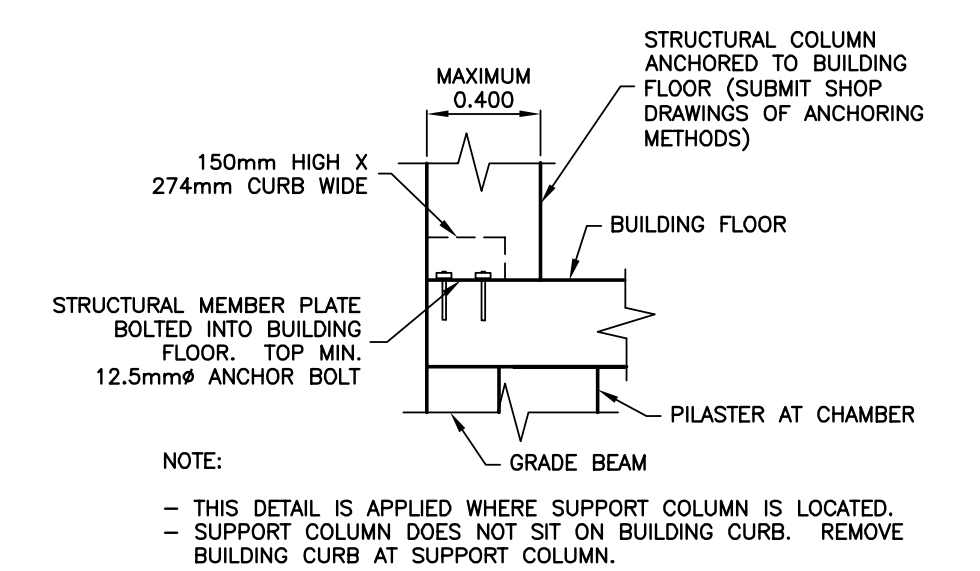
1 WALL SECTION AT ROOF ELEVATION TRANSITION
SCALE = 1:50



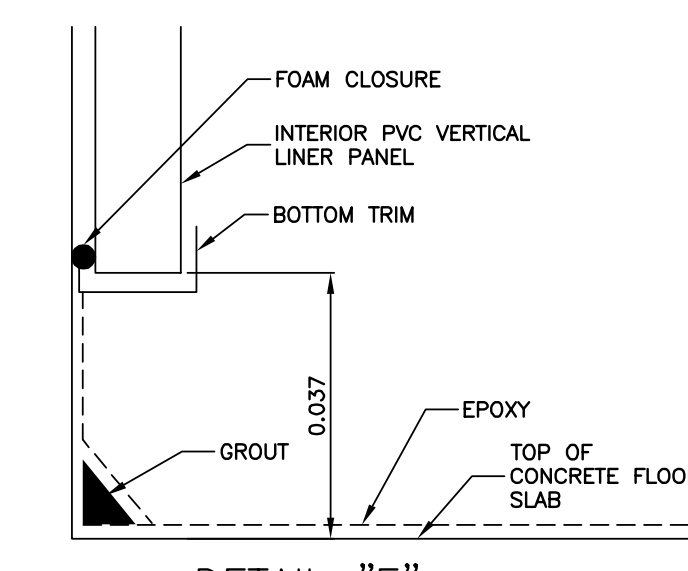
2 WALL SIDE VIEW
SCALE = 1:40



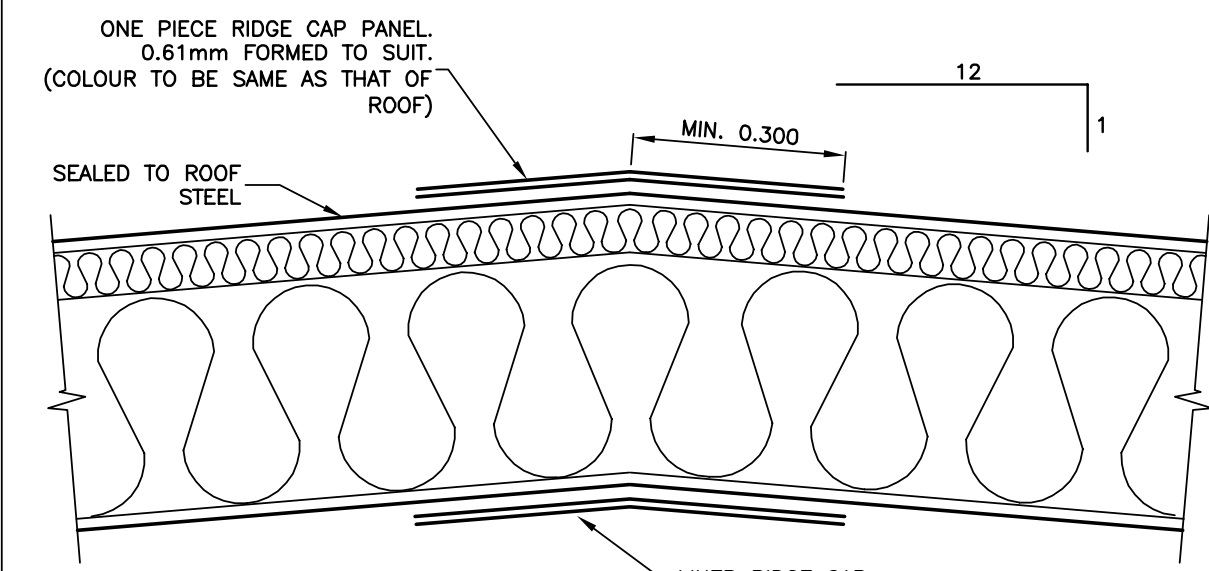
3 PRECAST CONCRETE SPLASHPAD
SCALE = 1:25



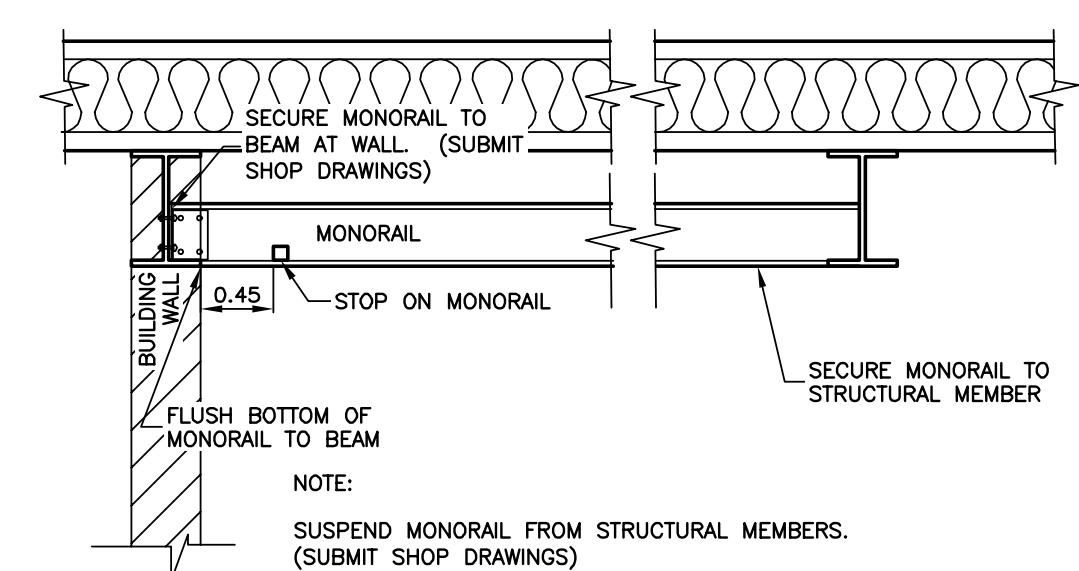
DETAIL "D"
SCALE = 1:25



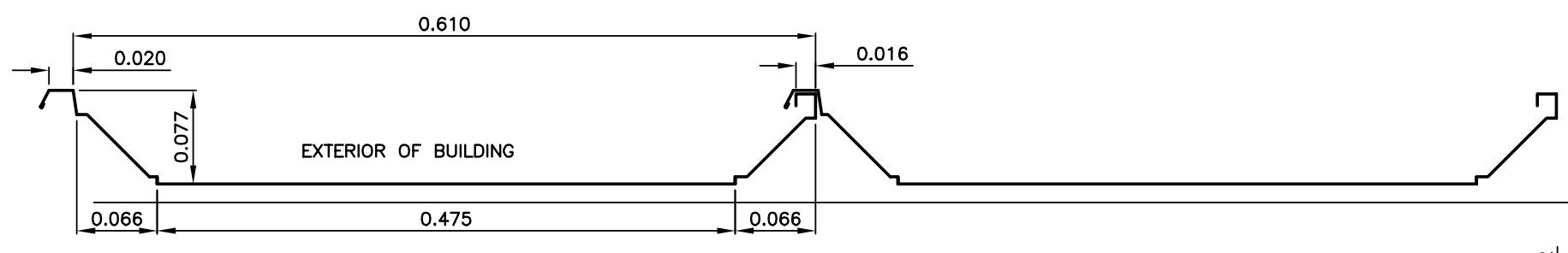
DETAIL "E"
SCALE = 1:1



4 RIDGE CAP DETAIL
SCALE = 1:10



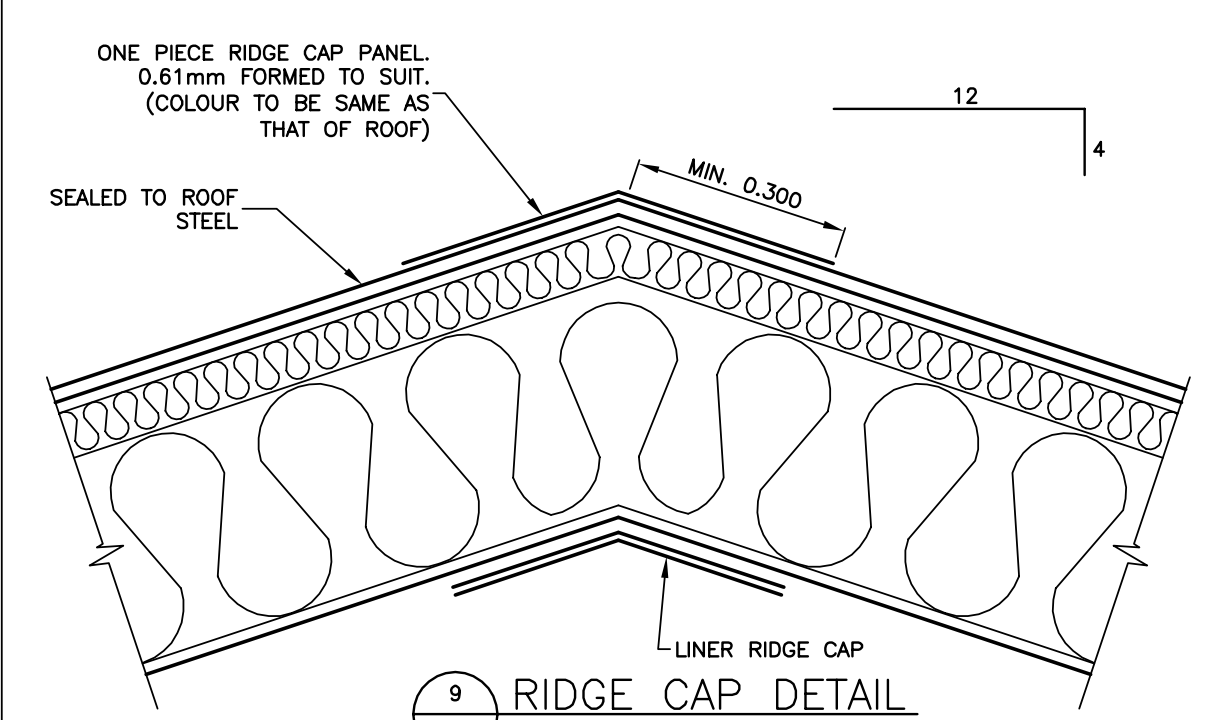
5 MONORAIL DETAIL
NTS



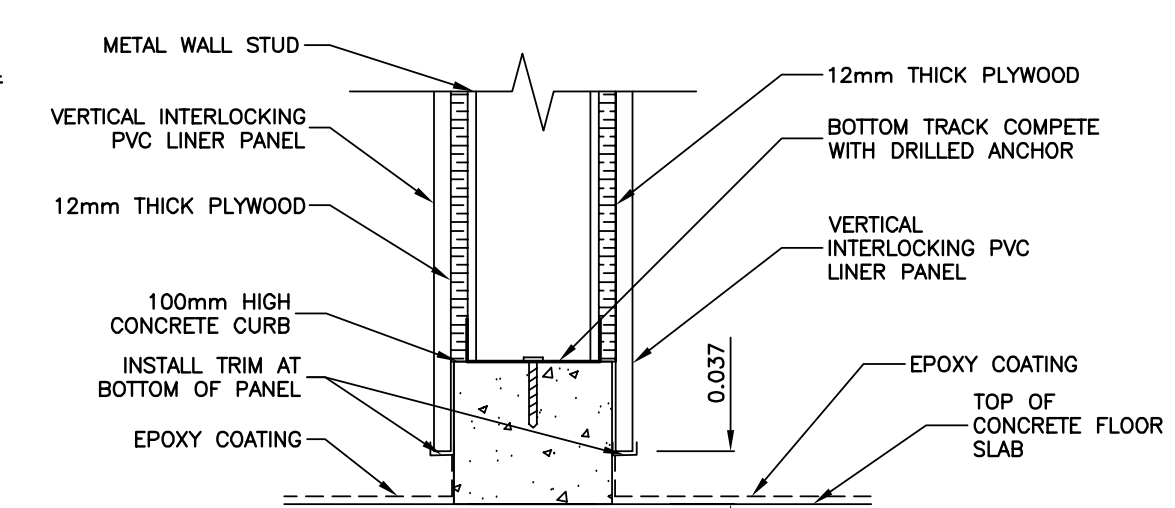
7 PROFILE OF EXTERIOR ROOF STANDING SEAM
SCALE = 1:5



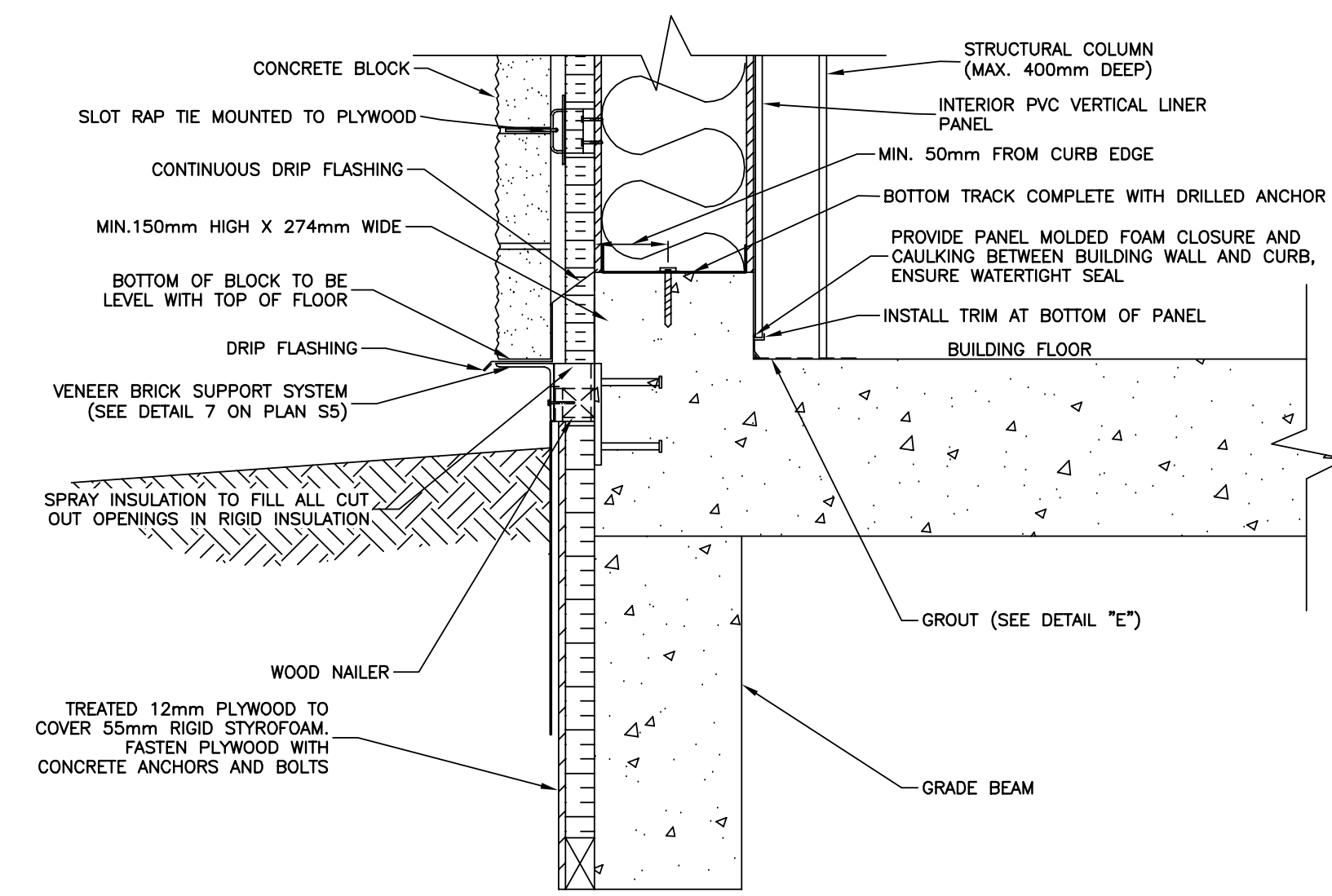
8 EXTERIOR LINER PANEL
SCALE = 1:5



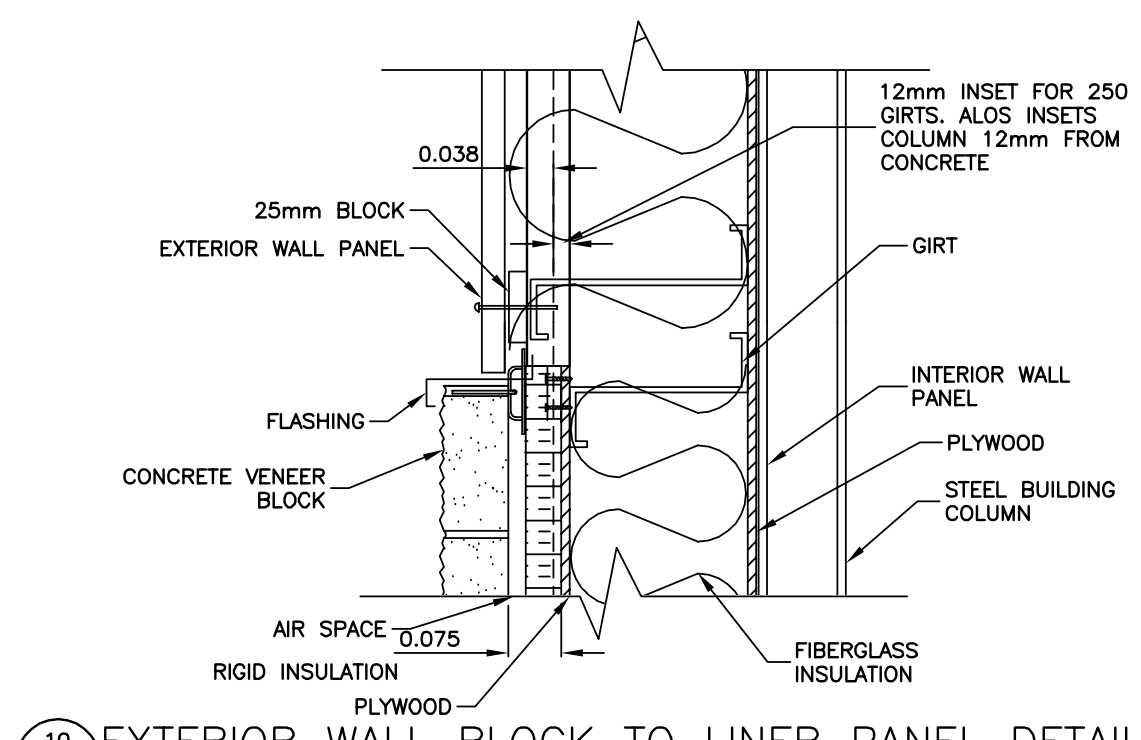
9 RIDGE CAP DETAIL
SCALE = 1:10



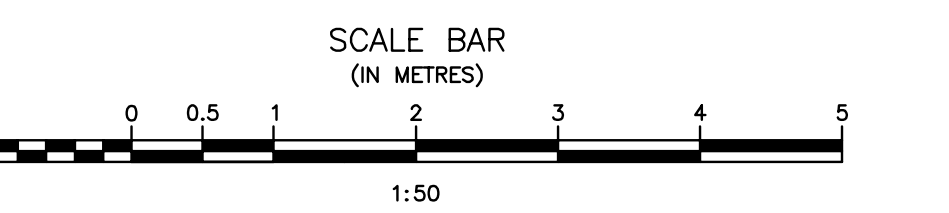
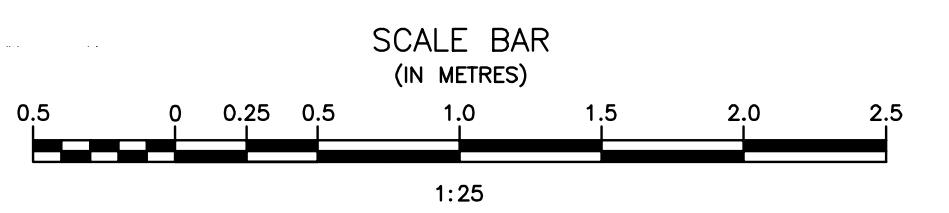
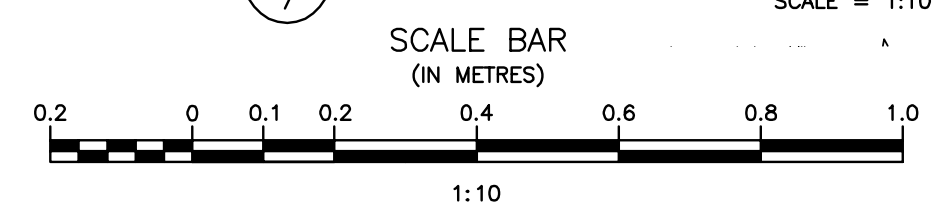
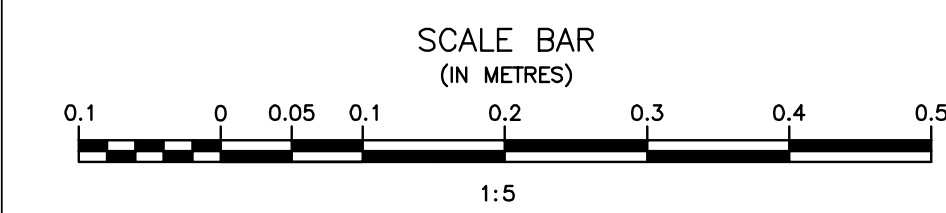
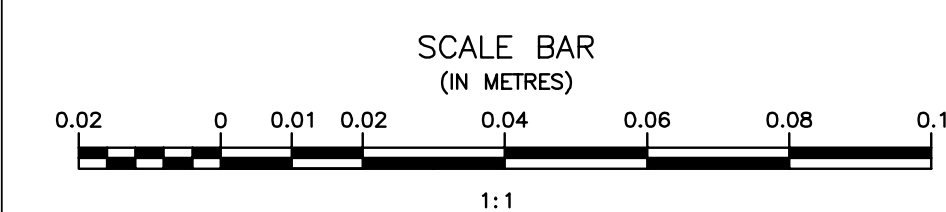
6 TYPICAL INTERIOR WALL DETAIL FOR EPOXY FLOOR
SCALE = 1:5



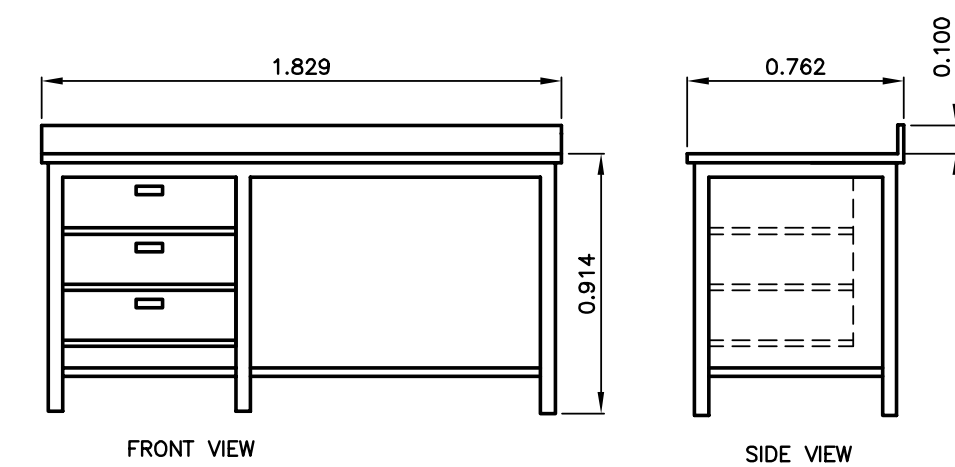
DETAIL "C"
SCALE = 1:10



10 EXTERIOR WALL BLOCK TO LINER PANEL DETAIL
SCALE = 1:10



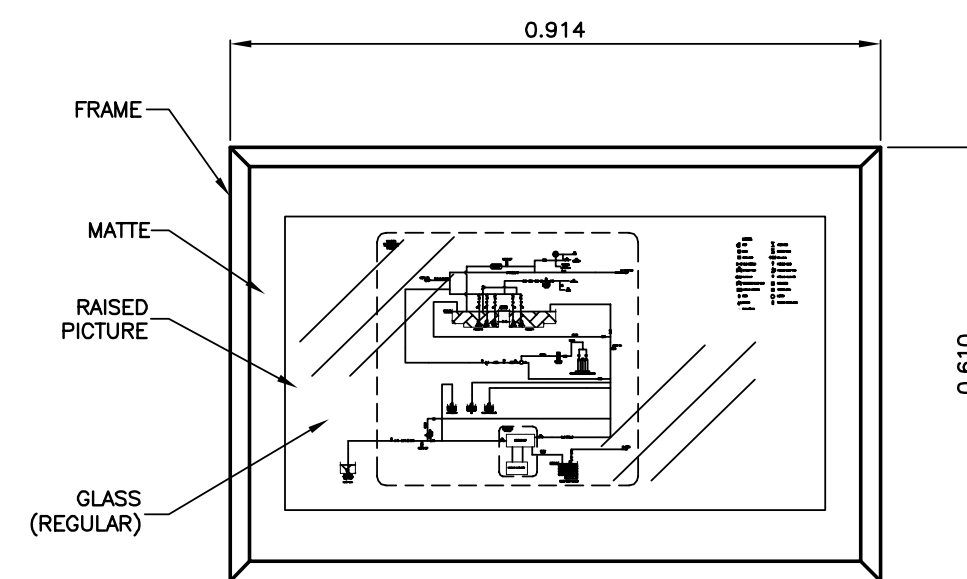
Record Drawing
Drawing compiled from visual observations of various parts of construction and/or from information by others. Accuracy not warranted. Independent verification required before application.



NOTES:

- OPEN TYPE WORK BENCH (SUBMIT SHOP DRAWINGS)
- EPOXY RESIN BACKSTOP TO BE 100mm HIGH, WITH TABLE TOP
- BENCH TOP, CHEMICAL RESISTANT CAST EPOXY RESIN
- 3 DRAWER UNIT 610mm WIDE
- ALL LEGS TO HAVE A LEVELING DEVICE C/W BLACK CAP COVERS
- PROVIDE REINFORCING RAILS AS REQUIRED.

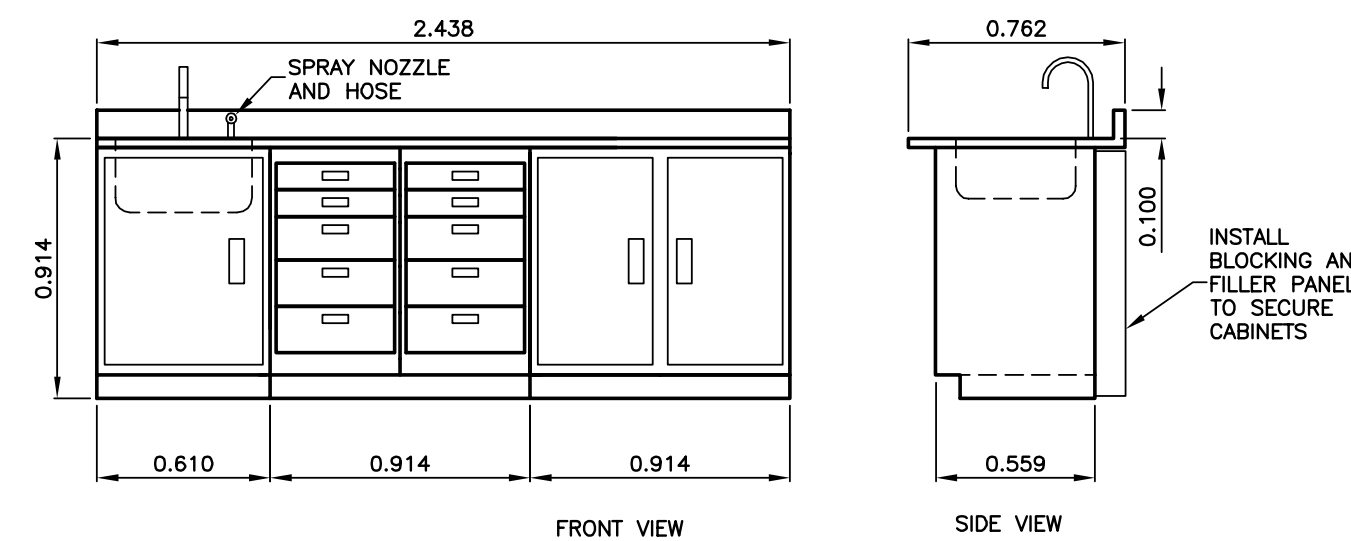
1 WORKBENCH
SCALE = 1:25



NOTES:

- 25mm WIDE METAL GROOVED FRAME TO BE BLACK (SUBMIT SHOP DRAWINGS)
- LIGHT GREY MATTE TO BE 40mm (SUBMIT SHOP DRAWINGS)
- DRAWING TO BE RAISED
- REGULAR GLASS
- CONTRACTOR TO PROVIDE J.R. COUSIN CONSULTANTS WITH FULL VALVE TAG LIST AND RED-LINED FLOW DIAGRAM
- DEPARTMENT REPRESENTATIVE TO PROVIDE CONTRACTOR WITH 559mm X 864mm R DIAGRAM FOR FRAMING
- CONTRACTOR TO HANG PICTURE FRAME ON BUILDING INTERIOR WALL (FRAME HEIGHT AND EXACT LOCATION ON WALL TO BE FIELD DETERMINED).
- PROVIDE 1 UNIT.

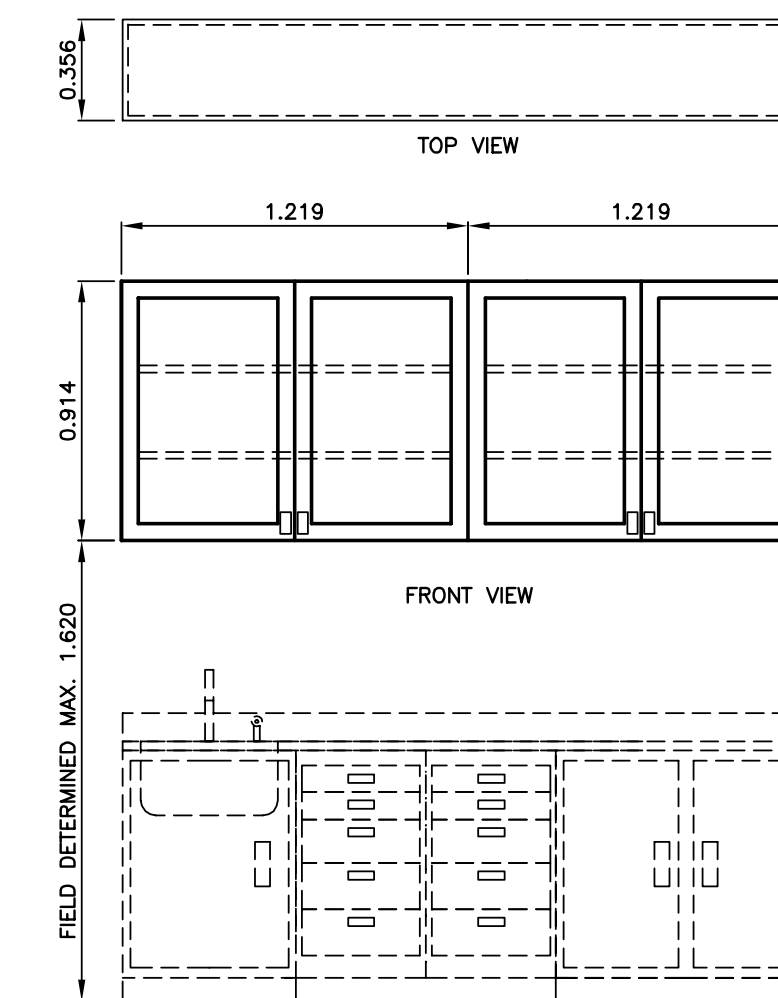
2 PROCESS FLOW DIAGRAM DISPLAY
SCALE = 1:10



NOTES:

- 1 UNIT - TABLE TOP - CHEMICAL RESISTANT CAST EPOXY RESIN C/W BACKSTOP
- 1 UNIT - 10 DRAWER UNIT (914mm W X 883mm H X 559mm D)
- 1 UNIT - EPOXY RESIN SINK (457mm L X 381mm W X 279mm D)
- 2 UNIT - SINK UNIT - ONE DOOR-RIGHT HAND HINGED (610mm W X 883mm H X 559mm D)
- 1 UNIT - TWO DOOR-RIGHT HAND HINGED (914mm W X 883mm H X 559mm D)
- BASE UNITS TO HAVE A LEVELING DEVICE
- DECK-MOUNTED RIGID/SWIVEL GOOSENECK HOT AND COLD WATER FAUCETS WITH SIDE SPRAY NOZZLE. FAUCETS TO HAVE CHROME FINISH WITH LEVER-STYLE HANDLES.
- TABLE TOP AND BASE MOLDING TO BE BLACK (SUBMIT COLOUR FOR APPROVAL)

3 LAB COUNTER WITH SINK
SCALE = 1:25

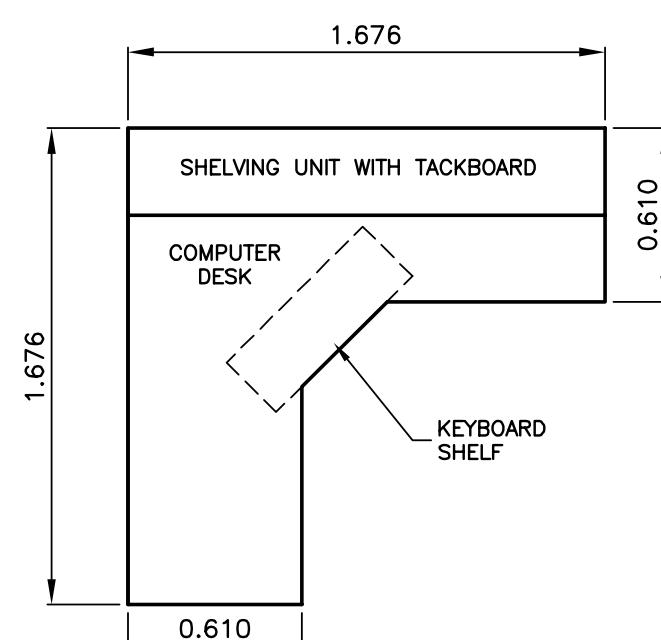
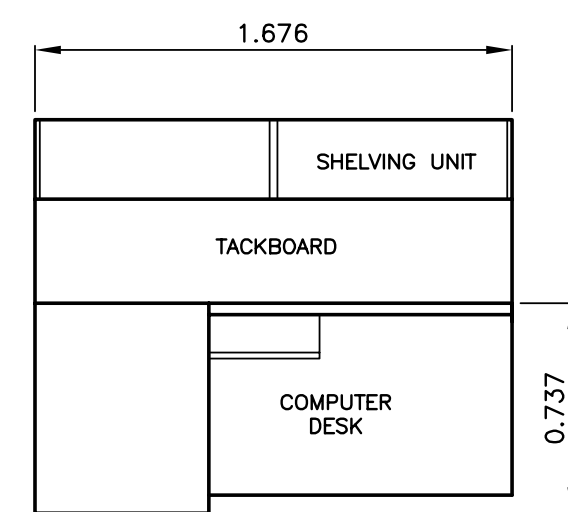


NOTES:

- CABINET UNITS TO BE STEEL CONSTRUCTION
- SHELVES AS SHOWN TO BE ADJUSTABLE
- CABINET DOORS ARE TO BE LOCKABLE
- SUBMIT SHOP DRAWINGS OUTLINING:
 - TYPE AND CONSTRUCTION OF LOCKING MECHANISM
 - COLOUR SAMPLE AND PAINTING SCHEME
 - METHOD OF FASTENING UNIT TO WALL
 - DOOR MECHANISM
 - CONSTRUCTION MATERIALS
- 2-2 DOOR HINGED FRAME UNITS TO BE 1219mm L X 914mm H X 356mm D

ORIGINAL DRAWING
SIGNED AND SEALED
BY
J.R.L. COUSIN
16/03/29

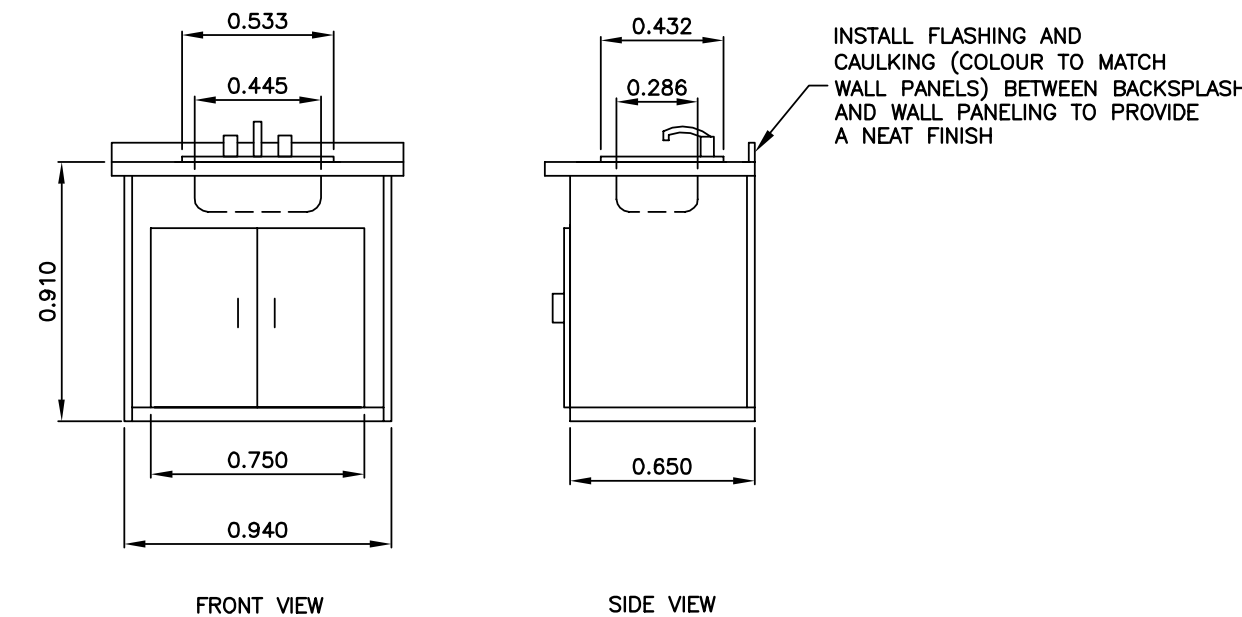
4 LAB WALL CABINETS
SCALE = 1:25



NOTES:

- L-SHAPED COMPUTER OFFICE DESK WITH KEYBOARD SHELF, LOCKING B/B/F PEDESTAL AND MATCHING OVERHEAD UNIT
- BODY FINISH: FOLKSTONE GREY
- LAMINATE FINISH: GREY SPECTRUM (WITH EDGE BANDING)
- ADJUSTABLE LEGS
- PROVIDE TACKBOARD INSERT
- L-SHAPED DESK
- OVERHEAD UNIT WITH 2 DOORS
- KEYBOARD SHELF
- PROVIDE SHOP DRAWINGS

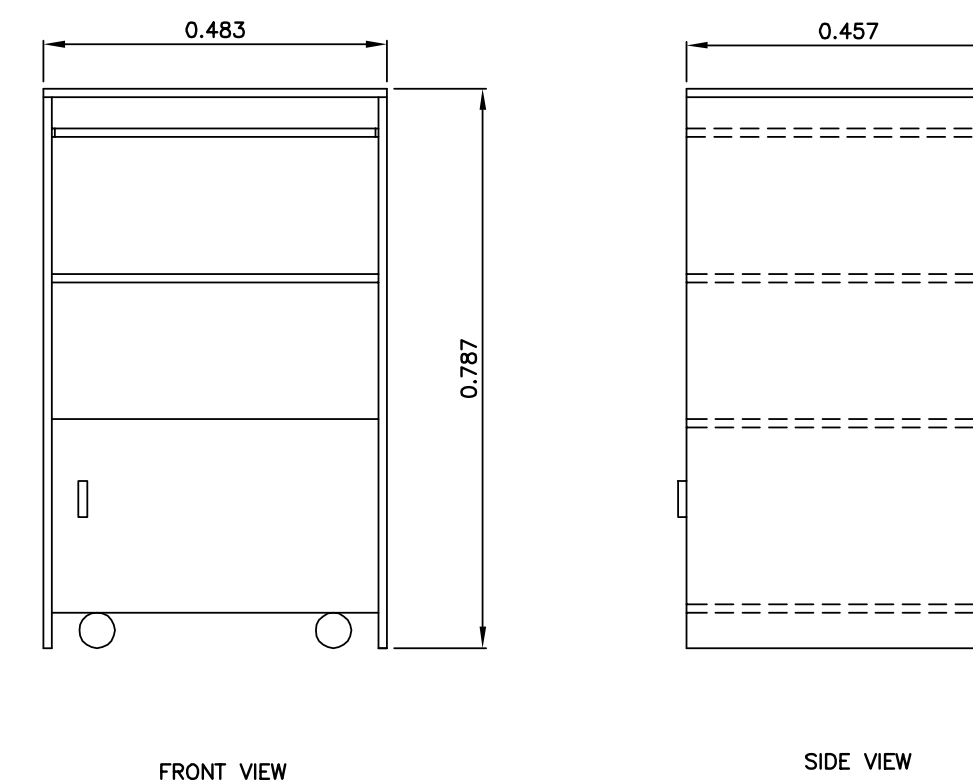
5 COMPUTER OFFICE DESK
SCALE = 1:25



NOTE:

- CABINET STYLE VANITY COMPLETE WITH TWO DOORS, SINK AND IVORY COLOURED COUNTER TOP WITH BACK SPLASH TO SUIT APPLICATION.
- CONNECT DRAIN AND TRAP ASSEMBLY TO VENT STACK THRU SIDE OR BACK OF VANITY.
- SUPPLY AND INSTALL WALL MIRROR ABOVE SINK AND TOWEL BAR HANGER IN BATHROOM.
- CONNECT WATER SERVICE TO SINK THRU SIDE OR BACK OF VANITY.
- SUBMIT SHOP DRAWINGS.

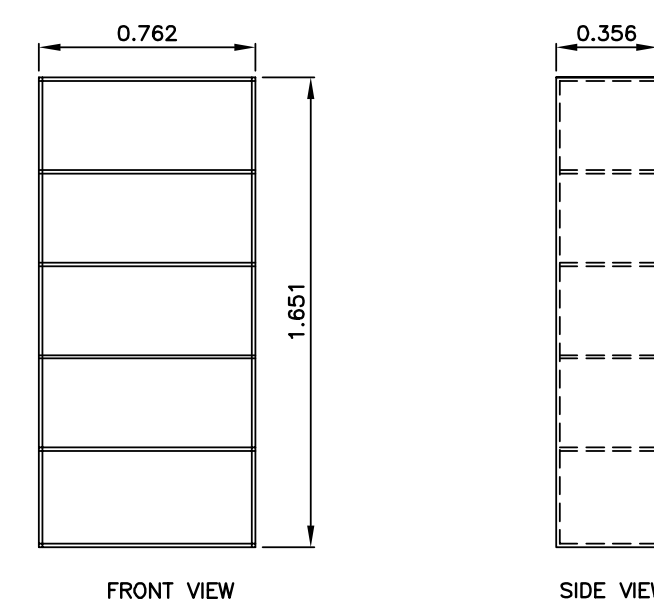
6 BATHROOM VANITY
SCALE = 1:25



NOTES:

- ONE PULL-OUT SHELF AND ONE ADJUSTABLE SHELF
- COLOUR TO BE GREY
- STORAGE AREA WITH DOOR
- FOUR WHEEL CASTERS
- PROVIDE SHOP DRAWINGS

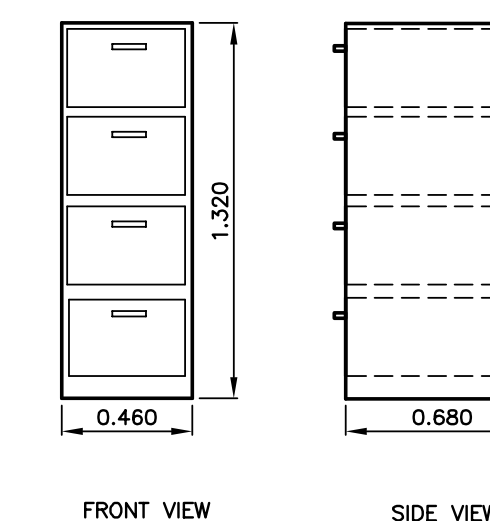
8 FAX/PRINTER STAND
SCALE = 1:10



NOTES:

- 5-SHELF LAMINATE BOOKCASE WITH THREE ADJUSTABLE SHELVES.
- COLOUR TO MATCH OFFICE DESK (GREY)
- PROVIDE SHOP DRAWINGS

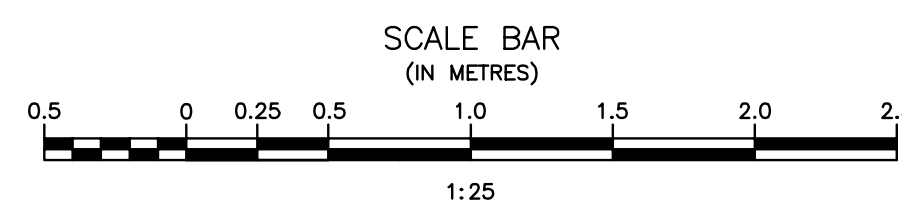
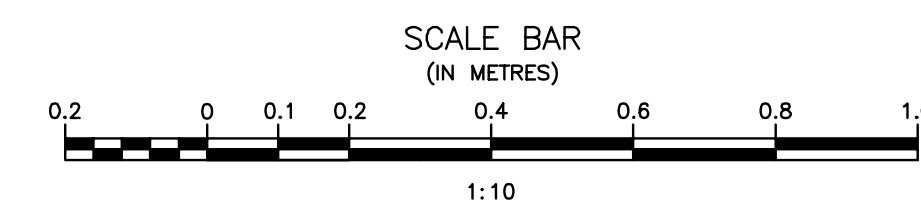
7 BOOKCASE
SCALE = 1:25



NOTES:

- FOUR DRAWER LEGAL SIZE WITH LOCKS (460mm W x 1320mm H x)
- BLACK COLOR
- C/W 100 LEGAL SIZE FOLDERS & 25 METAL TAB GUIDES

9 OFFICE FILE CABINET
SCALE = 1:25



Record Drawing
Drawing compiled from visual observations of various parts of construction and/or from information by others. Accuracy not warranted. Independent verification required before application.

JRCC PROJECT # R-325.52
JRCC
ENGINEERING CONSULTANTS
ENGINEERING EXCELLENCE SINCE 1981

5		
4		
3		
2	RECORD DRAWING	FEB 2019
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	
Revision	Description	Date
Client		client

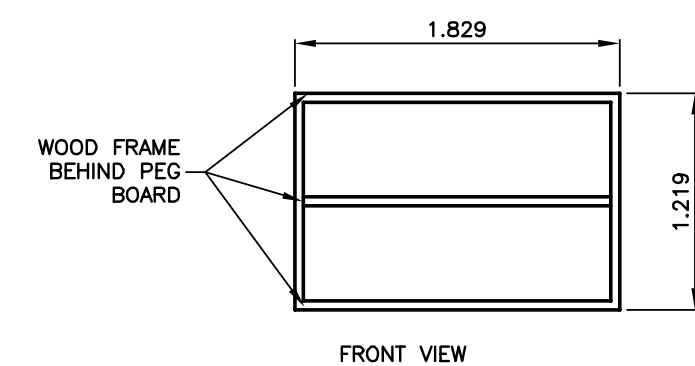
Project title: client

STONY MOUNTAIN LAGOON UPGRADE

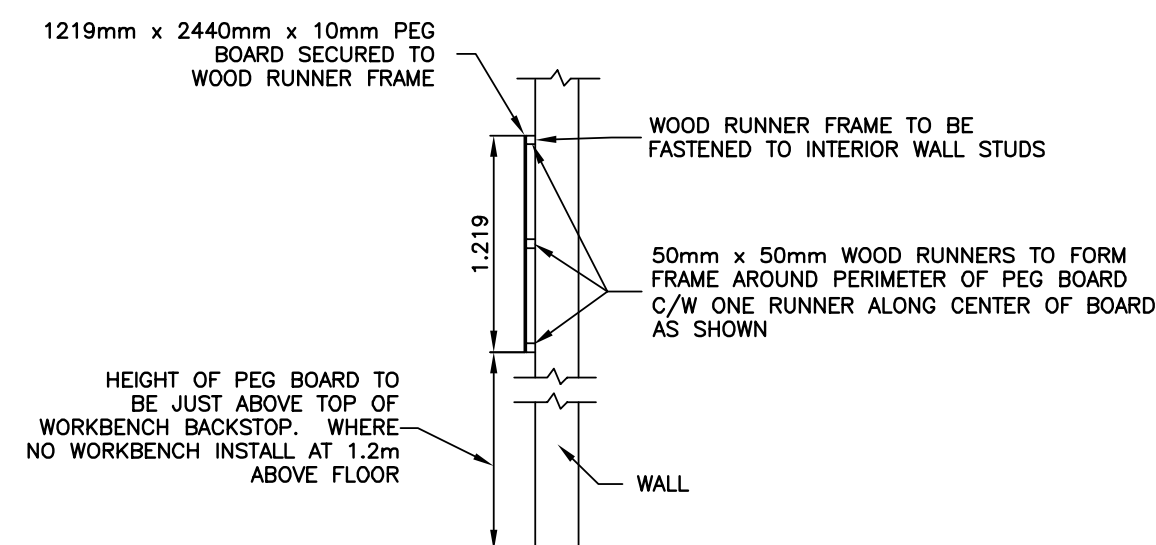
Designed by	Conçu par	JRC
Drawn by	Dessiné par	OT
Approved by	Approuvé par	JRC
PROJECT MANAGER	Administrateur de Projets TPSGC	MARK MOGAN
Drawing title	Titre du dessin	

SEWAGE TREATMENT BUILDING LAB CASEWORK AND FURNITURE DETAILS

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	A8	0
	OF 9	



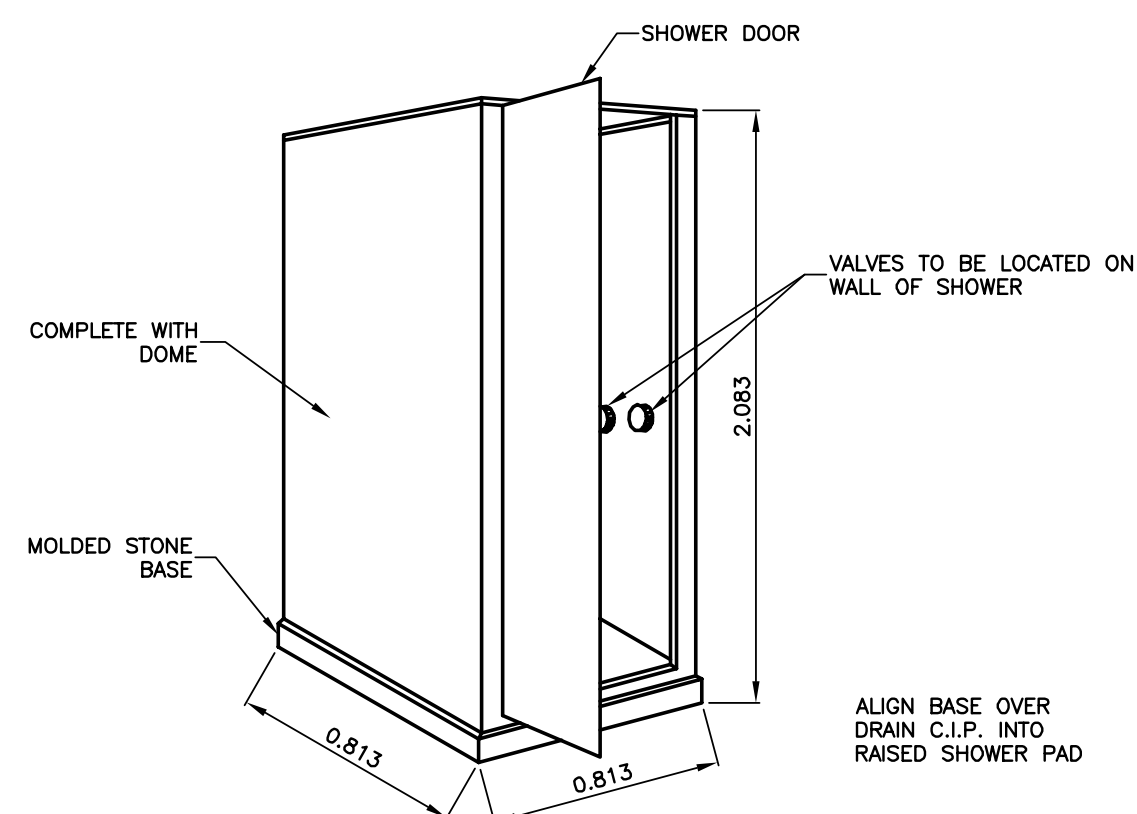
FRONT VIEW



NOTE:

- SUBMIT SHOP DRAWINGS.
- ENTIRE UNIT TO BE PAINTED WHITE (2 COATS)
- MUST BE COMPLETE WITH ALL HOOKS TO HANG TOOLS

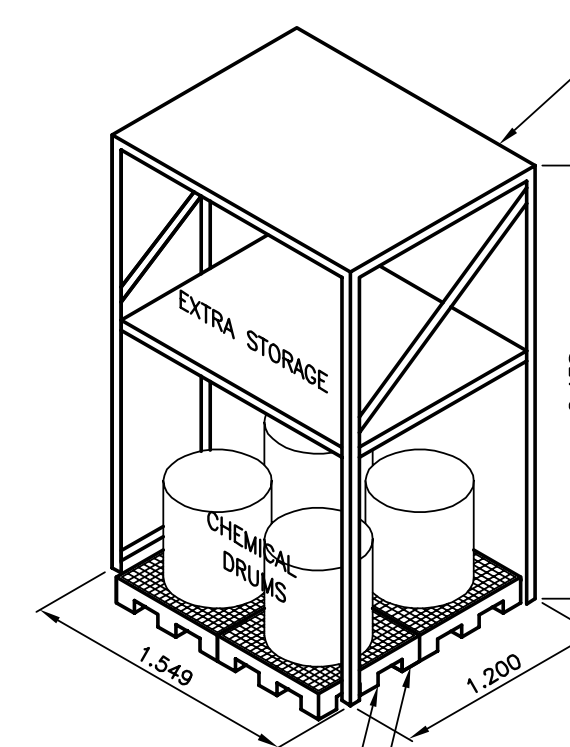
1 PEG BOARD DETAIL
SCALE = 1:40



NOTES:

- SHOWER C/W SHOWER HEAD, TAPS & ACCESSORIES
- SUPPORT SHOWER UNIT TO INTERIOR OF BUILDING AT TOP END AS REQ'D. TO STABILIZE AGAINST MOVEMENT
- SUBMIT SHOP DRAWINGS

2 SELF SUPPORTING SHOWER
SCALE = 1:25



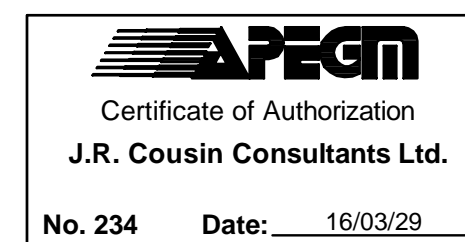
UPPER AND LOWER SHELVES TO BE 25mm THICK MEDIUM DENSE FIBER (MDF) BOARD SUITABLE FOR STACKING ITEMS WITHOUT PALLET. SHELF SUPPORTED BY STEEL FRAMING ALONG ITS PERIMETER.

NOTES:

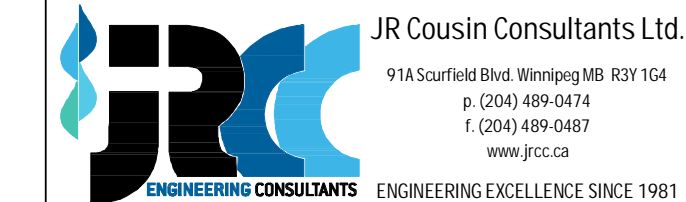
- SUBMIT SHOP DRAWINGS.
- REFER TO SPEC FOR ALL SHELVING AND RACKING REQUIREMENTS.
- REFER TO SPEC FOR ALL SPILL CONTAINMENT REQUIREMENTS.

3 CHEMICAL STORAGE RACKING
SCALE = 1:40

ORIGINAL DRAWING
SIGNED AND SEALED
BY
J.R.L. COUSIN
16/03/29



JRCC PROJECT # R-325.52



Revision	Description	Date
5		
4		
3		
2	RECORD DRAWING	FEB 2019
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	

Client: client

Project title: Stony Mountain Sewage Treatment Building

STONY MOUNTAIN LAGOON UPGRADE

Designed by: JRC / Conçu par

Drawn by: OT / Dessiné par

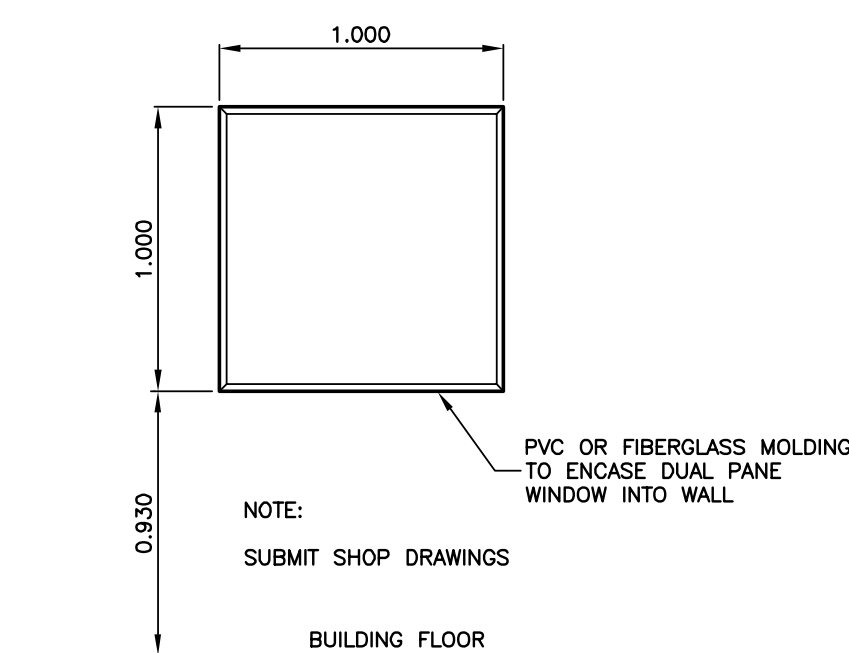
Approved by: JRC / Approuvé par

PM/ESC: Project Manager / Administrateur de Projets TPSGC

MARK MOGAN

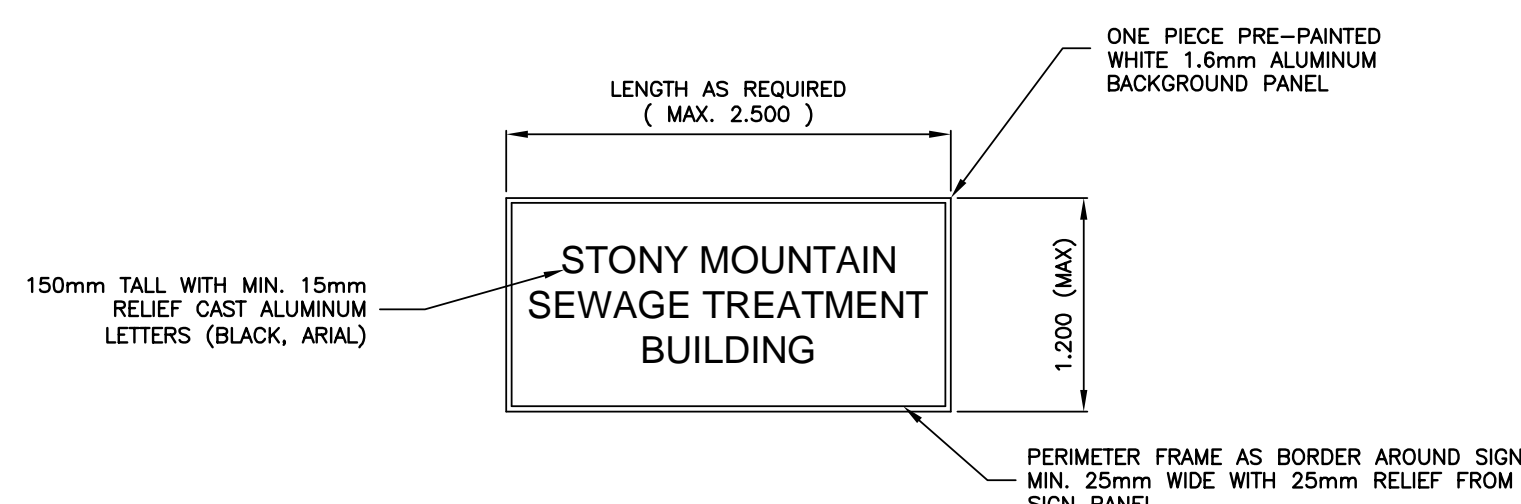
Drawing title: Sewage Treatment Building Furniture Details

Project no./No. du projet: R.075583.001
Drawing no./No. du dessin: A9
Revision no.: 0



NOTE:
SUBMIT SHOP DRAWINGS

4 INTERIOR WINDOW DETAIL
SCALE = 1:25



NOTES:

- LOCATION TO BE SITE AS SHOWN ON PLAN A2
- PROVIDE COMPLETE SHOP DRAWINGS OUTLINING:
 - 1) CONSTRUCTION AND SIZE OF LETTERS
 - 2) SPACING OF CHARACTER STRINGS
 - 3) ALL FINAL DIMENSIONS
 - 4) PAINT COLOUR, THICKNESS AND TYPE USED
 - 5) METHOD OF ATTACHING SIGN TO BUILDING
 - 6) FRAME CROSS SECTION AND STIFFENING DETAILS C/W EX-7 FRAME.

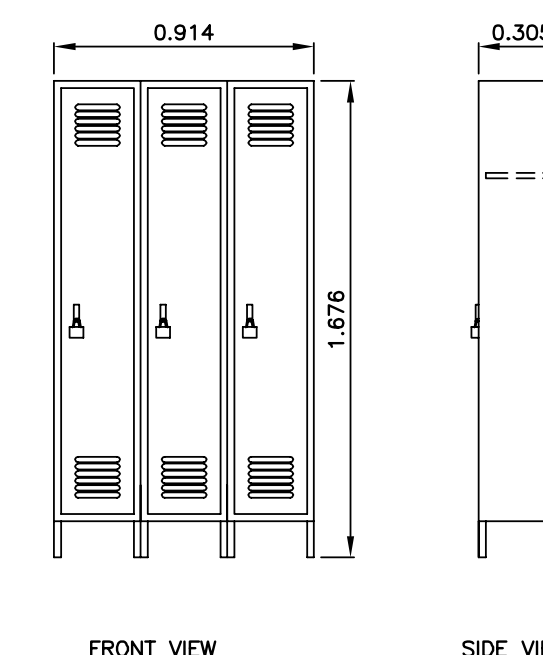
5 OUTDOOR BUILDING SIGN
SCALE = 1:40



NOTES:

- JANITORIAL STORAGE CABINET TO BE 1.524mm WIDE X 0.610mm DEEP X 1.829mm HIGH
- CABINET TO BE WELDED, 2.66mm STEEL
- CABINET TO BE PARTITIONED TO ALLOW STORAGE OF A WIDE VARIETY OF ITEMS
- CABINET TO BE LOCKABLE
- PROVIDE SHOP DRAWINGS.

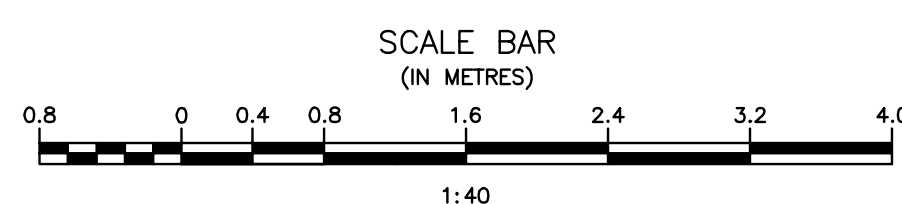
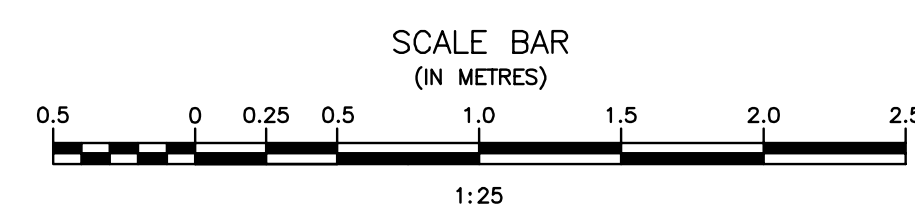
6 STORAGE CABINET
SCALE = 1:25



NOTES:

- ONE-PIECE STEEL DOORS WITH AIR VENTS, DOOR JAMBS AND LOCKS
- PROVIDE THREE (3) KEYED PADLOCKS FOR LOCKERS
- PROVIDE SHOP DRAWINGS

7 LOCKERS
SCALE = 1:25



Record Drawing

Drawing compiled from visual observations of various parts of construction and/or from information by others. Accuracy not warranted. Independent verification required before application.

NOTES:

- CLEAR COVER FOR ALL REINFORCING STEEL TO BE 40mm UNLESS OTHERWISE SPECIFIED.
- PROVIDE BEAM BOLSTERS C/W RUNNERS AS SUPPORT FOR ALL SLAB REINFORCING.
- PROVIDE INDIVIDUAL HIGH CHAIRS C/W PLATE AS SUPPORT FOR ALL SLAB REINFORCING BARS. PROVIDE INDIVIDUAL HIGH CHAIRS C/W PLATE AS SUPPORT FOR ALL RESERVOIR FLOOR REINFORCING BARS.
- END COVER FOR REINFORCING TO BE 50mm UNLESS OTHERWISE INDICATED.
- C.I.P. DESIGNATES CAST IN PLACE B/W DESIGNATES BOTHWAYS, B/F DESIGNATES BOTH FACES.
- FRAME REBAR AROUND ALL PIPES THROUGH CONCRETE WHICH ARE OF 100mm Ø OR GREATER. PIPES LESS THAN 200mm Ø - FRAME WITH 10M X 1000mm LONG REINFORCING BARS. PIPES 200mm Ø OR GREATER - FRAME WITH 15M X 1800mm LONG REINFORCING BARS.
- AT ALL PORT LOCATIONS PROVIDE ADDITIONAL STEEL AT EACH SIDE OF OPENING TOP AND BOTTOM (SIZE TO MATCH EXISTING STEEL).
- PROVIDE 1-10M BAR AROUND PERIMETER OF ALL HOUSEKEEPING PADS.
- C.I.P. DRAINAGE PIPING OMITTED FOR CLARITY.
- ENTIRE CONCRETE SEWAGE TREATMENT BUILDING FLOOR TO BE COMPLETELY POWER TROWELLED TO PROVIDE A SMOOTH FINISHED SURFACE AT SLOPES AND DRAINAGE SHOWN ON DRAINAGE PLAN.
- FLOOR THICKNESS OF 355mm OR 203mm AS SHOWN RELATES TO THICKNESS AT DRAINS ONLY. TO ACHIEVE SLOPES AS SHOWN ON DRAINAGE PLAN, FLOOR MUST BE THICKENED BY APPROPRIATE AMOUNT AT THE EDGE OF THE SLAB - SEE ELEVATIONS IDENTIFIED ON DETAILS. (I.E. FLOOR IS VARIABLE THICKNESS).
- SUBMIT REINFORCING SCHEDULE AND SHOP DRAWINGS FOR REVIEW AND APPROVAL.
- STEEL SPECIFICATION: GRADE 400, TO CAN/CSA G30.18
- STEEL OVERLAP TO BE MIN. 600mm FOR 15m, 800mm FOR 20m AND 1000mm FOR 25m
- ALL BENDING DETAILS, DIMENSIONS, ANCHORAGE, CUT-OFF LENGTHS, BAR SUPPORTS, SPACERS, AND LOCATION OF REINFORCING SPLICES SHALL BE IN ACCORDANCE WITH A.2.3.3 LATEST EDITION
- ALL CONCRETE, UNLESS OTHERWISE STATED SHALL BE DESIGNED AS FOLLOWS:
 - TYPE HS CONCRETE
 - MIN. 56 DAYS COMPRESSIVE STRENGTH = 35MPa
 - AIR ENTRAINMENT (+/- 1%) = 6%
 - MAXIMUM SLUMP = 90mm
- CONCRETE FOR FLOOR SLAB SHALL BE TYPE GU CONCRETE, MIN. 28 DAY COMPRESSIVE STRENGTH = 35MPa NATURAL AIR, MAXIMUM SLUMP = 90 mm.
- FOUNDATION DESIGN BASED ON RECOMMENDATIONS CONTAINED IN THE AMEC ENVIRONMENTAL & INFRASTRUCTURE GEOTECHNICAL REPORT R1.5 MAY 5, 2014.
- CONTRACTOR SHALL NOTIFY DEPARTMENTAL REPRESENTATIVE IF LOCAL CONDITIONS DIFFER FOR THOSE LISTED ABOVE.
- EPOXY ALL REINFORCING BARS THROUGH COLD JOINTS WHERE NOTED.
- PLACE ALL CAST IN PLACE AND PIPING MIDWAY IN SLAB.
- ALL BENT STEEL MEASUREMENTS ARE FROM CENTRE TO CENTRE.
- PROVIDE 2 ADDITIONAL STIRRUPS ON EITHER SIDE OF ALL PIPES THROUGH GRADE BEAMS.
- IN LIEU OF BENDING THE STEEL AROUND WATER STOP, CONTRACTOR MAY PROVIDE BENT DOWELS. (SIZE AND SPACING TO MATCH STEEL). LAP WITH STEEL MINIMUM 600mm.
- 15M WALL BASE ANGLES AND DOWELS MUST BE ACCURATELY PLACED INTO CHAMBER FLOOR AS THEY DETERMINE LOCATION AND COVER OF WALL STEEL.
- EXTEND ALL HORIZONTAL STEEL MIN. 750 mm INTO ADJOINING WALL AND PROVIDE 50 MM COVER.
- CONTRACTOR MAY BEND HORIZONTAL WALL STEEL TO PROVIDE HOOK (750 mm) AND ELIMINATE CORNER BARS. 15M TO BE BENT AS TO PROVIDE A 300mm HORIZONTAL CONTRIBUTION AND 600mm VERTICAL. SEE NOTE 25 REGARDING POSITION.

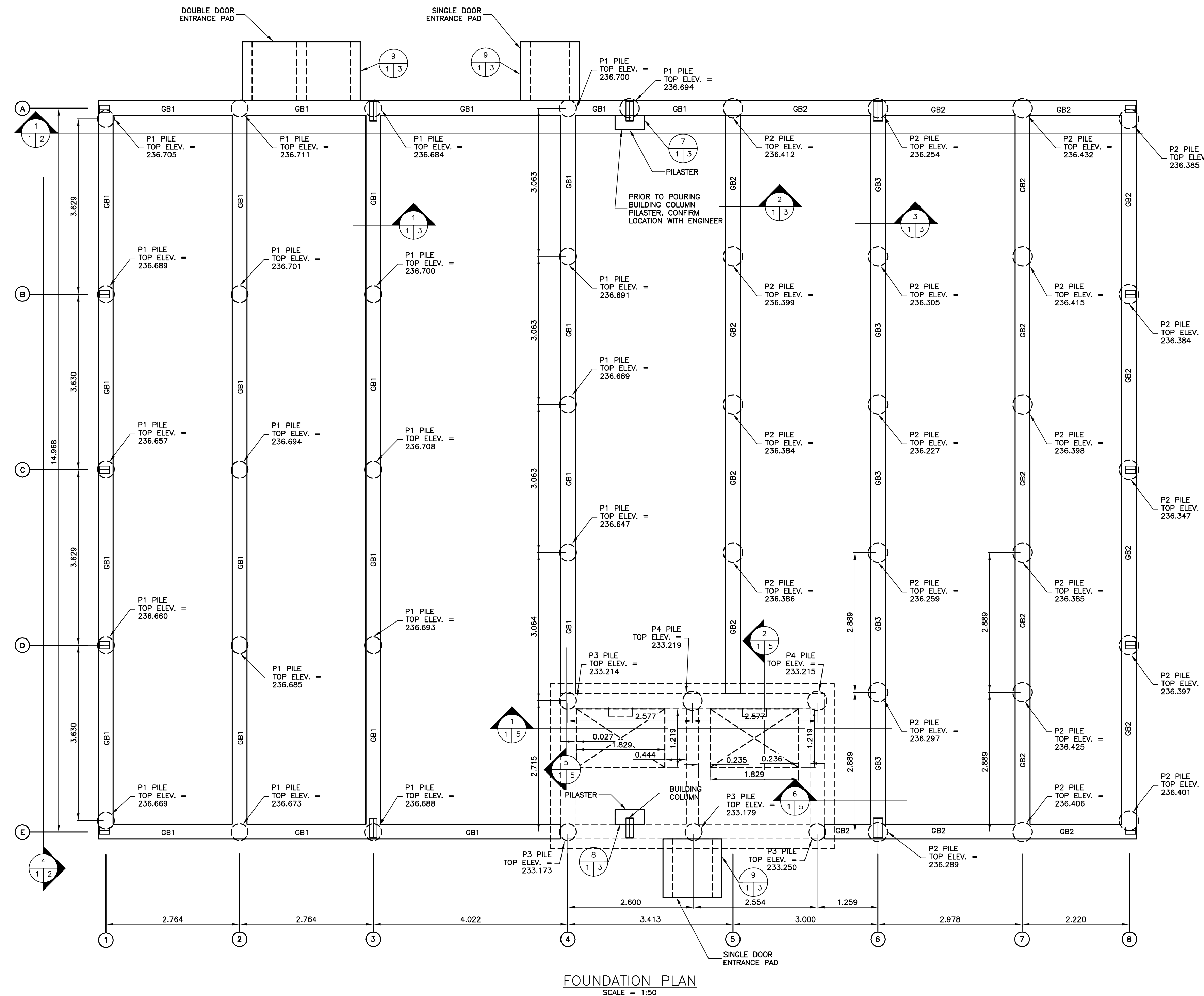
NOTE:

- PILE CAPS MAY BE NECESSARY TO SUIT BUILDING COLUMN. VERIFY SIZE WITH BUILDING MANUFACTURER.
- PILES DRIVEN TO REFUSAL AS PER GEOTECHNICAL REPORT.
- VERIFY ANCHOR SIZE AND PLACEMENT WITH BUILDING SUPPLIER PRIOR TO CONSTRUCTION.

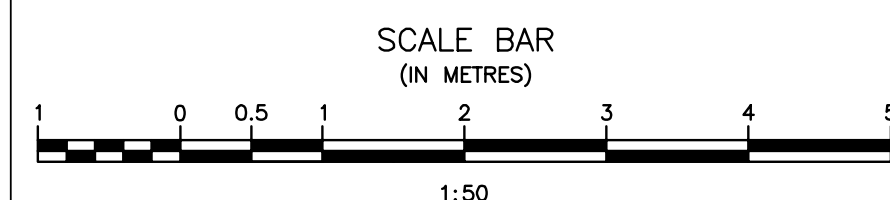
- GB1 = 305mm X 610mm GRADE BEAM COMPLETE WITH 2-20M TOP AND BOTTOM AND 10M STIRRUPS AT 300mm ON CENTRE.
- GB2 = 305mm X 762mm GRADE BEAM COMPLETE WITH 2-20M TOP AND BOTTOM AND 10M STIRRUPS AT 300mm ON CENTRE.
- GB3 = 305mm X 914mm GRADE BEAM COMPLETE WITH 2-25M TOP AND BOTTOM, 2-10M AT MID DEPTH AND 10M STIRRUPS AT 200mm ON CENTRE.

PILE SCHEDULE

ID	COMPONENT	DESCRIPTION	LENGTH
P-1	DRIVEN PRECAST PILE	350mm# HEX	18.0m
P-2	DRIVEN PRECAST PILE	400mm# HEX	18.0m
P-3	DRIVEN PRECAST PILE	350mm# HEX	15.0m
P-4	DRIVEN PRECAST PILE	400mm# HEX	15.0m



FOUNDATION PLAN
SCALE = 1:50



ORIGINAL DRAWING
SIGNED AND SEALED
BY
D.G. CAMPBELL
16/03/11



JRCC PROJECT # R-325.52



Revision	Description	Date
5		
4		
3	RECORD DRAWING	FEB 2019
2	REVISED NOTES	MARCH 2017
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	

Client: client

Project title: Stony Mountain Lagoon Upgrade

STONY MOUNTAIN LAGOON UPGRADE

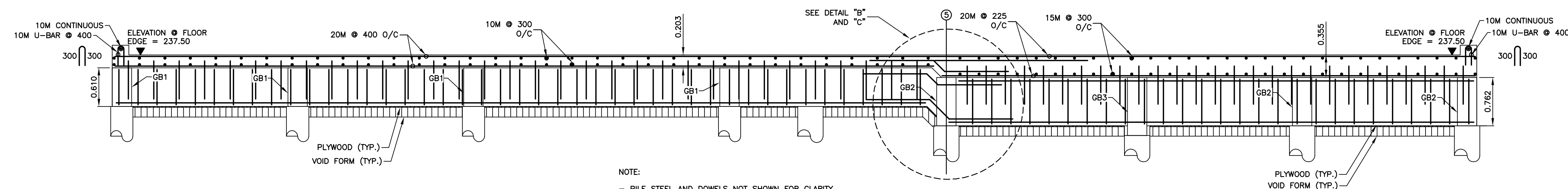
Designed by	Conçu par	DC
Drawn by	Dessiné par	OT
Approved by	Approuvé par	RF
PM/ESC: Project Manager	Administrateur de Projets TPSGC	MARK MOGAN
Drawing title	Titre du dessin	

SEWAGE TREATMENT BUILDING FOUNDATION PLAN

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	S1	0
	OF 6	

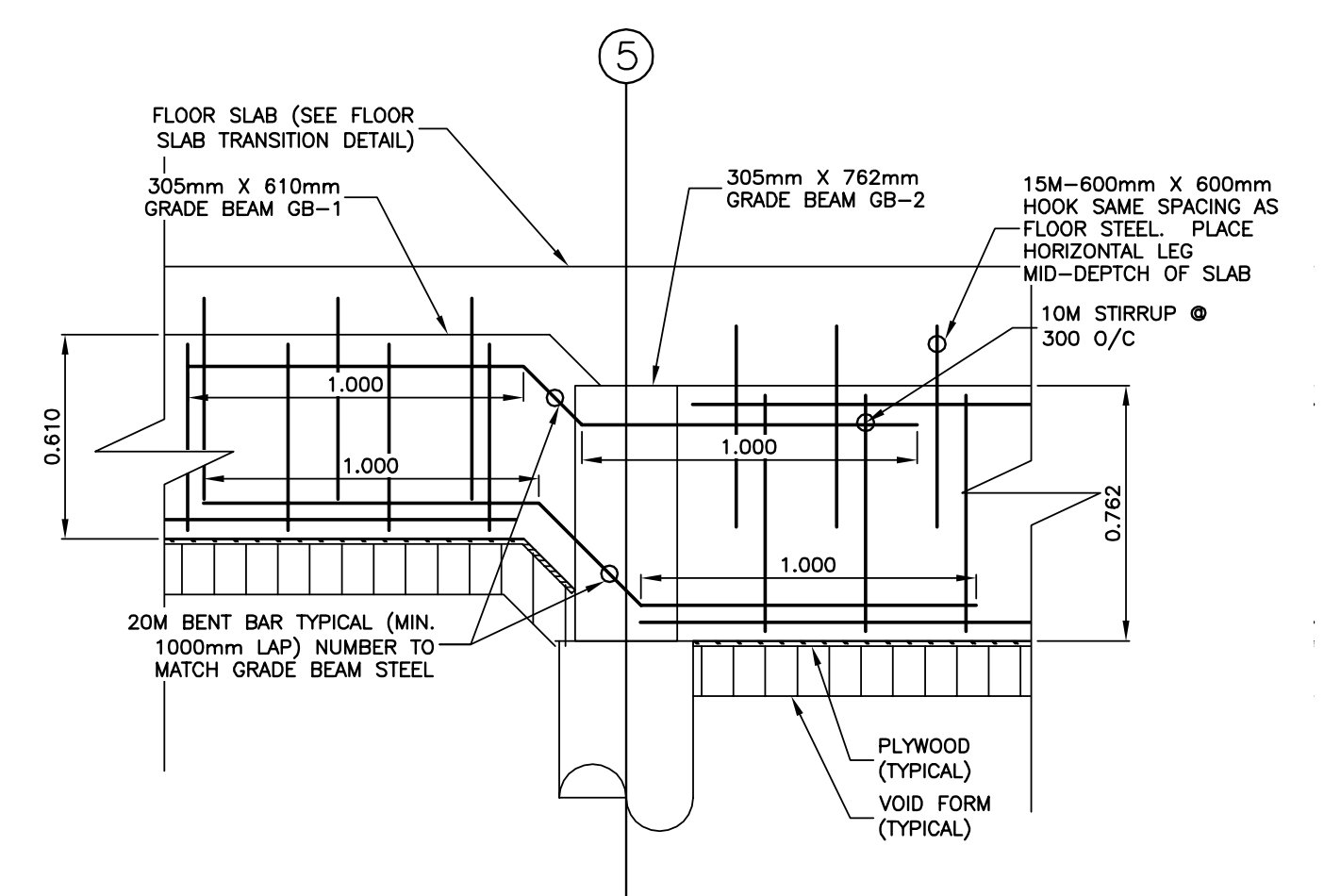
Record Drawing

Drawing compiled from visual observations of various parts of construction and/or from information by others. Accuracy not warranted. Independent verification required before application.



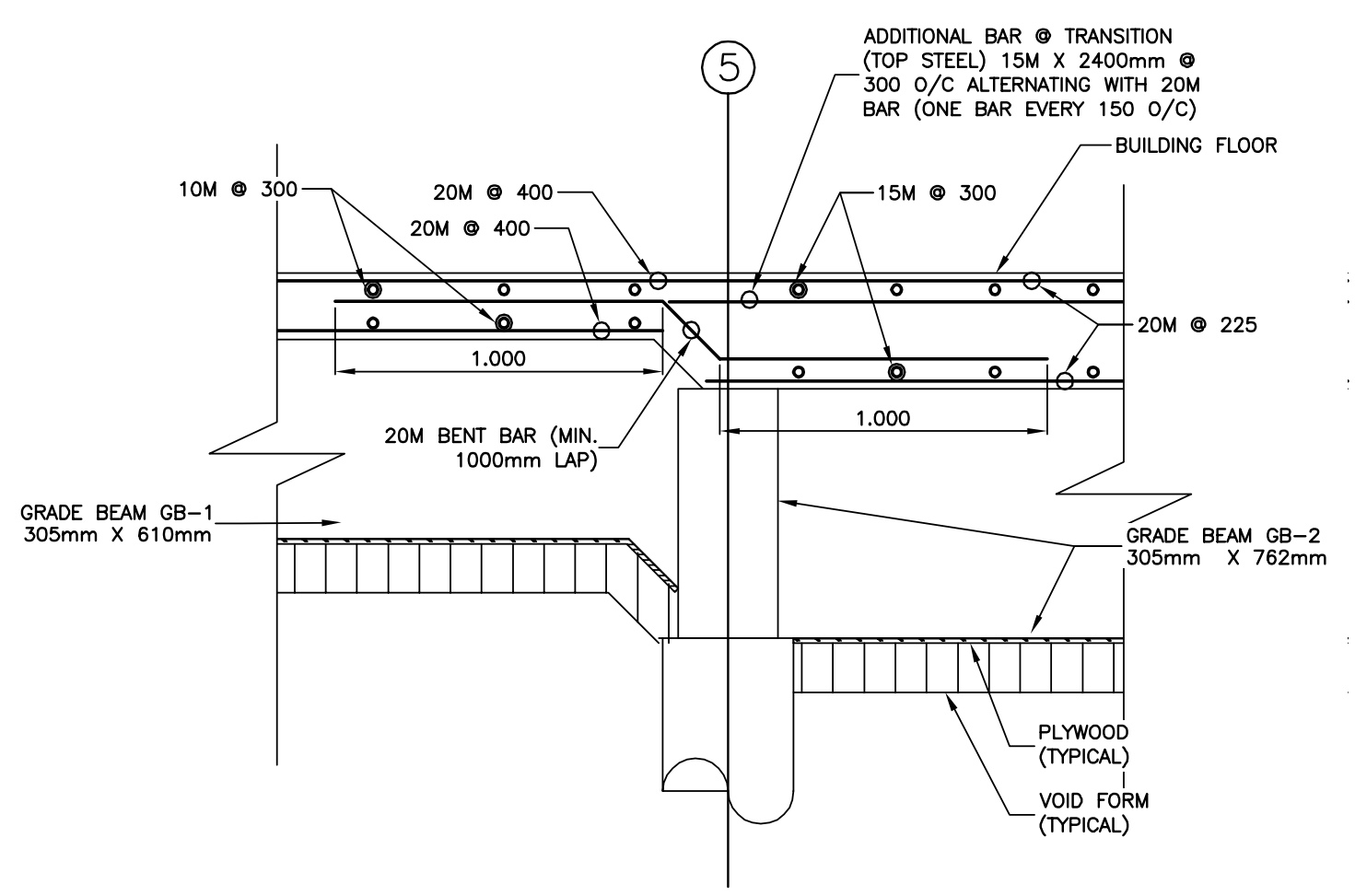
NOTE:
- PILE STEEL AND DOWELS NOT SHOWN FOR CLARITY.
- PLACE 2 -15M BARS ABOVE AND BELOW BRICK SUPPORT.

1 FOUNDATION SECTION A
SCALE = 1:40



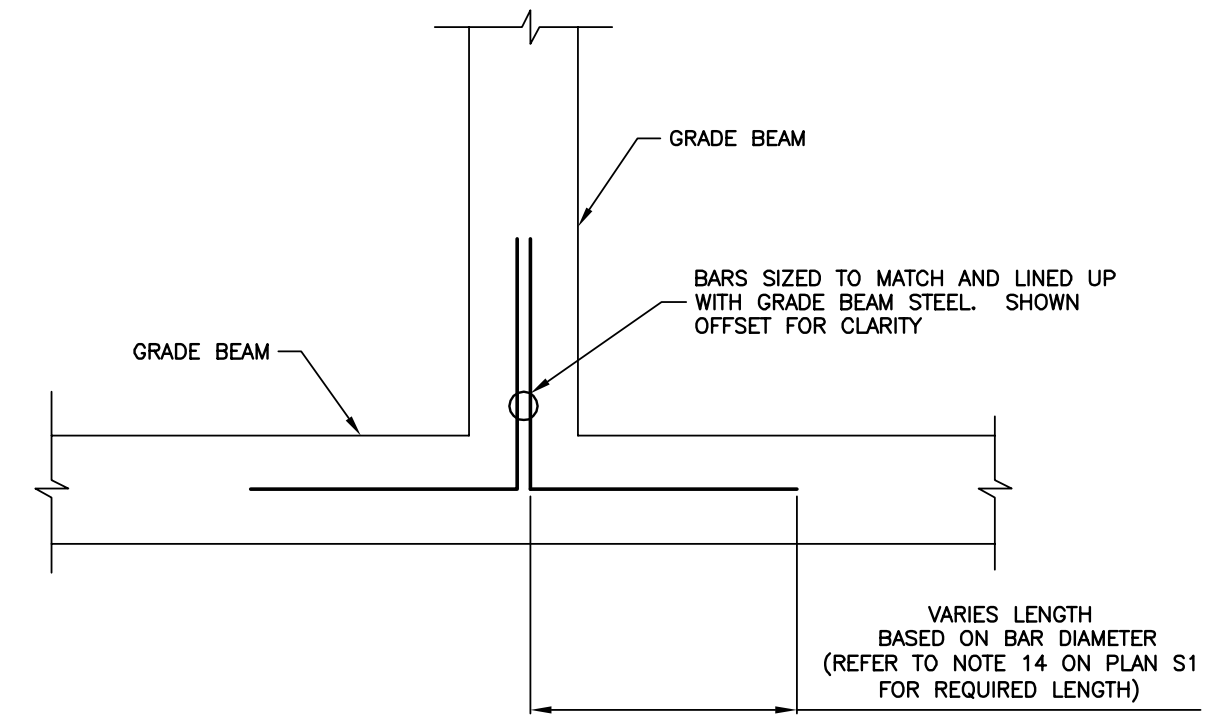
NOTE:
- FLOOR SLAB REINFORCING NOT SHOWN FOR CLARITY.

2 DETAIL "B" - GRADE BEAM TRANSITION
SCALE = 1:20



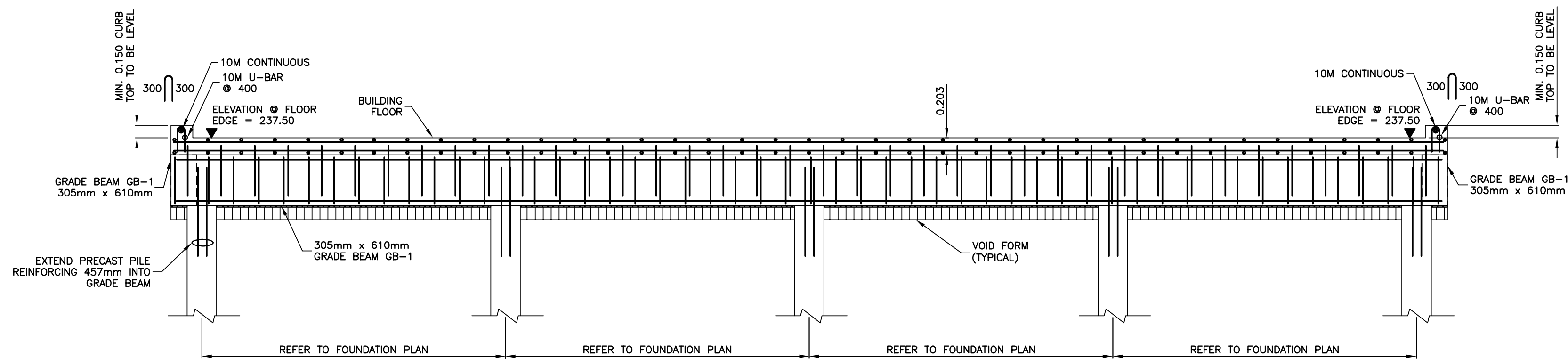
NOTE:
- GB-1 AND GB-2 REINFORCING NOT SHOWN FOR CLARITY.

3 DETAIL "C" - FLOOR SLAB TRANSITION
SCALE = 1:20



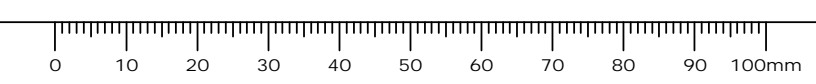
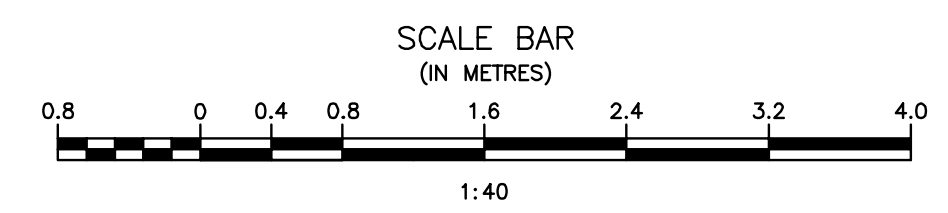
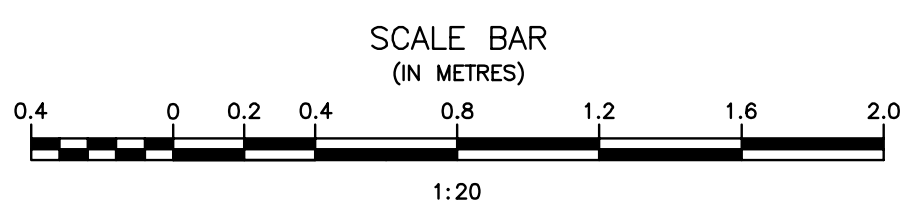
VARIES LENGTH
BASED ON BAR DIAMETER
(REFER TO NOTE 14 ON PLAN S1
FOR REQUIRED LENGTH)

5 GRADE BEAM CONNECTION - TOP VIEW
SCALE = 1:20



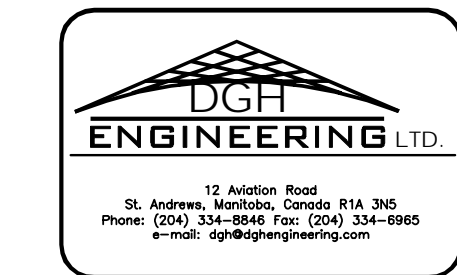
NOTES:
- REBAR NOT DRAWN TO SCALE
- CURB STOPS AT BUILDING FRAME LOCATION

4 GRADE BEAM AND PILE SECTION
SCALE = 1:40



Record Drawing
Drawing compiled from visual observations of various parts of construction and/or from information by others. Accuracy not warranted. Independent verification required before application.

ORIGINAL DRAWING
SIGNED AND SEALED
BY
D.G. CAMPBELL
16/03/31



JRCC PROJECT # R-325.52
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5		
4		
3	RECORD DRAWING	FEB 2019
2	REVISED NOTES	MARCH 2017
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	

Revision	Description	Date
Client		client

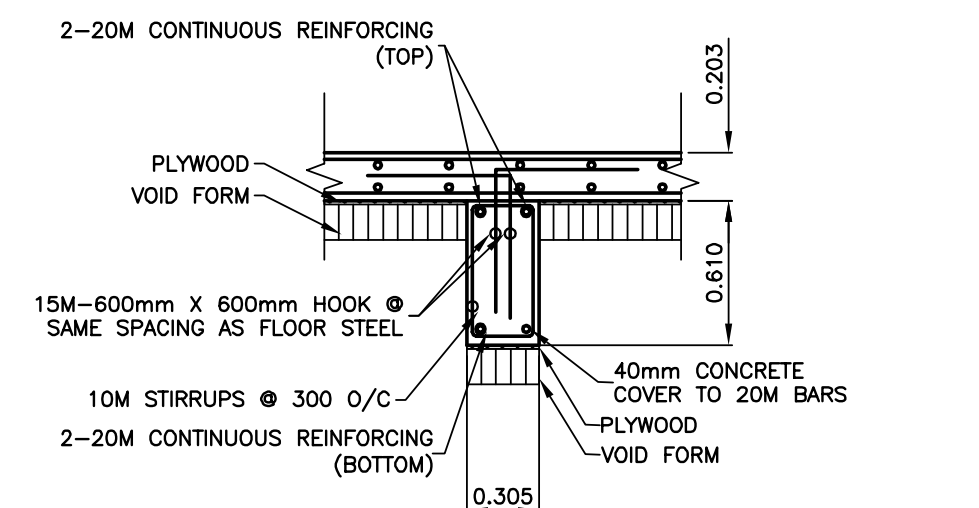
Project title: Stony Mountain Lagoon Upgrade

STONY MOUNTAIN LAGOON UPGRADE

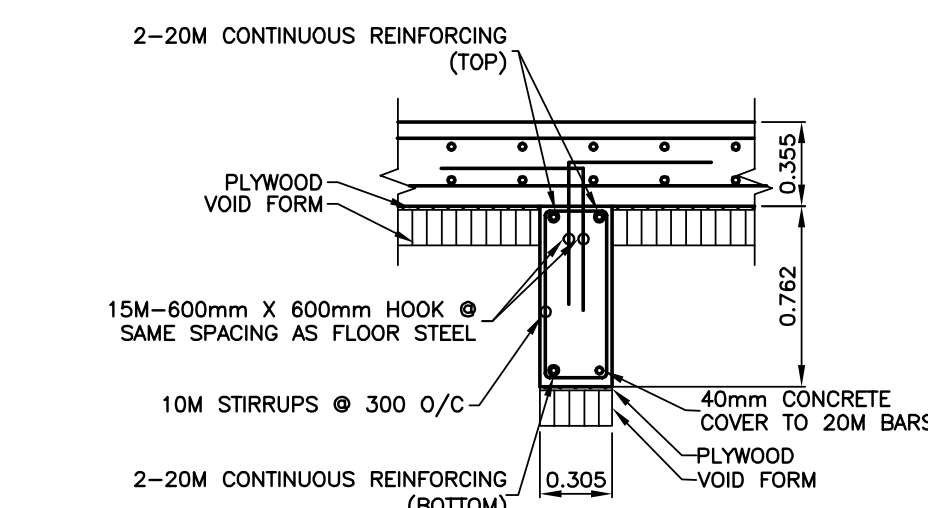
Designed by	Conçu par	DC
Drawn by	Dessiné par	OT
Approved by	Approuvé par	RF
PM/SC: Project Manager	Administrateur de Projets TPSGC	MARK MOGAN

Drawing title: **SEWAGE TREATMENT BUILDING GRADE BEAM AND FLOOR SLAB DETAILS**

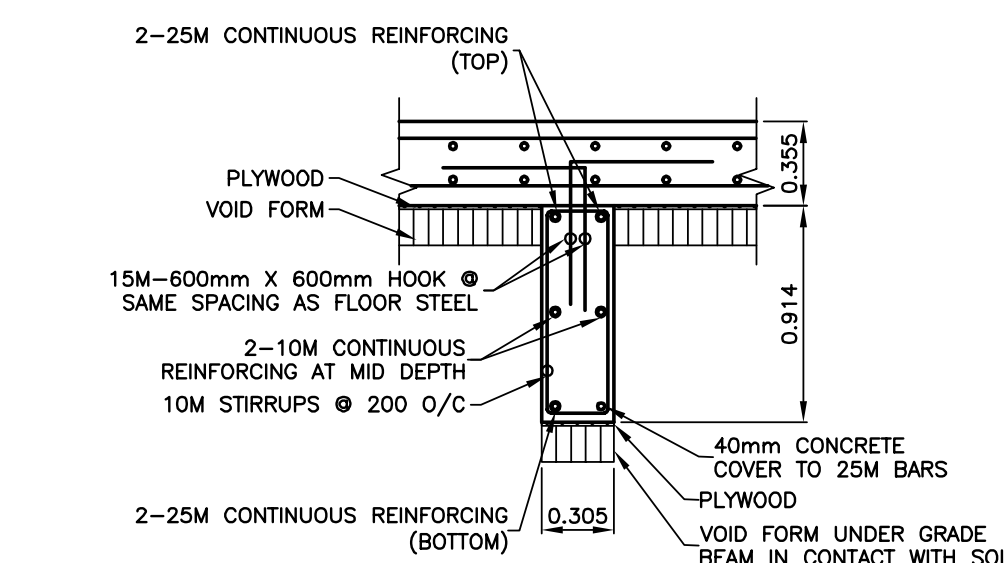
Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	S2	0
	OF 6	



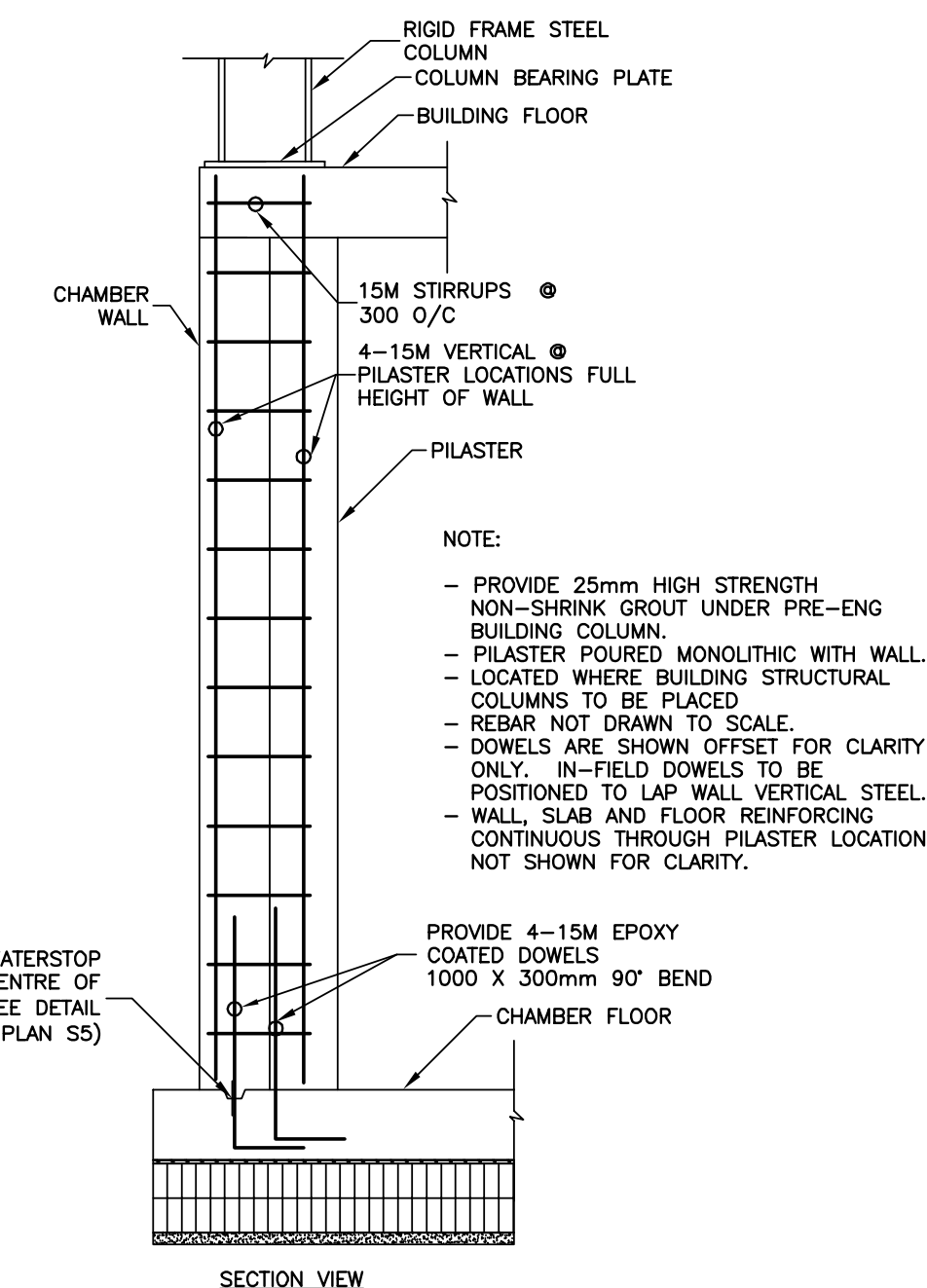
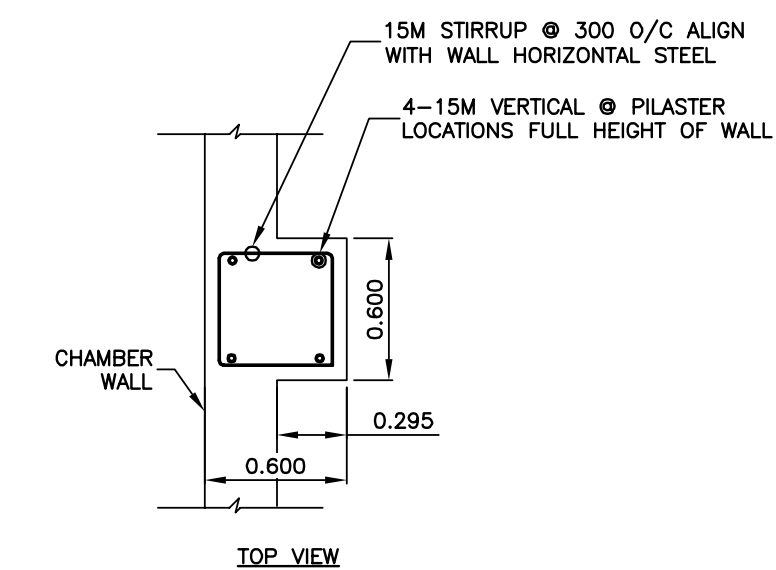
1
1 3
TYPICAL GRADE BEAM GB-1 SECTION
SCALE = 1:30



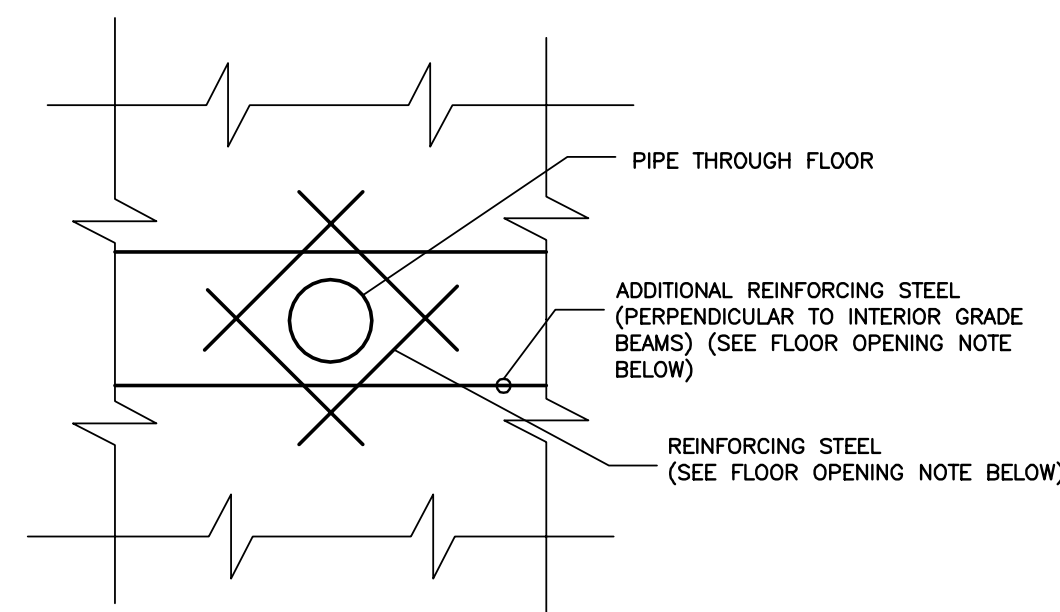
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1 3
TYPICAL GRADE BEAM GB-2 SECTION
SCALE = 1:30



3
1 3
TYPICAL GRADE BEAM GB-3 SECTION
SCALE = 1:30



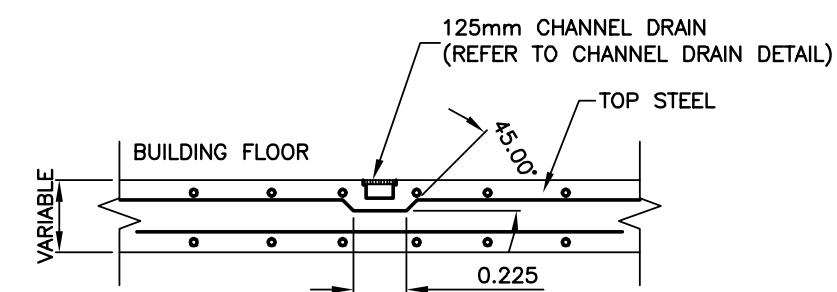
8
1 3
PILASTER DETAIL AT CHAMBER
SCALE = 1:30



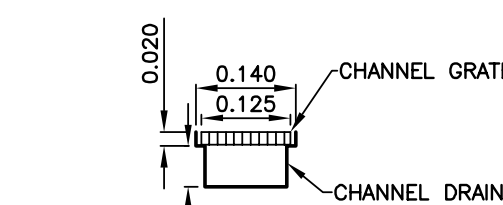
FLOOR OPENING REINFORCING NOTE:

- FRAME ALL OPENINGS THROUGH WALLS OR SLABS WITH 4 BARS EACH FACE FOR OPENING.
- OPENINGS LESS THAN 200mm# USE 10M X 1000mm LONG.
- OPENINGS 200mm# OR LARGER USE 15M X 1800mm LONG.
- PROVIDE ONE ADDITIONAL 1800mm LONG BAR TOP AND BOTTOM SIZE TO MATCH FLOOR STEEL.
- THIS DETAIL IS TO BE USED WITH ALL PORTS, CAST IN PLACE PIPE AND CORED AREAS (SEE DRAINAGE PLAN AND PORT PLAN FOR ALL LOCATIONS).

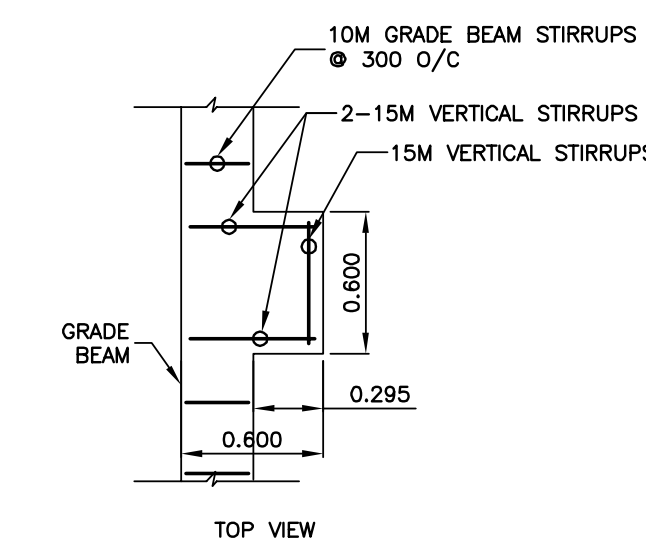
4
3
TYPICAL FLOOR OPENING REINFORCING DETAIL
SCALE = NTS



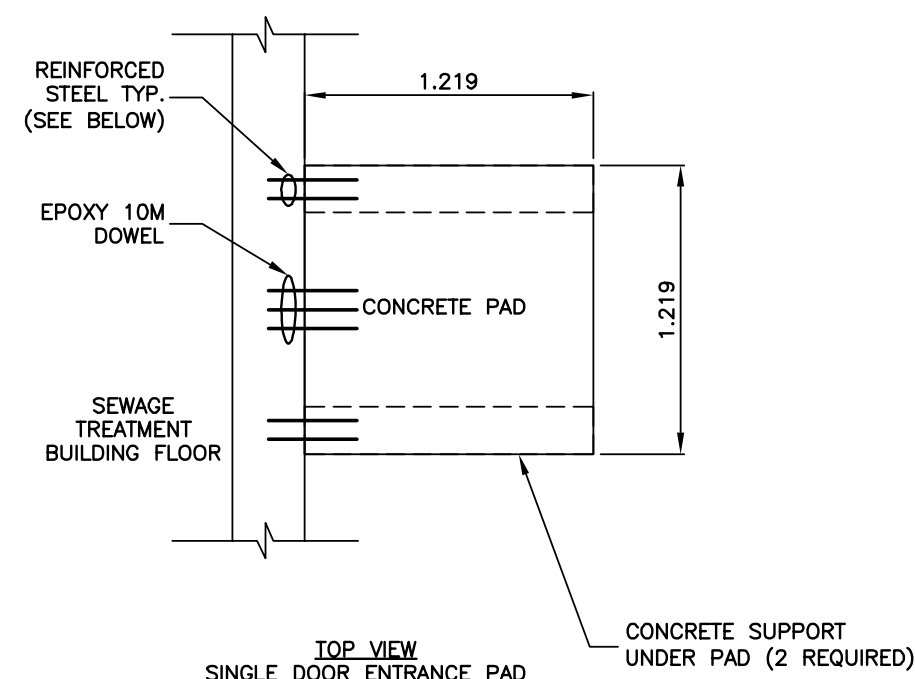
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TYPICAL CHANNEL DRAIN REINFORCING DETAIL
SCALE = 1:30



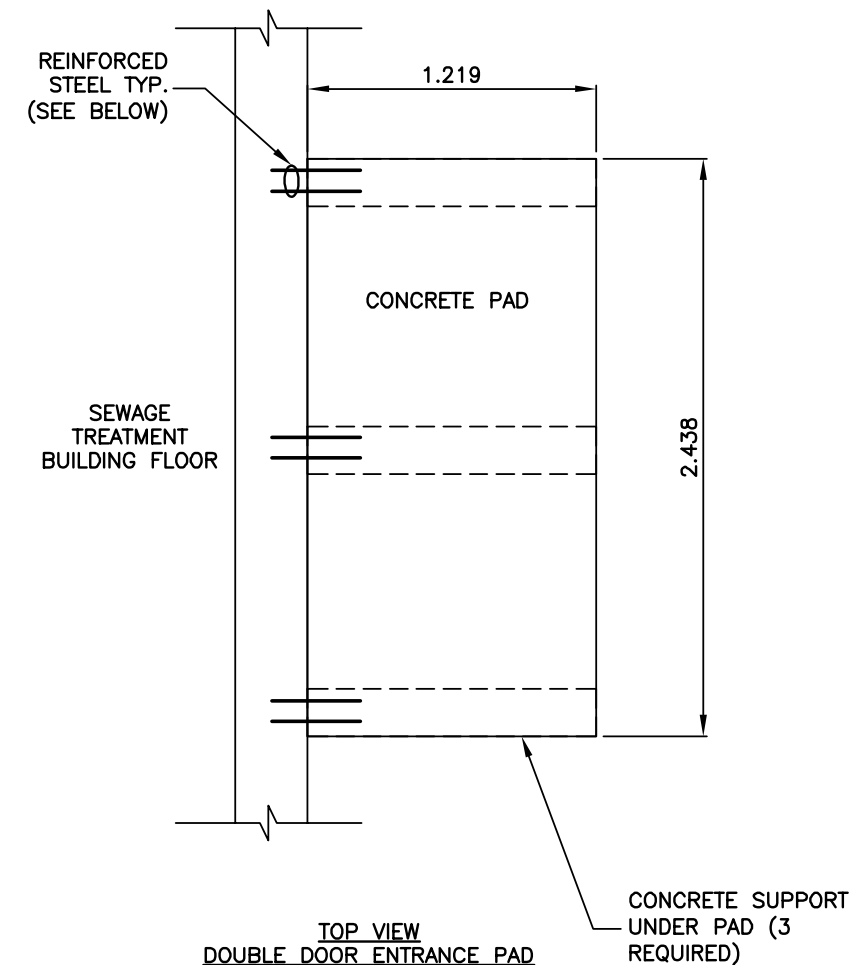
6
3
TYPICAL CHANNEL DRAIN DETAIL
SCALE = 1:10



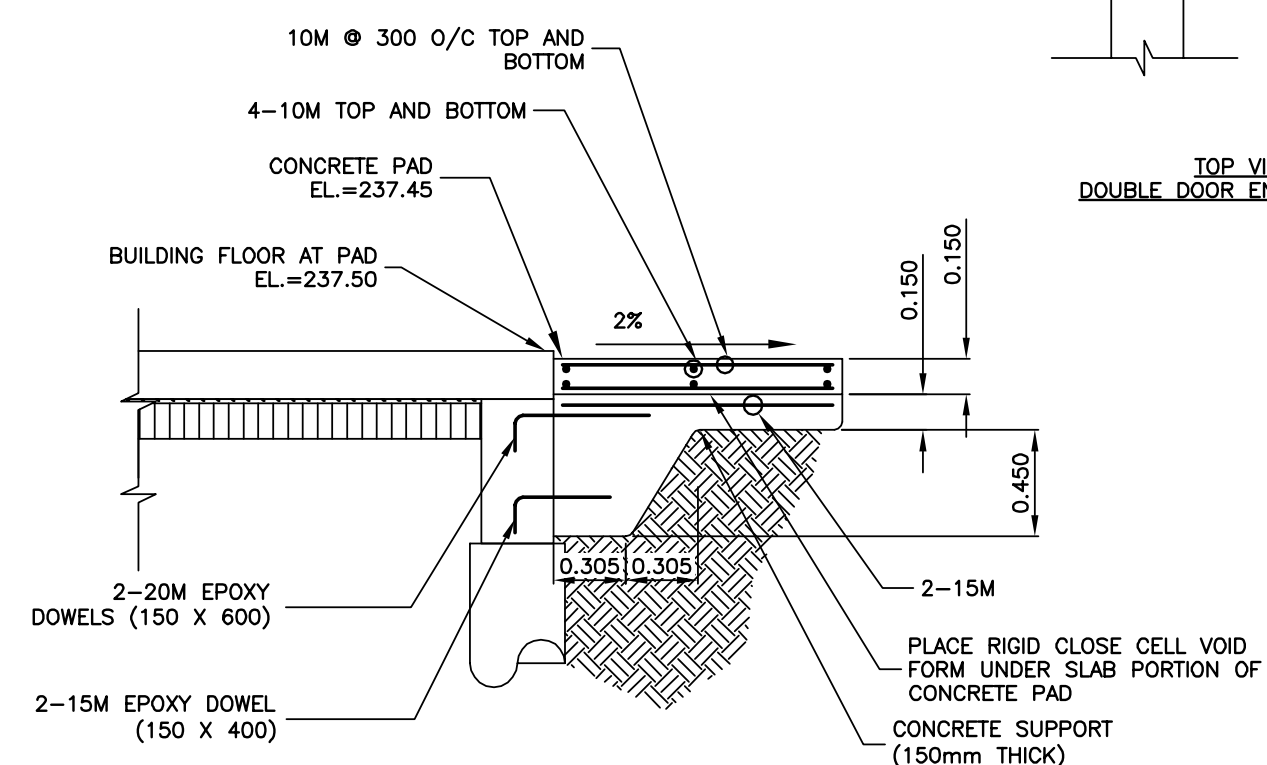
7
1 3
PILASTER DETAIL AT GRADE BEAM
SCALE = 1:30



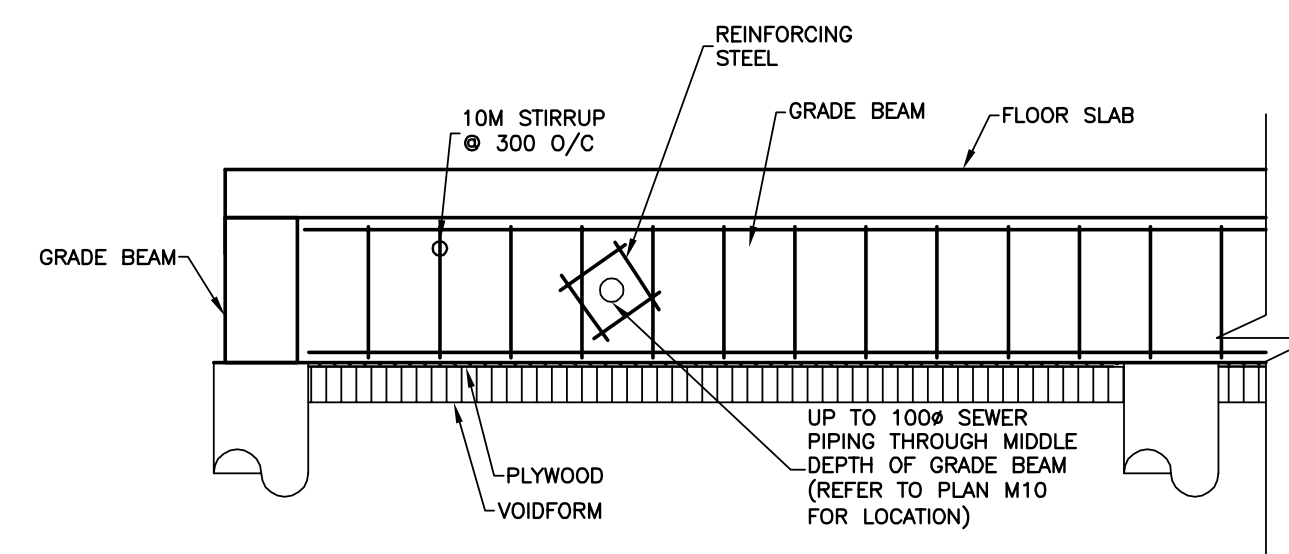
TOP VIEW SINGLE DOOR ENTRANCE PAD



TOP VIEW DOUBLE DOOR ENTRANCE PAD



9
1 3
ENTRANCE PAD DETAIL
SCALE = 1:30



- NOTE:
- PROVIDE 2 ADDITIONAL STIRRUPS ON EITHER SIDE OF PIPE.

10
3
SEWER PIPING THROUGH GRADE BEAM DETAIL
SCALE = 1:30

ORIGINAL DRAWING
SIGNED AND SEALED
BY
D.G. CAMPBELL
16/03/31



JRCC PROJECT # R-325.52



Revision	Description	Date
5		
4		
3	RECORD DRAWING	FEB 2019
2	REVISED GRADE BEAM	MARCH 2017
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	

Client client

Project title Stony Mountain Lagoon Upgrade

STONY MOUNTAIN LAGOON UPGRADE

Designed by DC	Conçu par
Drawn by OT	Dessiné par
Approved by RF	Approuvé par
PM/SC: Project Manager MARK MOGAN	Administrateur de Projets TPSGC

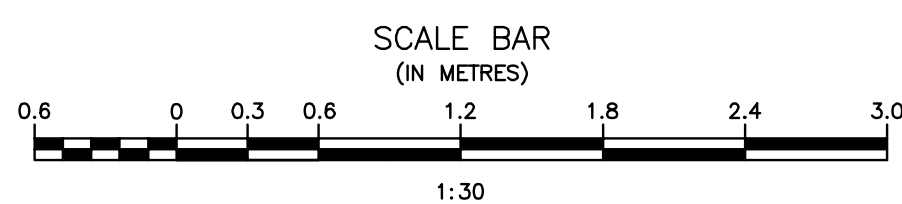
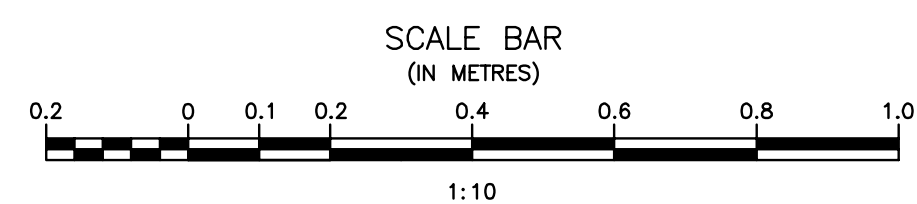
Drawing title Sewage Treatment Building Grade Beam, Channel Drain, Pilaster and Entrance Pad Details

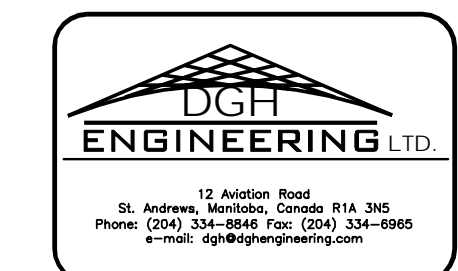
SEWAGE TREATMENT BUILDING GRADE BEAM, CHANNEL DRAIN, PILASTER AND ENTRANCE PAD DETAILS

Project no./No. du projet R.075583.001	Drawing no./No. du dessin S3	Revision no. 0
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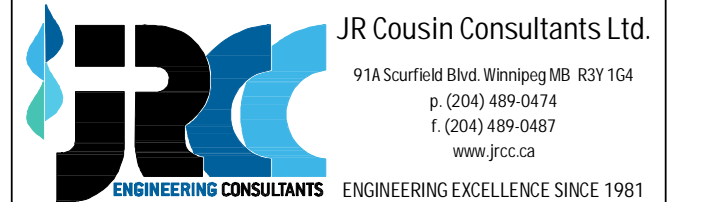
Record Drawing

Drawing compiled from visual observations of various parts of construction and/or from information by others. Accuracy not warranted. Independent verification required before application.





JRCC PROJECT # R-325.52



Revision	Description	Date
5		
4		
3	RECORD DRAWING	FEB 2019
2	REVISED OVERFLOW PIPE	MARCH 2017
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	

Project title: **STONY MOUNTAIN LAGOON UPGRADE**

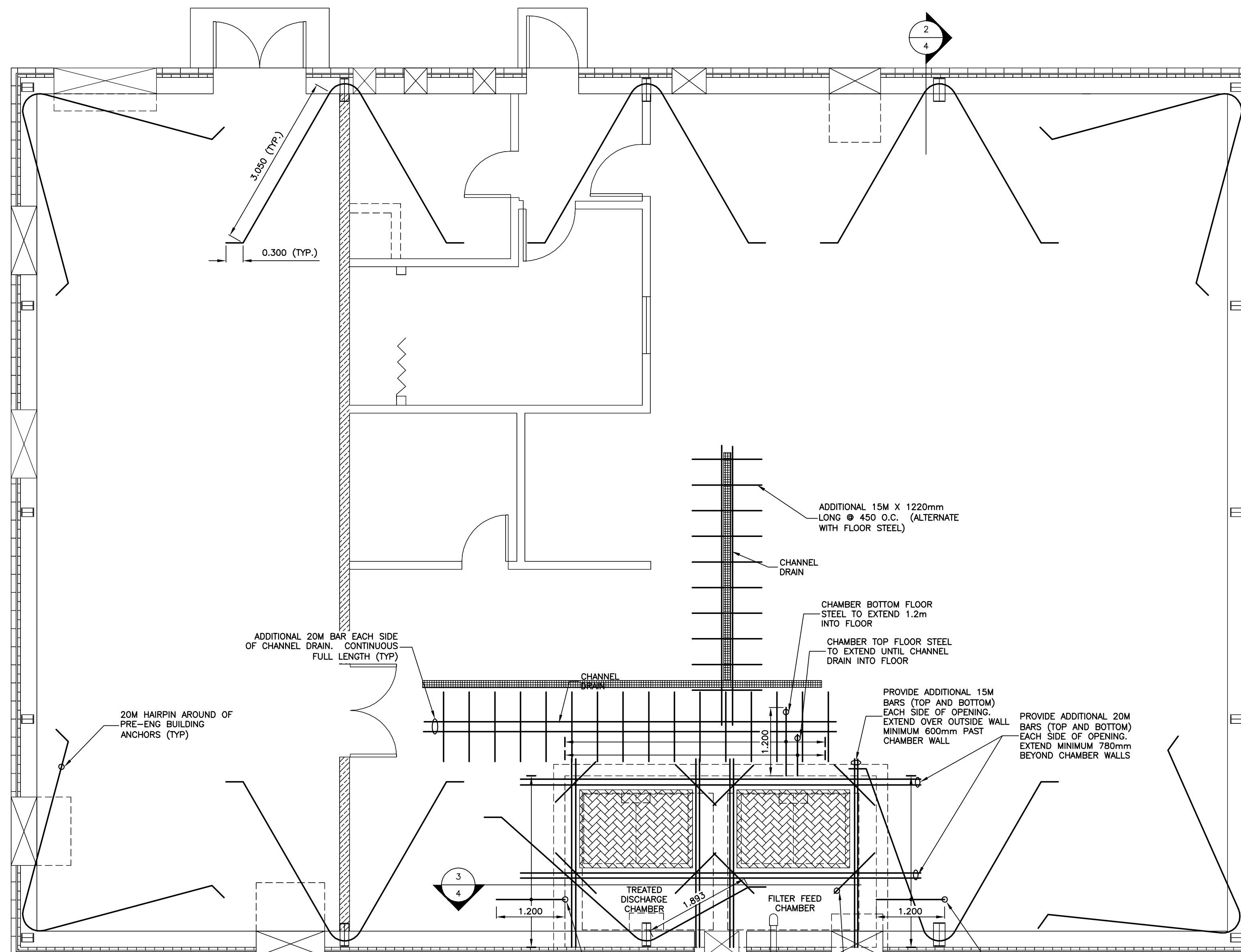
STONY MOUNTAIN LAGOON UPGRADE

Designed by	Conçu par	DC
Drawn by	Dessiné par	OT
Approved by	Approuvé par	RF
Project Manager	Administrateur de Projets	MARK MOGAN

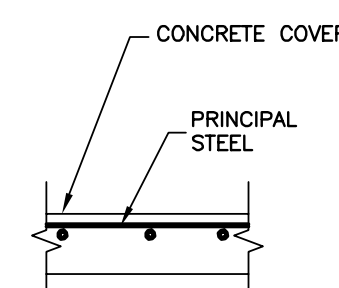
**SEWAGE TREATMENT BUILDING
ADDITIONAL REINFORCING PLAN**

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	S4	0

OF 6

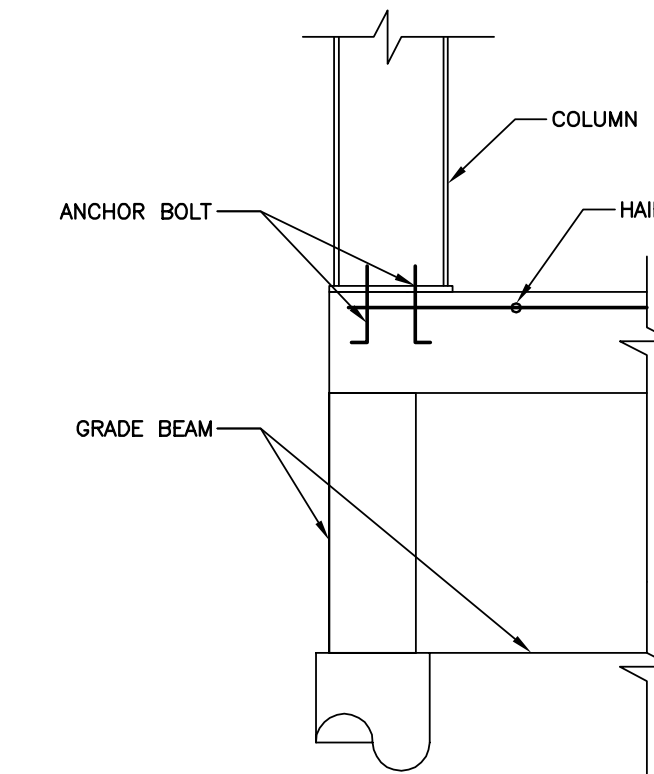
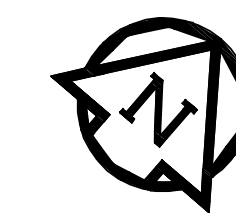
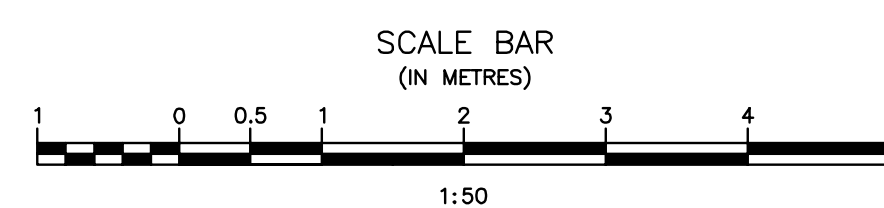
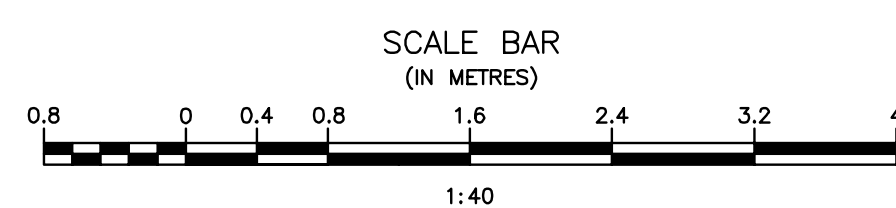
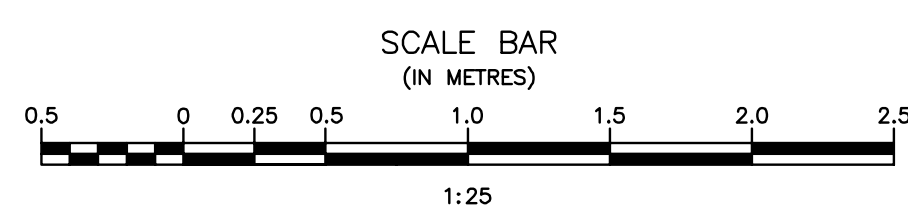


1 ADDITIONAL REINFORCING PLAN
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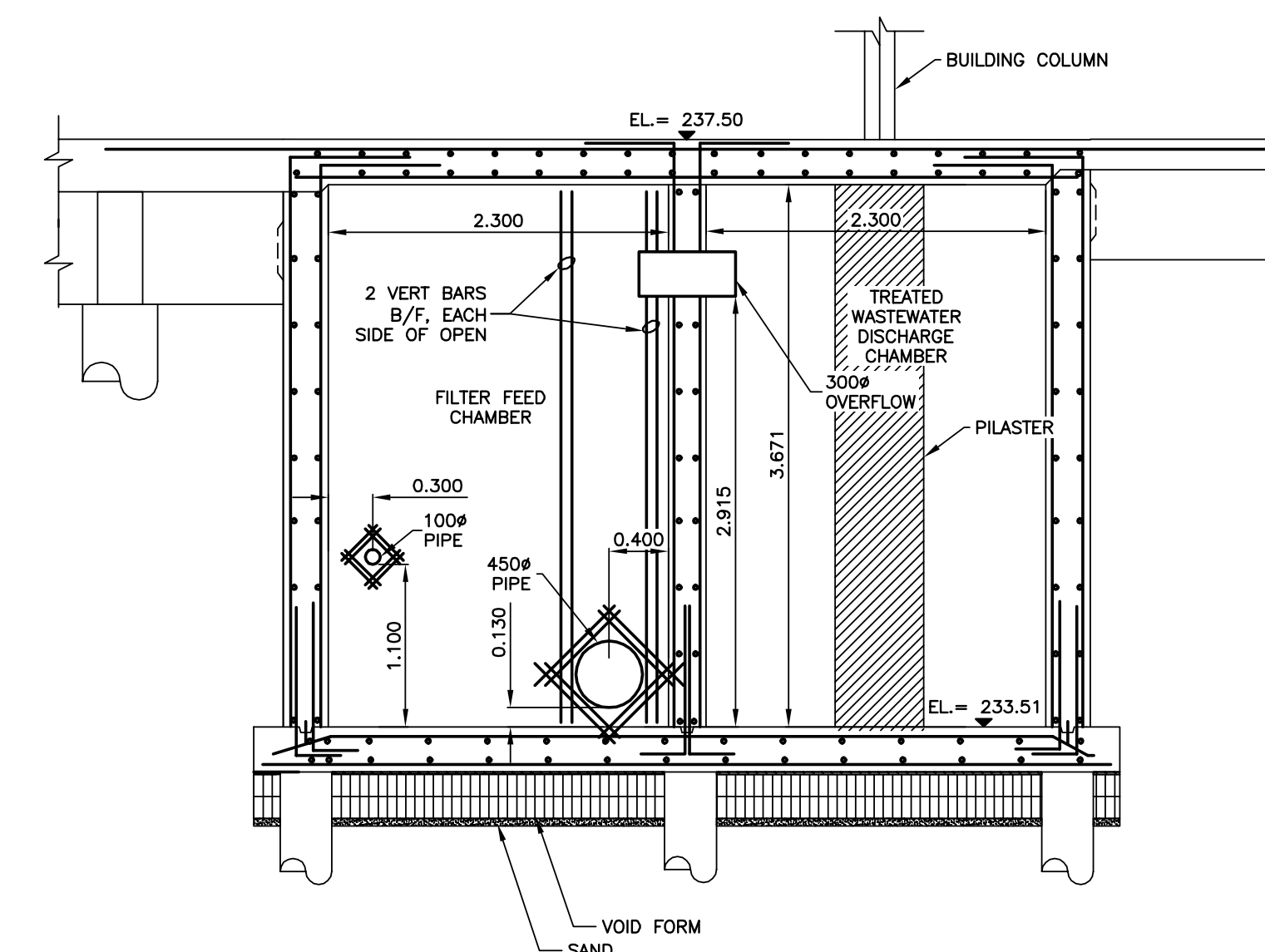


REINFORCING NOTES:

- CUT TOP STEEL AS REQUIRED TO MAINTAIN 50mm END COVER AROUND MANHOLES AND OTHER LARGE FLOOR OPENINGS.
- USE 15M REBAR TO REINFORCE OPENINGS AND PORTS.
- REINFORCING TO BE SINGLE FACE ONLY.
- PRINCIPAL STEEL TO BE PLACED TO MEET MINIMUM CONCRETE COVER. (TYPICAL TOP AND BOTTOM)
- BARS LABELED "CONTINUOUS FULL LENGTH" ARE NOT SHOWN AS SUCH FOR CLARITY.



2 HAIRPIN DETAIL
SCALE = 1:25

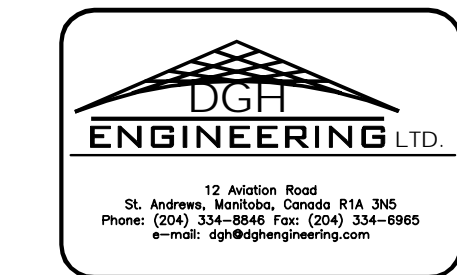


3 REINFORCING SECTION THROUGH TREATED DISCHARGE AND FILTER FEED CHAMBER
SCALE = 1:40

Record Drawing

Drawing compiled from visual observations of various parts of construction and/or from information by others. Accuracy not warranted. Independent verification required before application.

ORIGINAL DRAWING
 SIGNED AND SEALED
 BY
 D.G. CAMPBELL
 16/03/31



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Revision	Description	Date
5		
4		
3	RECORD DRAWING	FEB 2019
2	REVISED REBAR SPACING	MARCH 2017
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	

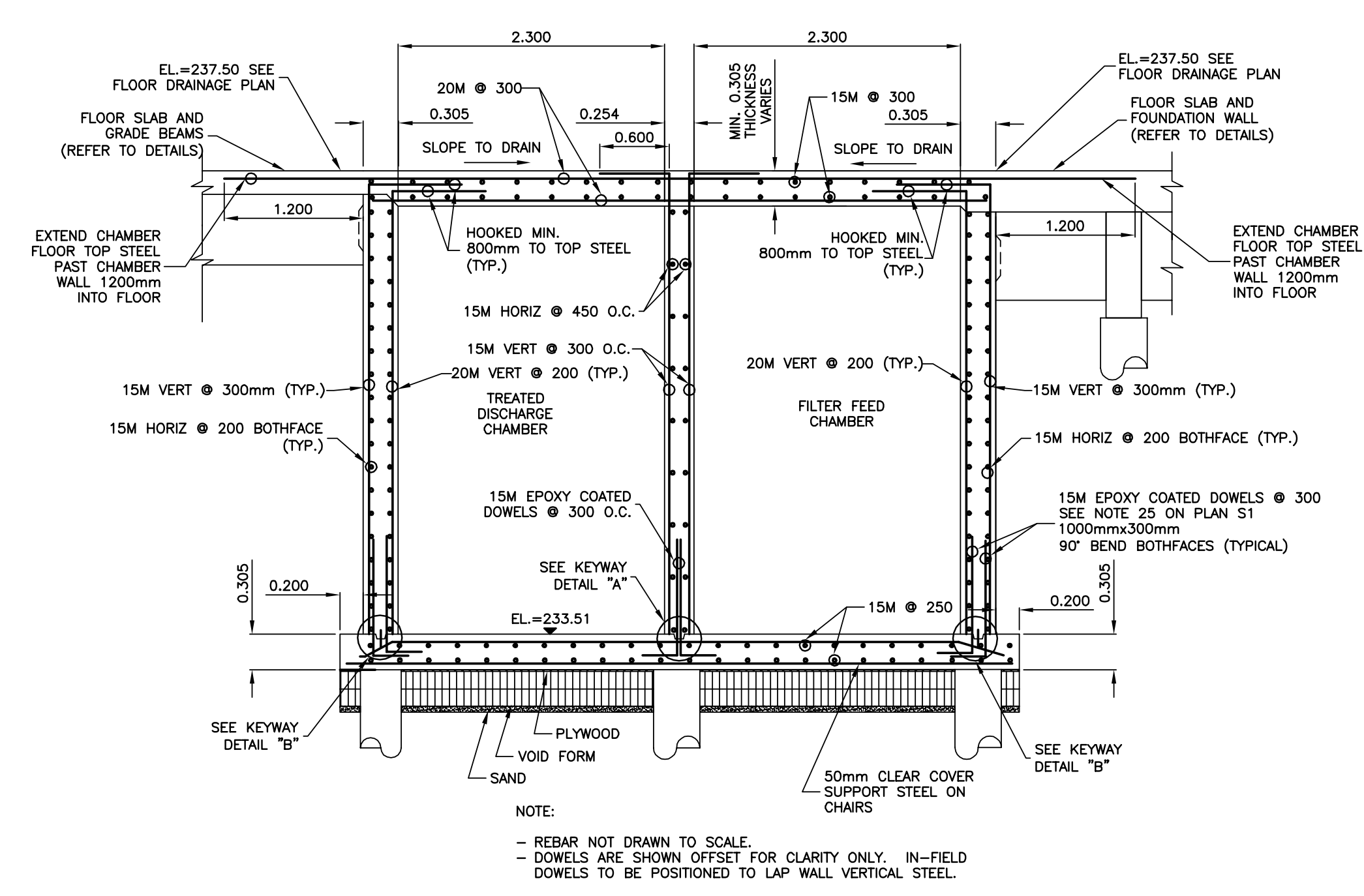
Client: _____ client

Project title: _____ Projet

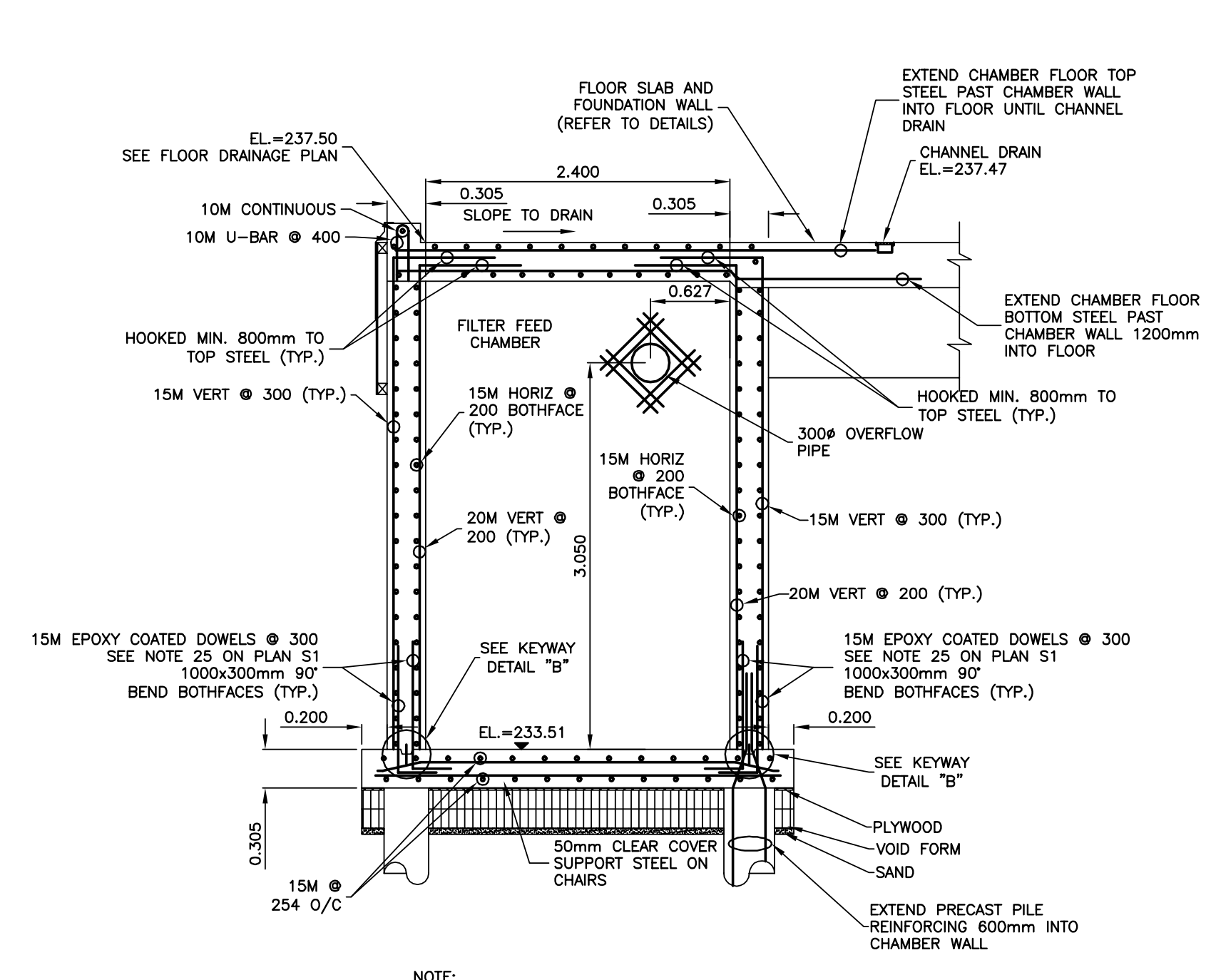
Designed by	Conçu par	DC
Drawn by	Dessiné par	OT
Approved by	Approuvé par	RF
PM/ESC: Project Manager	Administrateur de Projets TPSGC	MARK MOGAN
Drawing title	Titre du dessin	

**SEWAGE TREATMENT BUILDING
 STRUCTURAL DETAILS**

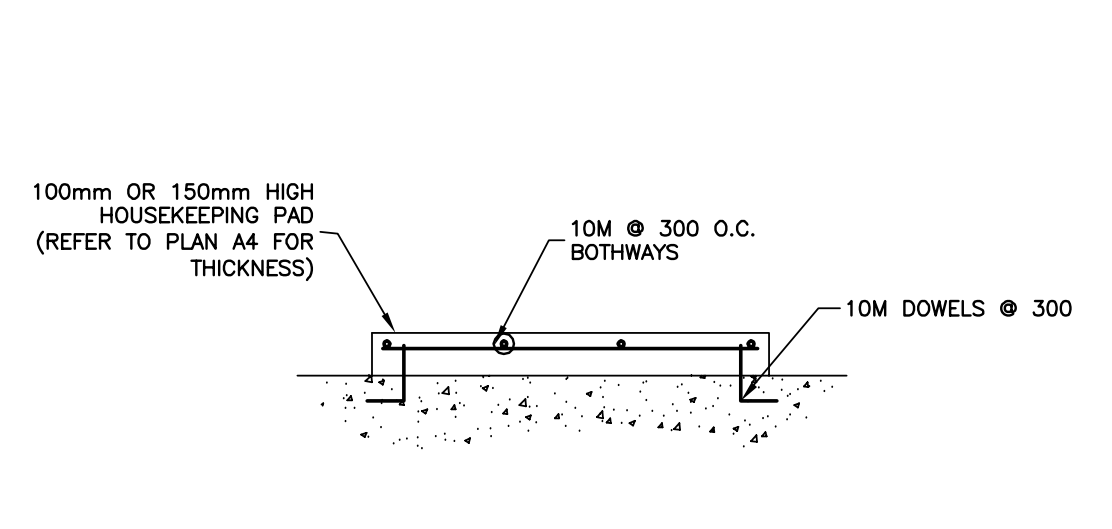
Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	S5	0
	OF 6	



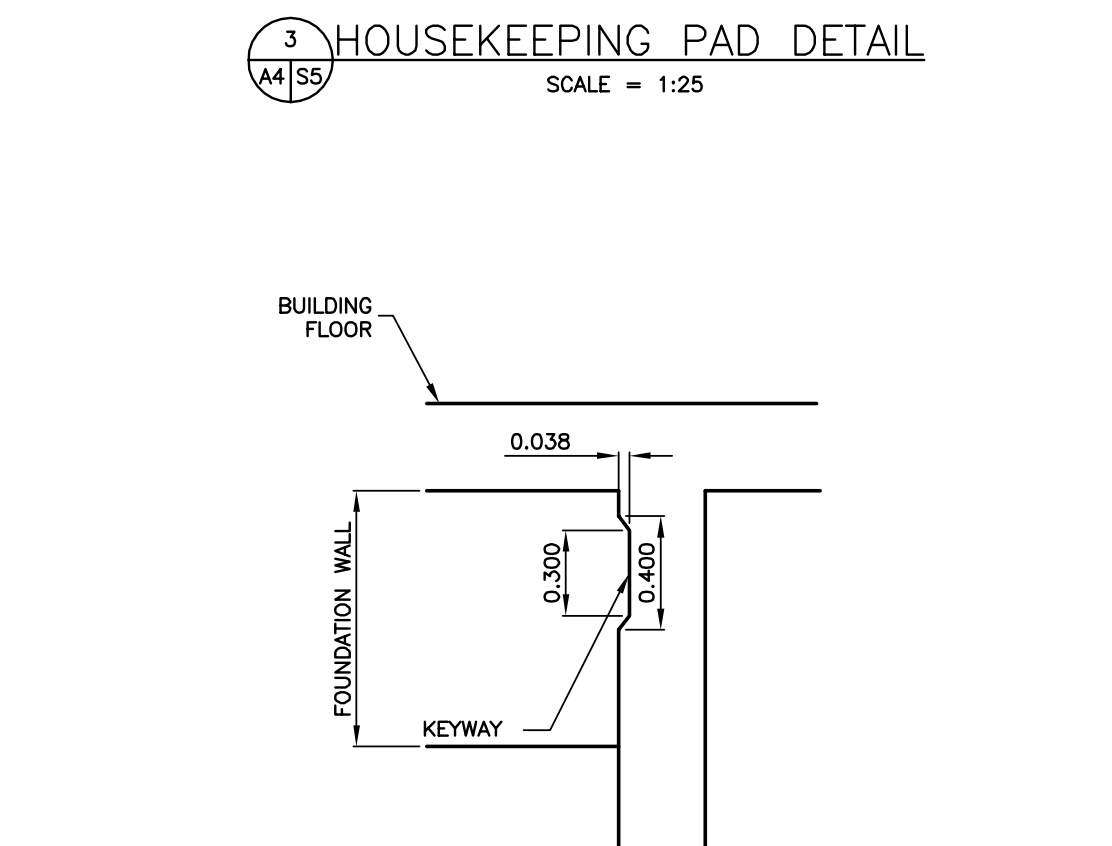
1 SECTION THROUGH TREATED DISCHARGE AND FILTER FEED CHAMBER
 SCALE = 1:40



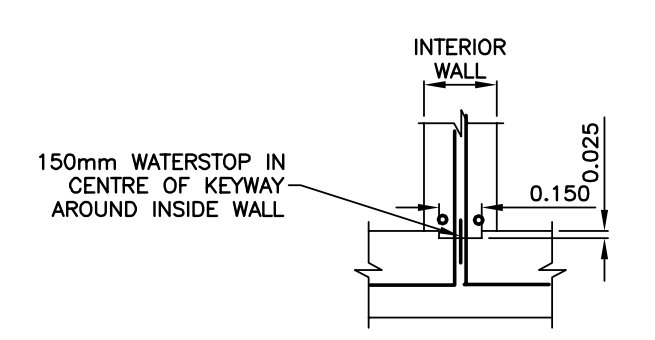
2 SECTION THROUGH FILTER FEED CHAMBER
 SCALE = 1:40



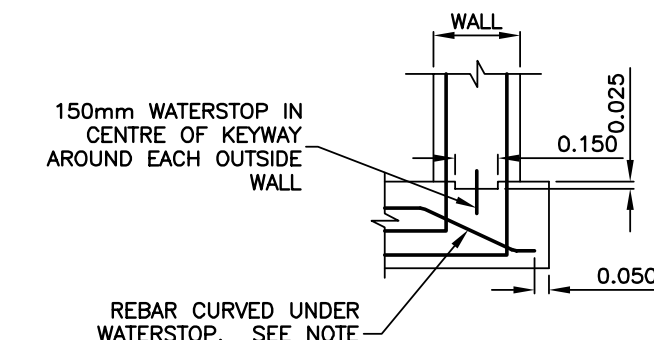
3 HOUSEKEEPING PAD DETAIL
 SCALE = 1:25



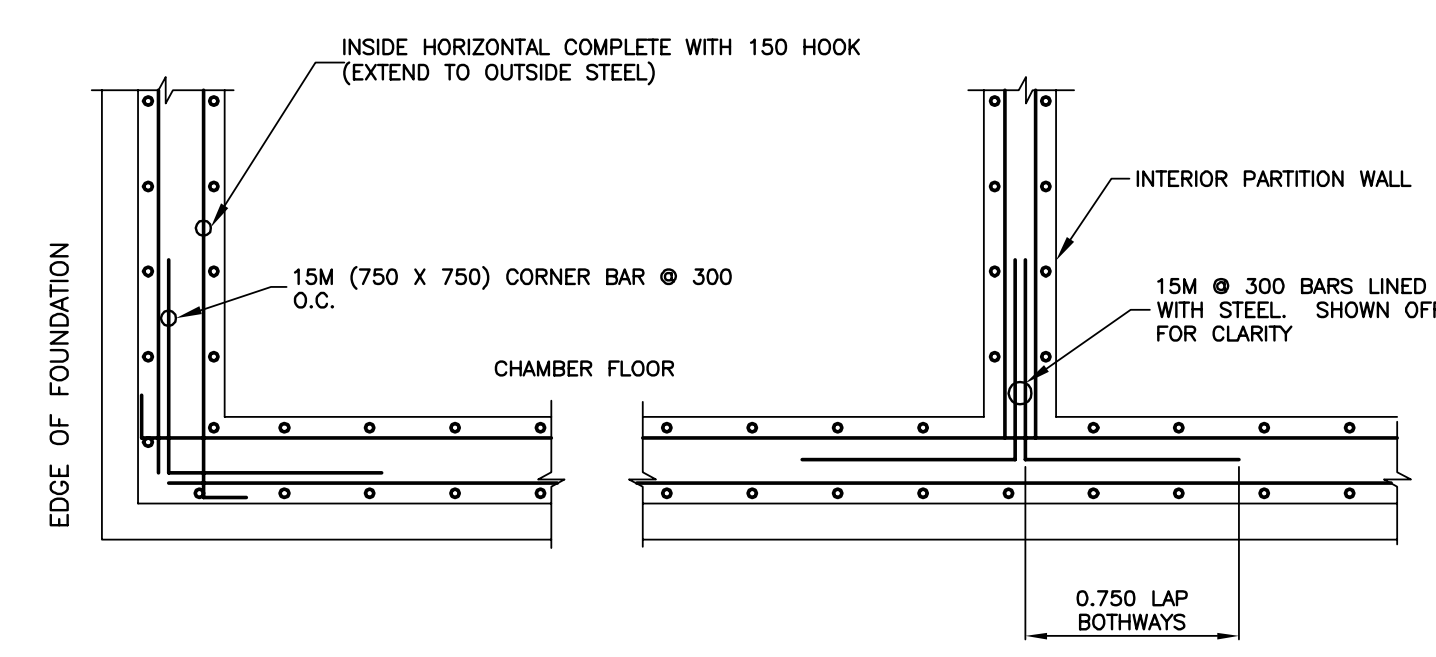
DETAIL "C" - KEYWAY
 SCALE = 1:25



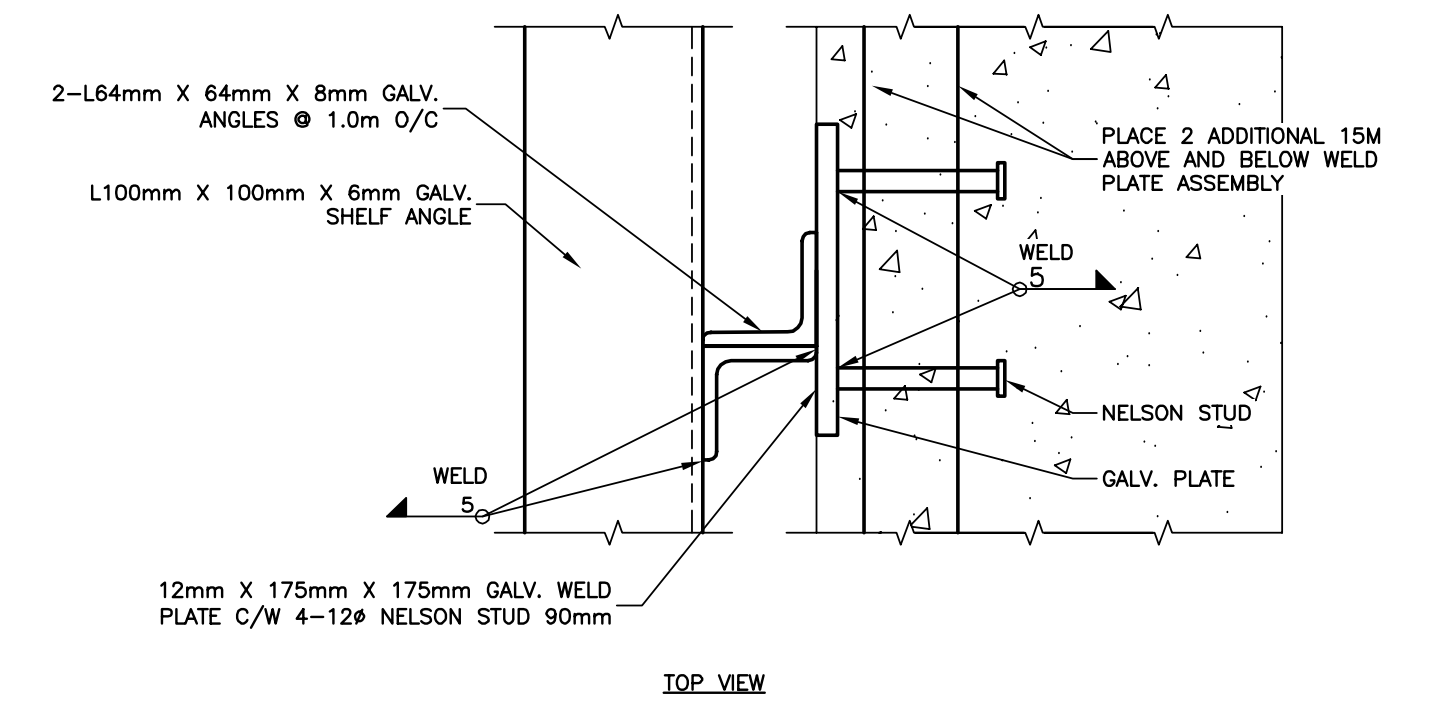
KEYWAY DETAIL "A"
 SCALE = 1:25



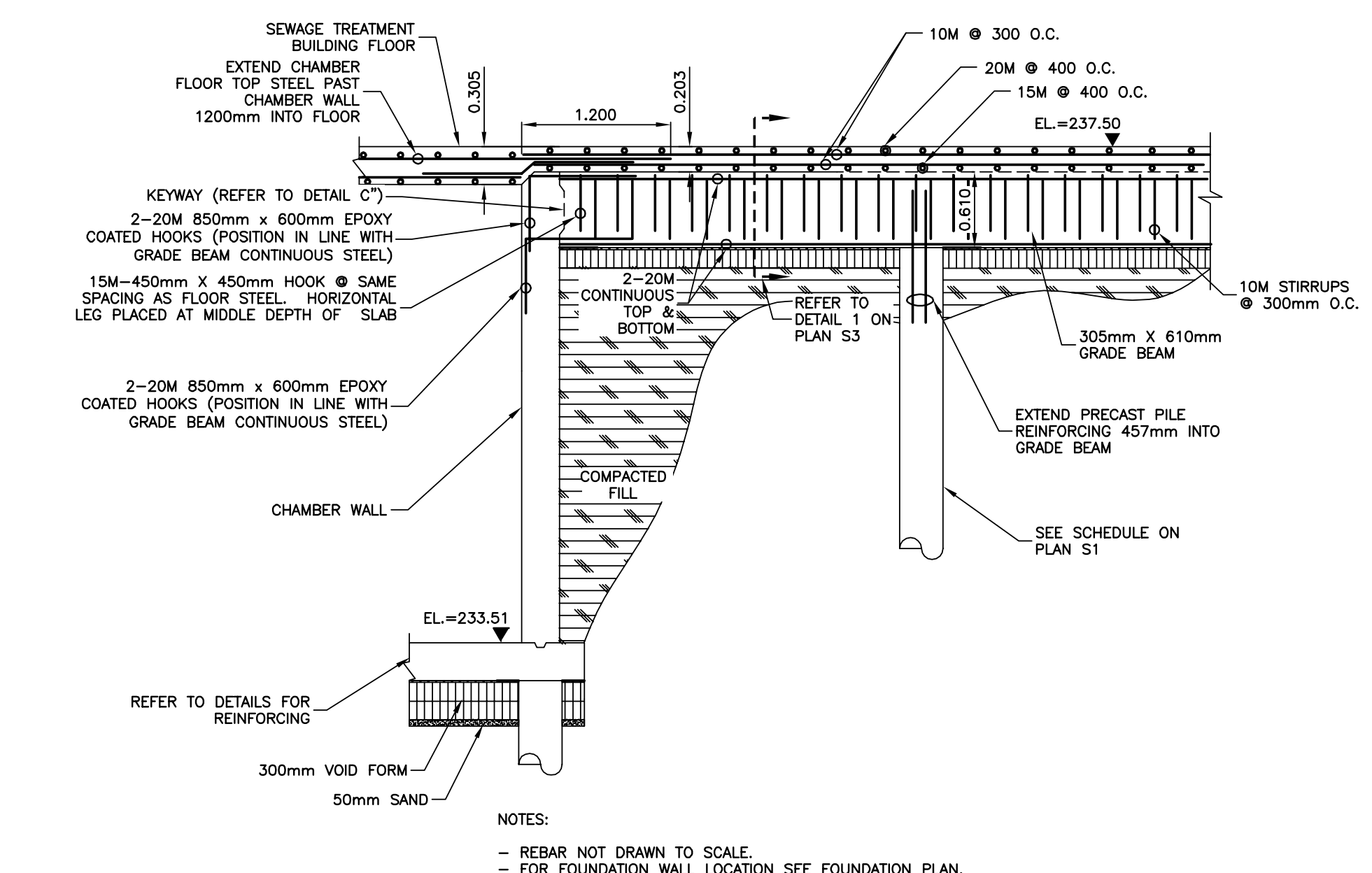
KEYWAY DETAIL "B"
 SCALE = 1:25



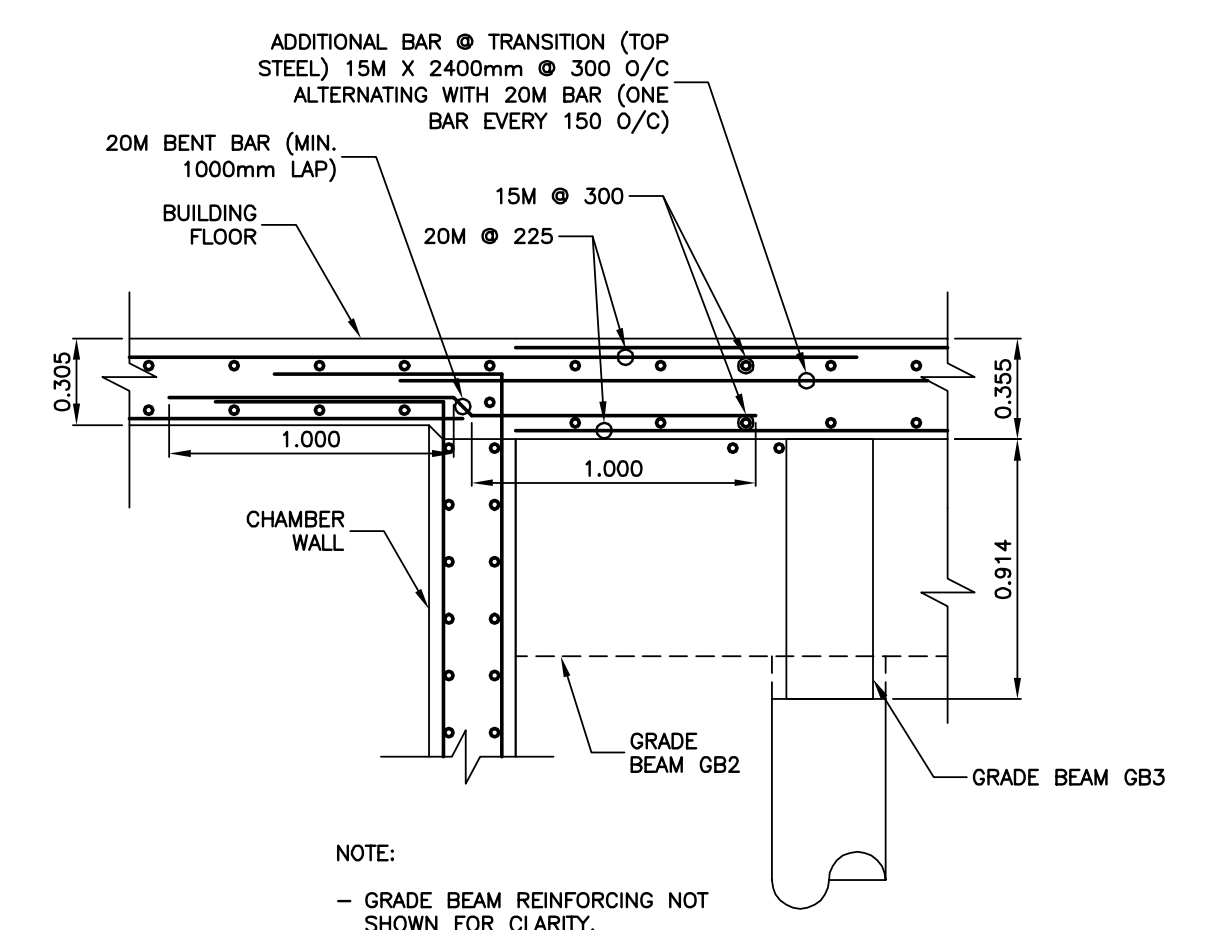
4 CORNER AND PARTITION WALL DETAIL - TOP VIEW
 SCALE = 1:25



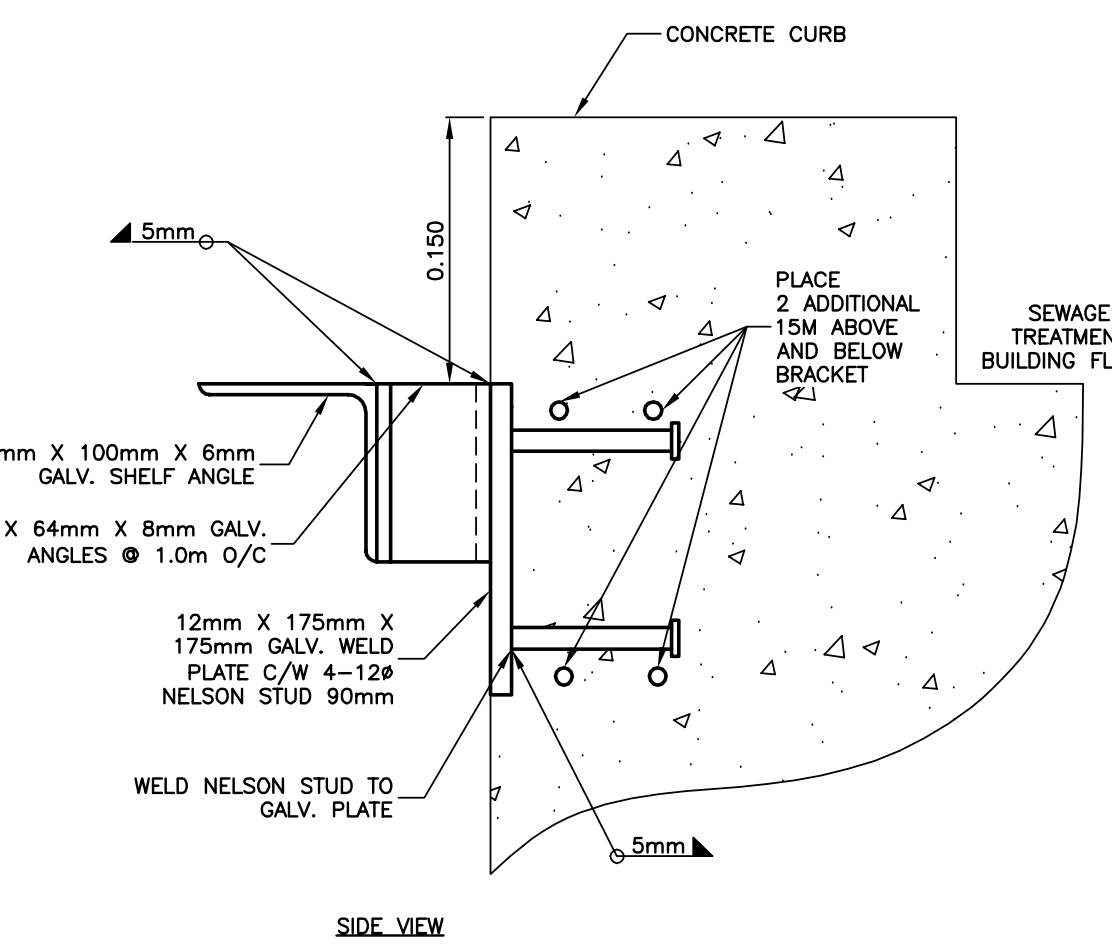
TOP VIEW



5 TYPICAL SLAB REINFORCING DETAIL, FOUNDATION WALL AND CHAMBER WALL CONNECTION
 SCALE = 1:40

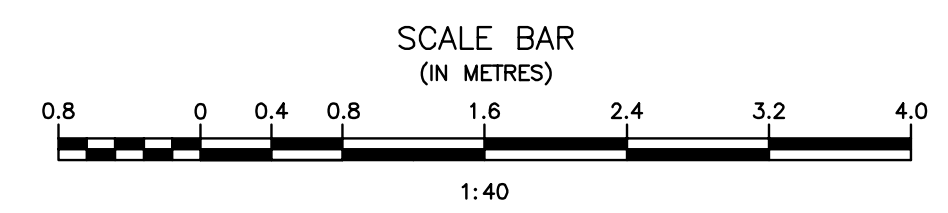
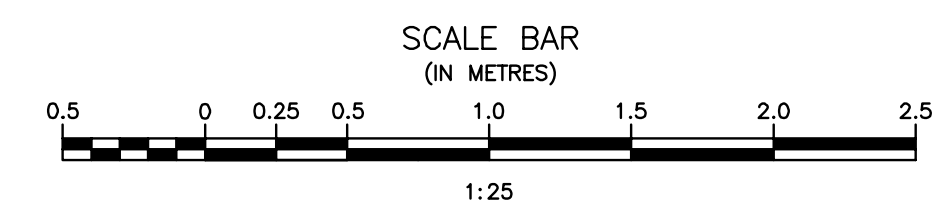
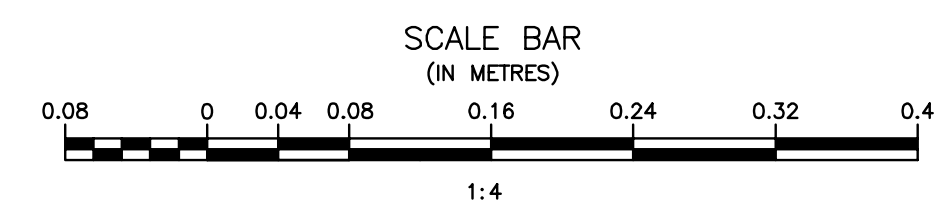


6 FLOOR SLAB TRANSITION THROUGH CHAMBER WALL
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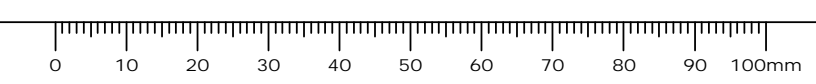
SIDE VIEW

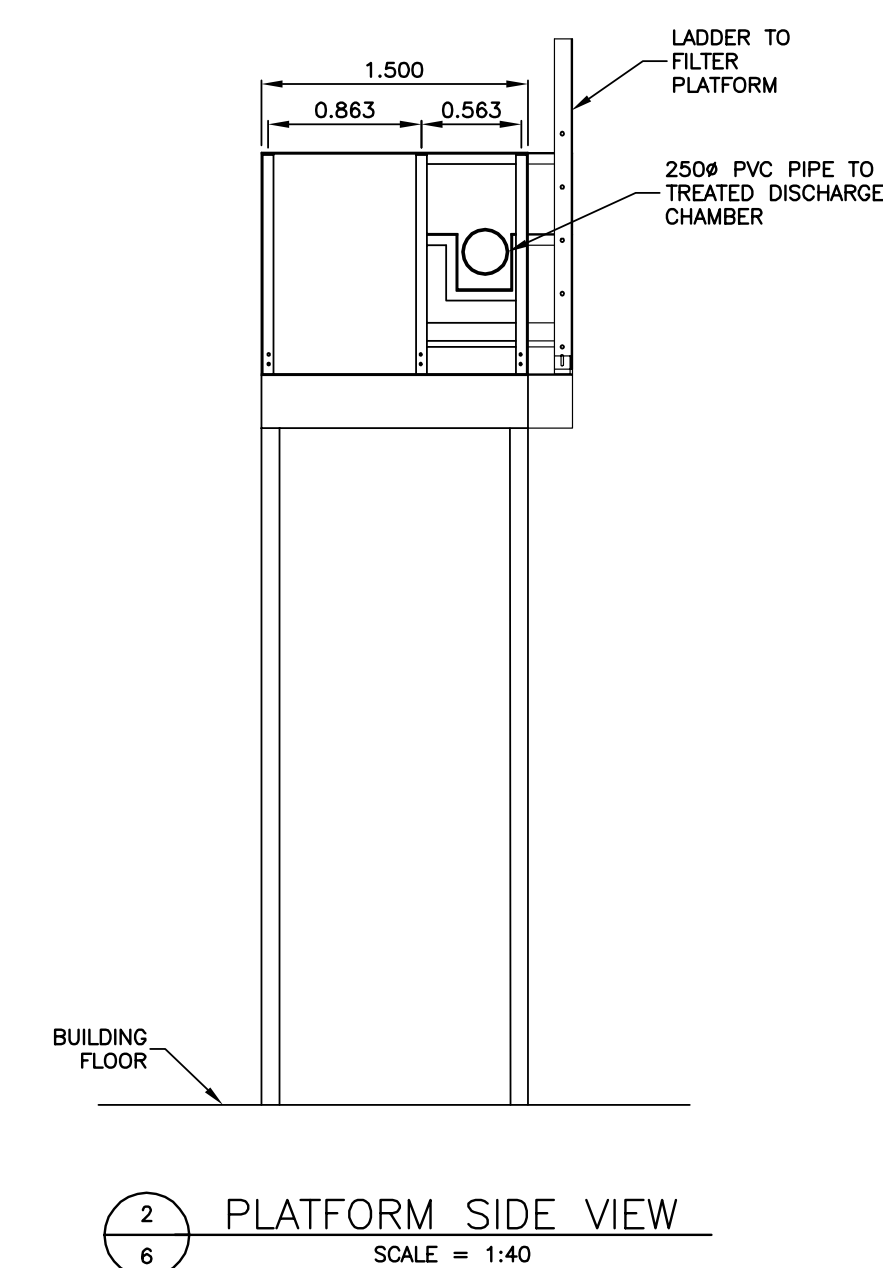
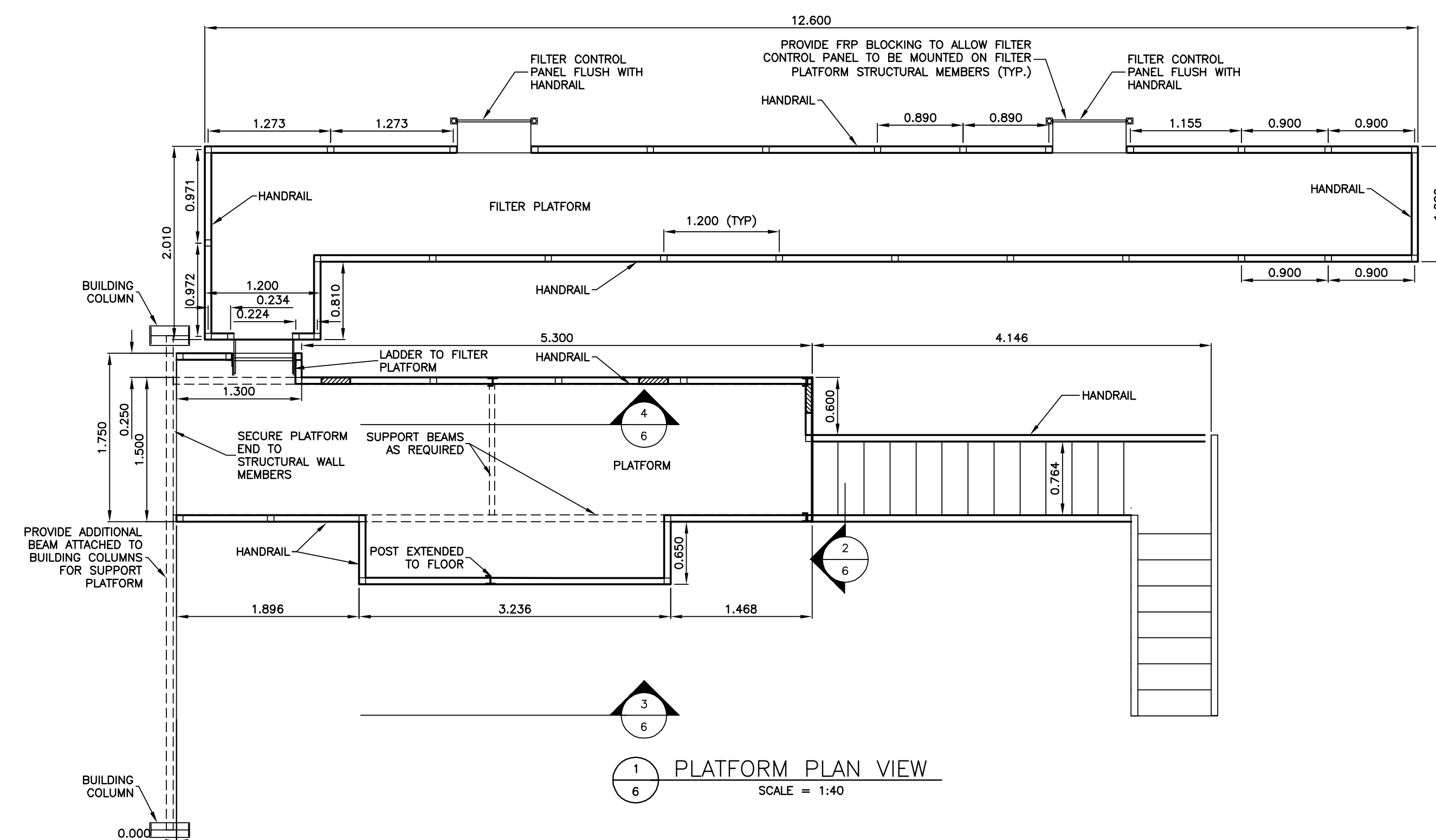
7 VENEER BRICK SUPPORT SYSTEM
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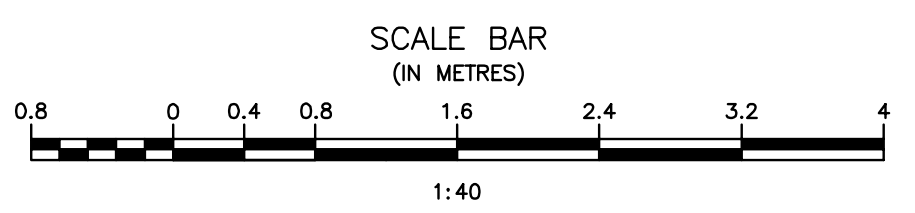
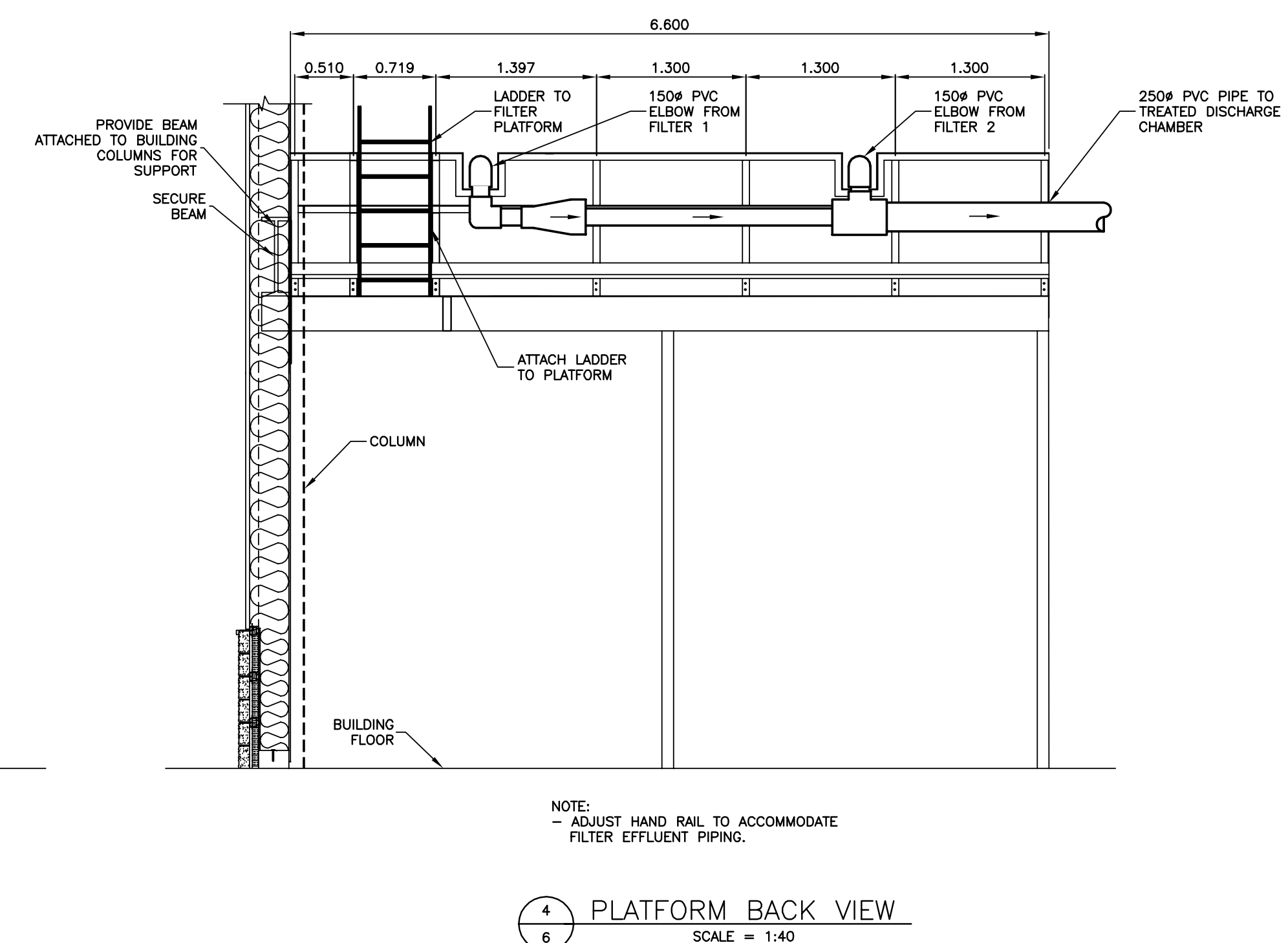
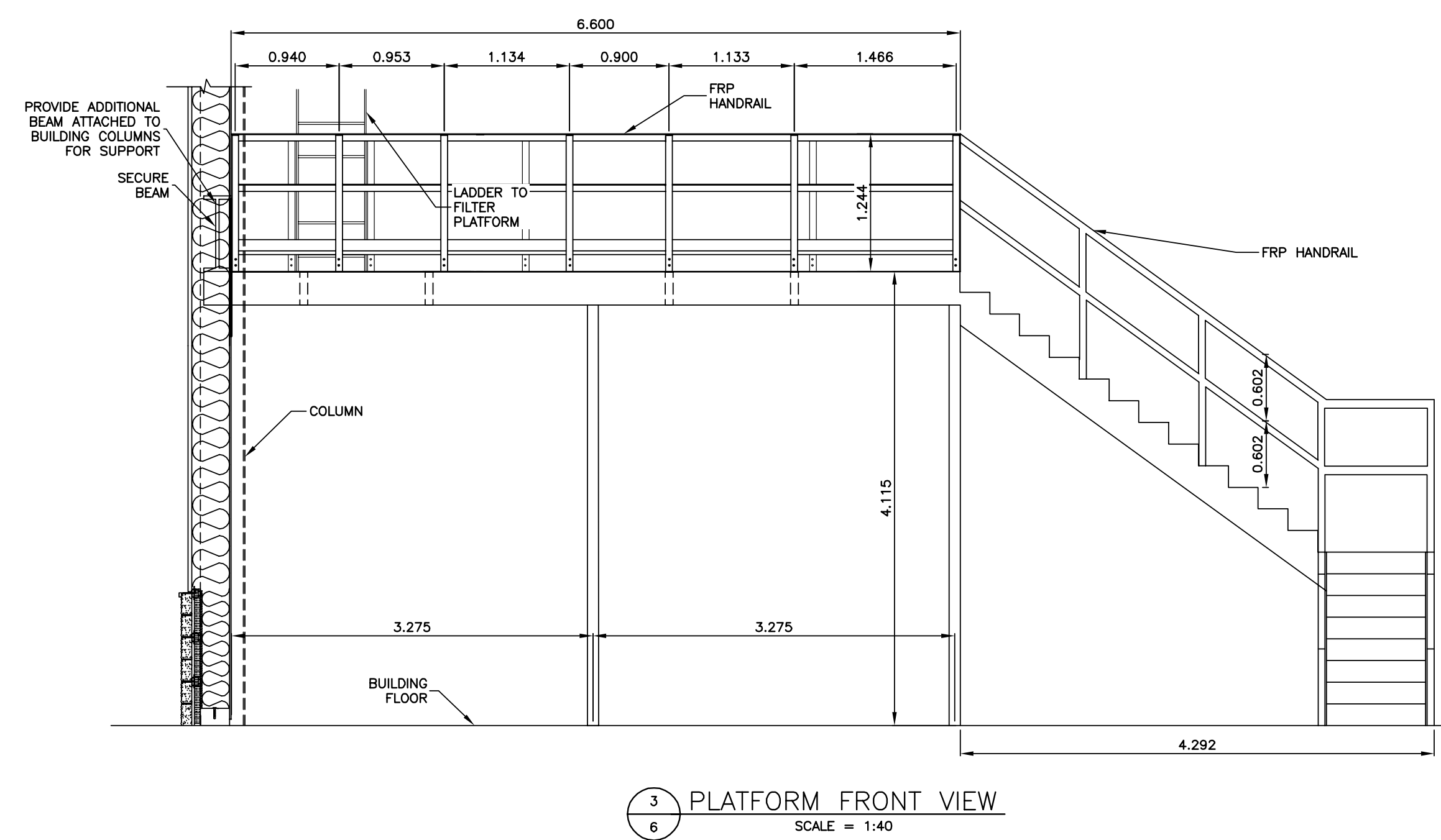
Record Drawing

Drawing compiled from visual observations of various parts of construction and/or from information by others. Accuracy not warranted. Independent verification required before application.





LEGEND:
CHANGES IN HANDRAIL



ORIGINAL DRAWING
SIGNED AND SEALED
BY
J.R.L. COUSIN
16/03/29

APEGM
Certificate of Authorization
J.R. Cousin Consultants Ltd.
No. 234 Date: 16/03/29

JRCC PROJECT # R-325.52
JRCC JR Cousin Consultants Ltd.
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Revision	Description	Date
5		
4		
3		
2	RECORD DRAWING	FEB 2019
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	

Client: client

Project title: Project

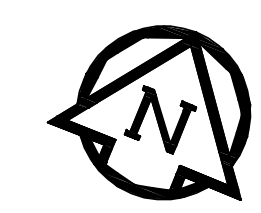
STONY MOUNTAIN LAGOON UPGRADE

Designed by: Conçu par
JRC
Drawn by: Dessiné par
OT
Approved by: Approuvé par
JRC
PWSSC Project Manager / Administrateur de Projets TPSGC
MARK MOGAN

Drawing title: Titre du dessin
SEWAGE TREATMENT BUILDING PLATFORM DETAILS

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	S6 OF 6	0

Record Drawing
Drawing compiled from visual observations of various parts of construction and/or from information by others. Accuracy not warranted. Independent verification required before application.



ORIGINAL DRAWING
 SIGNED AND SEALED
 BY
 J.R.L. COUSIN
 17/03/06

APCM
 Certificate of Authorization
J.R. Cousin Consultants Ltd.
 No. 234 Date: 17/03/06

JRCC PROJECT # R-325.52

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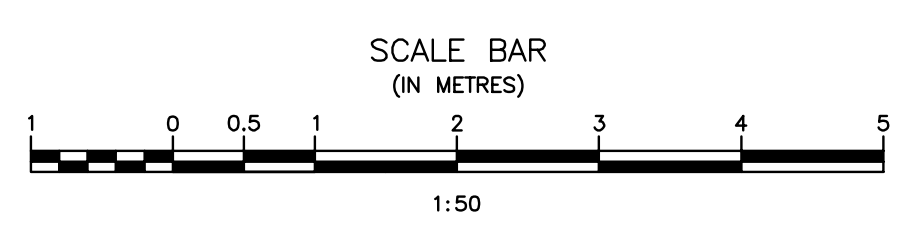
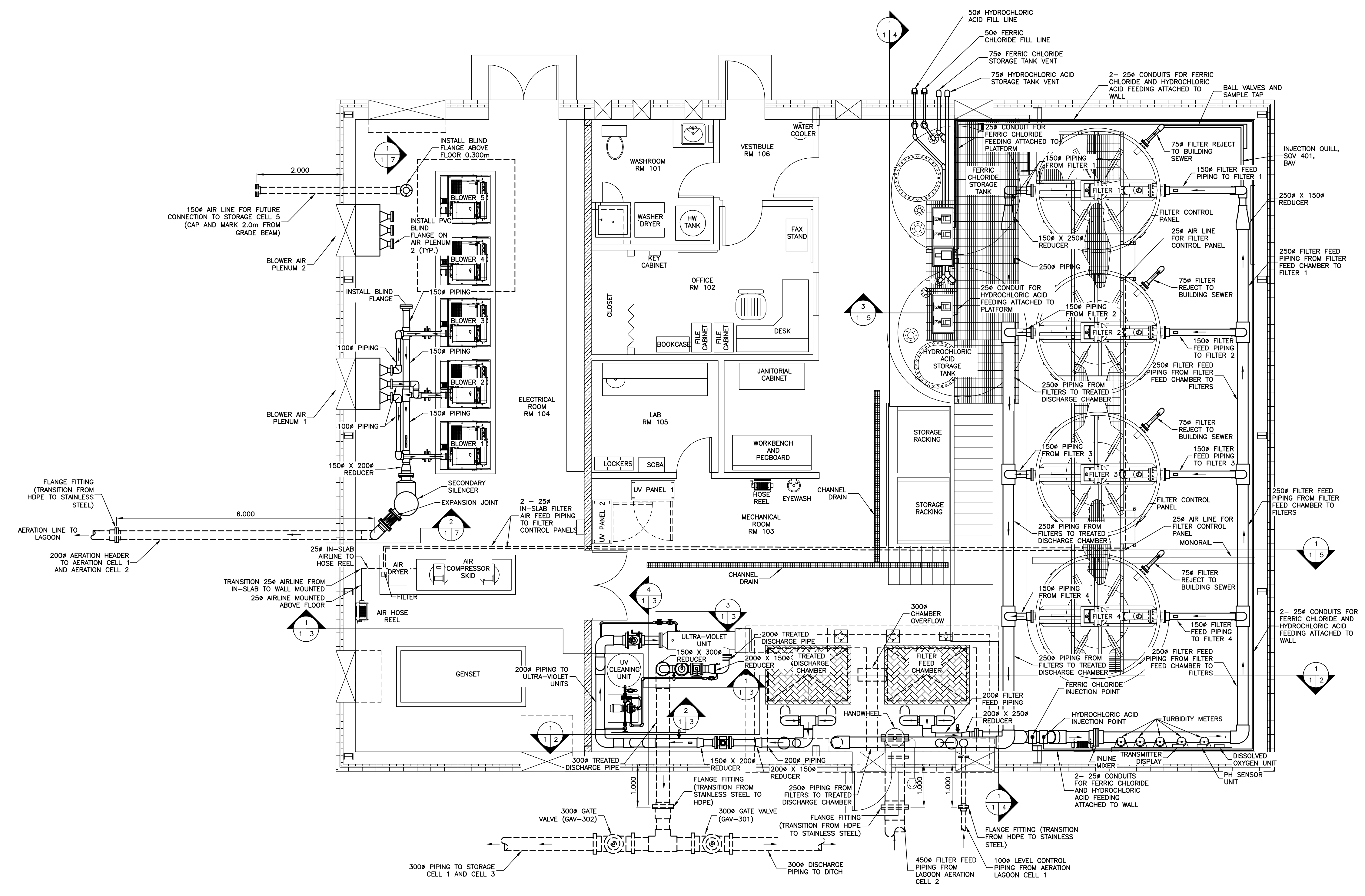
Revision	Description	Date
5	RECORD DRAWING	FEB 2019
4	REVISED CHEMICAL PIPING	MAY 2018
3	REVISED PIPING	OCT. 2017
2	REVISED PIPING	MARCH 2017
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	

Revision	Description	Date
Client		client

Project title: **STONY MOUNTAIN LAGOON UPGRADE**

Designed by	Conçu par	JRC
Drawn by	Dessiné par	OT
Approved by	Approuvé par	JRC
PM/ESC: Project Manager	Administrateur de Projets TPSGC	MARK MOGAN
Drawing title	Titre du dessin	SEWAGE TREATMENT BUILDING MECHANICAL LAYOUT

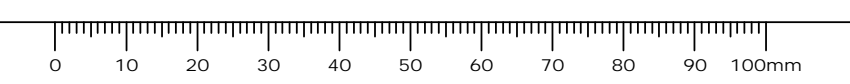
Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	M1	0
	OF 11	



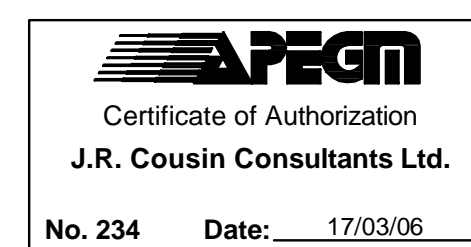
MECHANICAL LAYOUT
 SCALE = 1:50

- NOTES:
- ALL SAMPLE TAPS TO BE DIRECTED AWAY FROM ELECTRONIC DEVICES.
 - REFER TO P&ID FOR ALL PIPE MATERIAL.
 - ALL BOLTS, NUTS, WASHERS, ETC... TO BE STAINLESS STEEL.
 - ALL PIPING SUPPORT STRUCTURES TO BE STAINLESS STEEL (PROVIDE SHOP DRAWINGS)
 - ALL SCRATCHES TO NEW EQUIPMENT SUPPLIED TO BE TOUCHED-UP WITH MATCHING PAINT SUPPLIED BY THE MANUFACTURER.

Record Drawing
 Drawing compiled from visual observations of various parts of construction and/or from information by others. Accuracy not warranted. Independent verification required before application.



ORIGINAL DRAWING
SIGNED AND SEALED
BY
J.R.L. COUSIN
17/03/06



JRCC PROJECT # R-325.52
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3	RECORD DRAWING	FEB 2019
2	REVISED OVERFLOW, SAMPLING LOCATIONS	MARCH 2017
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	
Revision	Description	Date
Client		client

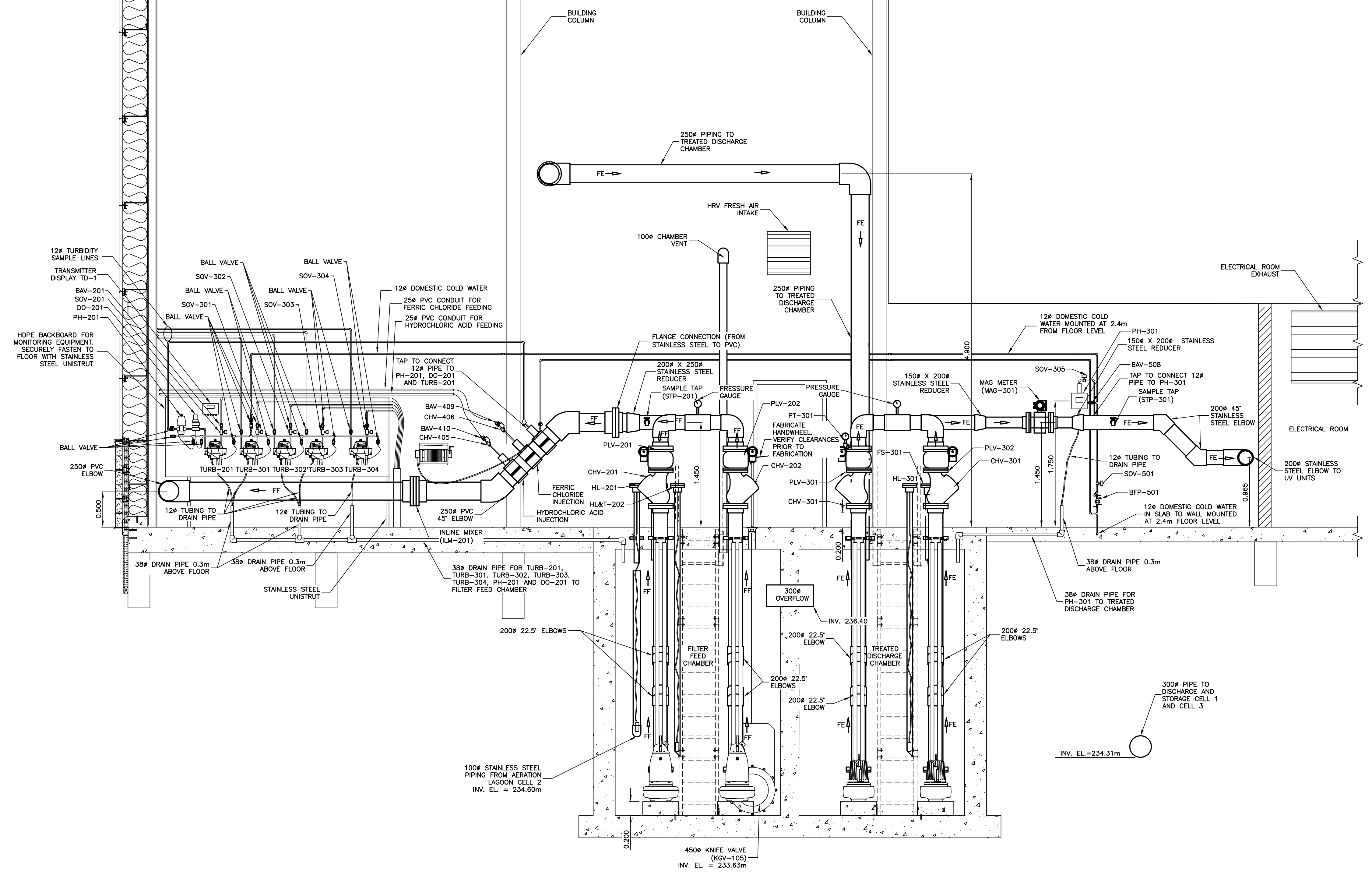
Project title: Project

STONY MOUNTAIN LAGOON UPGRADE

Designed by: JRC
Drawn by: OT
Approved by: JRC
PWSC Project Manager: MARK MOGAN
Administrateur de Projets TPSGC

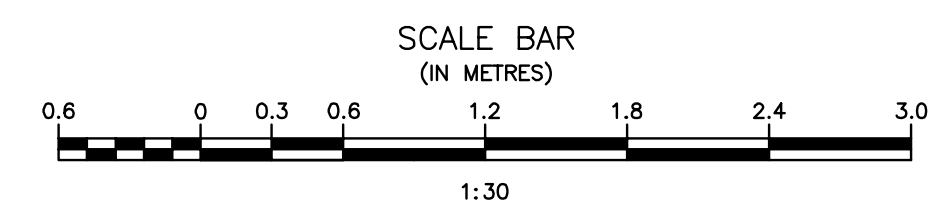
Drawing title: **SEWAGE TREATMENT BUILDING SOUTHEAST WALL INTERIOR ELEVATION**

Project no./No. du projet: **R.075583.001**
Drawing no./No. du dessin: **M2**
Revision no.: **0**

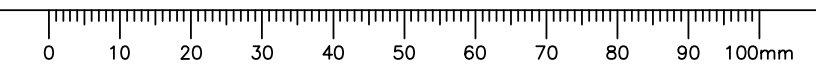


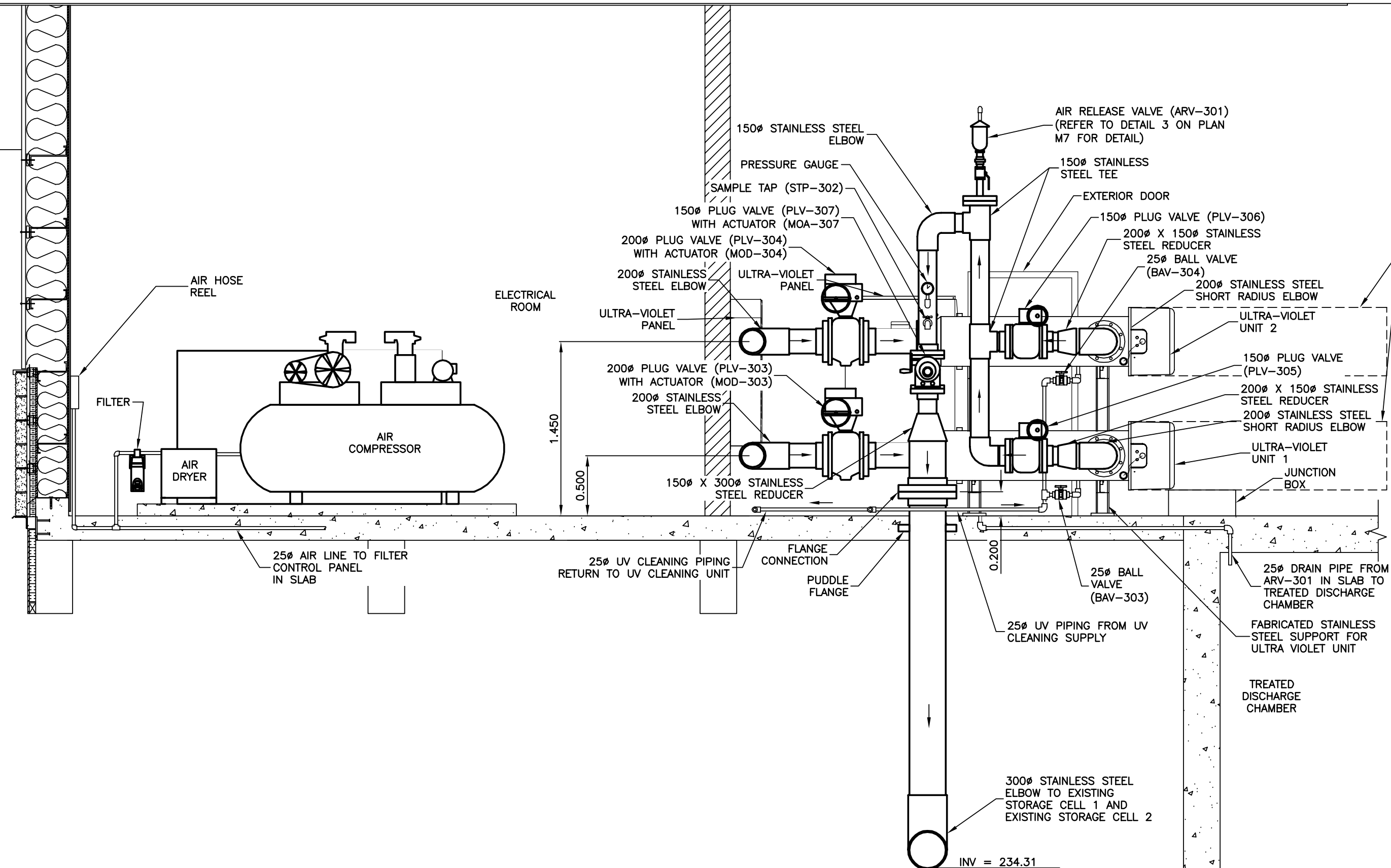
- NOTES:
- REFER TO P&ID FOR PIPE MATERIAL.
 - PROVIDE SUPPORT AND RESTRAINT FOR ALL PIPING AS REQUIRED. PIPE SUPPORTS FOR THE FILTERED WATER TO BE CONNECTED TO THE FILTER LEGS. SUPPORTS FROM CEILING ARE NOT ACCEPTABLE.
 - BACKFILL NOT SHOWN.
 - ALL DOMESTIC HOT AND COLD WATER PIPE ABOVE FLOOR TO BE INSULATED.
 - FE - FILTER EFFLUENT
 - FF - FILTER FEED
 - DOMESTIC WATER PIPING TO BE COPPER
 - USE STAINLESS STEEL BALL VALVES FOR BAV-501, BAV-502, BAV-503, BAV-504, BAV-505, BAV-506, BAV-507, BAV-508

1 2 SOUTHEAST WALL INTERIOR ELEVATION
SCALE = 1:30



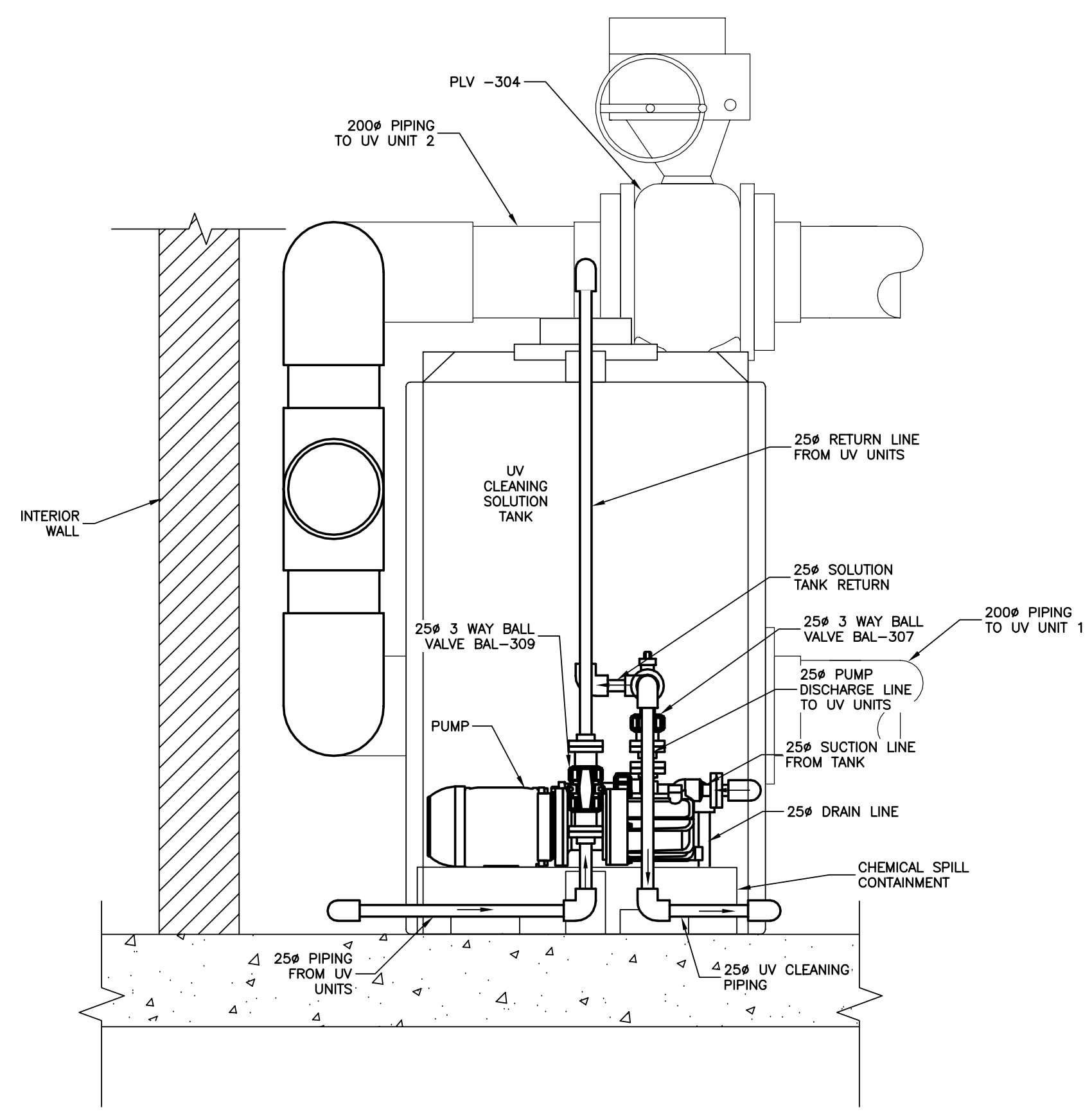
Record Drawing
Drawing compiled from visual observations of various parts of construction and/or from information by others. Accuracy not warranted. Independent verification required before application.



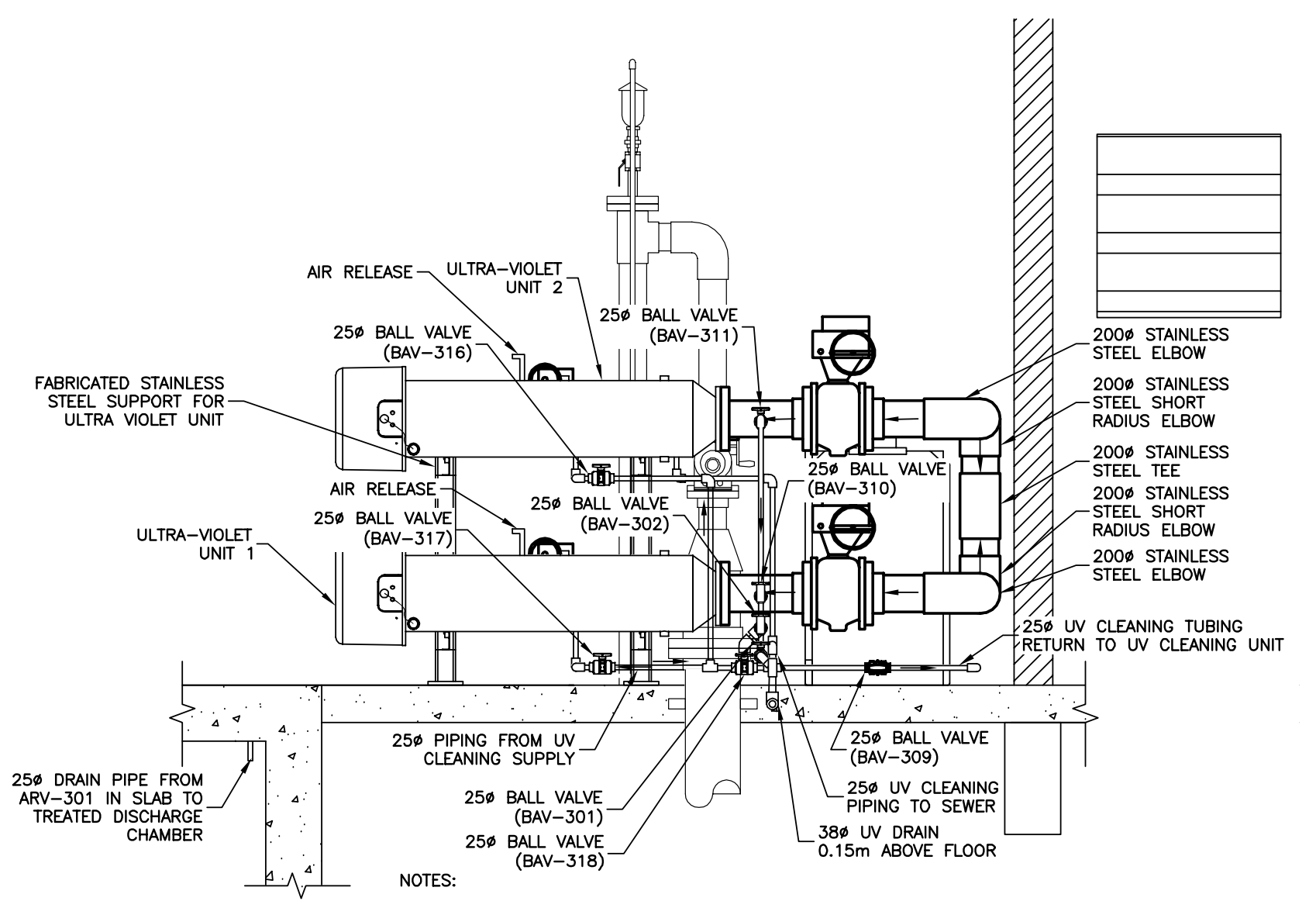


NOTES:
 - FABRICATE ULTRAVIOLET SUPPORT WITH STAINLESS STEEL
 - REFER TO P&ID FOR PIPE MATERIAL
 - PROVIDE SUPPORT AND RESTRAINT FOR ALL PIPING AS REQUIRED. SUPPORTS FROM CEILING ARE NOT ACCEPTABLE.
 - BACKFILL NOT SHOWN.

1/3 **ULTRA-VIOLET UNIT DETAIL**
 SCALE = 1:30

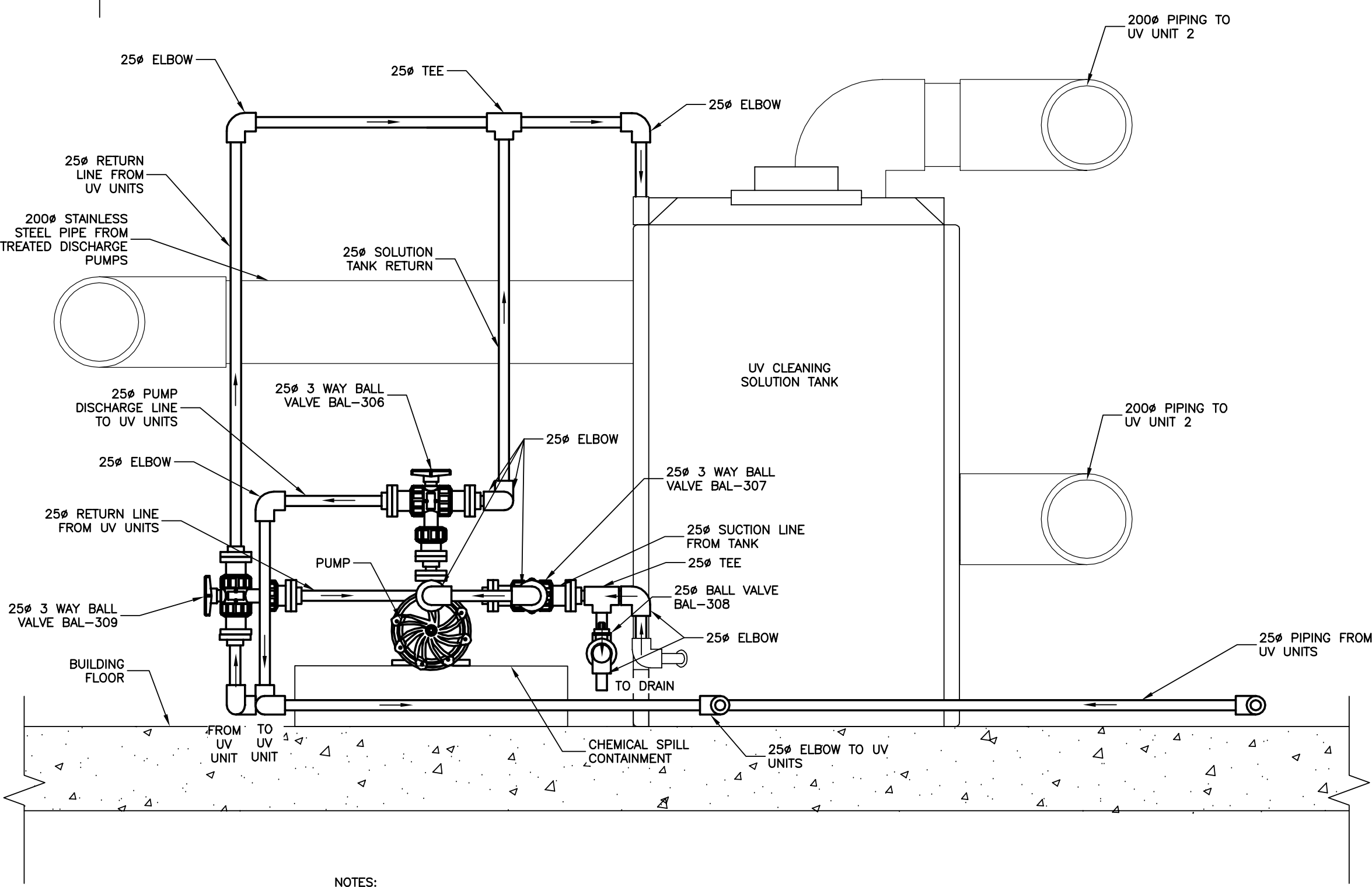


2/3 **ULTRA VIOLET CLEANING UNIT DETAIL - SIDE VIEW**
 SCALE = 1:10



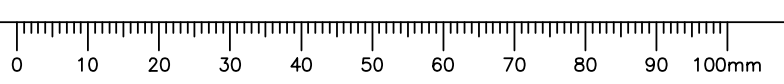
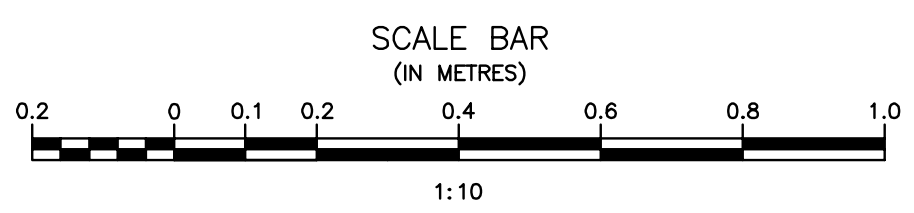
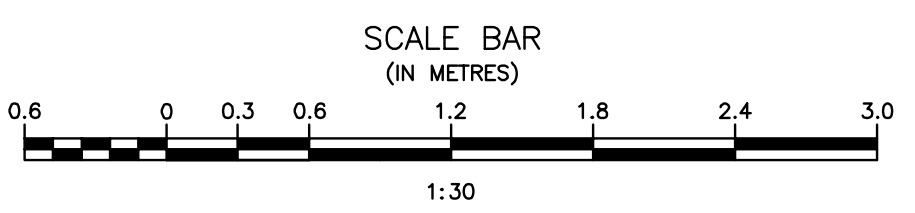
NOTES:
 - FABRICATE ULTRAVIOLET SUPPORT WITH STAINLESS STEEL
 - REFER TO P&ID FOR PIPE MATERIAL
 - PROVIDE SUPPORT AND RESTRAINT FOR ALL PIPING AS REQUIRED. SUPPORTS FROM CEILING ARE NOT ACCEPTABLE.
 - BACKFILL NOT SHOWN.

3/3 **ULTRA-VIOLET CLEANING DETAIL**
 SCALE = 1:30



NOTES:
 - ALL PIPING AND FITTINGS PVC UNLESS OTHERWISE NOTED.
 - PROVIDE SUPPORT AND RESTRAINT FOR ALL PIPING AS REQUIRED.
 - ALL PIPING ALONG WALL INSULATED
 - PROVIDE REMOVABLE PIPING TO CONNECT TO SOLUTION TANK DRAIN TO ALLOW TANK TO DRAIN TO FLOOR DRAIN

4/3 **ULTRA VIOLET CLEANING UNIT DETAIL**
 SCALE = 1:10



Record Drawing
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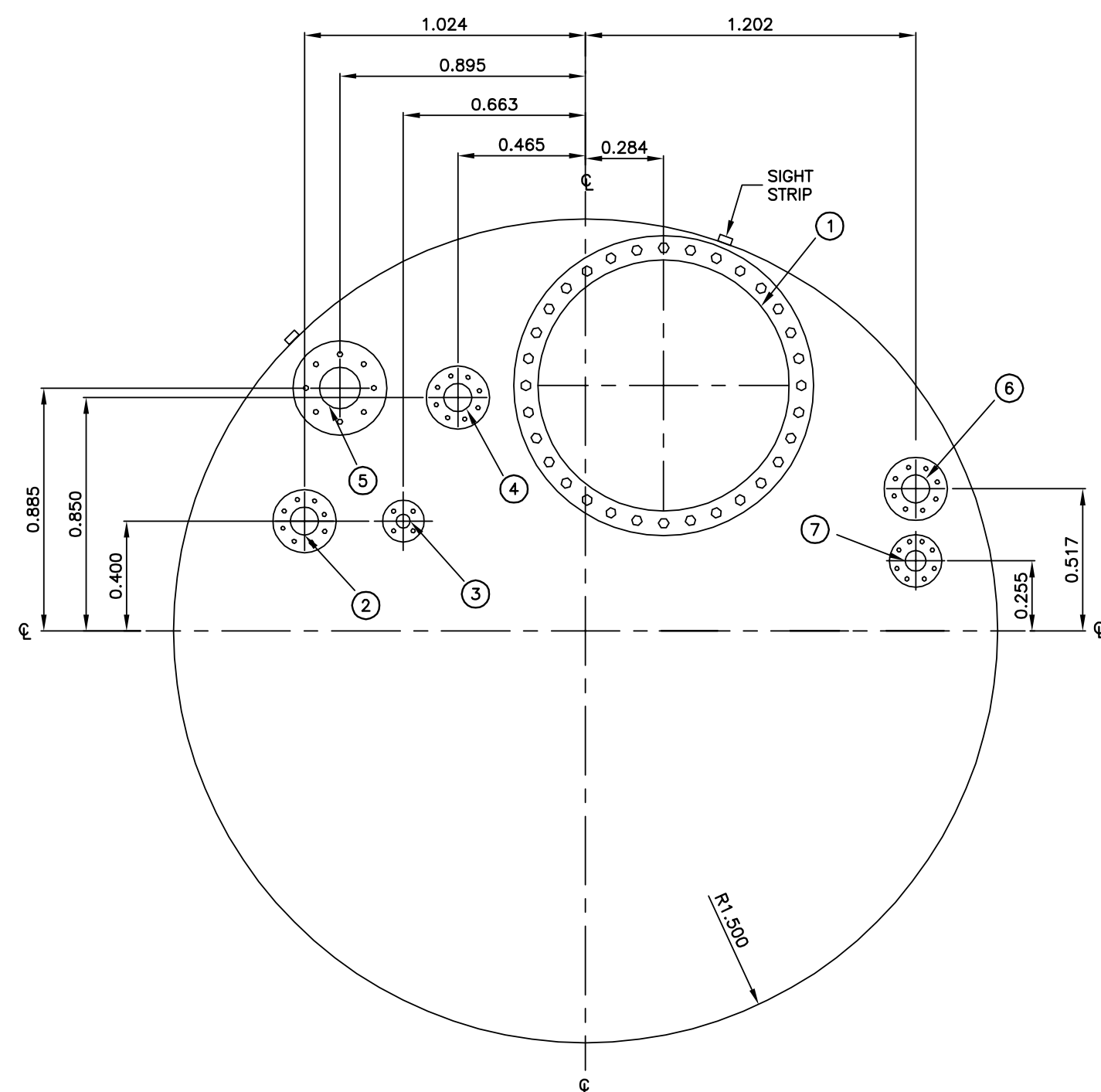
Revision	Description	Date
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4		
3		
2	RECORD DRAWING	FEB 2019
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	

Project title: **STONY MOUNTAIN LAGOON UPGRADE**

Designed by: JRC
 Drawn by: OT
 Approved by: JRC
 PWSGC Project Manager: MARK MOGAN
 Administrateur de Projets TPSGC

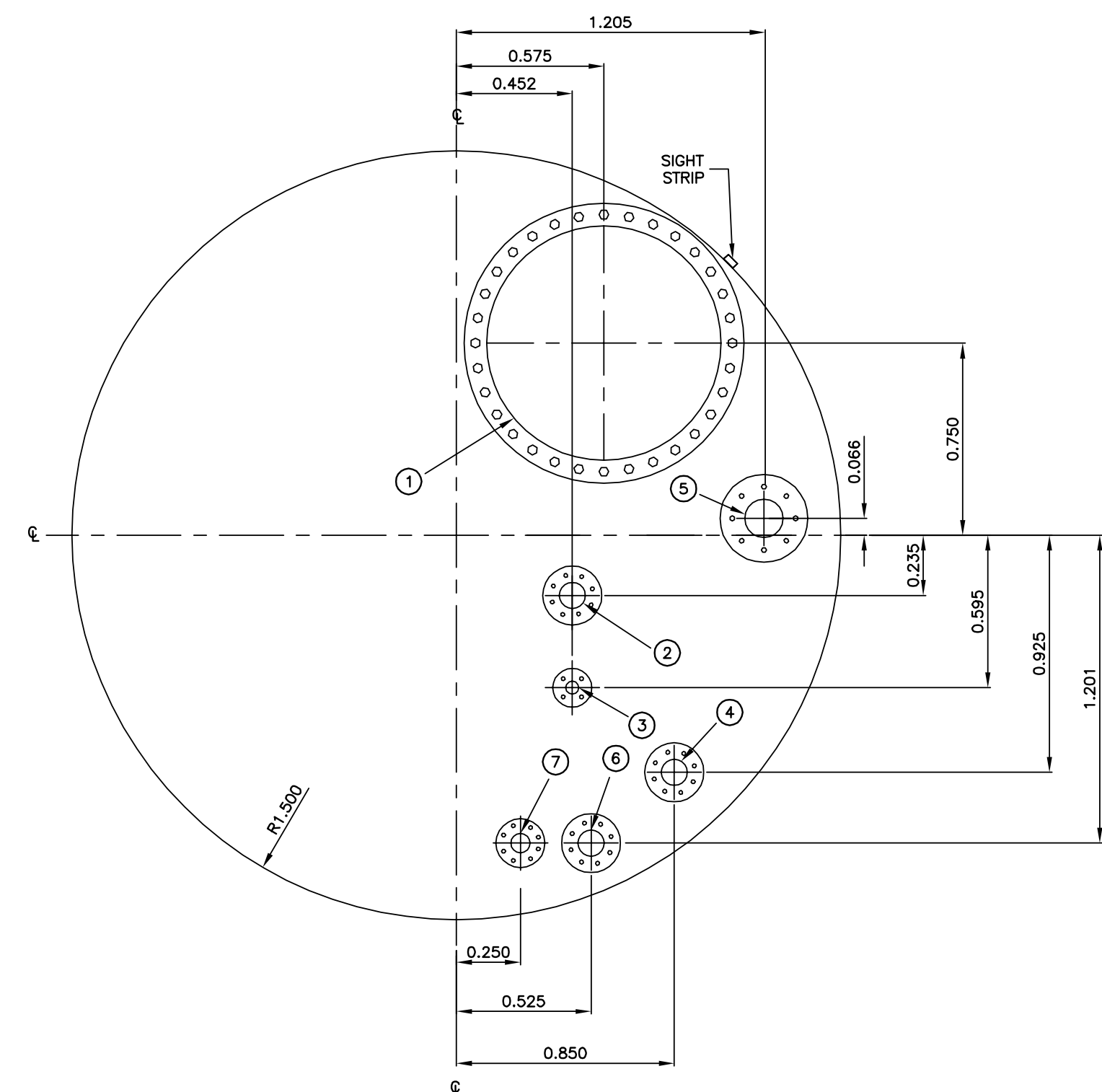
Drawing title: **SEWAGE TREATMENT BUILDING ULTRA-VIOLET UNIT AND ULTRA-VIOLET CLEANING UNIT DETAILS**

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	M3	0



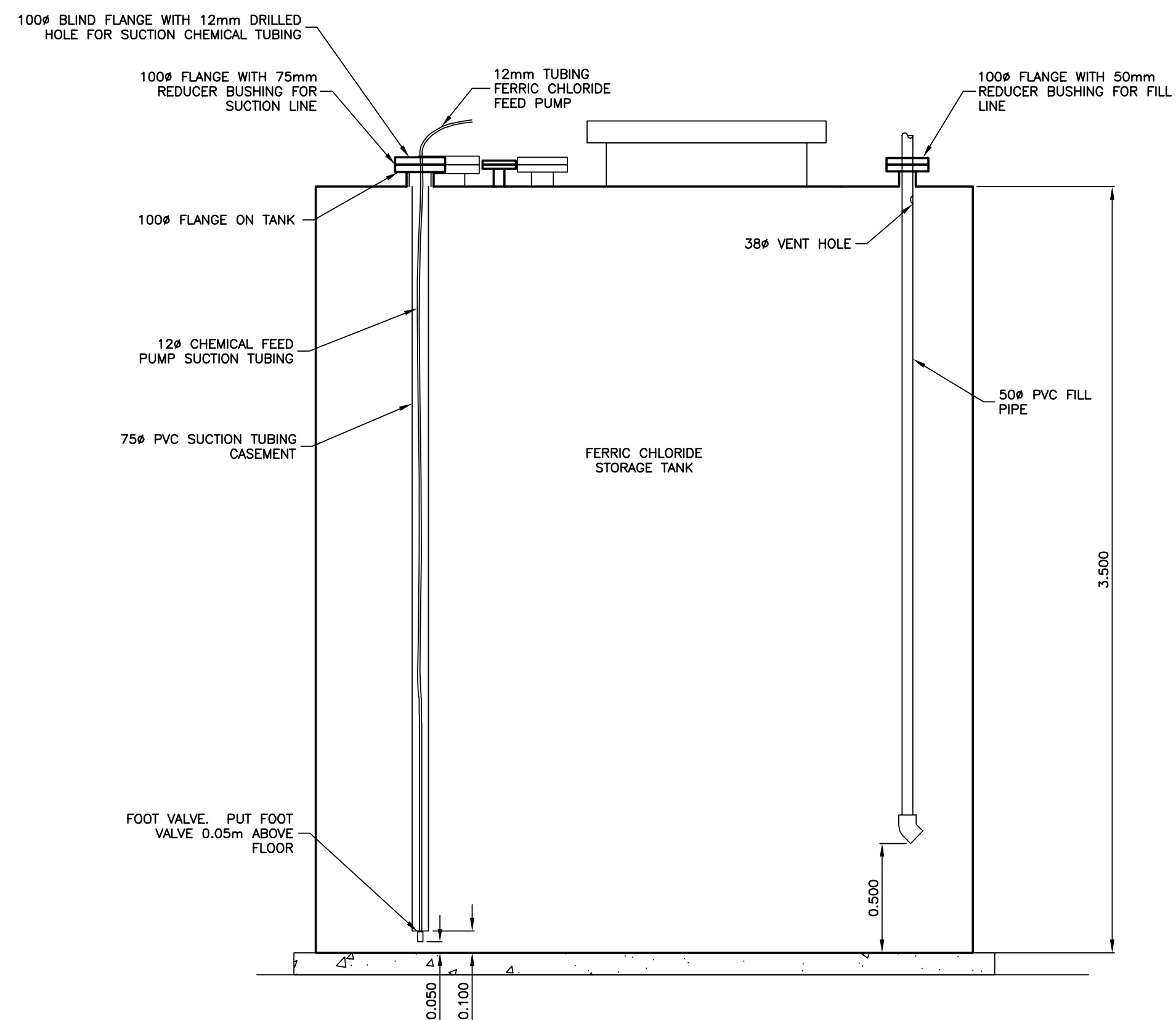
ITEM	SIZE	DESCRIPTION
1	914	MANHOLE
2	100	FEED PUMP
3	50	RETURN
4	100	SPARE
5	150	RADAR
6	100	FILL
7	75	VENT

ITEM	SIZE	DESCRIPTION
1	914	MANHOLE
2	100	FEED PUMP
3	50	RETURN
4	100	SPARE
5	150	RADAR
6	100	FILL
7	75	VENT

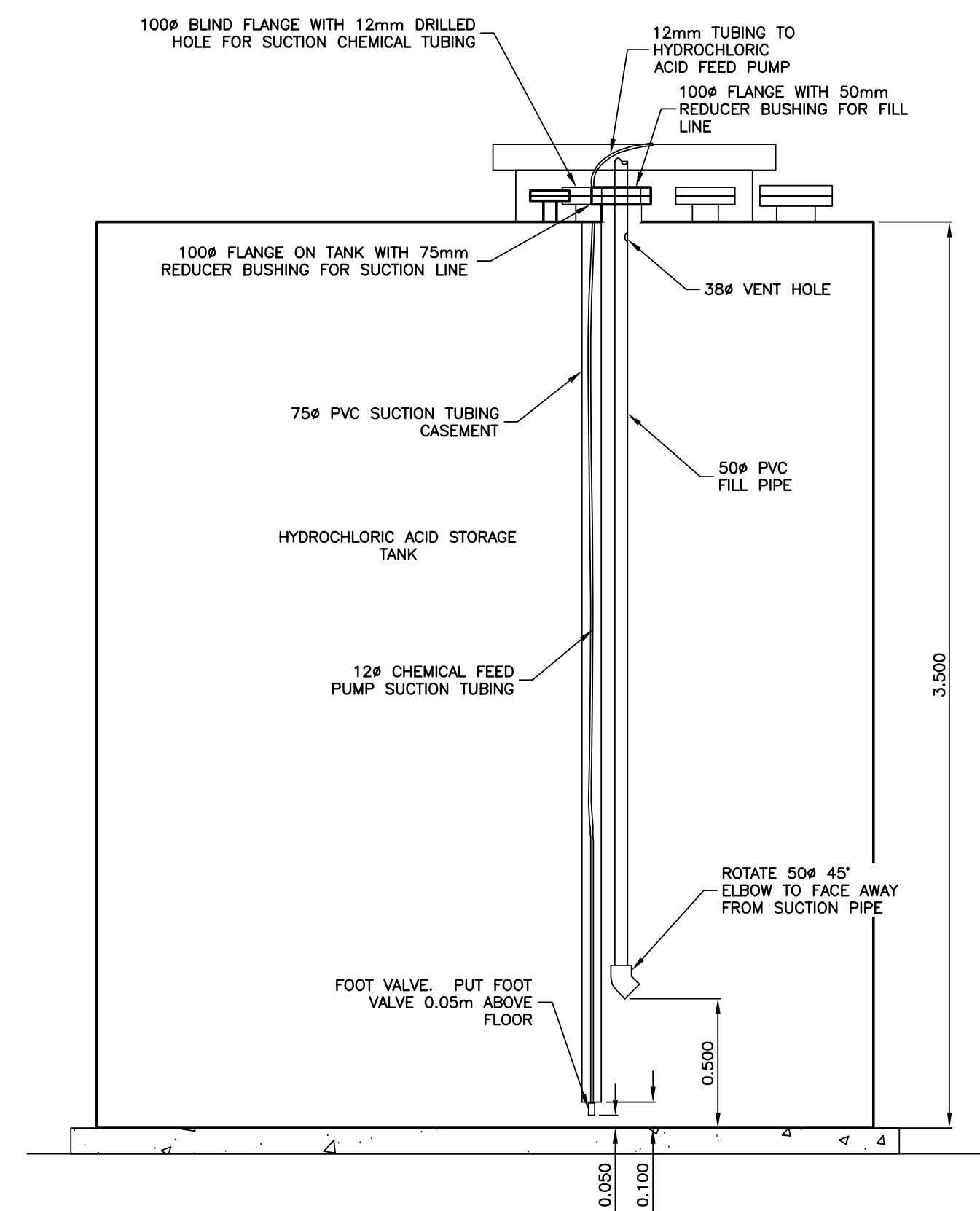


1 FERRIC CHLORIDE STORAGE TANK DETAIL
6 SCALE = 1:20

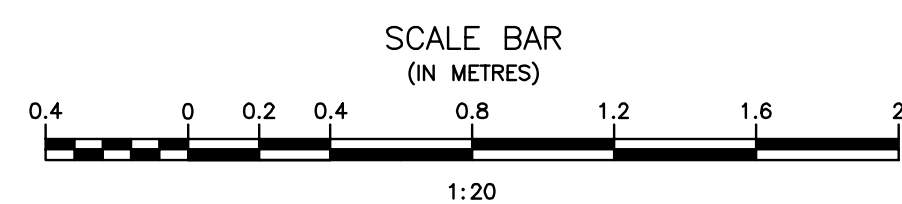
2 HYDROCHLORIC ACID STORAGE TANK DETAIL
6 SCALE = 1:20



3 FERRIC CHLORIDE STORAGE TANK DETAIL
6 SCALE = 1:20



4 HYDROCHLORIC ACID STORAGE TANK DETAIL
6 SCALE = 1:20



Record Drawing
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ORIGINAL DRAWING
SIGNED AND SEALED
BY
J.R.L. COUSIN
17/03/06

APCGM
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J.R. Cousin Consultants Ltd.
No. 234 Date: 17/03/06

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4		
3	RECORD DRAWING	FEB 2019
2	REVISED FILL LINE	MARCH 2017
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	

Client: client

Project title: Stony Mountain Lagoon Upgrade

STONY MOUNTAIN LAGOON UPGRADE

Designed by: JRC Conçu par

Drawn by: OT Dessiné par

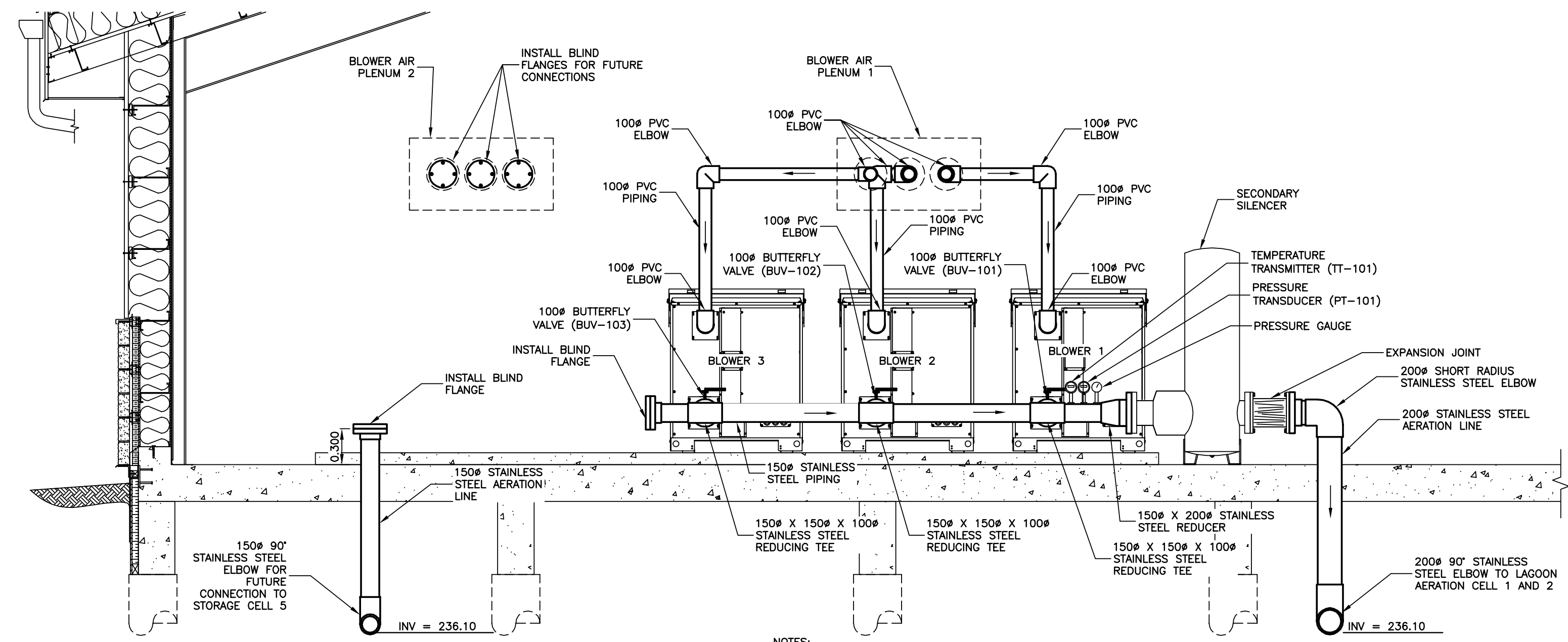
Approved by: JRC Approuvé par

PM/CS: Project Manager Administrateur de Projets TPSGC

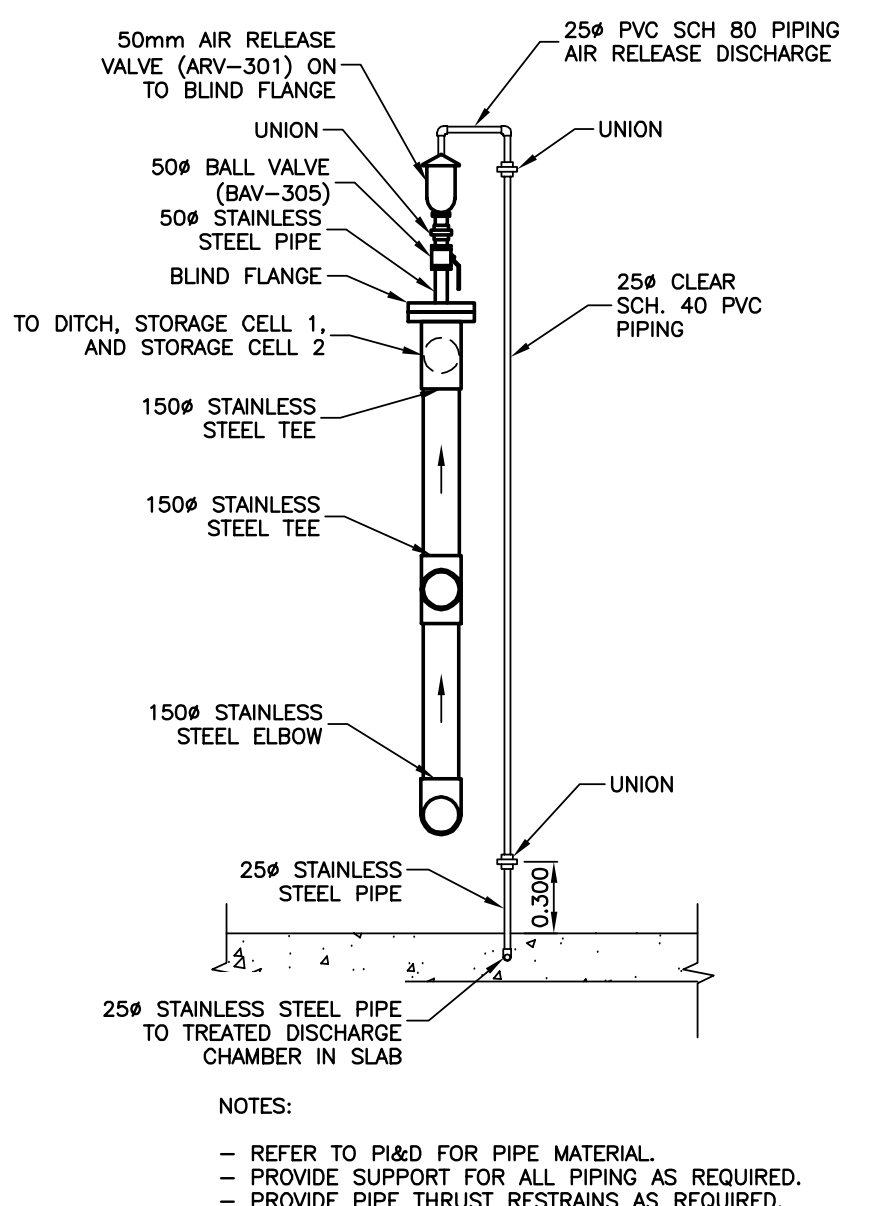
MARK MOGAN

Drawing title: SEWAGE TREATMENT BUILDING TANK SECTION DETAILS

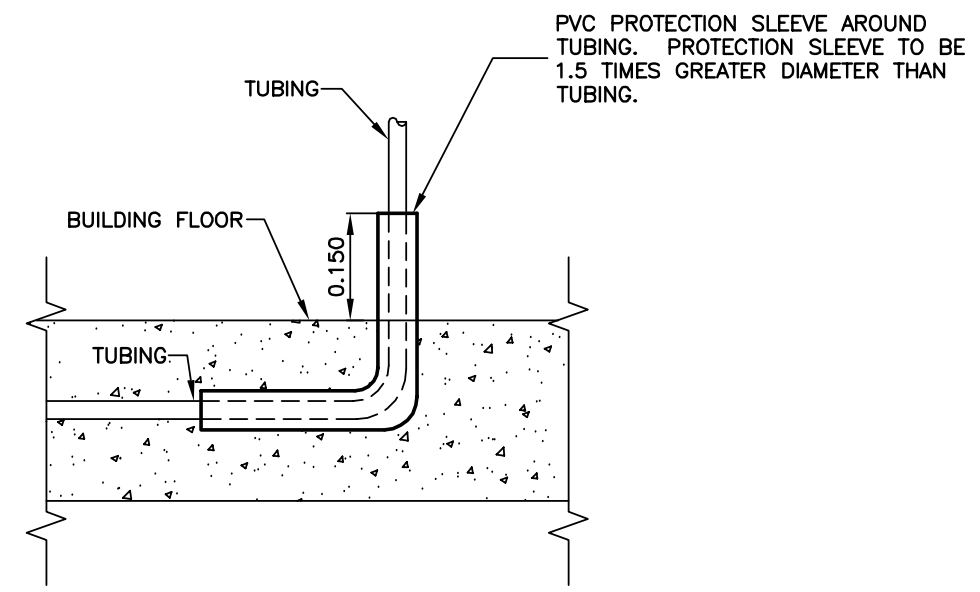
Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	M6	0



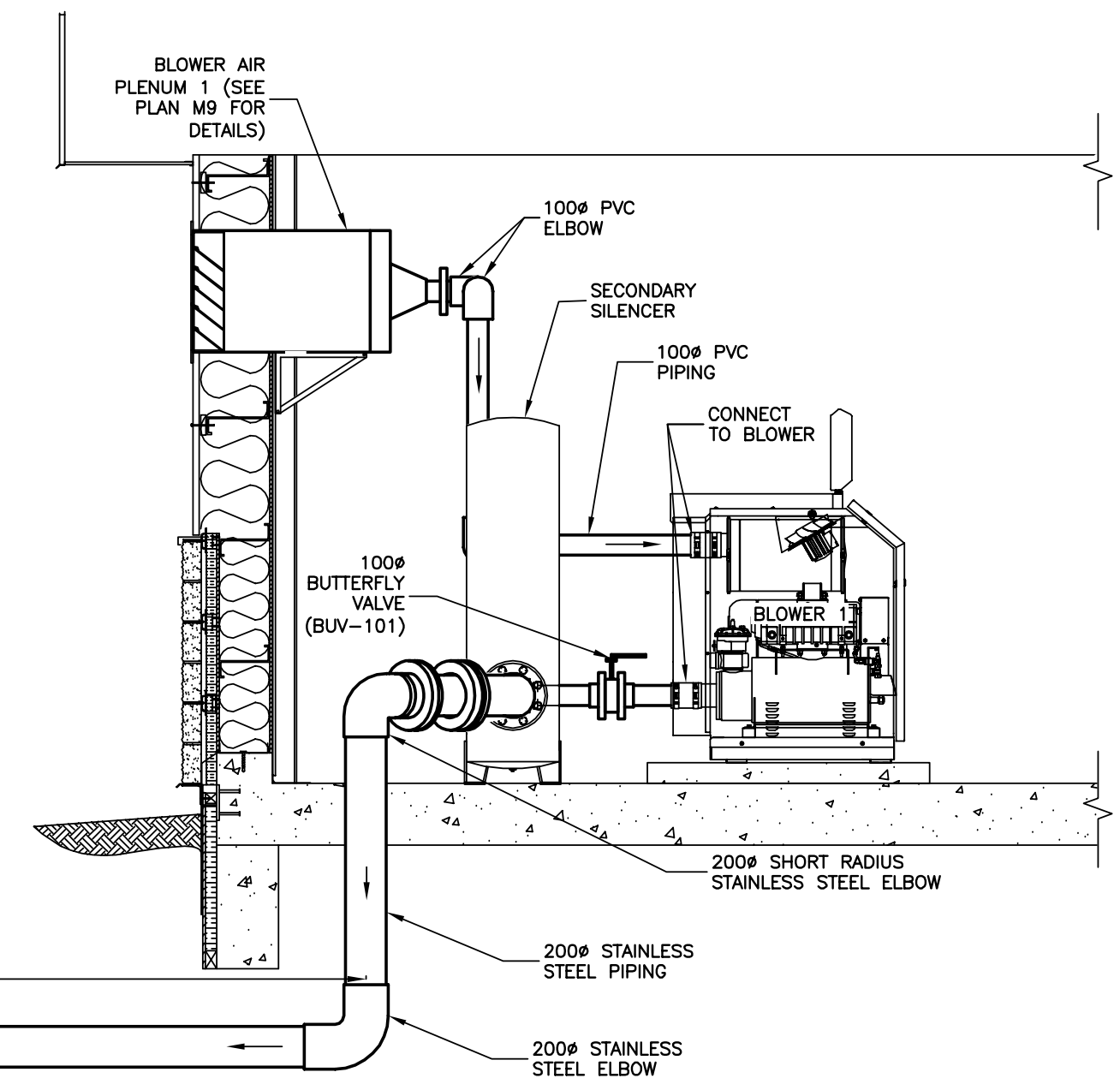
1 BLOWER PIPING - FRONT
 SCALE = 1:30



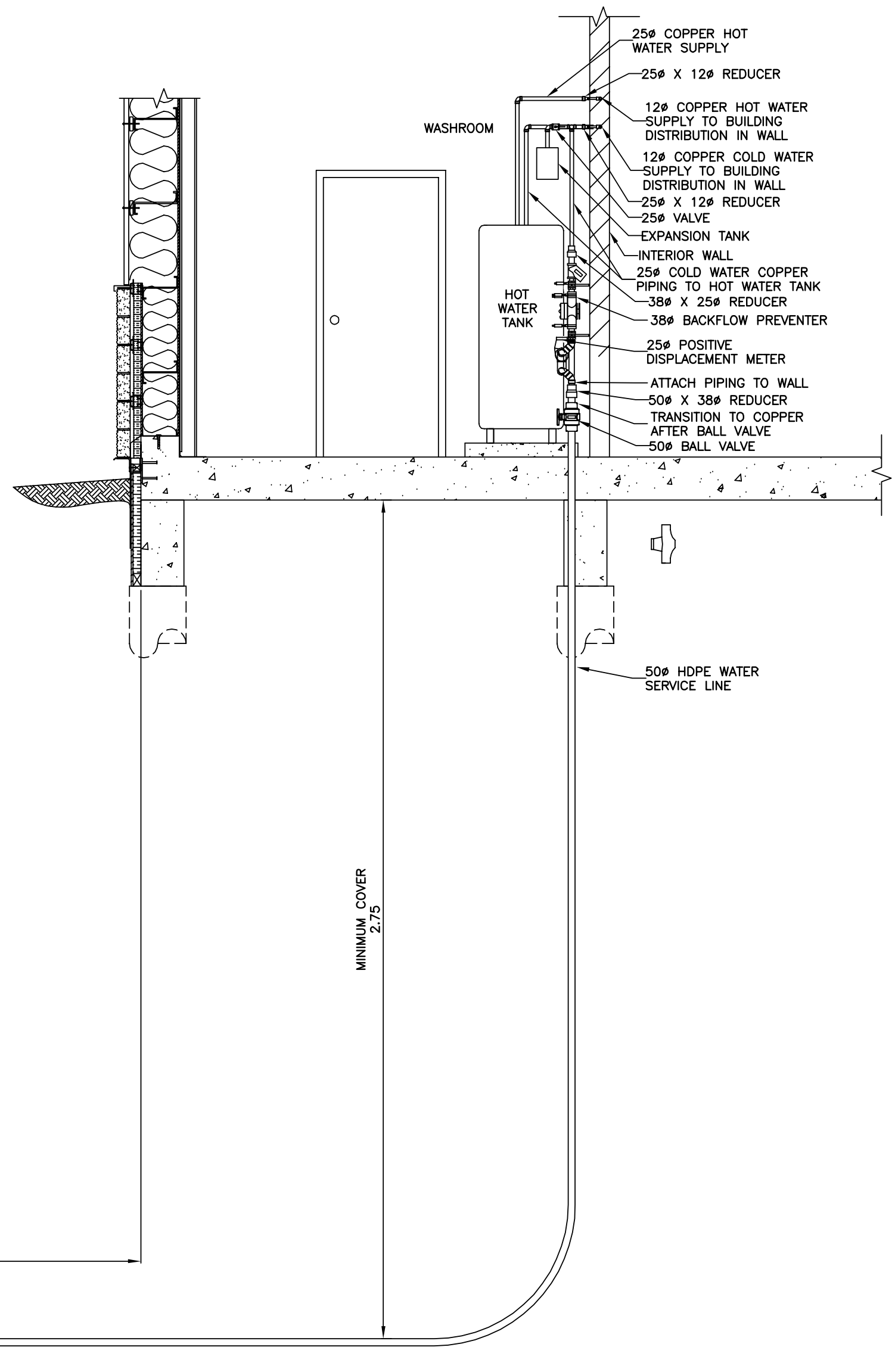
3 AIR RELEASE (ARV-301) DETAIL
 SCALE = 1:30



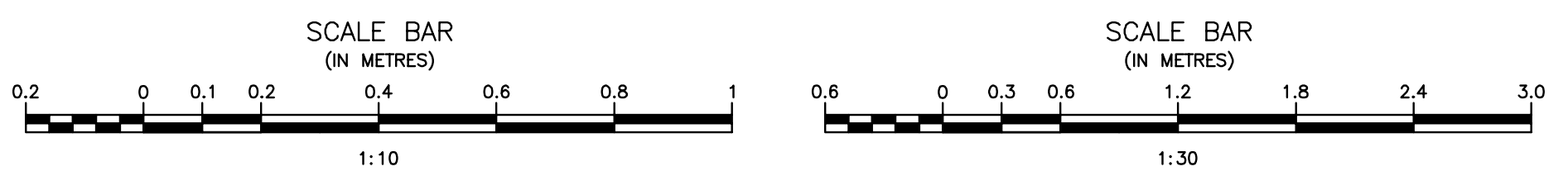
5 TYPICAL IN SLAB PIPING PROTECTION SLEEVE DETAIL
 SCALE = 1:10



2 TYPICAL BLOWER PIPING - SIDE
 SCALE = 1:30



4 WATER SERVICE PIPING AND HWT DETAIL
 SCALE = 1:30



Record Drawing
 Drawing compiled from visual observations of various parts of construction and/or from information by others. Accuracy not warranted. Independent verification required before application.

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 BY
 J.R.L. COUSIN
 17/03/06

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J.R. Cousin Consultants Ltd.
 No. 234 Date: 17/03/06

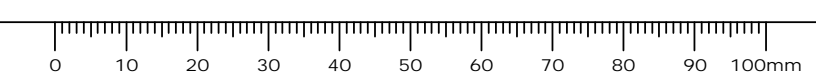
JRCC PROJECT # R-325.52
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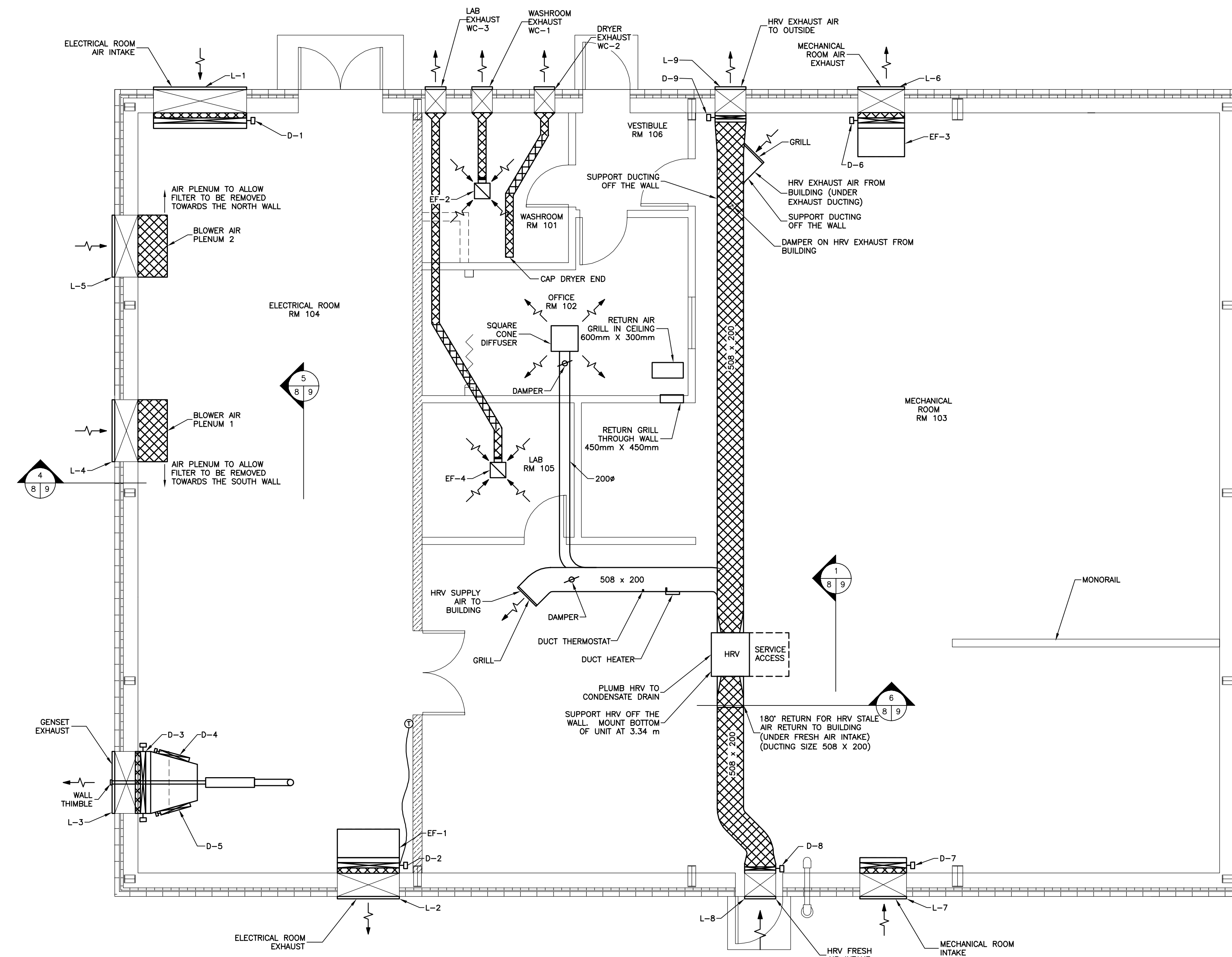
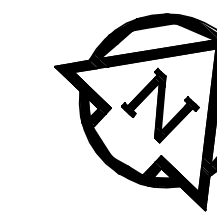
5		
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3	RECORD DRAWING	FEB 2019
2	REVISED AERATION HEADER	MARCH 2017
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	
Revision	Description	Date
Client		client

Project title: Stony Mountain Lagoon Upgrade

STONY MOUNTAIN LAGOON UPGRADE

Designed by	JRC	Conçu par	JRC
Drawn by	OT	Dessiné par	OT
Approved by	JRC	Approuvé par	JRC
PM/ESC: Project Manager	Administrateur de Projets TPSGC		
MARK MOGAN			
Drawing title	SEWAGE TREATMENT BUILDING BLOWER PIPING AND WATER SERVICE PIPING DETAILS		
Project no./No. du projet	R.075583.001	Drawing no./No. du dessin	M7
Revision no.			0
			OF 11





VENTILATION LAYOUT
SSALE = 1:50

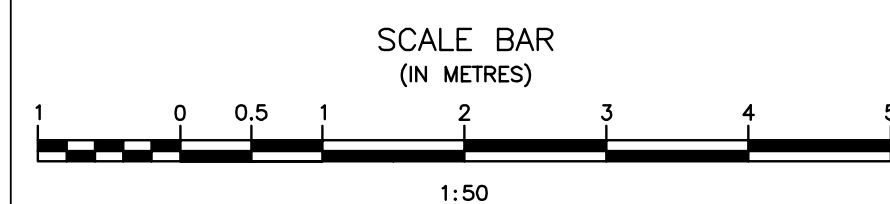
LEGEND

- INSULATED DUCTWORK
- DAMPER WITH ACTUATOR
- BALANCING DAMPER
- DUCT SIZING

- D = DAMPER
- L = LOUVRE
- EF = EXHAUST FAN
- HRV = HEAT RECOVERY VENTILATOR
- WC = HOODED WALL CAP

NOTES:

- PREFINISHED LOUVER COLOURS AS PER PLAN A2.
- INSULATE ALL DUCTWORK WITHIN 2.0m OF EXTERIOR WALL WITH FOIL BACK INSULATION UNLESS NOTED OTHERWISE.
- PROVIDE ACCESS HATCH IN DUCTS FOR ACCESS TO ALL DAMPERS AND BUG SCREENS.
- PROVIDE FLEXIBLE PIPE CONNECTOR AT ALL BLOWER INLET PIPING FROM AIR PLENUM.
- PROVIDE FLEXIBLE DUCT CONNECTORS AT ALL FANS.
- ADJUST HRV OFFICE DAMPER TO PROVIDE 25 L/s AIR FLOW TO OFFICE.



Record Drawing

Drawing compiled from visual observations of various parts of construction and/or from information by others. Accuracy not warranted. Independent verification required before application.

ORIGINAL DRAWING
SIGNED AND SEALED
BY
J.R.L. COUSIN
16/03/29

APEGM
Certificate of Authorization
J.R. Cousin Consultants Ltd.
No. 234 Date: 16/03/29

JRCC PROJECT # R-325.52

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Revision	Description	Date
5		
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2	RECORD DRAWING	FEB 2019
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	

Client: _____ client

Project title: _____ Projet

STONY MOUNTAIN LAGOON UPGRADE

Designed by: **JRC** Conçu par

Drawn by: **OT** Dessiné par

Approved by: **JRC** Approuvé par

PM/SC: Project Manager Administrateur de Projets TPSGC

MARK MOGAN

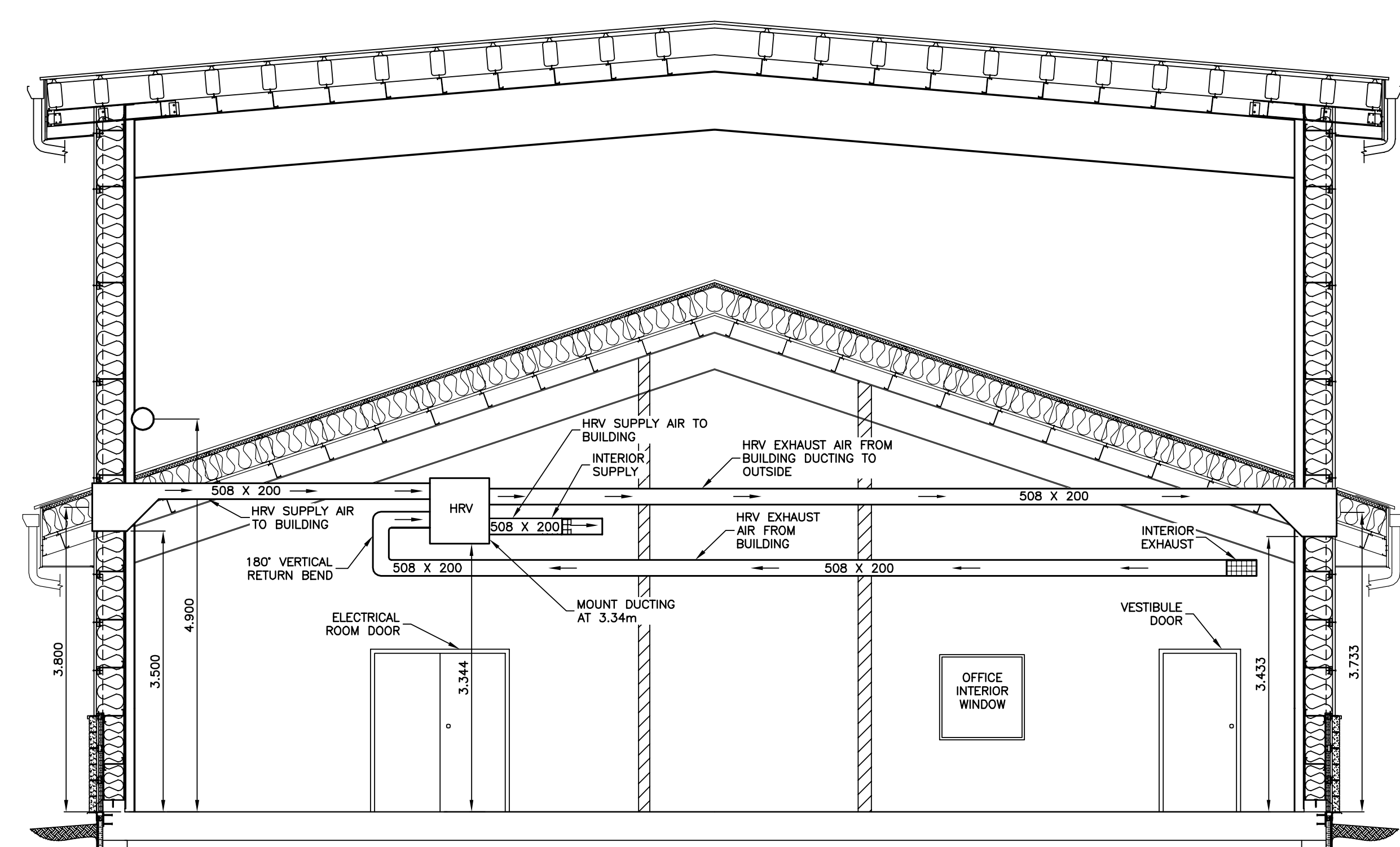
Drawing title: _____ Titre du dessin

SEWAGE TREATMENT BUILDING HVAC LAYOUT

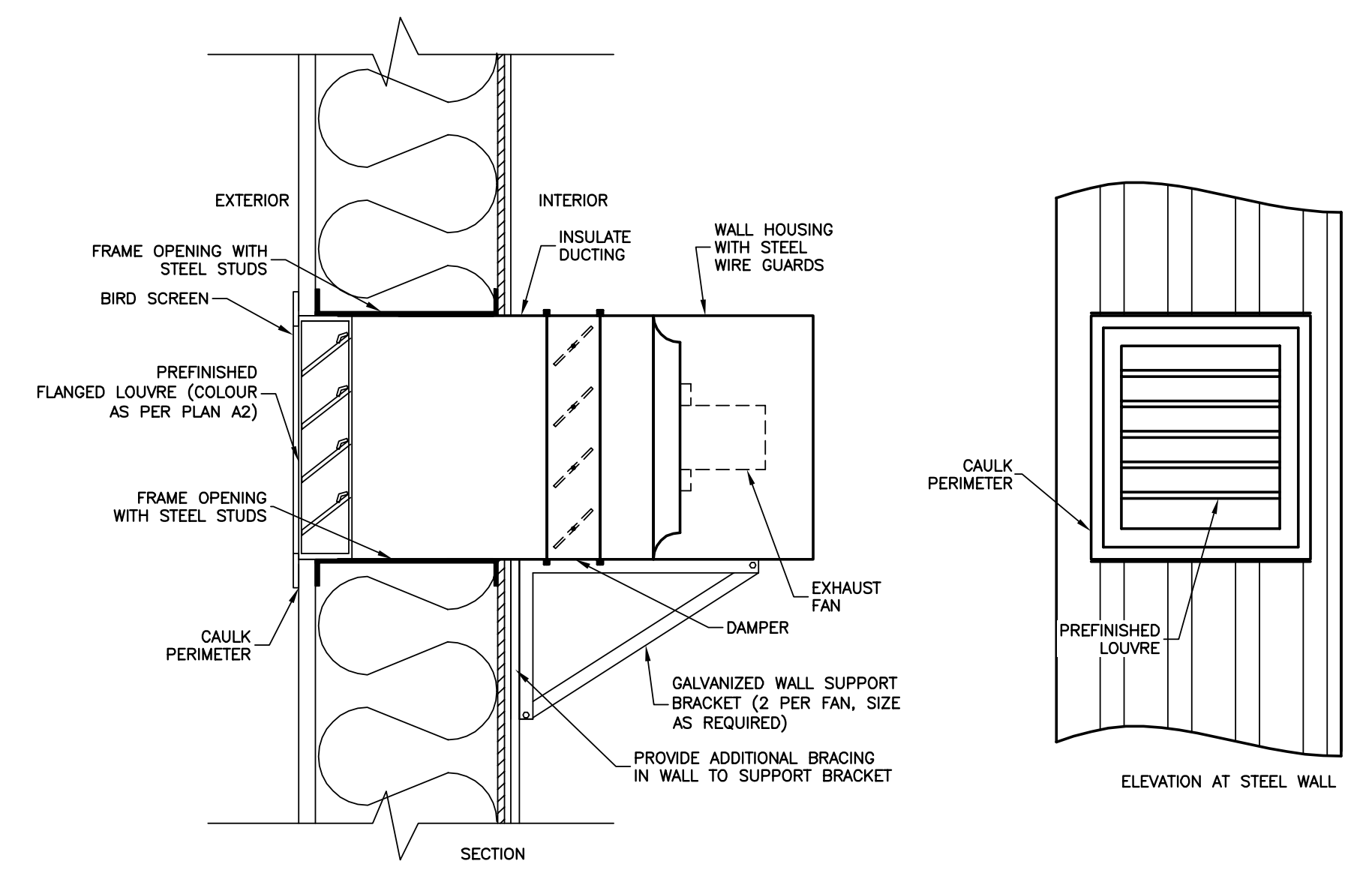
Project no./No. du projet: _____ Drawing no./No. du dessin: _____ Revision no.: _____

R.075583.001 **M8** **0**

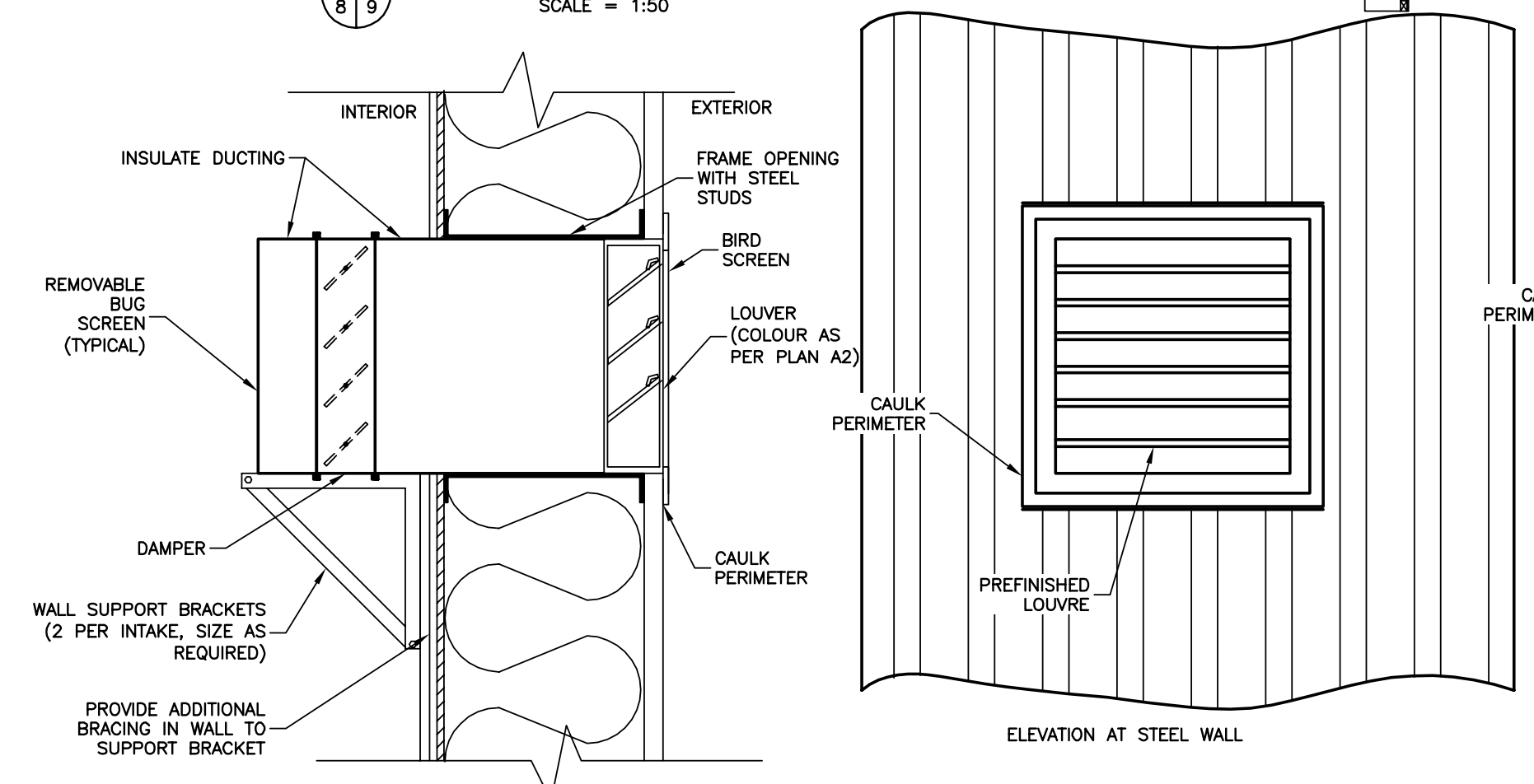
OF 11



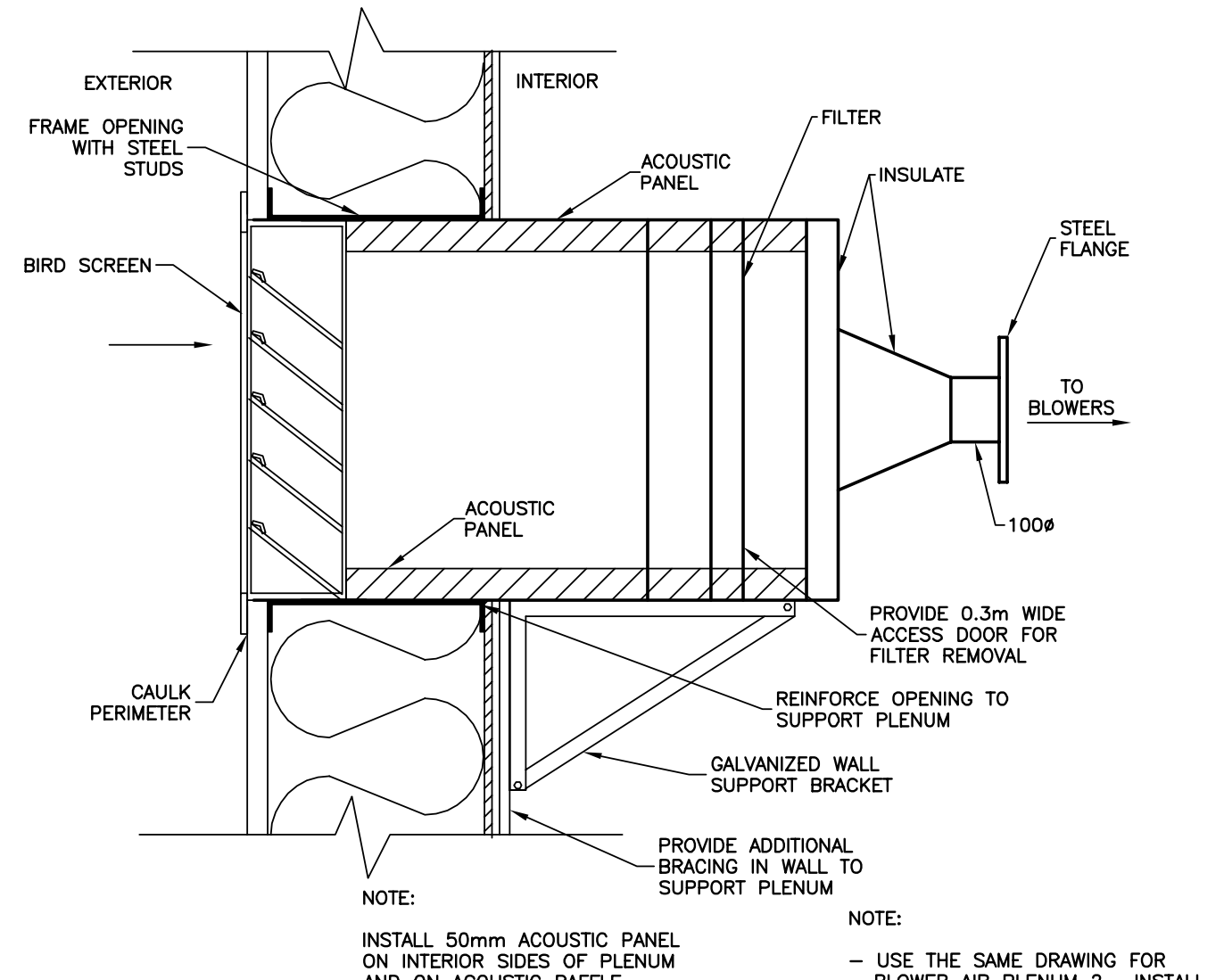
1 HRV ELEVATION DETAILS
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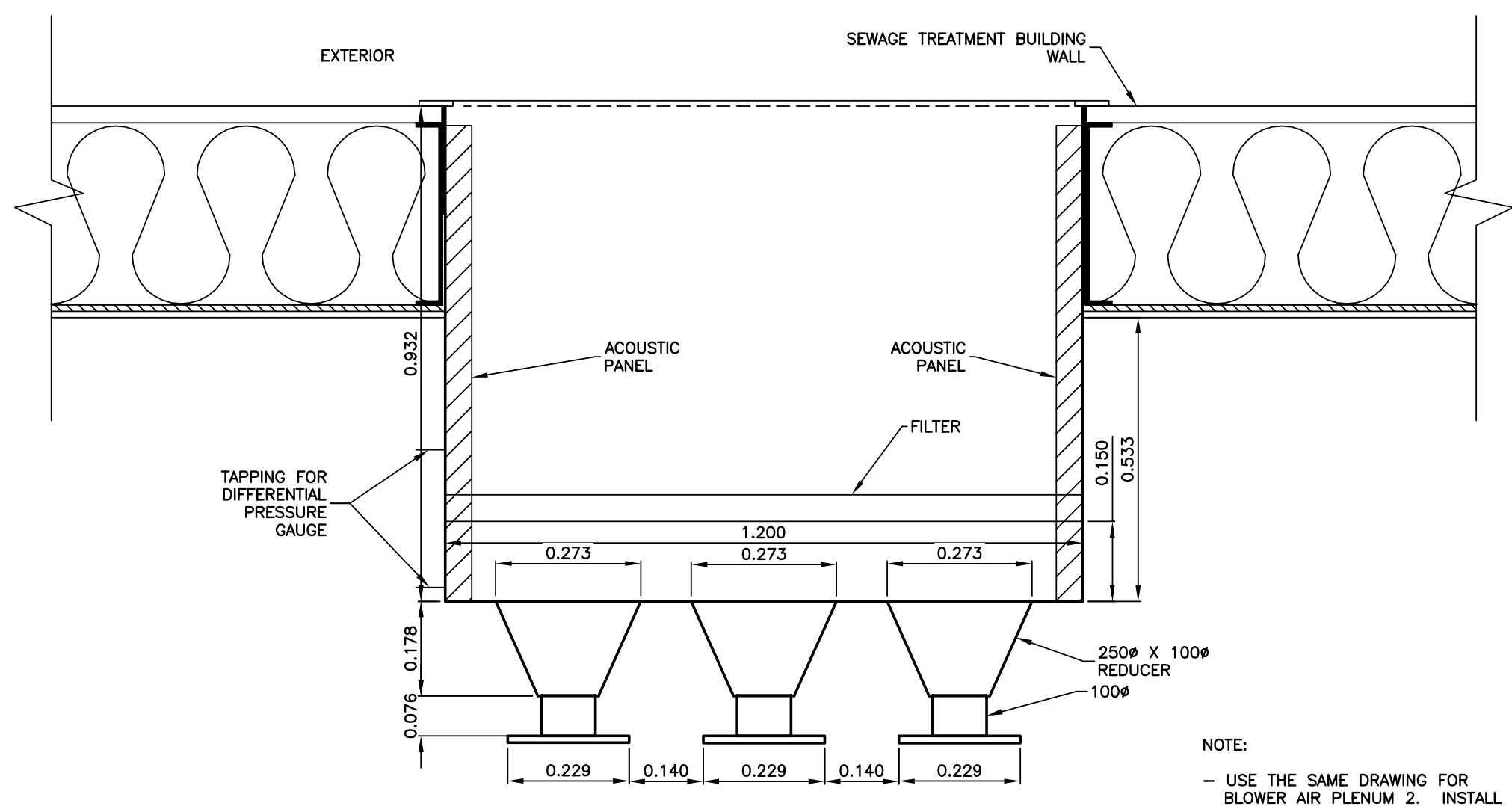
2 TYPICAL EXHAUST FAN DETAIL
 SCALE = 1:10



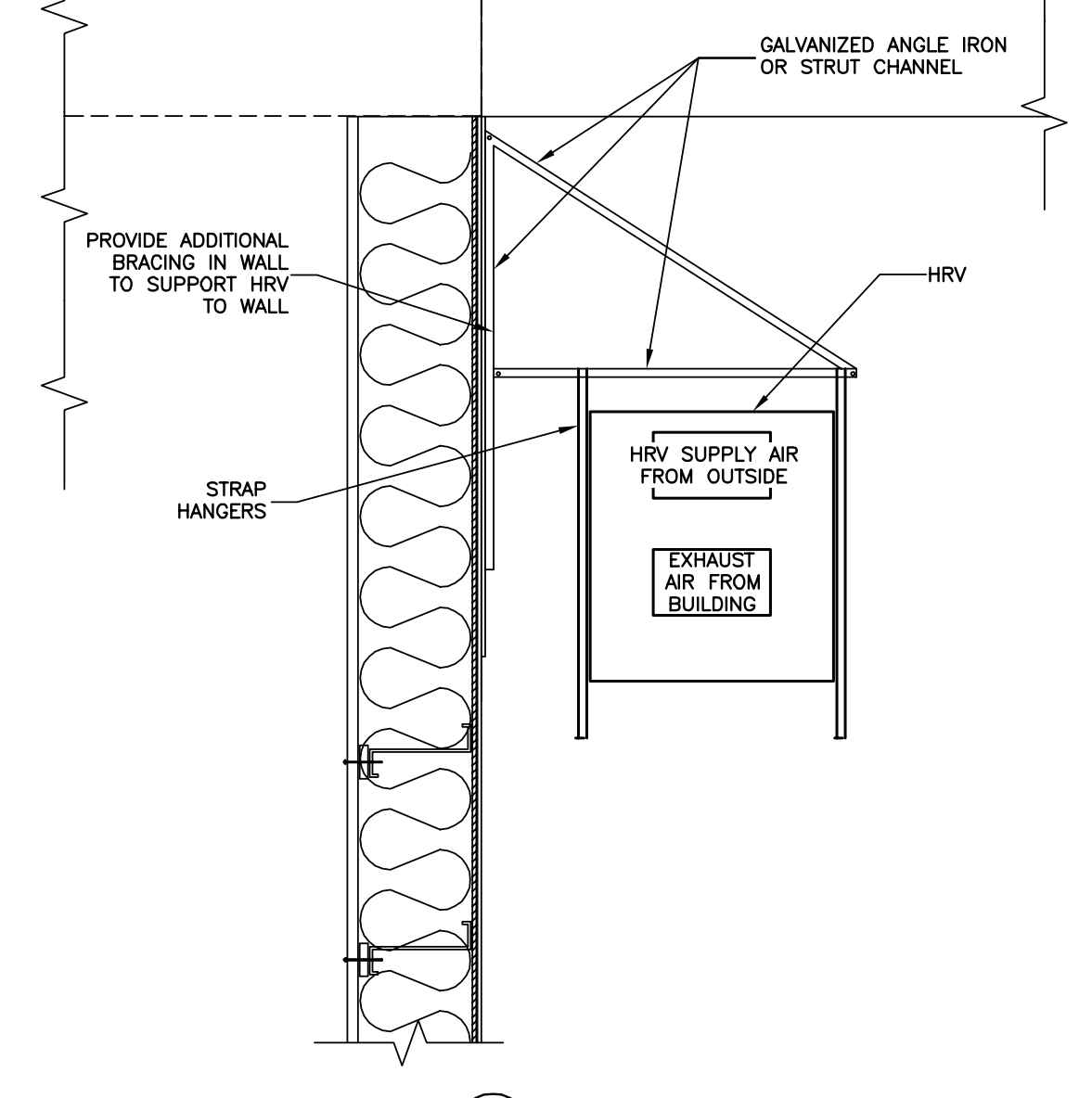
3 TYPICAL AIR INLET LOUVRE
 SCALE = 1:10



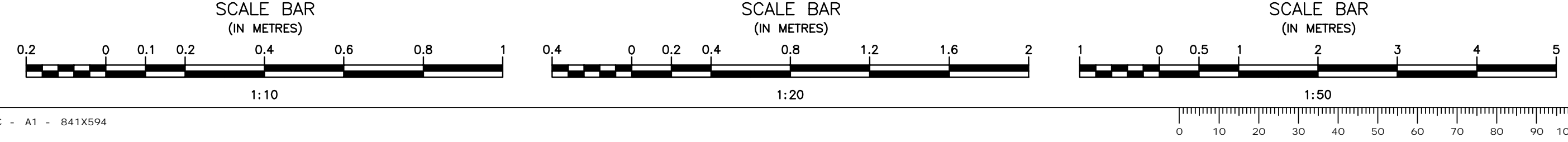
4 BLOWER AIR PLENUM 1 - SIDE VIEW
 SCALE = 1:10



5 BLOWER AIR PLENUM 1 - TOP VIEW
 SCALE = 1:10



6 HRV WALL SUPPORT
 SCALE = 1:20



Record Drawing
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ORIGINAL DRAWING
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 17/03/06

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 No. 234 Date: 17/03/06

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3	RECORD DRAWING	FEB 2019
2	REVISED AIR PLENUM	MARCH 2017
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	
Revision	Description	Date
Client		client

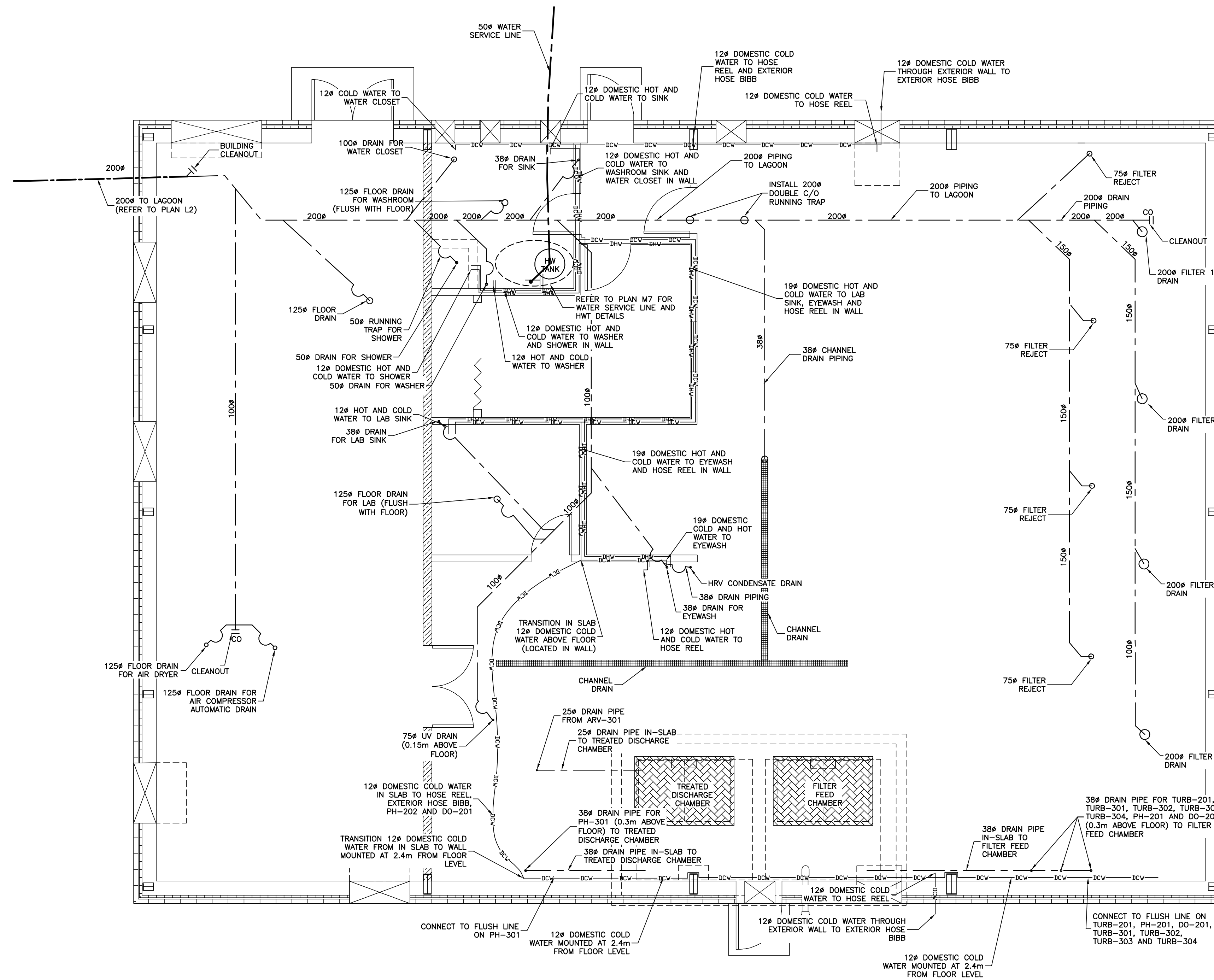
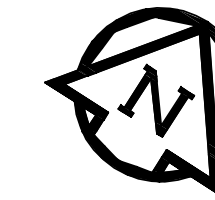
Project title: Stony Mountain Lagoon Upgrade

STONY MOUNTAIN LAGOON UPGRADE

Designed by: JRCC
 Drawn by: OT
 Approved by: JRCC
 Project Manager: MARK MOGAN

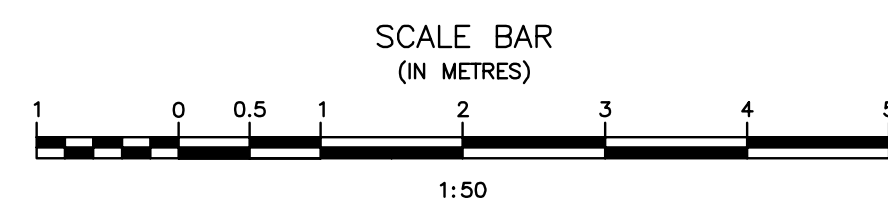
SEWAGE TREATMENT BUILDING HVAC DETAILS

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	M9	0
	OF 11	

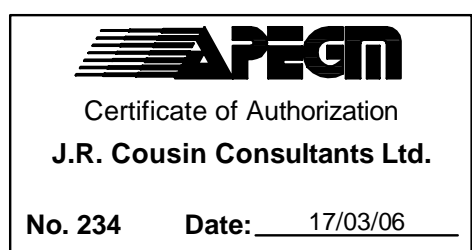


- NOTES:
- CONFIRM ALL DRAIN LOCATIONS FOR EYEWASH, WATER CLOSET, SHOWER AND SINKS WITH SHOP DRAININGS.
 - ALL EXTERIOR HOSE BIBBS TO HAVE AN INTERNAL SHUT-OFF VALVE.
 - INSTALL BRASS FLOOR CAP OVER ALL CLEAN-OUTS (CAP TO BE FLUSH WITH FLOOR).
 - ALL CAST IN PLACE PIPING TO BE PLACED AT MID SLAB
 - USE PVC 90° ELBOW TO SLEEVE ALL DOMESTIC WATER PIPING THROUGH SLAB
 - ALL PIPING PLACED BELOW SLAB TO BE HUNG FROM STAINLESS STEEL SUPPORTS CAST INTO SLAB UNLESS OTHERWISE NOTED
 - DCW = DOMESTIC COLD WATER
 - DHW = DOMESTIC HOT WATER
 - P = TRAP
 - REFER TO PLAN M11 FOR PLUMBING RISER DIAGRAM
 - SECURE ALL HOT AND COLD DOMESTIC PIPE MOUNTED ABOVE FLOOR LEVEL TO WALL/CEILING AS REQUIRED
 - ALL DOMESTIC COLD AND HOT WATER ABOVE FLOOR TO BE INSULATED
 - PROVIDE VENTS IN ACCORDANCE WITH PLUMBING CODE

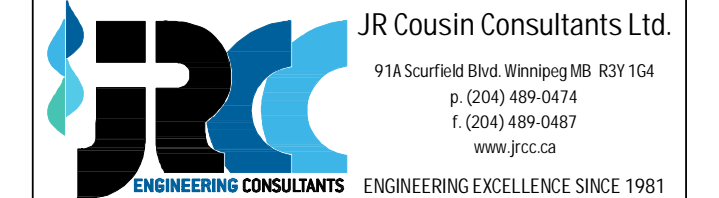
1 PLUMBING PLAN
SCALE = 1:50



ORIGINAL DRAWING
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BY
J.R.L. COUSIN
17/03/06



JRCC PROJECT # R-325.52



Revision	Description	Date
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3	RECORD DRAWING	FEB 2019
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0	Design Completion	

Client client

Project title Projet

STONY MOUNTAIN LAGOON UPGRADE

Designed by Conçu par

JRC

Drawn by Dessiné par

OT

Approved by Approuvé par

JRC

PNWSC: Project Manager Administrateur de Projets TPSGC

MARK MOGAN

Drawing title Titre du dessin

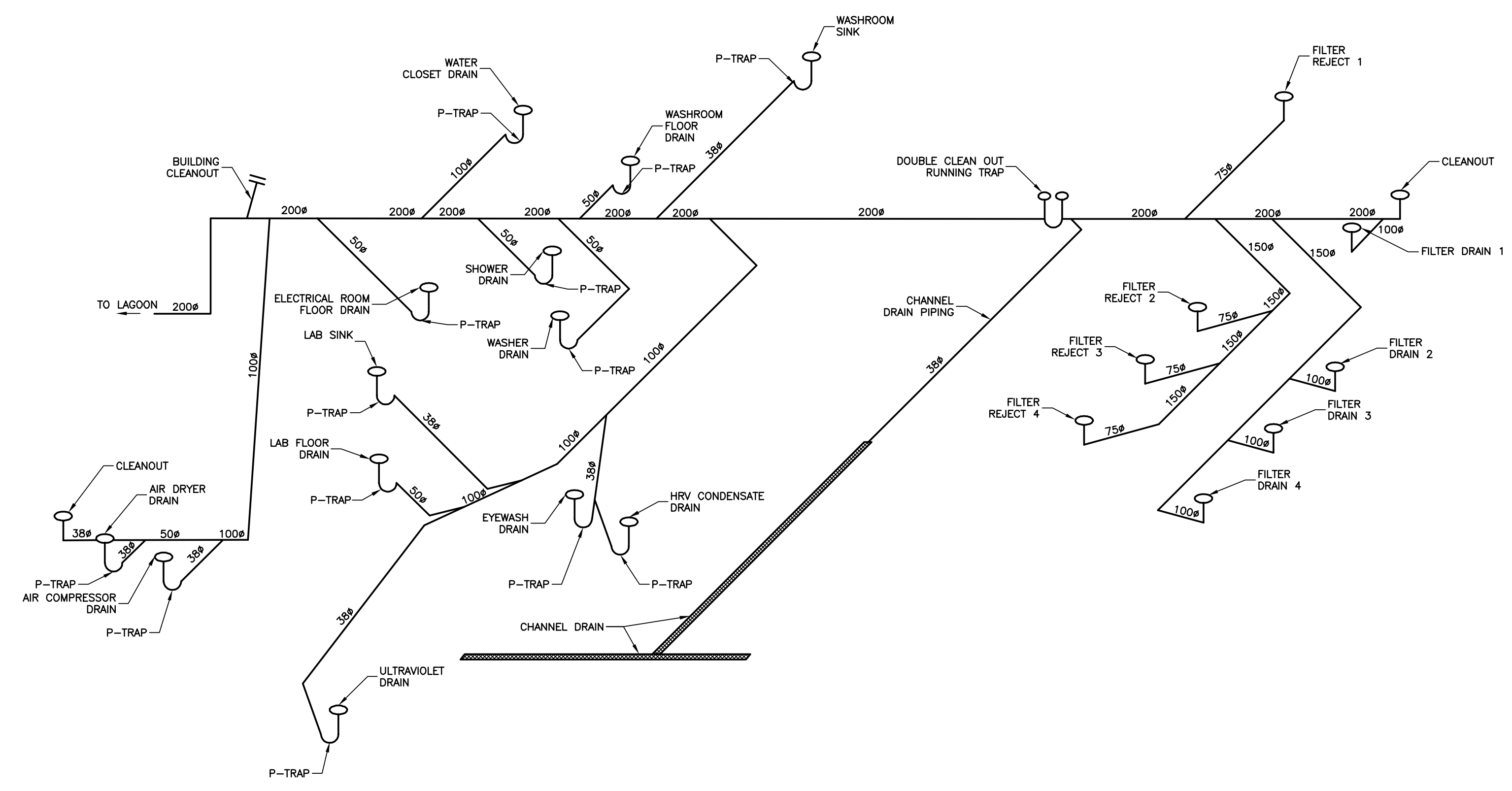
SEWAGE TREATMENT BUILDING PLUMBING PLAN

Project no./No. du projet Drawing no./No. du dessin Revision no.

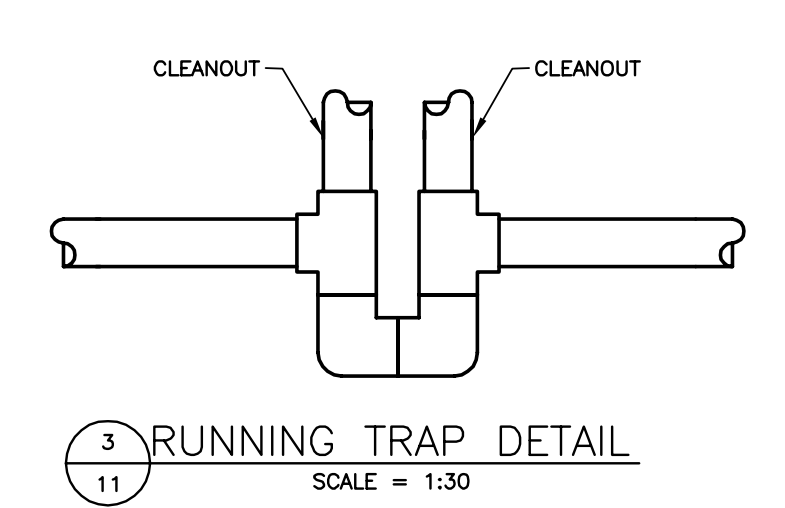
R.075583.001 M10 0

OF 11

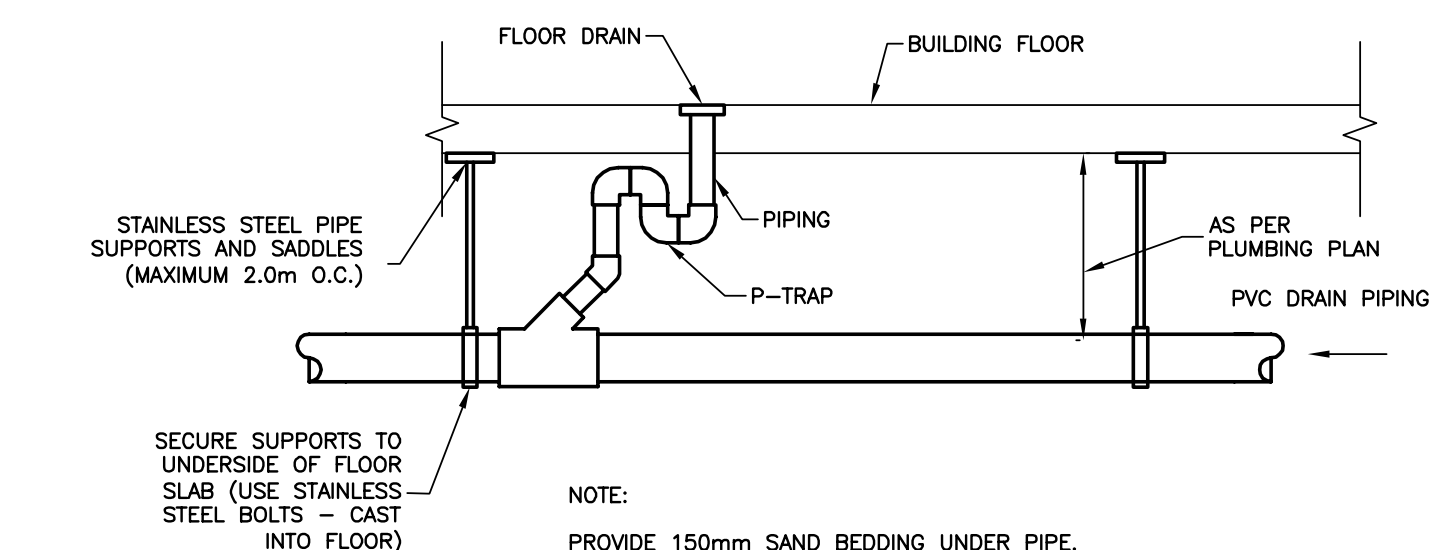
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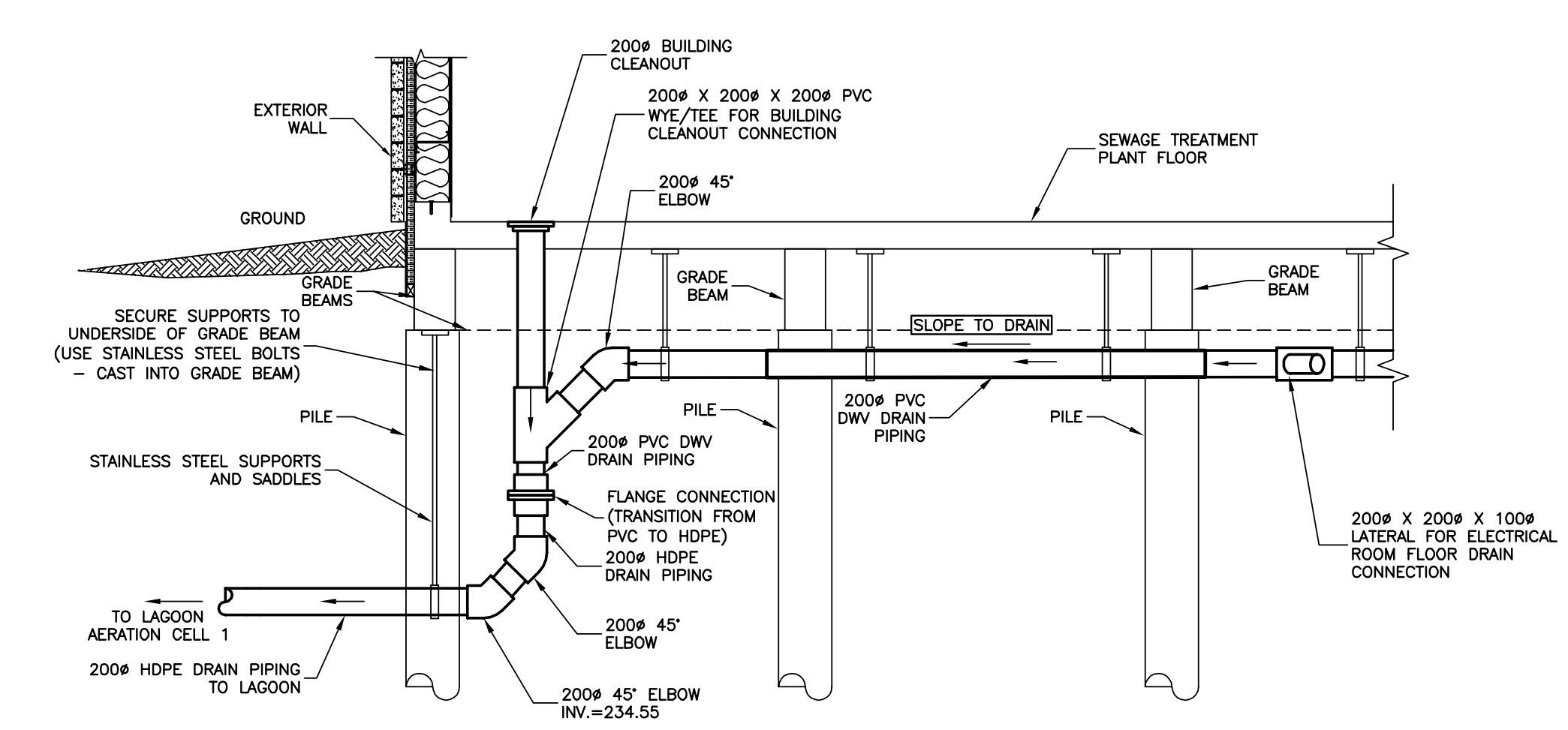
1 PLUMBING RISER DIAGRAM
SCALE = NTS



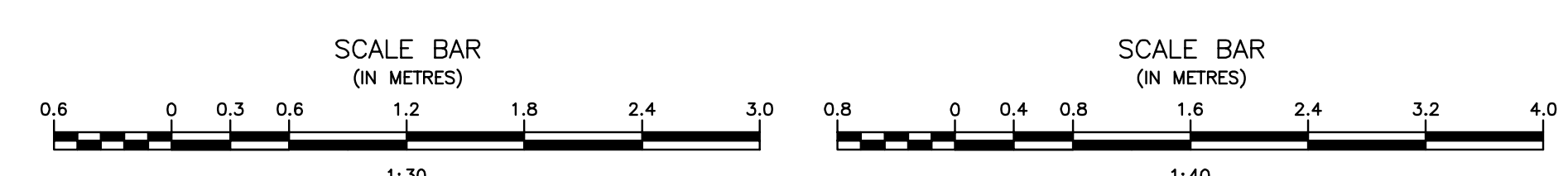
3 RUNNING TRAP DETAIL
SCALE = 1:30



4 TYPICAL PLUMBING SUPPORT DETAIL
SCALE = 1:30



2 BUILDING CLEANOUT AND TYPICAL PLUMBING SUPPORT DETAILS
SCALE = 1:40



ORIGINAL DRAWING
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BY
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16/03/29

APEGM
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2	RECORD DRAWING	FEB 2019
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0	Design Completion	

Revision Description Date
Client client

Project title Project

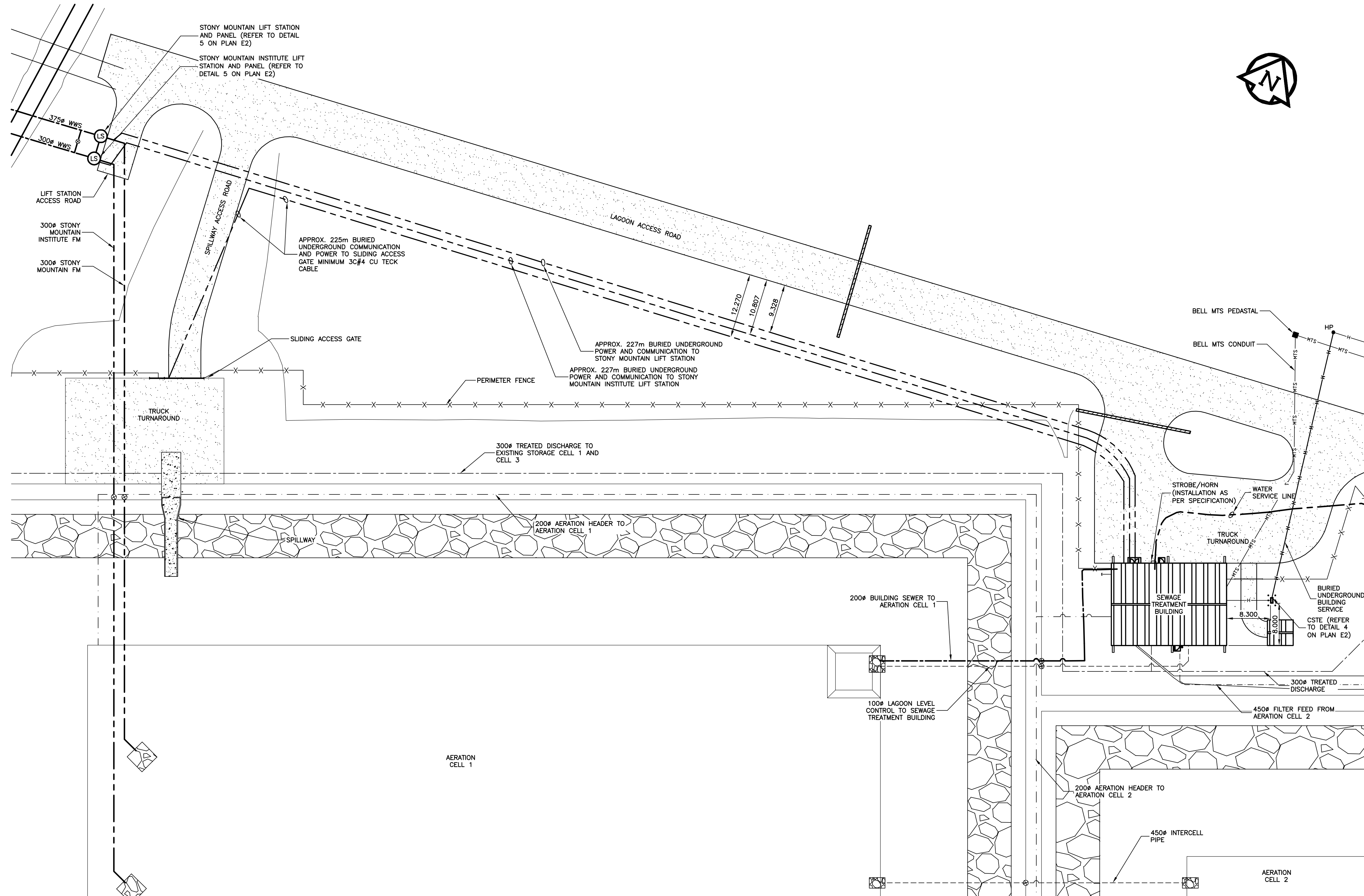
STONY MOUNTAIN LAGOON UPGRADE

Designed by JRC Conçu par
Drawn by OT Dessiné par
Approved by JRC Approuvé par
PWSSC Project Manager Administrateur de Projets TPSGC
MARK MOGAN

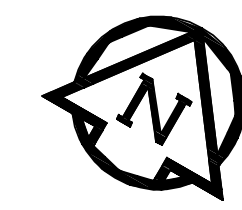
Drawing title Titre du dessin
SEWAGE TREATMENT BUILDING PLUMBING DIAGRAM, BUILDING CLEANOUT AND RUNNING TRAP DETAILS

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	M11	0
	OF 11	

Record Drawing
Drawing compiled from visual observations of various parts of construction and/or from information by others. Accuracy not warranted. Independent verification required before application.



ELECTRICAL SITE PLAN
 SCALE = 1:400



ORIGINAL DRAWING
 SIGNED AND SEALED
 BY
 D.K. GEE
 16/03/30



TOWER PROJECT NUMBER: 141474
TOWER ENGINEERING GROUP
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Revision	Description	Date
5		
4		
3	RECORD DRAWING	FEB 2019
2	REVISED MANHOLES	MARCH 2017
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	

Client: client

Project title: Stony Mountain Lagoon Upgrade

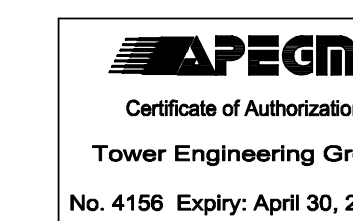
STONY MOUNTAIN LAGOON UPGRADE

Designed by DG	Conçu par
Drawn by OT	Dessiné par
Approved by SL	Approuvé par
PWSSC Project Manager Administrateur de Projets TPSGC MARK MOGAN	
Drawing title SEWAGE TREATMENT BUILDING ELECTRICAL SITE PLAN	

Record Drawing
 Drawing compiled from visual observations of various parts of construction and/or from information by others. Accuracy not warranted. Independent verification required before application.

Project no./No. du projet R.075583.001	Drawing no./No. du dessin E1	Revision no. 0
	OF 14	

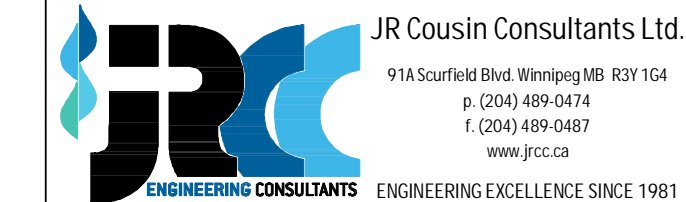
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BY
D.K. GEE
16/03/30



TOWER PROJECT NUMBER: 141474



JRCC PROJECT # R-325.52



Revision	Description	Date
5		
4		
3		
2	RECORD DRAWING	FEB 2019
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	

Client: client

Project title: Stony Mountain Lagoon Upgrade

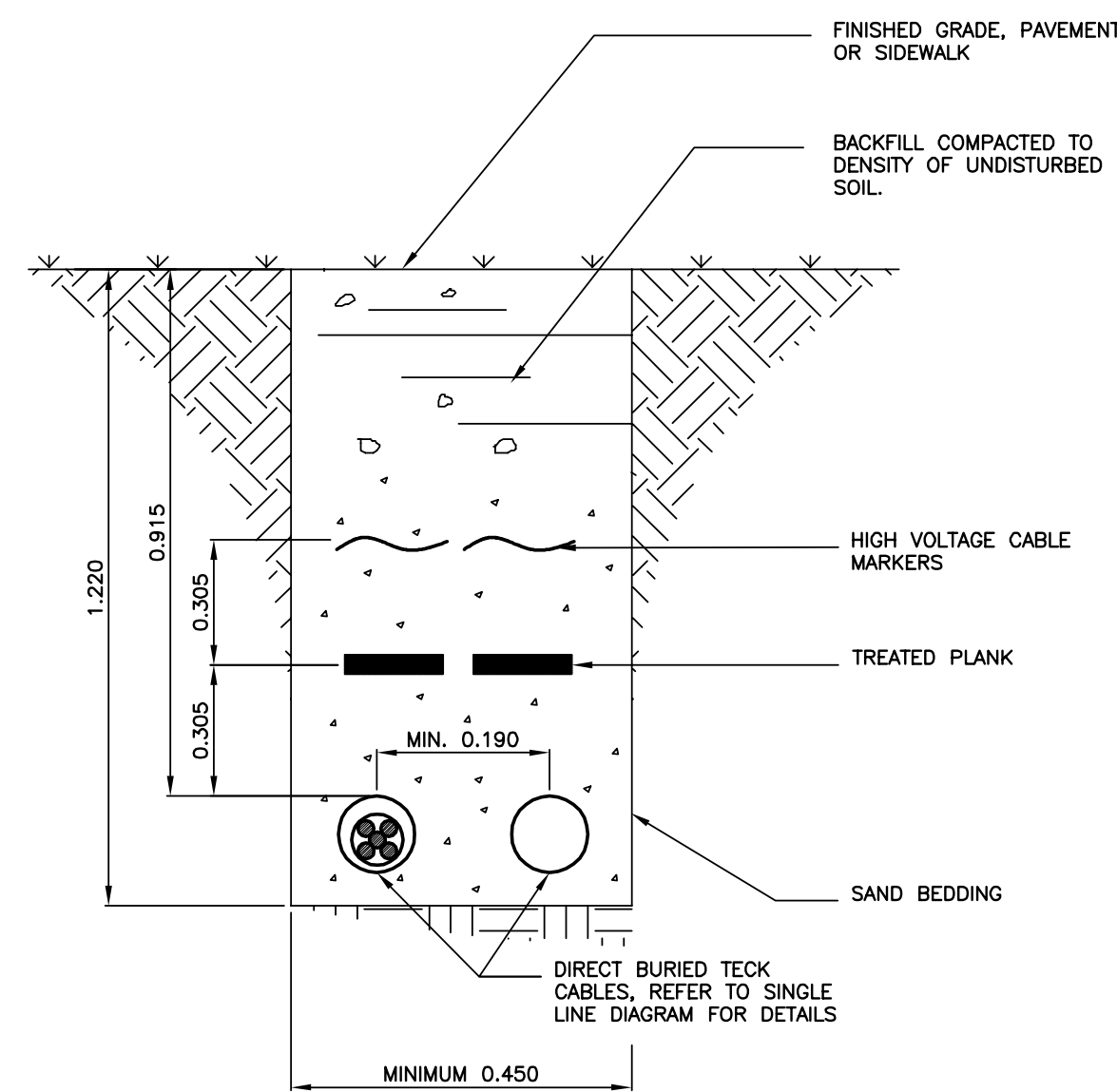
STONY MOUNTAIN LAGOON UPGRADE

Designed by	Conçu par	DG
Drawn by	Dessiné par	OT
Approved by	Approuvé par	SL
PM/ESC: Project Manager	Administrateur de Projets TPSGC	MARK MOGAN
Drawing title	Titre du dessin	

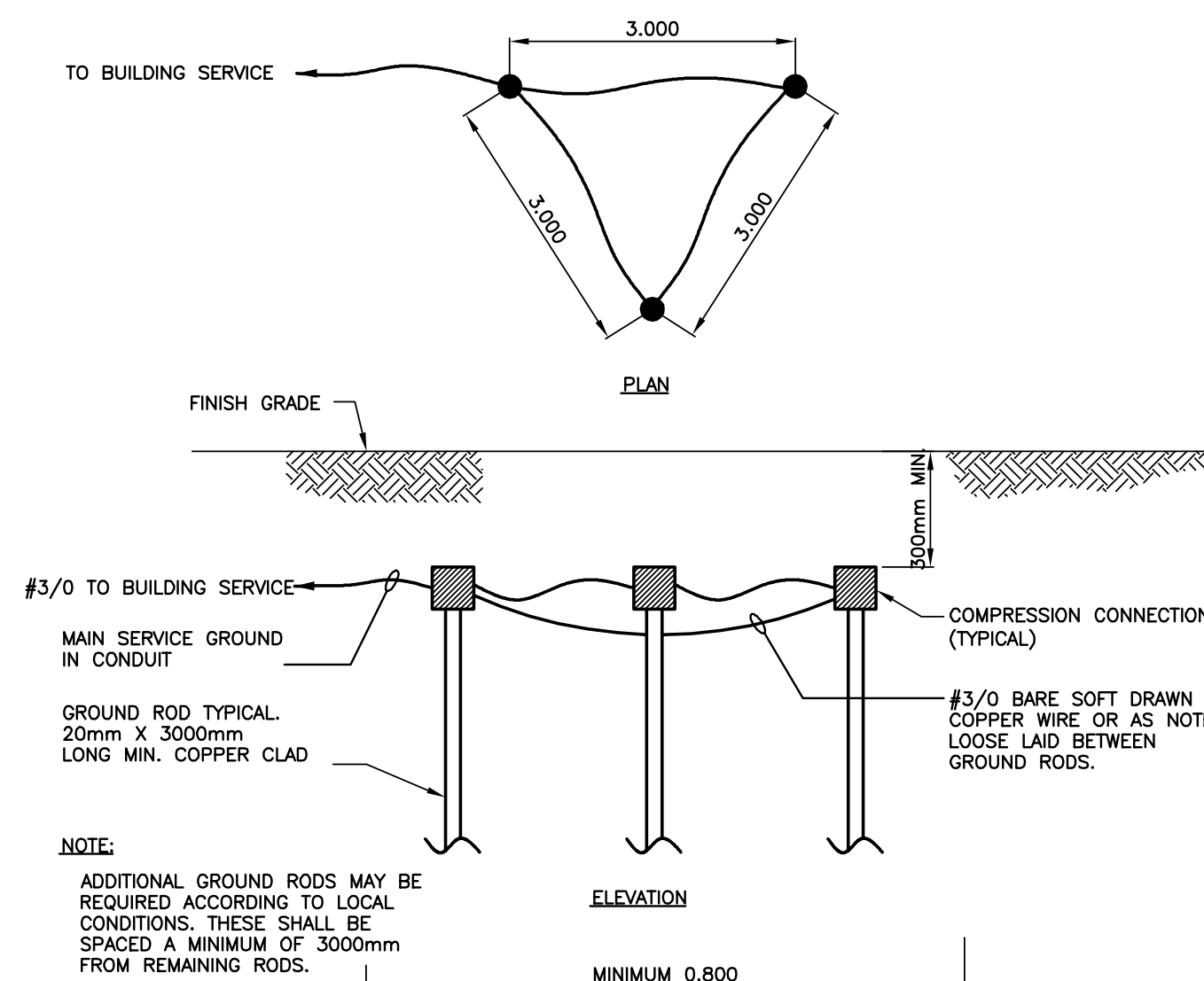
SEWAGE TREATMENT BUILDING ELECTRICAL DETAILS

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	E2	0

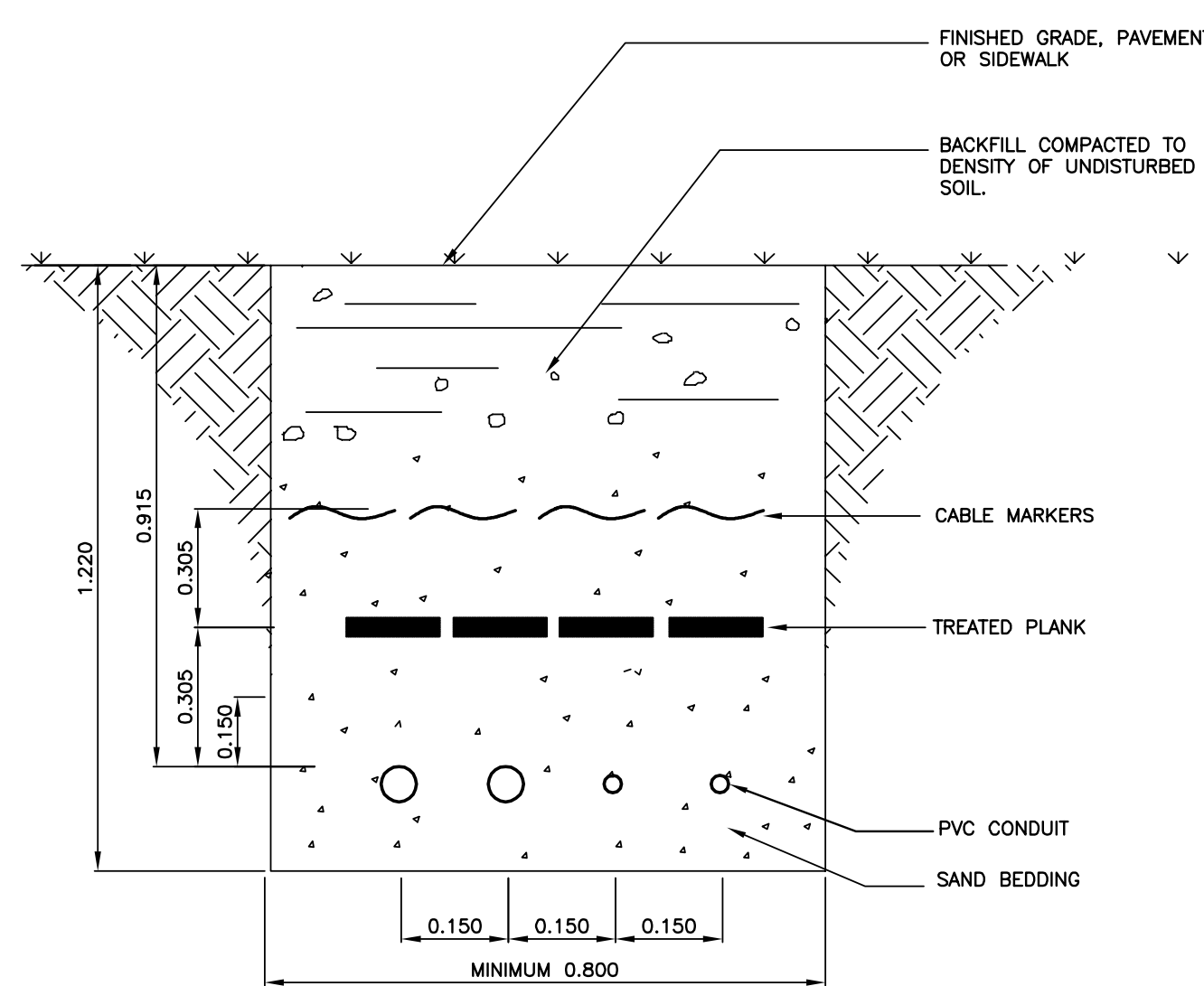
OF 14



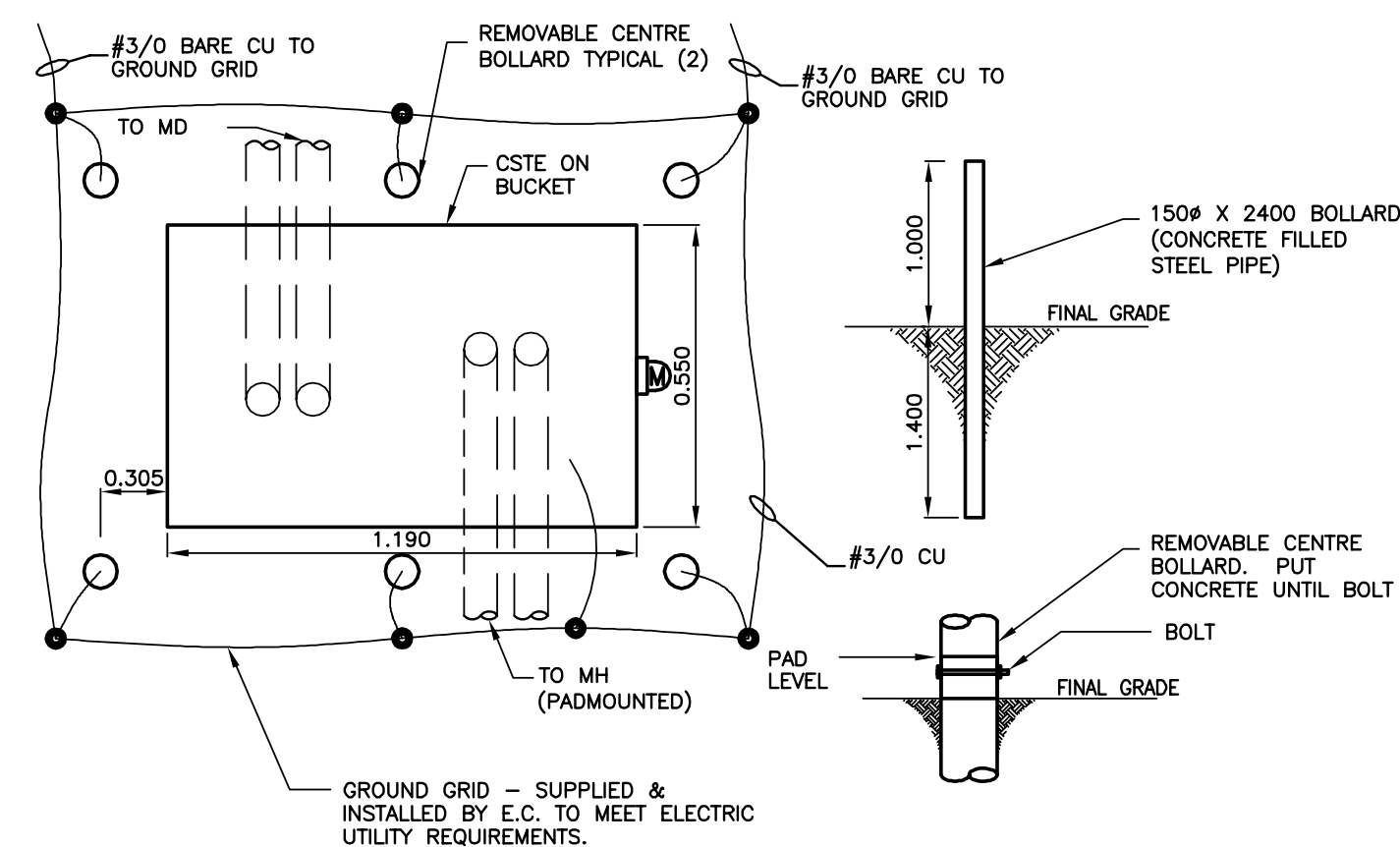
1 SECONDARY FEEDER DETAIL
2 SCALE = NTS



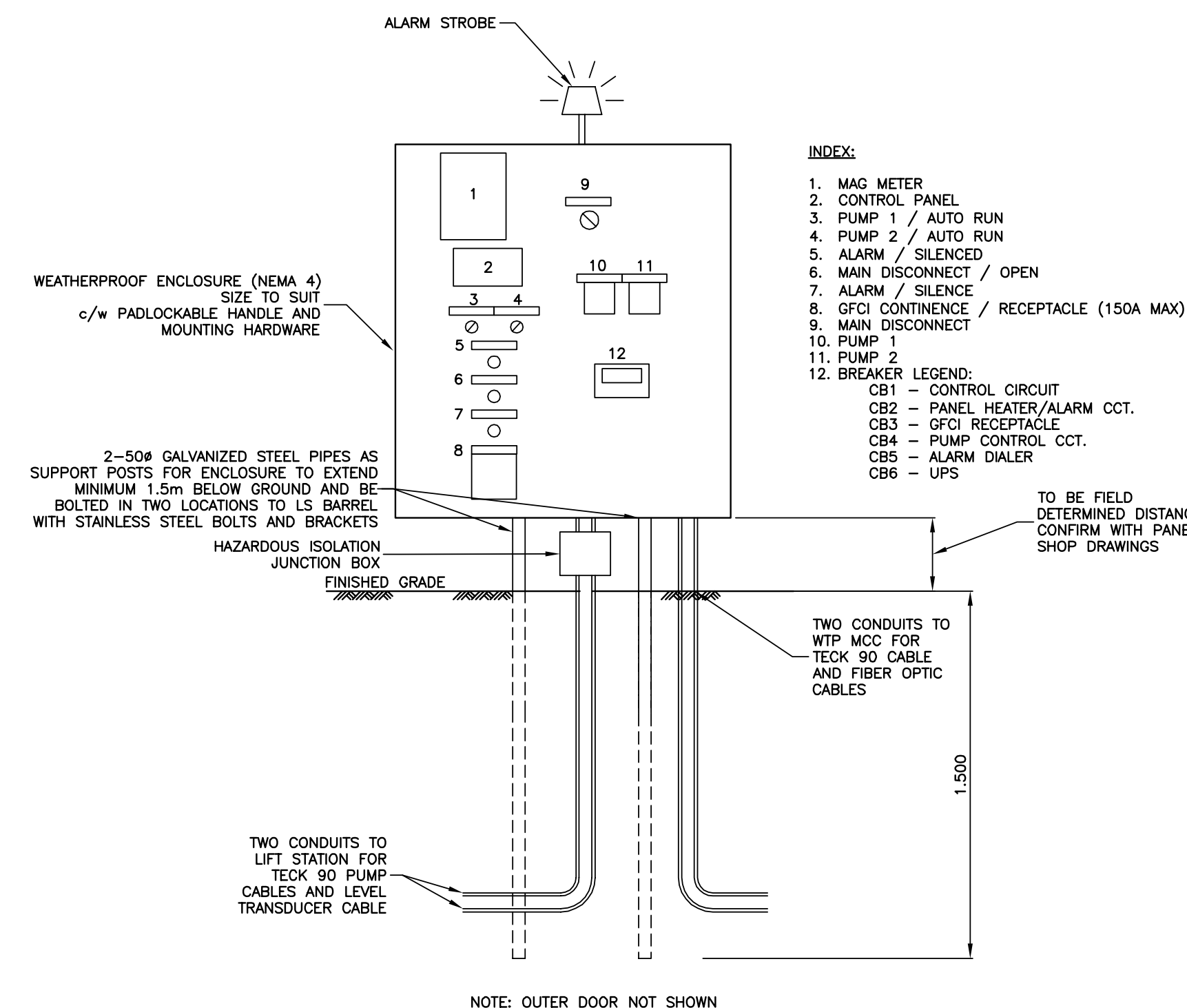
2 GROUND ELECTRODE DETAIL
2 SCALE = NTS



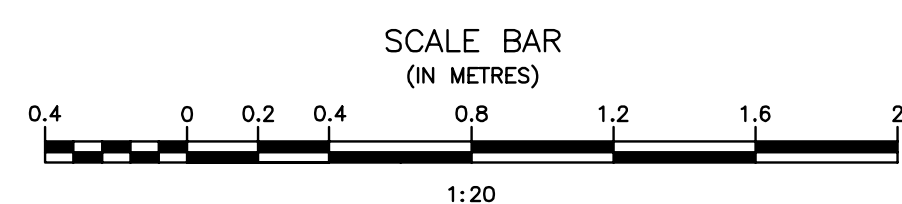
3 U/G CABLE DETAIL
2 SCALE = NTS



4 CSTE BOLLARD DETAIL
2 SCALE = NTS

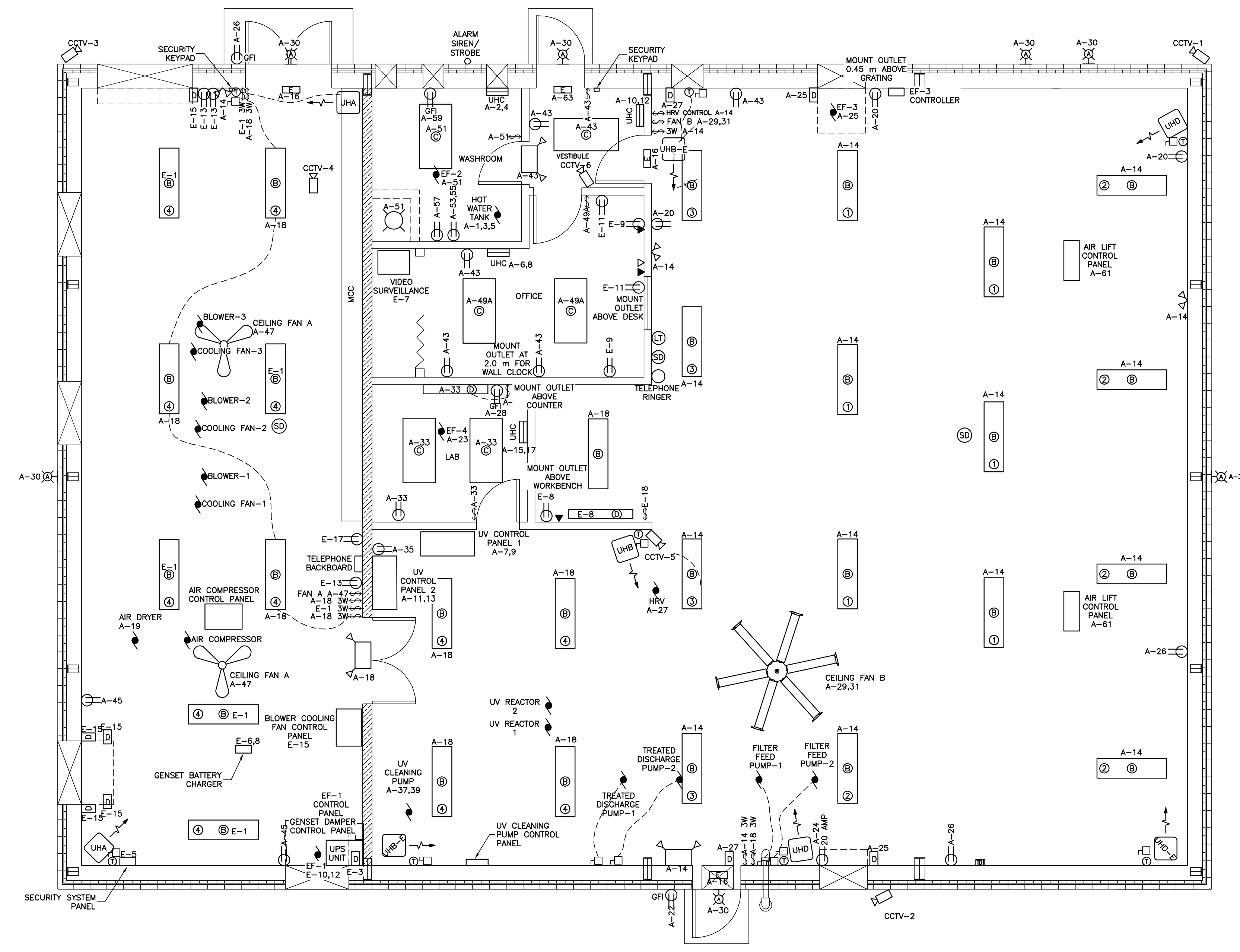
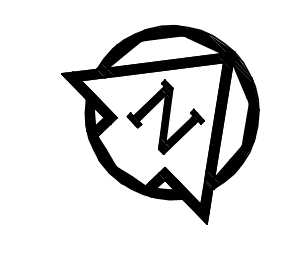


5 LIFT STATION PANEL DETAIL
2 SCALE = 1:20



Record Drawing

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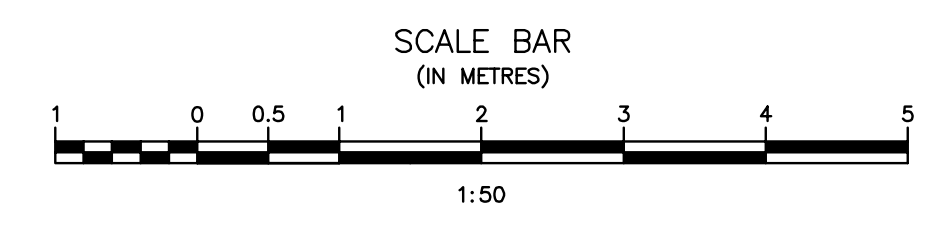


NOTE:
 - INSTALL CONDUITS BETWEEN FUTURE BLOWER 4 AND 5 AND MCC FOR BOTH THE BLOWERS AND THE COOLING FANS.

ELECTRICAL LEGEND	
SYMBOL	DESCRIPTION
(B)	FLUORESCENT LIGHTING LUMINAIRE LOCATE ON CEILING OR RECESSED IN LOWERED T-BAR CEILING UNLESS OTHERWISE NOTED.
⊡	SINGLE POLE WALL SWITCH. SINGLE POLE 15A 120 VAC. SURFACE MOUNT IN CSA PVC EEMAC 12 RATED ENCLOSURE. LOCATE 1.35m ABOVE FLOOR.
⊡	GANGED LIGHT CONTROL TOGGLE SWITCH SIMILAR TO ABOVE.
⊡	WALL MOUNTED LIGHT FIXTURE
⊡	INCANDESCENT LIGHT FIXTURE
⊡	EMERGENCY BATTERY BANK UNIT C/W HEAD LIGHTS
E	EXIT LIGHT
⊡	DUPLEX CONVENIENCE RECEPTACLE 15A, 125 VAC. MOUNT IN PVC SURFACE MOUNTED BOX. LOCATE 450mm ABOVE FLOOR. PROVIDE LAMICOID NAME PLATE INDICATING CIRCUIT NUMBER BELOW RECEPTACLE.
⊡	SIMILAR TO ABOVE EXCEPT LOCATED 200mm ABOVE COUNTER.
⊡	DUPLEX CONVENIENCE RECEPTACLE 15A 125VAC WITH BUILT IN GROUND FAULT DETECTION AND INTERRUPTION. SURFACE MOUNTED IN CSA PVC ENCLOSURE.
⊡	SIMILAR TO ABOVE EXCEPT SUITABLE FOR CLASS 1, DIV. 2, GROUP F HAZARDOUS LOCATIONS. FACTORY SEALED ARC CHAMBER. TWO ACTION OPERATION FOR CIRCUIT ENERGIZATION. HINGED SPRING DOOR. UNIT C/W MATCHING PLUG.
⊡	ELECTRIC MOTOR. DESCRIPTIONS AS PER MOTOR SCHEDULE.
⊡	THERMOSTAT
⊡	CONTACT SWITCH
⊡	OVERFLOW SENSOR
⊡	SP-ST SWITCH ON ALUM TANK
⊡	ULTRASONIC
⊡	DISCONNECT SWITCH
⊡	TELEPHONE JACK
⊡	NETWORK OUTLET
⊡	INDUSTRIAL UNIT HEATER (TYPICAL) - IDENTIFIES HEATER TYPE. (SEE HEATING SCHEDULE)
⊡	BASEBOARD/WALL HEATER (TYPICAL) - IDENTIFIES HEATER TYPE. (SEE HEATING SCHEDULE)
⊡	HEATER FLOW DIRECTION
⊡	SOLENOID VALVE
⊡	SMOKE DETECTOR
⊡	LOW TEMPERATURE
⊡	VIDEO CAMERA
⊡	EMERGENCY LIGHTING (REMOTE - 2 HEADS)

NOTE: LIGHTS TO BE MOUNTED AT:
 - 2.4m ABOVE CATWALK AND PLATFORM
 - 5.0m ABOVE FLOOR
 - BELOW HRV DUCTING
 - 3.0m ABOVE FLOOR

LAB, OFFICE, WASHROOM AND VESTIBULE ARE IN THE T-BAR CEILING. LIGHT ON CIRCUIT E-8 TO BE ABOVE PEGBOARD



LIGHTING AND POWER LAYOUT
 SCALE = 1:50

Record Drawing
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ORIGINAL DRAWING
 SIGNED AND SEALED
 BY
 D.K. GEE
 16/03/30



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1	ISSUED FOR TENDER	MARCH 2016
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Client: client

Project title: Stony Mountain Lagoon Upgrade

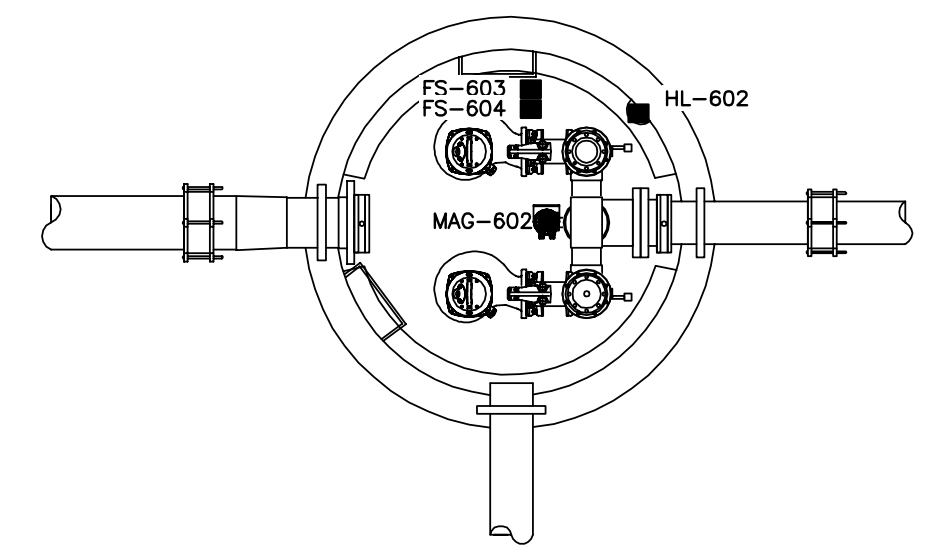
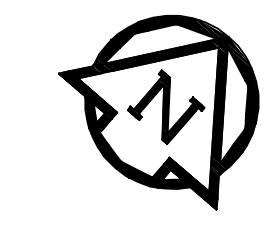
STONY MOUNTAIN LAGOON UPGRADE

Designed by: DG
 Drawn by: OT
 Approved by: SL

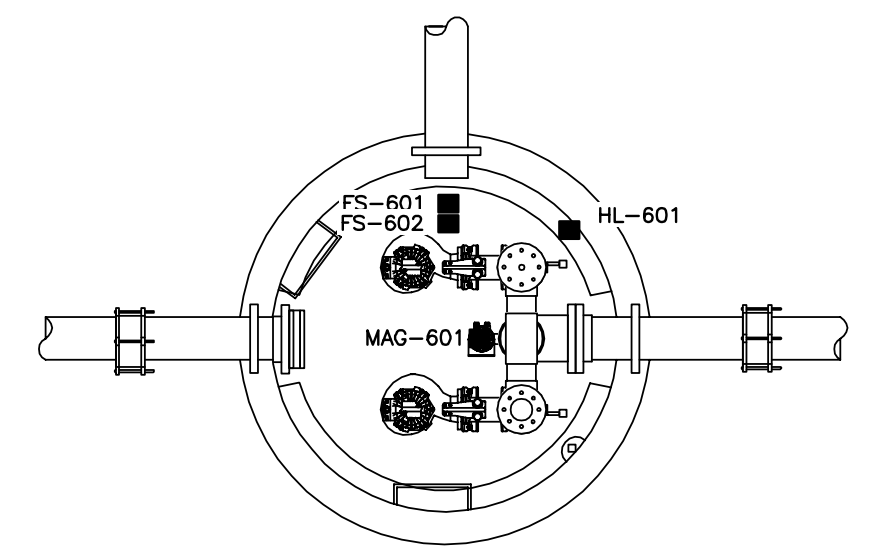
PM/CS: Project Manager Administrateur de Projets TPSGC
MARK MOGAN

Drawing title: Sewage Treatment Building Lighting and Power Layout

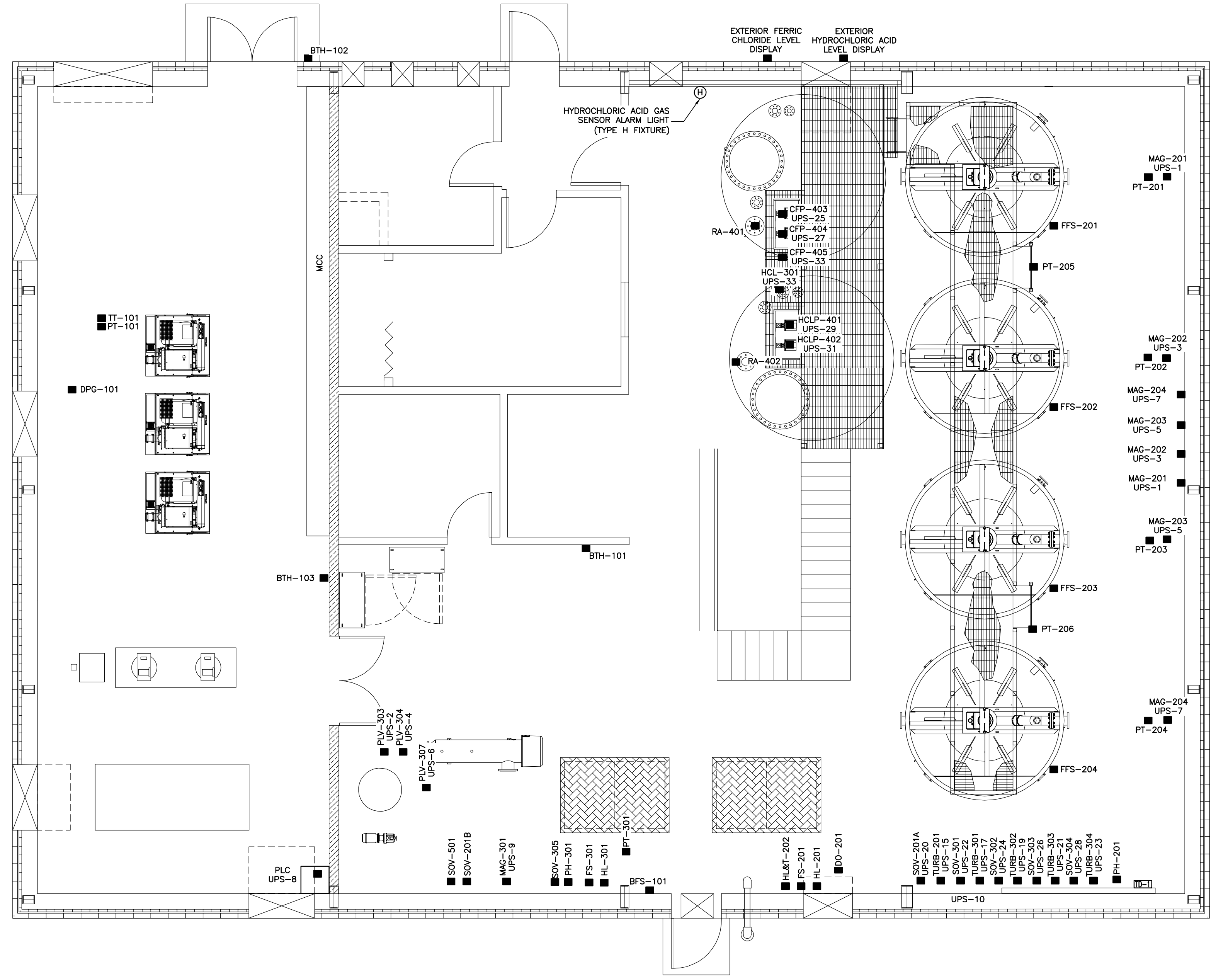
Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	E3	0
	OF 14	



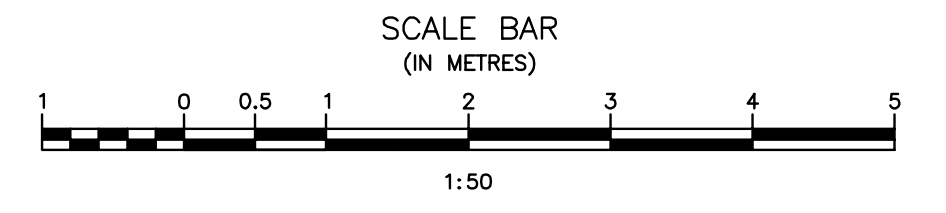
STONY MOUNTAIN INSTITUTE LIFT STATION
 SCALE = 1:50



STONY MOUNTAIN LIFT STATION
 SCALE = 1:50



CONTROL LAYOUT
 SCALE = 1:50



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ORIGINAL DRAWING
 SIGNED AND SEALED
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 D.K. GEE
 16/03/30

APECM
 Certificate of Authorization
 Tower Engineering Group
 No. 4156 Expiry: April 30, 2016

TOWER PROJECT NUMBER: 141474

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Revision	Description	Date
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2	RECORD DRAWING	FEB 2019
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	

Client client

Project title Projet

STONY MOUNTAIN LAGOON UPGRADE

Designed by Conçu par
 DG

Drawn by Dessiné par
 OT

Approved by Approuvé par
 SL

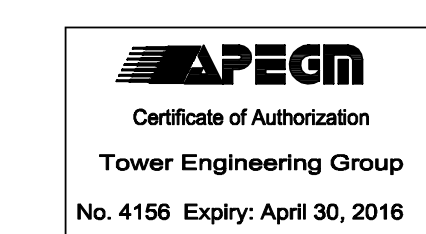
PM/CS: Project Manager Administrateur de Projets TPSGC
MARK MOGAN

Drawing title Titre du dessin

SEWAGE TREATMENT BUILDING CONTROL LAYOUT

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	E4	0
	OF 14	

ORIGINAL DRAWING
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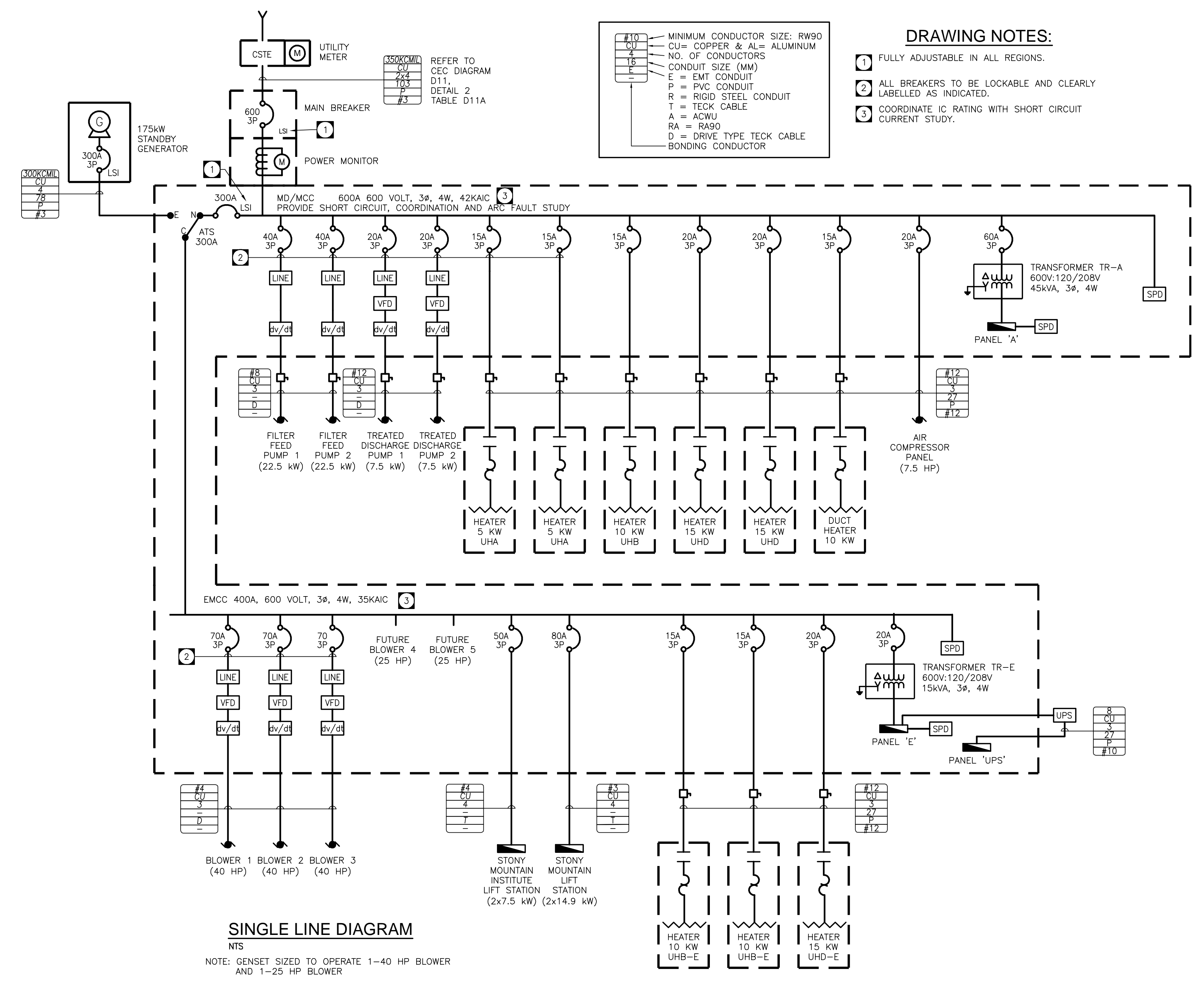
5		
4		
3		
2	RECORD DRAWING	FEB 2019
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	
Revision	Description	Date
Client		client

Project title: **STONY MOUNTAIN LAGOON UPGRADE** Projet

STONY MOUNTAIN LAGOON UPGRADE

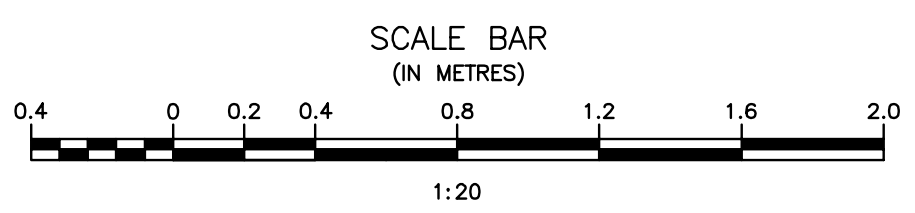
Designed by	Conçu par	DG
Drawn by	Dessiné par	OT
Approved by	Approuvé par	SL
PM/CS: Project Manager / Administrateur de Projets TPSGC		MARK MOGAN
Drawing title	Titre du dessin	
	SEWAGE TREATMENT BUILDING ELECTRICAL SINGLE LINE DIAGRAM AND MCC LAYOUT	

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	E5	0
	OF 14	



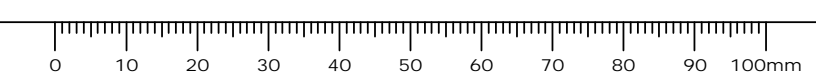
SINGLE LINE DIAGRAM

NTS
NOTE: GENSET SIZED TO OPERATE 1-40 HP BLOWER AND 1-25 HP BLOWER



100KA SURGE PROTECTOR DEVICE	FILTER FEED PUMP 1	TREATED DISCHARGE PUMP 1	UHA ELEC. ROOM UHA ELEC. ROOM UHB MECH. ROOM UHD MECH. ROOM UHD MECH. ROOM	PANEL A 42 CKT 120/208V CX 100KA SPD		MECHANICAL ROOM 10KW DUCT HEATER		100KA SURGE PROTECTOR DEVICE	BLOWER 2	FUTURE BLOWER 4	PANEL E 42 CKT 120/208V C/W 100KA SPD	UHB-C MECH ROOM UHB-E MECH. ROOM UHD-E MECH. ROOM SMI LIFT STATION STONY MOUNTAIN LIFT STATION	CONTROL SECTION
POWER MONITOR	FILTER FEED PUMP 2	TREATED DISCHARGE PUMP 2	TR-A TRANSFORMER FEEDER TR-A PANEL A FEEDER	TR-A TRANSFORMER 45 KVA 600 120/208 V	PANEL A 24 CKT 120/208V	AIR COMPRESSOR					PANEL UPS 42CKT 120/240V	TR-E TRANSFER FEEDER TR-E PANEL E FEEDER	
MAIN BREAKER									BLOWER 3	FUTURE BLOWER 5		TR-E TRANSFORMER 15 KVA 600 120/208V	

MCC LAYOUT
SCALE = 1:20



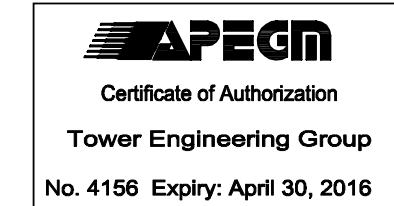
Record Drawing
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PANEL 'A'		VOLTAGE : SEE SINGLE LINE BUS : 225A					PHASE : SEE SINGLE LINE WIRE : SEE SINGLE LINE			
DESCRIPTION	LOAD WATTS	BREAKER SIZE	CIRCUIT			BREAKER SIZE	LOAD WATTS	DESCRIPTION		
HOT WATER TANK	2666	30 3P	1	X		2	20 2P	1500	FORCE FLOW UHC - WASHROOM	
	2666		3		X		4	1500		
	2666		5			X	6	1500	FORCE FLOW UHC - OFFICE	
UVV CONTROL PANEL 1	2500	30 2P	7	X		8	1500			
UVV CONTROL PANEL 2	2500	30 2P	9		X	10	20 2P	1500	FORCE FLOW UHC - VESTIBULE	
	2500		11			X	12	1500		
FORCE FLOW UHC - LAB	1500	20 2P	15		X	16	15	648	LIGHTING MECHANICAL ROOM	
	1500		17		X	18	15	424	EXIT SIGNS	
AIR DRIER	250	20	19	X		20	15	200	LIGHTING ELECTRICAL ROOM	
SPARE			15	21		X	22	15	200	RECEPTACLE MECHANICAL ROOM
SPARE	49	15	23				24	20	200	RECEPTACLE EXTERIOR GFCI
EF-3 MECHANICAL ROOM	696	15	25		X	26	15	200	RECEPTACLE MECHANICAL ROOM	
HRV UNIT	600	20	27	X			28	15	200	RECEPTACLE MECHANICAL ROOM
CEILING FAN MECHANICAL ROOM	700	25 2P	29		X	30	15	1295	RECEPTACLE GFI LAB	
	700		31			X	32	15	1295	LIGHTING - EXTERIOR
LIGHTING/RECEPTACLES - LAB			15	33	X		34	15	SPARE	
RECEPTACLE UV PANEL			15	35		X	36	15	SPARE	
UV CLEANING PUMP	1250	30 2P	37			X	38	15	SPARE	
	1250		39	X			40	15	SPARE	
SPARE			41		X		42	15	SPARE	
LIGHTING/RECEPTACLE - VESTIBULE/OFFICE	200	15	43			X	44	15	SPARE	
RECEPTACLE ELECTRICAL ROOM	200	15	45	X			46	15	SPARE	
CEILING FANS ELECTRICAL ROOM	150	15	47		X		48	15	SPARE	
LIGHTING OFFICE	242	15	49			X	50			
LIGHTING/EF-2 WASHROOM	221	15	51				52			
DRYER	3000	40 2P	53				54			
	3000		55				56			
WASHING MACHINE	1000	15	57				58			
RECEPTACLE GFI WASHROOM	200	15	59				60			
AIR LIFT PANEL	1500	20	61				62			
SPARE	15	15	63				64			
			65				66			
HTG. : kW		LTG. : kW		MTR. : kW			MISC. : kW			TOTAL : kW

PANEL 'E'		VOLTAGE : SEE SINGLE LINE BUS : 225A					PHASE : SEE SINGLE LINE WIRE : SEE SINGLE LINE			
DESCRIPTION	LOAD WATTS	BREAKER SIZE	CIRCUIT			BREAKER SIZE	LOAD WATTS	DESCRIPTION		
BLOWER COOLING FAN CONTROL PANEL	600	15	1	X		2	50 2P	3500	UPS PANEL	
GENSET VENTILATION AND DAMPERS	500	15	3		X	4	3500			
SECURITY SYSTEM	400	20	5			X	6	15	500	GENSET BATTERY CHARGER
VIDEO SURVEILLANCE	400	15	7	X		8				GENSET BLOCK HEATER
RECEPTACLE OFFICE	200	15	9		X	10				EF-1 ELECTRICAL ROOM
RECEPTACLE OFFICE	200	15	11			X	12	20 3P		
RECEPTACLE ELECTRICAL ROOM	200	15	13	X		14				
LIGHTING - ELECTRICAL ROOM	636	15	15		X	16	15 2P			MOTORIZED GATE - ENTRANCE
TELEPHONE BACKBOARD RECEPTACLE	200	15	17			X	18			WORKBENCH LIGHT AND RECEPTACLE
MOTORIZED GATE - SPILLWAY		15 2P	19	X		20	15	400		
SPARE			21		X	22				SPARE
SPARE			23			X	24			SPARE
SPARE			25				26			
			27				28			
			29				30			
HTG. : kW		LTG. : kW		MTR. : kW			MISC. : kW			TOTAL : kW

PANEL 'UPS'		VOLTAGE : SEE SINGLE LINE BUS : 225A					PHASE : SEE SINGLE LINE WIRE : SEE SINGLE LINE		
DESCRIPTION	LOAD WATTS	BREAKER SIZE	CIRCUIT			BREAKER SIZE	LOAD WATTS	DESCRIPTION	
MAG-201	15	3	1	X		2	10	444	PLV-303
MAG-202	15	3	3		X	4	10	444	PLV-304
MAG-203	15	3	5	X		6	10	444	PLV-307
MAG-204	15	3	7		X	8	15		PLC
MAG-301	15	3	9	X		10	2	73	TD-1
SPARE	15	3	11		X	12			SPARE
SPARE	15	3	13	X		14			SPARE
SPARE		3	15		X	16	2		
SPARE		3	17	X		18	2		
SPARE		3	19		X	20	10	200	SOV-201
SPARE		3	21	X		22	10	200	SOV-301
SPARE		3	23		X	24	10	200	SOV-302
CFP-403	24	10	25	X		26	10	200	SOV-303
CFP-404	24	10	27		X	28	10	200	SOV-304
HCLP-401	24	10	29	X		30	10	200	SOV-501
HCLP-402	24	10	31		X	32	10	200	SOV-305
CHEMICAL FEED PUMP #5	24	10	33	X		34	3		SPARE
			35		X	36	3		SPARE
			37	X		38			
			39		X	40			
			41	X		42			
PANEL SUPPLIED BY OTHERS: COMPLETE PANEL INSTALLATION AND WIRING BETWEEN PANEL AND DEVICES									

ORIGINAL DRAWING
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BY
D.K. GEE
16/03/30



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Revision	Description	Date
Client		client

Project title: **STONY MOUNTAIN LAGOON UPGRADE** Projet

Designed by: **DG** Conçu par
 Drawn by: **OT** Dessiné par
 Approved by: **SL** Approuvé par
 PWCS: Project Manager / Administrateur de Projets TPSGC
MARK MOGAN
 Drawing title: **SEWAGE TREATMENT BUILDING PANEL SCHEDULES** Titre du dessin

Drawing no./No. du projet: **R.075583.001** Drawing no./No. du dessin: **E6** Revision no.: **0**
 OF 14

Record Drawing
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MOTOR/EQUIPMENT SCHEDULE

EQUIPMENT					FEED FROM	PKG UNIT	STARTER					CONTROLS				FIRE ALARM SHUT DOWN	REMARKS	SEE NOTES BELOW
ITEM	DESCRIPTION	LOCATION	KW/HP/AMPS	VOLTS/φ			TYPE	FUNC	PL	PB	HOA	SUPPLY BY	TYPE	SUPPLY BY	INSTAL BY			
BLOWER 1	AIR BLOWER	ELECTRICAL ROOM	40HP	600/3	EMCC						ELEC	ELEC	ELEC	ELEC				
BLOWER 2	AIR BLOWER	ELECTRICAL ROOM	40HP	600/3	EMCC						ELEC	ELEC	ELEC	ELEC				
BLOWER 3	AIR BLOWER	ELECTRICAL ROOM	40HP	600/3	EMCC						ELEC	ELEC	ELEC	ELEC				
SM LS PUMP 1	STONY MOUNTAIN LIFT STATION PUMP 1	OUTSIDE	7.5KW	600/3	LIFT STATION PANEL						ELEC	ELEC	ELEC	ELEC				
SM LS PUMP 2	STONY MOUNTAIN LIFT STATION PUMP 2	OUTSIDE	7.5KW	600/3	LIFT STATION PANEL						ELEC	ELEC	ELEC	ELEC				
SMI LS PUMP 1	STONY MOUNTAIN INSTITUTE LIFT STATION PUMP 1	OUTSIDE	14.9KW	600/3	LIFT STATION PANEL						ELEC	ELEC	ELEC	ELEC				
SMI LS PUMP 2	STONY MOUNTAIN INSTITUTE LIFT STATION PUMP 2	OUTSIDE	14.9KW	600/3	LIFT STATION PANEL						ELEC	ELEC	ELEC	ELEC				
FILTER FEED 1	FILTER FEED PUMP 1	MECHANICAL ROOM	22.5KW	600/3	MCC						ELEC	ELEC	ELEC	ELEC				
FILTER FEED 2	FILTER FEED PUMP 2	MECHANICAL ROOM	22.5KW	600/3	MCC						ELEC	ELEC	ELEC	ELEC				
TREATED DIS. 1	TREATED DISCHARGE PUMP 1	MECHANICAL ROOM	7.5KW	600/3	MCC						ELEC	ELEC	ELEC	ELEC				
TREATED DIS. 2	TREATED DISCHARGE PUMP 2	MECHANICAL ROOM	7.5KW	600/3	MCC						ELEC	ELEC	ELEC	ELEC				
UV UNIT 1	UV POWER DISTRIBUTION CENTER 1	MECHANICAL ROOM	4.9KVA	208/1	PANEL A	Y						ELEC	ELEC	ELEC				
UV UNIT 2	UV POWER DISTRIBUTION CENTER 2	MECHANICAL ROOM	4.9KVA	208/1	PANEL A	Y						ELEC	ELEC	ELEC				
UV CLN PUMP	UV CLEANING PUMP	MECHANICAL ROOM	1.5HP	208/1	PANEL A	Y						ELEC	ELEC	ELEC				
AIR COMP.	AIR COMPRESSOR PANEL	ELECTRICAL ROOM	7.5HP	600/3	MCC	Y						ELEC	ELEC	ELEC		COMPRESSOR PACKAGE CONTAINS 2-7.5HP MOTORS		
EF-1	ELECTRICAL ROOM EXHAUST FAN	ELECTRICAL ROOM	3/4 HP	208/1	PANEL A		T/TDS				ELEC	ELEC	ELEC	ELEC		SEE 23 09 00 FOR CONTROL STRATEGY		
D1/D2	DAMPER ACTUATORS	ELECTRICAL ROOM	FR.	120/1	PANEL A						MECH	ELEC	ELEC	ELEC		INTERLOCKED WITH EF-1 AND GENSET		
EF-2	WASHROOM EXHAUST FAN	WASHROOM	FR.	120/1	PANEL A		MAN				ELEC	ELEC	ELEC	ELEC		INTERLOCKED WITH WASHROOM LIGHTS		
EF-3	MECHANICAL ROOM EXHAUST FAN	MECHANICAL ROOM	1/4 HP	120/1	PANEL A		T/H/TDS				ELEC	ELEC	ELEC	ELEC		SEE 23 09 00 FOR CONTROL STRATEGY		
EF-4	LAB ROOM EXHAUST FAN	LAB	FR.	120/1	PANEL A		MAN				ELEC	ELEC	ELEC	ELEC				
D7/D10	DAMPER ACTUATORS	MECHANICAL ROOM	FR.	120/1	PANEL A						MECH	ELEC	ELEC	ELEC		INTERLOCKED WITH EF-3		
HRV	HEAT RECOVERY VENTILATOR	MECHANICAL ROOM	1/4 HP	120/1	PANEL A	Y						ELEC	ELEC	ELEC		SEE 23 09 00 FOR CONTROL STRATEGY		
D8/D9	DAMPER ACTUATORS	MECHANICAL ROOM	FR.	120/1	PANEL A						MECH	ELEC	ELEC	ELEC		INTERLOCKED WITH HRV		
CEILING FAN A	CEILING FAN	ELECTRICAL ROOM	100W	120/1	PANEL A		MAN				ELEC	ELEC	ELEC	ELEC				
CEILING FAN B	CEILING FAN	MECHANICAL ROOM	1 HP	208/1	PANEL A	Y						ELEC	ELEC	ELEC		C/W REMOTE WALL CONTROL		
HWT	HOT WATER TANK	WASHROOM	8KW	208/3	PANEL A	Y						ELEC	ELEC	ELEC				
D4/D5/D6	GENSET DAMPER ACTUATORS	ELECTRICAL ROOM	FR.	120/1	PANEL E							ELEC	ELEC	ELEC				
MOTORIZED GATE	GATE	OUTSIDE	FR.	208/1	PANEL E													

GENERAL NOTES:
A. MANUAL MOTOR STARTER TO BE C/W PILOT LIGHT AND OVERCURRENT PROTECTION.
B. ALL STARTERS TO BE SUPPLIED & INSTALLED BY THE ELECTRICAL CONTRACTOR (EC) UNLESS OTHERWISE NOTED.
C. DISCONNECT SWITCHES TO BE SUPPLIED & INSTALLED BY THE ELECTRICAL CONTRACTOR (EC)
D. ELECTRICAL CONTRACTOR TO PROVIDE CIRCUIT BREAKERS AND WIRING ACCORDING TO THE FINAL NAMEPLATES OF THE MECHANICAL EQUIPMENT NO COST.
E. REFER TO PANELBOARD SCHEDULES AND SINGLE LINE DIAGRAM FOR MOTOR AND EQUIPMENT OVERLOAD PROTECTION.

FVNR = FULL VOLTAGE NON-REVERSING
RVNR = REVERSE VOLTAGE NON-REVERSING
MAN = MANUAL STARTER
MAG = MAGNETIC STARTER
HOA = HAND/OFF/AUTO
PL = PILOT LIGHT
Y = YES
F = FLOAT SWITCH
NT = INTEGRAL
AD = AMMONIA DETECTION SYSTEM
CO = CARBON MONOXIDE SENSOR
MT = MANUAL TIMER (WALL MOUNTED)
MS = MANUAL SWITCH
ESC = ELECTRIC SPEED CONTROLLER
LS = LEVEL SWITCH
TDS = TIME DELAY SWITCH (WALL MTD)
CO2 = CARBON DIOXIDE SENSOR
CHL = CHLORINE SENSOR
VFD = VARIABLE FREQUENCY DRIVE
PB = PUSH BUTTON
I = INTERLOCK
TC = TIME CLOCK
DDC = DIGITAL DATA CONTROL SYSTEM
T = THERMOSTAT
SS = SOFT STARTER
MS = MANUAL SWITCH

ORIGINAL DRAWING
SIGNED AND SEALED
BY
D.K. GEE
16/03/30



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5		
4		
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2	RECORD DRAWING	FEB 2019
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	
Revision	Description	Date
Client		client

Project title: **STONY MOUNTAIN LAGOON UPGRADE** Projet

STONY MOUNTAIN LAGOON UPGRADE

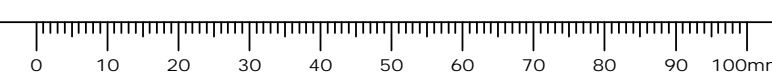
Designed by: **DG** Conçu par
Drawn by: **OT** Dessiné par
Approved by: **SL** Approuvé par

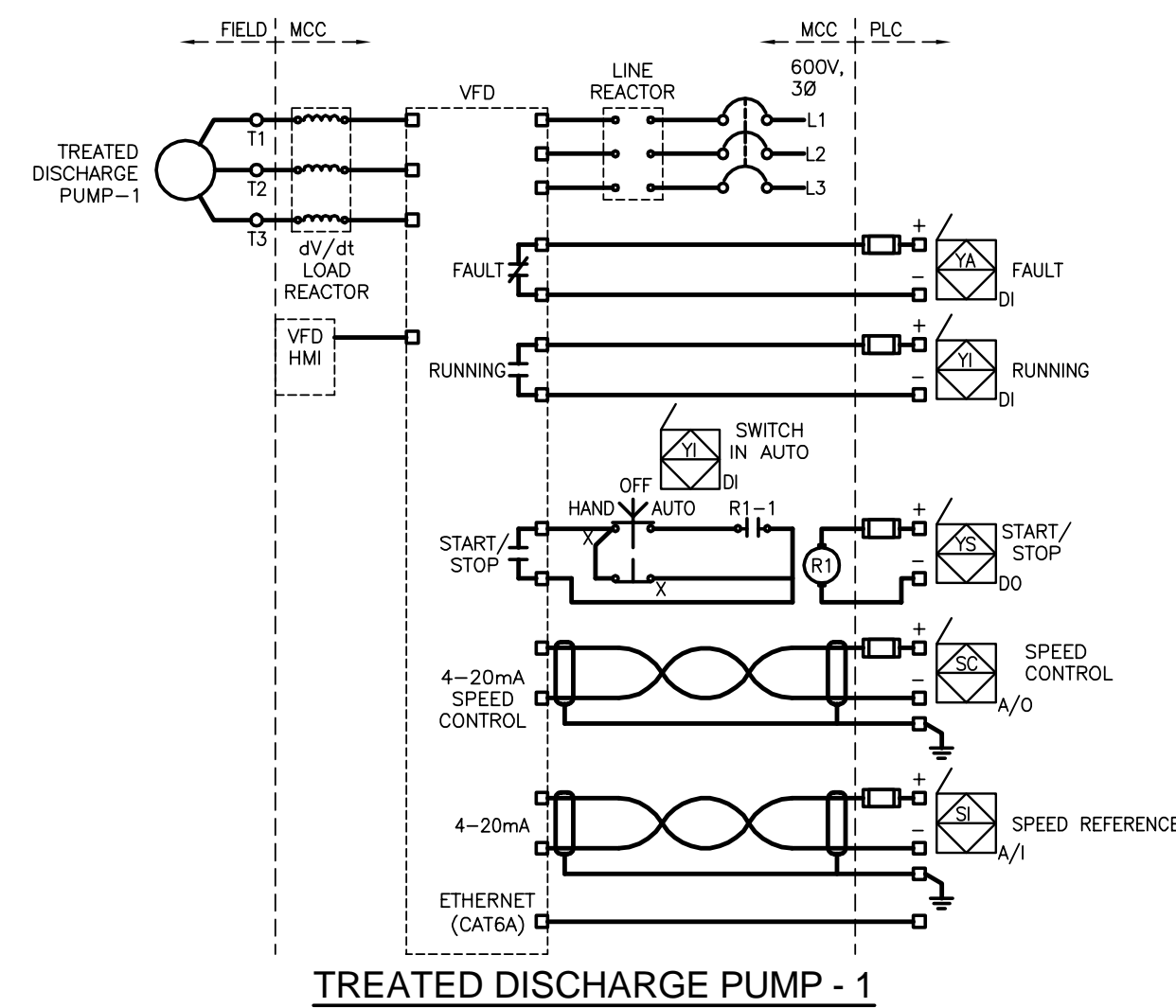
PM/CS: Project Manager Administrateur de Projets TPSGC
MARK MOGAN

Drawing title: **SEWAGE TREATMENT BUILDING ELECTRICAL EQUIPMENT SCHEDULES** Titre du dessin

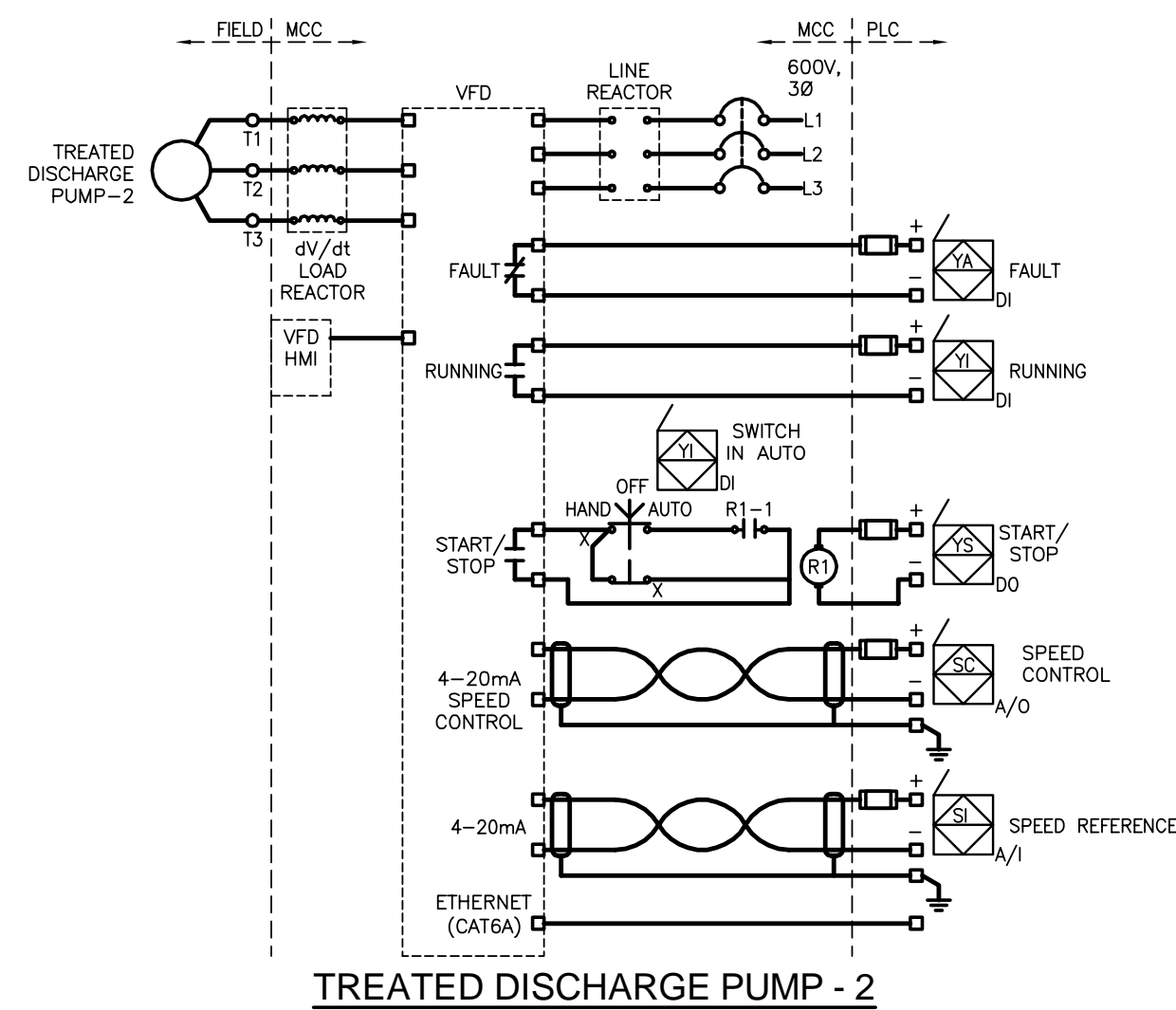
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Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	E7	0
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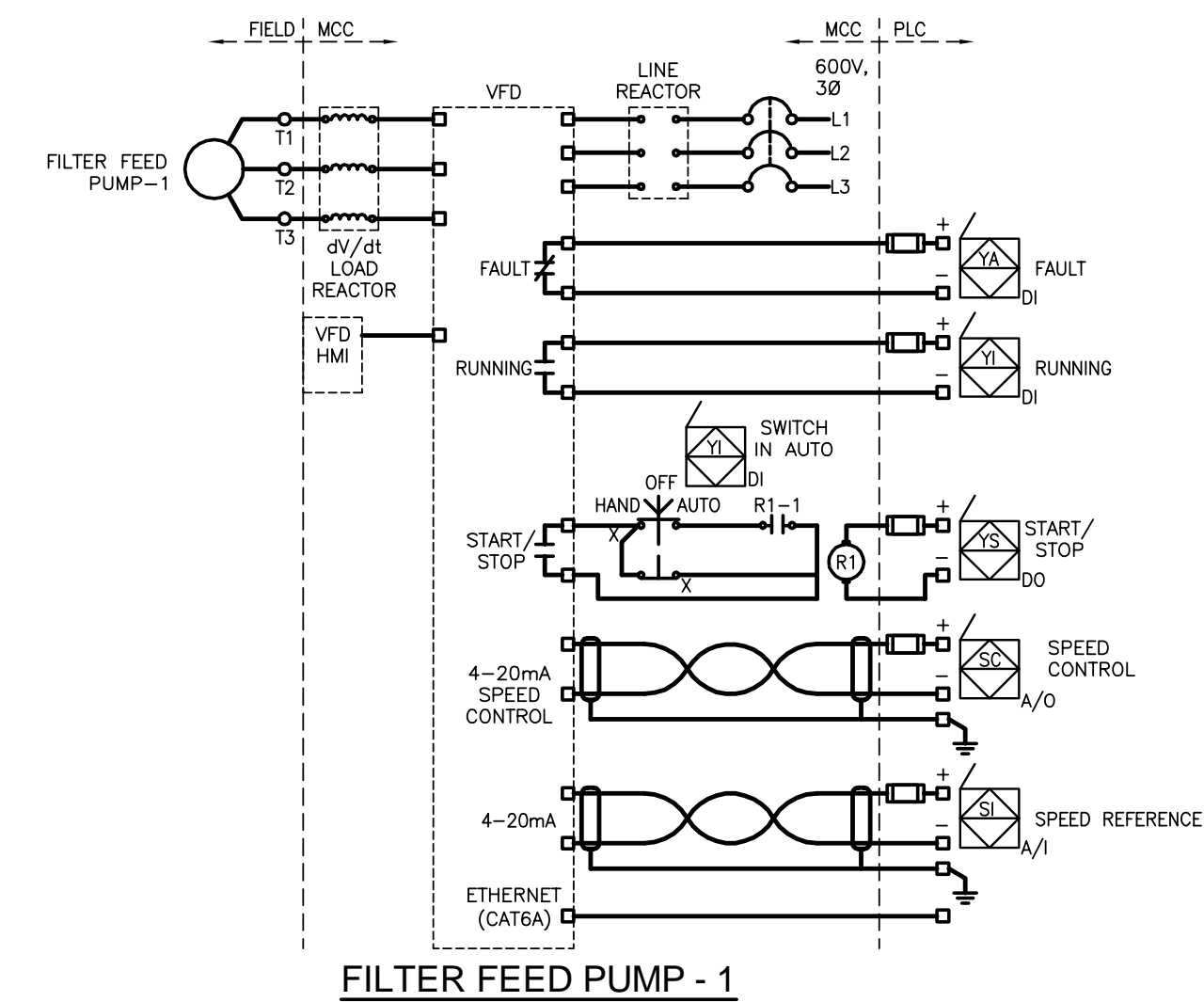




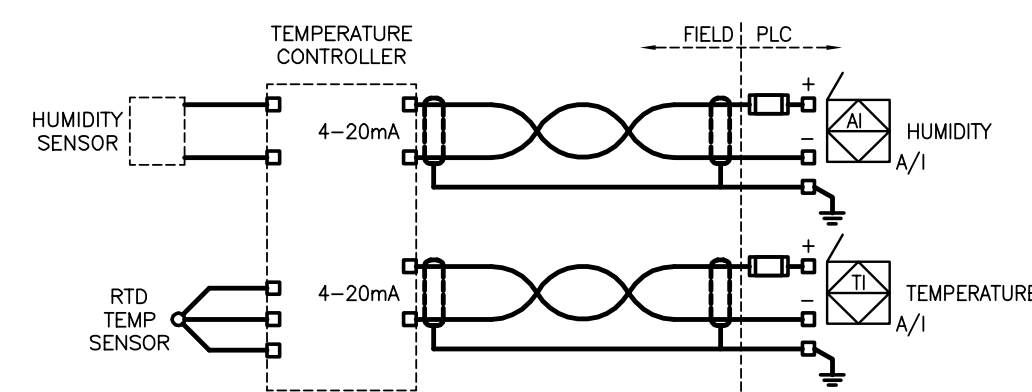
TREATED DISCHARGE PUMP - 1



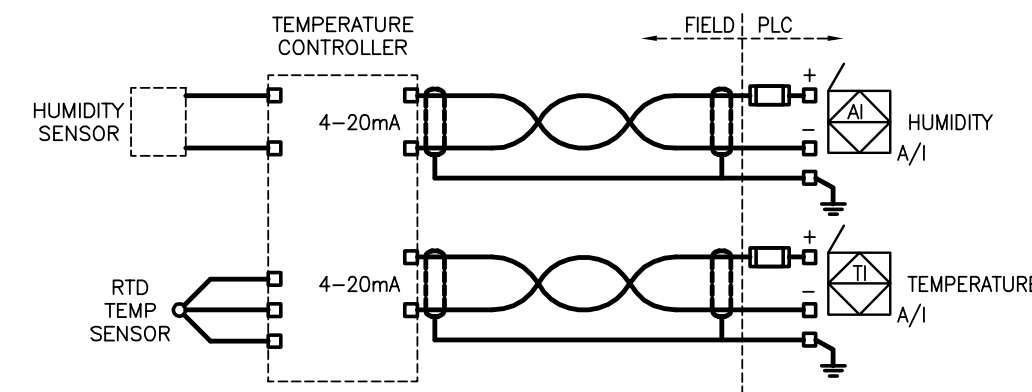
TREATED DISCHARGE PUMP - 2



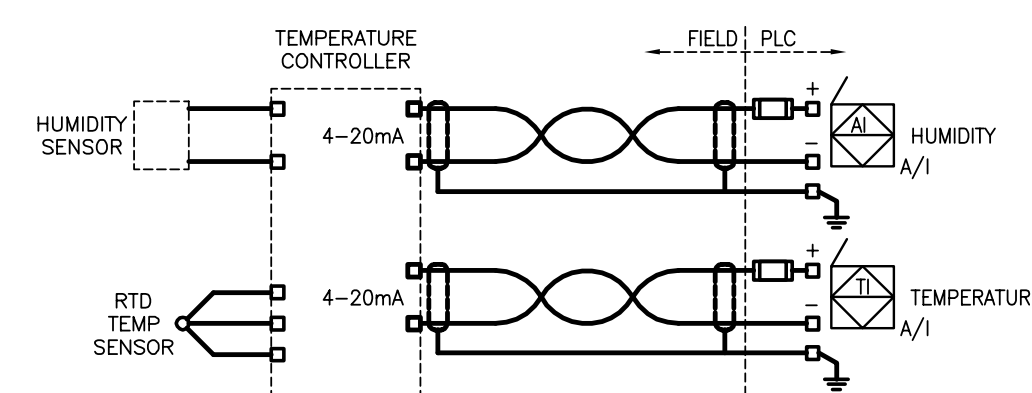
FILTER FEED PUMP - 1



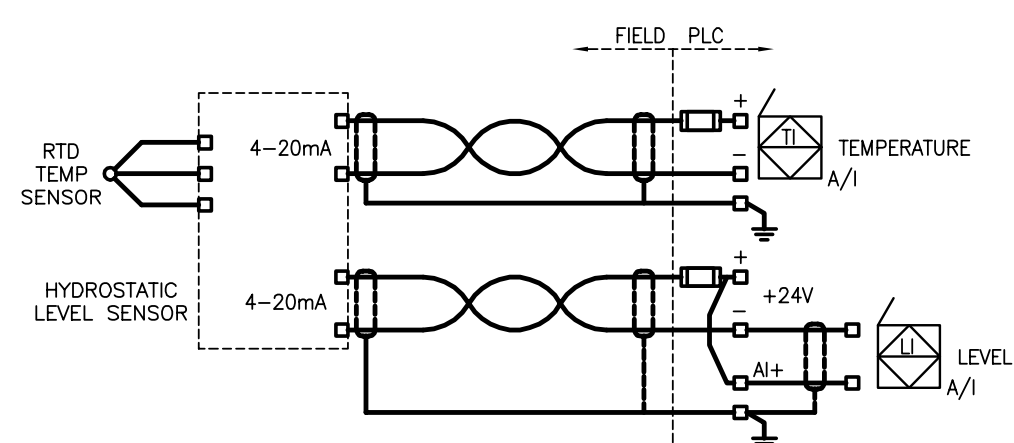
EXTERIOR TEMPERATURE AND HUMIDITY (BTH-102)



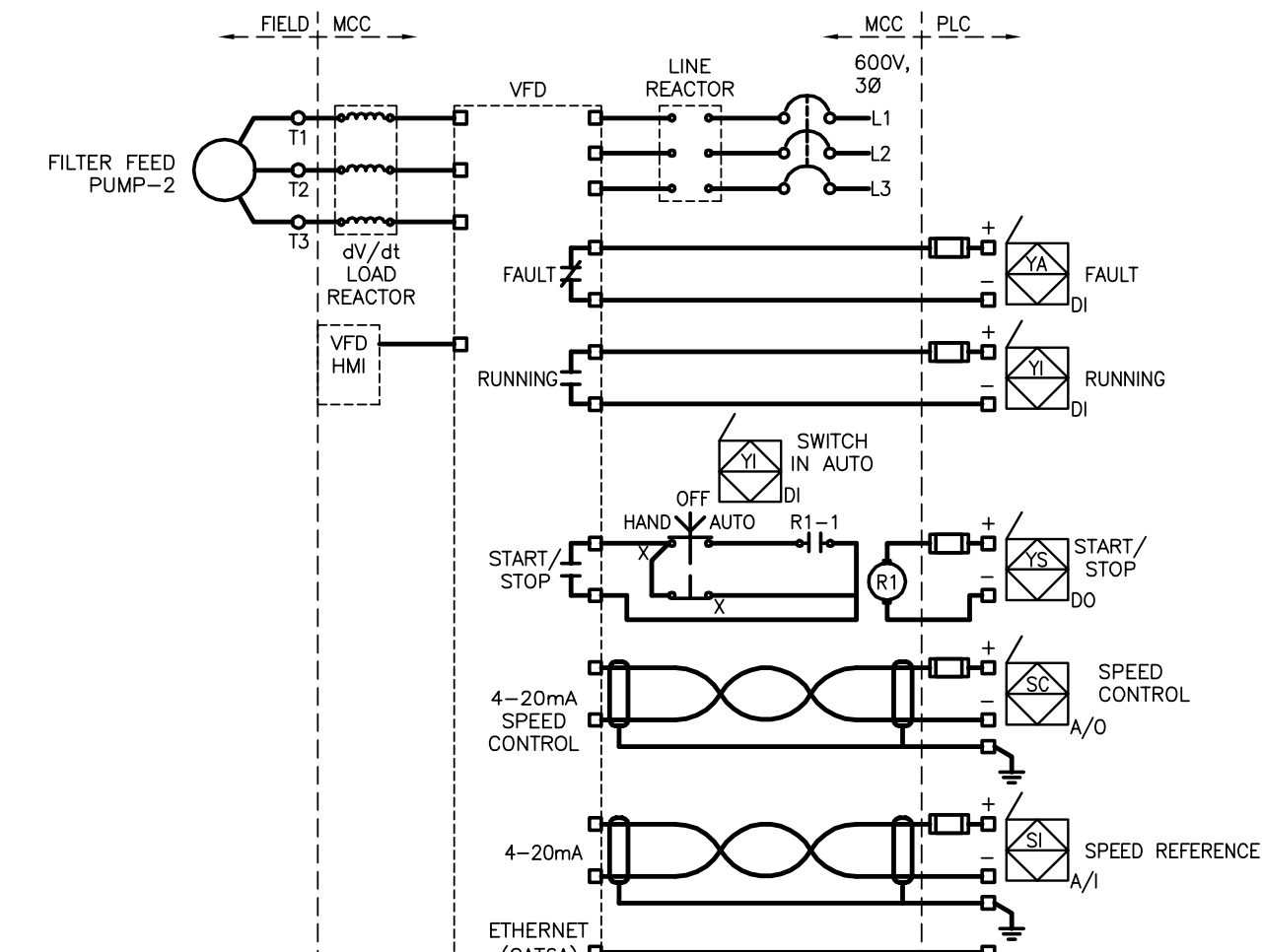
BUILDING TEMPERATURE AND HUMIDITY (BTH-101)



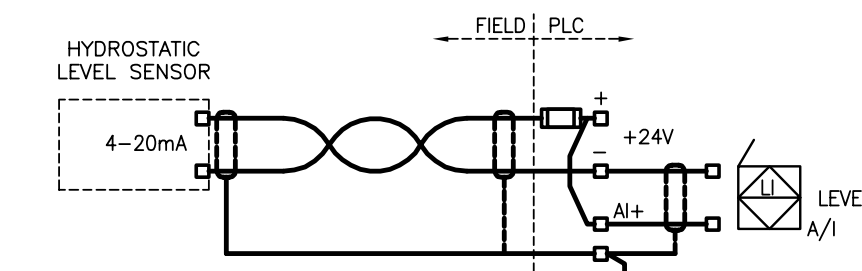
ELECTRICAL ROOM TEMPERATURE AND HUMIDITY (BTH-103)



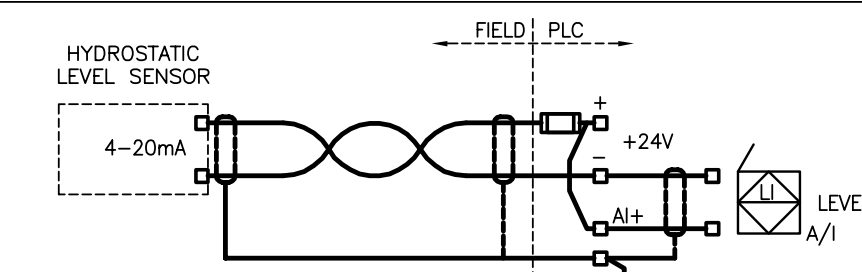
FILTER FEED CHAMBER LIQUID LEVEL (HL&T-202)



FILTER FEED PUMP - 2



TREATED DISCHARGE CHAMBER LIQUID LEVEL (HL-301)



AERATION CELL LEVEL (HL-201)

ORIGINAL DRAWING
SIGNED AND SEALED
BY
D.K. GEE
16/03/30

APECM
Certificate of Authorization
Tower Engineering Group
No. 4156 Expiry: April 30, 2016

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2	RECORD DRAWING	FEB 2019
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	

Revision	Description	Date
Client		client

Project title: **STONY MOUNTAIN LAGOON UPGRADE** Projet

STONY MOUNTAIN LAGOON UPGRADE

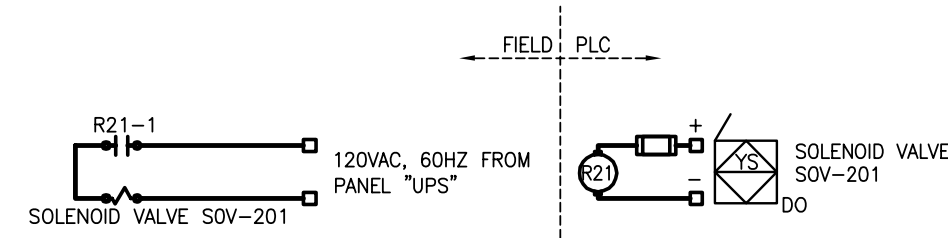
Designed by	Conçu par	DG
Drawn by	Dessiné par	OT
Approved by	Approuvé par	SL
PM/SC: Project Manager	Administrateur de Projets TPSGC	MARK MOGAN
Drawing title	Titre du dessin	

SEWAGE TREATMENT BUILDING ELECTRICAL PROCESS LOOP DIAGRAMS

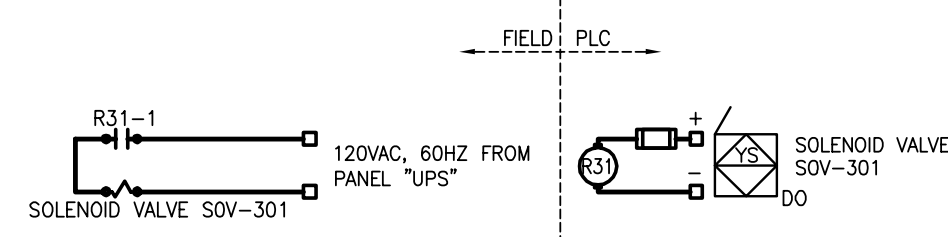
Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	E8	0
	OF 14	

Record Drawing

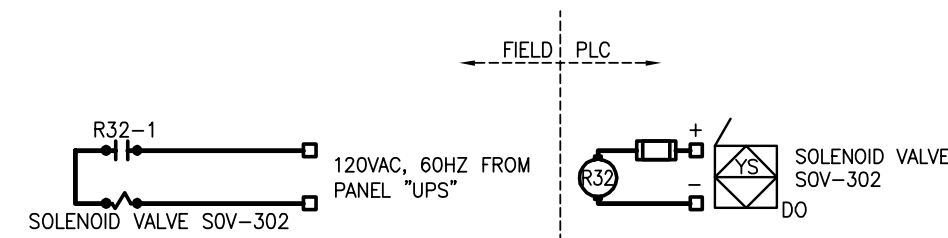
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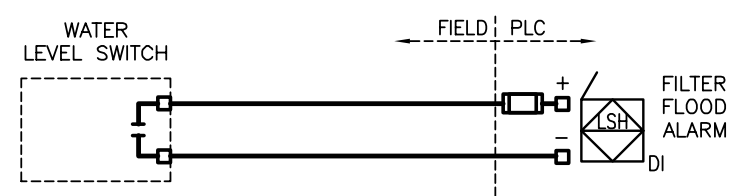
FILTER FEED TURBIDITY SOLENOID VALVE SOV-201 (TURB-201)



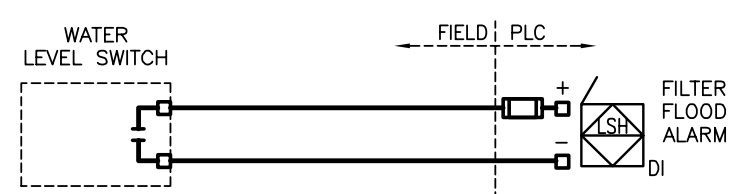
POST FILTER FEED TURBIDITY SOLENOID VALVE SOV-301 (TURB-301)



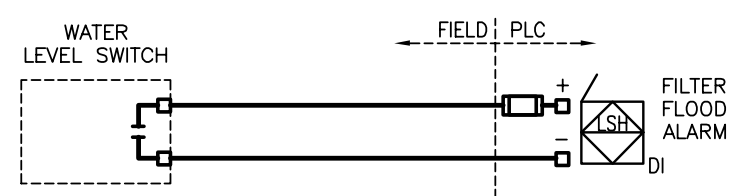
POST FILTER FEED TURBIDITY SOLENOID VALVE SOV-302 (TURB-302)



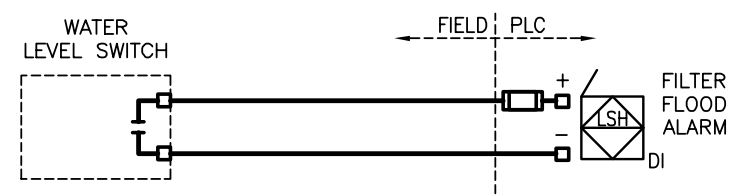
FILTER 1 FLOOD SWITCH (FFS-201)



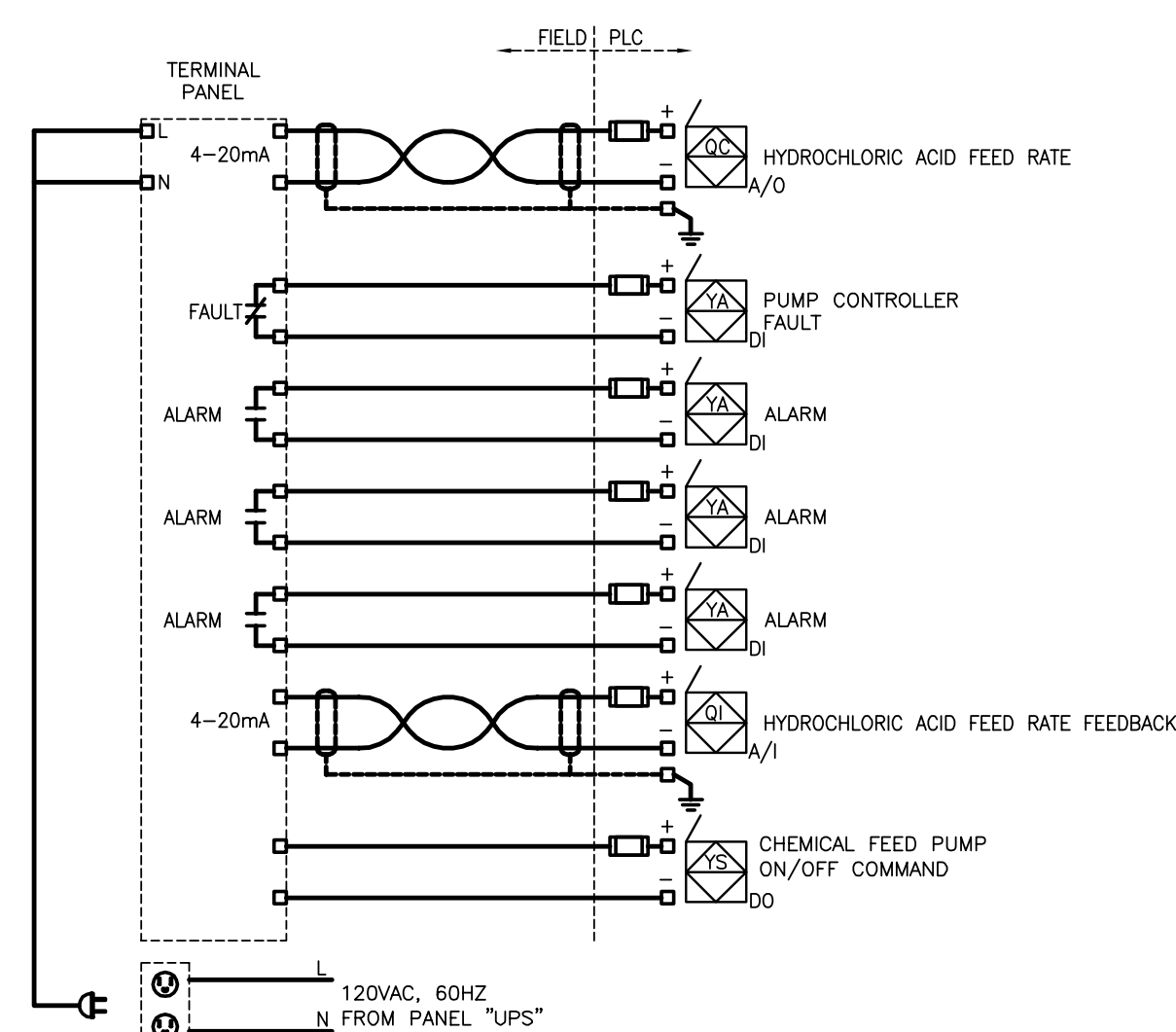
FILTER 2 FLOOD SWITCH (FFS-202)



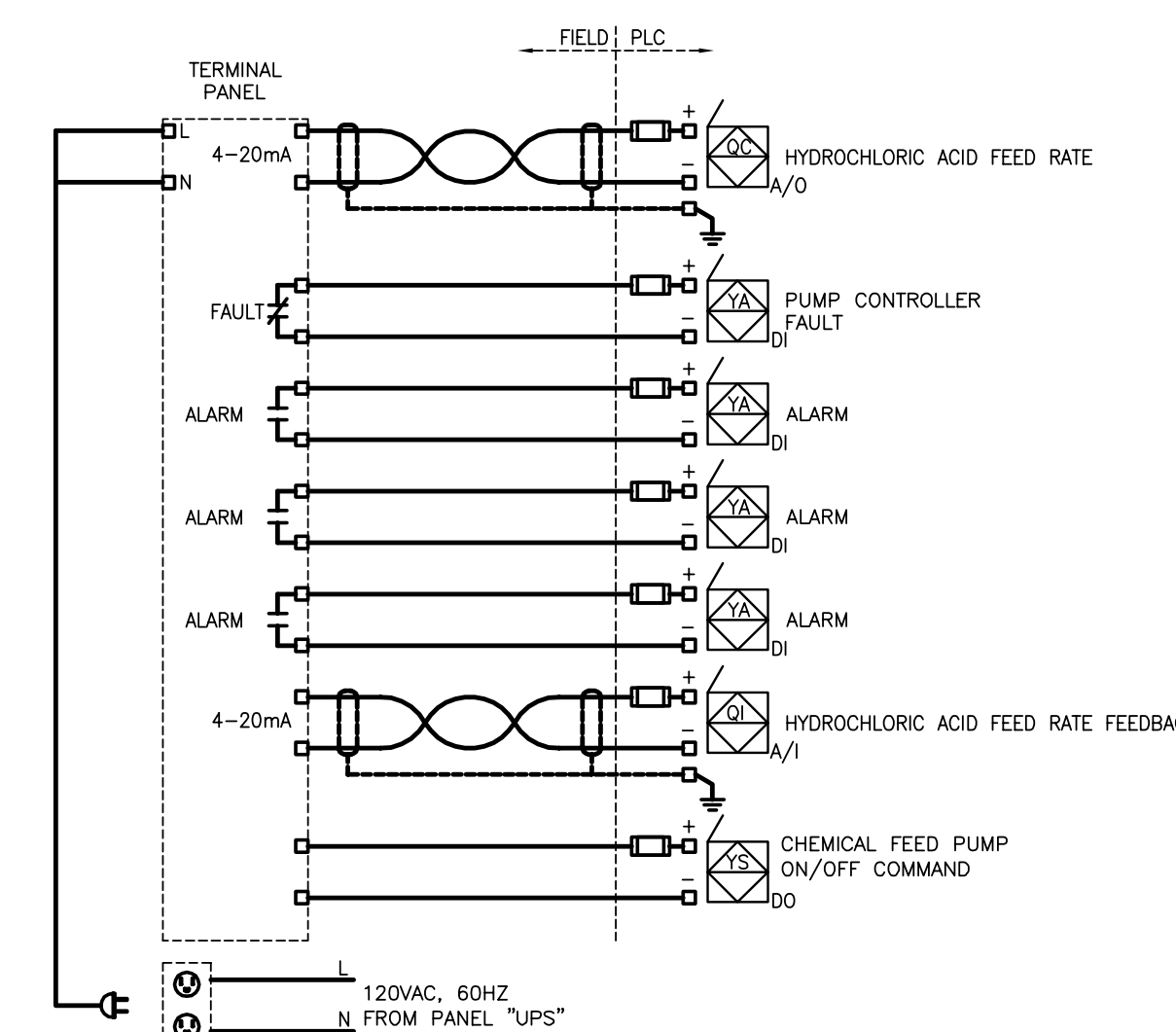
FILTER 3 FLOOD SWITCH (FFS-203)



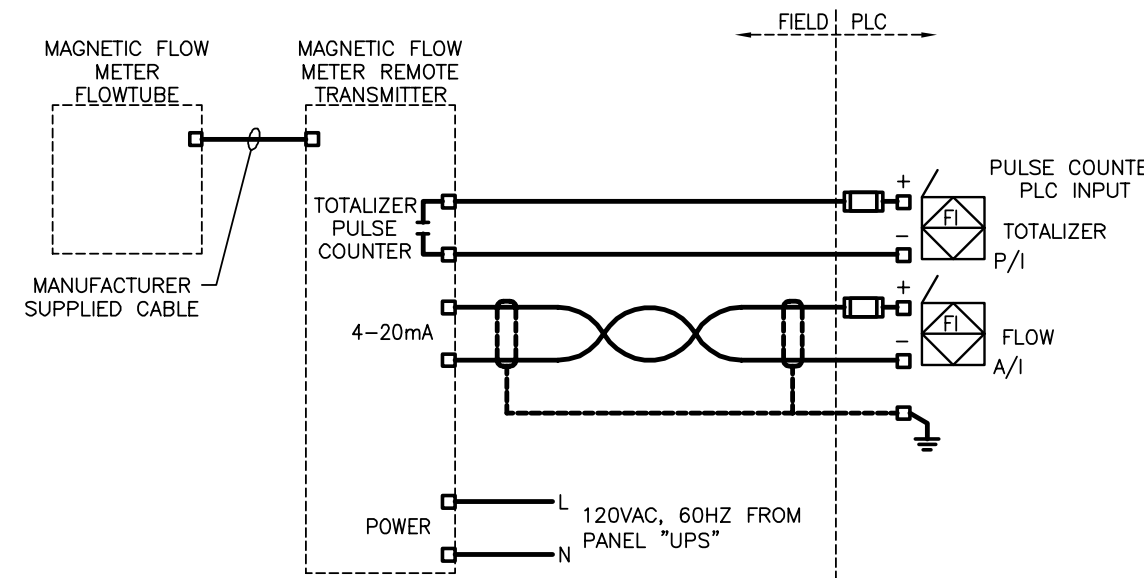
FILTER 4 FLOOD SWITCH (FFS-204)



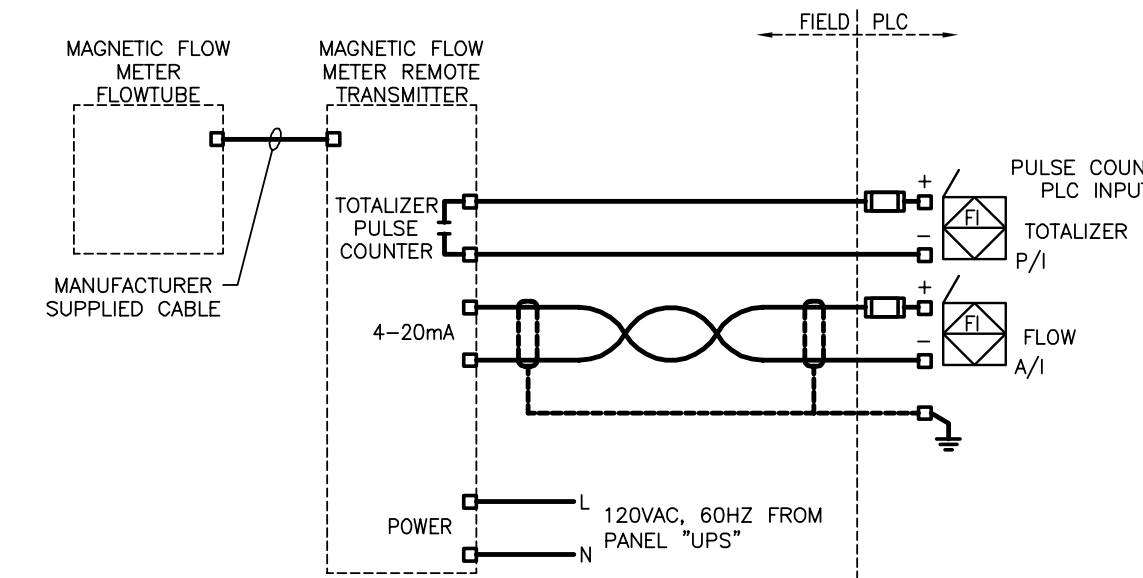
HYDROCHLORIC ACID CHEMICAL FEED PUMP 1 (HCLP-401)



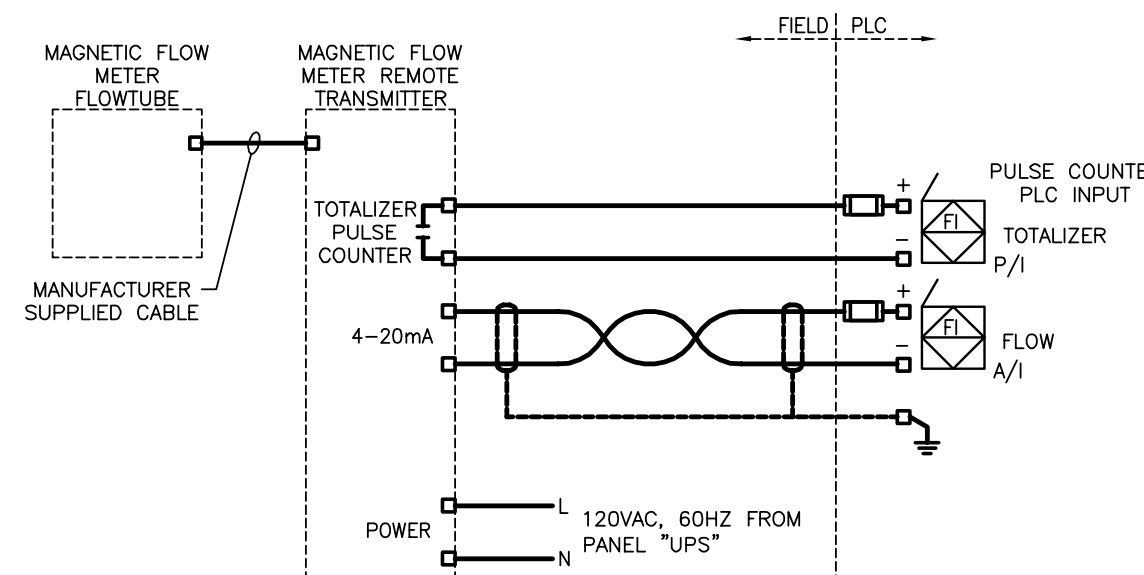
HYDROCHLORIC ACID CHEMICAL FEED PUMP 2 (HCLP-402)



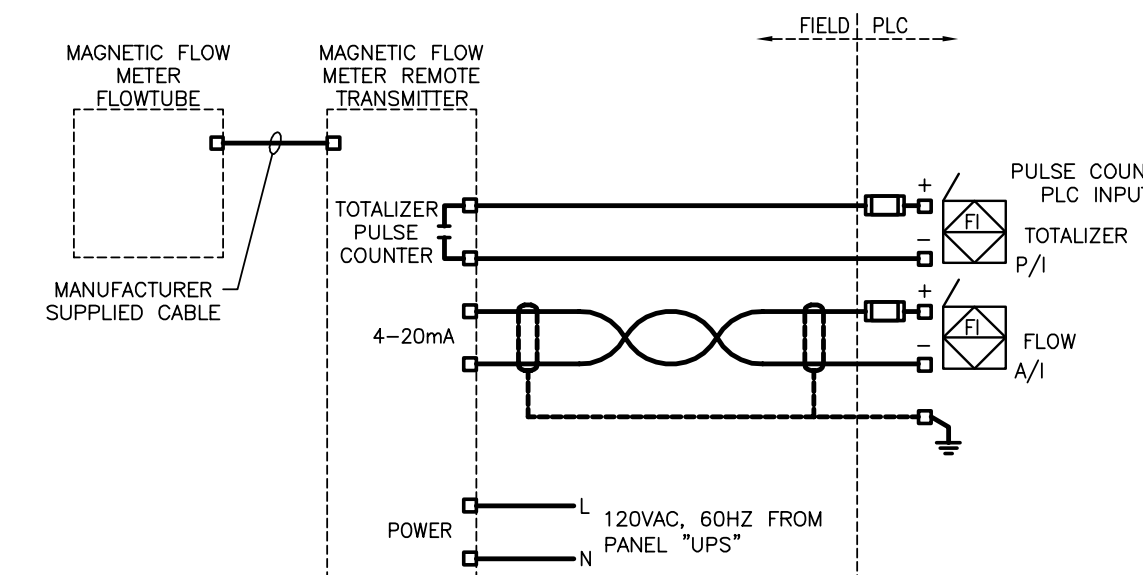
FILTER 1 FEED FLOW METER (MAG-201)



FILTER 2 FEED FLOW METER (MAG-202)



FILTER 3 FEED FLOW METER (MAG-203)



FILTER 4 FEED FLOW METER (MAG-204)

ORIGINAL DRAWING
SIGNED AND SEALED
BY
D.K. GEE
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3	RECORD DRAWING	FEB 2019
2	REVISED LOOP DIAGRAM	MARCH 2017
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	

Revision	Description	Date
Client		client

Project title: **STONY MOUNTAIN LAGOON UPGRADE**

STONY MOUNTAIN LAGOON UPGRADE

Designed by: DG
Drawn by: OT
Approved by: SL
PWSSC Project Manager / Administrateur de Projets TPSGC: MARK MOGAN

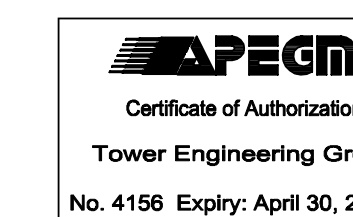
Drawing title: **SEWAGE TREATMENT BUILDING ELECTRICAL PROCESS LOOP DIAGRAMS**

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	E9	0

Record Drawing

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16/03/30



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Revision	Description	Date
Client	client	

Project title / No. du projet

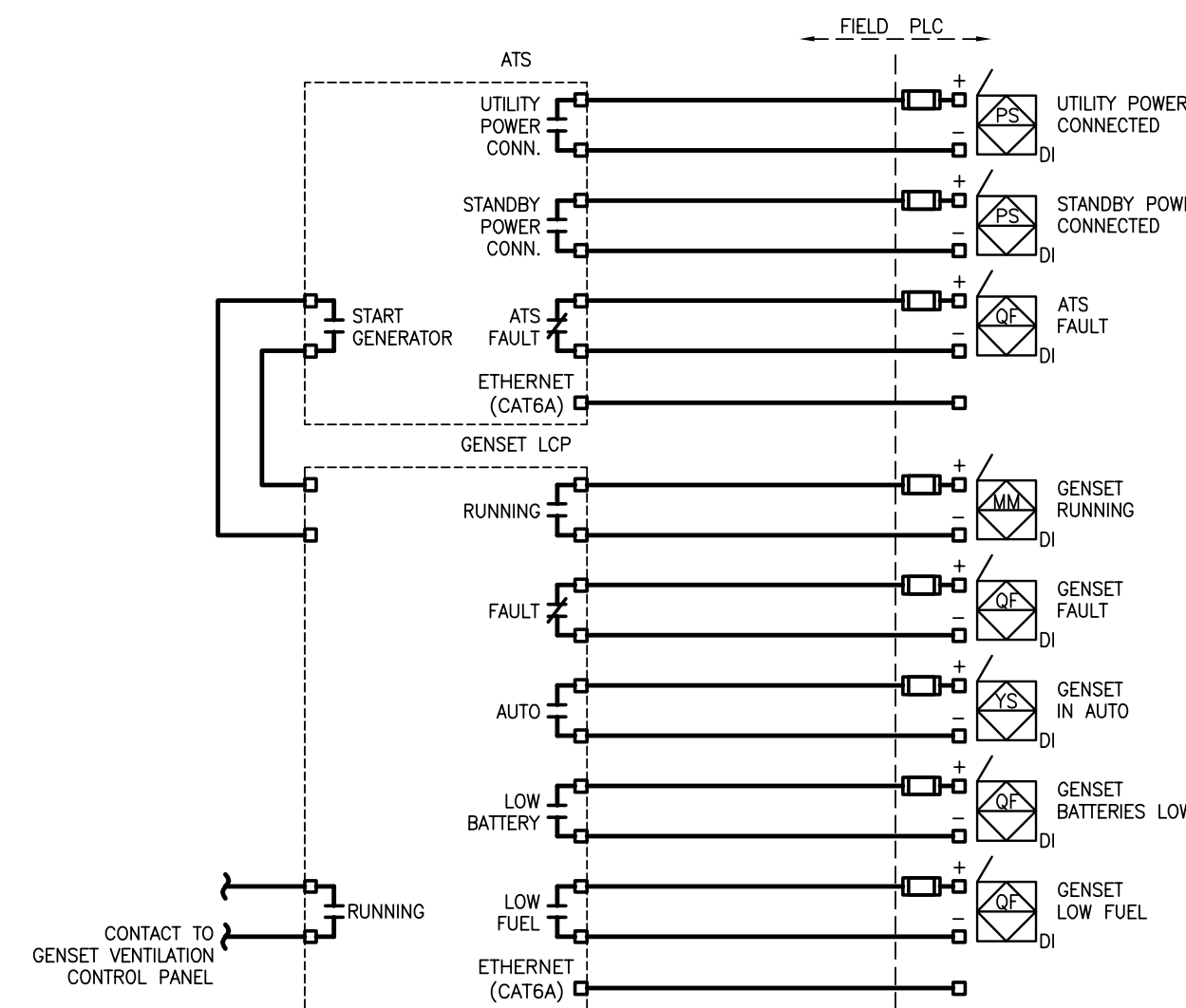
STONY MOUNTAIN LAGOON UPGRADE

Designed by / Conçu par
DG
Drawn by / Dessiné par
OT
Approved by / Approuvé par
SL
PWCS: Project Manager / Administrateur de Projets TPSGC
MARK MOGAN

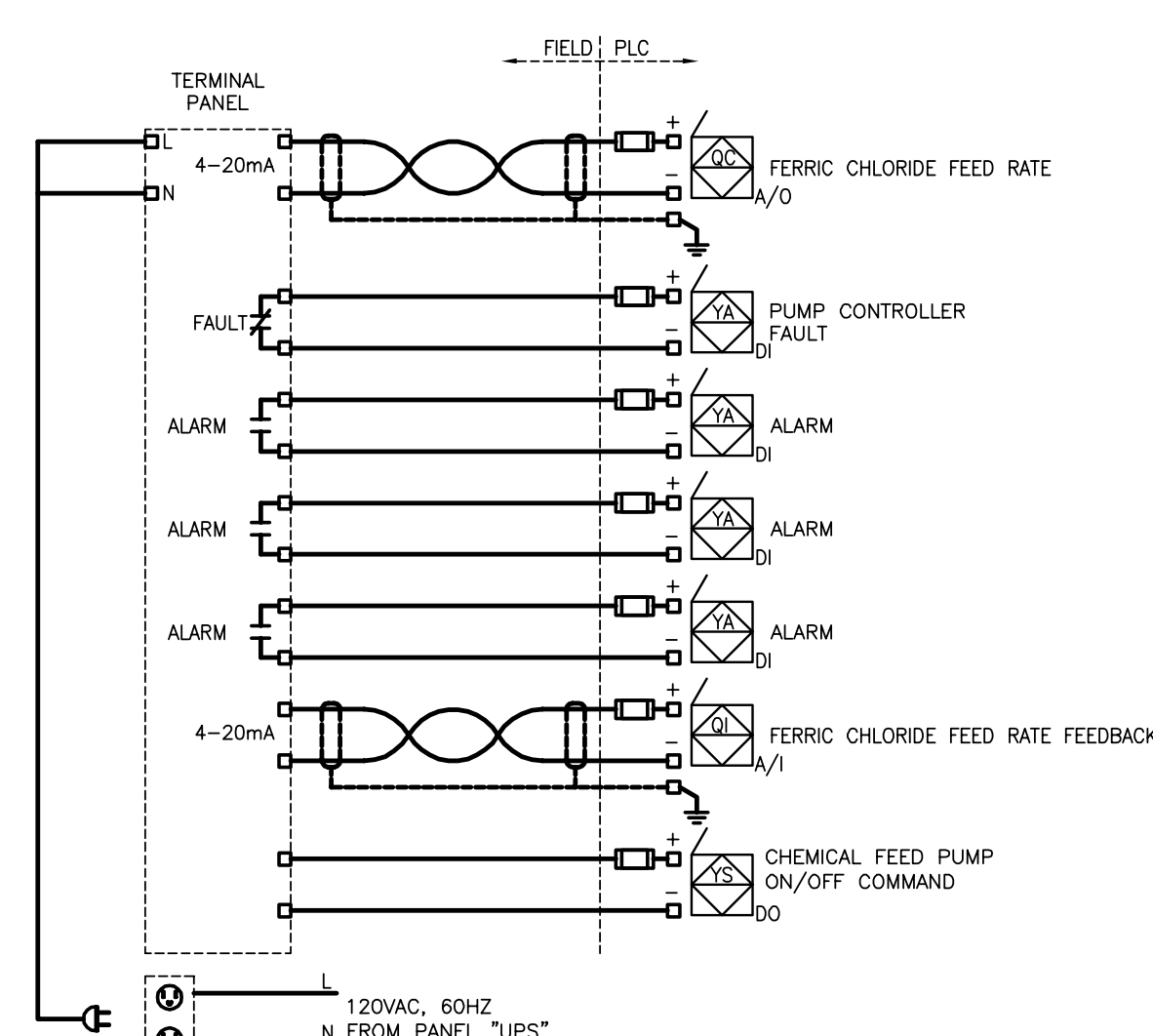
Drawing title / Titre du dessin

SEWAGE TREATMENT BUILDING ELECTRICAL PROCESS LOOP DIAGRAMS

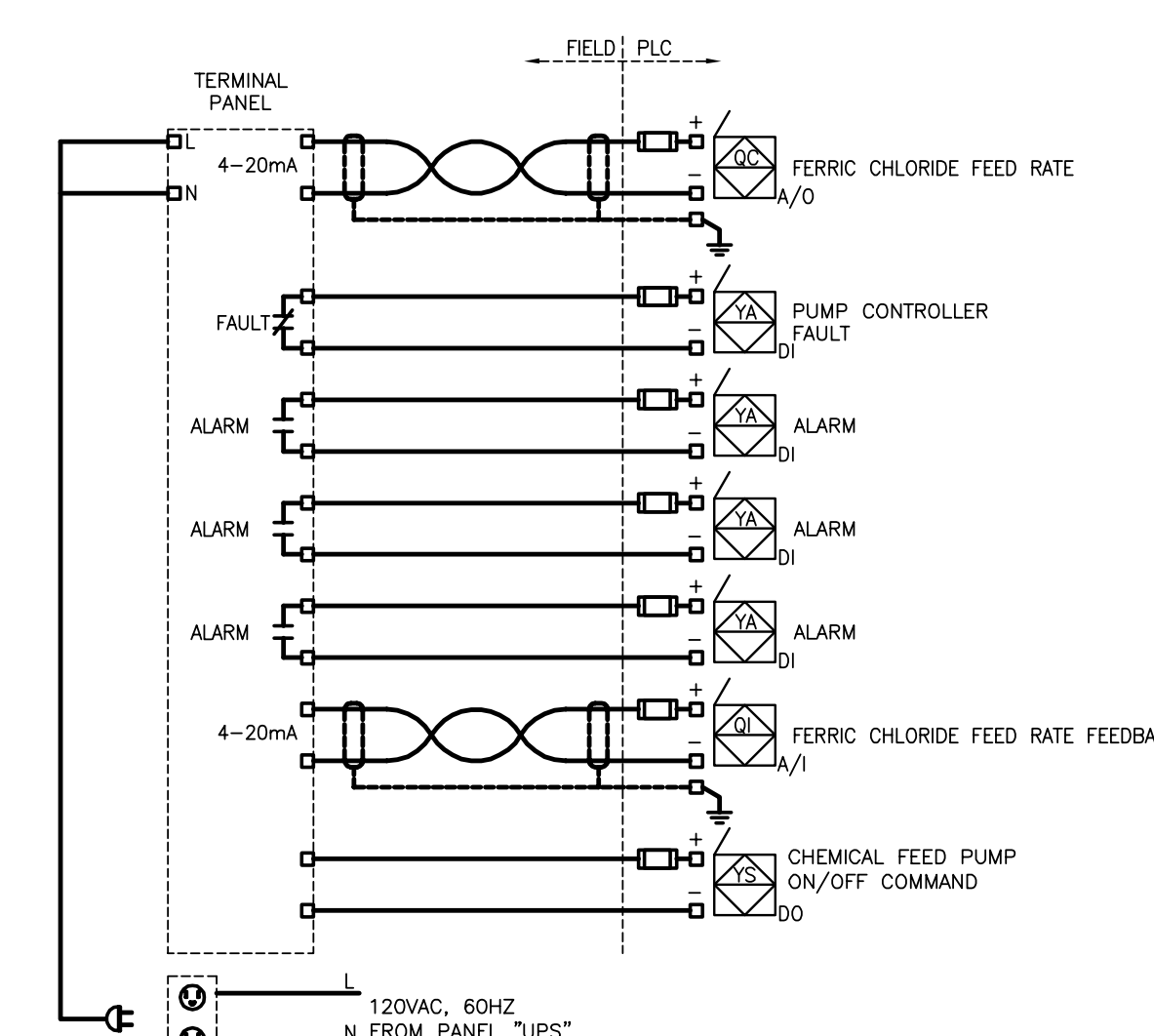
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R.075583.001	E10	0
	OF 14	



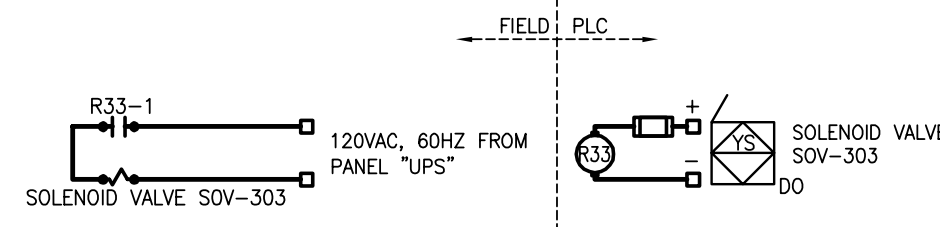
ATS & GENSET LCP CONTROL PANEL



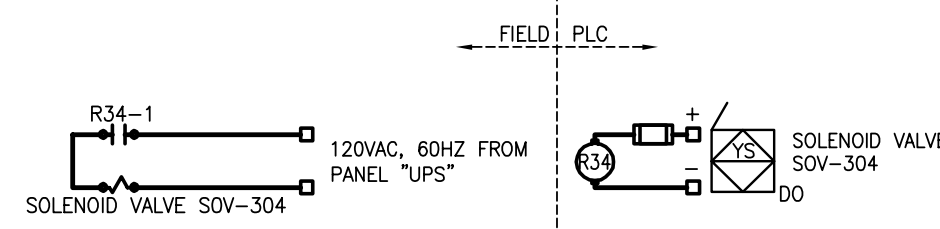
FERRIC CHLORIDE CHEMICAL FEED PUMP 1 (CFP-403)



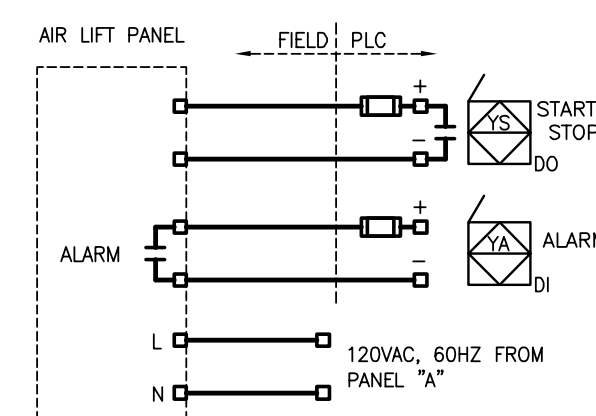
FERRIC CHLORIDE CHEMICAL FEED PUMP 2 (CFP-404)



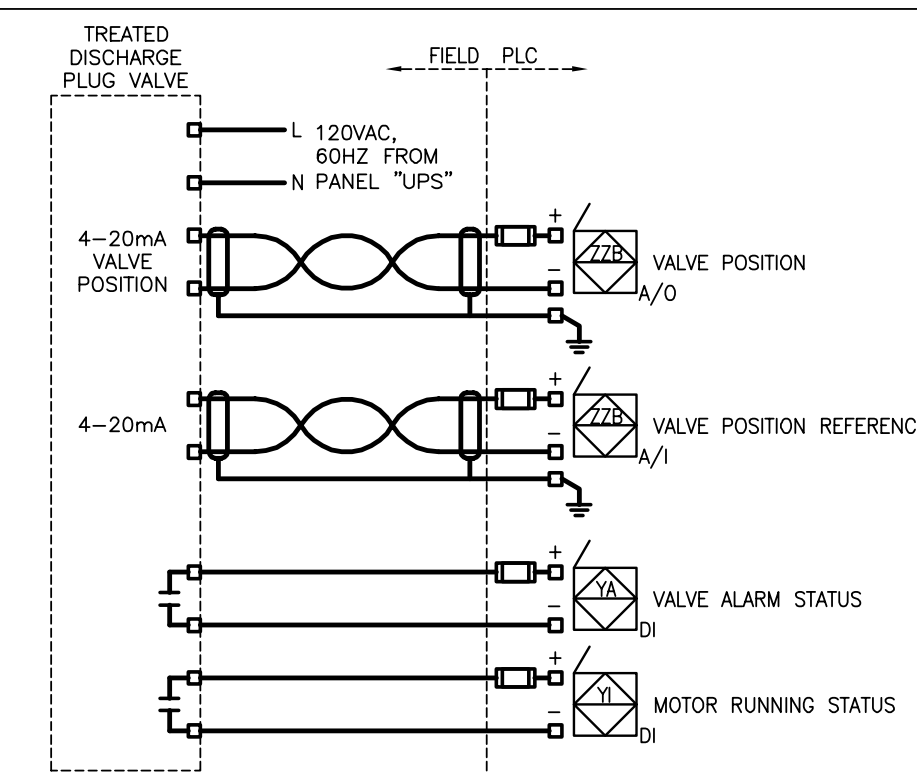
POST FILTER FEED TURBIDITY SOLENOID VALVE SOV-303 (TURB-303)



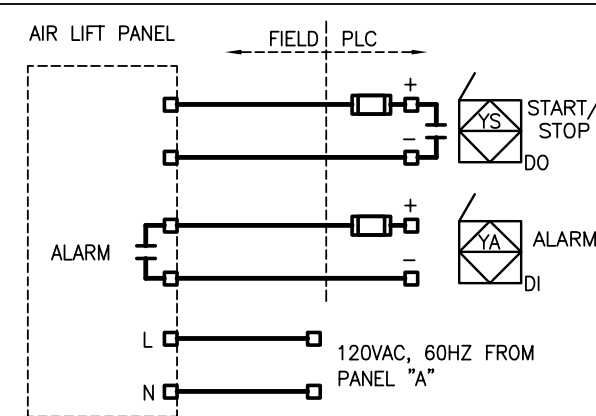
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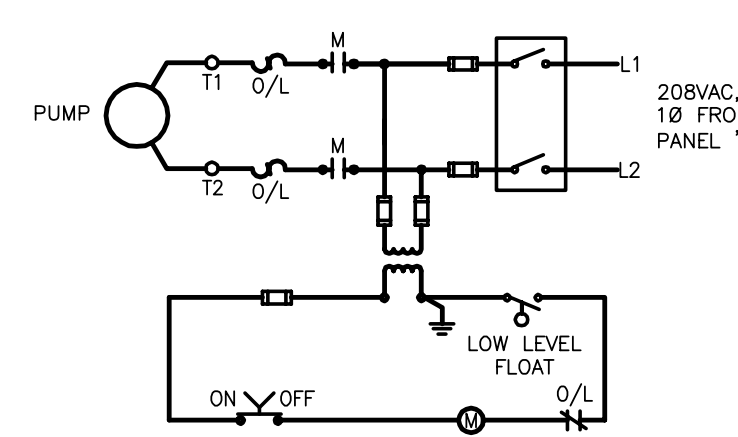
AIR LIFT PANEL START CONTROL 2



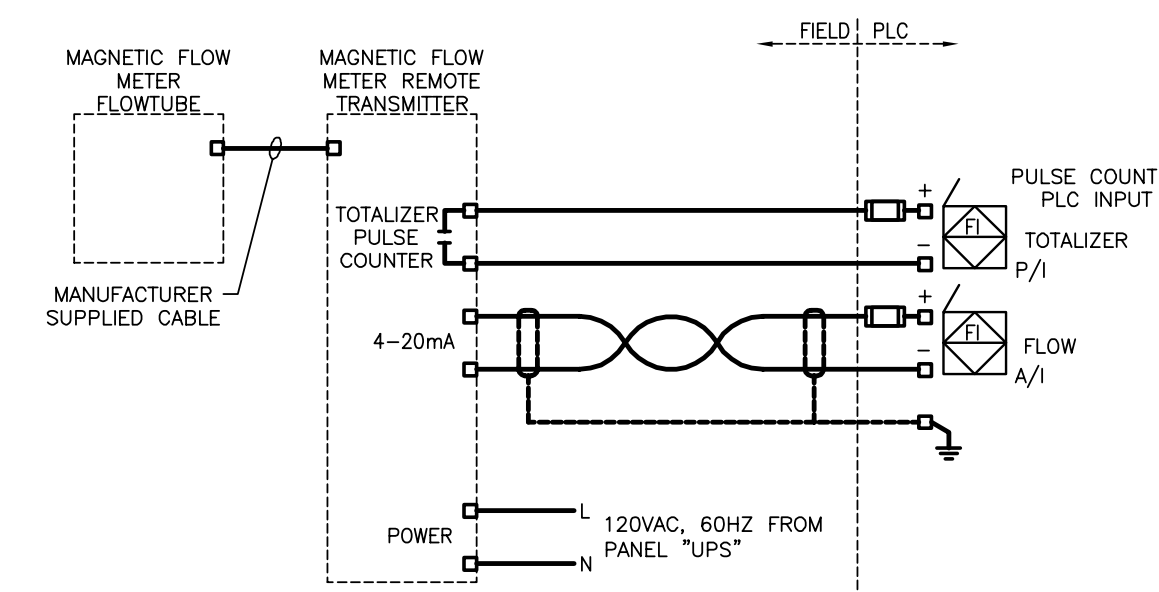
DISCHARGE PLUG VALVE (PLV-307)



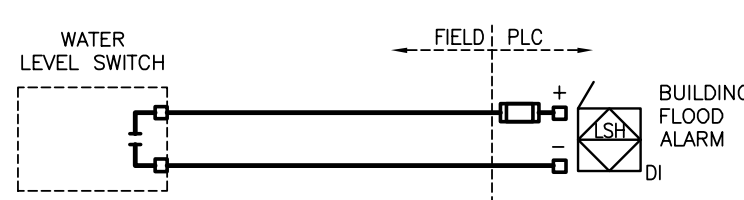
AIR LIFT PANEL START CONTROL 1



UV CLEANING UNIT PUMP



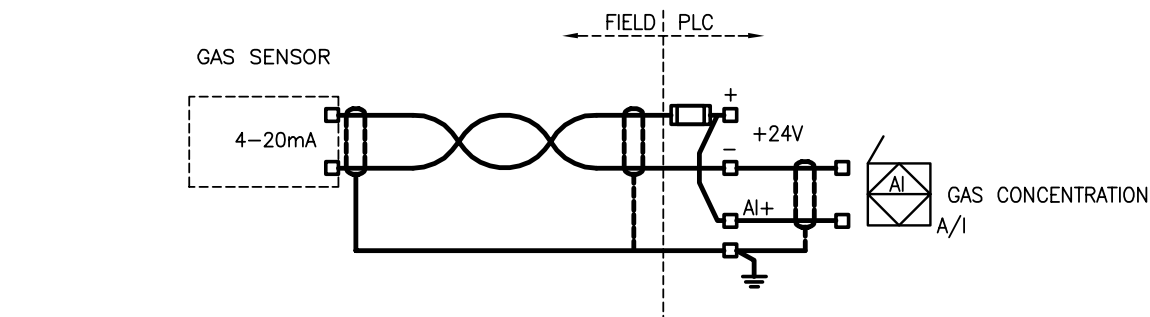
TREATED DISCHARGE FLOW RATE METER (MAG-301)



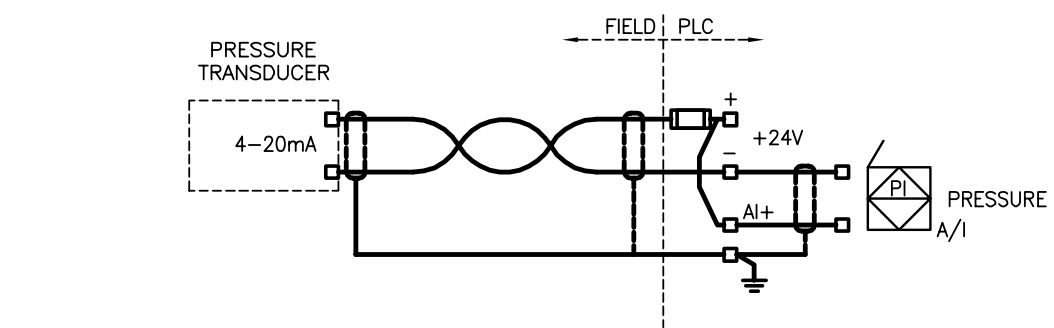
BUILDING FLOOD SWITCH (BFS-101)

Record Drawing

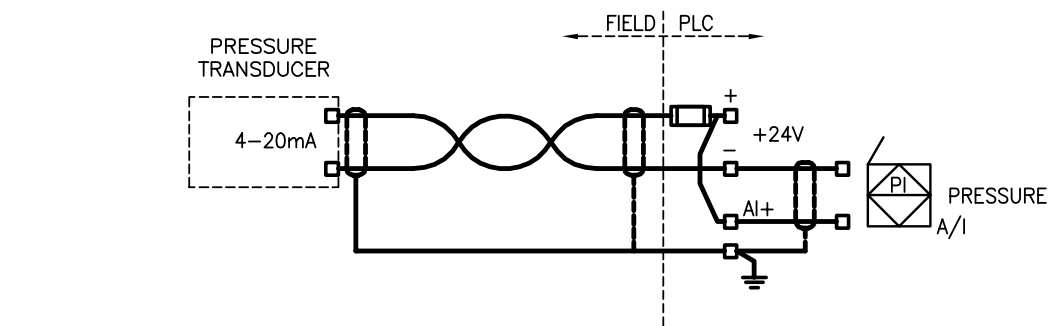
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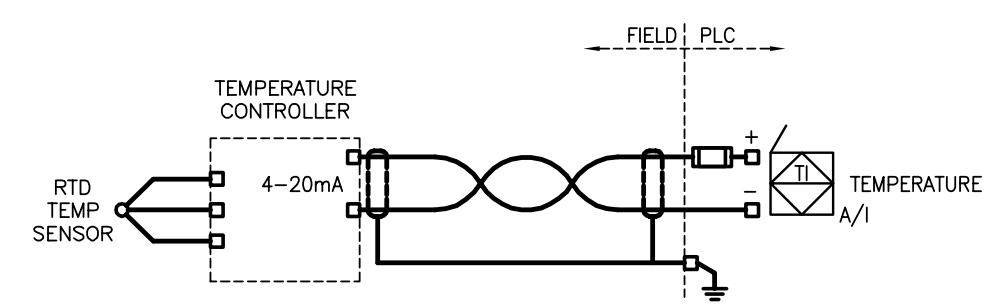
HYDROGEN CHLORIDE (HCL) GAS DETECTOR (HCL-301)



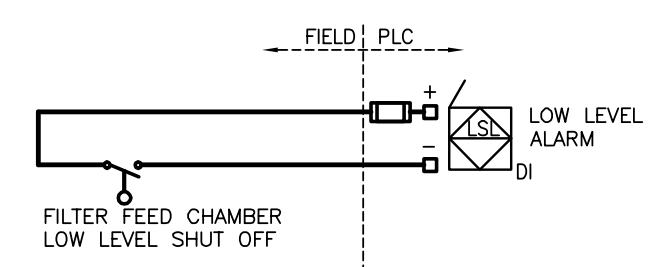
BLOWER FILTER DIFFERENTIAL PRESSURE (DPG-101)



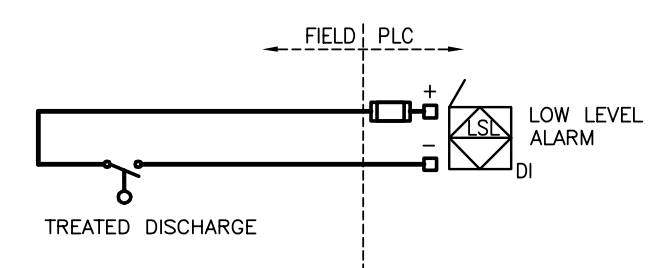
AERATION CELLS AIR PRESSURE TRANSDUCER (PT-101)



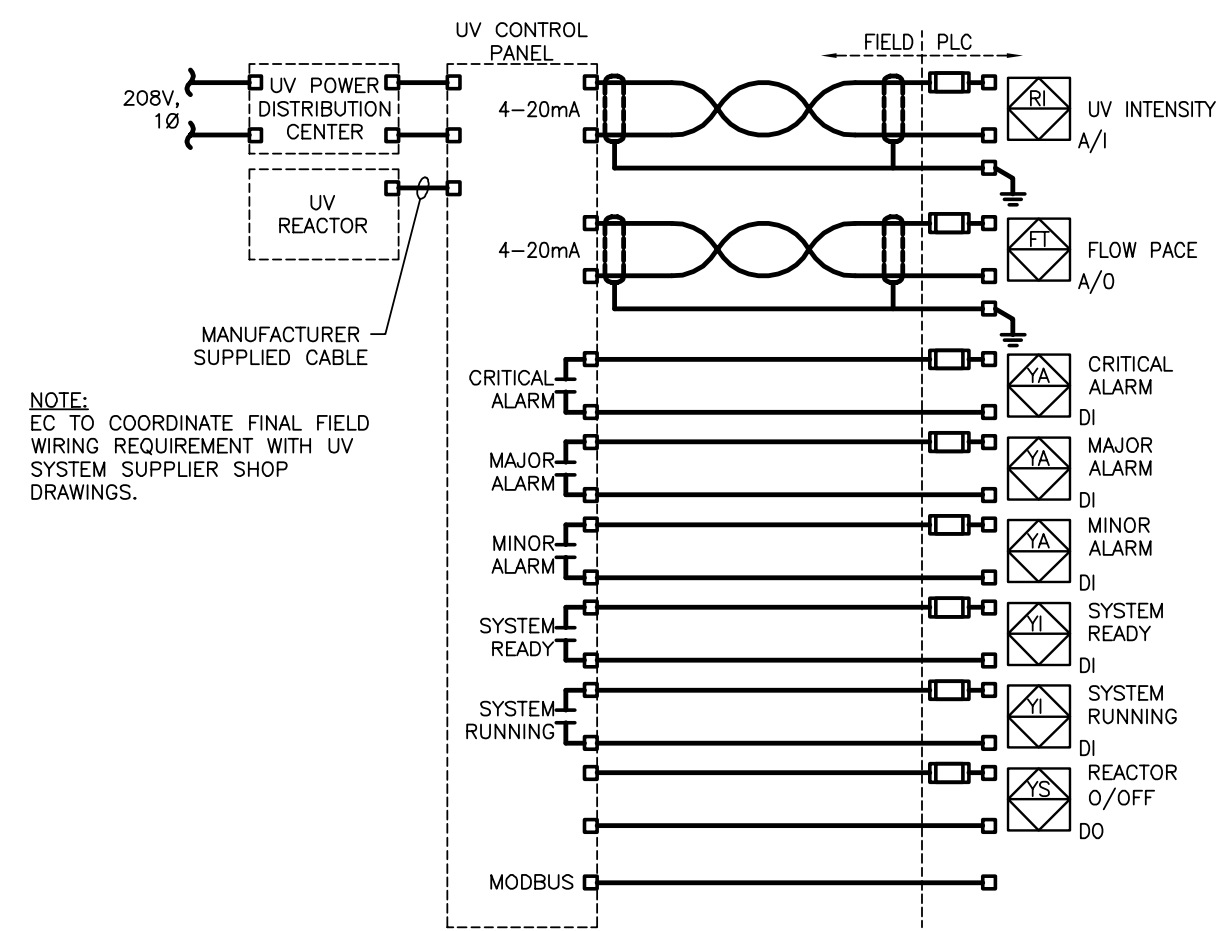
AERATION CELL AIR TEMPERATURE (TT-101)



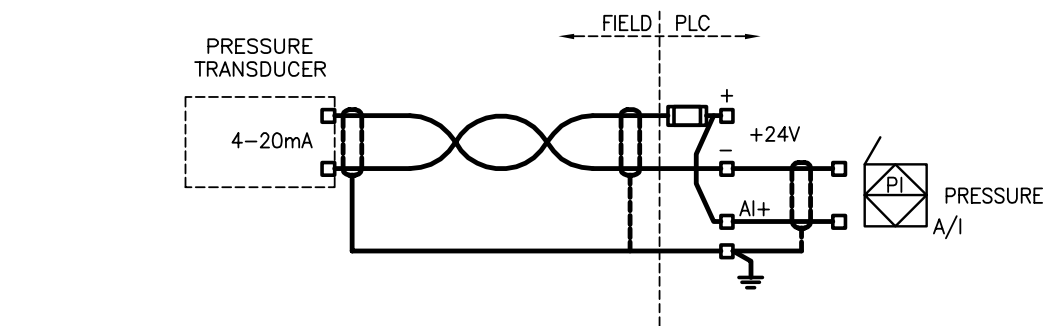
FILTER FEED CHAMBER LOW LEVEL SHUT OFF (FS-201)



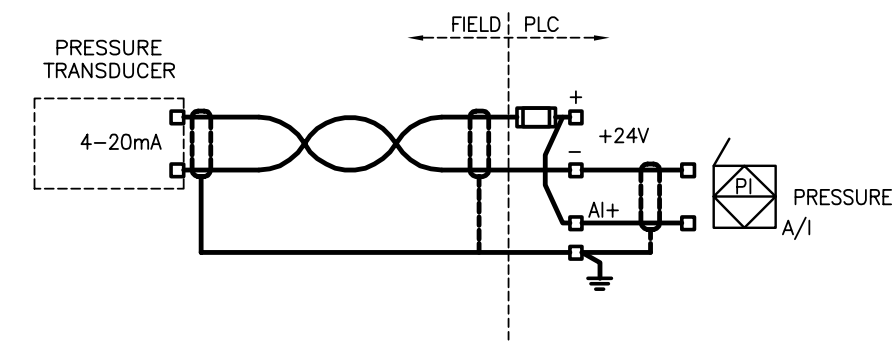
TREATED DISCHARGE LOW LEVEL SHUT OFF (FS-301)



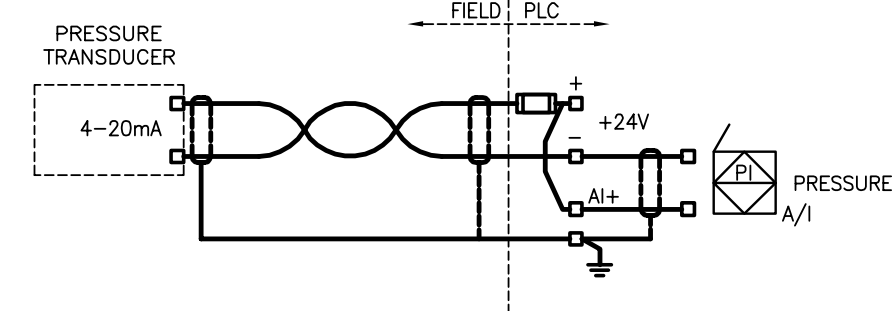
UV TREATED DISCHARGE DISINFECTION REACTOR #1



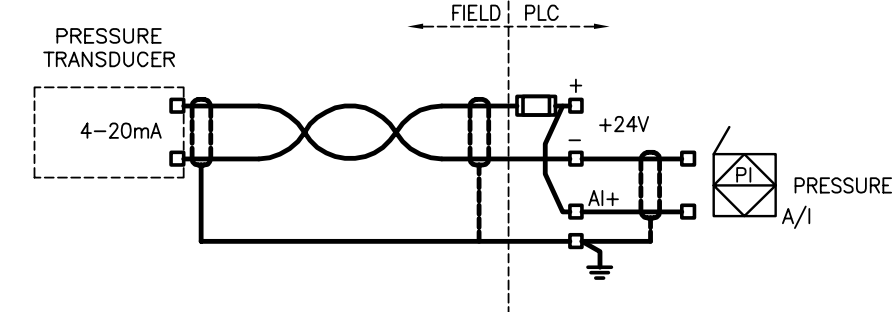
AERATION FILTER 1 HEADLOSS TRANSDUCER (PT-201)



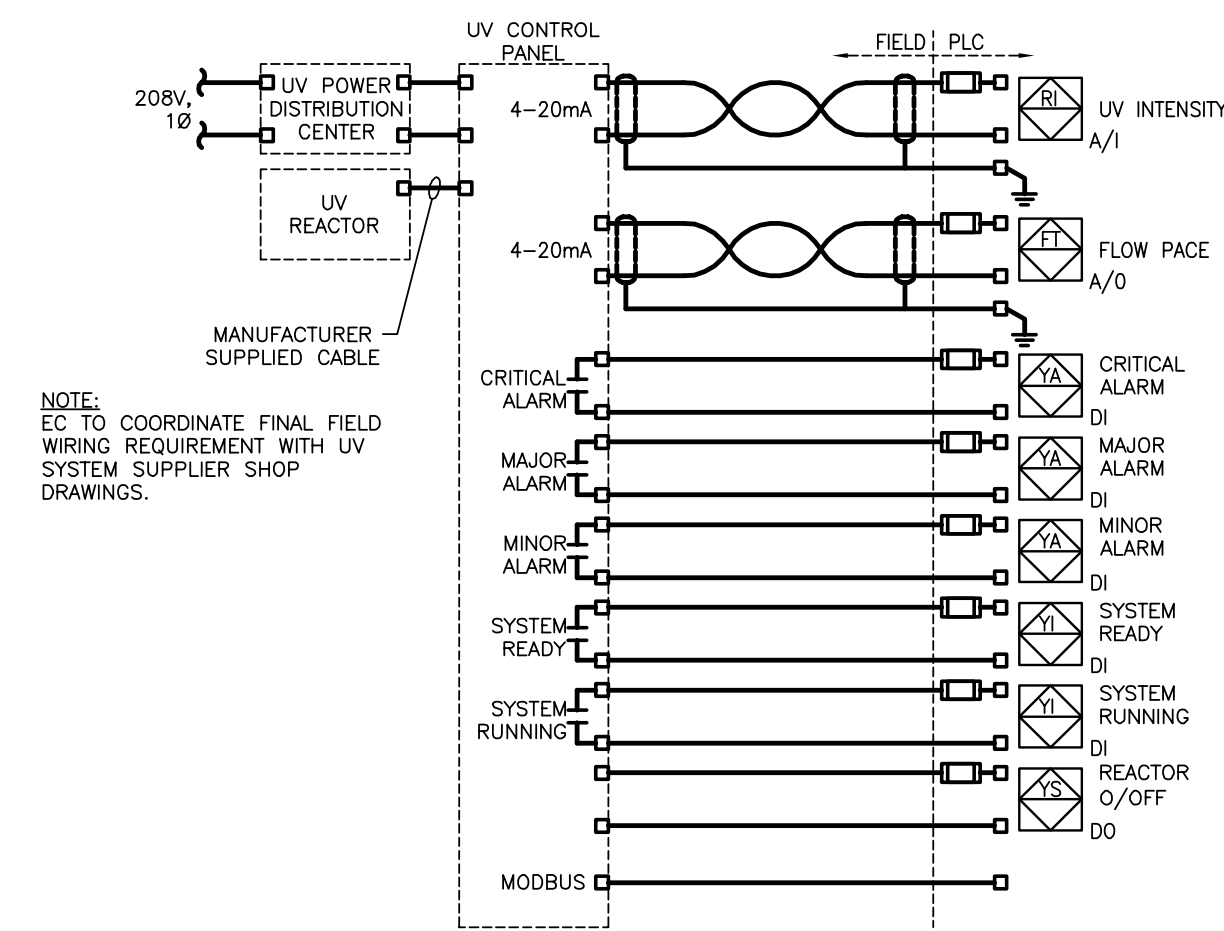
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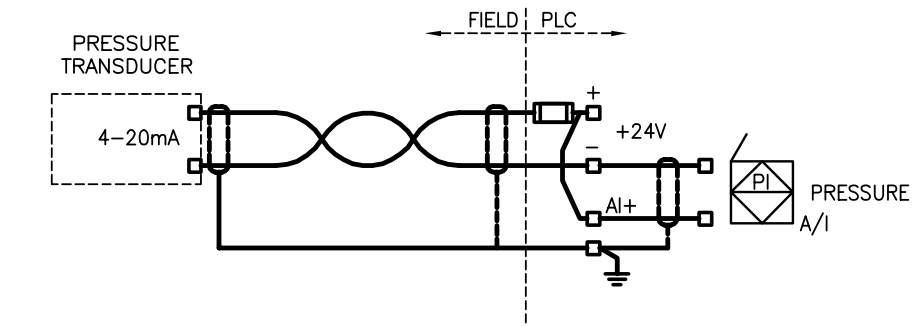
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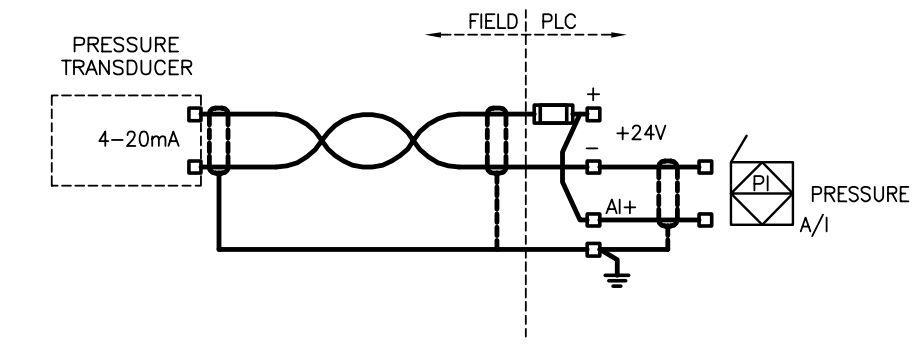
AERATION FILTER 4 HEADLOSS TRANSDUCER (PT-204)



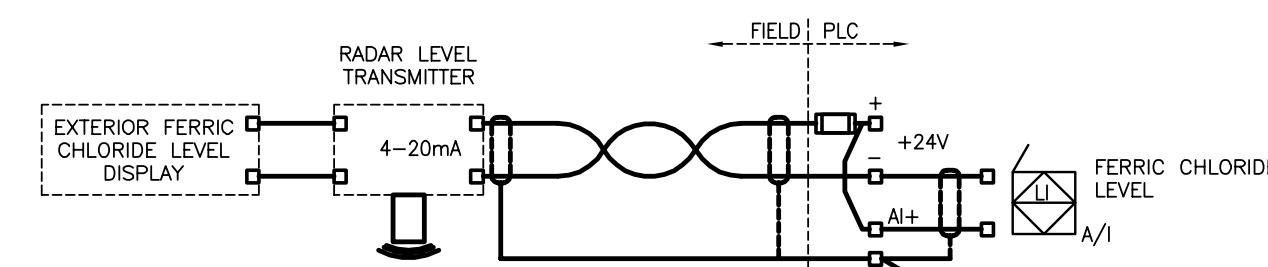
UV TREATED DISCHARGE DISINFECTION REACTOR #2



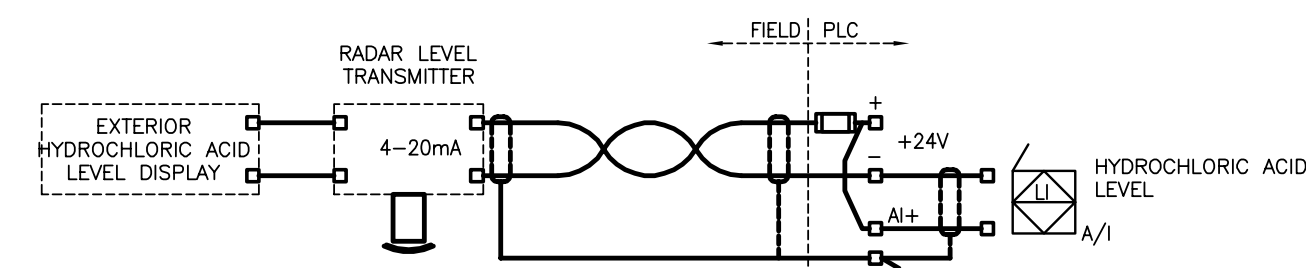
FILTER AIR PRESSURE TRANSDUCER (PT-205)



FILTER AIR PRESSURE TRANSDUCER (PT-206)

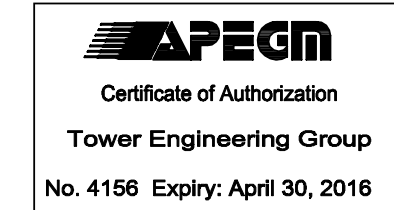


FERRIC CHLORIDE TANK LEVEL (RA-401)



HYDROCHLORIC ACID TANK LEVEL (RA-402)

ORIGINAL DRAWING
SIGNED AND SEALED
BY
D.K. GEE
16/03/30



TOWER PROJECT NUMBER: 141474
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2	RECORD DRAWING	FEB 2019
1	ISSUED FOR TENDER	MARCH 2016
0	Design Completion	

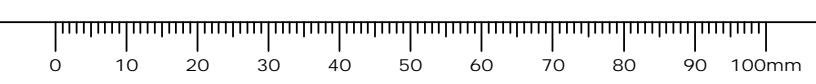
Revision	Description	Date
Client		client

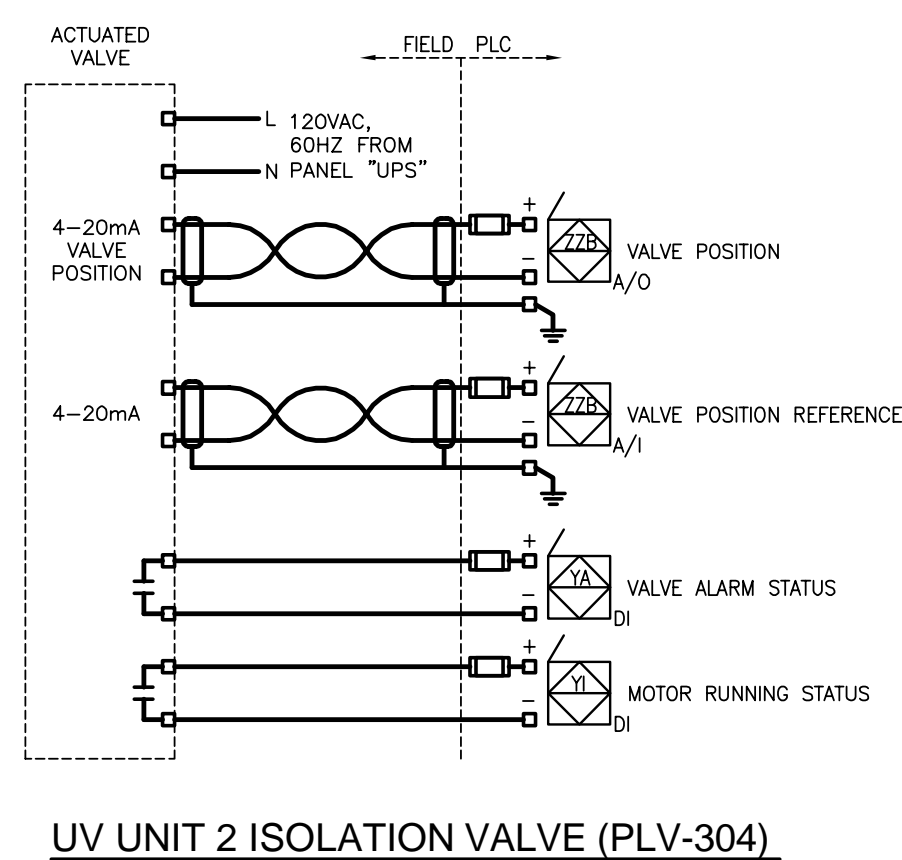
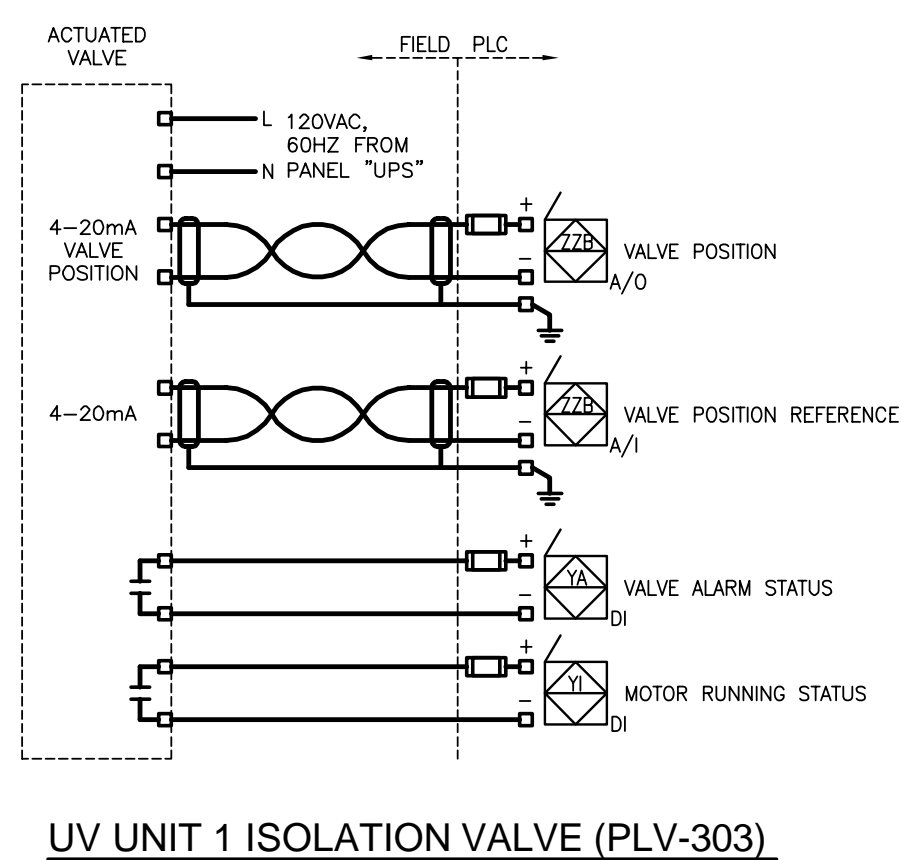
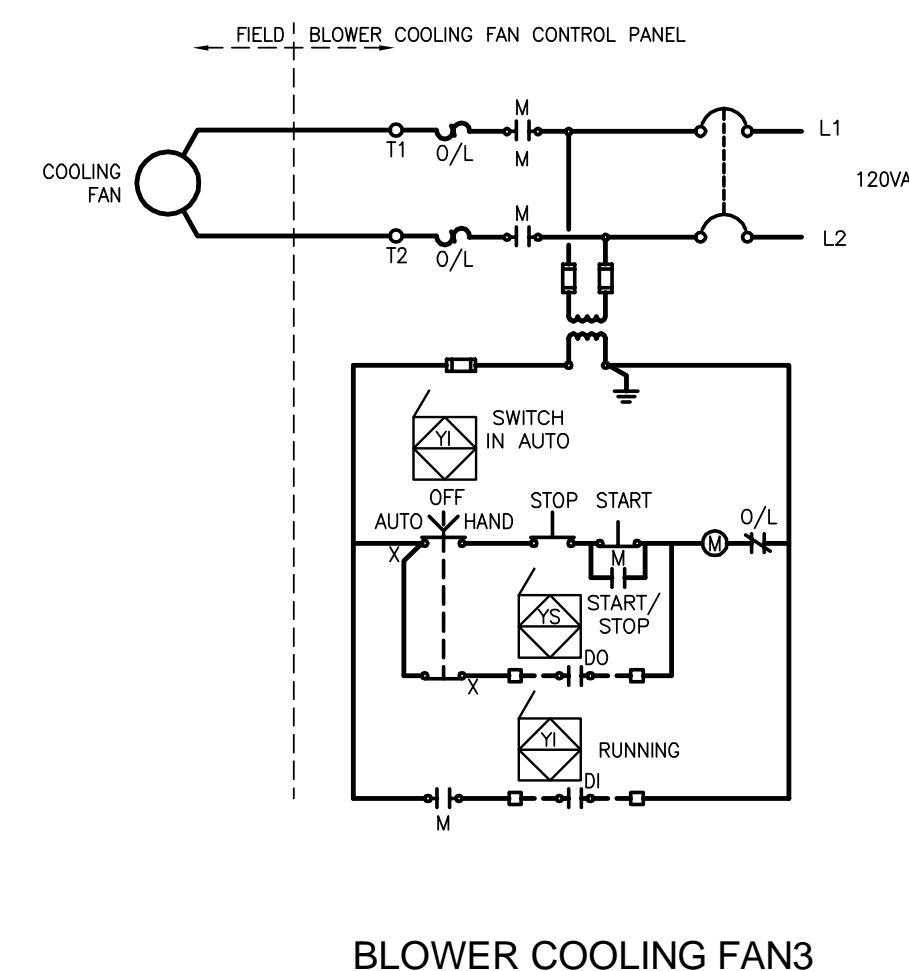
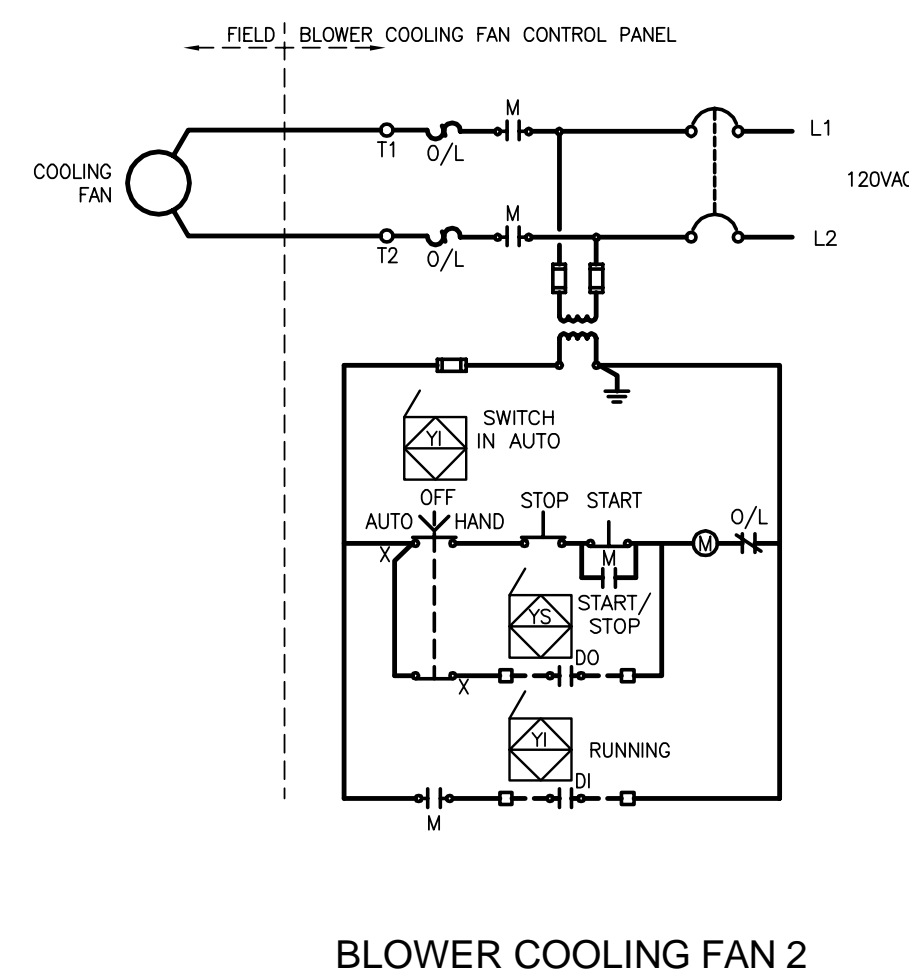
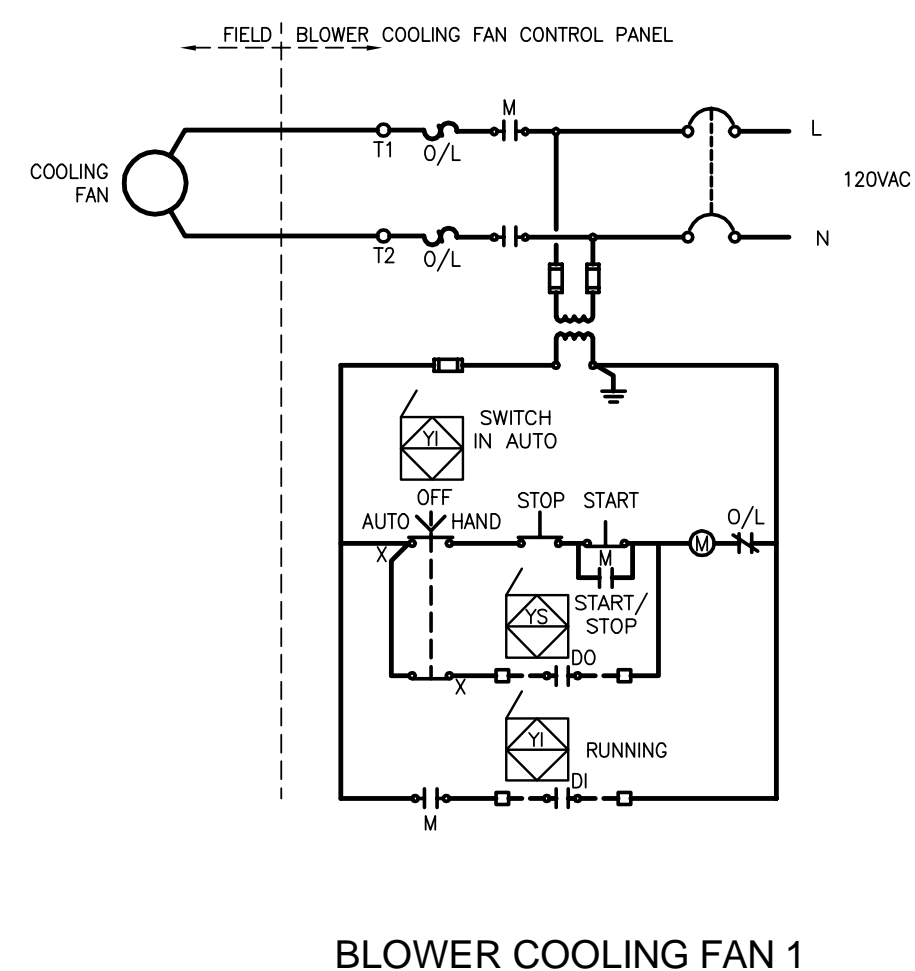
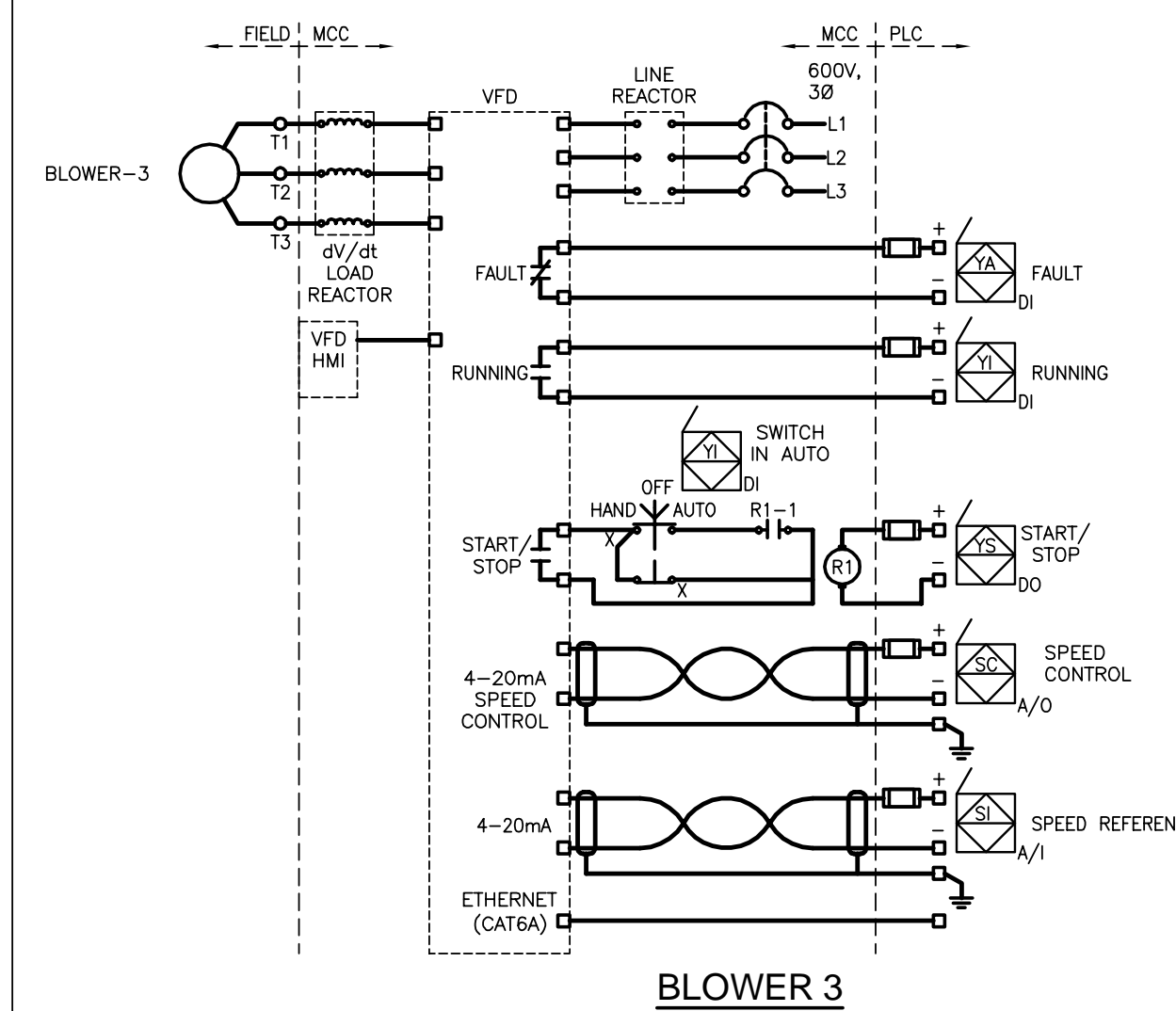
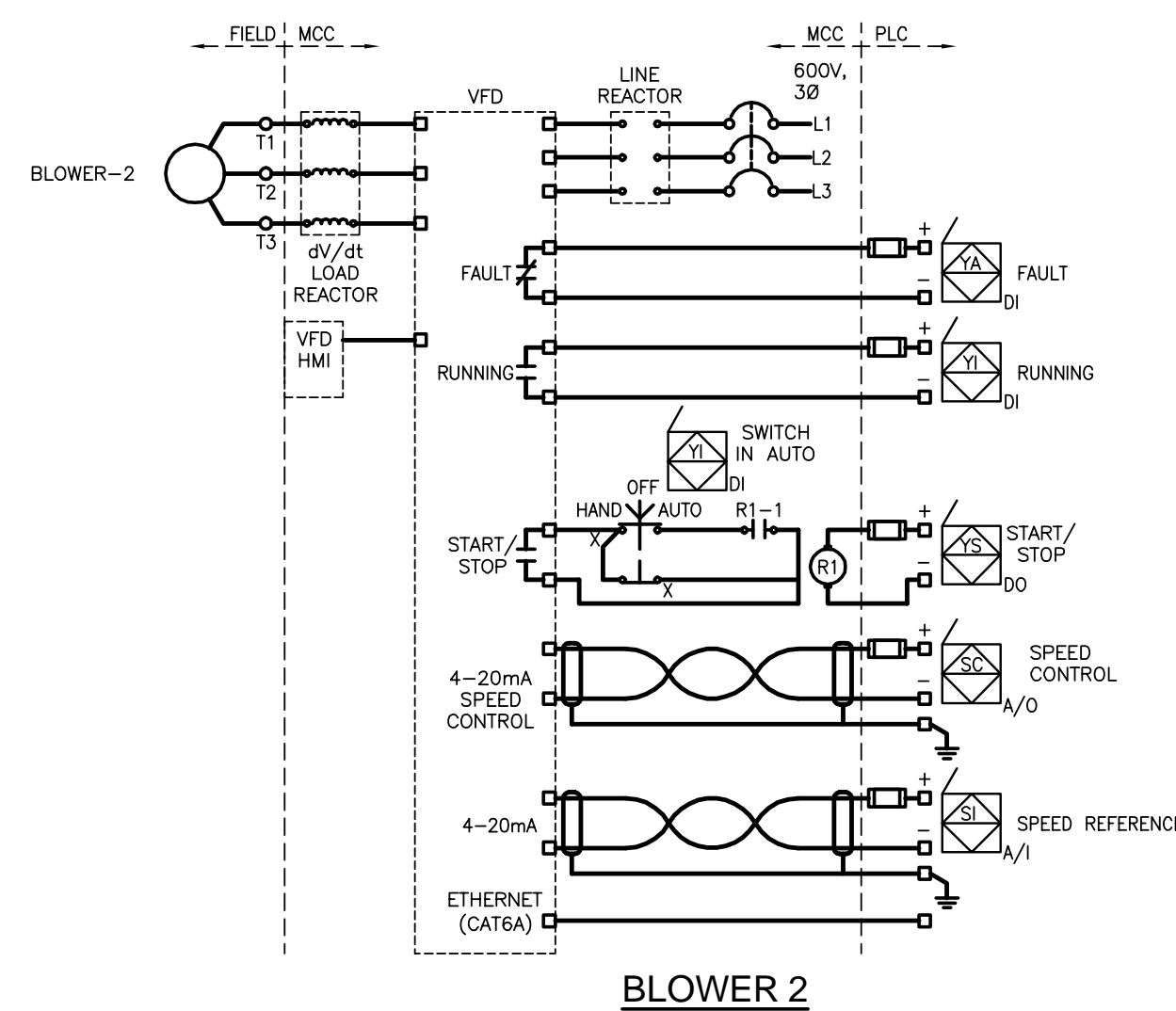
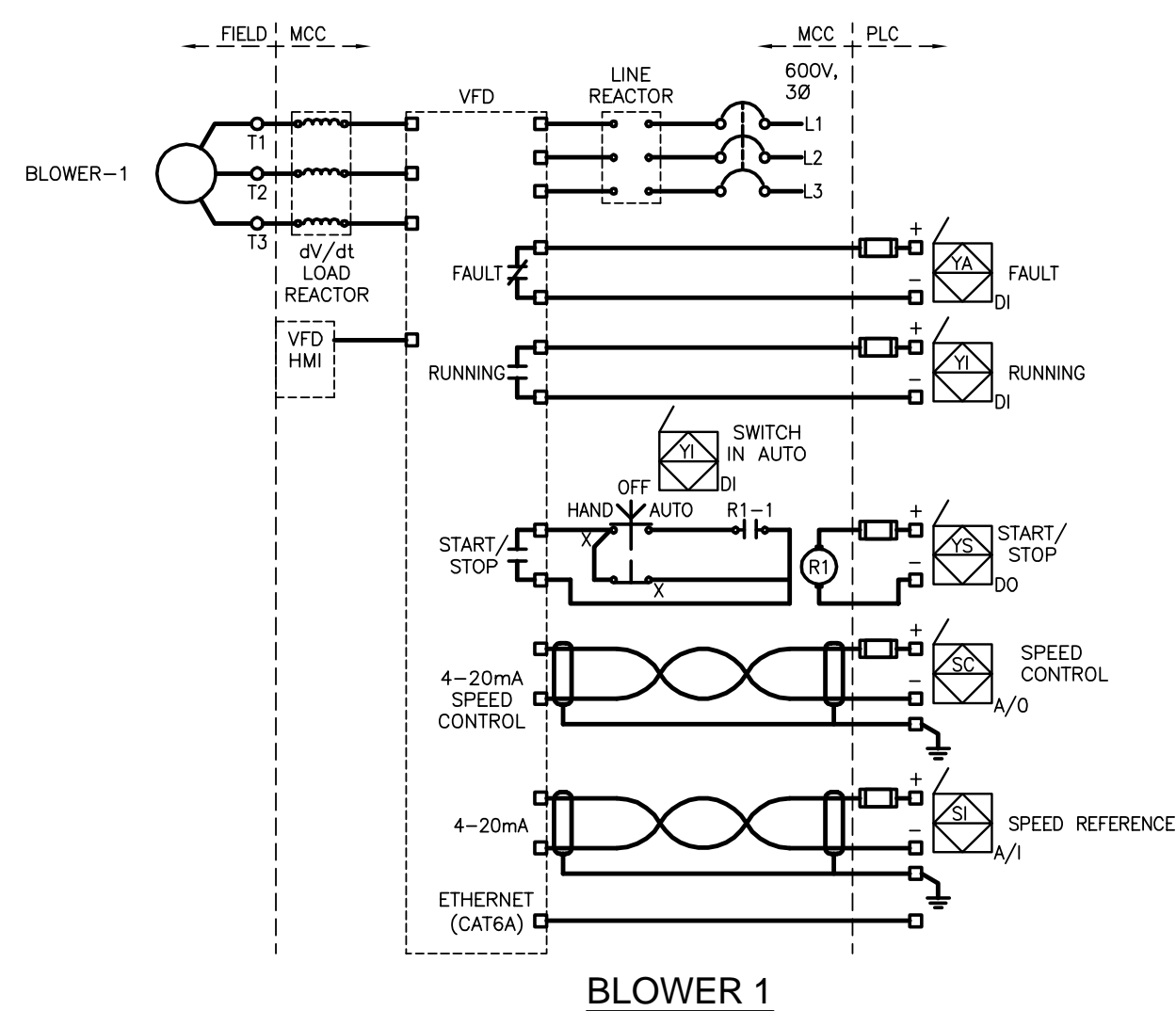
Project title: **STONY MOUNTAIN LAGOON UPGRADE** Projet

STONY MOUNTAIN LAGOON UPGRADE
Designed by: DG Conçu par
Drawn by: OT Dessiné par
Approved by: SL Approuvé par
PWSSC Project Manager Administrateur de Projets TPSGC
MARK MOGAN
Drawing title: **SEWAGE TREATMENT BUILDING ELECTRICAL PROCESS LOOP DIAGRAMS** Titre du dessin

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	E11	0
	OF 14	

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ORIGINAL DRAWING
SIGNED AND SEALED
BY
D.K. GEE
16/03/30

APECM
Certificate of Authorization
Tower Engineering Group
No. 4156 Expiry: April 30, 2016

TOWER PROJECT NUMBER: 141474
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Revision	Description	Date
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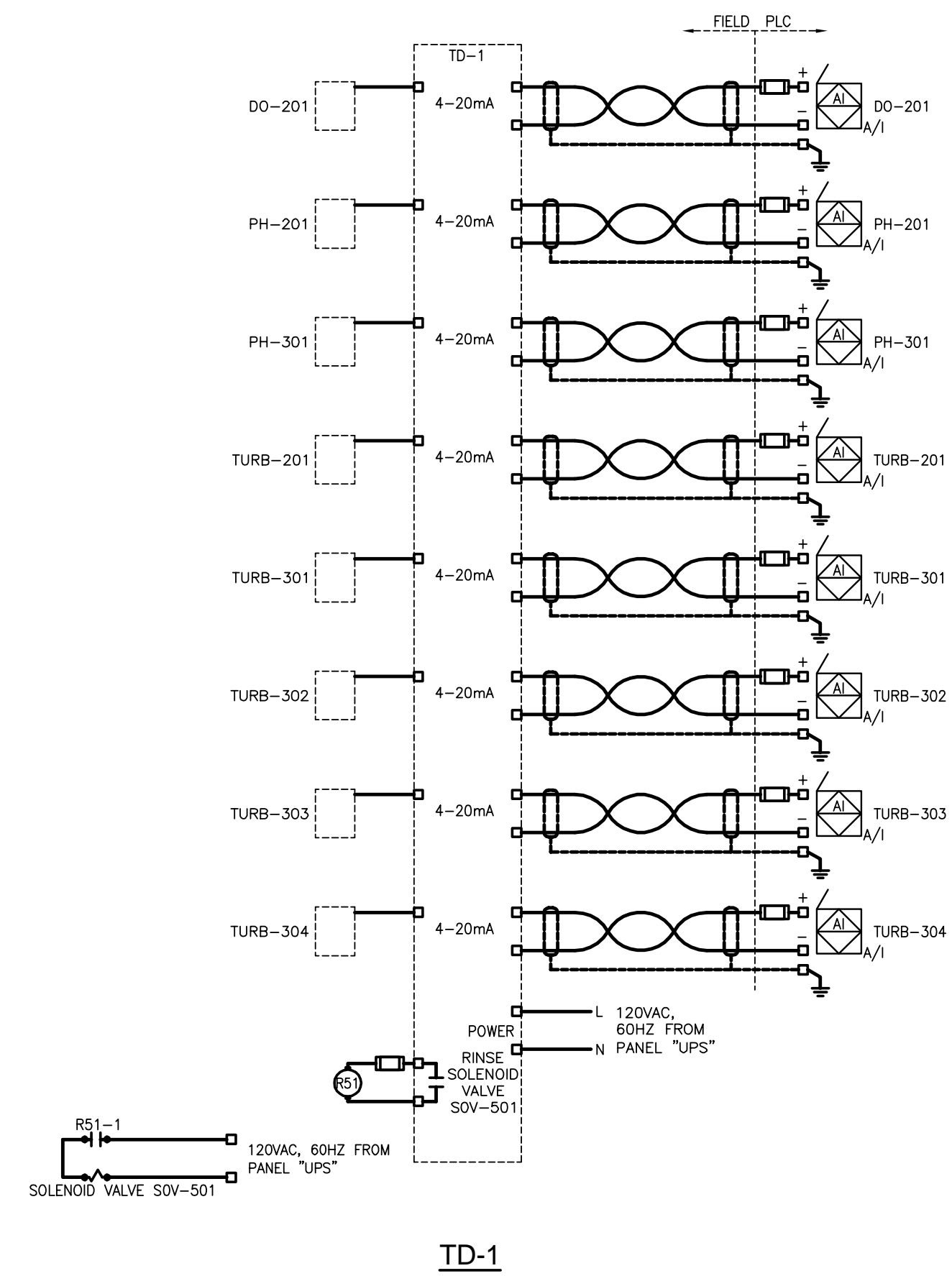
Drawing title: **SEWAGE TREATMENT BUILDING ELECTRICAL PROCESS LOOP DIAGRAMS** Titre du dessin

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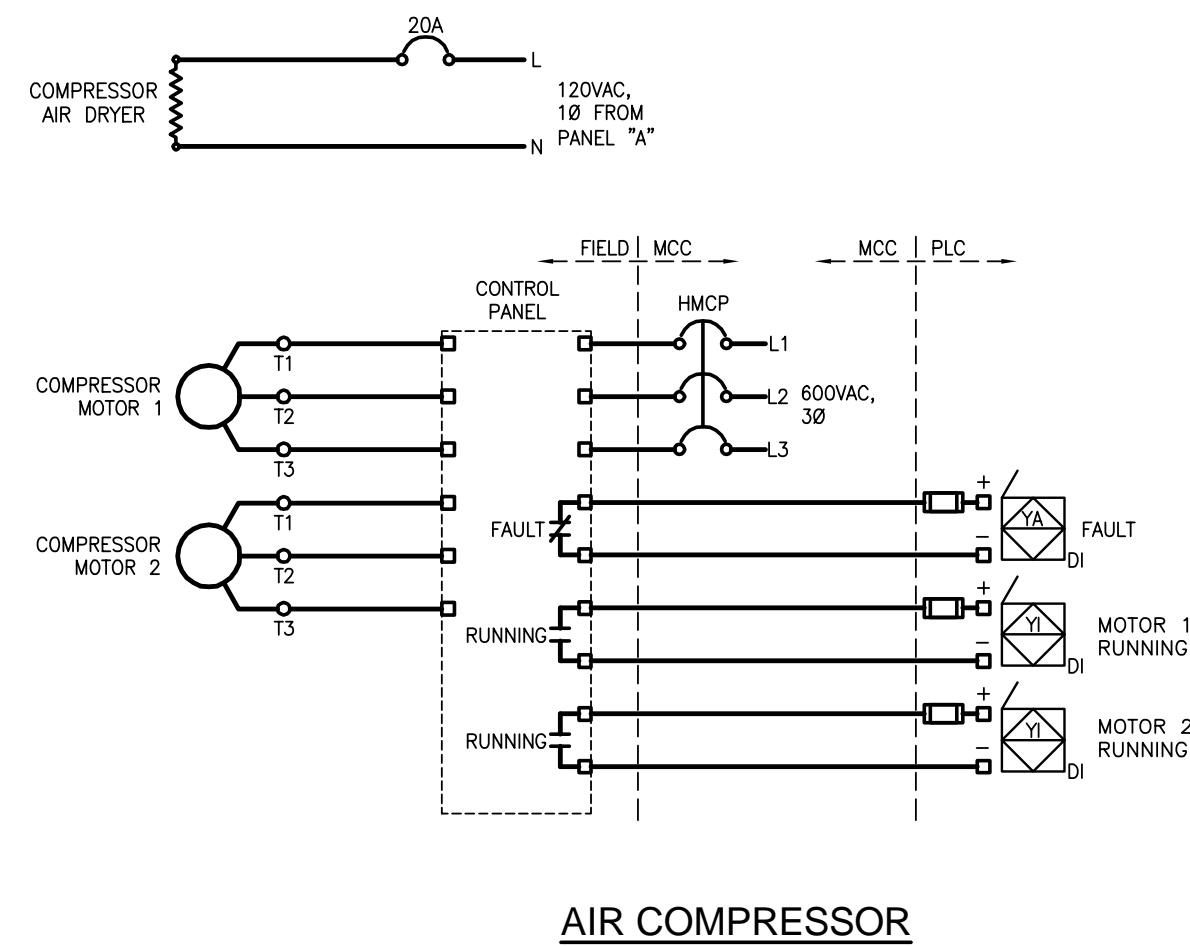
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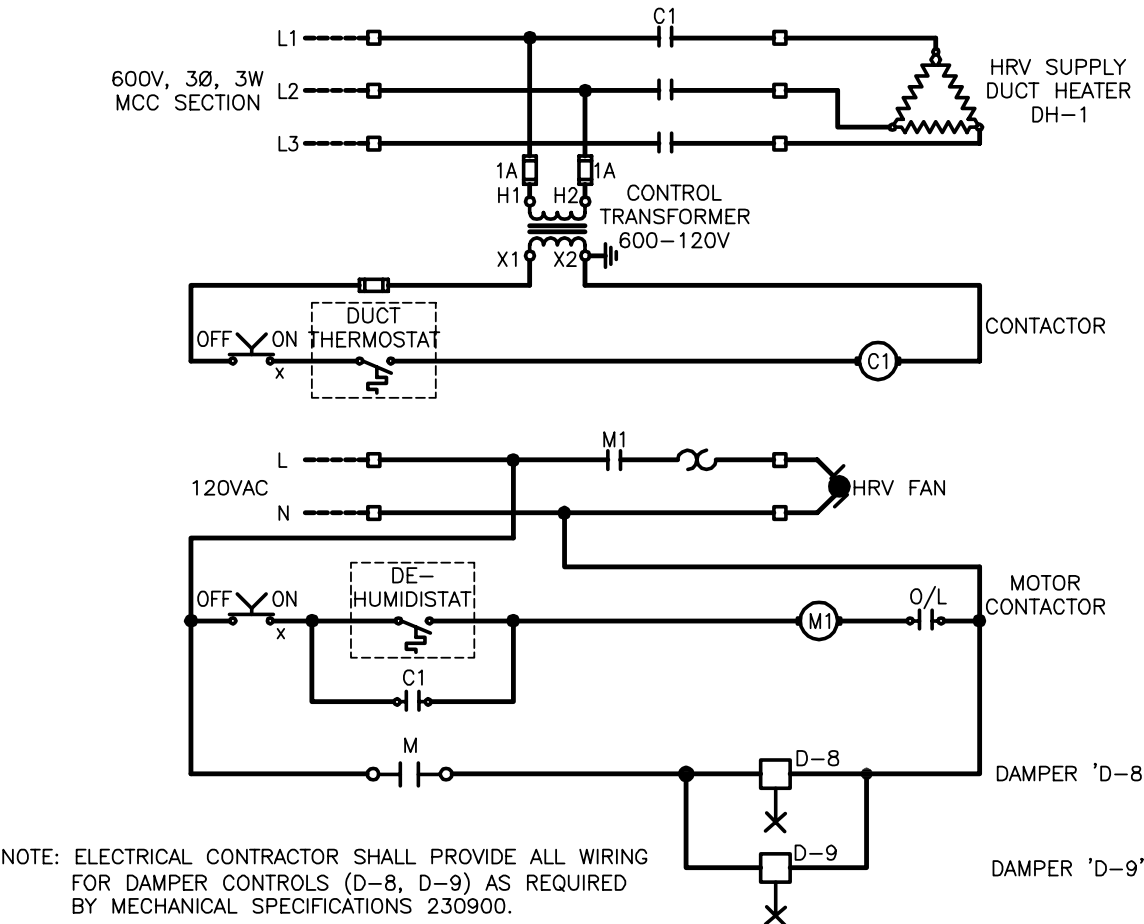
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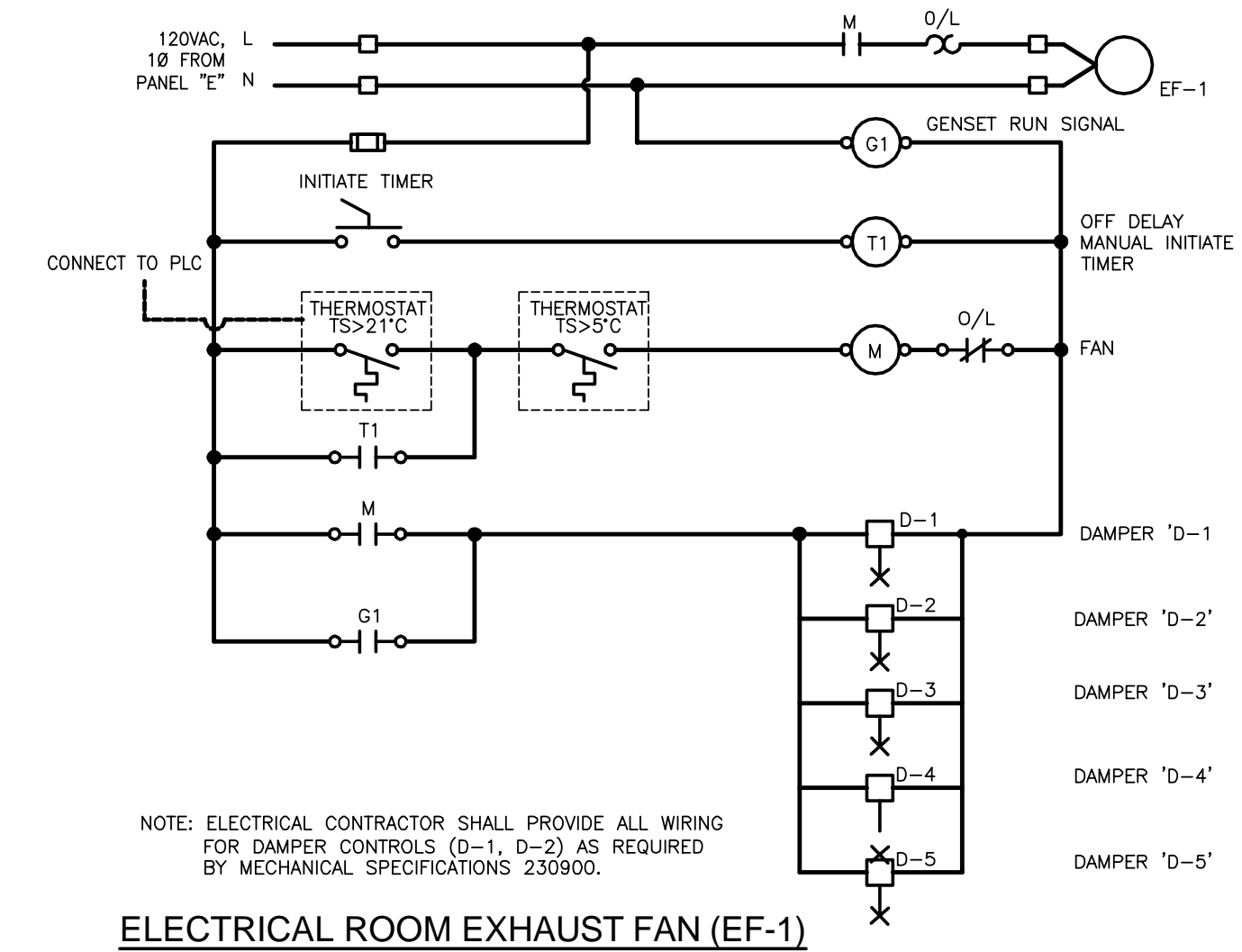
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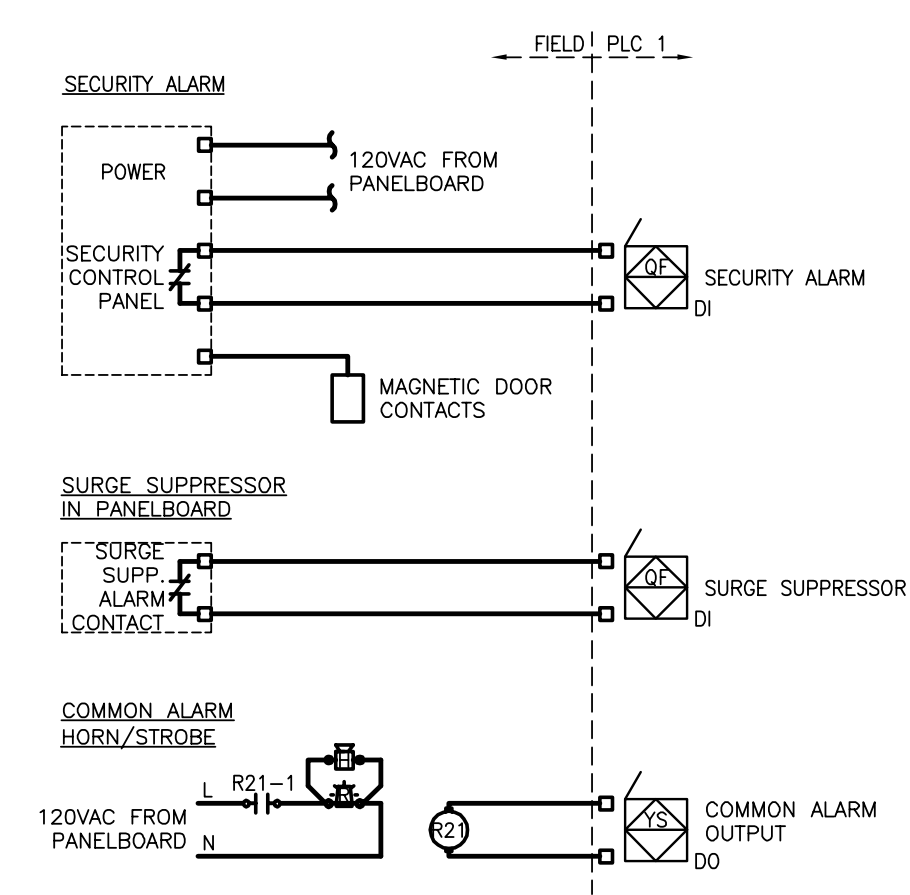
AIR COMPRESSOR



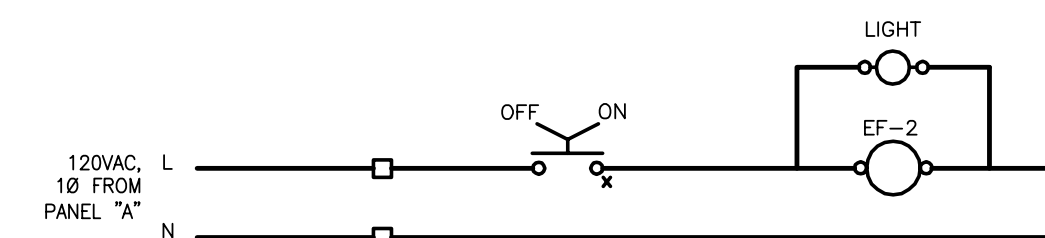
TYPICAL HRV AND PREHEAT COIL CONTROL



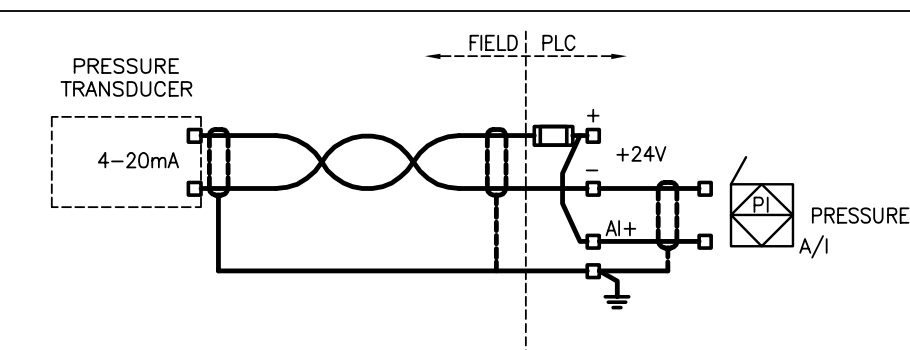
ELECTRICAL ROOM EXHAUST FAN (EF-1)



BUILDING SECURITY SYSTEM



WASHROOM EXHAUST FAN (EF-2)



TREATED DISCHARGE PRESSURE TRANSDUCER (PT-301)

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STONY MOUNTAIN LAGOON UPGRADE

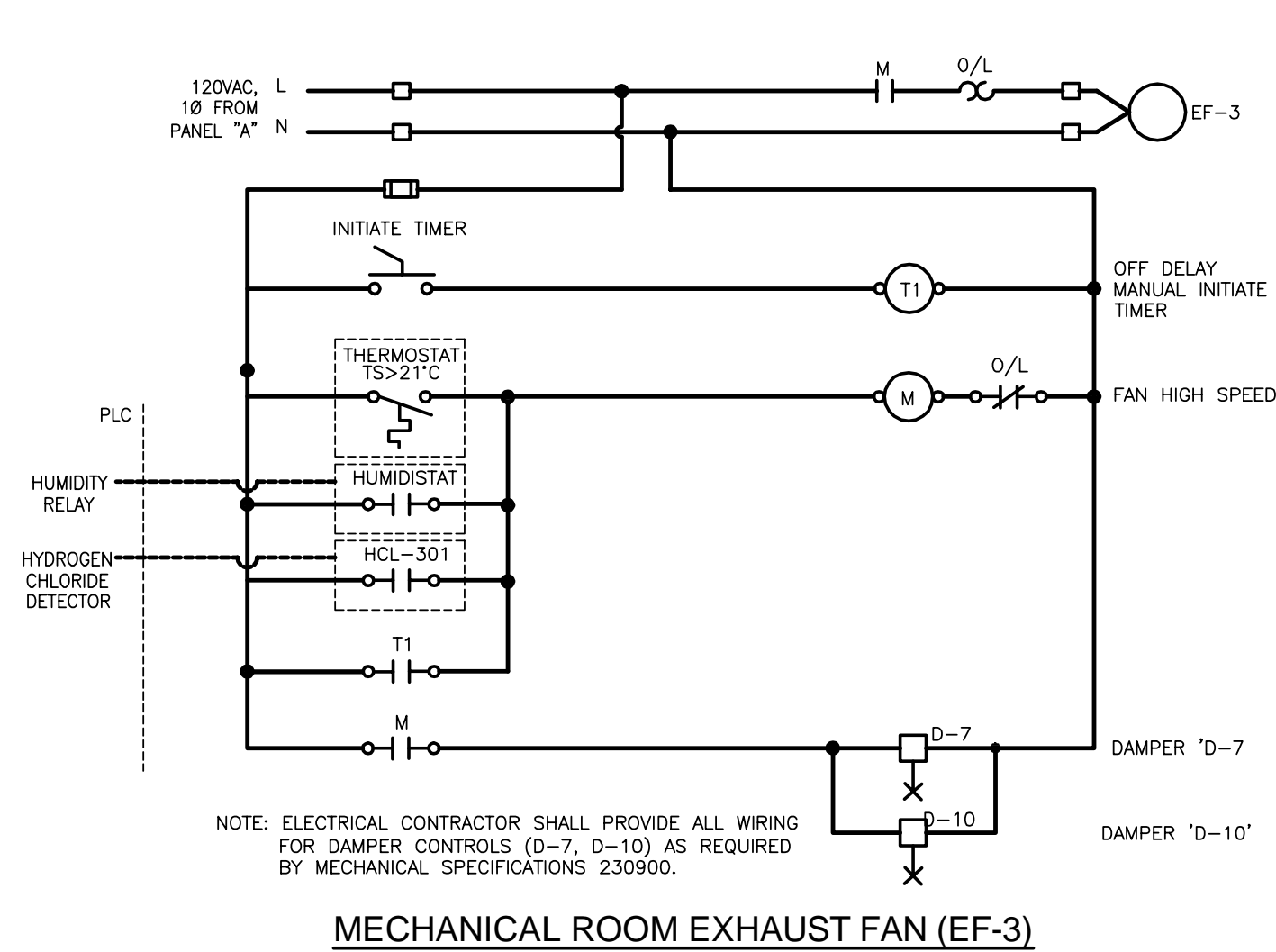
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MARK MOGAN

Drawing title: **SEWAGE TREATMENT BUILDING ELECTRICAL PROCESS LOOP DIAGRAMS** Titre du dessin

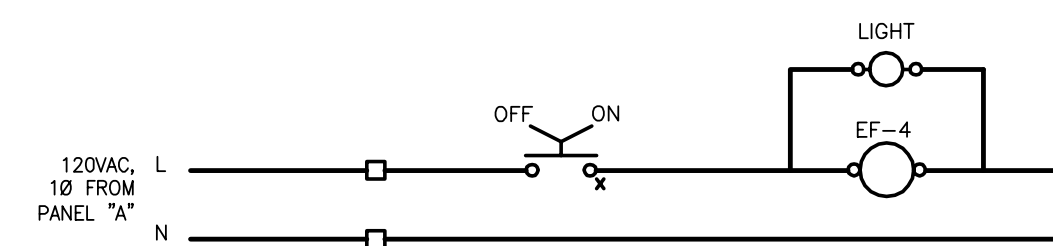
SEWAGE TREATMENT BUILDING ELECTRICAL PROCESS LOOP DIAGRAMS

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.075583.001	E13	0

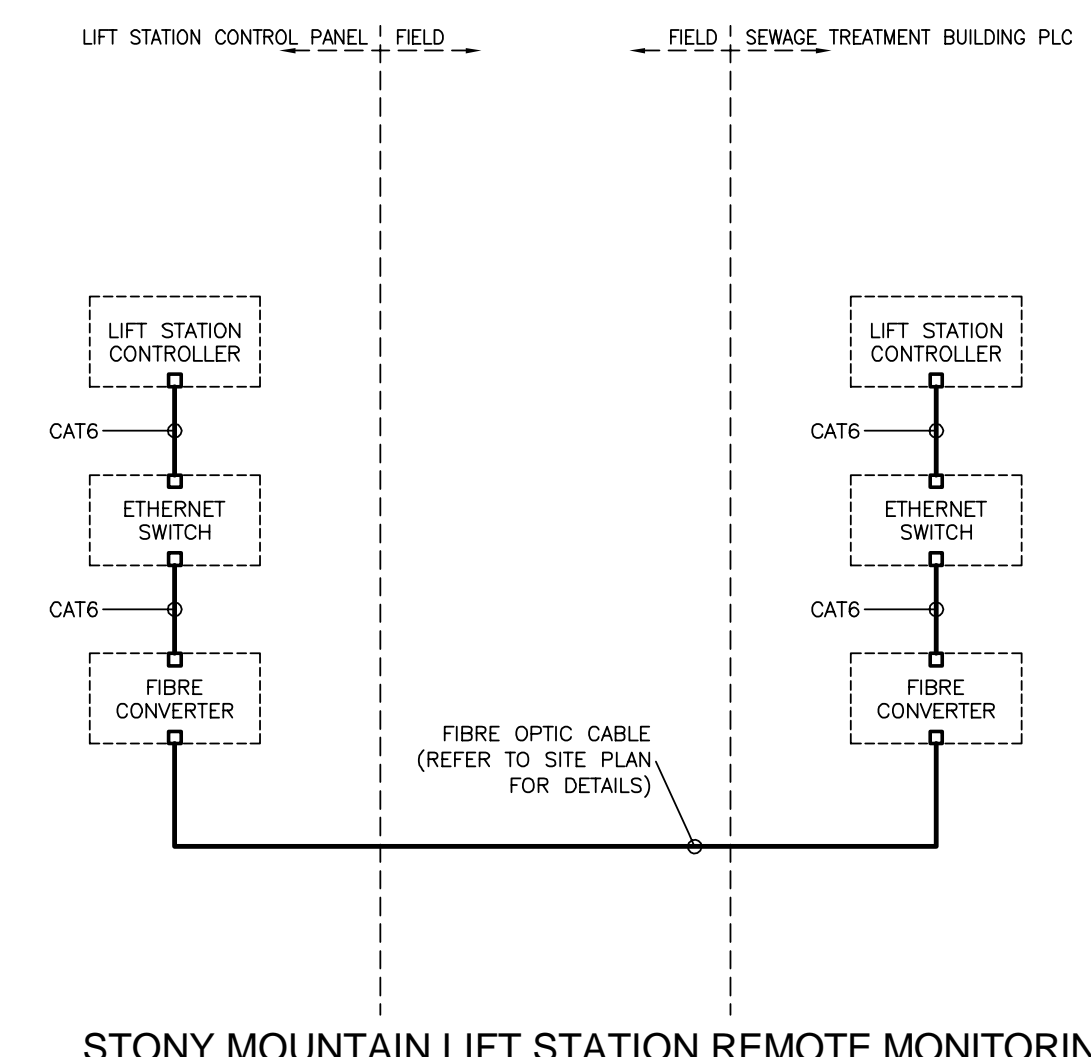
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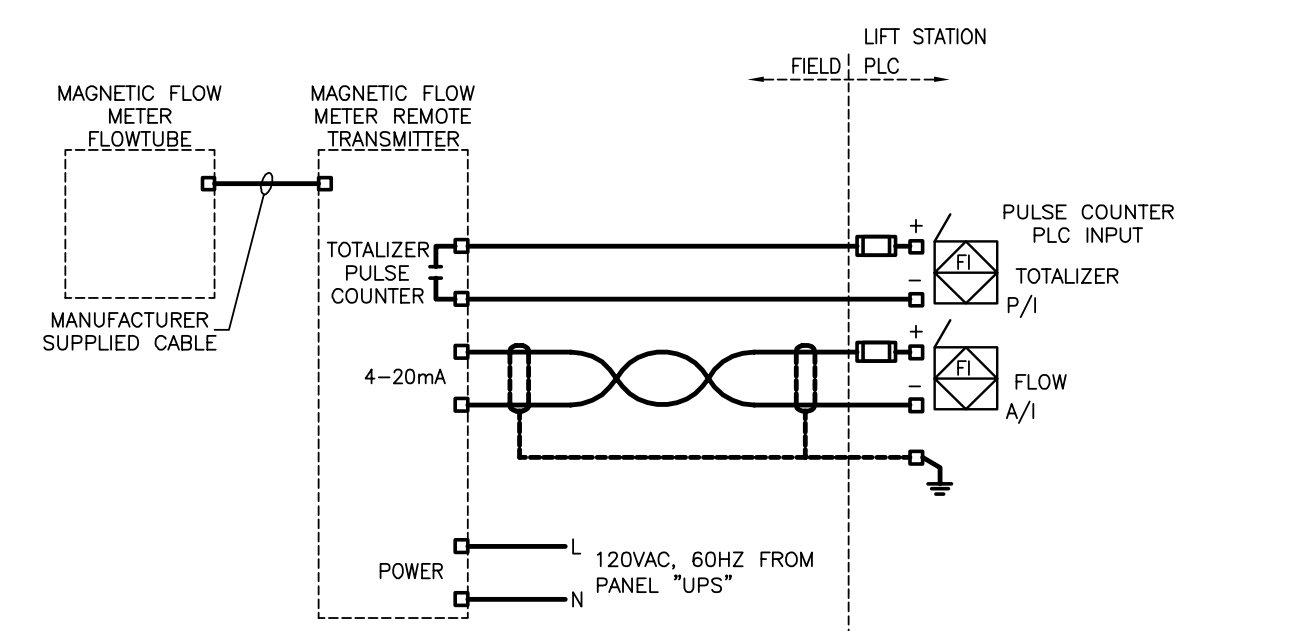
MECHANICAL ROOM EXHAUST FAN (EF-3)



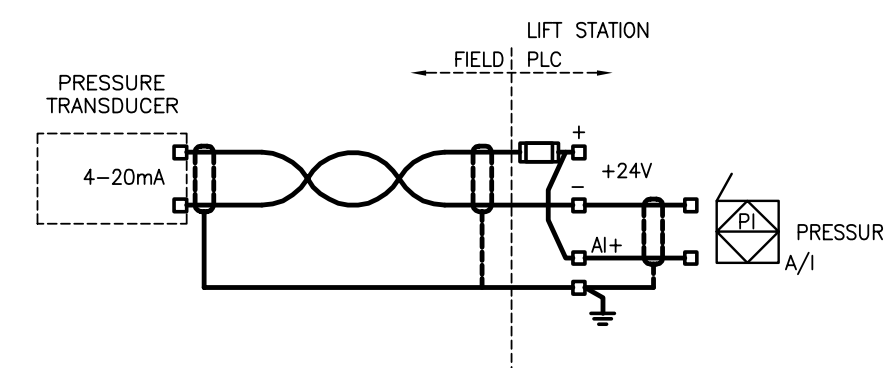
LAB EXHAUST FAN (EF-4)



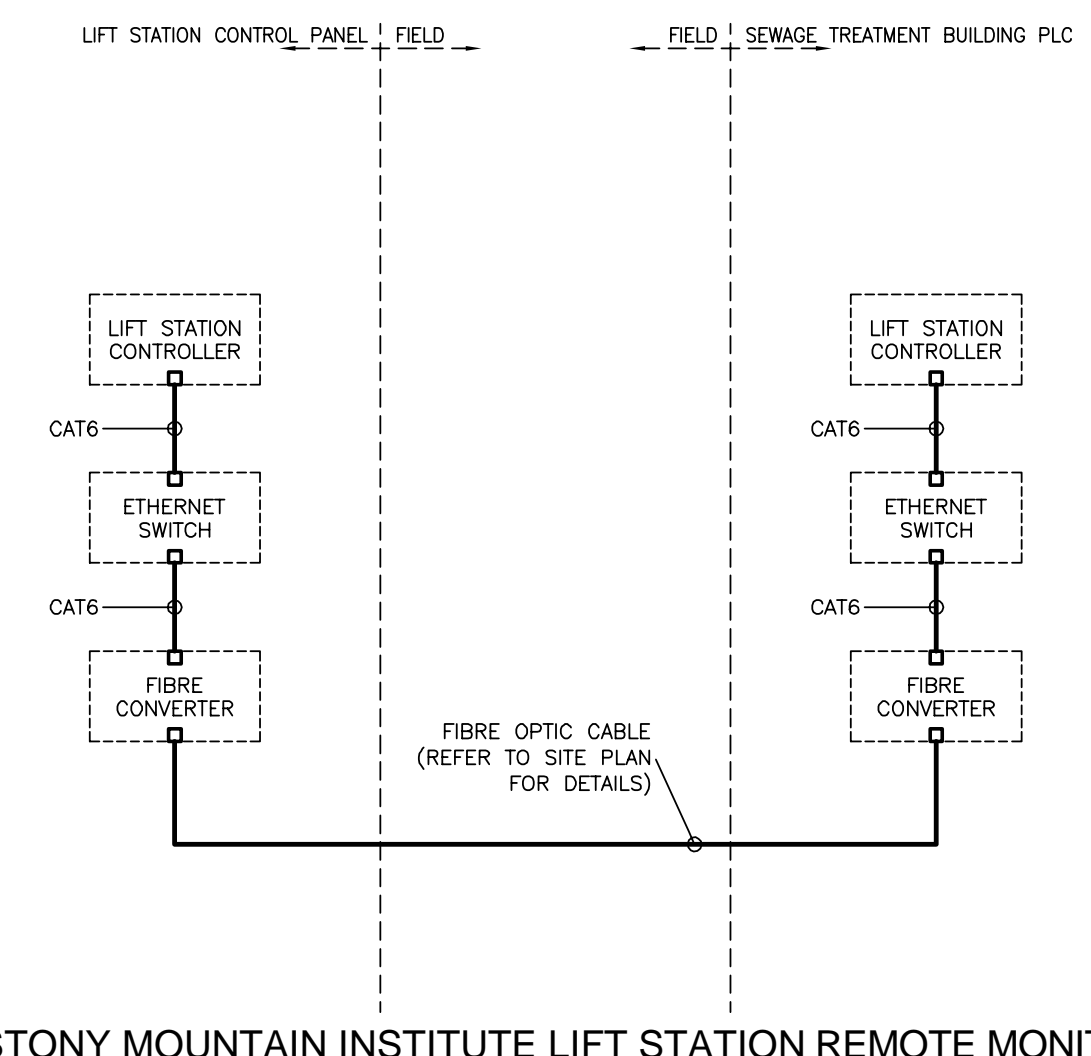
STONY MOUNTAIN LIFT STATION REMOTE MONITORING



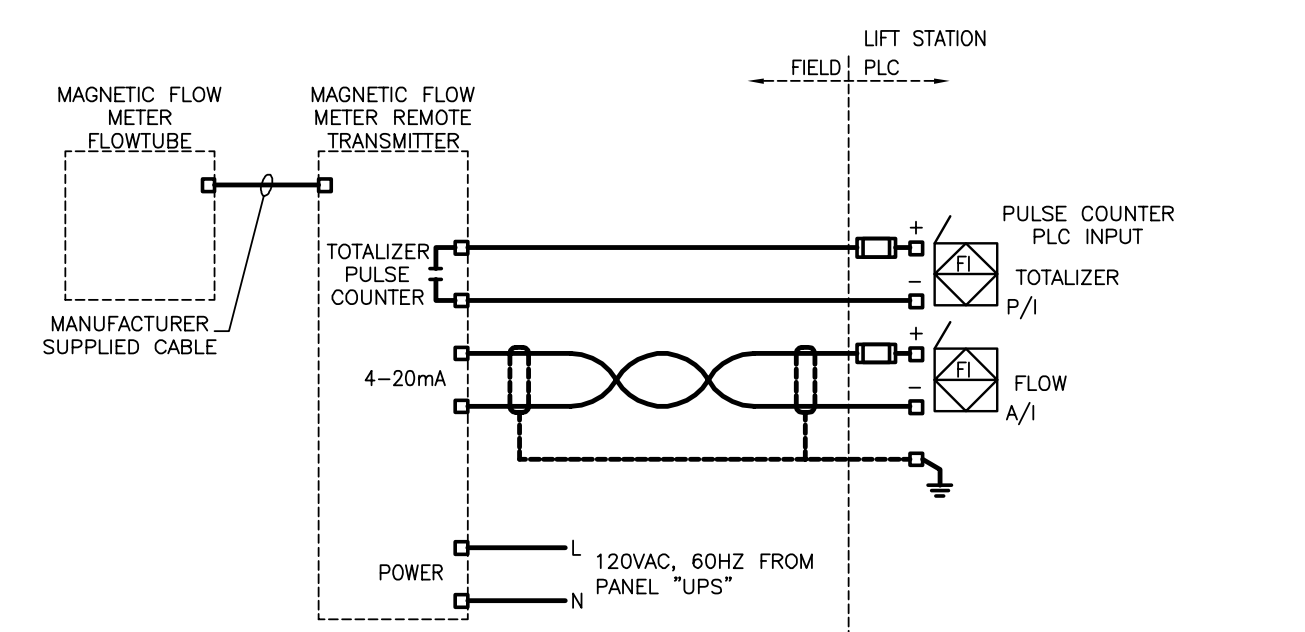
STONY MOUNTAIN INSTITUTE LIFT STATION FLOW METER (MAG-602)



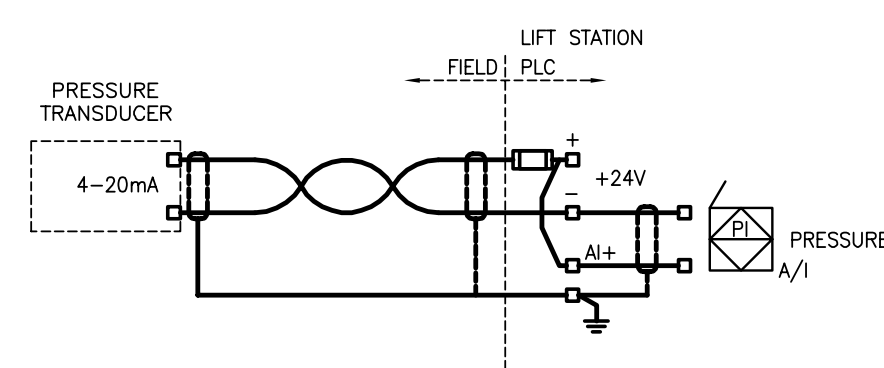
STONY MOUNTAIN INSTITUTE LIFT STATION LIQUID LEVEL (HL-602)



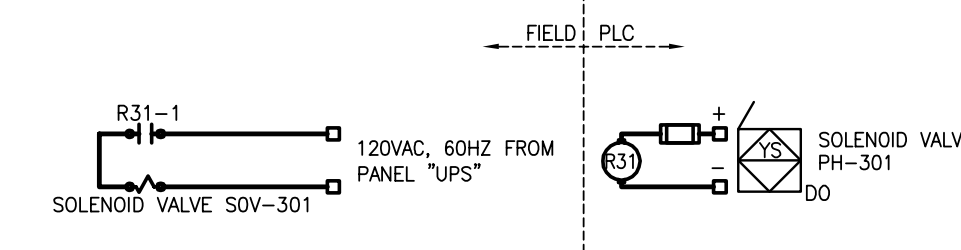
STONY MOUNTAIN INSTITUTE LIFT STATION REMOTE MONITORING



STONY MOUNTAIN LIFT STATION FLOW METER (MAG-601)



STONY MOUNTAIN LIFT STATION LIQUID LEVEL (HL-601)



TREATED DISCHARGE PH SOLENOID VALVE SOV-301 (PH-301)

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 BY
 D.K. GEE
 16/03/30



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3	RECORD DRAWING	FEB 2019
2	REVISED LOOP DIAGRAM	MARCH 2017
1	ISSUED FOR TENDER	MARCH 2016
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Revision	Description	Date
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 PWISSC Project Manager Administrateur de Projets TPSGC
MARK MOGAN

Drawing title: **SEWAGE TREATMENT BUILDING ELECTRICAL PROCESS LOOP DIAGRAMS** Titre du dessin

Project no./No. du projet: **R.075583.001**
 Drawing no./No. du dessin: **E14**
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