SEWERAGE DESIGN STANDARD

Supplementary Information to the WSAA Sewerage Code of Australia WSA 02-2014-3.1 Melbourne Retail Water Agencies Edition 2

Western Water

July 2020

Table of Contents

Introduction

The design and construction of sewerage assets within Western Water's service area shall be carried out in accordance with the following documents (listed in order of precedence):

1. This Design Standard;
2. Western Water approved products listing (available at www.mrwa.com.au);
3. MRWA Sewerage Standards (available at www.mrwa.com.au);
4. MRWA Backfill Specification 04.03.2 (available at www.mrwa.com.au);
5. WSAA Sewerage Code of Australia WSA 02-2014-3.1 Melbourne Retail Water Agencies Edition Version 2; and,
6. Australian Standards.

This document is a guideline only, and not intended to be a detailed specification for the purposes of the design and construction of works. Designers and constructors are responsible for the respective aspects of the design and construction process and the justification of any variations from the requirements set out in this Design Standard, MRWA Standards and WSAA Sewerage Code. Where there are any discrepancies or inconsistencies between documents these should be discussed with Western Water prior to proceeding.

Enquiries or suggestions relating to the information set out in this Design Standard are welcome and can be directed via email to designstandards@westernwater.com.au

Western Water will update this document as changes become necessary, and the most up to date version will be available on our website. This edition applies to all developments and design projects issued to commence design on or after the publication date unless otherwise stated by Western Water.

Supplementary Requirements to MRWA Standards

MRWA-S-103 Pipe and Joint Systems

The following amendments are made to Table 103-A and accompanying notes:

- PP pipe is not permitted for gravity sewers unless prior permission is granted by Western Water.
- PE pipe is not permitted for gravity sewers unless prior permission is granted by Western Water.
- DICL is not permitted for gravity sewers unless prior permission is granted by Western Water.

MRWA-S-104 Property Junction Arrangements

Western Water adopts the listed SEW arrangements in Table 104-A.

MRWA-S-108 Private Property Reticulation

Sewers within private property shall be less than 2.5m deep. *This is an amendment to note 5 on MRWA-S-108 (note this does not amend the requirements for depth of property connection fittings or depth of connection which remain unchanged from the MRWA Standards).*

Sewers within private property shall have reasonable access (refer 5.2.4 of the Code) to all sewerage assets including maintenance structures, pipe and property connections (including connection fitting).

For any sewers located within private property, the Consultant shall demonstrate that each lot containing a sewerage asset has reasonable access. This may be demonstrated by submitting building envelopes, easements or appropriate clauses/requirements contained in the Memorandum of Common Provisions.

Western Water permission must be obtained prior to preparation of the design for sewer assets located in any lot without reasonable access, which will be considered on a case by case basis and only granted where the number of lots affected within a pod are not excessive and the alignment cannot be practically avoided. Where Western Water has granted permission for lots without reasonable access, these lots shall be clearly indicated on the design drawings.

MRWA-S-109/110 Road Reserve Sewerage Servicing

For Western Water, the developer may elect to install privately owned house drain plumbing (to AS/NZS 3500) to the road reserve boundary (or beyond) to prevent the future need for pavement to be excavated. This short section of private plumbing may be completed without receiving PIC from the Water Agency.

MRWA-S-111 Sewers in Undeveloped Property and Easements and Offsets

Easements within private property shall be as per MRWA-S-111.

For Public Open Space and reserves, a minimum 3.0m wide easement is required over all sewers up to and including DN600mm. Any sewers larger than DN600mm shall have an easement width of 3.7m + DN (with easement width rounded up to the next 0.5m increment).

MRWA-S-300 Maintenance Structure Selection, Placement and Connection To Properties

All temporary dead ends shall terminate with a maintenance hole *(amendment to Table 300-A)*. All maintenance structures containing a stub for future sewer extension shall also be maintenance holes.

Western Water permits maintenance holes within private property.

Spacing between maintenance structures shall be as per the revised Table 300-B-WW below. *This has been amended to require the maximum spacing between maintenance holes (including any intermediate structures) to be 200m. All other structure spacings remain unchanged.*

Table 300-B-WW Maintenance Structure Max Spacing

Upstream Structure	Downstream Structure	Land Type/Sewer Type	Max Spacing
IS	MS, MC or MH	Private Property	80m
IS	MS, MC or MH	Public Land	100m
MS or MC	MS, MC or MH	Private Property	100m
MS or MC	MS, MC or MH	Public Land	150m
MH	MS or MC	Private Property	100m
MH	MS or MC	Public Land	150m
IS or MH	MH (+ intermediate structures)	≤DN300 Sewers	**200m**
MH	MH	≥DN375 Sewers	**200m**

MRWA-S-307 Maintenance Holes General Design Requirements

All pressure main discharge maintenance holes and SPS inlet maintenance holes shall be deemed to be a minimum of medium risk as per Table 307-E.

MRWA-S-312 Concrete Maintenance Holes External Drop Construction

External drops are not permitted by Western Water.

MRWA-S-314 Maintenance Holes Ancillary Structure Installation

Landings shall be installed in maintenance holes deeper than 9m *(clarification of Installation Note C for Western Water*).

MRWA-S-401/403 Sewerage Network Airflow Management

Water seals, gas check maintenance holes and boundary traps are not used by Western Water, unless otherwise advised by Western Water in the project brief or planning advice.

Supplementary Requirements to WSA 02-2014 MRWA

3.3.1 Flow Estimation - General

For estimation of design flows a flow of 450 L/lot/day and population of 2.5 per lot shall be used unless otherwise advised by Western Water.