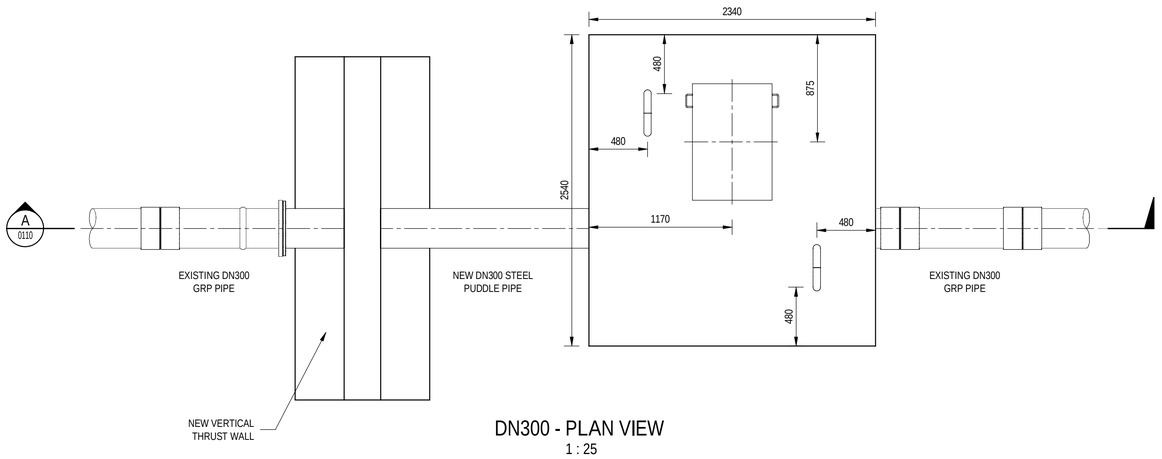
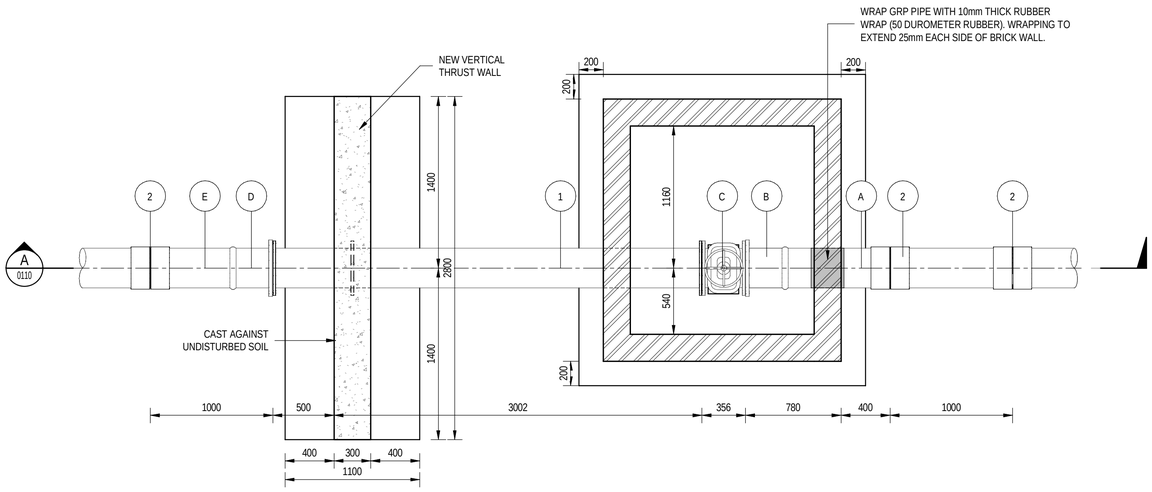
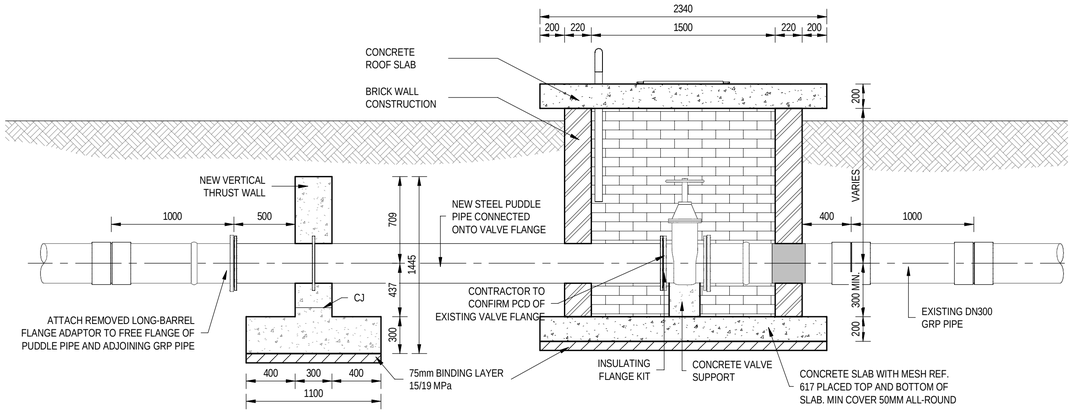


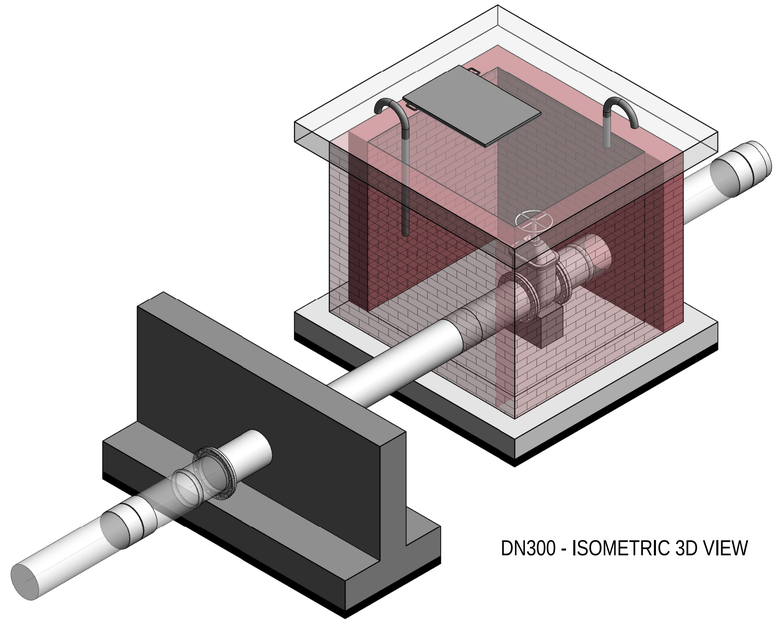
DN300 - PLAN VIEW
1 : 25



DN300 - SECTIONAL PLAN VIEW
1 : 25



SECTION A
1 : 25



DN300 - ISOMETRIC 3D VIEW

PRINT IN COLOUR

CONSTRUCTION SEQUENCE:

1. EXCAVATE AND EXPOSE EXISTING GRP PIPES.
2. DRAIN PIPELINE OF WATER.
3. CUT EXISTING GRP PIPES AT APPROPRIATE LOCATIONS:
   A. TWO CUTS ON PUDDLE PIPE SIDE OF CHAMBER, AT END-POINT OF NEW STAINLESS STEEL PUDDLE PIPE AND 1000mm FROM THIS CUT ON EXISTING GRP PIPE.
   B. TWO CUTS ON OPPOSITE SIDE OF CHAMBER FROM PUDDLE PIPE, THE FIRST CUT 400mm FROM CHAMBER WALL, THE SECOND CUT 1000mm FROM PREVIOUS CUT.
4. REMOVE EXISTING GRP PIPE AND FLANGE ADAPTOR ON PUDDLE PIPE SIDE OF EXISTING VALVE.
5. EXCAVATE FOR THRUST WALL.
6. INSTALL NEW STAINLESS STEEL PUDDLE PIPE AND CONNECT TO EXISTING VALVE.
7. RE-USE REMOVED GRP FLANGE ADAPTOR (IF PRESENT, OR SUPPLY NEW) AND CONNECT GRP PIPE TO NEW STAINLESS STEEL PUDDLE PIPE.
8. FIX STEEL REINFORCING AND CAST THRUST WALL.
9. WRAP GRP PIPE PROTRUDING THROUGH BRICK WALL WITH RUBBER WRAP AND CLOSE UP VOID AROUND PIPE IN BRICK WALL WITH MORTAR MIX.
10. CLOSE UP VOID IN BRICK WALL AROUND STAINLESS STEEL PUDDLE PIPE WITH MORTAR MIX.
11. BACKFILL AND COMPACT VOID NEXT TO THRUST WALL WITH STABILISED SOIL.
12. BACKFILL AND COMPACT PIPE TRENCH.
13. FILL PIPELINE AND CHECK FOR LEAKS AT COUPLINGS.

NEW PARTS LIST		
ITEM No.	QUANTITY	DESCRIPTION
1	1	DN 300 SS PUDDLE PIPE FLANGED END; 3500mm F/F
2	3	DN 300 REKA COUPLING
EXISTING PARTS LIST		
ITEM No.	QUANTITY	DESCRIPTION
A	1	DN 300 GRP PIPE, SN 5000
B	1	DN 300 LONG-BARREL FLANGE ADAPTOR
C	1	DN 300 ISOLATION VALVE
D	1	DN 300 LONG-BARREL FLANGE ADAPTOR
E	1	DN 300 GRP PIPE, SN 5000

DISCLAIMER

IF CONSTRUCTION DRAWINGS ARE ISSUED UNSIGNED, THE MASTER WITH THE ORIGINAL SIGNATURE OF APPROVAL WILL BE HELD AT THE ZUTARI OFFICE OF THE APPROVER

NOTES:

GENERAL
1. REFER TO HORIZONTAL AND VERTICAL ALIGNMENT DRAWINGS FOR POSITION, SIZE AND PRESSURE RATING OF VALVES AND PIPE SPECIALS.

PIPEWORK
2. CONTRACTOR SHALL DESIGN ALL PIPE SPECIALS IN ACCORDANCE WITH SPECIFICATION AUR 7001.
3. ALL MATERIALS TO BE IN ACCORDANCE WITH THE SPECIFICATIONS AND DRAWINGS.
4. CONTRACTOR TO SUBMIT SHOP DRAWINGS OF ALL PIPE SPECIALS FOR APPROVAL BY ENGINEER.
5. ALL PIPE FITTINGS TO BE CHECKED AGAINST CIVIL WORKS. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER PRIOR TO MANUFACTURE.

CORROSION PROTECTION
6. ALL FLEXIBLE COUPLINGS METAL SURFACES TO BE COATED INTERNALLY AND EXTERNALLY WITH FUSION BONDED EPOXY TO A MINIMUM DRY FILM THICKNESS OF 250 MICRONS.
7. DAMAGED COATINGS AND LININGS SHALL BE REPAIRED AS PER THE COATING SUPPLIER'S REQUIREMENTS.
8. ALL GRP PIPES ENCASED IN BRICKWALL TO BE WRAPPED WITH RUBBER BANDAGE (50 DUROMETER) OF AT LEAST 10mm THICK, EXTENDING 25mm FROM FACE OF WALL ON EACH SIDE.
9. ALL STEEL SPECIALS AND FASTENERS BURIED IN SOIL TO BE WRAPPED IN PETROLATUM TAPE WRAPPING SYSTEM, INCLUDING PROFILING MASTIC AS REQUIRED.

CIVIL WORK
10. STRUCTURAL CONCRETE SHALL BE 35/19 Mpa, UNLESS SPECIFIED DIFFERENTLY ELSEWHERE.
11. ALL BUILDING MATERIALS SHALL BE SABS APPROVED UNLESS SPECIFIED DIFFERENTLY ELSEWHERE.
12. ENGINEER TO INSPECT AND APPROVE FOUNDING MATERIAL BEFORE BLINDING IS CAST.
13. ALL EXPOSED CONCRETE EDGES TO BE CHAMFERED 20 X 20 UNLESS OTHERWISE NOTED.
14. BRICKWORK SHALL COMPRISE OF NFX, 14Mpa AVERAGE STRENGTH CLAY BRICK. UNPLASTERED.
15. UP TO 2.5m CHAMBER DEPTH BELOW NGL, BRICK WALLS SHALL BE DOUBLE SKIN (220mm). DEEPER THAN 2.5m DEEP, BRICK WALLS SHALL STEP-OUT ON THE EXTERNAL FACE IN THICKNESS TO BE TRIPPLE SKIN (330mm). THE CHAMBER FLOOR DIMENSIONS SHALL BE INCREASED ACCORDINGLY TO ACCOMMODATE FOR THE THICKER WALLS.
16. THE VOID GAP BETWEEN PIPE OUTER WALL AND BRICK SHALL NOT EXCEED 75mm WIDE ALL-ROUND PIPE.
17. MORTAR SHALL COMPRISE OF 4 :1 SAND TO BINDER RATIO
18. MILD STEEL, 2.8mm BRICKFORCE SHALL BE ENCORPORATED EVERY 4TH COURSE LAID.
19. BACKFILL MATERIAL TO BE COMPACTED TO 93% MOD. AASHTO IN MAX. 150mm LAYERS.
20. UNFORMED CONCRETE SURFACES TO BE STEEL FLOATED.
21. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL RELEVANT REINFORCING DRAWINGS.
22. BACKFILL WITH 5% STABILISED SOIL NEXT TO VERTICAL THRUST WALL.

ZUTARI
IMPACT. ENGINEERED.

CLIENT

REV	DATE	REVISION DETAILS	APPROVED
1	2024-04-17	ISSUED FOR CONSTRUCTION	J. KRIEGLER
0	2023-11-10	ISSUED FOR CONSTRUCTION	J. KRIEGLER

SCALE	SIZE
As indicated	A1

FOR CONSTRUCTION

DRAWN: B MC CAROGHER
DESIGNED: J KRIEGLER
REVIEWED: S KLEYNHANS

APPROVED
DATE: 03 May 2024
J. KRIEGLER
PR. ENG 20060093

PROJECT
GRP PIPELINE FROM THE ALEXANDRIA MAIN TRANSFER PUMP STATION TO THE ALEXANDRIA RESERVOIR

TITLE
DN300 INLINE ISOLATION VALVE CHAMBER: RETRO-FITTING DETAIL

DRAWING NUMBER

PROJECT No	WBS	TYPE	DISC	NUMBER	REV
1002863	Z3	DRG	CC	0110	1

Plotted: 2024/05/02 10:58:57 Office: CPTZAWAT Filename: \\zutari.com\shares\ZA\CPT\Projects\Projects\100863 - Mitchells Bulk Water Supply\3.Delivery\1.Drawings\CAD\DRGS\TENDER\NOLAMBE 202823-Alexandria PS to Alexandria Res\Construction\1002863-ZA-DRG-CC-0110_R02.rvt