information

Short Rural Pipeline Extensions

GWMWater

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1. INTRODUCTION

This information sheet provides an overview of GWMWater's requirements for short pipeline extensions to the rural pipeline system.

Applicants seeking new connections are required to design, construct and hand over the required pipeline extension in accordance with GWMWater's specifications and requirements. This must be in accordance with the *Water Supply Code of Australia WSA 03-2011 Version 3.1* and the requirements of this document.

GWMWater has discretion to determine whether a pipeline extension is deemed a 'Short Rural Pipeline Extension'.

2. DESIGN

2.1 General

The applicant must submit a design drawing of the proposed pipeline for approval by GWMWater prior to commencing any works. Design drawings must show the location of proposed pipes, valves and hydrants; pipe materials, diameters and pressure class; and other existing services and relevant obstructions.

Design drawings must clearly show all relevant measurements, including offsets from fence lines, locations of air valves and scour valves, and positions of tappings and water meters.

The applicant or their designer must contact 'Dial before You Dig' to determine the location of all services.

New pipelines are generally to be located eight metres inside the property boundary adjacent to a road unless otherwise approved by GWMWater. Any deviation must be clearly marked with the chainage and offset value. Pipelines located within private property will require written permission from the landholder for their construction. It is the responsibility of the applicant to obtain such written permission which is to be provided to GWMWater with the proposed design.

2.2 Pipe Materials

Short pipeline extensions must use the same or greater pressure class as the pipe being extended from.

Where 50 mm pipes are required, the approved type of pipe is:

- DN63 PE100 PN10 or PN12.5

Where 80 mm pipes are required, the approved types of pipe are:

- DN80 uPVC Series 1 PN12
- DN90 PE100 PN10 or PN12.5

PVC pipes shall be rubber ring jointed. PE pipe shall be butt welded or electro-fusion welded.

2.3 Pipe Grades

All rural pipelines must be laid to a minimum grade of 0.143% (1 in 700) with alternate rising and descending sections separated by an air valve at high points.

2.4 Minimum Cover

Subject to the structural design, the minimum cover requirements shall be as per the following table:

Location	Minimum Cover Requirements (mm)
Roadways and Road reserves	1200
Private property	600
At air valves	750 (to allow cover for offset air valve pipe)

2.5 Valves

- An isolation valve is to be located downstream of a spur off-take point.
- Scour valves are required at the end of all pipelines for flushing purposes. GWMWater will advise on the requirement of additional scour valves at low points for maintenance purposes.
- Air valves must be located at all high points including the end of rising pipelines to release trapped air. The maximum spacing between air valves shall not exceed 1,000 metres.
- All valves are to be located on road reserves, unless otherwise approved by GWMWater.
- All valves must be installed according to GWMWater Specifications.
- Air and scour valves are to be constructed in accordance with the attached Drawings.

3. APPROVALS

The applicant is responsible for providing all notices and obtaining all approvals and permits required by the appropriate organisations for the proper and complete execution of the works. This includes :-

- Dial before you dig reports
- any environmental and cultural heritage assessment requirements,
- Council or Vic Roads approvals for road crossings, and
- Written agreement from landowners where the proposed pipeline will traverse neighbouring properties

When all required approvals and design information has been submitted to GWMWater a letter of approval will be given to the applicant. No work is to commence until this letter of approval is issued.

4. CONSTRUCTION

- The applicant must engage a suitable contractor to undertake the works in accordance with the plans approved by GWMWater which will be marked 'Construction Issue'. The plans will be accompanied by a list of Hold Points for inspection.
- The contractor must liaise with GWMWater before the start of the work to schedule the hold points for inspection.
- The contractor must contact 'Dial before You Dig' prior to commencement of excavation to determine the location of other services.
- The contractor must submit the "Notice of intention to commence works" form to GWMWater 3 days prior to the commencement of works to allow the coordination of site inspections. Top soil shall be stripped and stockpiled for use in the surface reinstatement of all disturbed areas.
- The contractor must demonstrate the quality of work by carrying out acceptance tests to the satisfaction of GWMWater.

- Cutting in to the existing pipe must not be carried out without permission from GWMWater. The contractor must provide sufficient notice (not less than 5 business days) for GWMWater to organise any shut down of mains.

5. AS CONSTRUCTED DETAILS

The applicant must supply detailed 'As Constructed' information to GWMWater for acceptance on completion of the works. The 'As Constructed' drawings may comprise updated design drawings and must include GPS co-ordinates of all bends, fittings, valves and meters.

The 'As Constructed' information must include complete details on all materials.

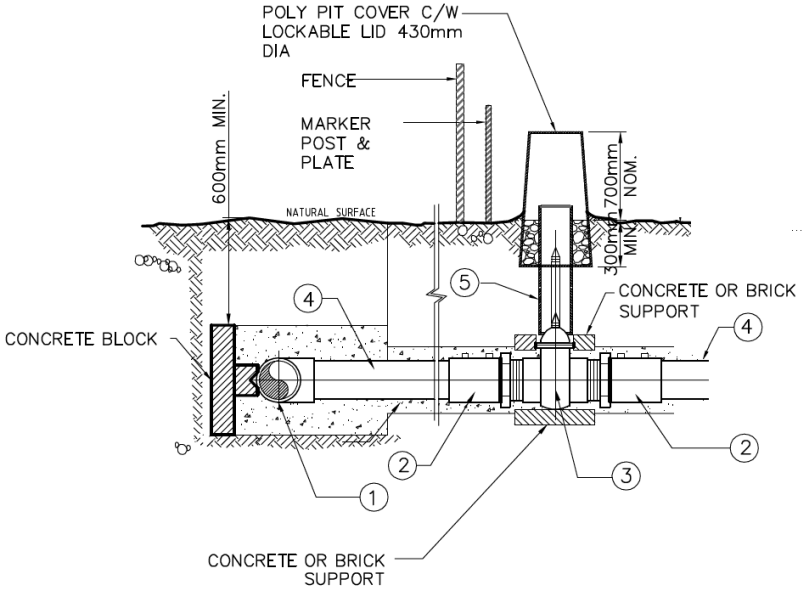
6. ASSET HANDOVER

The applicant(s) will not be permitted to receive a water supply from the rural pipeline until all new assets are inspected and approved by GWMWater, and all 'As Constructed' information is satisfactorily received by GWMWater.

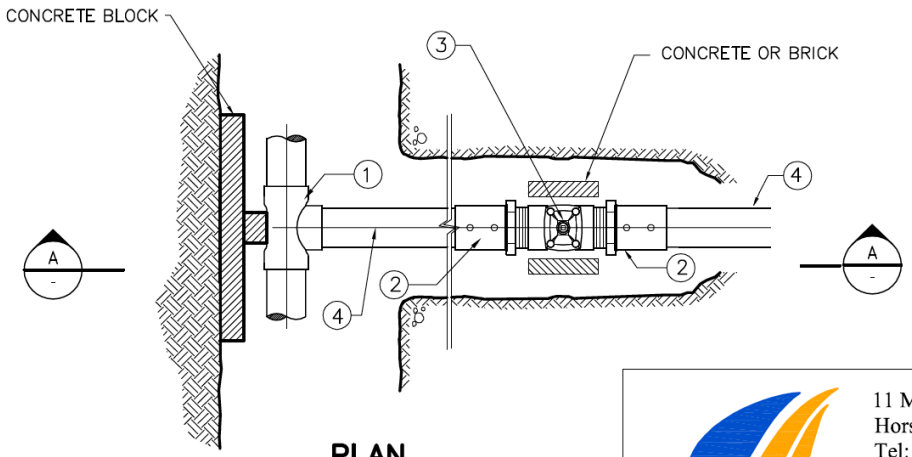
Defects will need to be rectified by the Contractor for a period of 24 months.

ISOLATION VALVE - DN63

N.T.S.



A - SECTION



PLAN

NOTE:

1. ANY OVER EXCAVATION AROUND TAPPING BAND ON MAINLINE TO BE RECOMPACTED WITH HAND TAMPING.
2. WRAP ALL NUTS, BOLTS, WASHERS AND BACKING FLANGES WITH 3 PART DENSO SYSTEM.
3. ALL PIPEWORK AND FITTINGS TO BE PRESSURE RATED TO A MINIMUM OF PN12.5 UNLESS APPROVED OTHERWISE.

ITEM	DESCRIPTION - 63mm PIPE	MATERIAL	QTY	ITEM
1	DN63/75/90 x DN63 ELECTROFUSION REDUCER TEE	PE	1	No.
2	DN63 ELECTROFUSION MALE TRANSITION COUPLER	PE/BRASS	1	No.
3	DN50 FEMALE BALL VALVE	BRASS	1	No.
4	DN63 PN12.5 PIPE	PE	LENGTH TO SUIT	m
5	DN100 RISER	PVC	1	No.

GWMWater

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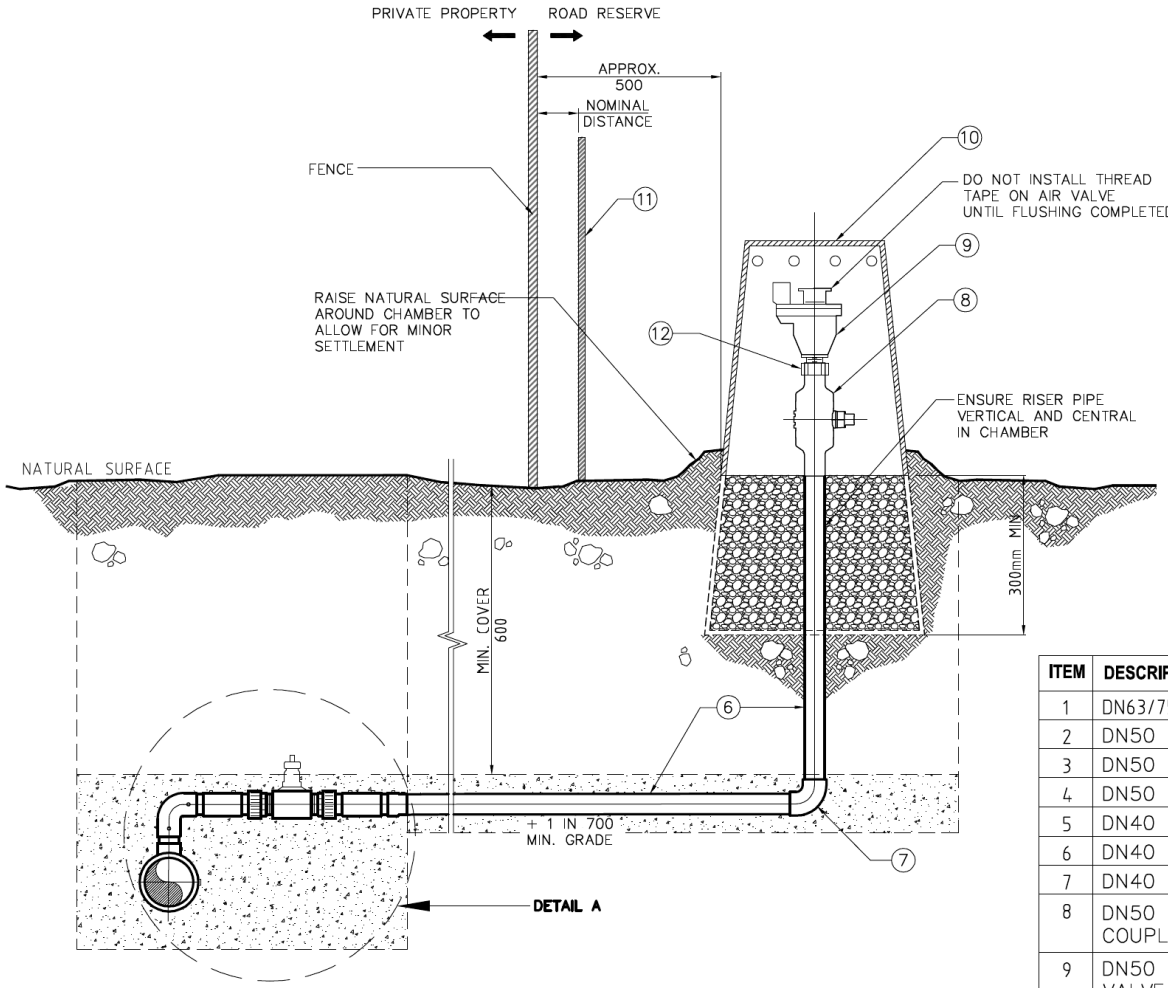
DESIGNED S. UNNI	DATE 15/07/2014	SCALE Not to scale	PROJECT RURAL PIPELINE EXTENSIONS
DRAWN D. FISCHER	DATE 17/07/2014		
CHECKED S. UNNI	DATE XX/07/2014		TITLE STANDARD DETAILS VALVES HDPE MAIN DN 63
APPROVED S. UNNI	DATE XX/07/2014		



AIR VALVE

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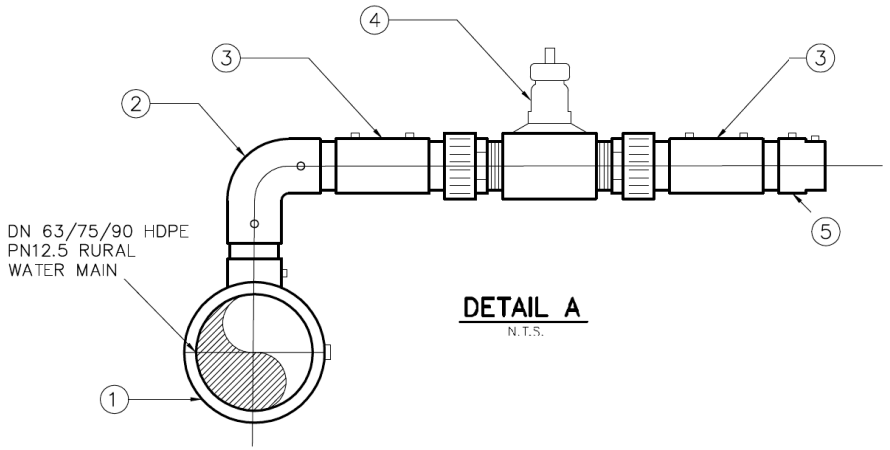

DETAIL A

N.T.S.

ITEM	DESCRIPTION	MATERIAL	QTY	UNIT
1	DN63/75/90 x DN50 ELECTROFUSION REDUCER TEE	PE	1	No.
2	DN50 ELECTROFUSION 90° ELBOW	PE	1	No.
3	DN50 ELECTROFUSION MALE TRANSITION COUPLER	PE/BRASS	2	No.
4	DN50 FEMALE BALL VALVE	BRASS	1	No.
5	DN40 x DN50 ELECTROFUSION REDUCER	PE	1	No.
6	DN40 PN12.5 PIPE	PE100	LENGTH TO SUIT	m
7	DN40 x 90° ELECTROFUSION ELBOW PN12.5	PE	1	No.
8	DN50 AVK STUBBE BALL VALVE PN16 W/ EF COUPLINGS BOTH ENDS	PE	1	No.
9	DN50 MALE THREADED TRIPLE ACTING AIR RELEASE VALVE		1	No.
10	POLY PIT COVER C/W LOCKABLE LID 430mm DIA.		1	No.
11	VALVE MARKER POST		1	No.
12	DN40 TO DN50 FEMALE THREAD TRANSITION ADAPTOR PN12.5	PE/BRASS	1	No.

NOTE:

1. ANY OVER EXCAVATION AROUND TAPPING BAND ON MAINLINE TO BE RECOMPACTED WITH HAND TAMPING.
2. WHERE AIR VALVE ASSEMBLIES ARE TO BE INSTALLED IN LOCATIONS OTHER THAN AT NOMINAL DISTANCES FROM THE ROAD RESERVE BOUNDARY, IT IS INDICATED ON THE PIPELINE DRAWINGS.
3. ALL PIPEWORK AND FITTINGS TO BE PRESSURE RATED TO A MINIMUM OF PN12.5 UNLESS APPROVED OTHERWISE.

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DRAWN D. FISCHER	DATE 17/07/2014	This document remains the property of GWM Water and may only be used for its commissioned purpose and in accordance with the terms of that commission. Unauthorised use of this document in any form whatsoever is prohibited.	
CHECKED S. UNNI	DATE XX/07/2014		TITLE STANDARD DETAILS VALVES HDPE MAIN DN 63
APPROVED S. UNNI	DATE XX/07/2014		

SCOUR VALVE

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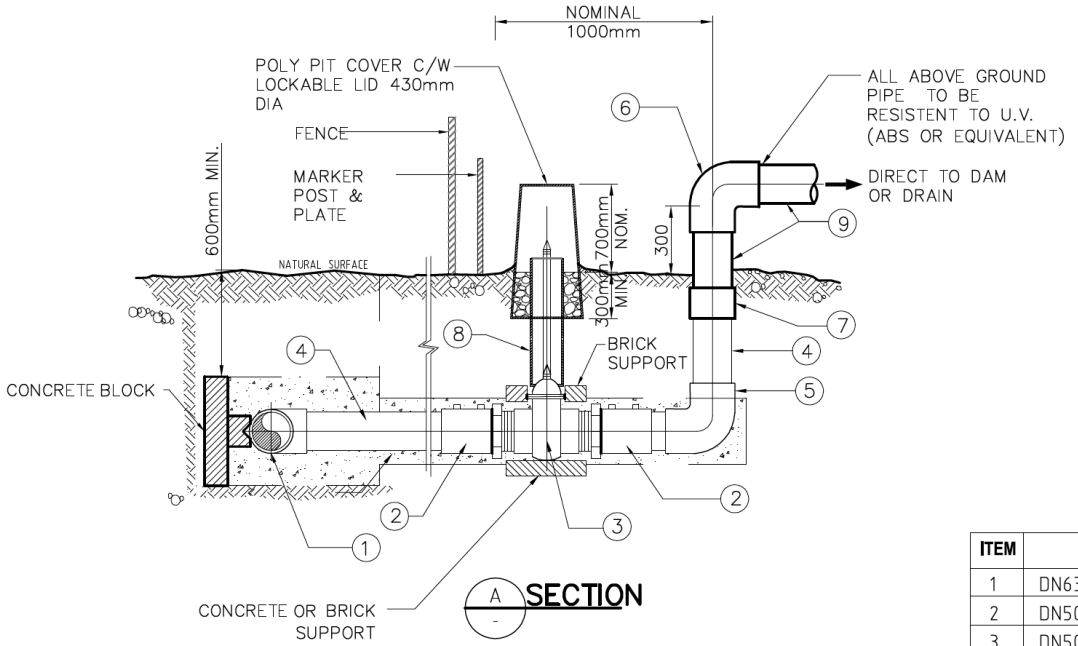

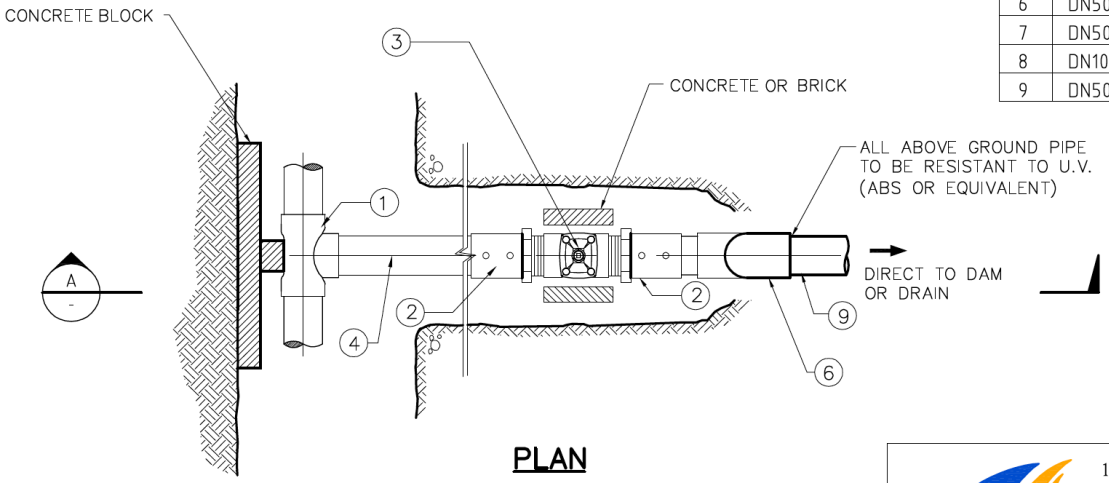

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3	DN50 FEMALE BALL VALVE	BRASS	1	No.
4	DN 50 PN12.5 PIPE	PE	LENGTH TO SUIT	m
5	DN50 ELECTROFUSION 90 deg. ELBOW	PE	1	No.
6	DN50 90 deg. ELBOW	ABS	1	No.
7	DN50 HDPE to ABS COUPLER	ABS	1	No.
8	DN100 RISER	PVC	1	No.
9	DN50 ABS PIPE	ABS	1	No.

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