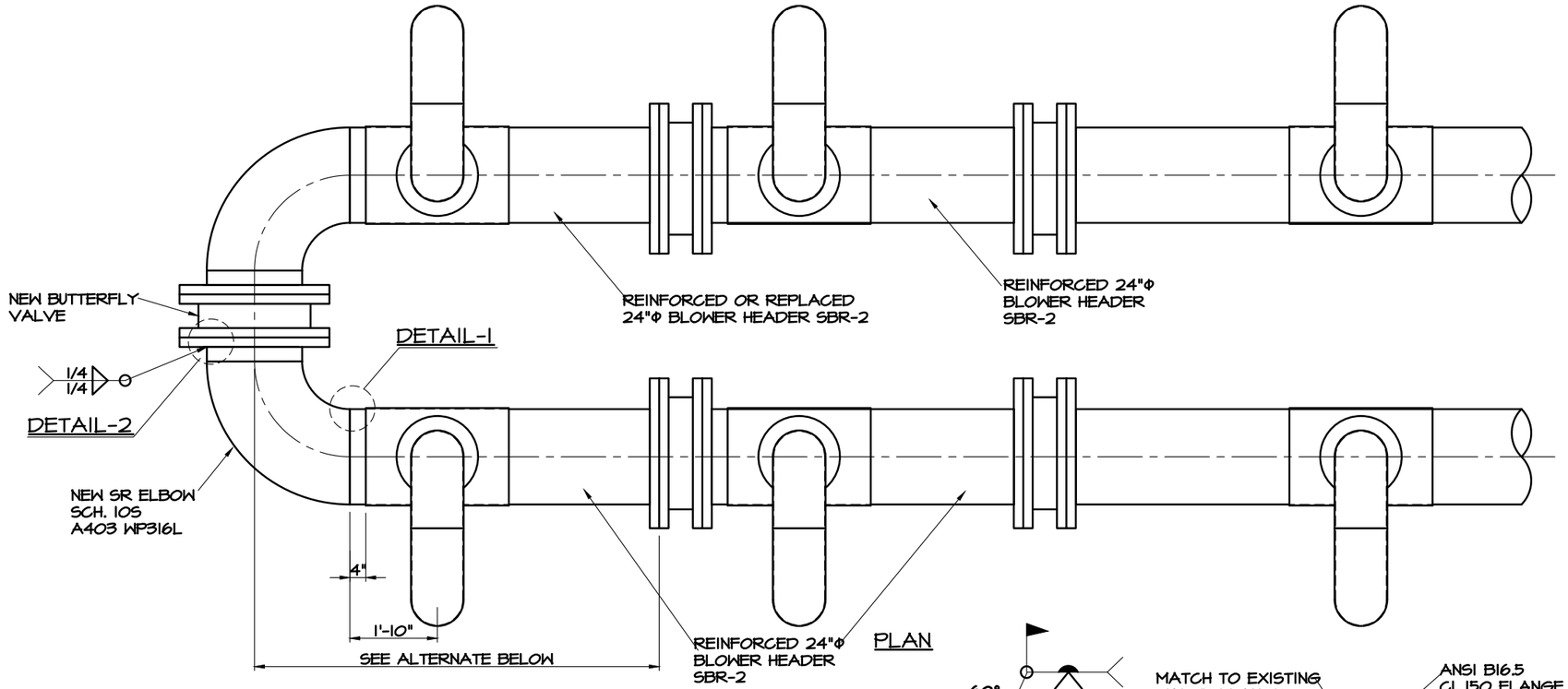
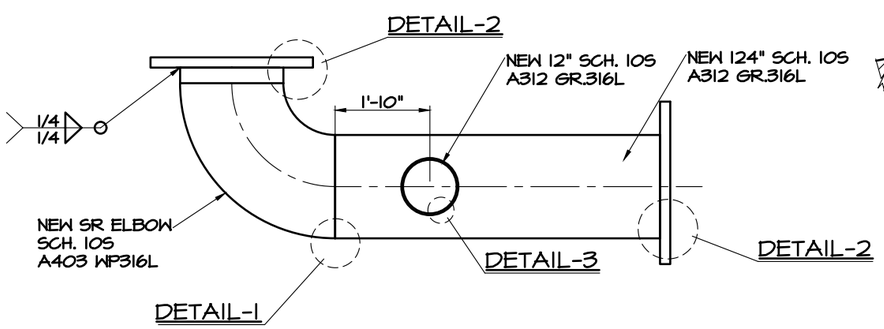
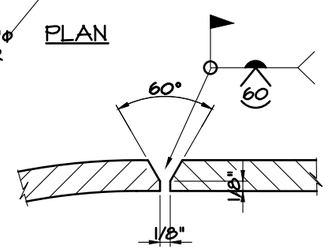
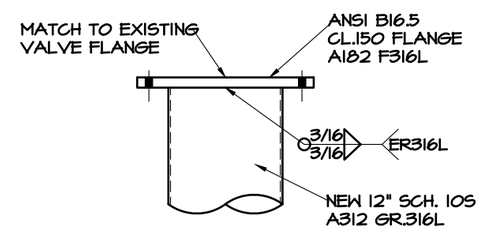




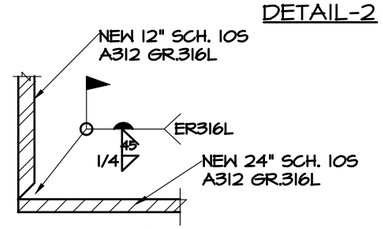
ALTERNATE REPLACEMENT SPOOL PIECE



DETAIL-1



DETAIL-2



DETAIL-3

PIPING AND FITTINGS – HIGH VELOCITY AIR			
ITEM	SIZE RANGE	DESCRIPTION	MATERIAL
PIPE	24"	SCH 10S	A312 TP316L
FLANGES	24"	CL150 ANSI B16.5 RF	A182 F316L
BLIND FLANGE	24"	½" FLAT PLATE	A240 GR316L
FITTINGS	24"	BUTT WELD SCH 10S	A403 WP316L
BOLTING	ALL	BOLTS, HEAVY HEX NUTS	A193 B8M TYPE 316
GASKETS	ALL	1/8" SELF ENERGIZING	
REPADS	ALL	¼" ROLLED PLATE	A240 GR316L

EQUIPMENT SCHEDULE – HIGH VELOCITY AIR			
		DESCRIPTION	MATERIAL SPECIFICATION
A	24" BUTTERFLY VALVE	FLANGED, MANUAL GEAR ACTUATOR	A536 DUCTILE IRON, BRONZE WITH 316L DISC

DESIGN DATA - HIGH VELOCITY AIR	
DESIGN TEMPERATURE	-30 to +130°C
OPERATING PRESSURE	8 PSIG
OPERATING TEMPERATURE	80°C
SPECIFIC GRAVITY - FLOODED	1.1
FLUIDS	AIR
CORROSION ALLOWANCE	0.0
HEAT TREATMENT	NONE
INSPECTION AND TESTING	
LIQUID PENETRANT TESTING	100% ALL SHOP AND FIELD WELDS

BLOWER HEADER CROSSOVER PIPING SBR-1 TO SBR-2

1. REMOVE END CAP ON REINFORCED BLOWER HEADER SBR-1
2. TRIM AS INDICATED AND BEVEL PIPE ENDS TO 37 1/2 ° BEVEL
3. INSTALL NEW ELBOWS PIPE, FLANGE AND VALVE
4. NEW ANSI B16.5 FLANGE TO A182 F316L
5. WELDERS TO HOLD VALID LICENSE TO ASME SECTION IX ISSUED BY ITS MANITOBA FOR THE RELEVANT PROCESS OR CSA W471. 'T' CLASSIFICATION LICENSE ISSUED BY THE CANADIAN WELDING BUREAU.
6. FLANGED CONNECTION TO BUTTERLY VALVE INSTALLED ON SBR-2.
7. INSTALL NEW BUTTERFLY VALVE.

ALTERNATE FABRICATION OF SPOOL PIECE

1. REPLACE EXISTING SECTION OF HEADER SERVING PIPING LOOP 'A' WITH NEW 24" SCH 10S PIPE.
2. FABRICATE AND INSTALL REPLACEMENT SPOOL PIECE AS SHOWN WITH 12" VERTICAL SECTION OF DROP LEG, FLANGE CONNECTION TO EXISTING EXPANSION JOINT, ELBOW AND FLANGE.
3. INSTALL NEW BUTTERFLY VALVE AND CONNECT PIPING.

B.M.
ELEV.

COSTRUCTION COMPLETION DATE: YYYY MM DD

NO.	REVISIONS	DATE	BY
0	ISSUED FOR TENDER 85-2023	2023 03 10	JC

Engineering Consultants
1304 Border St. | Winnipeg, MB | R3H 0M6 | Ph. (204) 694-4600

DESIGNED BY	FAR	CHECKED BY	FAR
DRAWN BY	JC	APPROVED BY	FAR
SCALE: HORIZONTAL VERTICAL		RELEASED FOR CONSTRUCTION	
DATE	2023 03 10	DATE	

PLOT DATE: 2023 03 10

ENGINEER'S SEAL

CONSULTANT DRAWING NUMBER
2023014–P6

BID OPPORTUNITY: XXX-20XX
CONTRACT NUMBER: X

FILE PATH: P:\2023 Project Folder\2023014\
FILE NAME: 2023014.dwg

Winnipeg

THE CITY OF WINNIPEG

WATER AND WASTE DEPARTMENT
ENGINEERING DIVISION

2023 NEWPCC SBR UPGRADES
SBR TANK No.1 PIPING
CROSS OVER PIPING AND VALVE

SHEET 6 OF 6

CITY DRAWING NUMBER
85-2023
_DRAWING
_2023014_P6-R0