

LEGEND

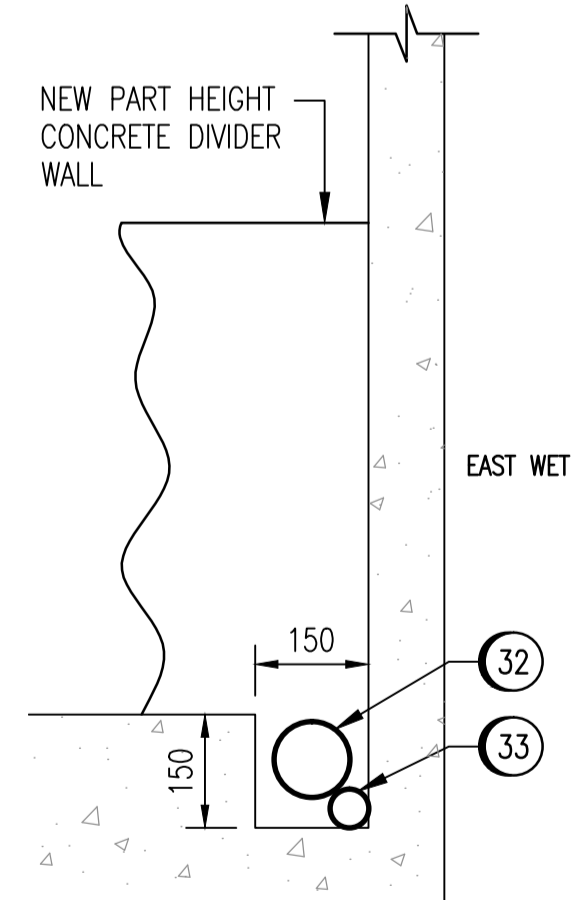
- (X) BILL OF MATERIAL CALLOUT
- (TP) TIE-IN POINT INDICATOR
- || FLANGE CONNECTION
- |>| ECCENTRIC PLUG VALVE
- ∇ CHECK VALVE
- BALL VALVE
- |>| ECCENTRIC PLUG VALVE - ACTUATED
- NEW LINE
- - - EXISTING LINE

BILL OF MATERIALS

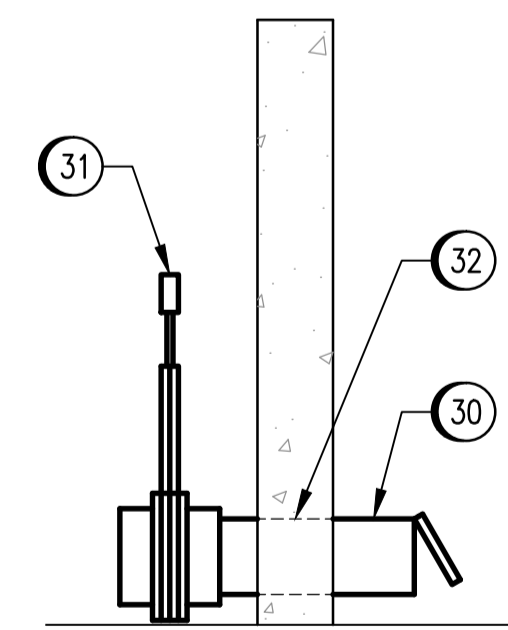
NO.	DESCRIPTION	SIZE	MAT'L/SPEC	SCH./RATING	QTY.	REMARKS
1	PIPE (CUT TO SUIT)	100mmØ	A312 T316L	SCH 10	-	
2	90° ELBOW (LR)	100mm	A403 WP316L	SCH 10	4	
3	TEE	100 x 100 x 100mm	A403 WP316L	SCH 10	7	
4	FLANGE 150 #SORF	100mm	A182 F316L	150 lb	19	
5	THREADOLET	50 x 100mm	A182 F316L	3000 lb	4	
6	PIPE NIPPLE, NPT	50mm x 100m LONG	A312 T316L	40S SEAMLESS	8	
7	FLANGE, WN, FLAT FACE	75mm	A182 F316L	150 lb	2	
8	UNION, THREADED	50mm	A182 F316L	3000 lb	4	
9	ECCENTRIC PLUG VALVE	100mm, FLANGED		125 lb	9	SEE SPECIFICATIONS
10	ECCENTRIC PLUG VALVE c/w PNEUMATIC ACTUATOR	100mm, FLANGED		125 lb	2	SEE SPECIFICATIONS
11	CHECK VALVE, FLG ENDS	100mm		CLASS 150	3	SEE SPECIFICATIONS
12	GASKET, RF	100mm, 3.2 mm TH.	NITRILE RUBBER	CLASS 150	27	
13	FLANGE STUDS c/w NUTS	5/8"Ø x 3 1/2"	A320 Gr. B8M A194 Gr. 8M	CLASS 1	224	
14	PIPE STAND	FOR 100mm PIPE	CARBON STEEL		2	HOT DIP GALV.
15	REDUCER, CONCENTRIC	100 x 75mm	A403 316L	SCH10	2	
16	GASKET, FULL FACE	75mm, 3.2mm TH.	NITRILE RUBBER	CLASS 150	2	
20	PIPE, THREADED ENDS (CUT TO SUIT)	50mm	A106 SMLS	SCH 40	-	PAINTED
21	90° ELBOW, THREADED	50mm	SA.105	3000 lb	8	PAINTED
22	TEE, THREADED	50mm	SA.105	3000 lb	3	PAINTED
23	BALL VALVE, NPT, STAINLESS STEEL	50mm		2000 PSI WOG	3	SEE SPECIFICATIONS
24	PIPE HANGER	50mm			-	SPACING PER SPECIFICATIONS
25	PLUG, THREADED	50mm	A182 F316L	3000 lb	1	PAINTED
26	UNION, THREADED	50mm	SA.105	3000 lb	2	
30	TERMINAL BACKWATER VALVE	100mmØ			1	ROYAL OR EQUAL
31	SLIDE GATE VALVE	100mmØ	PVC/SS GATE	20 PSIG	1	VALTERRA OR EQUAL
32	PIPE (CUT TO SUIT)	100mmØ	PVC	SCH 40	-	
33	PIPE (CUT TO SUIT)	25mmØ	PVC	SCH 40	-	
34	PIPE (CUT TO SUIT)	150mmØ	PVC	SCH 40	-	

NOTES:

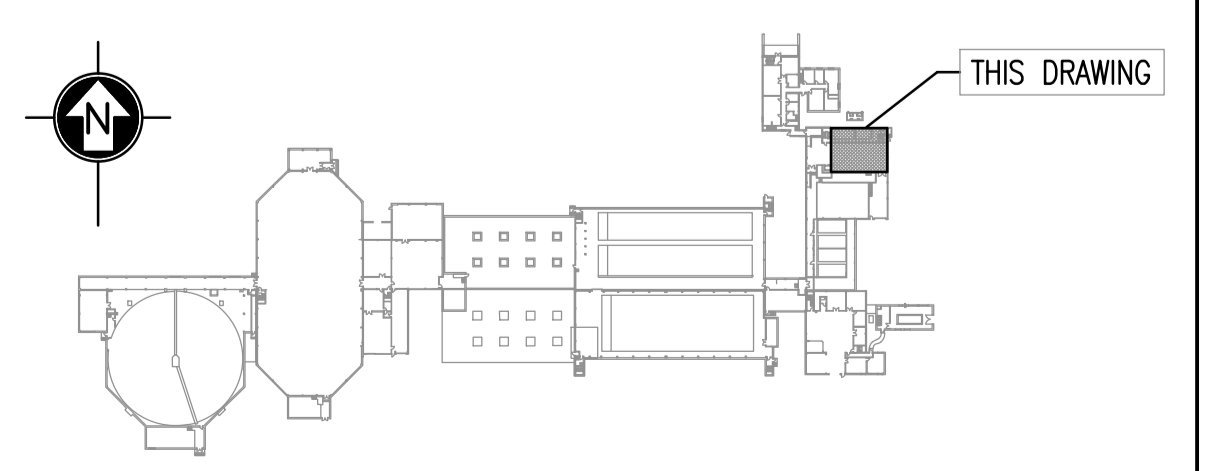
1. USE LEVER OPERATED VALVES THROUGHOUT SEWAGE SERVICE EXCEPT FOR DEWATERING USE PNEUMATIC ACTUATED ECCENTRIC PLUGS AS SHOWN.
2. REMOVE AND REFURBISH GRIT PUMP G105-GR PTO SOUND OPERATING CONDITION.
3. CONTRACT ADMINISTRATOR TO COORDINATE INSPECTION OF GRIT PUMP DISCHARGE PIPING. ONLY PROCEED WITH MODIFICATIONS TO THIS PIPING AFTER RECEIPT OF AUTHORIZATION.
4. SEAL WITH SILICONE CAULKING.



SECTION 1
SCALE: 1 : 10
LOOKING WEST



SECTION 2
SCALE: 1 : 10
LOOKING NORTH



APECM
 Certificate of Authorization
SNC-Lavalin Inc.
 No. 4489

NO.	ISSUED FOR TENDER	DATE	DESIGN	RPV	CHECK
00	ISSUED FOR TENDER	2010/10/04	DAC	RPV	
	REVISIONS				

SNC-LAVALIN INC.
 148 Nature Park Way
 Winnipeg, MB, Canada R3P 0X7
 204-786-8080

DESIGNED BY: D. CROCKER
 DRAWN BY: K. MOHAMMED
 SCALE: N.T.S.
 DATE: 2009/09/17
 CONSULTANT NO.: 112577-0112-450D-0004

CHECKED BY: R. VERCAIGNE
 APPROVED BY: C. REIMER
 RELEASED FOR CONSTRUCTION BY: J. VEILLEUX
 DATE: 2010/10/04

ENGINEER'S SEAL
 ORIGINAL DRAWING SEALED BY:
 R. VERCAIGNE
 SNC-Lavalin Inc.
 2010/10/04
 REV. 00

THE CITY OF WINNIPEG
 WATER AND WASTE DEPARTMENT

SOUTH END WATER POLLUTION CONTROL CENTRE
 HEADWORKS UPGRADES
 PIPING ISOMETRIC
 GRIT PUMP PIPING UPGRADE

CITY DRAWING NUMBER: 1-0102G-M0004
 SHEET: 001
 REV: 00
 SIZE: A1