

Approximate Location of Property Line

Approximate edge of asphalt

## KNIGHT ROAD

SCALE 1:20

### GENERAL NOTES

1. ALL DIMENSIONS ARE IN METERS.
2. WELL CHAMBER HAS 4 SWING OPENING 5MM THICK AL/SS DOOR
3. CONTRACTOR TO VERIFY THE LOCATION AND DEPTHS OF ALL UTILITIES PRIOR TO EXCAVATION AND FABRICATION.

VELVET ROAD

### REVISIONS

R3-2 (90%)	2024-11-28
R4 (IFT)	2024-11-29



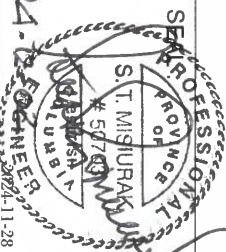
**SUNSHINE COAST  
REGIONAL DISTRICT**  
INFRASTRUCTURE DEPARTMENT  
PERMIT TO PRACTICE No. 1003260  
1975 Field Road  
Sechelt, BC V0N 3A1  
Ph: 604-885-6800 1-800-687-5753 Fax: 604-885-7909

DESIGNED BY:	SM
DRAWN BY:	JM/MM
CHECKED BY:	MO
APPROVED BY:	SM
SCALE	H 1:20 V NTS
PLOT DATE:	2024-11-29

**CHASTER  
ROAD WELL  
AND PUMP  
IMPROVEMENTS**

DRAWING :

**EXISTING SITE PLAN**



WORK ORDER NO.

DRAWING NO:

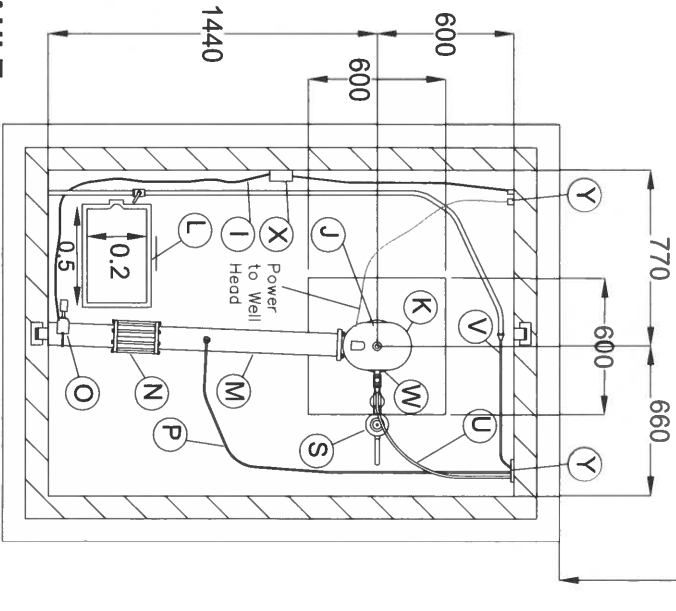
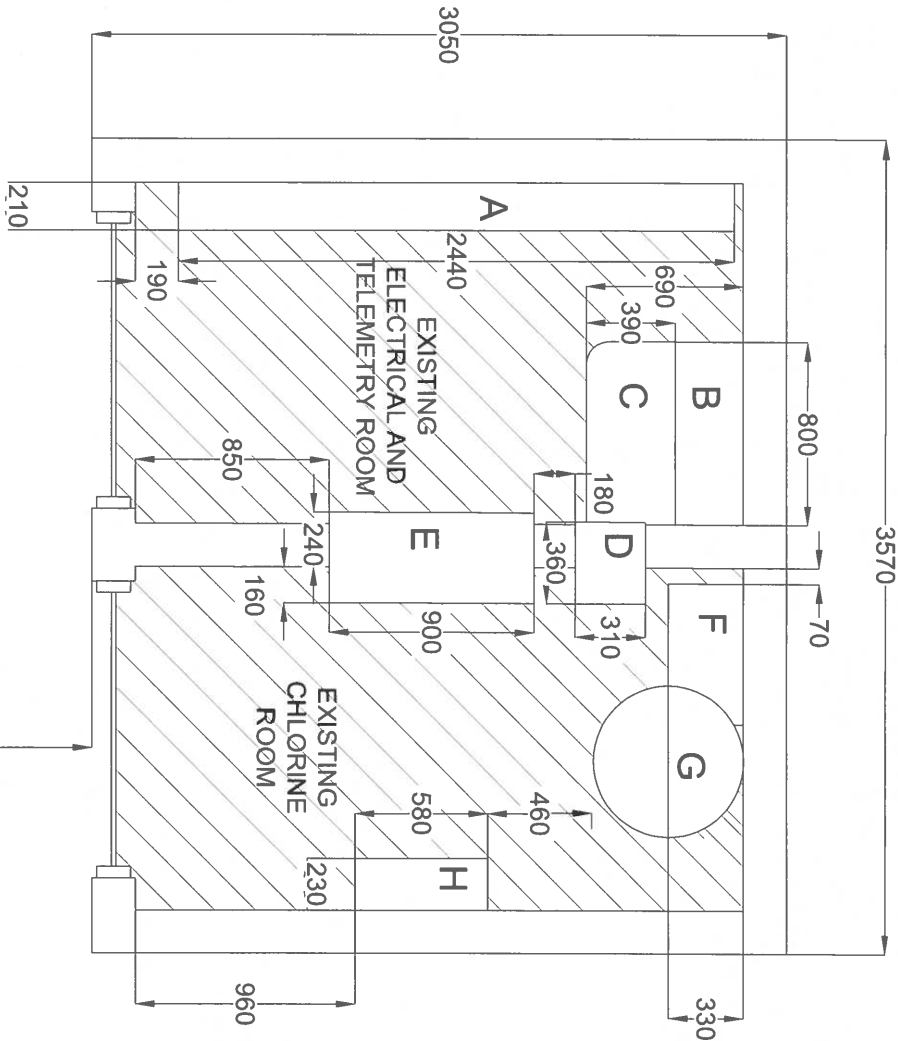
G-02

SHEET NO :

2 OF 13



PUMP HOUSE/HYPHO STORAGE



1  
C-02

WELL VAULT

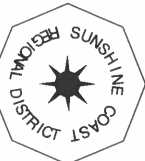
TO DISTRIBUTION SYSTEM

SCHEDULE OF DRAWING ELEMENTS

ITEM	DESCRIPTION	QUANTITY
A	ELECTRICAL CONTROL PANEL	1
B	BOOK SHELF	1
C	TABLE	1
D	HYPOCHLORITE INJECTION CONTROL PANEL	1
E	PUMP CONTROL PANEL	1
F	HYPOCHLORITE INJECTION UNIT	1
G	HYPOCHLORITE BARREL	1
H	FIRST AID KIT	1
I	MAGNETIC FLOW METER COMMUNICATION CABLE	1
J	WELL HEAD	1
K	VAL MATIC AIR-VAC	1
L	SUMP CHAMBER	1
M	100mm Dia. D.I. SPOOL PIPE	1
N	NON RESTRAINED MECHANICAL COUPLER	1
O	MAGNETIC FLOW METER SENSOR	1
P	HYPOCHLORITE INJECTOR PIPE	1
Q	BALL VALVES 25mm A.V. & 19mm PSV	2
R	PRESSURE GAUGE	1
S	SURGE PRESSURE RELIEF VALVE	1
T	DISCHARGE PRESSURE RELIEF VALVE	1
U	6mm RAW WATER SAMPLE LINE WITH SHUTOFF VALVE	1
V	25mm TREATED WATER SAMPLE LINE FOR RESIDUAL CHLORINE ANALYZER	1
W	WELL DISCHARGE C.I. TEE 100mmX100mmX100mm (FLG)	1
X	COMMUNICATION CABLE JUNCTION BOX	1
Y	25mm CONDUITS AND VAULT PENETRATIONS	3
Z	100mm SUMP DRAIN	1

REVISIONS

R3-2 (90%)	2024-11-28
R4 (IFT)	2024-11-29



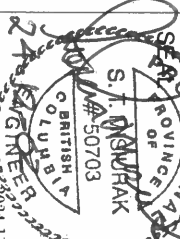
SUNSHINE COAST  
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PLOT DATE:	V NTS

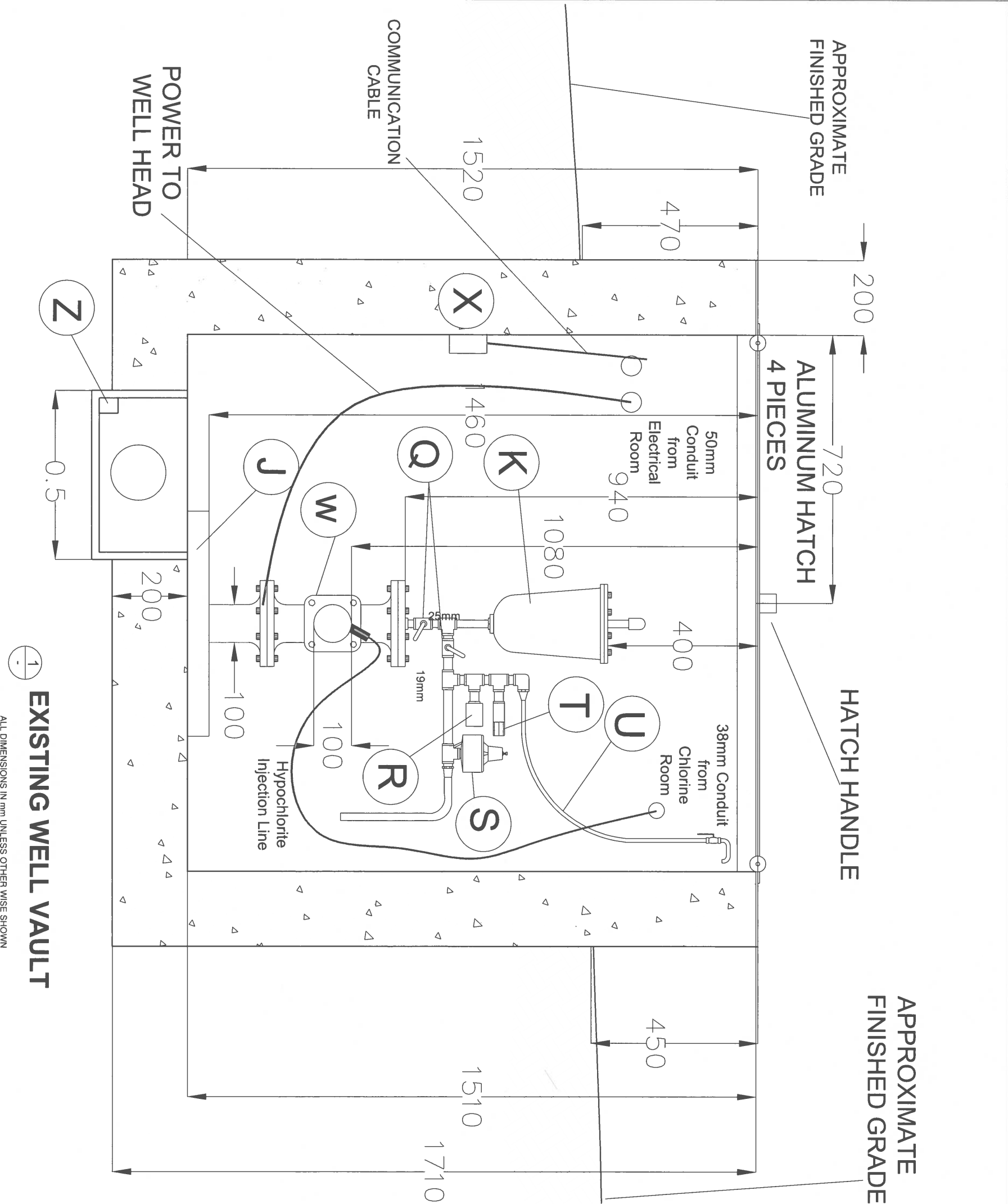
CHASTER  
ROAD WELL  
AND PUMP  
IMPROVEMENTS

DRAWING :

EXISTING WELL VAULT  
PLAN VIEW



WORK ORDER NO.
DRAWING NO:
SHEET NO :



SCHEDULE OF DRAWING ELEMENTS		
ITEM	DESCRIPTION	QUANTITY
A	ELECTRICAL CONTROL PANEL	1
B	BOOK SHELF	1
C	TABLE	1
D	HYPOCHLORITE INJECTION CONTROL PANEL	1
E	PUMP CONTROL PANEL	1
F	HYPOCHLORITE INJECTION UNIT	1
G	HYPOCHLORITE BARREL	1
H	FIRST AID KIT	1
I	MAGNETIC FLOW METER COMMUNICATION CABLE	1
J	WELL HEAD BASE PLATE	1
K	VAL MATIC AIR-VAC	1
L	SUMP CHAMBER	1
M	100mm Dia. D.I. SPOOL PIPE	1
N	MECHANICAL COUPLER	1
O	MAGNATIC FLOW METER SENSOR	1
P	HYPOCHLORITE INJECTOR PIPE	1
Q	BALL VALVES 25mm A.V. & 19mm PSV	2
R	PRESSURE GAUGE	1
S	SURGE PRESSURE RELIEF VALVE	1
T	DISCHARGE PRESSURE RELIEF VALVE	1
U	6mm RAW WATER SAMPLE LINE WITH SHUTOFF VALVE	1
V	25mm TREATED WATER SAMPLE LINE FOR RESIDUAL CHLORINE ANALYZER	1
W	WELL DISCHARGE C.I. TEE 100mmX100mmX100mm (FLG)	1
X	COMMUNICATION CABLE JUNCTION BOX	1
Y	25mm CONDUITS	3
Z	100mm SUMP DRAIN	1

1  
-  
EXISTING WELL VAULT

ALL DIMENSIONS IN mm UNLESS OTHER WISE SHOWN

REVISIONS

R3-2 (90%)	2024-11-28
R4 (IFT)	2024-11-29



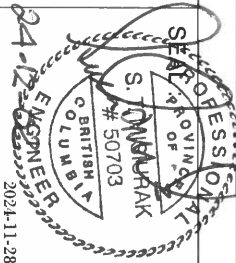
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DESIGNED BY:	SM
DRAWN BY:	JMM/MM
CHECKED BY:	MO
APPROVED BY:	SM
SCALE	H NTS V NTS
PLOT DATE:	2024-11-29

CHASTER  
ROAD WELL  
AND PUMP  
IMPROVEMENTS

DRAWING :

EXISTING WELL VAULT  
PROFILE VIEW



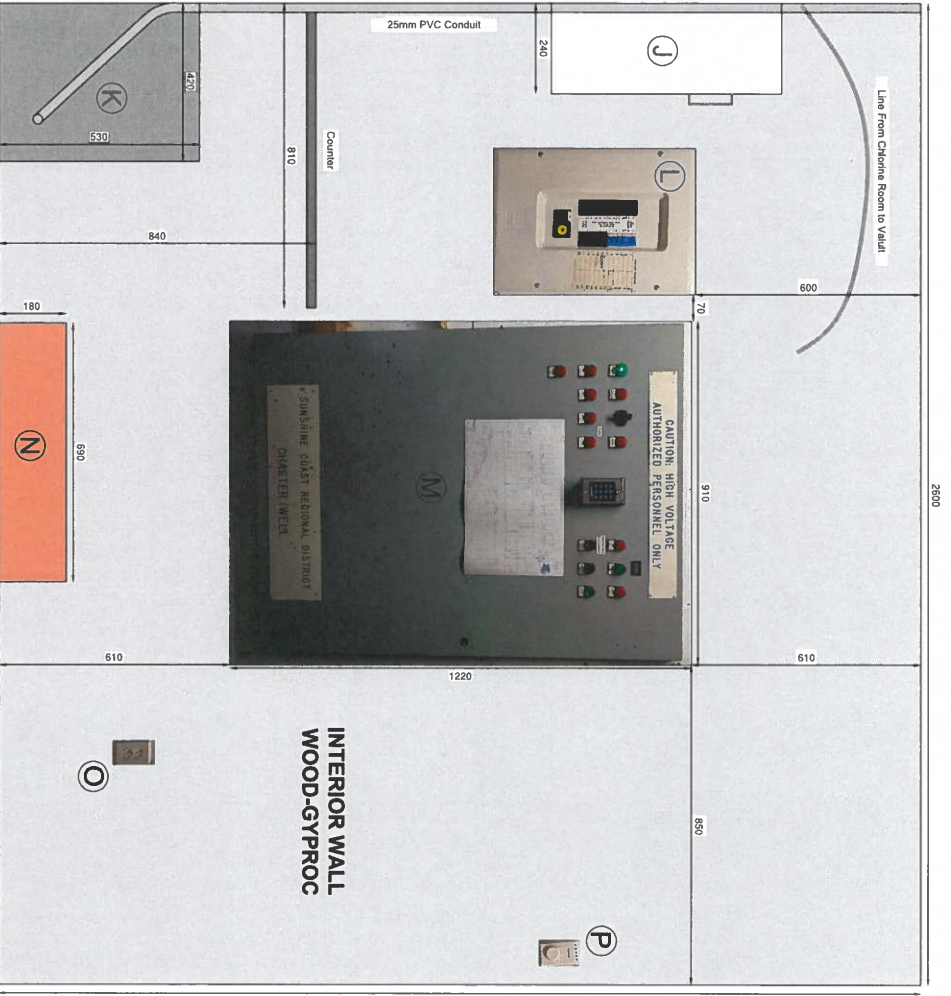
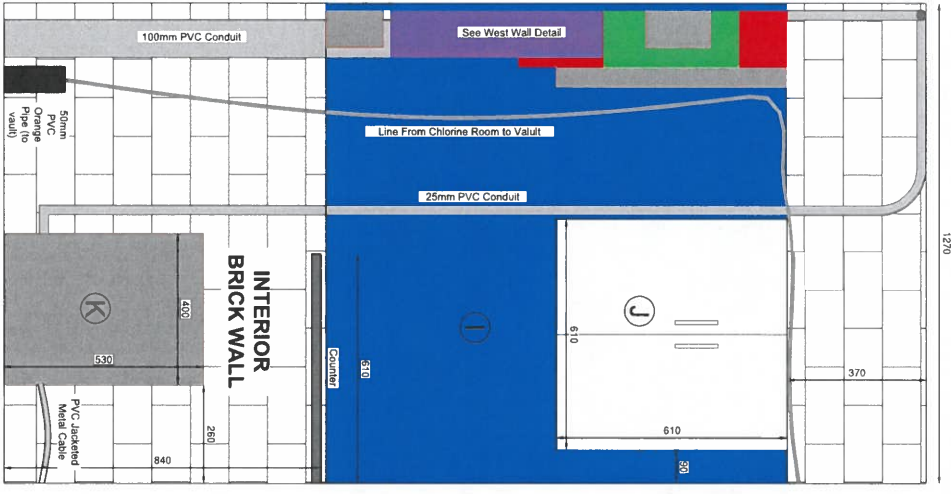
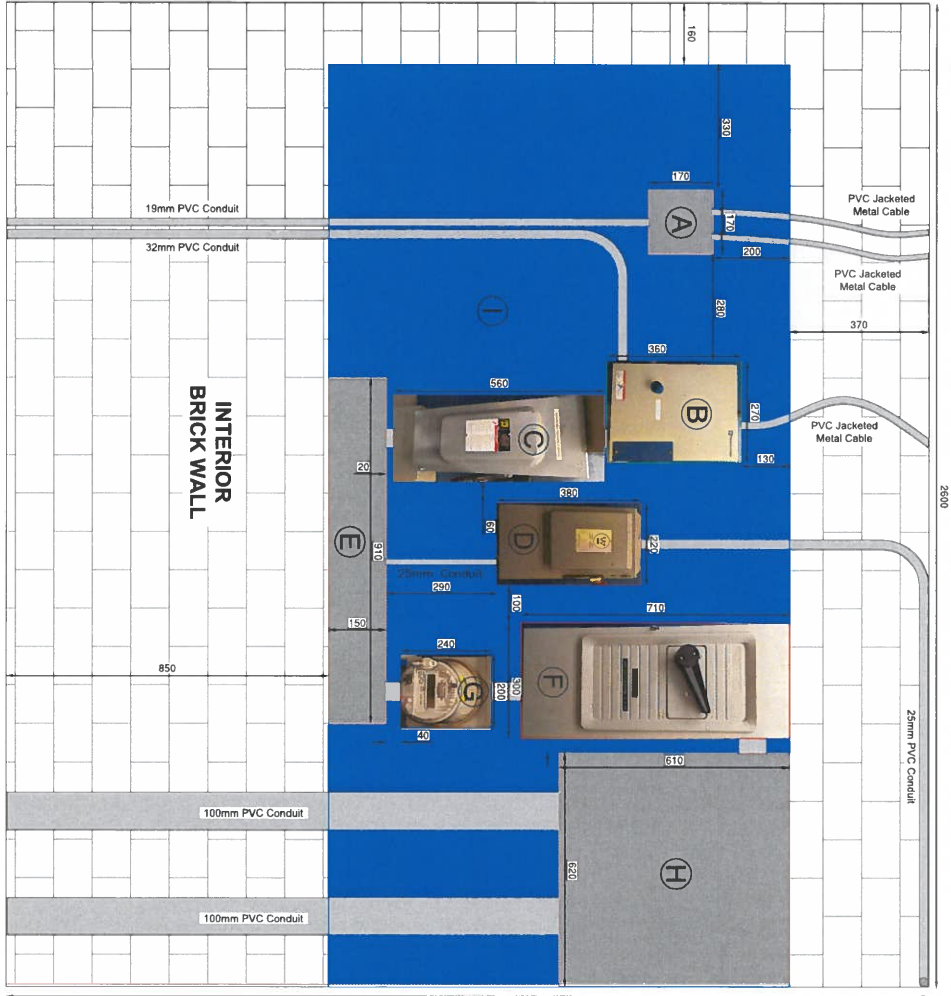
WORK ORDER NO.	
DRAWING NO:	C-02
SHEET NO :	4 OF 13



SCHEDULE OF DRAWING ELEMENTS		
ITEM	DESCRIPTION	QUANTITY
A	JUNCTION BOX	1
B	PUMP (POWER) OVERLOAD RESET	1
C	PUMP DISCONNECT SWITCH	1
D	HEAVY DUTY SAFTEY SWITCH (LIGHTS)	1
E	JUNCTION BOX	1
F	MAIN SWITCH 480 VOLT 3-PHASE 3-WIRE	1
G	ELECTRICAL METER	1
H	MAIN JUNCTION BOX (POWER IN)	1
I	19mm PLYWOOD BACKING	1


ITEM	DESCRIPTION	QUANTITY
J	CUPBOARD	1
K	TRANSFORMER	1

ITEM	DESCRIPTION	QUANTITY
L	FEDERAL STAB-LOK 125 AMP 120 VOLT 240	1
M	PCL PANEL	1
N	BASEBOARD HEATER	1
O	120V OUTLET	1
P	THERMOSTAT	1



**DETAIL**  
ELECTRICAL ROOM  
SCALE= 1:10  
ALL DIMENSIONS IN mm UNLESS OTHERWISE SHOWN.

REVISIONS	
R3-2 (90%)	2024-11-28
R4 (1FT)	2024-11-29

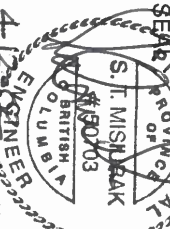


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APPROVED BY:	SM
SCALE	H n/a V n/a
PLOT DATE:	2024-11-29

**CHASTER  
ROAD WELL  
AND PUMP  
IMPROVEMENTS**

DRAWING :  
**ELECTRICAL ROOM**



2412  
2024-11-28

WORK ORDER NO.	
DRAWING NO:	C-04
SHEET NO :	6 OF 13

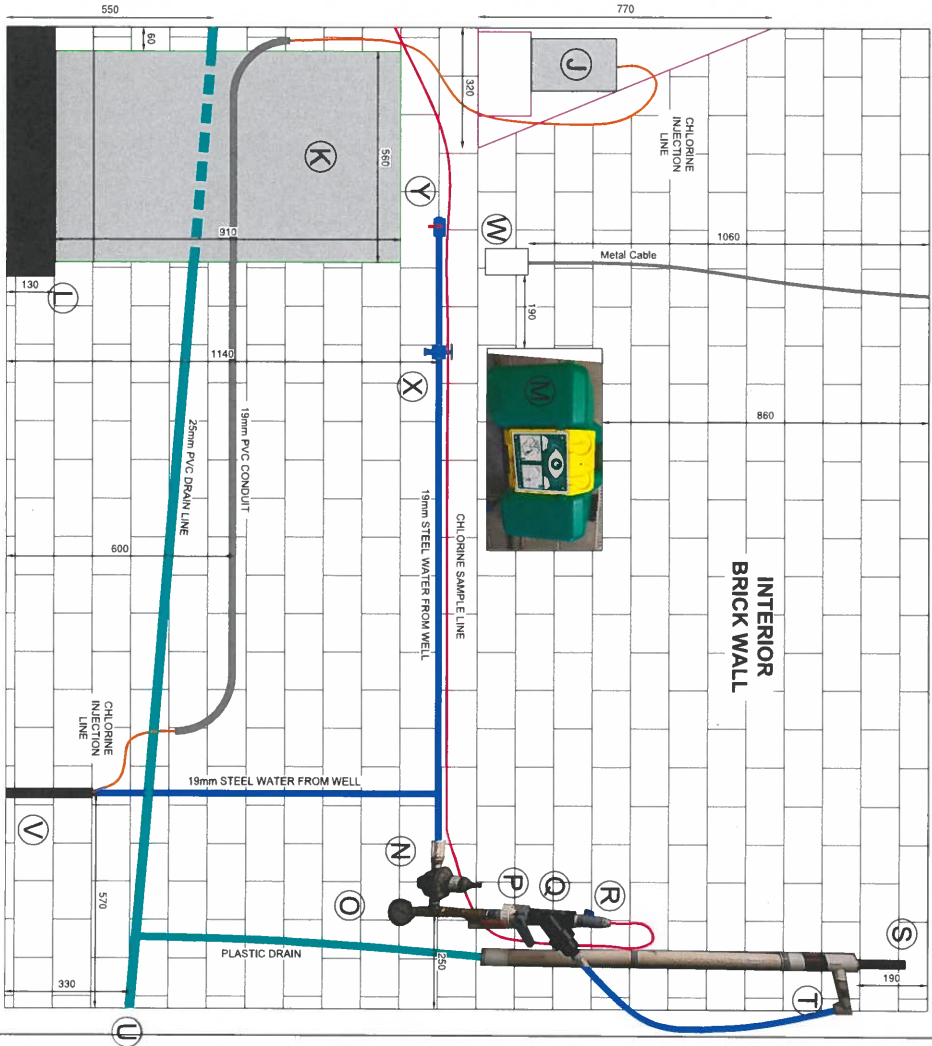
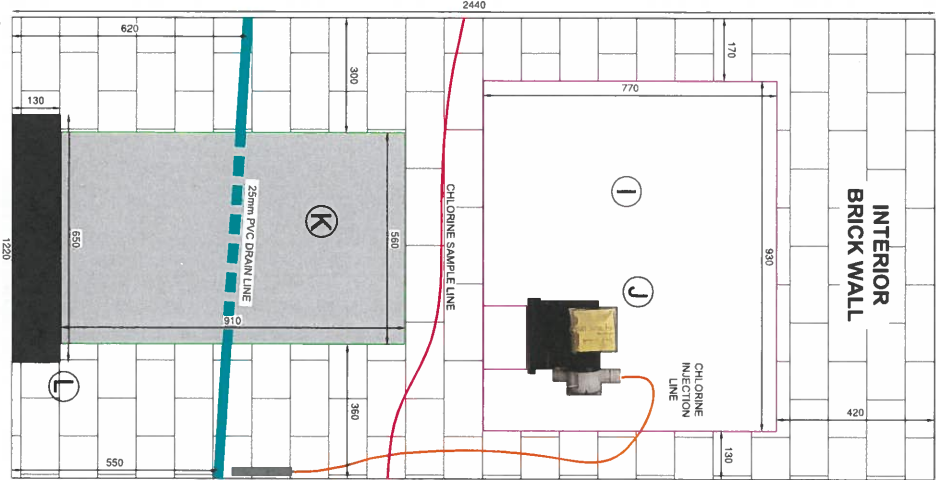
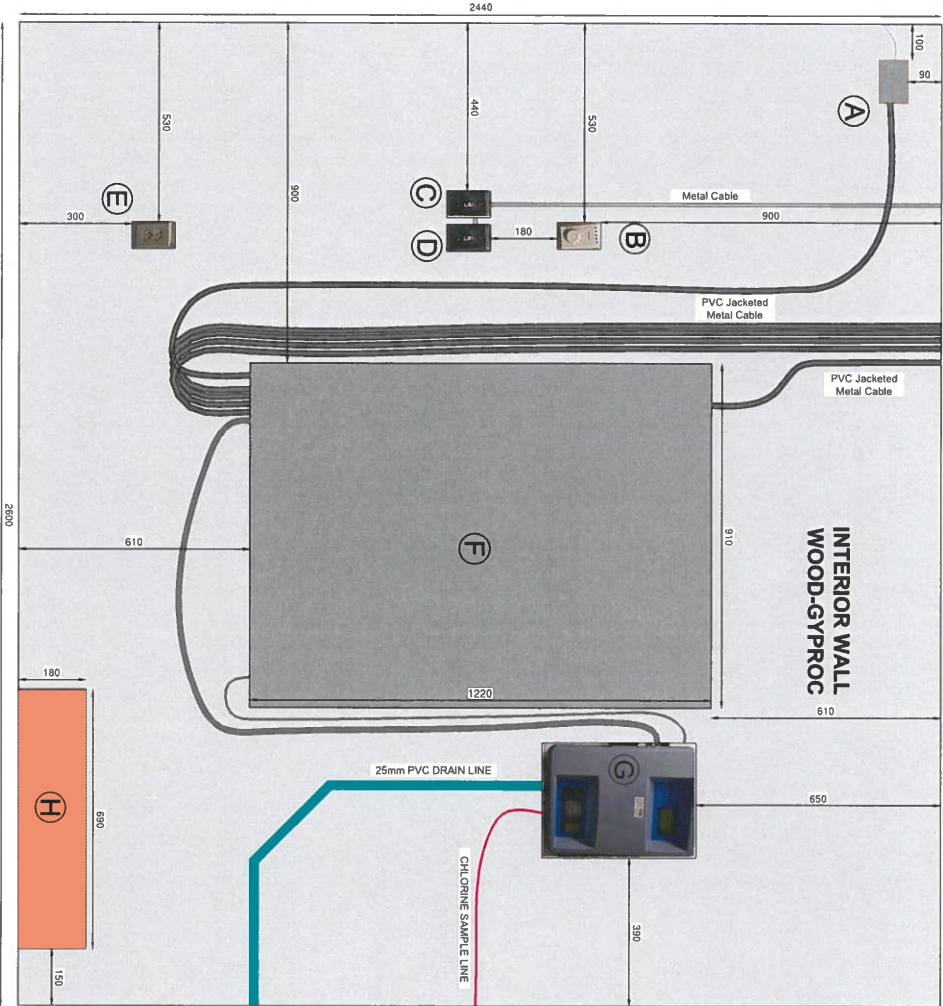


SCHEDULE OF DRAWING ELEMENTS

ITEM	DESCRIPTION	QUANTITY
A	JUNCTION BOX AND DOOR SENSOR LEAD	1
B	THERMOSTAT	1
C	LIGHT SWITCH	1
D	FAN SWITCH	1
E	POWER PLUG	1
F	BACK OF MASTER CONTROL PANEL (SEE ELECTRICAL ROOM	1
G	CHLORINE ANALYZER	1
H	BASEBOARD HEATER	1

ITEM	DESCRIPTION	QUANTITY
I	CLEAR PLEX-GLASS SHELF	1
J	CHLORINE PUMP	1
K	CHLORINE TANK	1
L	CHLORINE SPILL CONTAINMENT	1

ITEM	DESCRIPTION	QUANTITY
M	EYE WASH STATION	1
N	PRV	1
O	PRESSURE GAUGE	1
P	SHUTOFF VALVES	2
Q	OVERFLOW WYE	1
R	CHLORINE SAMPLE LINE SHUTOFF	1
S	CL17 OVERFLOW	1
T	TEE AND 90° FOR OVERFLOW LINE	1
U	DRAIN TO EXTERIOR OF BUILDING	1
V	PVC CONDUIT TO WELL VAULT	1
W	POWER PLUG (CHLORINE PUMP)	1
X	SAMPLING TAP	1
Y	SHUTOFF VALVE	1



WEST INTERIOR WALL

NORTH EXTERIOR WALL

EAST EXTERIOR WALL

DETAIL

CHLORINE ROOM

SCALE= 1:10

ALL DIMENSIONS IN mm UNLESS OTHERWISE SHOWN.

REVISIONS

R3-2 (90%)	2024-11-28
R4 (1FT)	2024-11-29



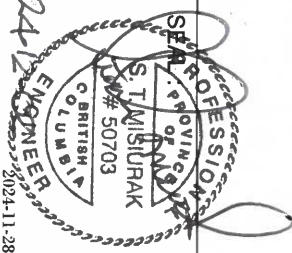
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SCALE	H n/a V n/a
PLOT DATE:	2024-11-29

CHASTER  
ROAD WELL  
AND PUMP  
IMPROVEMENTS

DRAWING :

CHLORINE ROOM



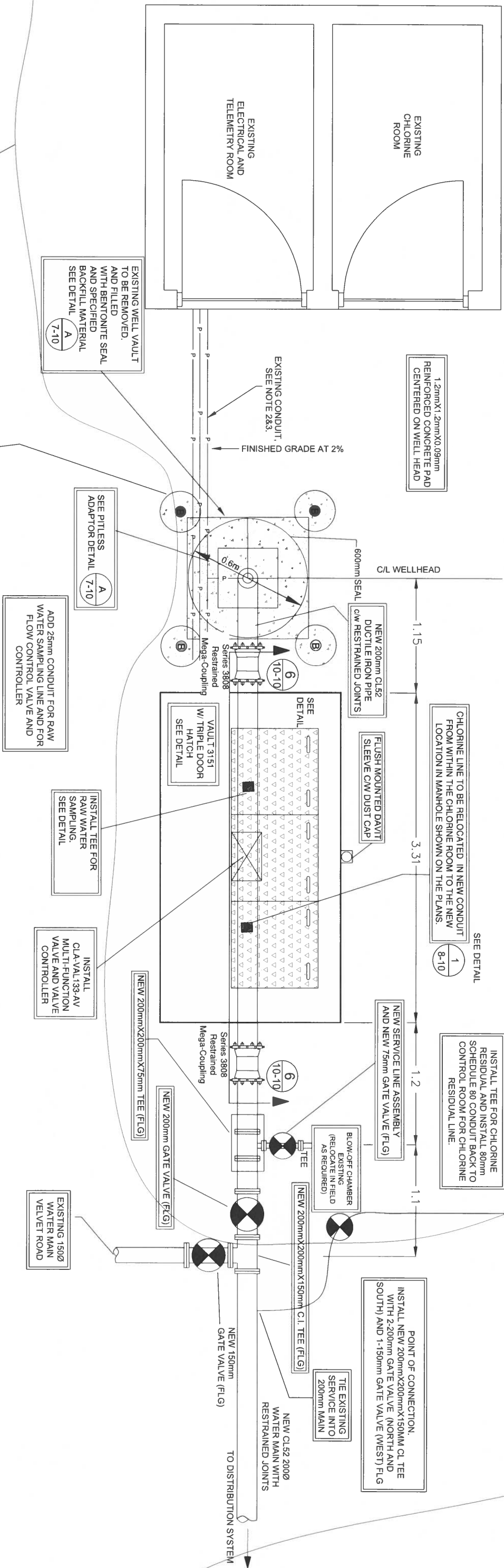
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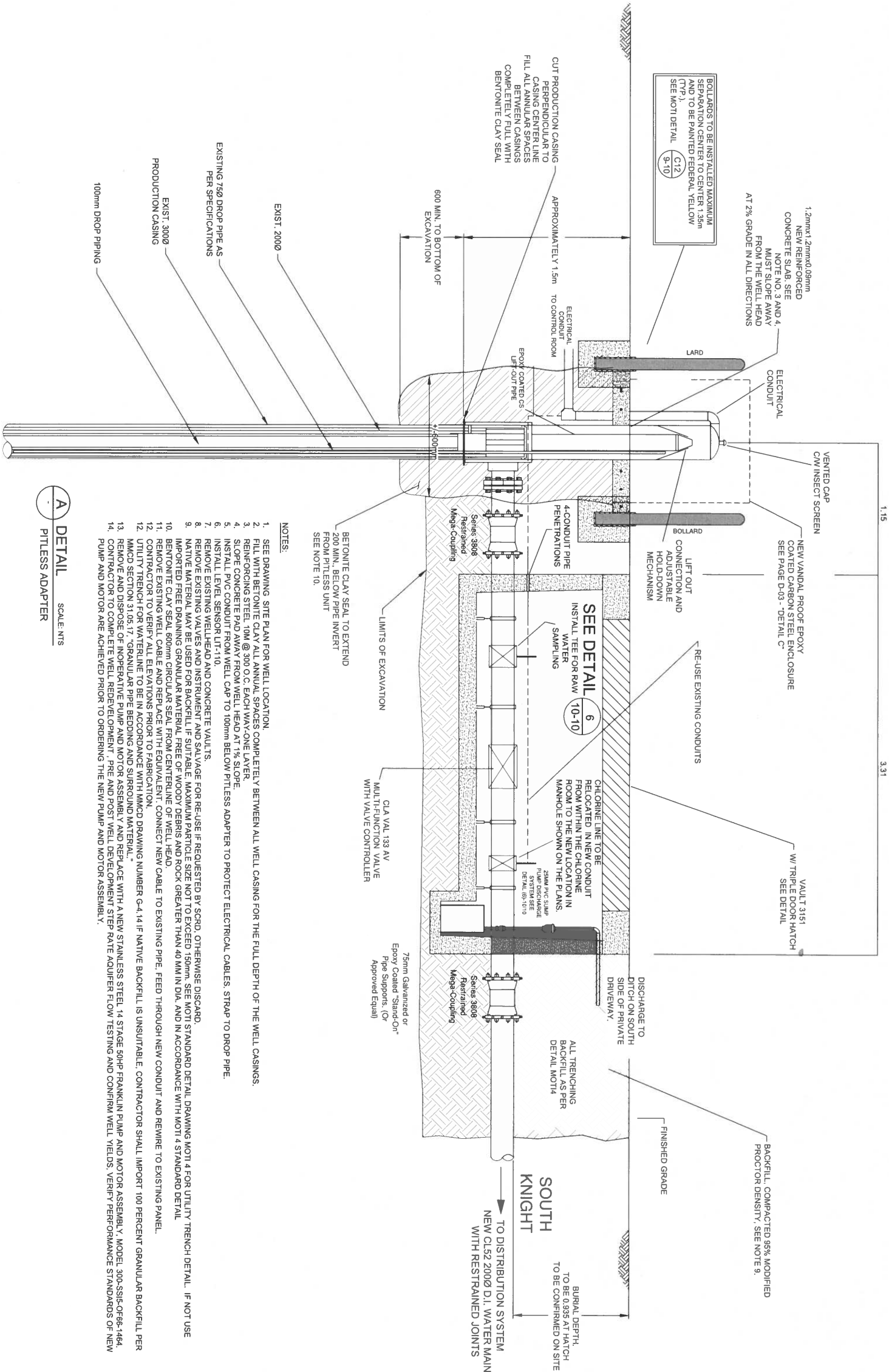
C-05

SHEET NO :

7 OF 13







NOTES:

- SEE DRAWING SITE PLAN FOR WELL LOCATION.
- FILL WITH BETONITE CLAY ALL ANNUAL SPACES COMPLETELY BETWEEN ALL WELL CASING FOR THE FULL DEPTH OF THE WELL CASINGS.
- REINFORCING STEEL, 10M @ 300 O.C. EACH WAY, ONE LAYER.
- SLOPE CONCRETE PAD AWAY FROM WELL HEAD AT 1% SLOPE.
- INSTALL P.V.C CONDUIT FROM WELL HEAD AT 1% SLOPE.
- INSTALL LEVEL SENSOR UT-110.
- REMOVE EXISTING WELL HEAD AND CONCRETE VAULTS.
- REMOVE EXISTING MANHOLE AND VALVE FOR RE-USE IF REQUESTED BY SCOD, OTHERWISE DISCARD.
- NATIVE MATERIAL MAY BE USED FOR BACKFILL OF SLAB. MAXIMUM SIZE OF T.D. SHOULD BE 19mm. SEE M01 STANDARD DETAIL DRAWING M014 FOR UTILITY TRENCH DETAIL. IF NOT USE IMPORTED FREE DRAINING GRANULAR MATERIAL FREE OF WOODY DEBRIS AND ROCK GREATER THAN 40 MM IN DIA. AND IN ACCORDANCE WITH M014 STANDARD DETAIL.
- BETONITE CLAY SEAL REMOVED FROM CENTRELINE OF WELL HEAD.
- REMOVE EXISTING WELL CABLE AND REPAIR ACE WITH EQUIVALENT. CONNECT NEW CABLE TO EXISTING PIPE. FEED THROUGH NEW CONDUIT AND REWIRE TO EXISTING PANEL.
- CONTRACTOR TO VERIFY ALL ELEVATIONS PRIOR TO FABRICATION.
- UTILITY TRENCH FOR WATERLINE TO BE IN ACCORDANCE WITH MMCD DRAWING NUMBER G-4.14 IF NATIVE BACKFILL IS UNSUITABLE. CONTRACTOR SHALL IMPORT 100 PERCENT GRANULAR BACKFILL PER MMCD SECTION 31.05.17, "GRANULAR PIPE BEDDING AND SURROUND MATERIAL."
- REMOVE AND DISPOSE OF INOPERATIVE PUMP AND MOTOR ASSEMBLY AND REPLACE WITH A NEW STAINLESS STEEL 14 STAGE 30HP FRANKLIN PUMP AND MOTOR ASSEMBLY, MODEL 300-SS15-OF86-1464, CONTRACTOR TO COMPLETE WELL REDEVELOPMENT. PRE AND POST WELL DEVELOPMENT STEP RATE ACQUIFER FLOW TESTING AND CONFIRM WELL YIELDS, VERIFY PERFORMANCE STANDARDS OF NEW PUMP AND MOTOR ARE ACHIEVED PRIOR TO ORDERING THE NEW PUMP AND MOTOR ASSEMBLY.

**A** DETAIL SCALE: NTS  
PITLESS ADAPTER

REVISIONS

R3-2 (90%)	2024-11-28
R4 (17)	2024-11-29



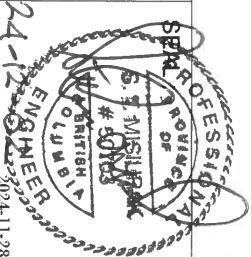
SUNSHINE COAST  
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PLOT DATE:	2024-11-29

CHASTER  
ROAD WELL  
AND PUMP  
IMPROVEMENTS

DRAWING :

WELL HEAD IMPROVEMENT  
PROFILE VIEW



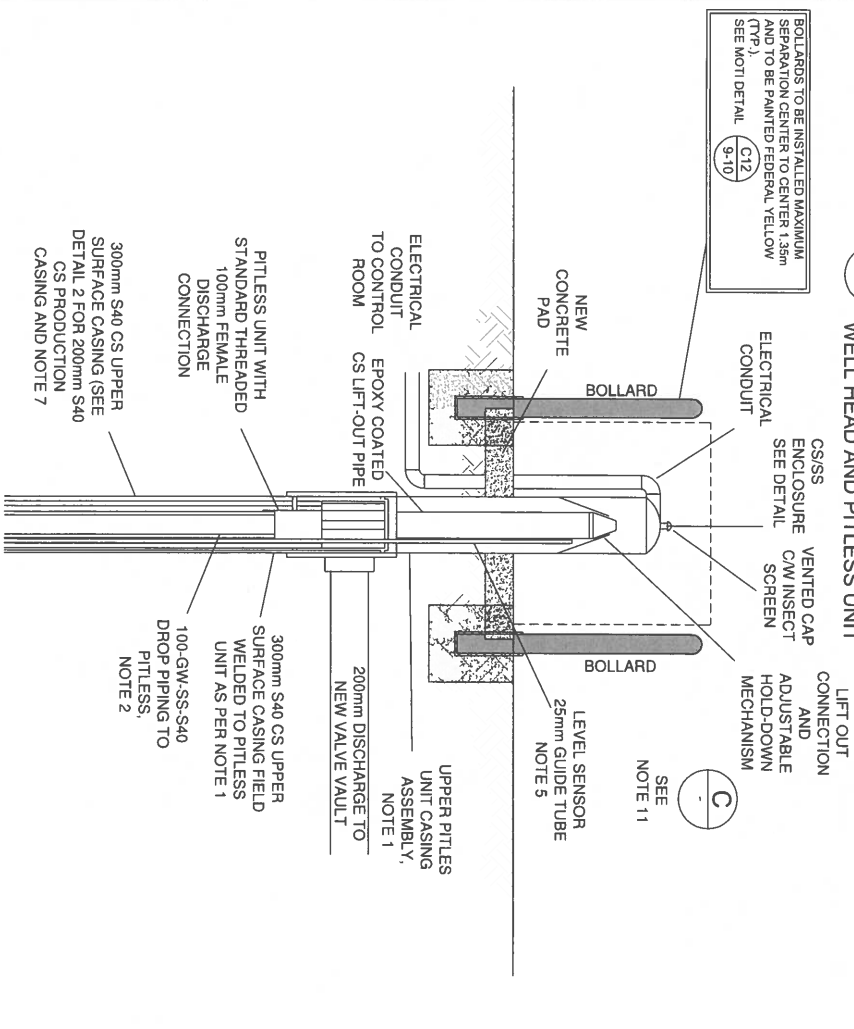
WORK ORDER NO.

DRAWING NO: C-07

SHEET NO : 9 OF 13

## **DETAIL**

## WELL HEAD AND PITLESS UNIT

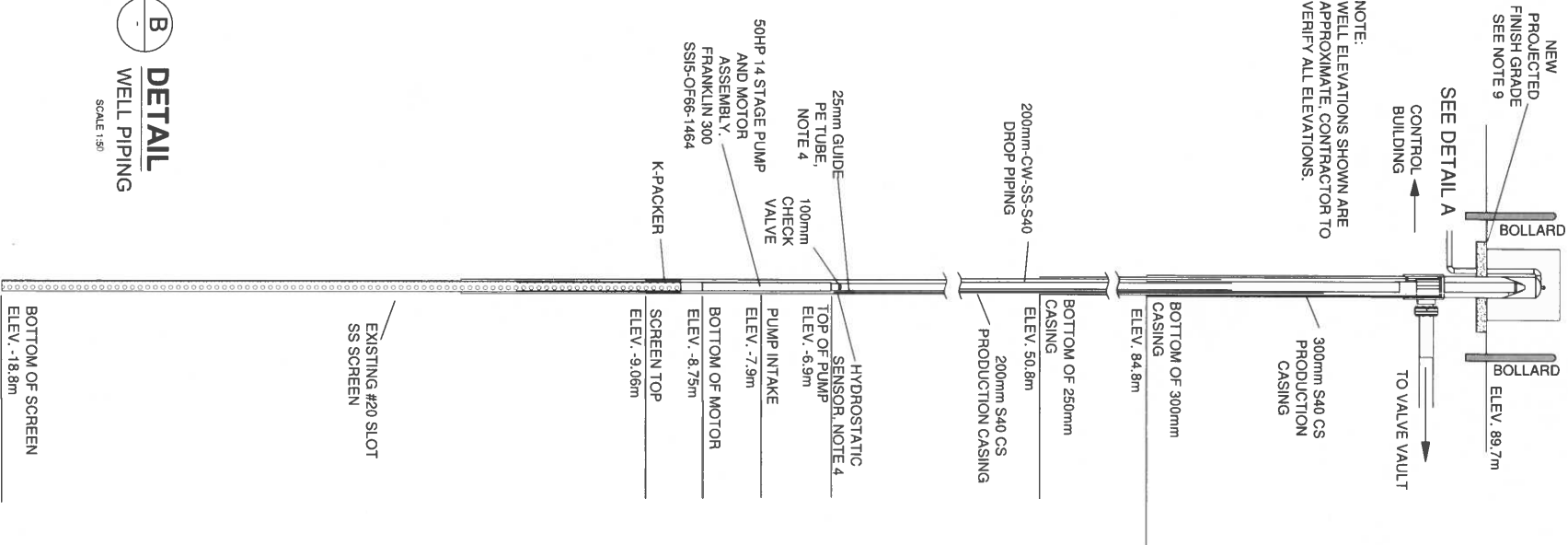


- NOTES:  
1. PROVIDE BAKER MUNICIPAL/MONITOR INDUSTRIAL STYLE PIT/LEAK UNIT SUITABLE FOR DRINKING WATER APPLICATIONS AND CARRYING THE AINSINS®1 CERTIFICATION. PROVIDE UNIT SIZED FOR 200mm WELL HEAD STICKUP ABOVE FINISHED GRADE AND A 1200mm DEPTH OF BURY TO DISCHARGE PIPE. PROVIDE UNIT WITH OPTIONAL FUSION BONDED EPOXY, SEALED CONDUIT CONNECTIONS AND LEVEL SENSOR PROBE TUBE.

1. PROVIDE UPPER PITLESS UNIT TO BE FILLET OR BUTT FIELD WELDED TO EXISTING UPPER 200mm S40 CARBON STEEL CASING. CONTRACTOR SHALL SUBMIT FIELD WELD PROCEDURE SPECIFICATION WITH THE PROPOSED PITLESS UNIT SHOP DRAWINGS SUBMITTAL.
2. DROP PIPING SHALL CONSIST OF SCHEDULE 40S TYPE 304L STAINLESS STEEL, STANDARD 6m LENGTH WITH NPT MALE THREADED ENDS. JOINTS SHALL CONSIST OF 150# FORGED THREADED COUPLINGS SEALED WITH NSF61 CERTIFIED PTFE THREADING COMPOUND.
3. PROVIDE LOW PROFILE HYDROSTATIC LEVEL TRANSDUCER SET TO THE ELEVATION INDICATED. PROVIDE SENSOR WITH A 25mm PE OR S40 PVC GUIDE TUBE AS SHOWN, ADDITIONALLY PROVIDE A LOW-LOW LEVEL FIXED POINT LEVEL. PROBE TIED TO DROP TUBE AND SET 3.0m ABOVE PUMP (NOT SHOWN IN DETAIL B).
4. PROVIDE PITLESS 100mm X 200mm ADAPTER WITH GUIDE TUBE CHANNELS. PROVIDE 25MM POLY GUIDE TUBE TO ALLOW EASY ACCESS TO THE HYDROSTATIC LEVEL SENSOR ELEMENT. PROVIDE SPARE 25mm FOR MANUAL LEVEL SOUNDING TUBE THROUGH TOP OF PITLESS ADAPTER WITH END CAP.
5. INSTALLATION OF PITLESS UNIT SHALL INCLUDE THE RESTORATION/ENLARGEMENT OF THE SURFACE SEAL IN ACCORDANCE WITH THE BC GROUNDWATER PROTECTION REGULATION.
6. MAXIMUM PUMPING OUTPUT AND CONTROL SET-POINTS WILL BE CONFIRMED DURING COMMISSIONING. THESE WILL BE SET TO ENSURE THE PUMP OPERATES WITHIN ITS ALLOWABLE OPERATING REGION (AOR) BUT ALSO ACHIEVES SUFFICIENT FLOW TO MAINTAIN MOTOR COOLING.
7. CONTRACTOR TO EXPOSE EXISTING WATER MAIN TO DETERMINE ALIGNMENT AND DEPTHS.
8. CONTRACTOR TO RAISE WELL HEAD TOP OF CASING TO BE FLUSH WITH PROJECTED FINISH GRADE OVER CENTERLINE OF WELLHEAD, WITH VAULT REMOVED.
9. CONTRACTOR TO VERIFY ALL ELEVATIONS AND DIMENSIONS FOR ALL NEW PIPING AND PITLESS ADAPTOR PRIOR TO EXCAVATION AND FABRICATION.
10. SEE MMCD STANDARD DRAWING C12 FOR REMOVABLE BOLLARD DETAIL.
11. SEE SUPPLEMENTARY SPECIFICATIONS FOR CONCRETE SLAB SPECIFICATIONS.
12. CONCRETE TO BE CLASS 3000 CP ETOCA, CONCRETE 20MPa.
13. GRADE SUBGRADE TO INSURE 2% FINISHED CROSS GRADE.

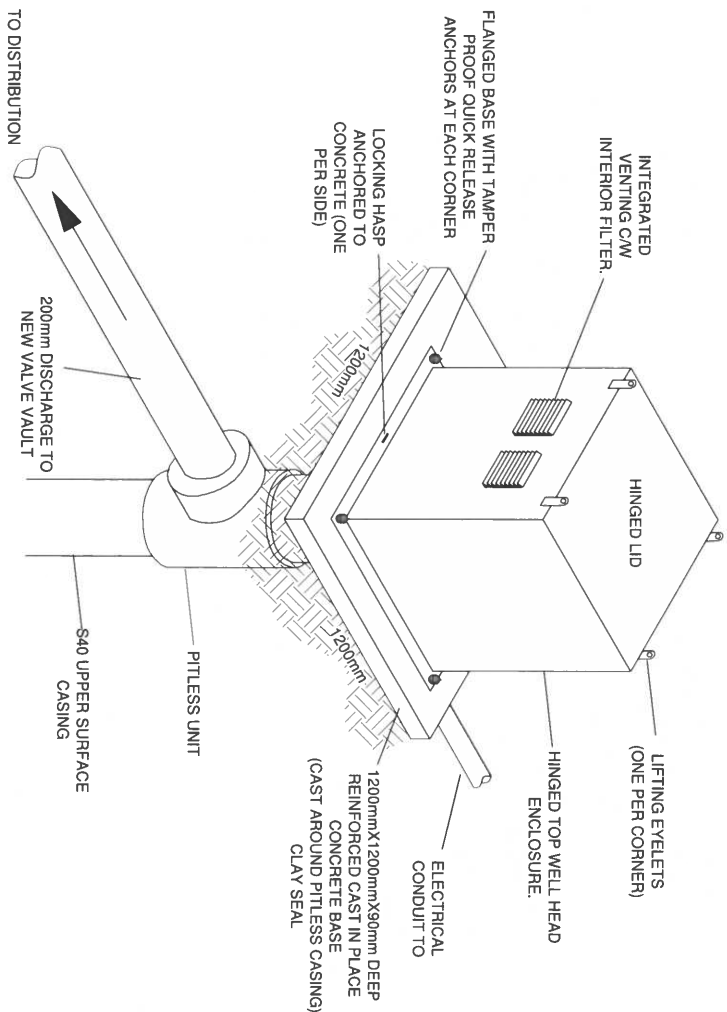
## DETAIL

## WELL PIPING



## DETAIL

WELL HEAD KIOSK



REVISIONS	
R3-2 (90%)	2024-11-28
R4 (IFT)	2024-11-29



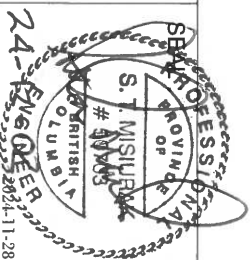
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SCALE	H n/a V n/a
PLOT DATE:	2024-11-29

# CHASTER ROAD WELL AND PUMP IMPROVEMENTS

### DRAWING :

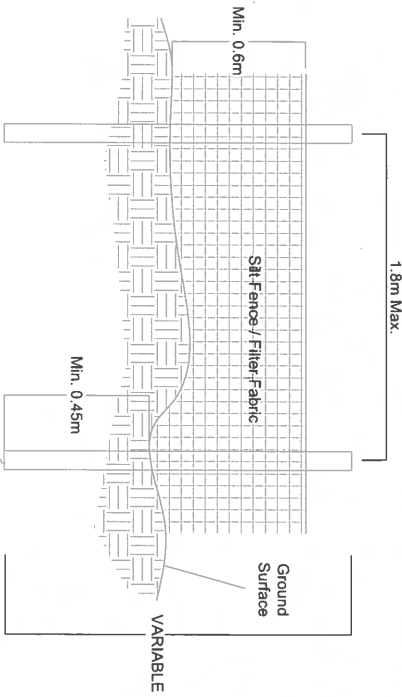
## WELL HEAD DETAILS



WORK ORDER NO. \_\_\_\_\_

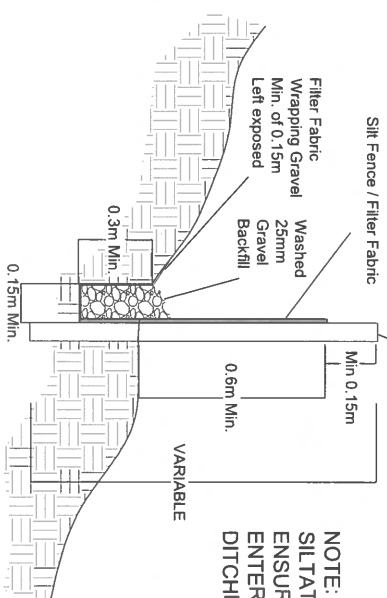
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SHEET NO : 10 OF 13

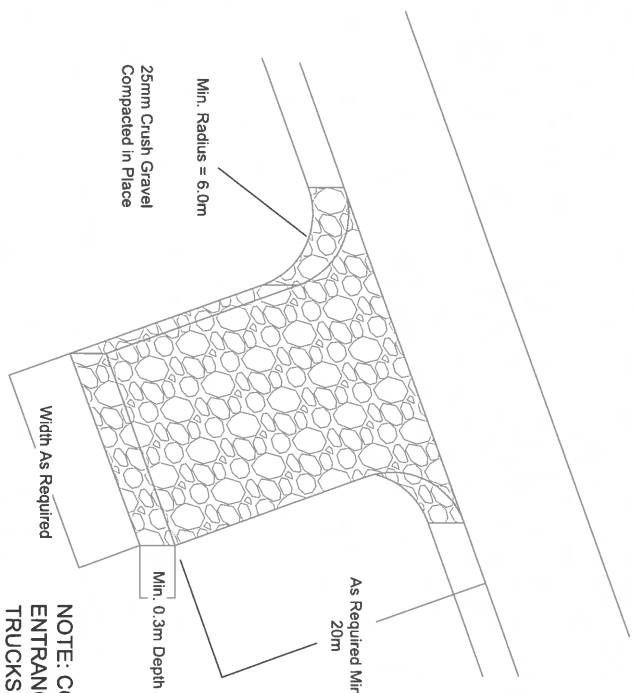


50mmx50mm  
Wood Support Posts  
Installed on the down hill side.

## 2 DETAIL FILTER FABRIC FENCE

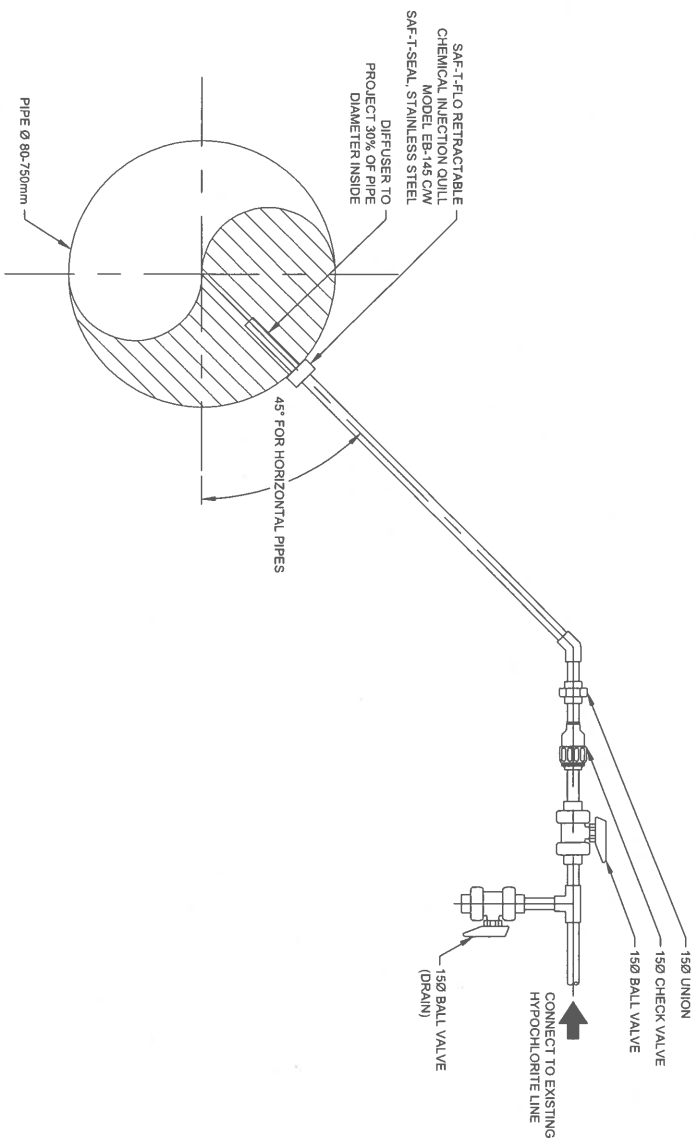


NOTE: CONSTRUCT  
SILTATION FENCE TO  
ENSURE NO SEDIMENT  
ENTERS ANY OPEN  
DITCHES.



NOTE: CONSTRUCT  
ENTRANCE FOR HAUL  
TRUCKS AND WELL RIG.

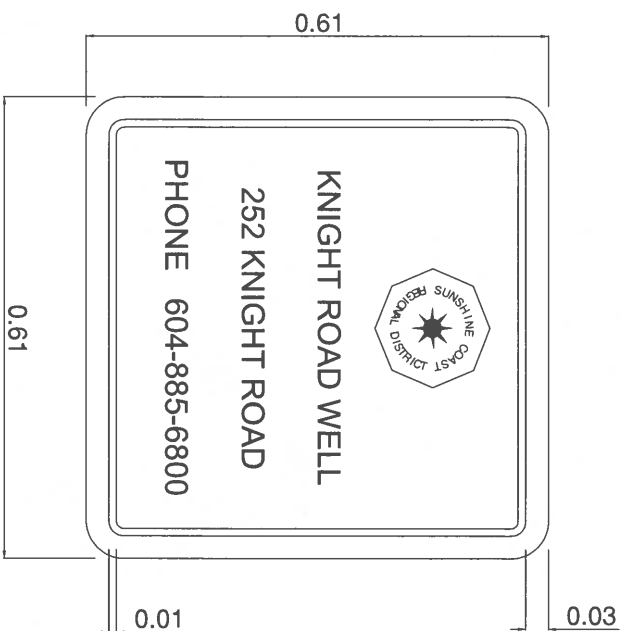
## 3 DETAIL CONSTRUCTION ENTRANCE



## 1 DETAIL

CHLORINE RESIDUAL LINE INJECTION NOZZLE (QUILL),  
SINGLE NOZZLE

## 5 DETAIL BUILDING SIGNAGE



- NOTE:
1. SIGN TO BE TYPE III RETROREFLECTIVE HIGH INTENSITY PRISMATIC SHEETING.
  2. CONTRACTOR TO SUBMIT CHECK PRINT PRIOR TO FABRICATION.
  3. BLUE LETTERING ON WHITE BACKGROUND.

### REVISIONS

R3-2 (90%)	2024-11-28
R4 (IFT)	2024-11-29



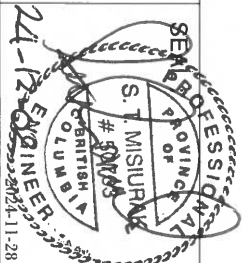
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**CHASTER  
ROAD WELL  
AND PUMP  
IMPROVEMENTS**

DRAWING :

MISCELLANEOUS DETAILS



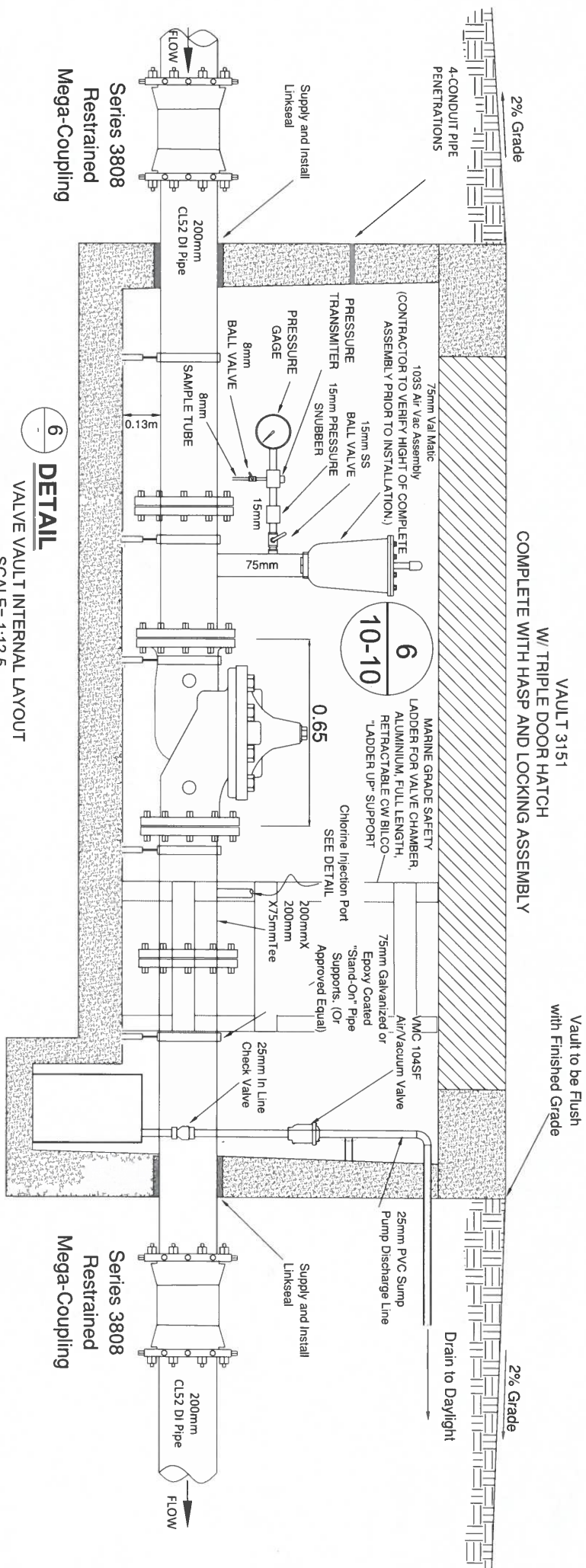
WORK ORDER NO.

DRAWING NO: D-02

SHEET NO : 11 OF 13

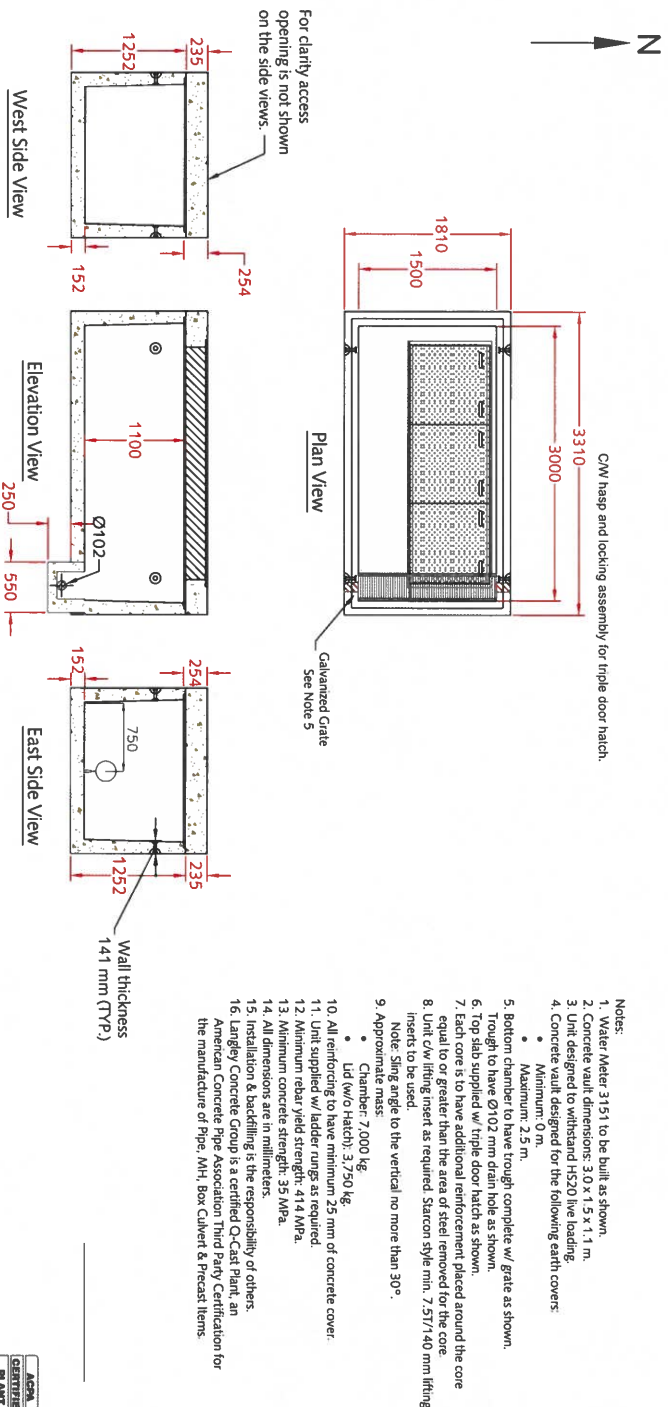






6 VALVE VAULT INTERNAL LAYOUT


SCALE= 1:12.5



7 VALVE VAULT

SCALE= NTS

\*The LCG steel access lid provided on this vault is designed for off-street locations that may occasionally receive a AASHTO H20 wheel load. This manufactured lid has been proof of design tested by applying a loading excess of 16,000 lbs over a 10' x 0.4' area plus a 30% impact factor (minimum 20,800 lbs or 9.4 kN) and the unit was found to be structurally sound for use in a road way exposed to repetitive traffic loading or vehicles traveling in speeds in excess of 10MPH\*.

 THE LANGLEY CONCRETE GROUP LANGLEY (604) 533-1656 VICTORIA (250) 478-9581 CHILLIWACK 1-800-667-9600	DESCRIPTION: Vault 3151 w/ Triple Door Hatch www.langleyconcretegroup.com	
	DRAWN BY: KS	ORIGIN: CHWK
	CHK BY: N/A	DRAWING NO: V3151-Triple Door
	DATE: SEP/04/2013	LC JOB NO: N/A
	SCALE: 1:50	REV: N/A

REVISIONS	
R3-2 (90%)	2024-11-28
R4 (IFT)	2024-11-29

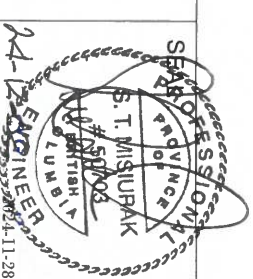


SUNSHINE COAST  
REGIONAL DISTRICT  
INFRASTRUCTURE DEPARTMENT  
PERMIT TO PRACTICE No. 1003260  
1975 Field Road  
Sechelt, BC V0N 3A1  
Ph: 604-885-6800 1-800-687-5753 Fax: 604-885-7909

DESIGNED BY:	SM
DRAWN BY:	JM/MM
CHECKED BY:	MO
APPROVED BY:	SM
SCALE	H n/a V n/a
PLOT DATE:	2024-11-29

CHASTER  
ROAD WELL  
AND PUMP  
IMPROVEMENTS

DRAWING :  
VALVE VAULT DETAILS



WORK ORDER NO.	
DRAWING NO:	D-04
SHEET NO :	13 OF 13