

Document Category

Engineering Services

Limit of Contract Notes for Water Supply Construction

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1 Introduction

Limit of Contract notes outline construction requirements and sequence of works to the constructor. These notes are to be read in conjunction with the SA Water Water Supply Construction Manual.

1.1 Purpose

Provide consultants with standard notes to be included on reticulation network design drawings. These notes need to be read in conjunction with the SA Water Water Supply Construction Manual and included on design drawings in a sequence of works and with notes that are specific to the design drawing.

1.2 Glossary

The following glossary items are used in this document:

Term	Description
SA Water	South Australian Water Corporation
WSCM	Water Supply Construction Manual

1.3 References

The following table identifies the documents and/or articles that are referenced in this document:

Title/URL	Version	Date
Water Supply Construction Manual	current	

2 Work by Constructor

2.1 General Note

- Construct the reticulation water main as shown.

2.2 Link Up Notes

2.2.1 Branch off existing main – Stainless steel flanged offtake clamp

Provide the linkup at 'A' (Branch off existing main – Stainless steel flanged offtake clamp) (refer WSCM 4005-30005-06).

- Expose the live main;
- Engage an authorized contractor to perform the under pressure tapping and stop valve installation;
- Place an appropriate thrust block behind the stainless steel offtake clamp OR inline thrust block on new main;
- Lay away from the stop valve in the approved method.

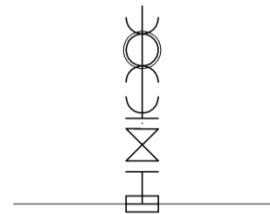


Figure 1: Stainless steel flanged offtake

2.2.2 Branch off existing main – Tapping saddle and DN63 main

Provide the linkup at 'A' (Branch off existing main – Tapping saddle and DN63 main) (refer WSCM 4005-30005-12).

- Expose the live main;
- Engage an authorized contractor to perform the under pressure tapping and maincock installation;
- Lay away from the maincock in the approved method.

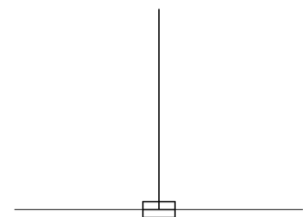


Figure 2: Branch off existing main – Tapping saddle and DN63 main

2.2.3 Welded on MSCL flanged off-take

Provide the link-up at 'A' (Welded on MSCL flanged off-take) (refer WSCM 4005-30005-07)

- Excavate to the top of the existing main to check depth;
- Complete excavation of the existing main;
- Engage an authorized welding contractor to prepare host pipe for welding and weld on steel flanged off-take fitting;
- Engage an authorized contractor to perform the under pressure tapping and stop valve installation;
- Wrap off-take with bitumen mastic tape;
- Lay away from the stop valve in the approved method.

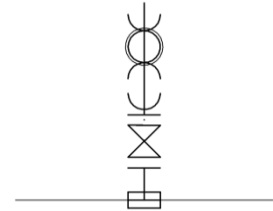


Figure 3: Welded on MSCL flanged off-take

2.2.4 Cut-out of existing restrained DI/CL main – flanged tee

Provide the link-up at 'A' (Cut-out of existing restrained DI/CL main – flanged tee) (refer WSCM 4005-30005-05)

- Excavate to the top of the existing main to check depth;
- When ready to proceed with the link-up advise the Superintendent's Representative who will arrange for the shut-off of the main;
- Complete excavation of the existing main;
- Cut out section, install a flanged tee and flange-socket extensions;
- Install a closed flanged stop valve and lay away in the approved method;
- Advise the Superintendent's Representative that the main is ready to be charged up.



Figure 4: Cut-out of existing restrained DI/CL main – flanged tee

2.2.5 Cut-out of the existing main – spigoted flanged tee with gibaults

Provide the link-up at 'A' (Cut-out of the existing main – spigoted flanged tee with gibaults) (refer WSCM 4005-30005-06).

- Excavate to the top of the existing main to check depth;
- When ready to proceed with the link-up advise the Superintendent's Representative who will arrange for the shut-off of the main;
- Complete excavation of the existing main;
- Cut out section, install a spigoted flanged tee and gibaults;
- Place an appropriate thrust block behind the tee OR inline on the new main;
- Install a closed flanged stop valve and fully support with hardwood wedges, then lay away in the approved method;
- Advise the Superintendent's Representative that the main is ready to be charged up.

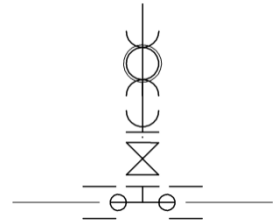


Figure 6: Cut-out of the existing main – spigoted flanged tee with gibaults

2.2.6 Cut-out of the existing main – spigoted flanged tee with stepped gibaults

Provide the link-up at 'A' (Cut-out of the existing main – spigoted flanged tee with stepped gibaults).

- Excavate to the top of the existing main to check depth;
- When ready to proceed with the link-up advise the Superintendent's Representative who will arrange for the shut-off of the main;
- Complete excavation of the existing main;
- Cut out section, install a spigoted flanged tee and 80/100 stepped gibaults;
- Place an appropriate thrust block behind the tee;
- -Install a closed flanged stop valve and fully support with hardwood wedges, then lay away in the approved method;
- Advise the Superintendent's Representative that the main is ready to be charged up.

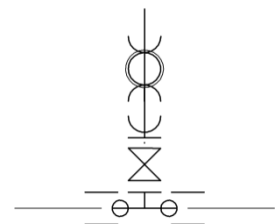


Figure 7: Cut-out of the existing main – spigoted flanged tee with stepped gibaults

2.2.7 Cut-out of the existing main – socketed tee with gibaults

Provide the link-up at 'A' (Cut-out of the existing main – socketed tee with gibaults)

- Excavate to the top of the existing main to check depth;
- When ready to proceed with the link-up advise the Superintendent's Representative who will arrange for the shut-off of the main;
- Complete excavation of the existing main;
- Cut out section, install a socketed flanged tee, extension pipes and gibaults;
- Place an appropriate thrust block behind the tee;
- Install a closed flanged stop valve and fully support with hardwood wedges, then lay away in the approved method;
- Advise the Superintendent's Representative that the main is ready to be charged up.

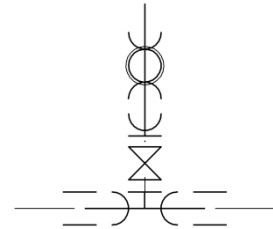


Figure 8: Cut-out of the existing main – socketed tee with gibaults

2.2.8 Cutout of the existing main – flanged tee with gibaults

Provide the link-up at 'A' (Cutout of the existing main – flanged tee with gibaults)

- Excavate to the top of the existing main to check depth;
- When ready to proceed with the link-up advise the Superintendent's Representative who will arrange for the shut-off of the main;
- Complete excavation of the existing main;
- Cut out section, install a flanged tee, flange-socket extensions and gibaults;
- Place an appropriate thrust block behind the tee;
- Install a closed flanged stop valve and fully support with hardwood wedges, then lay away in the approved method;
- Advise the Superintendent's Representative that the main is ready to be charged up.



Figure 9: Cutout of the existing main – flanged tee with gibaults

2.2.9 Extension of main off a capped end

Provide the link-up at 'A' (Extension of main off a capped end)

- Excavate to the top of the existing main to check alignment and depth leaving the existing thrust block intact;
- Lay back to the existing main from the new end;
- When ready to proceed with the link-up advise the Superintendent's Representative who will arrange for the shut-off of the main;
- Complete excavation of the existing main;
- Remove thrust block and end cap;
- Install a gibault and lay away in the approved method;
- Advise the Superintendent's Representative that the main is ready to be charged up.

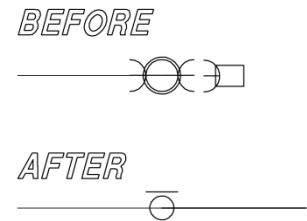


Figure 10: Extension of main off a capped end

2.2.10 Extension of main off a temporary fireplug end

Provide the link-up at 'A' (Extension of main off a temporary fireplug end)

- Excavate and expose the end of the existing main;
- Lay away from the existing socket end in the approved method;
- When the hydraulic testing is complete advise the Superintendent's Representative who will arrange for the shut-off of the main;
- Remove fireplug (if required);
- Remove the bat from the fireplug fitting and tighten the flanged joint;
- Advise the Superintendent's Representative that the main is ready to be charged up.

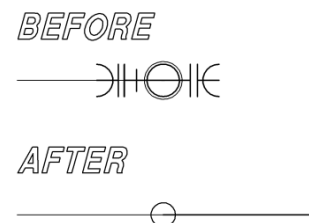


Figure 11: Extension of main off a temporary fireplug end

2.2.11 Extension of main off a fireplug end

Provide the link-up at 'A' (Extension of main off a fireplug end)

- Excavate to the top of the existing main to check alignment and depth leaving the existing thrust block intact;
- Lay back to the existing main from the new end;
- When ready to proceed with the link-up advise the Superintendent's Representative who will arrange for the shut-off of the main;
- Complete excavation of the existing main;
- Remove the anchor block and whole fireplug installation;
- Replace the old fireplug with a new fireplug if specified;
- Link the new main to the existing main in the approved method;
- Advise the Superintendent's Representative that the main is ready to be charged up.

BEFORE



AFTER



Figure 12: Extension of main off a fireplug end

2.3 Decommission existing mains

2.3.1 Decommission existing water main 'A'-'B'

Decommission existing water main 'A'-'B.' (Minimum SA Water requirements)

- The Contractor shall place an order with SA Water to arrange for the main to be cut and capped, or flanged;
 - Excavate and remove entire water main from 'A'-'B';
 - Remove any SVs and FPs including the castings and lids;
 - Existing services to be shifted to new main, if required;
 - Fill to existing surface level with clean sand, compacted in accordance with WSCM Section B;
- OR
- Reinststate the roadway to the requirements of Local Council or relevant Road Authority;
 - SA Water requires 5 working days notice in advance prior to this work being undertaken.
 - Note: - SA WATER accepts no responsibility for the decommissioned water main or the trench compaction.

3 Work by SA Water

3.1 Work by SA Water (at Developer's Expense)

Examples:

- Arrange for the services to Lots ???, ???, and ??? off the existing live water main;
- Existing ??mm meter No. ???????? on Lot ??? to be disconnected and removed;
- Existing services to Lots ???, ???, and ??? to be cutoff;
- Decommission the existing water service no longer required at 'A'

4 Notes

4.1 General Notes

- The Constructor shall give the Superintendent's Representative a minimum of 5 working days 'notice of intent' to carry out any link-up.
- The Superintendent's Representative will arrange for the shutting down and charging up of mains as necessary for the link-up process.
- The Constructor shall not open or close any valves on existing mains unless otherwise directed by the Superintendent's Representative.
- The preferred minimum spacing between tapping saddles on PVC pipes shall be 1200mm. Ready tap fittings may be piggy backed.
- Any fittings removed from the system shall remain the property of SA Water and shall be returned to the nearest South Australian Water Corporation depot.
- Once the main has been tested to the satisfaction of the Superintendent's Representative (see Clause 4.12) and the link-up completed, the contractor shall reinstate the excavation in accordance with WSCM Section B.
- When advised by the Contractor that the link-up is complete including the anchor/thrust blocks (refer WSCM Section B), the Superintendent's Representative will arrange to charge up and disinfect the new main.

5 Connections

5.1 Connection notes

All connections shall be laid similar to WSCM Section 06 unless noted otherwise.

- All water connections on proposed residential allotments to be fitted with a 20mm water meter supplied by SA Water unless noted otherwise.
- Connections to lots to be 25mm PE with 20mm boundary cock similar to WSCM Section 06 unless noted otherwise.
- Connections to lots to be 25mm PE similar to WSCM drawing 4005-30006-02.
- Connections to lots to be 40mm PE similar to WSCM drawing 4005-30006-05.
- Connections to lots to be 50mm PE similar to WSCM drawing 4005-30006-06.
- Unless approved otherwise by the Superintendent's Representative, water connections shall be laid at right angles to the main.
- The position of the water connection shall be as per the WSCM unless otherwise directed by the consultant.
- The Contractor shall construct the water connections from the water main up to and including the riser and boundary cock as shown on Standard Drawings (see WSCM Section 06 Drawings).
- Construct new services at 'A'. Contractor to provide new services off the new water main to service the existing dwellings on lots ????

Examples:

- Existing 20mm meter No. 123456789 on Lot ??? to remain
- Existing 20mm meter No. 123456789 to be shifted to Lot ???
- Lot ??? has an existing 25mm pre-laid
- Existing house on Lot ??? supplied by 25mm meter (indirect) No. 123456789 to be shifted to new pre-laid
- Existing services to Lots ???, ???, and ??? to remain
- Existing services to Lots ???, ???, and ??? to be shifted
- Existing services to Lots ???, ???, and ??? to be cutoff (see WORK BY SA WATER (at Developer's Expense))
- Water meters for Lots ??? to be located below ground in CI boxes
- Services to Reserves to be approved prior to construction commencing.

6 Existing services

6.1 Existing service notes

- Constructor shall verify location and depth of the link-up point to the existing water main at 'A' prior to commencing construction works and notify Engineer of any discrepancies.
- Prior to commencing ANY construction works, the Constructor shall locate and depth all other existing underground services in the vicinity of works. Any discrepancies of depth or location from that indicated on these drawings shall be reported to the Consulting Engineer.
- It shall be noted that there may be other existing underground services in the vicinity of works other than those shown on these drawings.
- It shall be the Constructor's responsibility to determine if other underground services are present and have all services located and depthed prior to commencing works