



YorkshireWater

Self Lay Policy incorporating the Addendum to the Code of Practice
for the Self Laying of Water Mains and Services for England and
Wales

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YorkshireWater

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1. **Forward**

Yorkshire Water (YW) is committed to allowing Developers and Self-Lay Organisations (SLOs) to install water mains and service pipes throughout its area of operations. YW supports the Code of Practice for self-laying of water mains and services (CoP) published by WRc plc on behalf of UK Water Industry Research Ltd (UKWIR), and the Water Industry Registration Scheme (WIRS) operated independently by Lloyds Register (LR). Our service levels match the service levels expected by OFWAT. Further details are available from the respective websites;

- www.wrcplc.co.uk/selflay
- www.lr.org.uk
- www.ofwat.gov.uk look under Competition, Self-Lay
- www.yorkshirewater.com

Developers have the choice to either requisition new water mains or employ a SLO to install water infrastructure assets. We will provide developers with comparative cost illustrations to allow them to make commercial choices on a site by site basis.

Details of our application forms and charges are available on our website at www.yorkshirewater.com/newdevelopments.

2. **SLO Accreditation**

All companies wishing to carry out self lay activity must have full accreditation with WIRS for the specific activities they wish to undertake. All SLOs are required to comply with the CoP and OFWAT principles and timescales developed to support this document. The YW addendum to the CoP is available in Appendix 1 or via the WRc website at www.wrcplc.co.uk/selflay

3. **Application Process – The Procedure (1.1 CoP)**

The developer must complete an application form, including a location plan and scaled drawings of the development. Yorkshire Water will then produce a draft new mains design, determine the point(s) of connection and cost comparisons between requisitioned mains and self laid mains. Once the developer has chosen his preferred mainlaying option, Yorkshire Water will provide the legal agreements, and approved construction drawings.

Where the developer appoints a SLO to construct water mains and services. Yorkshire Water will enter into a formal agreement with the developer who will be responsible for the payment of all costs, deposits or security payments relating to the development site. Yorkshire Water will, however, work with the appointed SLO on a day to day basis during the construction phases of the site. We believe in maintaining effective dialogue through all stages of the construction. We also host regular formal quarterly meetings with SLO's with substantial operations in our area.

4. Water Quality

Materials for water mains and communication pipes must meet the requirements of Regulation 31 of the Water Supply (Water Quality) Regulations 2000 and any subsequent amendments. The Drinking Water Inspectorate (DWI) publishes annually a list of approved materials on their website at { HYPERLINK "<http://www.dwi.gov.uk>" }. This list is also in the 'Water Fittings and Materials Directory' published by the Water Regulations Advisory Scheme (WRAS) see www.wras.co.uk.

The Water Supply (Water Fittings) Regulations 1999 prevent the waste, misuse, undue consumption and contamination of public water supplies in domestic and commercial plumbing installations. YW enforces these Regulations throughout its area of operation. Copies of the Water Fittings Regulations and text of Statutory Instruments 1999 – No's 1148 and 1506 are available from the Office of Public Sector Information at { HYPERLINK "<http://www.opsi.gov.uk>" }. Further advice and copies of the 'Water Regulations Guide' are also available from WRAS.

The installation of mains and services shall be carried out in accordance with Water UK's 'Principles of Water Supply Hygiene and Technical Guidance Notes' and any supplementary guidance as provided by YW. { HYPERLINK "<http://www.water.org.uk>" }

5 Supervision and Inspection

Where water mains and services are being self-laid we must supervise and inspect work to maintain quality standards and security of supply. YW will identify the minimum inspection and supervisory requirements at the time of issuing the costs breakdown template. Where additional inspections are required because SLO's have not met YW standards or where the SLO or developer has requested additional inspections, YW will recover its reasonable costs by issuing invoices.

In general supervision and inspections will be a minimum of;

Supervision (main laying)

- Initial site meet with developer/SLO prior to construction commencing
- Observation of main laying in progress
- Observation of commissioning process if this is undertaken by the developer/SLO
- Site walk to verify condition of apparatus and as-laid drawings prior to vesting
- Site walk to verify condition of apparatus prior to the end of the 12 month guarantee period

Supervision (service laying)

- Observation of service laying in progress or constructed

Inspections

- Service connection quality inspections on new domestic properties on a 1 in 10 basis
- Water Regulations compliance inspections

6 Charges

Detailed below are the standard charges for activities associated with Self Lay for mains to be laid in the 2009/10 Tax year. Description of work/activity	Charge (10/11 Prices)
<u>Mains Design</u>	
Design of mains and services (<50 properties)	£ 200.85
Design of mains and services (each additional 50 properties)	£ 29.62
Approval of design by others	£ 200.85
Design of reinforcement mains and diversions	£ 163.30
Re-design following alterations	£ 200.85
Fire Service Liaison	£29.62
Section 51 Legal Agreement	£ 104.30
Water network logging, modelling and analysis	£ 355.45
<u>Construction</u>	
On Site Mainlaying	Based upon the work involved
Off site mains in 3 rd party land and highways where SLOs have obtained the necessary easements, street authority approvals and satisfied all legal requirements	Based upon the work involved
Connection of newly laid main to the existing water distribution network where both the existing and new mains have been installed by the SLO (e.g.; phased schemes on site mains) No excavation or reinstatement involved.	£ 208.60
Swabbing, pressure testing and disinfecting self-laid mains	£ 417.20
Laboratory testing of water quality sample	£ 104.30
<u>Service connections and meter billing information</u>	
Admin fee for SLO installed connection and meter	£ 12.95
Audit fee for verifying correct billing & address details (charged on a 1 in 10 basis on SLO schemes)	£ 42.43

7. Asset Payment Calculation

Worked Example – 100 properties with total scheme cost of £98,000

The financing is based upon Sections 51A to 51E of the Water Industry Act 1991 as amended by the Water Act 2003.

The calculation complies with OFWAT’s guidance on “financial arrangements for self-lay and requisitioning agreements” issued in May 2004 and the table shown in Annex B of that document.

The example below is based upon figures accurate as at May 2008 (excluding the old York Waterworks area). Variables	
Total scheme cost	£98,000
Number of properties	100
Average income per property	£134
Interest rate for borrowing	6.00%
Discount rate	6.00%
Long Term annual inflation	Based on treasury forecast
Number of applicable years	12

Asset Value Payment Calculation Year	Cumulative occupancy calculation	Projected future revenue	Annual Borrowing Cost	Income Allowance	Discount Factor	Asset Payment
1	18	£2,412	£11,689	£2,412	0.9433962	£2,275
2	54	£7,287	£11,689	£7,287	0.8899964	£6,485
3	90	£12,144	£11,689	£11,689	0.8396193	£9,814
4	100	£13,494	£11,689	£11,689	0.7920937	£9,259
5	100	£13,494	£11,689	£11,689	0.7472582	£8,735
6	100	£13,494	£11,689	£11,689	0.7049605	£8,240
7	100	£13,494	£11,689	£11,689	0.6650571	£7,774
8	100	£13,494	£11,689	£11,689	0.6274124	£7,334
9	100	£13,494	£11,689	£11,689	0.5918985	£6,919
10	100	£13,494	£11,689	£11,689	0.5583948	£6,527
11	100	£13,494	£11,689	£11,689	0.5267875	£6,158
12	100	£13,494	£11,689	£11,689	0.4969694	£5,809
Total Asset Value Payment						£85,330



YorkshireWater

Appendix 1

Addendum to the Code of Practice for England & Wales for the
Self-Laying of Water Mains and Services (2nd Edition)
(Published by WRc plc for UKWIR)

Part 1 - General

1.1 Application

1.5 Competence of Self-lay Organisations

Part 3 – Design and Construction Guidance

3.6.5 Meter Boxes

3.6.6 Metering Policy

3.7.3 Surface Boxes and Markers

3.7.4 Service Connections to the Water Distribution System

PART 1 - GENERAL

Yorkshire Water's specific variations to the CoP have been set out below. Where conflict or contradiction exists between the CoP and this addendum, this addendum shall take precedence.

1.1 Application

Delete sub-clause 5 Note and replace with the following:

“Note: Where a developer chooses to self-lay water mains, it is presumed that they would take on responsibility for **all** aspects of the contestable work through an SLO”

Apart from the installation of water meters, which will be carried out by Yorkshire Water. (see appendix 3)

1.5 Competence of Self-Lay Organisations

Add new sub-clause 6 below:

“6. SLO's and any subcontractors they use shall be fully accredited under WIRS for the activity they are undertaking”



PART 3- DESIGN AND CONSTRUCTION GUIDANCE

3.6.5 Meter Boxes

Delete sub-clause 1 and replace with the following:

“1. A meter chamber with manifold meter installed within 0.5m of the boundary of the property is Yorkshire Water’s preferred metering option”

Add new sub-clause 7 below:

“7. Where installations are in contaminated land, a gunmetal contaminated land boundary meter box shall be used. Meter boxes shall be installed vertically at a depth of 750mm deep to the top of the service pipe. Meter boxes shall be placed in the footpath, service strip or hard margin in the location indicated on the design drawing. Meter boxes must be located within 0.5 metres of the property boundary.”

3.6.6 Metering Policy

Delete sub-clause 1 replace with the following:

:

Change to Metering Policy at Yorkshire Water as of 01.04.2010

As of the 1st April 2010 all new properties built in the Yorkshire Water area will be fitted with an automated meter reading unit (AMR), which has prompted a decision to set up an in house team, that will be responsible for all meter installations.

The proposed procedure for dealing with this is as follows:

- The SLO will fit water services as usual, when called off by a developer
- The new water services will be fitted with a full flow plug, provided by the SLO, which will allow the supply to be flushed and the plumbing to be tested by the developer
- Once the supply is fitted the SLO will inform Yorkshire Water by e-mail at the following address siteagentfeedback@yorkshirewater.co.uk CC gary.taylor@yorkshirewater.co.uk, within a maximum of 5 working days, in line with the code of practice, to include:
Full postal address details
Plot number connected
Date of connection
Occupier if known
Accurate location of the meter chamber
- Yorkshire Water will then fit the AMR unit to the meter, fit it to the supply and confirm the billing details.

3.7.3 Surface Boxes and Markers

Add new sub-clause 4 below:

“4. Chambers for sluice valves, washouts and fire hydrants shall be of a standard 230 by 380mm clear opening.”

Add new sub-clause 5 below:

“5

Chamber section for fire hydrants located in carriageways shall be constructed from polymer wall sections. Chambers in verges and footpaths can be constructed from either polymer or concrete wall sections.

A fit for purpose bedding mortar shall be used to a maximum depth of 40mm between the frame and the top chamber section to align the cover and lid

Fire Hydrants located in unsurfaced locations shall be fixed in position by the construction of a concrete plinth laid around the cover and frame to a width of 150mm and to a depth below the frame sides to the upper chamber wall section.

3.7.4 Connection to Water Distribution System

Add new sub-clauses 8, 9, 10

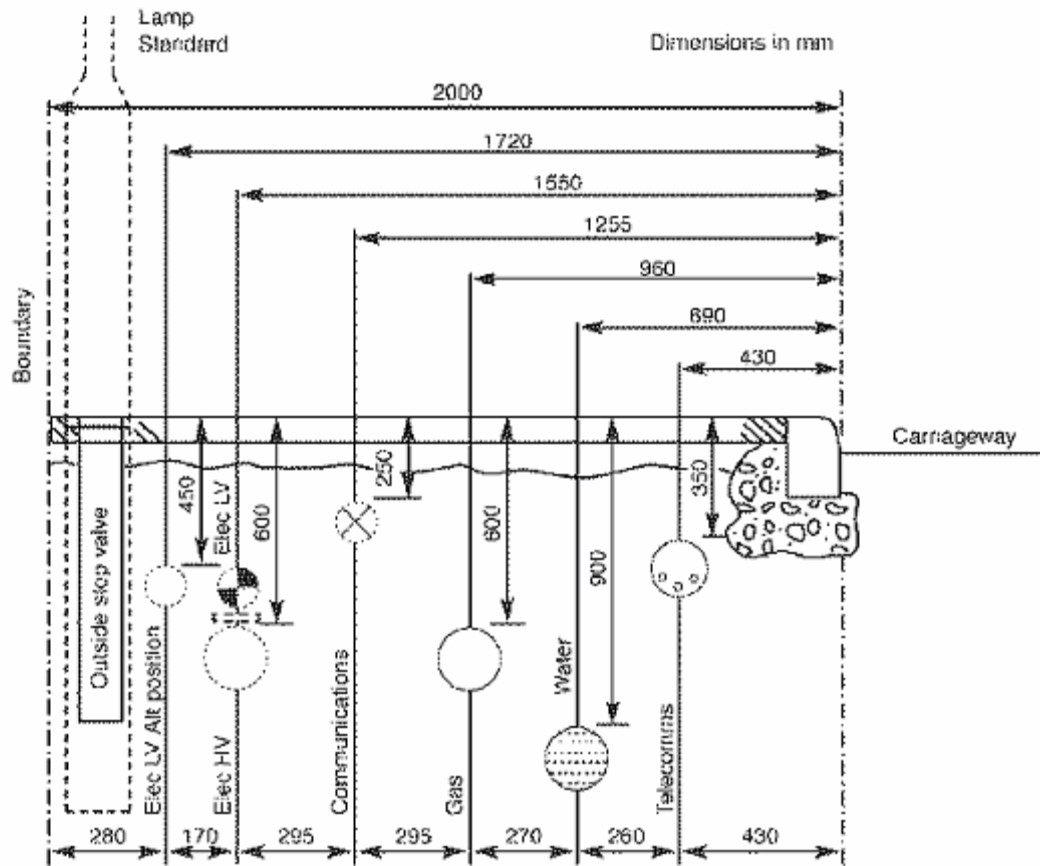
“8. Individual supply pipes shall be laid within the confines of the property boundary which it supplies and shall not cross another parties land. For single domestic properties, individual property connections shall be made in 25mm(OD) MPDE unless expressly stated otherwise on construction drawings approved by Yorkshire Water. Where service pipe ducts are used they shall be blue plastic 50mm diameter. Only one pipe shall be laid per duct.

9. All service or supply pipes and fittings stored on site or laid in the ground shall be capped off at all times prior to connection to the water network. This is to prevent contamination of the pipe from vermin, chemicals or organic matter and subsequent contamination of the drinking water supply. Any contaminated (or potentially contaminated) pipe or fittings shall be removed from site and disposed of.

10. Water Mains shall be laid in the location, material and size specified in the mains design approved by Yorkshire Water and attached to the agreement. The location of new water mains shall comply with the NJUG guidance shown below.



POSITIONING OF MAINS IN A TWO METRE WIDE FOOTWAY



Appendix 2 Materials Selection

Material	Compliant Manufacturers/Suppliers
Ductile Iron Pipe	Electrosteel UK, St Gobain Pipelines
Ductile Iron Pipe Fittings	Duker Fittings via Ham Baker, Electrosteel UK, St Gobain Pipelines
Fire Hydrants and Washout Hydrants Note: Kitemarked products only	Aqua Gas AVK, St Gobain Pipelines,
Sectional Chamber Systems, concrete and plastic. (Dimensionally compliant with BS 5834.)	Glandel, JKN Polymers Ruthin Pre-cast,
Resilient Seat Gate Valves	VAG Valves via Fusion Provida, Aqua Gas AVK, St Gobain Pipelines, Hawle via Ham Baker
Mechanical Couplings and Flange Adaptors for rigid pipe materials (not PE)	Viking Johnson, WAGA from Georg Fischer, Tyco, St Gobain Pipelines.
Mechanical Couplings and Flange Adaptors for PE pipe (min Type 1 or 2 End Load Resistance required)	Viking Johnson, WAGA from Georg Fischer, Tyco, Hawle.
Polyethylene Pipe Fittings	Georg Fischer, Wavin, Fusion, Radius, GPS.
Polyethylene Pipe	Wavin, Egeplast, GPS, Radius
Polyethylene Barrier Pipe, Note: Fittings must be approved for pipe type used.	Egeplast, Wavin (u.t.i. 63mm only), Radius, GPS.
Water Meters	Actaris only, including AMR output unit.
Stoptap/Meter Boundary Boxes	Elster Smart Metering (ex Severn Trent Metering) Height Adjustable Unit
Surface Boxes	Thomas Dudley (to ensure correct badging)
Gunmetal Fittings (including manifolds)	Waterfit, Tyco.
Large Covers and Frames for meter chambers. (All Grade B125 must be "lift and slide" type)	St Gobain (to ensure correct badging)
Flange Jointing Sets, i.e. fasteners and gasket. Fasteners shall be sheraplex coated and	Kebbrel, Williams Fasteners

Note: Other manufacturers/suppliers may be acceptable, but their use must be validated with YWS prior to any purchase or installation

Installation of Internal Water Meters

It is Yorkshire Water's policy that all internal meters are fitted with radio reading devices to enable them to be read from outside the property. This ensures customers are not inconvenienced by needing to provide access to a meter reader every 6 months.

It is your responsibility to install the manifold into your plumbing system which will hold the water meter. We will provide you with this manifold.

Where can the water meters be installed?

We must be able to safely and comfortably access the meter to maintain and exchange the meter if it is damaged. The meters should preferably be located at eye level and a reader must be able to comfortably view the numbered reading on the top of the meter for checking purposes.

What do I need to do before Yorkshire Water arrive to install the water meter?

1. Decide which manifolds you want to hold the meters

The manifolds come in either 6-way, 4-way or single manifold sizes, please see the diagrams below which show the sizes of each. You need to choose the manifolds (or a mixture of them) that fit the space into which the meters will be placed. You need to request the manifold when you call off your water connection and we will deliver them to you.



6-way manifold

The manifold is 540mm (21") wide and 340mm (13.5") high, you need to leave 90mm (3.5") space at either side of the manifold to accommodate the meter and space to fit it. The manifold must be fixed securely to the wall. If being placed in a meter cupboard, the meter will protrude 250mm (10") from the wall

4-way manifold

The manifold is 400mm (16") wide and 280mm (11") high, you need to leave 90mm (3.5") space at either side of the manifold to accommodate the meter and space to fit it. The manifold must be fixed securely to the wall. If being placed in a meter cupboard, the meter will protrude 250mm (10") from the wall



Single manifold

Each manifold is 110mm (4.5") long and 65mm (2.5") wide. You need to leave 160mm between the centres of these manifolds to provide enough space to enable the meters to be screwed in. You must secure the manifold to the wall. If being placed in a meter cupboard, the meter will protrude 250mm (10") from the wall.

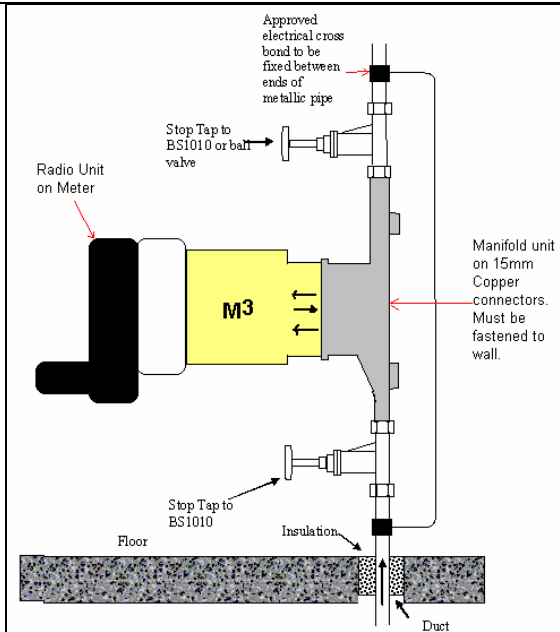
2. Fit the manifolds

When you fit the manifolds please ensure they meet the following requirements. If the meter installer turns up and the pipework is not correct he will not fit the meters and you will be charged for an abortive visit.

- A large stop tap shall be installed on the inlet to a 6 or 4 way manifold to enable the manifold to be exchanged
- The meter installer can safely and comfortably access the manifold and install the meter
- Immediately upstream of each meter a check valve and a drain cock shall be installed
- Each pipe shall be tagged to indicate the apartment/unit it supplies
- A stop tap (closed) is fitted within each apartment/unit

Additional requirements if using single manifolds

- There is at least 160mm (6.5") between the centres of each manifold to provide enough space to enable the metres to be screwed in
- The installation complies with the drawing on the right:



Once you have fitted the manifolds complete the meter fit request form attached, providing the postal addresses for the properties being connected and fax it to us on 01274 804738. Please Note: we will not install meters if your pipework does not comply.

What work will Yorkshire Water do?

We will arrange an appointment to fit the meters. When we arrive on site we will check to ensure your pipework complies with the above requirements. If it is correct we will install each meter and check that it supplies the apartment/unit you have indicated. If we find they are incorrect we will leave site and charge you an abortive visit fee of £80. We will not arrange a return appointment until the abortive visit charge

Appendix 4 Routine in line connections

SLO's wanting to make routine in line mains connections to:

- Newly laid main as a spur of an existing main or at the end of a previous phase
- Mains which are controlled by a valve or that can be squeezed off, without effecting existing customers
- Mains that do not yet supply properties

Will hold the appropriate accreditation and will provide details of employees who hold the post of senior competent person (SCP) and competent person (CP) to Yorkshire Water prior to commencing work.

Provide contact details for both SCP & CP

Details of the water network controller (WNC) for each scheme will be sent out with the developer pack.

Authorisation to make connections will only be given once a drawing detailing the proposal and a risk assessment are approved and allowing time for the WNC to attend site to witness the connection.

Weekly whereabouts detailing all work and including provisional in line connection dates will be provided each Friday for the following week. Details should be e-mail to the following address :

siteagentfeedback@yorkshirewater.co.uk dutymanagers@yorkshirewater.co.uk

Subject Box will include the following information:

SLO - followed by - Location of scheme.

When making in-line connections, a phone call should be made to the Risk Mitigation Manager when the job is about to proceed, quoting the job reference and giving an estimated timescale. A further call should be made once the work is complete.
Contact telephone number: 0844 902 2998

Notification of successful or job aborted will be required within 24hrs of connection /abort sent to the following mail-in database

siteagentfeedback@yorkshirewater.co.uk