

NOTES:

- 1) ALL UNDERGROUND PIPING ROUTES MUST BE INDICATED ABOVE GROUND
- 2) ALL UNDERGROUND MILDSTEEL PIPING MUST BE WRAPPED WITH DENSOLAD 50 PVC SRAVED POLYMER ADHESIVE
- 3) ALL PIPING ABOVE GROUND MUST BE HOT DIP GALVANIZED SABS 62 MEDIUM PIPE
- 4) ALL PIPING ABOVE GROUND MUST BE FLANGED AT REGULAR INTERVALS TO REMOVE FOR HOT DIP GALVANIZING
- 5) POSITIONS FOR SPARE CONNECTIONS TO BE IDENTIFIED ON SITE

NOTES:

LEGEND

- REGULATING VALVE
- DIAPHRAGM VALVE
- KNIFE GATE VALVE
- NEEDLE VALVE
- BALL VALVE
- VALVE
- BUTTERFLY VALVE
- ACTUATED BUTTERFLY VALVE
- SOLENOID VALVE
- NON RETURN VALVE
- FLOAT VALVE
- STRAINER
- BASKET STRAINER
- VACUUM GAUGE
- PRESSURE GAUGE
- TEMPERATURE GAUGE
- FLOW SWITCH
- PRESSURE SWITCH
- VACUUM SWITCH
- LSH - LEVEL SWITCH HIGH
- LSL - LEVEL SWITCH LOW
- REDUCER
- FLANGE
- PRESSURE SAFETY VALVE
- CHECK VALVE
- CUSTOMER PULG VALVE FLANGED
- FLEXIBLE COUPLING
- FLOW METER
- DRAIN
- ALARM
- CONDENSATE TRAP
- UNION
- CHEMICAL SEAL
- VALVE
- SLAM SHUT VALVE
- TURBINE METER

APPROVAL

	Signature	Date
MEPROTECH		
WASHTECH		
CONSOL		

REFERENCE DRAWINGS

Drawing No	Description
A111-03-02	RAND WATER DISTRIBUTION ISD
A111-03-03	BOOSTER PUMPROOM ISD & DETAIL
A111-03-04	PUMPROOM LAYOUT & DETAILS
A111-03-05	SECTIONAL STEEL TANK #1/2 ISD VIEW
A111-03-06	SECTIONAL STEEL TANK #1 DETAILS
A111-03-07	SECTIONAL STEEL TANK #1 DETAILS 2
A111-03-08	SECTIONAL STEEL TANK #2 DETAILS 1
A111-03-09	SECTIONAL STEEL TANK #2 DETAILS 2
A111-03-10	
A111-03-11	SECTIONAL STEEL TANK FOUNDATION

REVISIONS

No	Description	Date	By	Chk
A	ISSUED FOR COMMENT	11.10.10	w/jb	TC
B	ISSUED FOR TENDER	21.02.11	w/jb	TC
0	ISSUED FOR CONSTRUCTION	04.06.11	w/jb	TC
1	AS BUILT	04.06.11	P.S	TC

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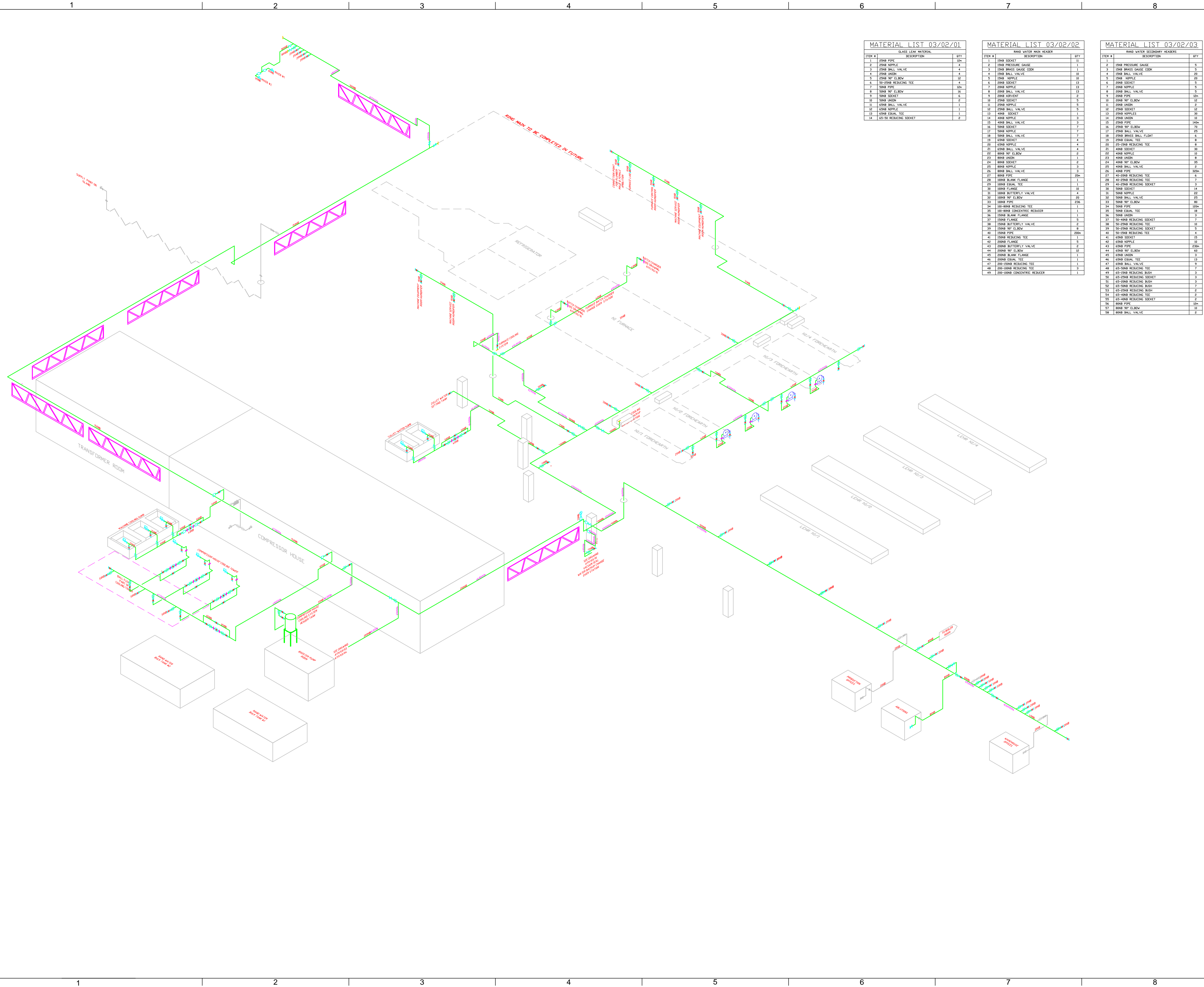
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Production facilities
 Nigel factory: Visagie road, Pretoriusstad, Nigel
 Wadvelve factory: 1 Rossouw road, Wadvelve, Gaborone
 Capetown factory: 11 4th drive, Oliefontein, Capetown
 Bellville factory: Lot 9 Saks Circle, Bellville, Capetown
 Pretoria factory: (Specialty Glass) 50 Oudies road, Pretoria West

DRAWN	w.j.b	PROJECT:	CONSOL GLASS NIGEL, N1
DATE	11.10.10	TITLE:	RAND WATER DISTRIBUTION PFD
SHEET	A0		
SCALE	NTS		
SHEET	A OF A		

REFERENCE DRG No. A111-03-01 REVISION: 1
 CONSOL DRG No. C095.D.6000.20.0301 REVISION: 1



MATERIAL LIST 03/02/01		
ITEM #	DESCRIPTION	QTY
1	50NB PIPE	20
2	50NB NIPPLE	4
3	50NB BALL VALVE	4
4	50NB UNION	4
5	50NB 90° ELBOW	12
6	50-50NB REDUCING TEE	4
7	50NB PIPE	100
8	50NB 90° ELBOW	12
9	50NB SOCKET	6
10	50NB UNION	2
11	40NB BALL VALVE	1
12	40NB NIPPLE	1
13	40NB UNION	1
14	40NB REDUCING SOCKET	2

MATERIAL LIST 03/02/02		
ITEM #	DESCRIPTION	QTY
1	50NB SOCKET	11
2	50NB PRESSURE GAUGE	1
3	50NB BRASS GAUGE COCK	1
4	50NB BALL VALVE	5
5	50NB NIPPLE	10
6	50NB SOCKET	13
7	50NB NIPPLE	13
8	50NB BALL VALVE	13
9	50NB PIPE	2
10	50NB 90° ELBOW	5
11	50NB NIPPLE	5
12	50NB BALL VALVE	5
13	40NB SOCKET	1
14	40NB NIPPLE	3
15	40NB BALL VALVE	3
16	50NB SOCKET	7
17	50NB NIPPLE	7
18	50NB BALL VALVE	7
19	40NB SOCKET	4
20	40NB NIPPLE	4
21	40NB BALL VALVE	4
22	40NB 90° ELBOW	2
23	40NB UNION	1
24	40NB SOCKET	2
25	40NB NIPPLE	3
26	40NB BALL VALVE	3
27	40NB PIPE	100
28	50NB B.RANK FLANGE	1
29	50NB EQUAL TEE	1
30	50NB FLANGE	10
31	50NB BUTTERFLY VALVE	4
32	50NB 90° ELBOW	40
33	50NB PIPE	200
34	50-50NB REDUCING TEE	20
35	50-40NB CONCENTRIC REDUCER	1
36	50NB B.RANK FLANGE	1
37	50-40NB REDUCING SOCKET	5
38	50NB BUTTERFLY VALVE	2
39	50NB 90° ELBOW	2
40	50NB PIPE	200
41	50NB REDUCING TEE	4
42	50NB FLANGE	15
43	50NB BUTTERFLY VALVE	5
44	50NB 90° ELBOW	12
45	50NB B.RANK FLANGE	2
46	50NB EQUAL TEE	1
47	200-100NB REDUCING TEE	1
48	200-100NB REDUCING TEE	3
49	200-100NB CONCENTRIC REDUCER	1

MATERIAL LIST 03/02/03		
ITEM #	DESCRIPTION	QTY
1	50NB PRESSURE GAUGE	1
2	50NB BRASS GAUGE COCK	1
3	50NB BALL VALVE	5
4	50NB NIPPLE	10
5	50NB SOCKET	13
6	50NB NIPPLE	13
7	50NB BALL VALVE	13
8	50NB PIPE	2
9	50NB 90° ELBOW	5
10	50NB NIPPLE	5
11	50NB BALL VALVE	5
12	50NB UNION	2
13	50NB NIPPLES	20
14	50NB UNION	12
15	50NB PIPE	100
16	50NB 90° ELBOW	12
17	50NB BALL VALVE	12
18	50NB BRASS BALL FLOAT	1
19	50NB EQUAL TEE	8
20	50-50NB REDUCING TEE	8
21	40NB NIPPLE	30
22	40NB NIPPLE	10
23	40NB UNION	8
24	40NB 90° ELBOW	20
25	40NB BALL VALVE	2
26	40NB PIPE	100
27	40-50NB REDUCING TEE	6
28	40-50NB REDUCING TEE	7
29	40-50NB REDUCING SOCKET	14
30	50NB NIPPLE	22
31	50NB BALL VALVE	23
32	50NB 90° ELBOW	80
33	50NB PIPE	100
34	50NB EQUAL TEE	18
35	50NB UNION	3
36	50-40NB REDUCING SOCKET	2
37	50-50NB REDUCING TEE	10
38	50-50NB REDUCING SOCKET	5
39	50-50NB REDUCING TEE	4
40	50-50NB REDUCING TEE	15
41	50NB NIPPLE	10
42	50NB PIPE	200
43	50NB 90° ELBOW	60
44	50NB EQUAL TEE	13
45	40NB BALL VALVE	9
46	40-50NB REDUCING TEE	3
47	40-50NB REDUCING TEE	3
48	40-50NB REDUCING SOCKET	7
49	40-50NB REDUCING BUSH	3
50	40-50NB REDUCING BUSH	3
51	40-50NB REDUCING BUSH	3
52	40-50NB REDUCING TEE	2
53	40-50NB REDUCING BUSH	2
54	40-50NB REDUCING TEE	2
55	40-50NB REDUCING SOCKET	2
56	50NB PIPE	100
57	50NB 90° ELBOW	12
58	50NB BALL VALVE	2

NOTES:
 - ALLOW TO PRESSURE TEST SYSTEM (SDAP TEST) USING COMPRESSED AIR @ 6 BAR (600kPa)

LEGEND

- REGULATING VALVE
- PINCH VALVE
- KNIFE GATE VALVE
- NEEDLE VALVE
- BALL VALVE
- VALVE
- BUTTERFLY VALVE
- ACTUATED BUTTERFLY VALVE
- SOLENOID VALVE
- NON RETURN VALVE
- FLOAT VALVE
- STRAINER
- VACUUM GAUGE
- PRESSURE GAUGE
- TEMPERATURE GAUGE
- FLOW SWITCH
- PRESSURE SWITCH
- VACUUM SWITCH
- LEVEL SWITCH HIGH
- LEVEL SWITCH LOW
- REDUCER
- FLANGE
- FLEXIBLE COUPLING
- FLOW METER
- DRAIN
- ALARM
- CONDENSATE TRAP
- UNION
- PLUG VALVE
- SLAM SHUT VALVE
- TURBINE METER
- PRESSURE SAFETY VALVE
- CHECK VALVE
- CUSTOMER PLUG VALVE FLANGED

APPROVAL

Signature	Date
MEPROTECH	
WASHTECH	
J. de WIND	
J. POOL	
L. MPOFANA	

REFERENCE DRAWINGS

Drawing No	Description
A111.03.01	RAND WATER DISTRIBUTION PFD

REVISIONS

No	Description	Date	By	Chk
A	ISSUED FOR TENDER	21.02.11	W.B	T.C
0	ISSUED FOR CONSTRUCTION	25.02.11	W.B	T.C
1	AS BUILT	26.10.11	W.B	T.C

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 Wadeville factory: 1 Rosouw road, Wadeville, Germiston
 Zebraville factory: 11 Sake drive, Oshanafontein
 Bellville factory: Lot 9 Sake Circle, Bellville, Capetown
 Pretoria factory: (Specially Class) 51 Driefontein road, Pretoria West

DRAWN	W.B	PROJECT:	CONSOL GLASS NIGEL, N1
DATE	21.02.11	TITLE:	RAND WATER DISTRIBUTION
SHEET	A1		
SCALE	NTS		
SHEET	1 OF 1		
REFERENCE ORG. NO.	A111.03.02	REVISION:	1
CONSOL ORG. No.	C095.D.6000.20.0302	REVISION:	1