

NOTES:

1. LETTERING SHALL BE 25mm FLATTENED FACE GOTHIC LETTERING WITH FACE OF LETTERS RAISED TO THE SAME LEVEL AS THE TOP OF THE RIBS.
2. BOTH FRAME AND COVER SHALL BE MACHINED FOR A NONROCKING FIT IN ALL POSITIONS.
3. ALTERNATES TO THE DOBNEY C-18 SHOWN ABOVE ARE ANY, DIMENSIONALLY SIMILAR APPROVED COVER AND FRAME.
4. CARRIAGE BOLTS SHALL BE LOOSELY FITTED INTO THE COVER'S LIFTING PORTS.

MANHOLE FRAME AND COVER



CITY OF CHILLIWACK

REVISED:

APPROVED:

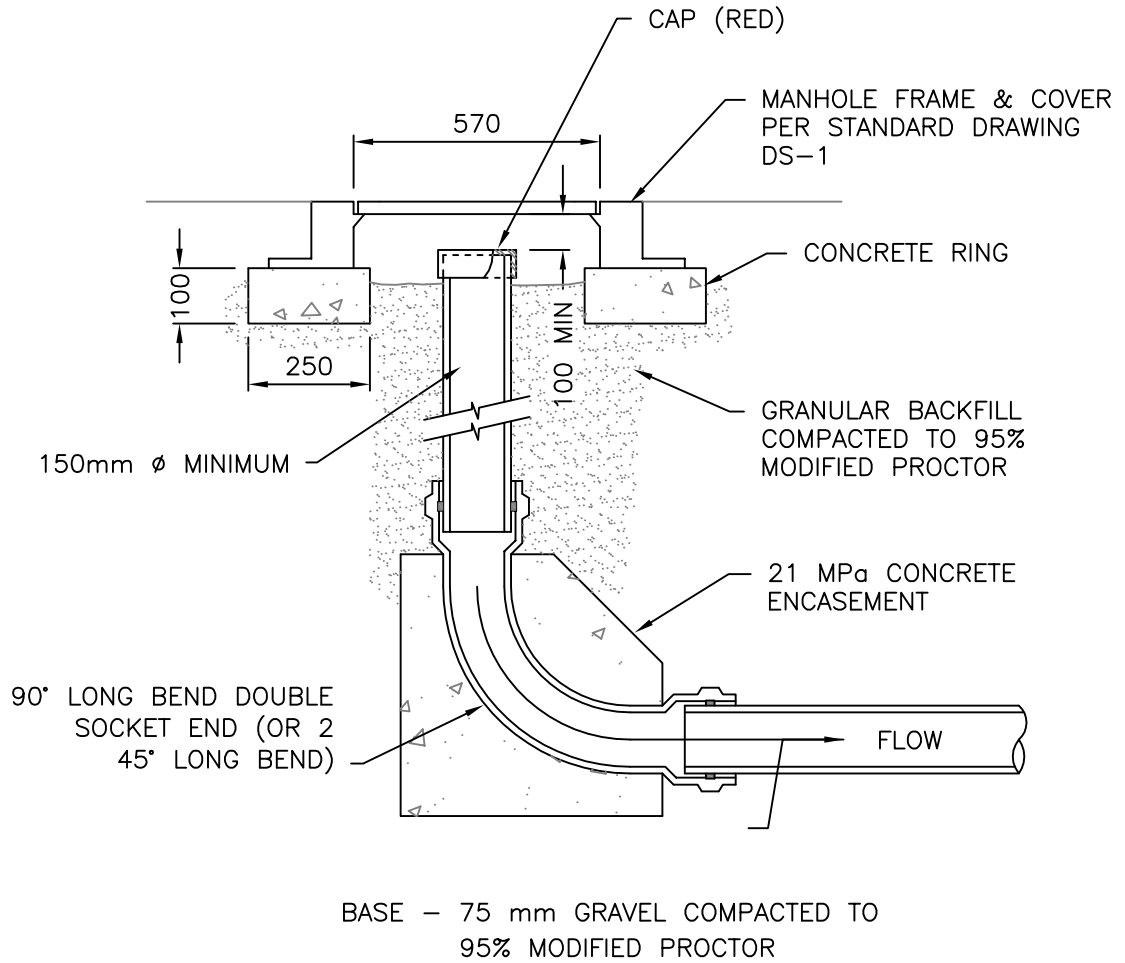
APPROVED:

DWG. NO.

DATE: FEB. 2002

DS-1

DRAWN: THJ



1. MAXIMUM DEPTH 2.0 m
2. MINIMUM DEPTH 1.0 m
3. APPLICABLE ONLY FOR SANITARY TERMINAL LINES, TEMPORARY USE ONLY

SANITARY SEWER CLEANOUT (TEMPORARY)



CITY OF CHILLIWACK

REVISED:

APPROVED:

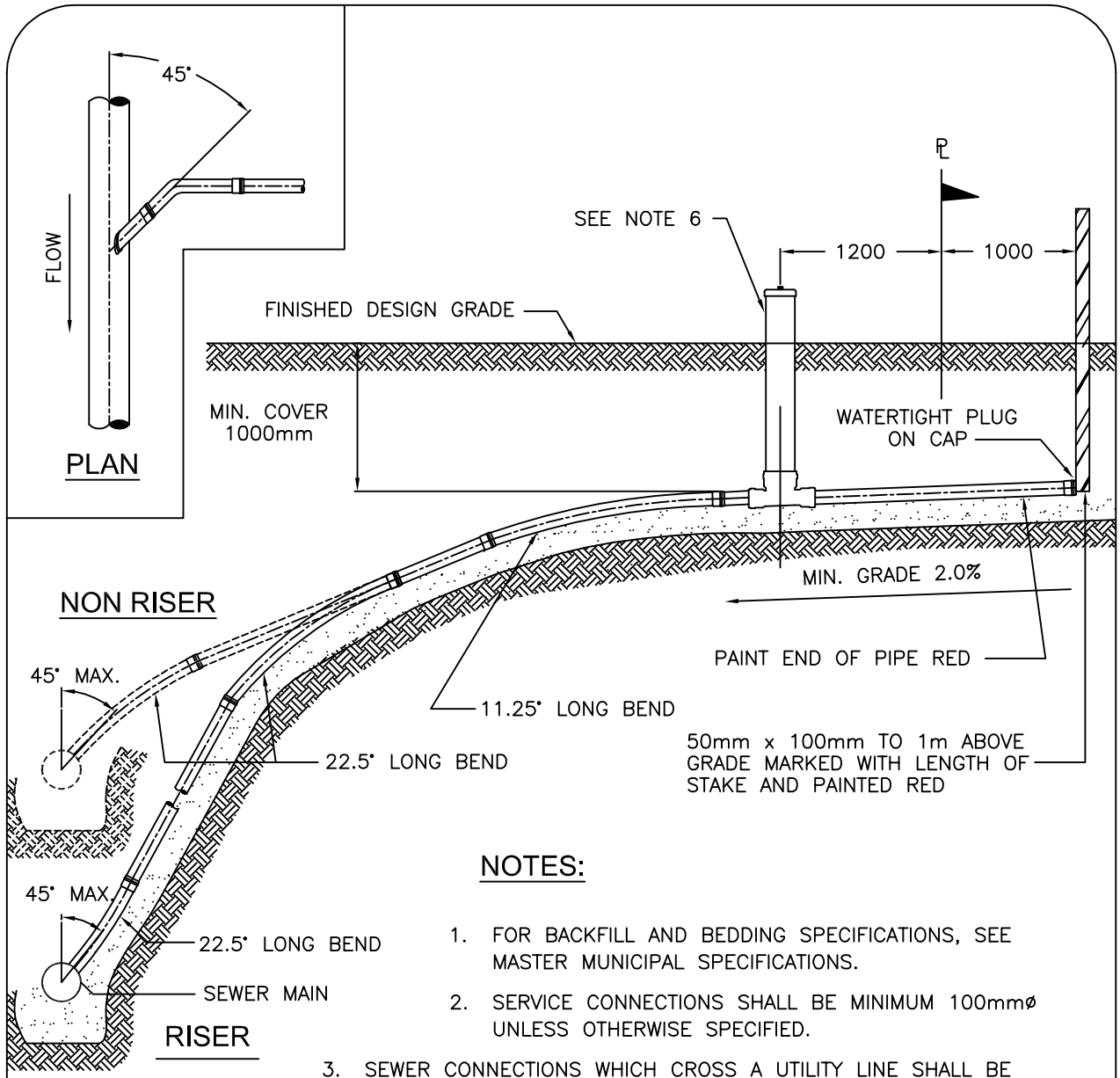
APPROVED:

DWG. NO.

DATE: FEB. 2002

DS-2

DRAWN: THJ



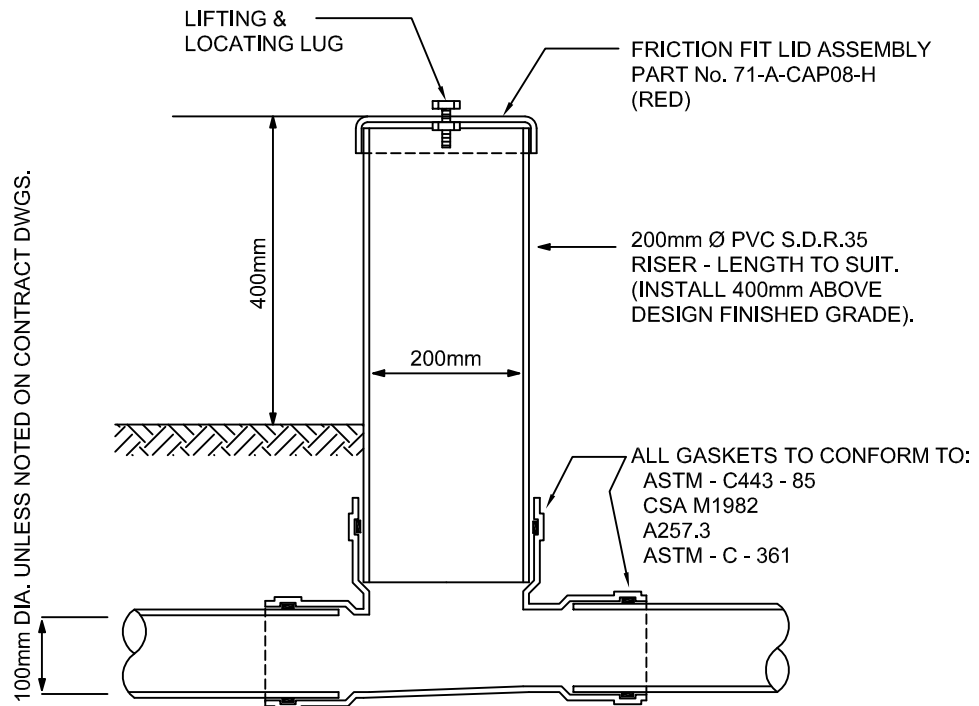
NOTES:

1. FOR BACKFILL AND BEDDING SPECIFICATIONS, SEE MASTER MUNICIPAL SPECIFICATIONS.
2. SERVICE CONNECTIONS SHALL BE MINIMUM 100mm ϕ UNLESS OTHERWISE SPECIFIED.
3. SEWER CONNECTIONS WHICH CROSS A UTILITY LINE SHALL BE SEPARATED BY AT LEAST 150mm OR OTHER APPROVED MEANS.
4. RISER TYPE SERVICE TO BE USED ONLY WHERE SERVICE IS GREATER THAN 2.5m ABOVE THE WYE INVERT OR WHERE APPROVED BY THE ENGINEER.
5. MANUFACTURED WYES ONLY.
6. SEE STANDARD DRAWING DS-4 FOR INSPECTION CHAMBER STANDARD AND DRIVEWAY INSTALLATION SPECIFICATIONS.
7. IN ALL URBAN AREAS WITH NEW CONCRETE CURB & GUTTER, THE LOCATION OF THE SANITARY SEWER SERVICE SHALL BE CLEARLY IDENTIFIED WITH THE LETTER 'S' ON THE FACE OF THE CURBING. THE LETTER IS TO BE 50mm HIGH PERMANENTLY AND CLEARLY CAST INTO THE CONCRETE AT TIME OF POURING. IN AREAS OF EXISTING CONCRETE CURBING, THE SERVICE LOCATION SHALL BE IDENTIFIED WITH A 6mm DEEP SAW CUT PAINTED RED ON THE TOP FACE OF THE EXISTING CURB.

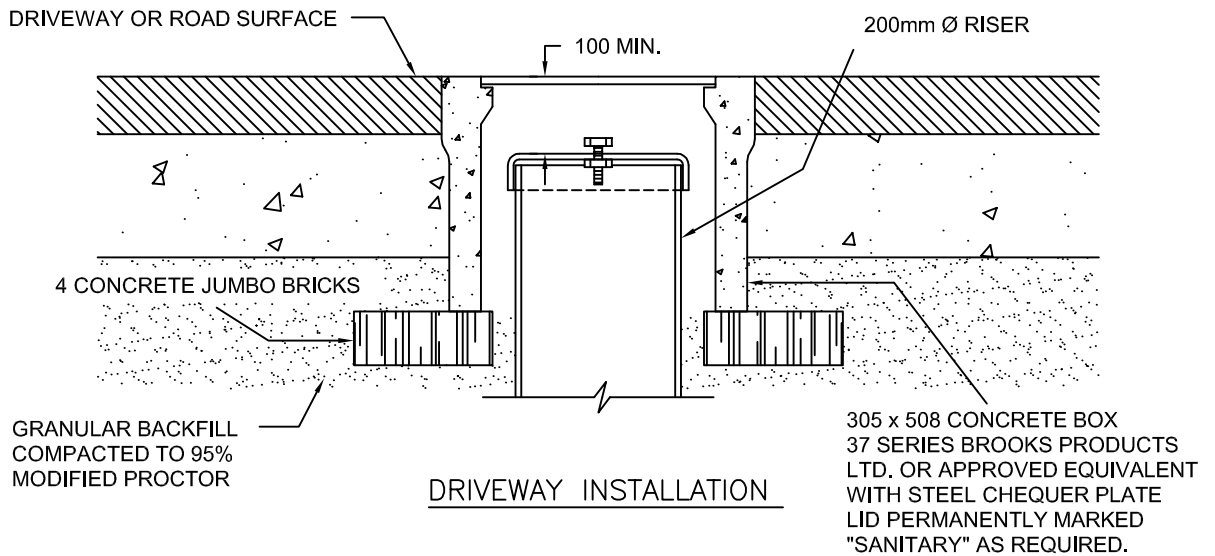
SANITARY SEWER SERVICE CONNECTION



REVISED: 03/12	APPROVED:	
APPROVED:	DWG. NO.	
DATE: 06/94	DS-3	
DRAWN: SEH		



STANDARD INSTALLATION



DRIVEWAY INSTALLATION

NOTES:

1. INSPECTION CHAMBER LERON PLASTICS No. 70A4W/OPAF (SINGLE)/70A44W/OP (DOUBLE) OR APPROVED EQUAL.
2. MINIMUM DEPTH 1.0m FROM DESIGNED FINAL GRADE.
3. MAXIMUM DEPTH 1.2m FROM DESIGNED FINAL GRADE.

INSPECTION CHAMBER FOR 100mm
SANITARY SEWER CONNECTION



**CITY OF
CHILLIWACK**

REVISED:

APPROVED:

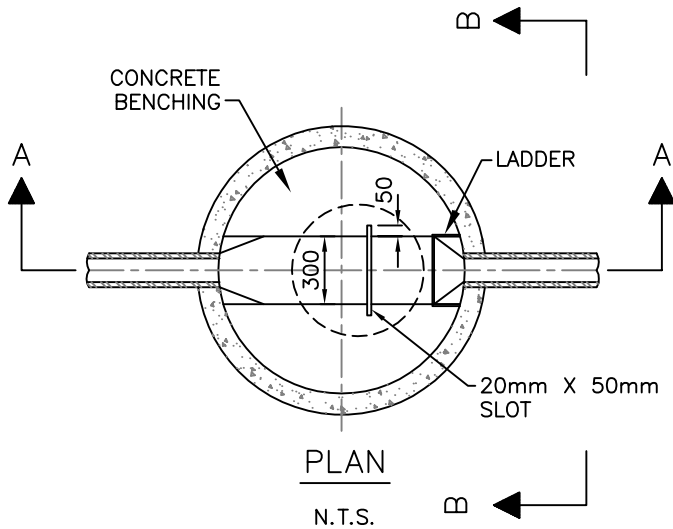
APPROVED:

DWG. NO.

DATE: 06/94

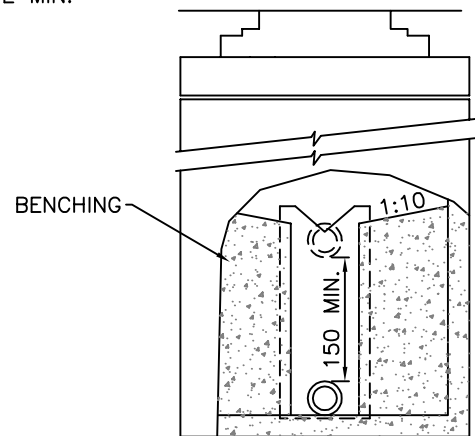
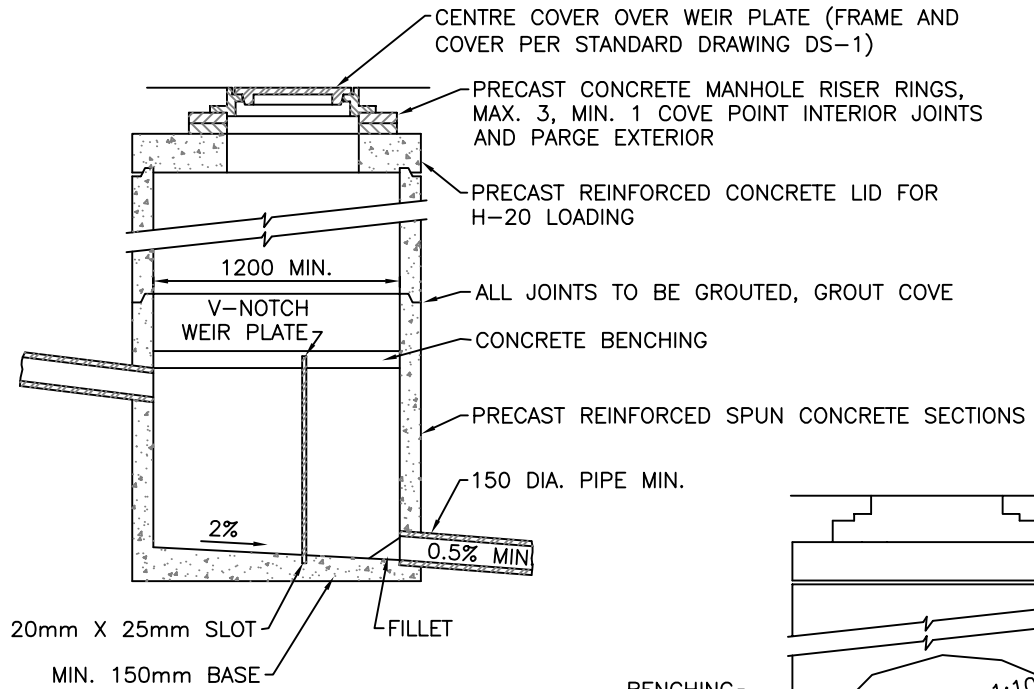
DS-4

DRAWN: SEH



NOTES :

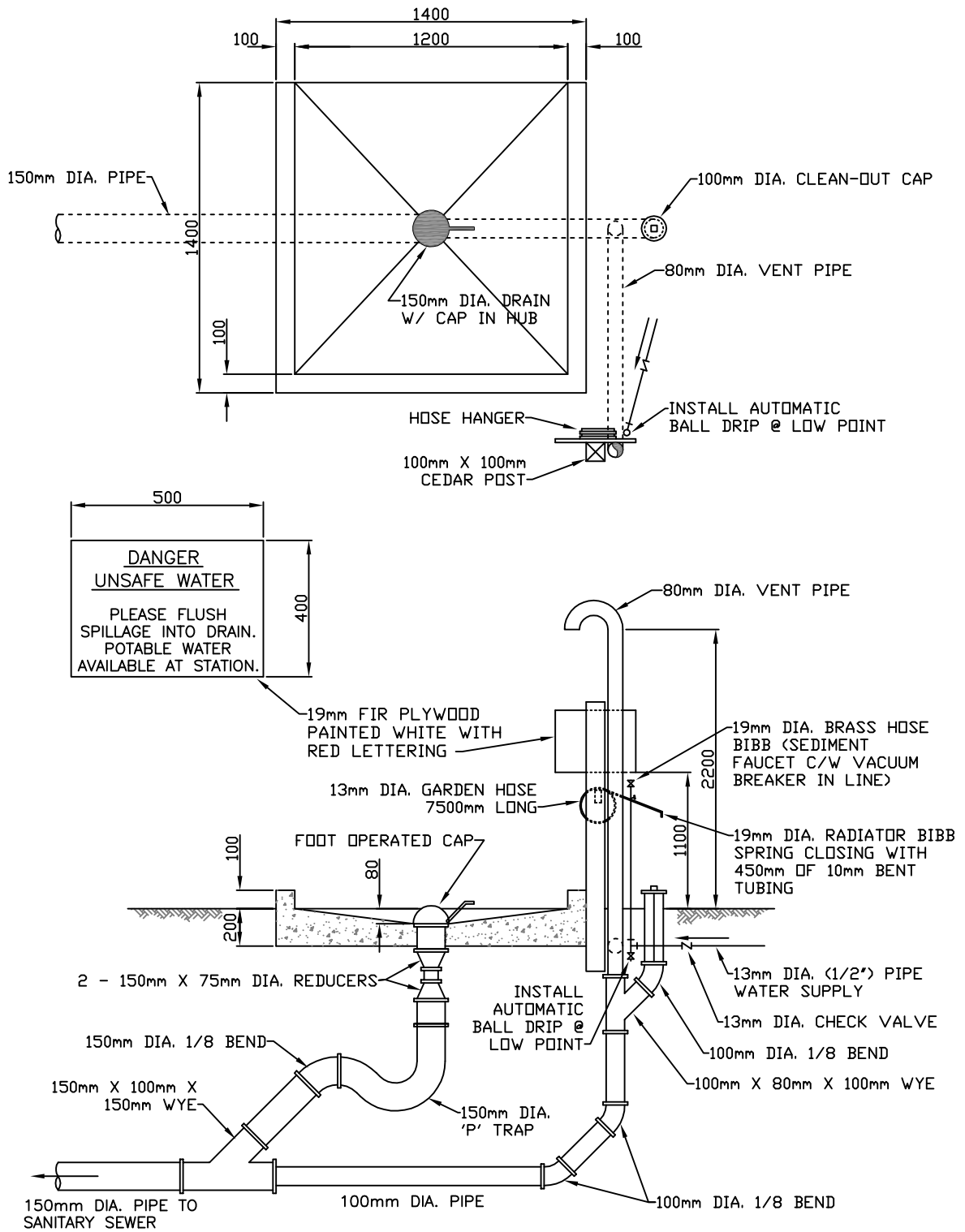
1. 20mm DIA. RUNGS
2. VINYL MANHOLE SEAL OR EQUIVALENT (DENSOTAPE OR SANDED NIPPLES) REQUIRED FOR P.V.C. PIPE



CONTROL MANHOLE



REVISED: 11/13	APPROVED:
APPROVED:	DWG. NO.
DATE: 03/02	DS-5
DRAWN: THJ	



SANI-DUMP



CITY OF CHILLIWACK

REVISED:

APPROVED:

APPROVED:

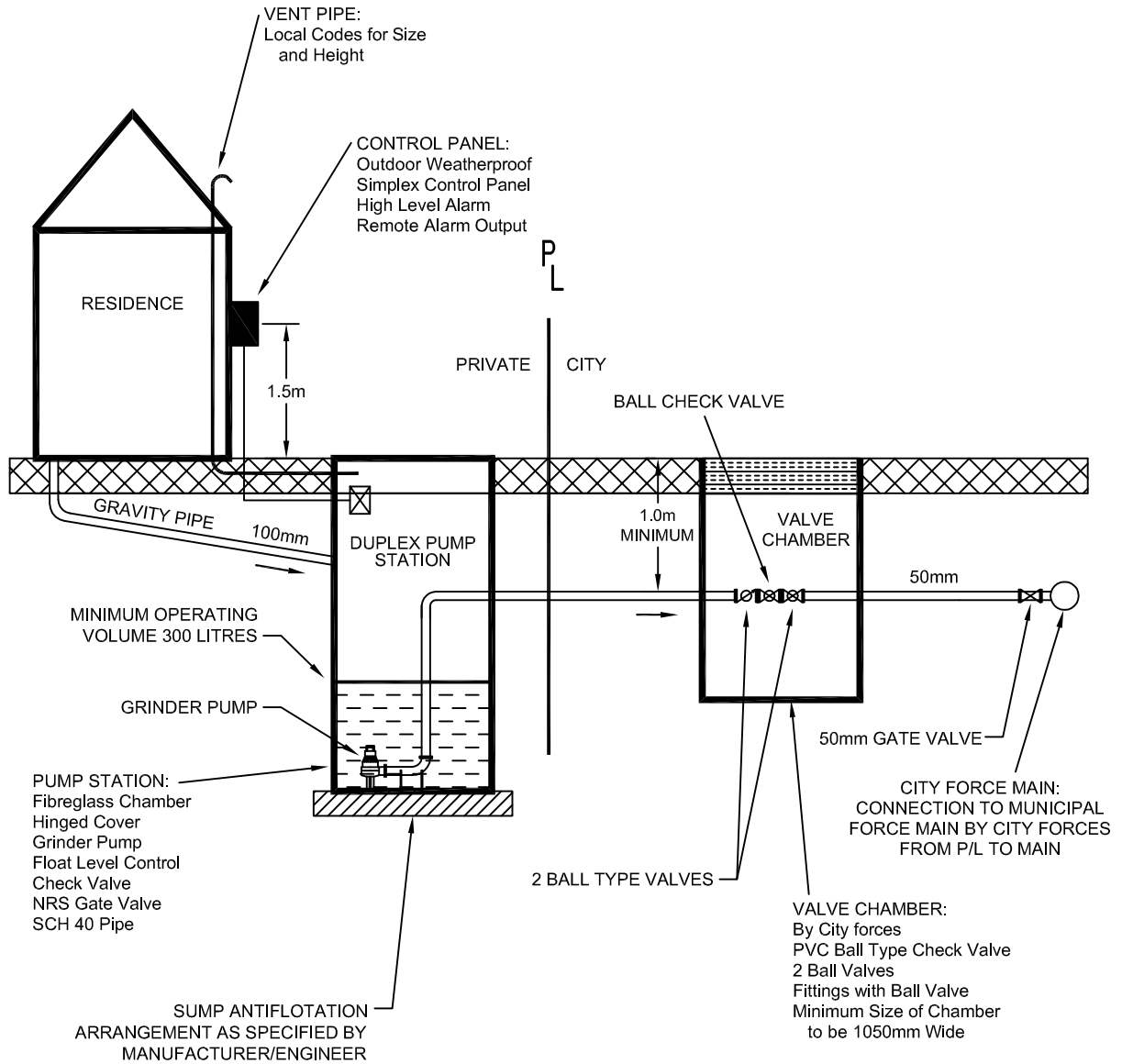
DWG. NO.

DATE: FEB. 2002

DS-6

DRAWN: THJ

SCHEMATIC DESIGN ONLY



NOT TO SCALE

TYPICAL SANITARY FORCE MAIN SERVICE CONNECTION



CITY OF CHILLIWACK

REVISED: 08/13

APPROVED: DL

APPROVED:

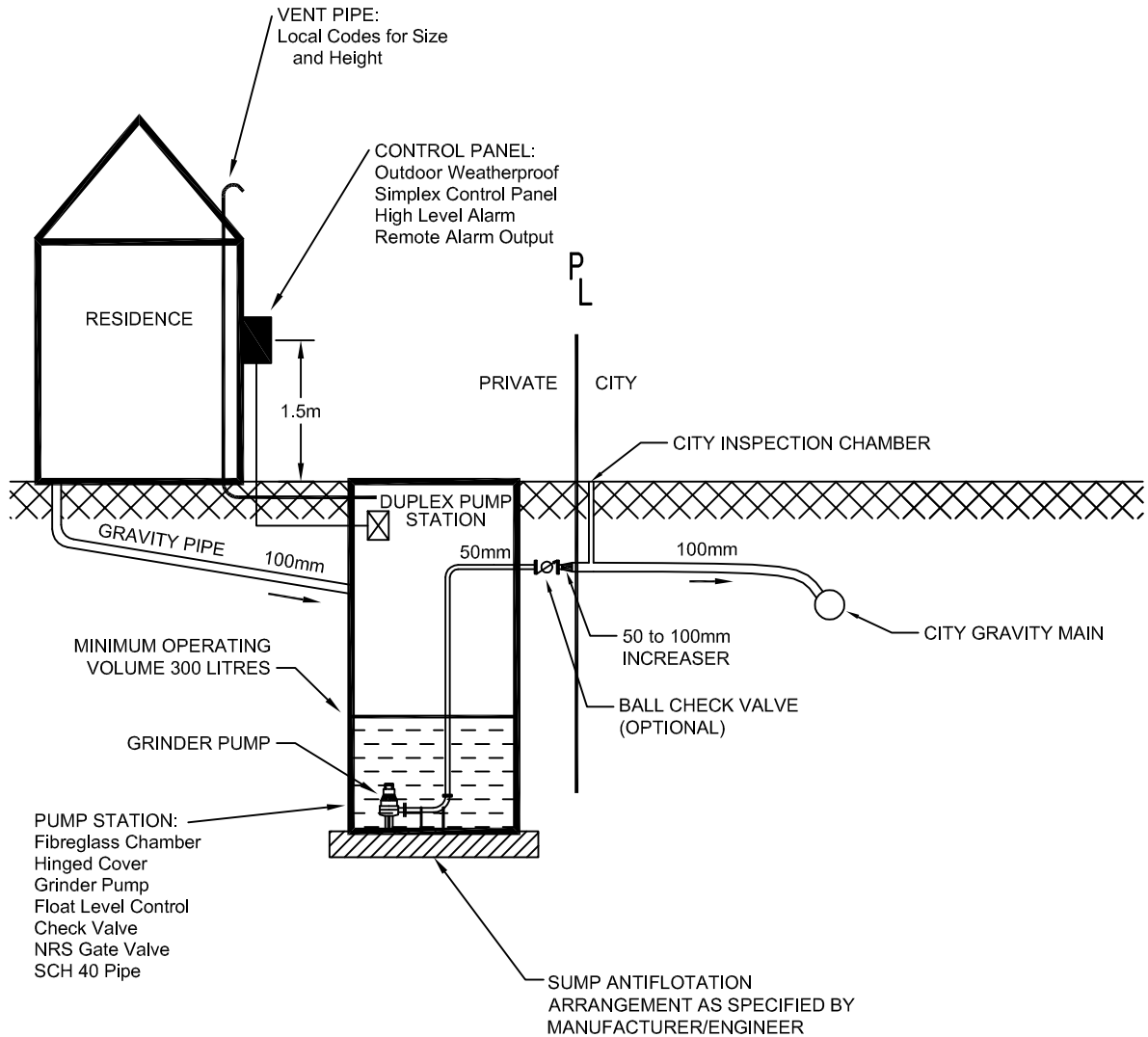
DWG. NO.

DATE: 06/00

DS-7

DRAWN: SEH

SCHEMATIC DESIGN ONLY



* Can be installed inside existing septic tank with limitations. Existing septic system discharge lines to be physically disconnected from tank. Any remaining tank volume to be backfilled with sand or gravel.

NOT TO SCALE

TYPICAL RESIDENTIAL SANITARY PUMP STATION FOR GRAVITY SEWER CONNECTION



**CITY OF
CHILLIWACK**

REVISED: 11/13

APPROVED: CN

APPROVED:

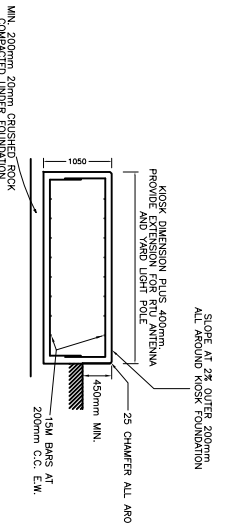
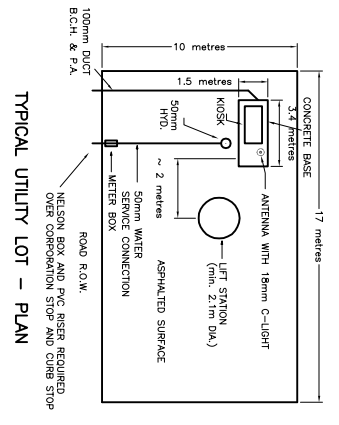
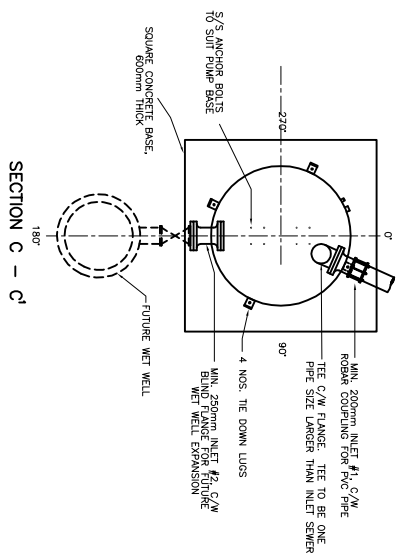
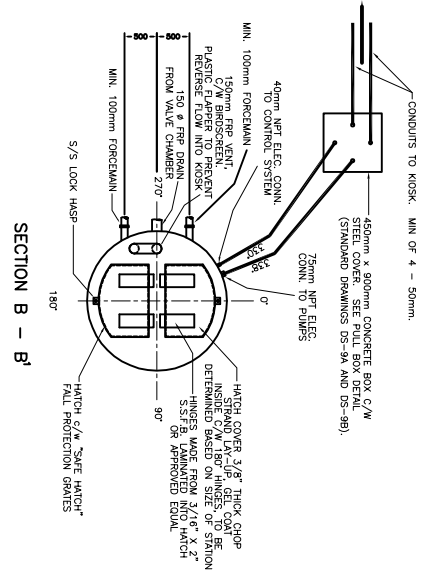
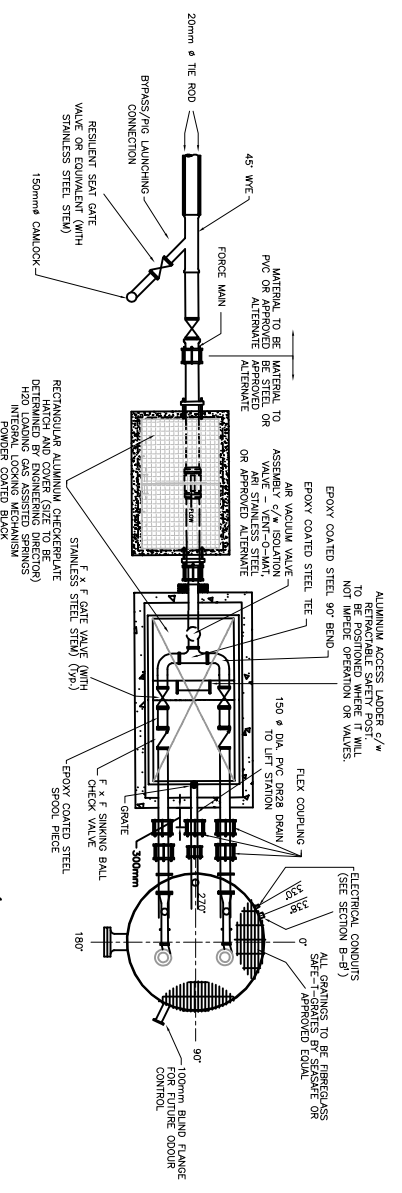
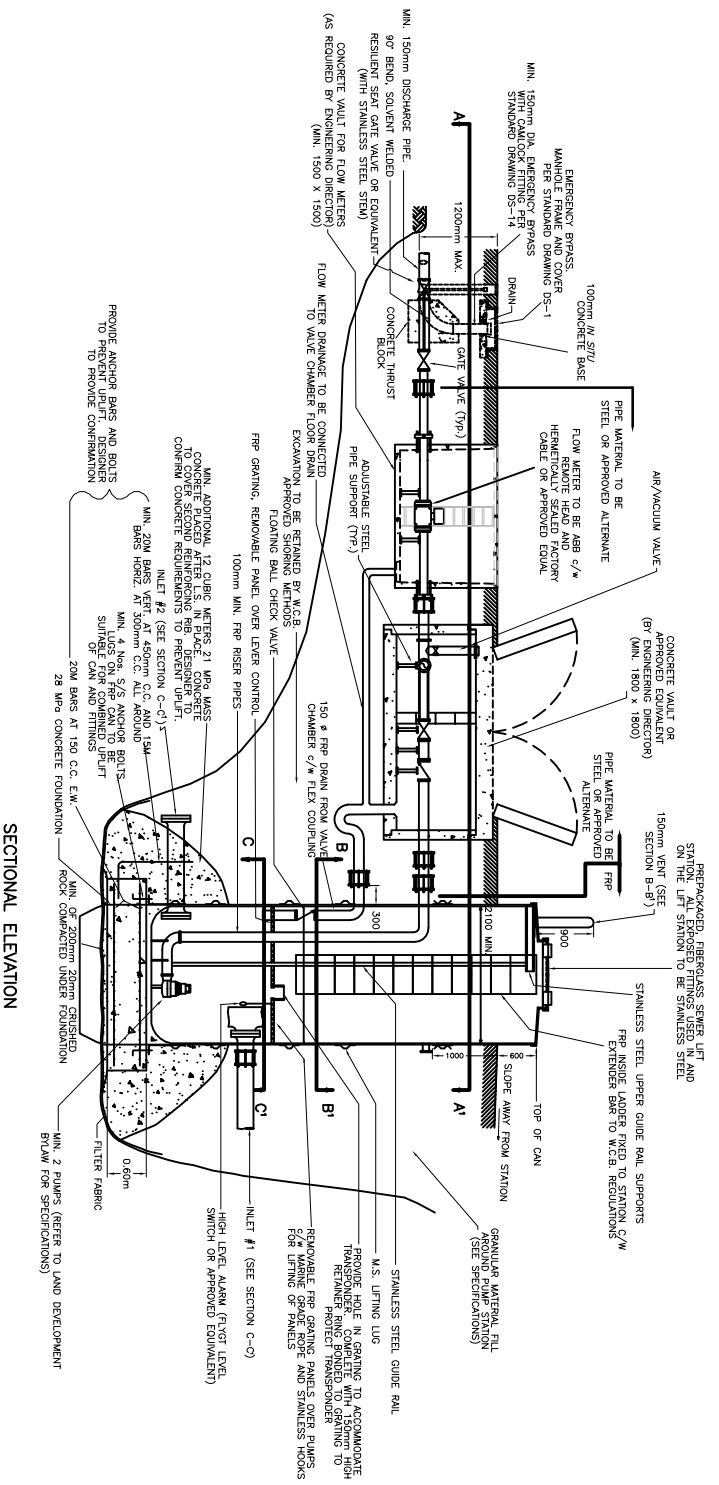
DWG. NO.

DATE: 11/10

DS-8

DRAWN: SEH

NOTE: ALL PARTS INSIDE WET WELL TO BE STAINLESS STEEL (NUTS, BOLTS, ETC.)



DATE	REVISIONS	BY	APPR.
12/03/07	REVISIONS PER CITY OF CHILLIWACK	SEH	COG
12/02/23	REVISIONS PER CITY OF CHILLIWACK	SEH	COG
10/08/25	REVISIONS PER CITY OF CHILLIWACK	SEH	COG
09/12/11	REVISIONS PER SANDY HAMILTON	SEH	SH
09/07/21	REVISIONS PER CITY OF CHILLIWACK	SEH	SH/SH/CH
04/03/13	REVISIONS FROM ERIC DYCK, WPCO	SEH	AR
03/04/09	DWG NO. UTILITY LOT PAD SIZE	SEH	AR
04/03/13	REVISIONS PER LARRY STORER, ROBERT WOLF	SEH	LS/RM
04/08/21	REVISIONS PER LARRY STORER, ROBERT WOLF	SEH	LS/RM
04/08/21	REVISIONS PER DAVID BEAN, GLEN WACHSBERG, LARRY STORER	SEH	SB/SW/CH
09/04/09	REVISIONS PER CITY OF CHILLIWACK	SEH	SH/SH/CH

DATE	REVISIONS	BY	APPR.
04/03/13	REVISIONS FROM ERIC DYCK, WPCO	SEH	AR
03/04/09	DWG NO. UTILITY LOT PAD SIZE	SEH	AR
04/03/13	REVISIONS PER LARRY STORER, ROBERT WOLF	SEH	LS/RM
04/08/21	REVISIONS PER LARRY STORER, ROBERT WOLF	SEH	LS/RM
04/08/21	REVISIONS PER DAVID BEAN, GLEN WACHSBERG, LARRY STORER	SEH	SB/SW/CH
09/04/09	REVISIONS PER CITY OF CHILLIWACK	SEH	SH/SH/CH

DESIGNED	AR
DRAWN	SEH 05/94
CHECKED	AR
DATE	JUNE 30, 1994
HORIZ.	
VERT.	



CITY OF CHILLIWACK

SEWAGE LIFT STATION

DWG. NO. DS-9

NOT FOR CONSTRUCTION

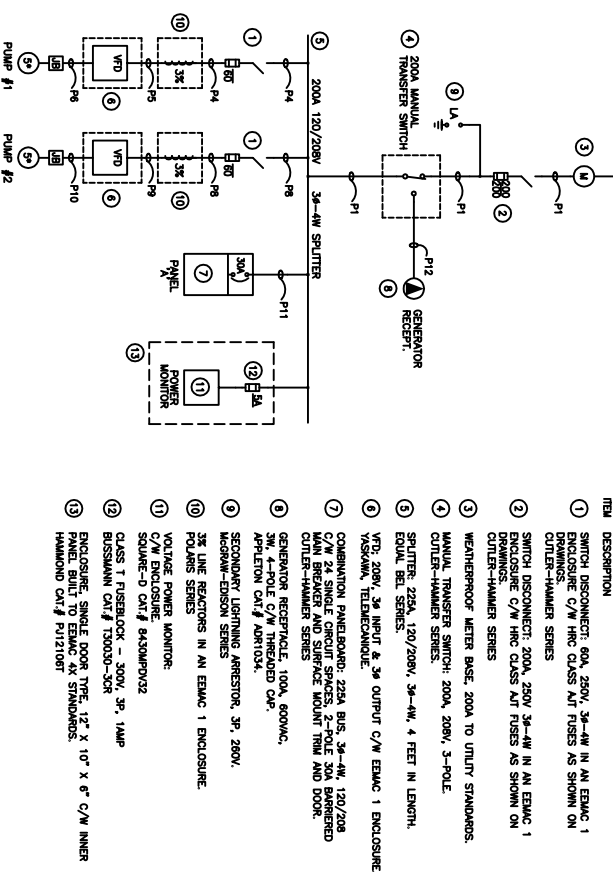
NOTE: THIS DRAWING IS PROVIDED TO DEFINE CITY OF CHILLIWACK MINIMUM REQUIREMENTS. LAYOUT AND DETAILS TO BE CONFIRMED DURING DETAILED DESIGN.

NOTE: 1. DETAILS/REVISIONS ARE TYPICAL. SPECIFIC DETAILS/ELEVATIONS ARE REQUIRED FOR SUBMISSION. 2. ALL FASTENERS AND FITTINGS TO BE STAINLESS STEEL. 3. REVIEW BALL CHECK VALVE OPERATION. THE DOWN HEAD IS DESIGNED TO BE OPENED BY THE LIFT STATION. 4. REFER TO THE LAND DEVELOPMENT BYLAW FOR PUMP AND WET WELL SIZING REQUIREMENTS.

NOTE: THE WET WELL TO BE LOCATED AT THE CONTROL SIDE OF KIOSK (SUBJECT TO ENGINEER'S APPROVAL).

PROVIDE THE FOLLOWING TYPICAL NOTES FOR KIOSK FOUNDATION:
 1 - 50mm x 50mm x 100mm concrete pad for antenna
 2 - 50mm x 50mm x 100mm concrete pad for lift station
 3 - 50mm x 50mm x 100mm concrete pad for meter box
 4 - 40mm x 40mm x 100mm concrete pad for antenna from kiosk
 5 - 40mm x 40mm x 100mm concrete pad for antenna from kiosk
 6 - UNDER LAMP POST TOWER FROM KIOSK TO WET WELL
 7 - UNDER LAMP POST TOWER FROM KIOSK TO WET WELL
 8 - UNDER LAMP POST OPENING FOR GROUND ROD

B.C. HYDRO 120/208V, 3Φ-4W UNDERGROUND SERVICE

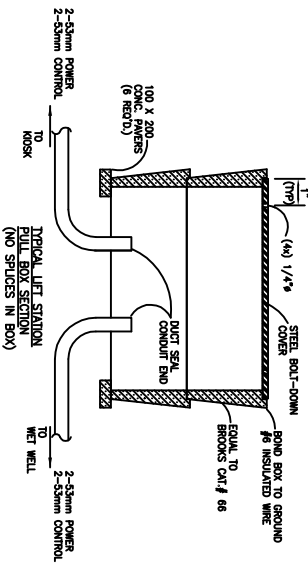
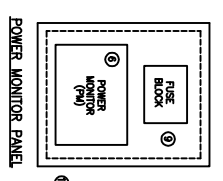
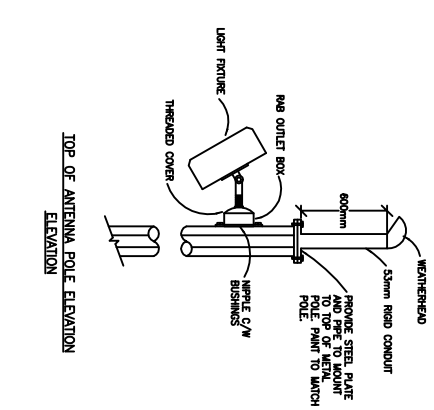
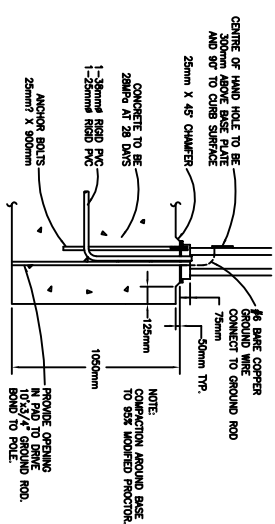


- DISTRIBUTION BILL OF MATERIAL
- | ITEM | DESCRIPTION |
|------|--|
| 1 | SWITCH DISCONNECT 60A, 250V, 3Φ-4W IN AN EIMC 1 ENCLOSURE C/W HRC CLASS AIR FUSES AS SHOWN ON DRAWINGS. |
| 2 | SWITCH DISCONNECT 200A, 250V 3Φ-4W IN AN EIMC 1 ENCLOSURE C/W HRC CLASS AIR FUSES AS SHOWN ON DRAWINGS-HAMMER SERIES |
| 3 | WEATHERPROOF WATER BASE, 200A TO UNLTY STANDARDS, CUTLER-HAMMER SERIES |
| 4 | WEATHERPROOF WATER BASE, 200A TO UNLTY STANDARDS, CUTLER-HAMMER SERIES |
| 5 | WEATHERPROOF WATER BASE, 200A TO UNLTY STANDARDS, CUTLER-HAMMER SERIES |
| 6 | WEATHERPROOF WATER BASE, 200A TO UNLTY STANDARDS, CUTLER-HAMMER SERIES |
| 7 | GENERATOR RECEPTACLE, 100A, 600VAC, 3Φ, 4-POLE C/W THREADED CAP. |
| 8 | GENERATOR RECEPTACLE, 100A, 600VAC, 3Φ, 4-POLE C/W THREADED CAP. |
| 9 | SECONDARY LIGHTNING ARRESTOR, 3P, 200V, MCGRAW-EDISON SERIES |
| 10 | 3Φ LINE REACTORS IN AN EIMC 1 ENCLOSURE, POLARS SERIES |
| 11 | VOLTAGE POWER MONITOR, C/W ENCLOSURE, SQUARE-D CAT # 8450MPD032 |
| 12 | CLASS 1 FUSEBLOCK - 300V, 3P, 1AMP, BUSSMANN CAT # 130030-30R |
| 13 | ENCLOSURE, SINGLE DOOR TYPE, 12' X 10' X 6' C/W INNER PANEL, BUILT TO EIMC 4K STANDARDS, HAMMOND CAT # P112100T |

PANEL A

DESIGNATION (W)	LOAD NO.	TRIP NO.	TRIP RECEPT (W)	LOAD NO.	TRIP RECEPT (W)	DESIGNATION
HEATER RECEPT	15	3	B	4	15	CONTROL PANEL
	5	C	6	15		SPARE
	7	A	8			
	9	B	10			
	11	C	12			
	13	A	14			
	15	B	16			
	17	C	18			
	19	A	20			
	21	B	22			
	23	C	24			FLOWMETER

CABLE NO.	CONDUIT SIZE	TO	FROM	REMARKS
H1	103 RIGID	SLAB	BURIED 90CM RIGID IN KOSK, HYDRO CONDUCTORS	
P1	53 mm	METER	METER	
P2	53 BRVC	PUMP GENERSET	KOSK	
P3	21 mm	P1 DISCONNECT	SPUTTER	STUB AND CAP BOTH ENDS, BELOW NIS IN KOSK
P4	21 mm	REACTOR #1	P1 DISCONNECT	
P5	53 BRVC	VED #1	REACTOR #1	
P6	21 mm	P-1	VED #1	COMPOSITE PUMP CABLE
P7	21 mm	P-2 DISCONNECT	SPUTTER	
P8	21 mm	REACTOR #2	P-2 DISCONNECT	
P9	21 mm	VED #2	REACTOR #2	
P10	53 mm	P-2	VED #2	COMPOSITE PUMP CABLE
P11	21 mm	PANEL 'X'	SPUTTER	
P12	21 mm	GENERSET RECEPT.	MANUAL TRANSFORMER SW.	
C1	21 mm	POE	PANEL 'X'	
C2	21 mm	POWER MONITOR	POE	
C3	21 mm	REACTOR PANEL	POE	
C4	53 BRVC	LEAK STATION	ULTRASONIC TRNR	
C5	21 mm	POE	ULTRASONIC TRNR	
C6	21 mm	POE	ULTRASONIC TRNR	
C7	27 mm	PUMP #1 VED	POE	
C8	27 mm	PUMP #2 VED	POE	
C9	27 mm	STATOR GENERSET	POE	
C10	27 BRVC	STATOR GENERSET	KOSK	
C11	21 mm	PUMP #1 VED	POE	
C12	21 mm	PUMP #2 VED	POE	
C13	27 mm	FLOWMETER	POE	
C14	27 mm	ANTENNA POLE	LIGHT SWITCH	
C15	244 mm	SCADA RACK	SCADA RACK	
C16	53 mm	ULTRASONIC TRNR	POE	
C17	53 mm	ULTRASONIC TRNR	POE	
C18	53 mm	ULTRASONIC TRNR	POE	
C19	53 mm	ULTRASONIC TRNR	POE	
C20	53 mm	ULTRASONIC TRNR	POE	



- NOTES:
- METAL POLE FOR RADIO ANTENNA TO BE HOT-DIPPED GALVANIZED C/W HAND HOLE TOP TO BE SEALED TO WEATHER. LENGTH 25M. MOUNT ON STANDARD BASE.
 - ULTRASONIC LEVEL CONTROL UNIT, 120VAC C/W 3 FORM C, SPST RELAYS RATED 5A AT 250VAC. RELAYS TO BE PROGRAMMABLE AS PLUMBER UNIT TO BE C/W 4-20MA C/W PUMP CONTROL PANEL. LEVEL CONTROL UNIT MULTIRANGES 10 (MIN. 3 RELAY) USER MULTIRANGES 2P5-15.
 - POE SWITCH FOR 41 LTR. 440V. 5V ELECTRO SYSTEM MODEL 5050MCM.
 - UNIT SWITCHES (9) 05-10-2-20-30-40-50 FOR KOSK TO BE C/W 500V 1P1L 20A MOUNTING ASSEMBLY C/W ROLLER LEVER. UNIT SWITCHES (2) HS-1HS-2 FOR LIFT STATION COVERS TO BE RATED FOR CUTLER-HAMMER CAT # EKS5AEP20500R113 + EPOK220 ROLLER LEVER C/W STAINLESS SHWT & BOLTS.
 - MOUNT FLOODLIGHT ON ANTENNA POLE & PROVIDE SWITCH IN KOSK FOR OPERATION. FIXTURE TO BE 150W H.P.S., 120VAC, DIE CAST ALUMINUM HOUSING C/W LEVAN SHIELD. WINDMILL RESISTANT LENS. 150W H.P.S. LAMP & ARM MOUNT OPTION. ARM EQUAL TO KEBRE MINNEY CAT # MHV-1500DL-1.
 - ALL CONTROL WIRING TO BE LABELLED WITH IDENTIFYING NUMBERS.
 - CONTRACTOR TO PROVIDE A BRONX 66 TYPE CONCRETE JUNCTION BOX C/W METAL PREVENT GASES FROM WEATHER EXTERIOR. NO SPLICES WILL BE ALLOWED IN PROVIDE (12) 1" EVENLY SPACED HOLES IN METAL COVER.

NOT FOR CONSTRUCTION

NOTE:
THIS DRAWING IS PROVIDED TO DEFINE CITY OF CHILLIWACK
MINIMUM REQUIREMENTS. LAYOUT AND DETAILS TO BE
CONFIRMED DURING DETAILED DESIGN.

DATE	REVISIONS	BY	APPR.	LEGEND
09/20/23	REVISED AS PER CRT OF CHILLIWACK	RS	RS	
10/22/24	REVISED BY CRT OF CHILLIWACK	SN	RS/SH	

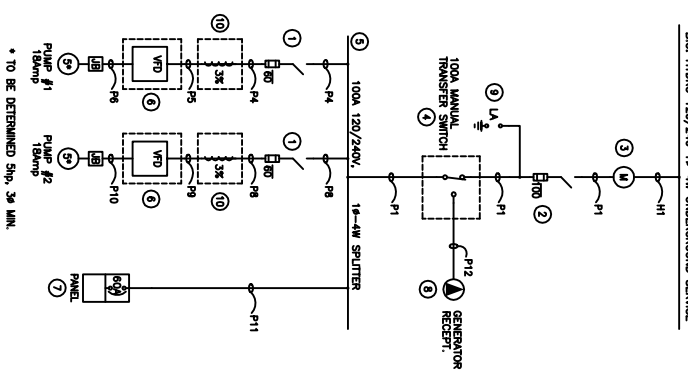
DESIGNED	CHECKED
DATE	DATE
HORIZ.	HORIZ.
VERT.	VERT.



TYP. 3Ø (208V) SEWAGE LIFT STATION
ELECTRICAL DISTRIBUTION

DWG. NO.
DS-10A

B.C. HYDRO 120/240 1Ø-4W UNDERGROUND SERVICE



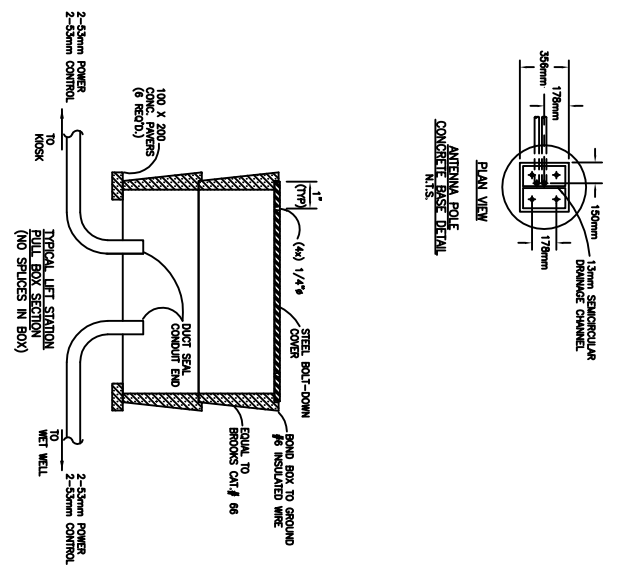
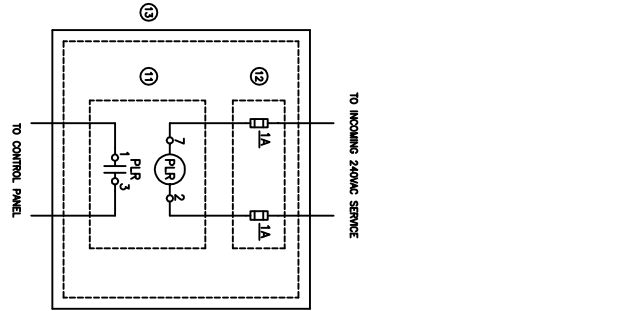
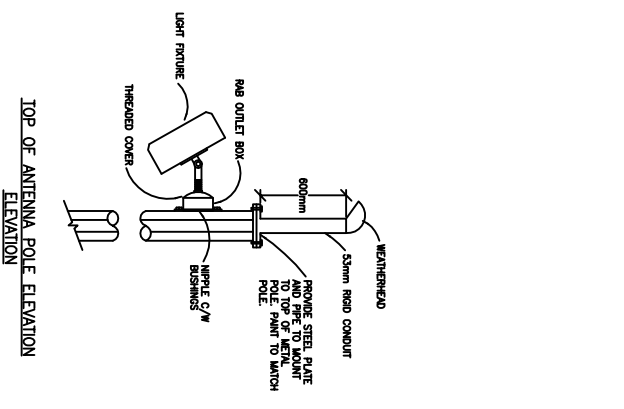
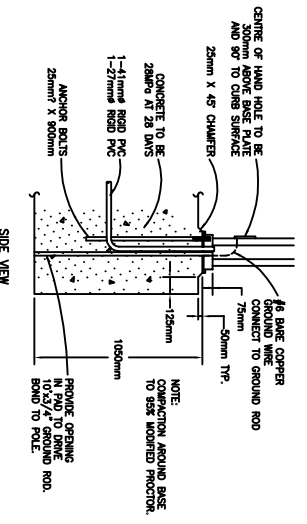
- DISTRIBUTION BILL OF MATERIAL**
- | ITEM DESCRIPTION | QTY |
|--|-----|
| 1 SWITCH DISCONNECT: 60A, 250V, 1Ø-3Ø IN AN EDMC 1 DRAWING C/W HRC CLASS INT FUSES AS SHOWN ON CUTLER-HAMMER SERIES | 1 |
| 2 SWITCH DISCONNECT: 100A, 250V 3Ø-4W IN AN EDMC 1 ENCLOSURE C/W HRC CLASS INT FUSES AS SHOWN ON CUTLER-HAMMER SERIES | 1 |
| 3 WEATHERPROOF METER BASE, 100A TO UTILITY STANDARDS, CUTLER-HAMMER SERIES | 1 |
| 4 MANUAL TRANSFER SWITCH, 100A, 250V, 3-POLE EQUAL BEL SERIES | 1 |
| 5 SPLITTER, 100A, 120/240V, 1Ø-4W, 4 FEET IN LENGTH, VFD, 240V, 1Ø INPUT & 3Ø OUTPUT C/W EDMC 1 ENCLOSURE, YASKAWA, TELEMECHANIQUE | 1 |
| 6 COMBINATION PANELBOARD: 100A BUS, 1Ø-3Ø, 120/240 C/W 12 SINGLE CIRCUIT SPACES, 2-POLE 3ØA BARRIÈRED CUTLER-HAMMER SERIES | 1 |
| 7 GENSET RECEIVABLE, 100A, 3Ø-4Ø | 1 |
| 8 APFLETON CUT # 4010304, 3Ø, 250V | 1 |
| 9 SECONDARY LIGHTNING ARRESTOR, 3Ø, 250V, MCGRAW-HILL SERIES | 1 |
| 10 3Ø LINE REACTORS IN AN EDMC 1 ENCLOSURE | 1 |
| 11 RELAY, 240VAC, 1Ø POTTER RELCO CUT # 10P1140-240 | 1 |
| 12 POTTER RELCO CUT # 52-9 | 1 |
| 13 BOSSMAN CUT # 15000-35N | 1 |
| 14 ENCLOSURE, SINGLE DOOR TYPE, 12" X 10" X 6" C/W INNER HANDING CUT # 512101 | 1 |

PANEL A

NO.	DESCRIPTION	TYPE	NO.	DESCRIPTION
1	120/240V 1Ø-4W MAINS: 60A MAIN BREAKER	CUT. BRK.	1	NO. 1
2	100A 3Ø DISCONNECT	CUT. BRK.	2	NO. 2
3	100A 3Ø-4W METER	METER	3	NO. 3
4	100A 3Ø-4W METER BASE	METER BASE	4	NO. 4
5	100A 3Ø-4W METER	METER	5	NO. 5
6	100A 3Ø-4W METER BASE	METER BASE	6	NO. 6
7	100A 3Ø-4W METER	METER	7	NO. 7
8	100A 3Ø-4W METER BASE	METER BASE	8	NO. 8
9	100A 3Ø-4W METER	METER	9	NO. 9
10	100A 3Ø-4W METER BASE	METER BASE	10	NO. 10
11	100A 3Ø-4W METER	METER	11	NO. 11
12	100A 3Ø-4W METER BASE	METER BASE	12	NO. 12
13	100A 3Ø-4W METER	METER	13	NO. 13
14	100A 3Ø-4W METER BASE	METER BASE	14	NO. 14
15	100A 3Ø-4W METER	METER	15	NO. 15

CABLE SCHEDULE

CABLE NO.	CONDUIT SIZE	CONDUIT TYPE	TO	FROM	REMARKS
H1	103	ROD	SLAB		BURIED DRG., ROAD IN KOSK, HYDRO CONDUITORS
P1	53	RPC	WELL		STUB AND CAP BOTH ENDS, BELOW NTS IN KOSK
P2	53	RPC	WELL		STUB AND CAP BOTH ENDS, BELOW NTS IN KOSK
P3	21	RPC	WELL		STUB AND CAP BOTH ENDS, BELOW NTS IN KOSK
P4	21	RPC	WELL		STUB AND CAP BOTH ENDS, BELOW NTS IN KOSK
P5	21	RPC	WELL		STUB AND CAP BOTH ENDS, BELOW NTS IN KOSK
P6	21	RPC	WELL		STUB AND CAP BOTH ENDS, BELOW NTS IN KOSK
P7	21	RPC	WELL		STUB AND CAP BOTH ENDS, BELOW NTS IN KOSK
P8	21	RPC	WELL		STUB AND CAP BOTH ENDS, BELOW NTS IN KOSK
P9	21	RPC	WELL		STUB AND CAP BOTH ENDS, BELOW NTS IN KOSK
P10	21	RPC	WELL		STUB AND CAP BOTH ENDS, BELOW NTS IN KOSK
P11	21	RPC	WELL		STUB AND CAP BOTH ENDS, BELOW NTS IN KOSK
P12	21	RPC	WELL		STUB AND CAP BOTH ENDS, BELOW NTS IN KOSK
C1	21	RPC	WELL		STUB AND CAP BOTH ENDS, BELOW NTS IN KOSK
C2	21	RPC	WELL		STUB AND CAP BOTH ENDS, BELOW NTS IN KOSK
C3	21	RPC	WELL		STUB AND CAP BOTH ENDS, BELOW NTS IN KOSK
C4	21	RPC	WELL		STUB AND CAP BOTH ENDS, BELOW NTS IN KOSK
C5	21	RPC	WELL		STUB AND CAP BOTH ENDS, BELOW NTS IN KOSK
C6	21	RPC	WELL		STUB AND CAP BOTH ENDS, BELOW NTS IN KOSK
C7	21	RPC	WELL		STUB AND CAP BOTH ENDS, BELOW NTS IN KOSK
C8	21	RPC	WELL		STUB AND CAP BOTH ENDS, BELOW NTS IN KOSK
C9	21	RPC	WELL		STUB AND CAP BOTH ENDS, BELOW NTS IN KOSK
C10	21	RPC	WELL		STUB AND CAP BOTH ENDS, BELOW NTS IN KOSK
C11	21	RPC	WELL		STUB AND CAP BOTH ENDS, BELOW NTS IN KOSK
C12	21	RPC	WELL		STUB AND CAP BOTH ENDS, BELOW NTS IN KOSK
C13	21	RPC	WELL		STUB AND CAP BOTH ENDS, BELOW NTS IN KOSK
C14	21	RPC	WELL		STUB AND CAP BOTH ENDS, BELOW NTS IN KOSK



- NOTES:**
- METAL POLE FOR RADIO ANTENNA TO BE NOT-DIPPED GALVANIZED C/W HAND HOLE TOP TO BE SEALED TO WEATHER. LENGTH 25FT. MOUNT ON STANDARD BASE EQUAL TO KOSK POLE NPT SERIES.
 - ULTRASONIC LEVEL CONTROL UNIT, 120VAC C/W 3 FORM C, SPST RELAYS RATED 5A AT 250VAC. RELAYS TO BE PROGRAMMABLE AS ALUMINUM UNIT TO BE C/W 4-20VDC PUMP CONTROL PANEL. LEVEL CONTROL UNIT MULTIRANGER10 (MNL 3 RELAY) OVERSUNDER MULTIRANGER XPS-15. OVERSUNDER CABLE TO BE 99524.
 - FLOAT SWITCH FOR IN LEVEL ALARM.
 - FLOAT LEVEL RELAY/ALARM SW-10.
 - LIMIT SWITCHES (9) 08-110-207-310-410-5 FOR KOSK TO BE MOUNTING ASSEMBLY AS SHOWN. SINGLE POLE LIMIT SWITCHES WITH MOUNTING ASSEMBLY C/W ROLLER LEVER. LIMIT SWITCHES (2) HS-14S-2 FOR LEFT STATION COVERS TO BE BATTED FOR COVERS. MOUNT CUT # 550546P202509R13 + 5501220 ROLLER LEVER C/W STAINLESS SHIRT AND BOLTS.
 - MOUNT FLOODLIGHT ON ANTENNA POLE & PROVIDE SWITCH IN KOSK FOR OPERATION. FINISH TO BE 150W H.F.S., 120VAC, DIE CAST ALUMINUM HOUSING C/W LEAD. SHIELD VERTICAL RESISTANT LENS, 150W H.F.S. LAMP & ARM MOUNT OPTION. ARM EQUAL TO WERE MOUNT CUT # WMA-1500XL-1.
 - ALL CONTROL WIRING TO BE LABELLED WITH IDENTIFYING NUMBERS.
 - CONTRACTOR TO PROVIDE A BROOKS 66 TYPE CONCRETE JUNCTION BOX C/W METAL JUNCTION BOX COVER FOR CONDUITS FROM WELL. JUNCTION BOX REQUIRED TO BE INSTALLED WITH 90° BENDS IN BOX. CONDUITS TO BE INSTALLED WITH 90° BENDS IN BOX. PROVIDE (12) 3/4" EVENLY SPACED HOLES IN METAL COVER.

NOT FOR CONSTRUCTION

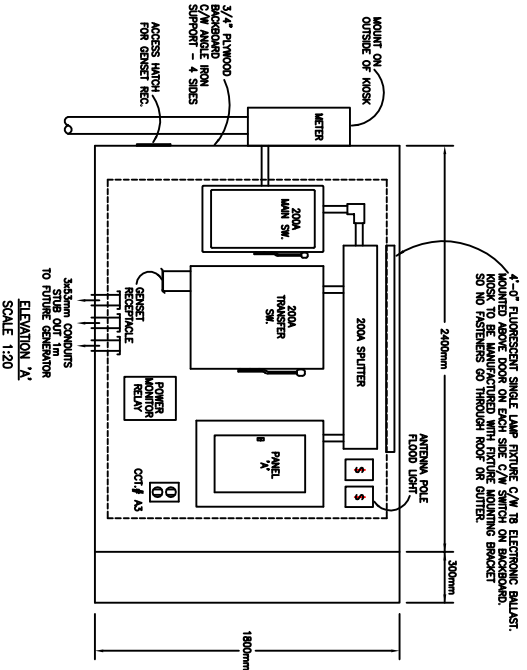
THIS DRAWING IS PROVIDED TO DEFINE CITY OF CHILLIWACK MINIMUM REQUIREMENTS. LAYOUT AND DETAILS TO BE CONFIRMED DURING DETAILED DESIGN.

DATE	REVISIONS	BY	APPR.	DESIGNED	CHECKED
09/20/23	DESIGNED AS PER CRT OF CHILLIWACK	RS	RS	DAVANN	DAVANN
10/22/24	REVISED BY CRT OF CHILLIWACK	RS	RS/CH	DAVANN	DAVANN
				DATE	DATE
				HORIZ.	VERT.



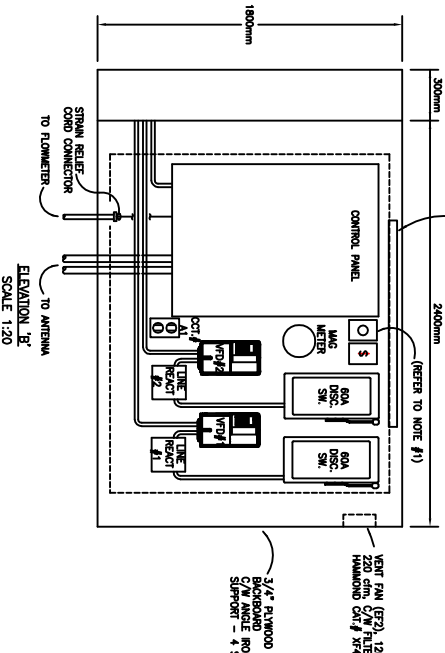
TYPICAL 1Ø SEWAGE LIFT STATION ELECTRICAL DISTRIBUTION

DWG. NO. DS-10B



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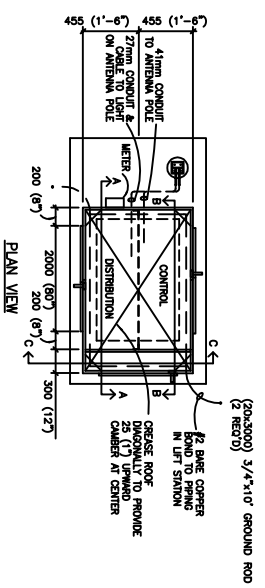
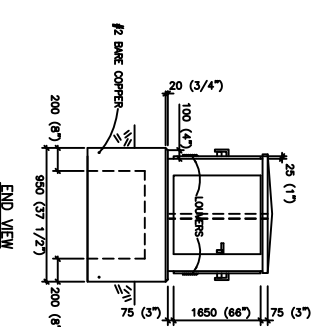
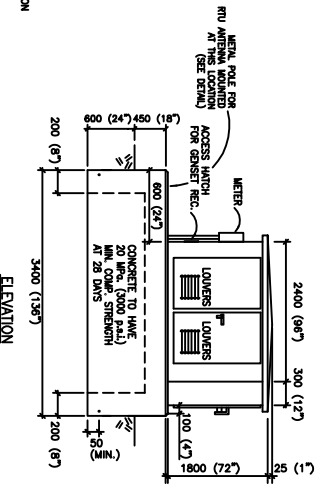
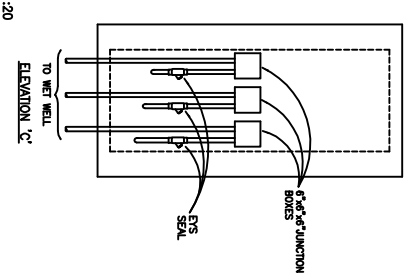
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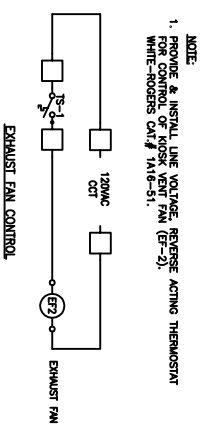
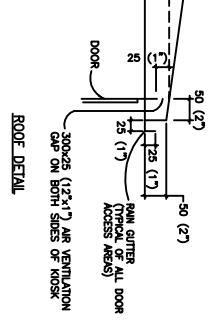
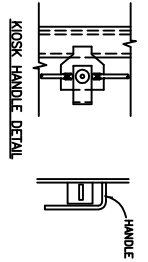
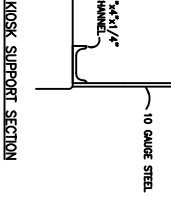
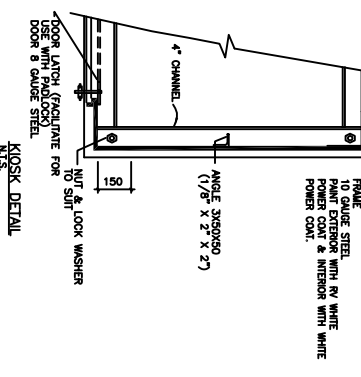
SCALE 1:20



NOTE:
CONTRACTOR TO ENSURE
ANTENNA POLE PLACEMENT
RECEIVER ANTENNA
RECEIVER

NOTE:
KIOSK
TO BE DETERMINED AS
PER SERVICE &
FOR WELL SITE

NOTE:
WELL TO BE LOCATED
DIAGONALLY TO PROVIDE
ADVANCEMENT TO CONTROL SIDE
ANTENNA (SEE PLAN)



NOTE:
1. PROVIDE & INSTAL LINE VOLTAGE, REVERSE ACTING THERMOSTAT
FOR EXHAUST FAN. (SEE DETAIL)
WHITE-ROVERS Cat# 1416-51.

NOT FOR CONSTRUCTION

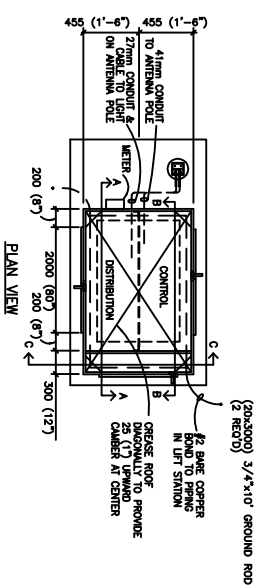
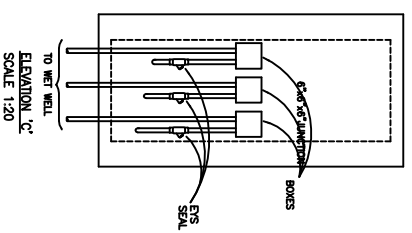
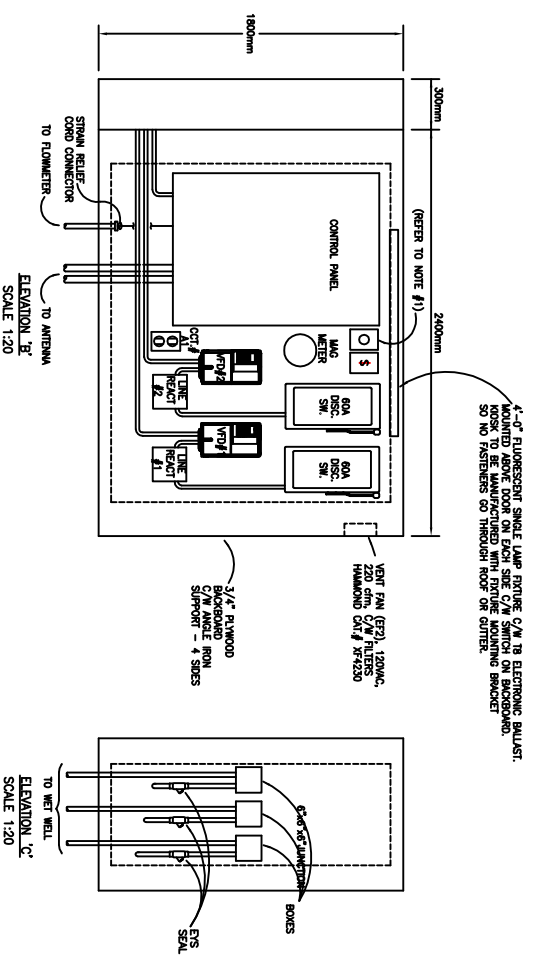
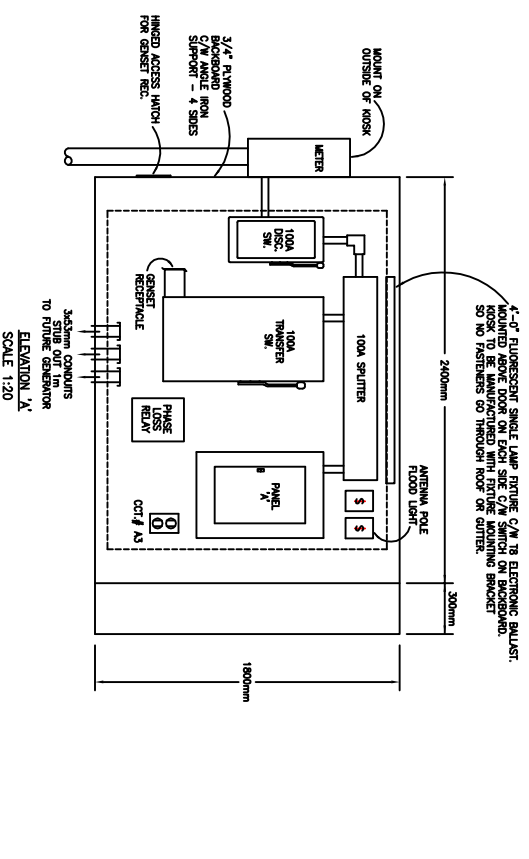
THIS DRAWING IS PROVIDED TO DEFINE CITY OF CHILLIWACK
MINIMUM REQUIREMENTS. LAYOUT AND DETAILS TO BE
CONFIRMED DURING DETAILED DESIGN.

DATE	REVISIONS	BY	APPR.	LEGEND
09/28/23	REVISED AS PER CRT OF CHILLIWACK	NO	NO	

DESIGNED	CHECKED	DATE	HORIZ.	VERT.



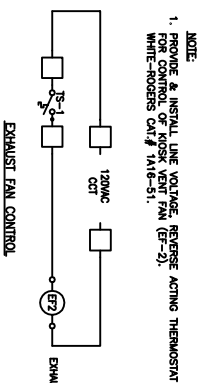
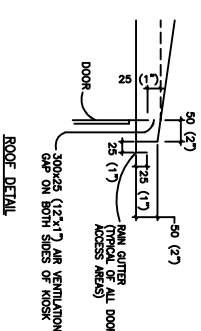
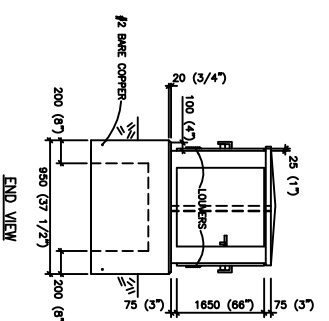
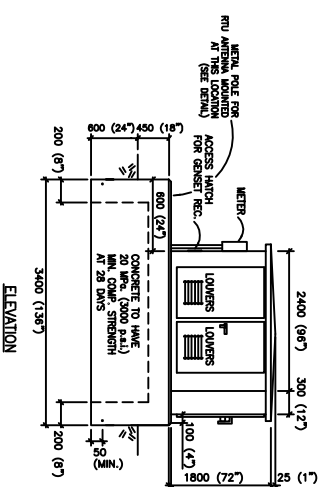
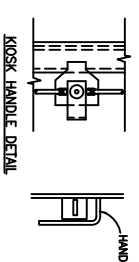
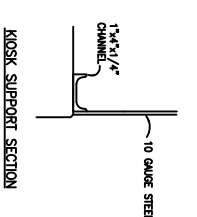
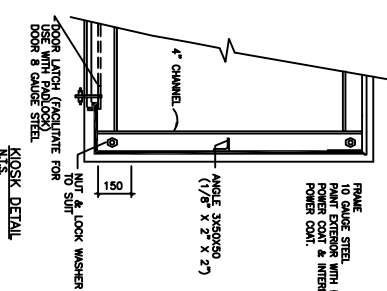
TYP. 3Ø (208V) SEWAGE LIFT STATION
ELECTRICAL DISTRIBUTION
D.V.G. N.D.
DS-11A



NOTE: CONNECTION TO ENSURE PROPER OPERATION OF GENERATOR. GENERATOR RECEPTACLE NOT TO CONFLICT WITH GENERATOR RECEPTACLE.

NOTE: SIZE OF KIOSK TO BE DETERMINED AS PER GENERATOR EQUIPMENT SIZE.

NOTE: WET WELL TO BE LOCATED OR KIOSK (SUBJECT TO ENGINEER'S APPROVAL).



NOT FOR CONSTRUCTION

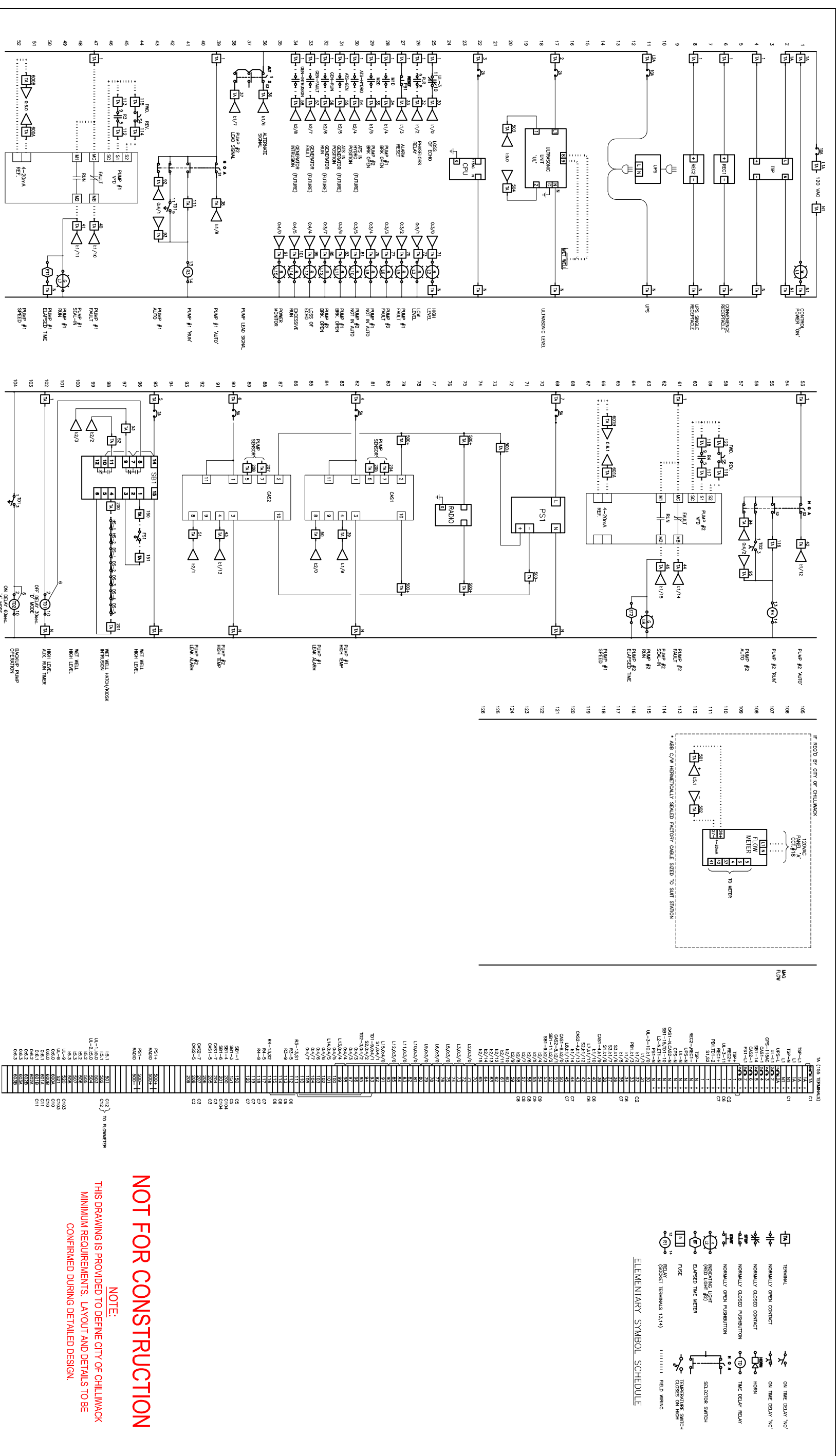
NOTE:
THIS DRAWING IS PROVIDED TO DEFINE CITY OF CHILLIWACK MINIMUM REQUIREMENTS. LAYOUT AND DETAILS TO BE CONFIRMED DURING DETAILED DESIGN.

DATE	REVISIONS	BY	APPR.	LEGEND	DESIGNED	CHECKED	DATE	HORIZ.	VERT.
09/29/23	REVISED AS PER CRT OF CHILLIWACK	NO	NO						



TYPICAL 1Ø SEWAGE LIFT STATION
ELECTRICAL DISTRIBUTION

DWG. NO.
DS-11B

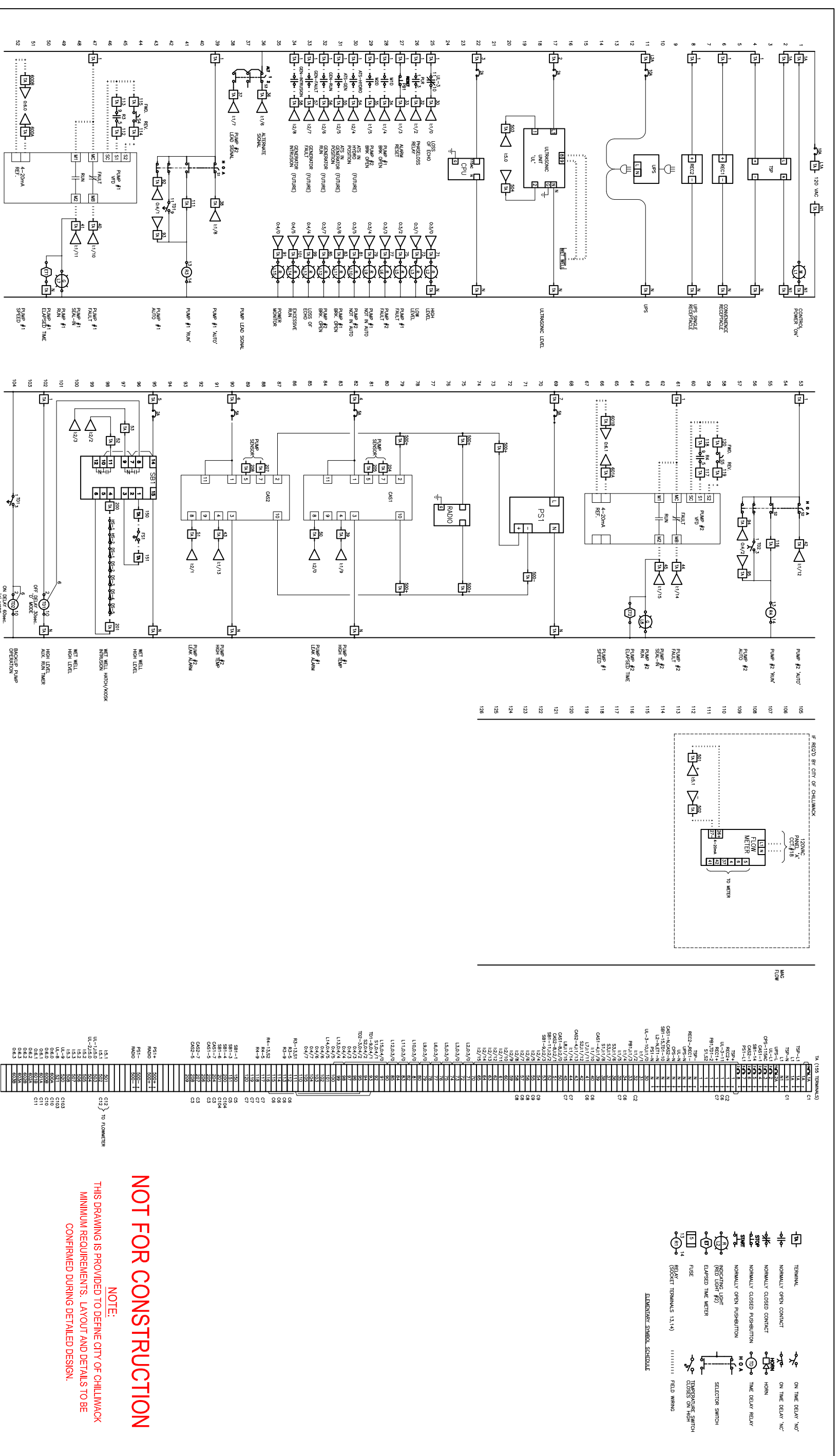


NOT FOR CONSTRUCTION

NOTE:
THIS DRAWING IS PROVIDED TO DEFINE CITY OF CHILLIWACK
MINIMUM REQUIREMENTS. LAYOUT AND DETAILS TO BE
CONFIRMED DURING DETAILED DESIGN.



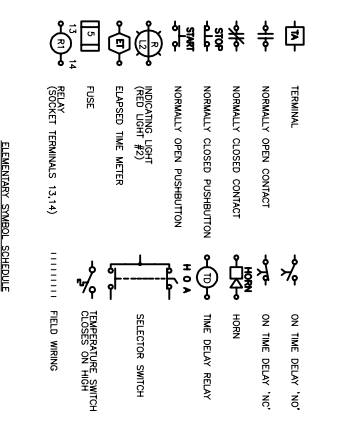
TYP. 3Ø (208V) SEWAGE LIFT STATION
ELECTRICAL ELEMENTARY
DWG. NO. DS-12A



DATE	REVISIONS	BY	APPR.	LEGEND	DESIGNED	CITY OF CHILLIWACK
09/29/23	REVISED AS PER CRT OF CHILLIWACK	KC	KC		DRAWN	
					CHECKED	
					DATE	
					HORIZ.	
					VERT.	
						<p>TYPICAL 10 SEWAGE LIFT STATION</p> <p>ELECTRICAL ELEMENTARY</p>
						<p>DWG. NO. DS-12B</p>

NOT FOR CONSTRUCTION

NOTE:
THIS DRAWING IS PROVIDED TO DEFINE CITY OF CHILLIWACK
MINIMUM REQUIREMENTS. LAYOUT AND DETAILS TO BE
CONFIRMED DURING DETAILED DESIGN.



1A. (128 TERMINALS)

TERMINAL	DESCRIPTION
1	CONTROL POWER
2	CONTROL POWER
3	CONTROL POWER
4	CONTROL POWER
5	CONTROL POWER
6	CONTROL POWER
7	CONTROL POWER
8	CONTROL POWER
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123	CONTROL POWER
124	CONTROL POWER
125	CONTROL POWER
126	CONTROL POWER
127	CONTROL POWER
128	CONTROL POWER

PACK #	V/O #	SLOT LOCATION	PANEL TERMINATION	DESCRIPTION
R131	1/0	3A30	BLK	DESCRIPTION: 120VAC INPUT
	1/0	3A31	BLK	DESCRIPTION
	1/1/1	3A31	BLK	LOSS OF ECHO
	1/1/2	3A31	RED	PHASE LOSS RELAY
	1/2/1	3A31	GRN	ALARM RESET
	1/2/2	3A31	GRN	PUMP #1 BRK OPEN
	1/2/3	3A31	GRN	PUMP #2 BRK OPEN
	1/2/4	3A31	GRN	ALTERNATE SIGNAL
	1/2/5	3A31	GRN	ALTERNATE SIGNAL
	1/2/6	3A31	GRN	ALTERNATE SIGNAL

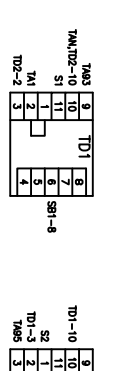
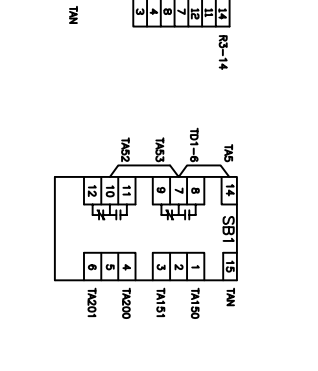
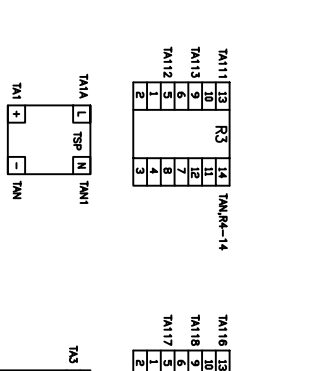
PACK #	V/O #	SLOT LOCATION	PANEL TERMINATION	DESCRIPTION
R132	1/0	3A30	BLK	DESCRIPTION: 120VAC INPUT
	1/0	3A31	BLK	DESCRIPTION
	1/1/1	3A31	BLK	PUMP #1 LEAK ALARM
	1/1/2	3A31	BLK	PUMP #2 LEAK ALARM
	1/2/1	3A31	RED	WELL SWITCH/OVERRIDE
	1/2/2	3A31	RED	WELL HIGH LEVEL
	1/2/3	3A31	GRN	TYPING A/S HIGH POSITION
	1/2/4	3A31	GRN	TYPING A/S LOW POSITION
	1/2/5	3A31	GRN	TYPING A/S HIGH POSITION
	1/2/6	3A31	GRN	TYPING A/S LOW POSITION

PACK #	V/O #	SLOT LOCATION	PANEL TERMINATION	DESCRIPTION
R133	1/0	3A30	BLK	DESCRIPTION: 120VAC INPUT
	1/0	3A31	BLK	DESCRIPTION
	1/1/1	3A31	BLK	PHASE LOSS RELAY
	1/1/2	3A31	BLK	PHASE LOSS RELAY
	1/2/1	3A31	GRN	PHASE #1 SWIR
	1/2/2	3A31	GRN	PHASE #2 SWIR
	1/2/3	3A31	GRN	PHASE #1 FAULT
	1/2/4	3A31	GRN	PHASE #2 FAULT
	1/2/5	3A31	GRN	PHASE #1 NOT IN AUTO
	1/2/6	3A31	GRN	PHASE #2 NOT IN AUTO

PACK #	V/O #	SLOT LOCATION	PANEL TERMINATION	DESCRIPTION
R134	1/0	3A30	BLK	DESCRIPTION: 120VAC INPUT
	1/0	3A31	BLK	DESCRIPTION
	1/1/1	3A31	BLK	PHASE LOSS RELAY
	1/1/2	3A31	BLK	PHASE LOSS RELAY
	1/2/1	3A31	GRN	PHASE #1 SWIR
	1/2/2	3A31	GRN	PHASE #2 SWIR
	1/2/3	3A31	GRN	PHASE #1 FAULT
	1/2/4	3A31	GRN	PHASE #2 FAULT
	1/2/5	3A31	GRN	PHASE #1 NOT IN AUTO
	1/2/6	3A31	GRN	PHASE #2 NOT IN AUTO

PACK #	V/O #	SLOT LOCATION	PANEL TERMINATION	DESCRIPTION
R135	1/0	3A30	BLK	DESCRIPTION: 120VAC INPUT
	1/0	3A31	BLK	DESCRIPTION
	1/1/1	3A31	BLK	PHASE LOSS RELAY
	1/1/2	3A31	BLK	PHASE LOSS RELAY
	1/2/1	3A31	GRN	PHASE #1 SWIR
	1/2/2	3A31	GRN	PHASE #2 SWIR
	1/2/3	3A31	GRN	PHASE #1 FAULT
	1/2/4	3A31	GRN	PHASE #2 FAULT
	1/2/5	3A31	GRN	PHASE #1 NOT IN AUTO
	1/2/6	3A31	GRN	PHASE #2 NOT IN AUTO

PACK #	V/O #	SLOT LOCATION	PANEL TERMINATION	DESCRIPTION
R135	1/0	3A30	BLK	DESCRIPTION: 120VAC INPUT
	1/0	3A31	BLK	DESCRIPTION
	1/1/1	3A31	BLK	PHASE LOSS RELAY
	1/1/2	3A31	BLK	PHASE LOSS RELAY
	1/2/1	3A31	GRN	PHASE #1 SWIR
	1/2/2	3A31	GRN	PHASE #2 SWIR
	1/2/3	3A31	GRN	PHASE #1 FAULT
	1/2/4	3A31	GRN	PHASE #2 FAULT
	1/2/5	3A31	GRN	PHASE #1 NOT IN AUTO
	1/2/6	3A31	GRN	PHASE #2 NOT IN AUTO



DATE	REVISIONS	BY	APPR.	LEGEND
09/29/23	REVISED AS PER CRT OF CHILLIWACK			

DESIGNED	DRAWN
CHECKED	DATE
HORIZ.	VERT.

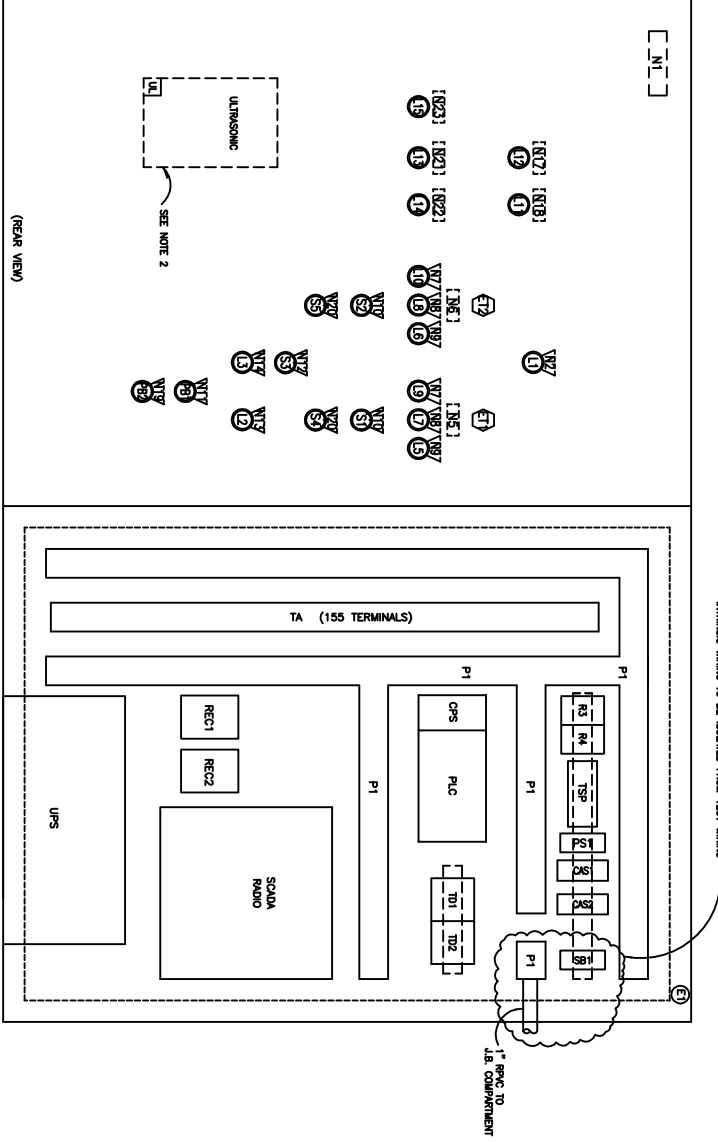


CITY OF CHILLIWACK

TYP. 3Ø (208V) SEWAGE LIFT STATION ELECTRICAL CONTROL WIRING

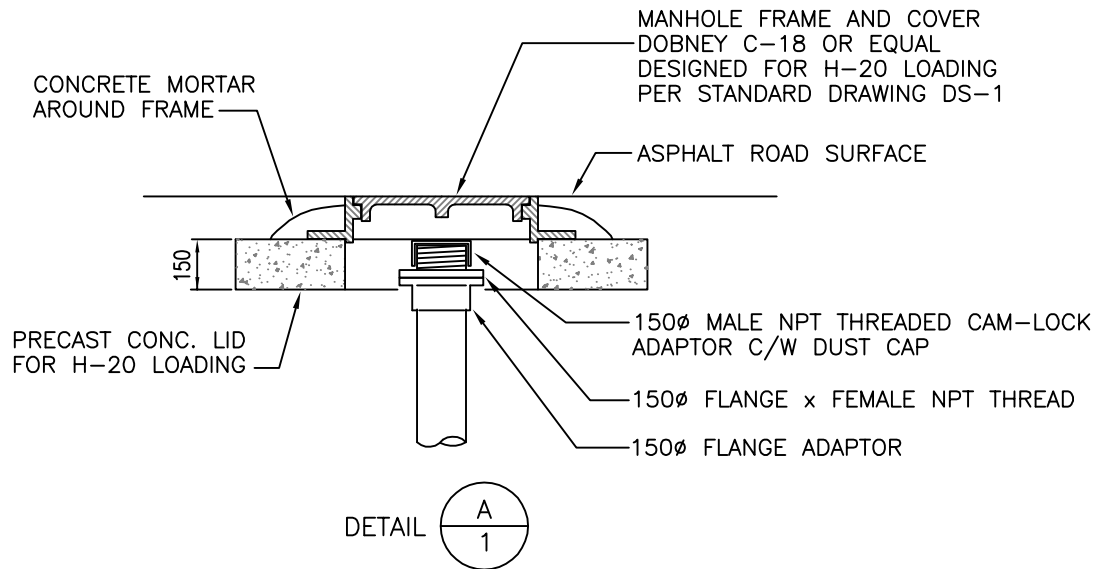
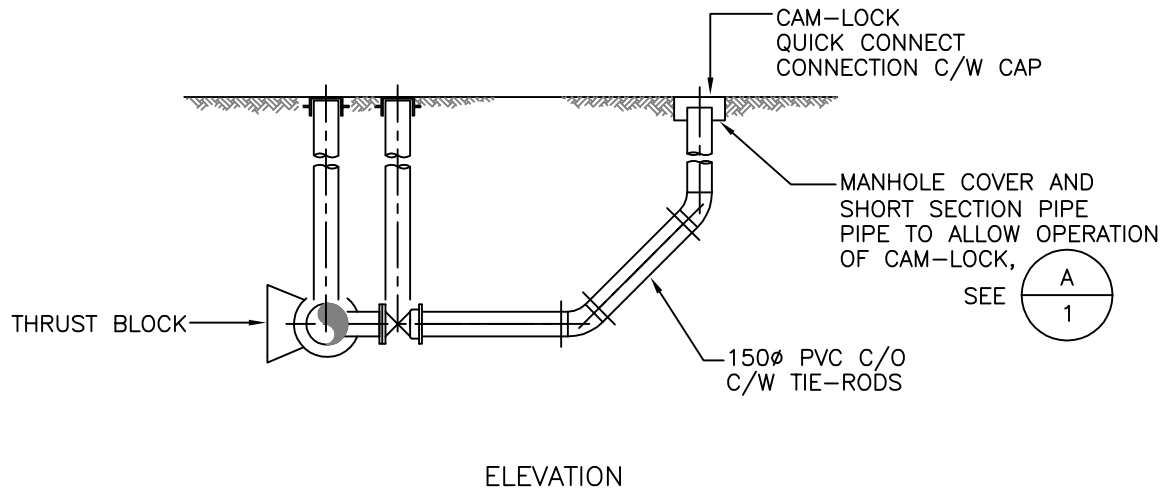
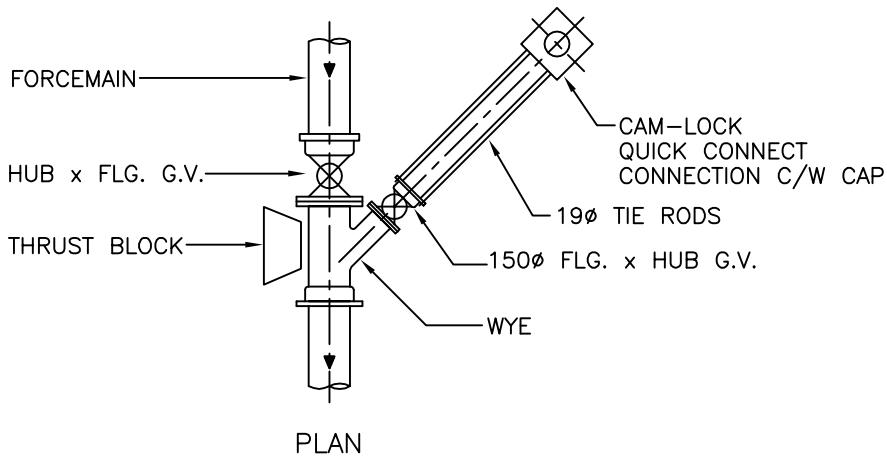
DWG. NO. DS-13A

- CONTROL PANEL BUILT OF MATERIAL * TO BE BUILT BY A CSA APPROVED MANUFACTURER
- ENCLOSURE, SINGLE DOOR TYPE, 48" X 36" X 12" C/W INNER PANEL BUILT TO ENCAP 12 STANDARDS.
- TERMINAL BLOCKS, POLYMER, 25 AMP RATING, WIRE SIZE TO 10 AWG, 1/2" DEPTH, 1/4" TERMINAL SPACING, 1/2" TERMINALS TO BE STOOD-OFF FROM MOUNTING PANEL AS REQUIRED BY MANUFACTURER. SOCKET RELEASE CAT# 2796-6
- TERMINAL BLOCKS, POLYMER, 6.8 TO FIT IN TRUCK FOR AS PER DRAWINGS, 5/8" (1.5) AND RESET BUTTONS, AND BREAKER SIZED TERMINALS TO BE STOOD-OFF FROM MOUNTING PANEL AS REQUIRED BY MANUFACTURER TYPE CAT# 9105.0, 9108.0, 9109.0.
- WRENCH, PLASTIC 2X3" C/W COVER.
- RELAY CONTROL, 4PT C/W SA CONTACT RATING AND 120VAC COIL. SOCKET RELEASE CAT# 99-4.
- RELAY FOR RELAYS WEEDKILLER CAT# 99-4.0
- LED PILOT LIGHT, RED, 22mm, 120VAC, DEC LW SERIES, TELECOMMAND 29 SERIES.
- LED PILOT LIGHT, WHITE, 22mm, 120VAC, DEC LW SERIES, TELECOMMAND 29 SERIES.
- LED PILOT LIGHT, GREEN, 22mm, 120VAC, DEC LW SERIES, TELECOMMAND 29 SERIES.
- SELECTOR SWITCH, 2 POSITION C/W 2NC-2NC CONTACT BLOCK, DEC LW SERIES, TELECOMMAND 29 SERIES.
- SELECTOR SWITCH, 2 POSITION C/W 2NC-2NC CONTACT BLOCK, DEC LW SERIES, TELECOMMAND 29 SERIES.
- PUSHBUTTON, 22mm, BLACK C/W 4NC-4NC CONTACT BLOCK, DEC LW SERIES, TELECOMMAND 29 SERIES.
- DELAYED TIME RELAY, NON-RESETABLE 120 VAC 60 HZ, GREENLE CAT# 2401.
- CPU, 32K, EMERGENCY STOP/STOP C/W I/O ROCKS & CABLES AS SHOWN ON DRAWINGS.
- ALLEN-BRADLEY 1747-1295 CPU STOR RACK
- ALLEN-BRADLEY 1747-1497 CPU STOR RACK
- 16A, 120VAC INPUT MODULE C/W I/O MODULE CABLE, CONNECTOR, TERMINAL & WIRE LABELS.
- ALLEN-BRADLEY CAT# 1746-416.
- CABLE, ALLEN-BRADLEY CAT# 1442-CABLECENTER
- 8A, ISOLATED RELAY OUTPUT MODULE C/W I/O MODULE CABLE & CONNECTOR AS SHOWN ON DRAWINGS.
- CABLE, ALLEN-BRADLEY CAT# 1442-CABLECENTER
- 4PT. ANALOG INPUT MODULE ALLEN-BRADLEY CAT# 1746-444.
- 4PT. 4-20mA ANALOG OUTPUT MODULE ALLEN-BRADLEY CAT# 1746-444.
- 4PT. ANALOG OUTPUT MODULE ALLEN-BRADLEY CAT# 1746-444.
- PIC POWER SUPPLY, 150VA, ALLEN-BRADLEY CAT# 1746-P2.
- TRANSPARENT SILVER PROTECTOR, 120VAC, 10 AMP, CULZER-HAMMER CAT# ASSMCH120V10DS
- MINI CIRCUIT SUPERVISION RELAY TT MINI CAS
- THE DELAY RELAY, MORE 1" OPERATION, PROT C/W SA CONTACT ADJUSTABILITY, 1" INDICATION, 120VAC COIL AND 61.2MA-500V. SOCKET RELEASE CAT# 1430C-4
- THE DELAY RELAY, MORE 1" OPERATION, PROT C/W SA CONTACT ADJUSTABILITY, 1" INDICATION, 120VAC COIL AND 61.2MA-500V. SOCKET RELEASE CAT# 1430C-4
- APC SMART-UPS 1000VA USB & SERIAL, 120V APC PMP# SMT1000
- UPS SINGLE RECEPTACLE, 120VAC
- CONVENIENCE DUPLEX RECEPTACLE 120VAC
- MINIMUM SAFETY RECEPTACLE RELAY, DUAL CHANNEL, 120VAC, 2 AMP BPT CONTACT OUTPUT USER CONFIGURABLE C/W ON RAIL FOR MOUNTING. PEPPERLUNCH CAT# VPM-502-E22-W
- POWER SUPPLY, 120VAC INPUT & 240VDC, 30W OUTPUT DCS CAT# PSM-6C.
- SUPPLIED BY CRT OF CHILLIWACK



NOT FOR CONSTRUCTION

NOTE: THIS DRAWING IS PROVIDED TO DEFINE CITY OF CHILLIWACK MINIMUM REQUIREMENTS. LAYOUT AND DETAILS TO BE CONFIRMED DURING DETAILED DESIGN.



FORCE MAIN FLUSHOUT



REVISED: 11/13

APPROVED:

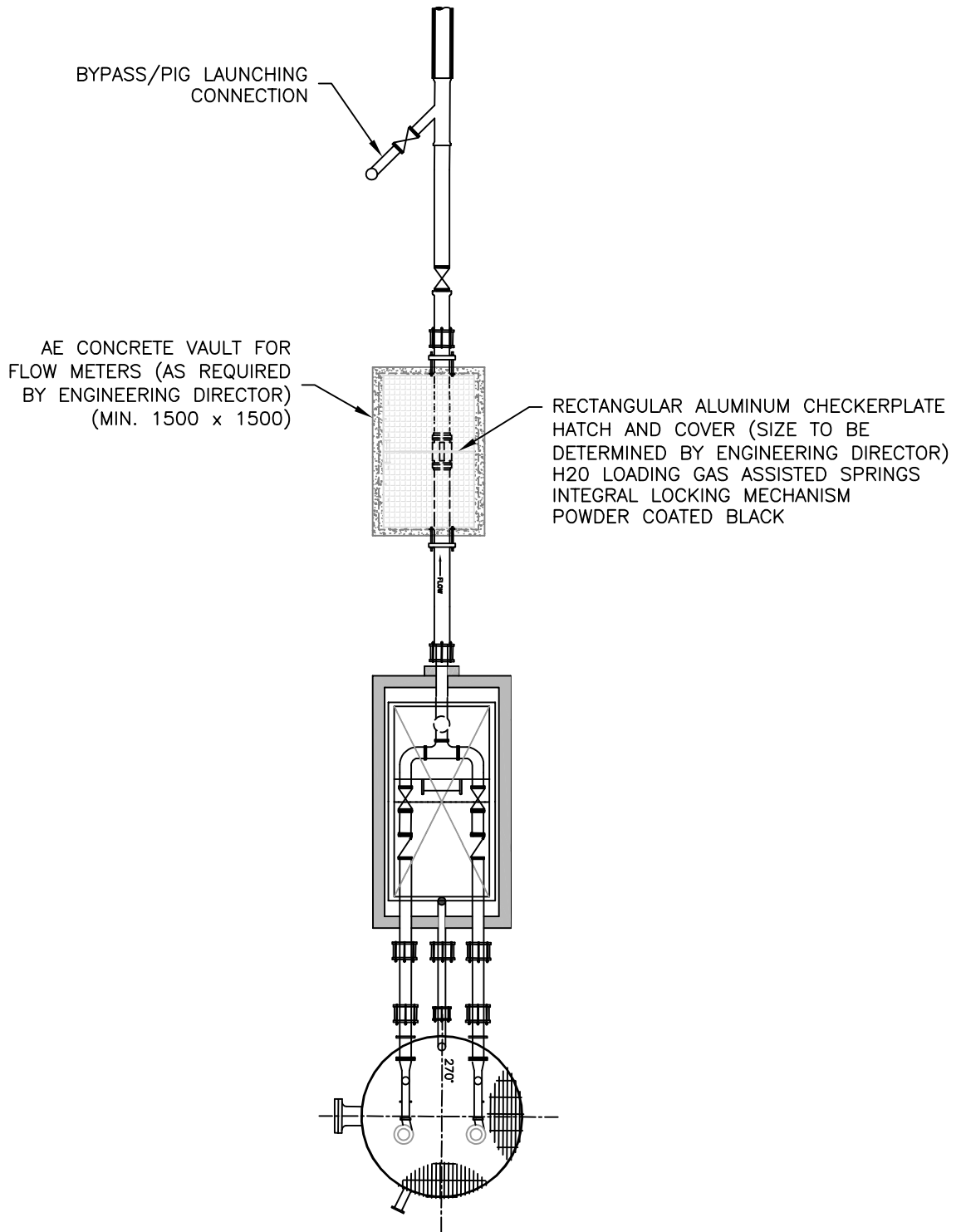
APPROVED:

DATE: 12/01

DRAWN: THJ

DWG. NO.

DS-14



BYPASS and OPTIONAL FLOW METER DETAIL



CITY OF CHILLIWACK

REVISED: 06/10

APPROVED:

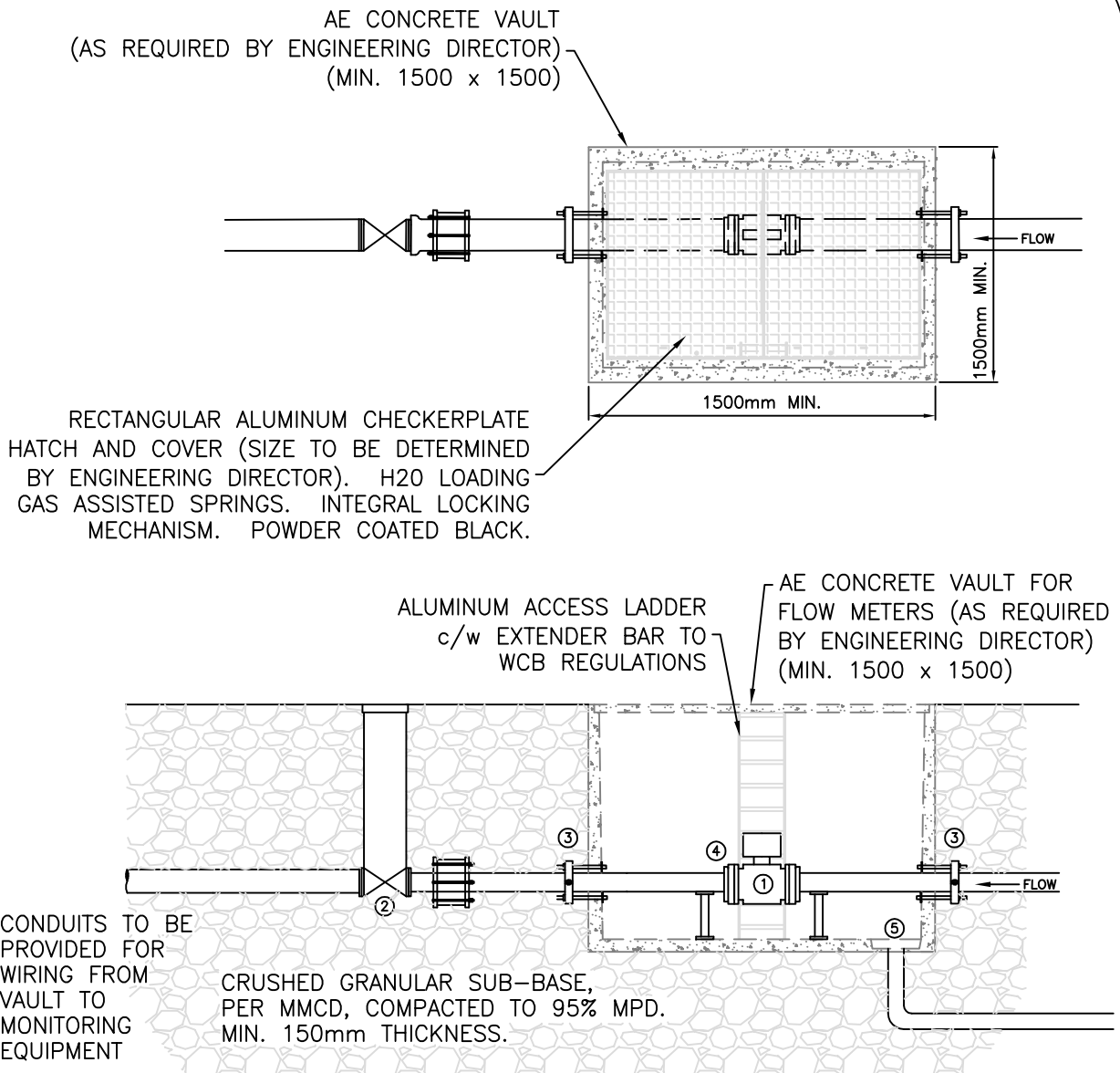
APPROVED:

DWG. NO.

DATE:

DS-15

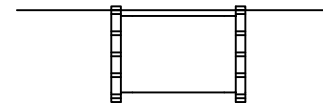
DRAWN: SEH



LEGEND

1. ABB Magnetic Flow Meter or approved equivalent with Remote Display. Factory sealed and potted cables to be provided.
2. Resilient Seated Wedge Gate Valve NRS.
3. Restraint Coupling c/w Tie Down to vault.
4. Dismantling Joint – "Victolic Coupling".
5. Sump to be connected to wet well via a 100mm diameter connection c/w Pea Trap. Can be connected to valve chamber drain.

SPOOL PIECE FOR METER REMOVAL TO BE PROVIDED



NOTE: All fitting and pipe work is to conform to Schedule 'A' of the Land Development Bylaw and/or MMCD.

SANITARY FLOW METER VAULT



CITY OF CHILLIWACK

REVISED: 11/13

APPROVED:

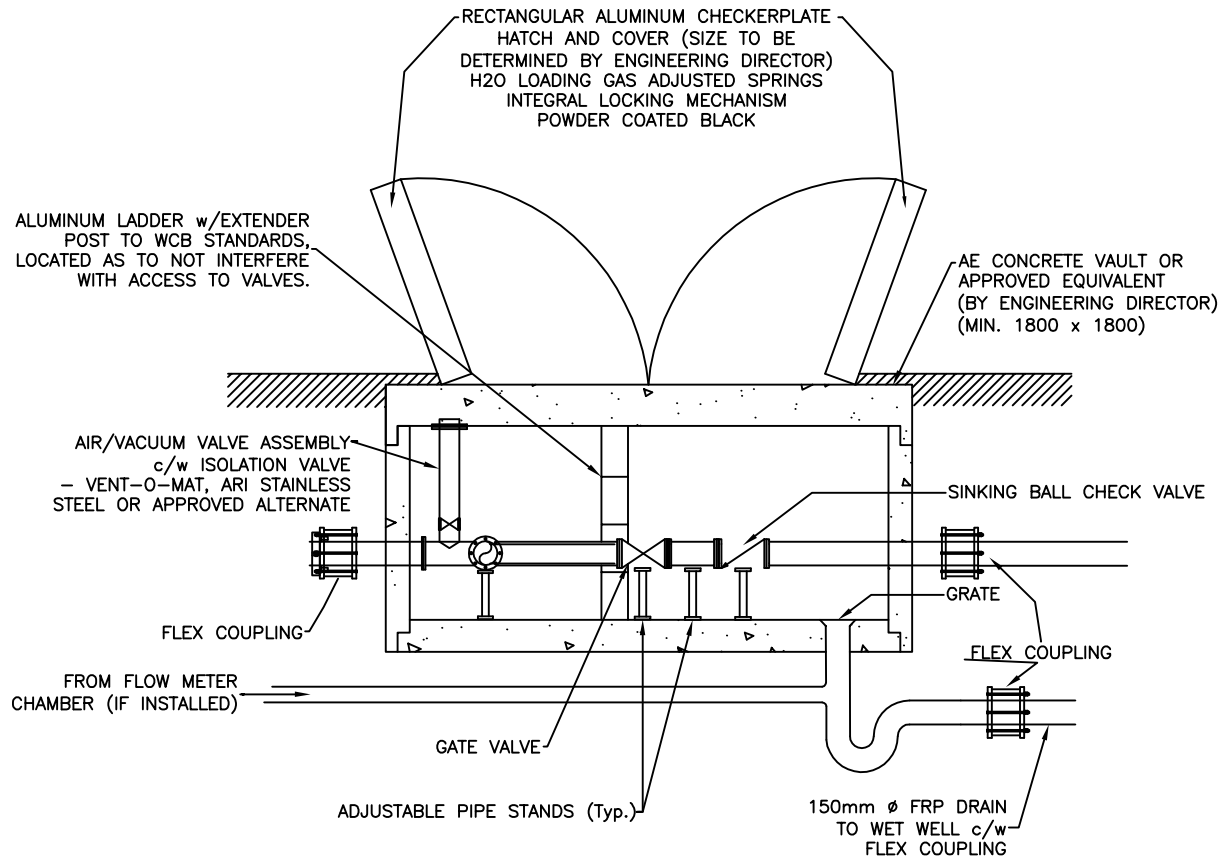
APPROVED:

DWG. NO.

DATE: 05/07

DS-16

DRAWN: JB



VALVE CHAMBER
FOR SANITARY PUMP STATION



CITY OF
CHILLIWACK

REVISED: 11/13

APPROVED:

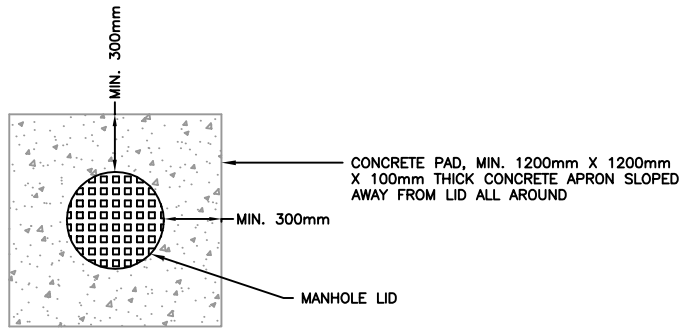
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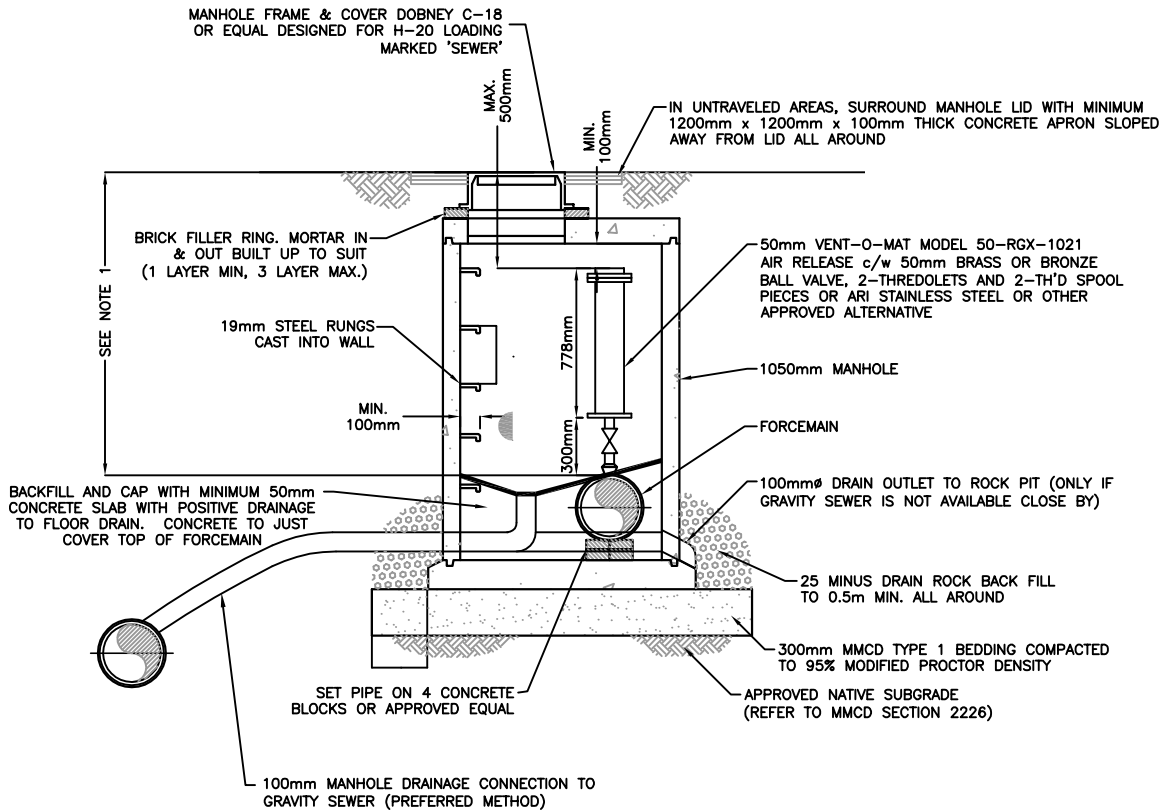
DATE: 09/09

DS-17

DRAWN: SEH



PLAN VIEW



NOTES:

1. SPECIAL DESIGN REQUIRED WHEN DISTANCE FROM TOP OF MAIN TO MANHOLE COVER IS LESS THAN 1.5m.
2. MANHOLE LID TO BE CENTERED IN SIDEWALK WHERE SIDEWALK IS ON THE SAME SIDE OF ROAD AS FORCEMAIN. OTHERWISE LOCATE IN BOULEVARD CENTRED AT 3m FROM PROPERTY LINE IN URBAN AREAS OR 4m FROM PROPERTY LINE IN RURAL AREAS. C/W ACCESS PAD AND APPROVED CULVERT WHERE REQUIRED.
3. CHAMBER IS NOT TO BE INSTALLED IN ROAD SURFACE.
4. MAXIMUM DEPTH TO FIRST RUNG IS 150mm. WHEN HANDHOLD IS INSTALLED BETWEEN TOP AND FIRST RUNG, MAXIMUM DEPTH MAY BE INCREASED TO 660mm.
5. AIR VACUUM VALVES INSTALLED REMOTE FROM FORCEMAIN WILL REQUIRE SPECIAL DESIGN AND APPROVAL BY CITY ENGINEER.

AIR AND VACUUM VALVE CHAMBER
FOR SANITARY FORCE MAIN



REVISED:

APPROVED:

APPROVED: 11/13

DWG. NO.

DATE: 02/12

DS-18

DRAWN: SEH