

# Irish Water

## **Requirements for Customer Wastewater Service Connection CCTV Surveys**

Requirements for Customer  
Wastewater Service Connection CCTV Surveys

Document No. IW-AO-GL-033

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## 1 INTRODUCTION

Customers are responsible for the clearing of any blockages of the wastewater Service Connections. Should a Customer (or a Customer's drain-clearing contractor) be unable to clear a blockage and suspects that there may be a structural failure on the connection pipework located in a public area that is resulting in the pipe flow being restricted to such an extent that flow is backing up/flooding, the Customer shall then contact Irish Water to discuss. Irish Water may request that the Customer obtains a CCTV survey in order to provide evidence of the structural failure. This Irish Water Guidance Document describes the CCTV survey requirements. A competent CCTV Contractor will be familiar with the work described in this Guidance Document and will advise the Customer accordingly. The resulting CCTV Report shall be submitted to Irish Water for consideration. Irish Water may undertake the necessary structural repair, subject to funding availability.

## 2 PURPOSE

Where there is a structural failure on the service connection pipe in public areas, Irish Water will assess this failure and consider undertaking the necessary repair work, subject to available funding. To enable Irish Water to make this assessment, Customers will be required to arrange for a CCTV survey to be undertaken by a competent contractor; the resulting reports shall be submitted to Irish Water for consideration.

This document describes Irish Water's technical requirements for Wastewater Service Connection CCTV surveys undertaken by a Contractor on behalf of a Customer as part of an investigation to determine the condition of the pipe used to convey wastewater from a privately owned premise or premises to the Irish Water sewer where the Irish Water sewer is located in public land.

## 3 SCOPE

This Guidance Document relates to the Irish Water requirements for Wastewater Service Connection surveys undertaken by a Contractor on behalf of a Customer in order to determine the condition of Drain and Service Connections. This Guidance Document does not relate to the CCTV surveying requirements of Irish Water Sewers.

## 4 DEFINITIONS

For the purposes of this Guidance Document, the following definitions apply:

<b>Customer</b>	“Customer” means, in relation to the provision of water services, the occupier of the premises in respect of which the water services are provided.
<b>CCTV survey</b>	A closed-circuit camera survey of a pipe or access chamber/manhole
<b>Wastewater</b>	“Wastewater” or “Waste water” means sewage, storm water or other effluent discharged, or to be discharged, to a drain, service connection or sewer.
<b>Service Connection</b>	The pipe length between the Irish Water sewer and the outer edge of the boundary to the curtilage of the premises; flow in this connection could either be by gravity or pumped from the Customer’s premises.
<b>Owned by</b>	A pipe “Owned by Irish Water” means a pipe “in the ownership of Irish Water”, “controlled by Irish Water”, “vested in Irish Water”, or “taken in charge by Irish Water”
<b>Drain</b>	The wastewater drainage pipework located on the Customer’s premises which is connected to the Service Connection and is not owned by Irish Water.
<b>Survey Node</b>	Key location points in the CCTV survey, examples of which are shown in Figure 1.
<b>Irish Water Sewer</b>	The pipe which is in the ownership Irish Water. This includes any pipework that has been taken in charge by Irish Water. Irish Water is responsible for maintaining and repairing this pipe.
<b>Contractor</b>	A private contractor hired and paid for by a customer to clear a pipe blockage (typically by rodding and/or jetting) and/or to undertake CCTV surveying and reporting

The following Figure 1 illustrates a typical arrangement for the pipes conveying wastewater from a private premise to the Irish Water sewer. The definitions, text labels and features illustrated in Figure 1 are referred to in the text of this document and therefore Figure 1 should provide a useful reference to assist with understanding Irish Water requirements as set out in this Guidance Document.

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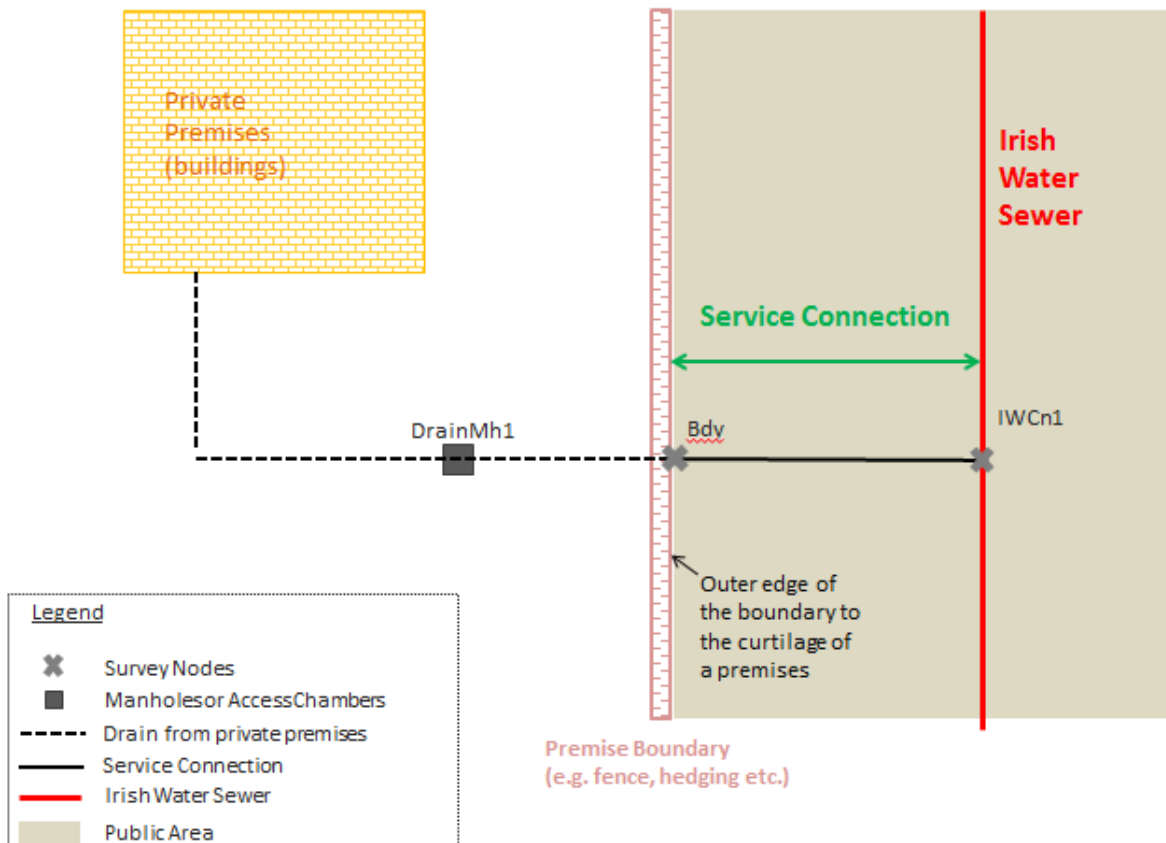


Figure 1 Typical arrangement of Drain, Service Connection and Irish Water Sewer

## 5 ROLES AND RESPONSIBILITIES

### *The Customer*

- i. is responsible for the clearing of any blockages of the Service Connection;
- ii. where requested by Irish Water, shall submit evidence of the structural failure to Irish Water. This evidence shall be in the form of a CCTV report and recorded footage of the pipe survey (undertaken as per the requirements described in this Guidance Document). A CCTV survey is required to assess the condition of the pipe. The cost associated with such a CCTV survey is at the Customer's expense.

### *Irish Water*

- iii. is responsible for the maintenance and repair of the Irish Water Sewer;
- iv. shall review the CCTV report, where Irish Water has requested the Customer to undertake such a CCTV. Irish Water shall consider undertaking the service connection repair on public land subject, to available funding.

## 6 GUIDELINE

### General Survey Requirements

- 6.1 The Customer Wastewater Service Connection Survey shall at a minimum comprise of a single CCTV Survey of the Service Connection. Depending on the pipe arrangements serving the premises, flow in the Service Connection may be by gravity flow or pumped flow. Pumped flow is through a pipe which is referred to as a "*rising main*".
- 6.2 Irish Water anticipates that in the majority of cases and as is standard, a suitable access chamber will not be available on the Irish Water sewer to accommodate safe and suitable access and egress of the CCTV survey equipment to allow a survey of the Service Connection (be it a gravity pipe or a rising main). In these cases, an access chamber/manhole located on the Customer's private property will need to be used to allow CCTV equipment access to the pipe. In these cases, a full survey shall be undertaken from that access chamber to the connection point with the main Irish Water sewer. Please note that where no such access chamber exists on the gravity/pumped pipe, the Customer's CCTV Contractor may require that such an access chamber be provided by the Customer in order to enable the CCTV survey to be undertaken. The

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Customer shall be responsible for providing such an access chamber on his/her property in order to facilitate the CCTV survey. Installation of such an access chamber will be at the Customer's expense.

- 6.3 The Customer may wish to undertake a CCTV survey of other parts of the Drain located in private premises, but please note that this is not an Irish Water requirement.

## Survey Team Experience and Qualifications

- 6.4 All Contractor personnel responsible for classifying pipe sewer conditions, including those undertaking quality control, shall be competent and experienced in the survey and operation of wastewater sewer systems and shall have completed training and achieved successful accreditation that has not expired at the time of the survey, in any of the following courses:

- a) the Pipe Sewer Condition Classification OS19x course to enable personnel to classify pipe conditions to the level of the Water Research Council's (WRc) Manual of Sewer Condition Classification (MSCC) 5th Edition; or
- b) the Pipe Sewer Condition Conversion to MSCC5 OS30x course (where Pipe Sewer Condition Classification training was successfully completed by Contractor personnel in accordance with the MSCC 3rd or MSCC 4th editions); or
- c) the Certified Drainage Surveyor Course (as developed by the National Association of Drainage Contractors and WRc) or equivalent recognised course.

## CCTV Survey Reporting Technical Requirements

- 6.5 Pipe Sewer Condition Classification for all surveys shall be undertaken in accordance with the WRc MSCC 5th edition or the latest version of the WRc MSCC at the time of survey.

- 6.6 The Pipe Sewer Condition Classification file shall be in MSCC5 xml format in accordance with the following web link:

<http://srm.wrcplc.co.uk/Data/Sites/2/GalleryImages/WebImages/Background%20of%20SRM/XML%20Draft%20Specification%20for%20MSCC5%20Sewer%20Inspection>

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[%20Data\\_February%202014\\_final%20draft.pdf](#)

The naming convention for the xml file (a single file which may contain multiple surveys) shall be as follows: House No. or Name\_Road Name\_Town/City\_Date  
Date shall be in DDMMYYYY format.

For example, a CCTV Survey undertaken on 10th of November 2012 at 10 Crescent Avenue, Greystones will have the name:

10\_CrescentAvenue\_Greystones\_10112012.xml

- 6.7 Scoring and grading of individual codes/defects and the overall pipe grading (Structural and Service Grades) in the Pipe Sewer Condition Classification file and report shall be in accordance with Sewerage Risk Management (SRM) Version 5 or the latest version of the SRM at the time of survey.
- 6.8 For the purpose of reporting and to allow Irish Water to undertake analysis of the Service Connection pipe length, it is important to note that the CCTV Survey of the Service Connection shall be a standalone survey and report.

The Pipe Sewer Condition Classification file shall denote the location of the status change of the wastewater pipe from 'Drain' (i.e. located in private premises) to 'Service Connection' (i.e. located in a public area) as a start or finish node with a reference 'Bdy', which denotes the boundary. The pipe sewer condition classification file shall include a General Observation code ('GO') at this chainage, with the text 'Outer edge of the boundary to the curtilage of a premises - estimated location' in the 'Remarks' field.

- 6.9 Node references, shall be consistent throughout the Survey, Final Report and Deliverables i.e. the same node references must be used in the Final Report, on the video file(s), sewer condition file and on all sketches and drawings in order to avoid confusion;

Node references shall be as follows:

- The Contractor must use the reference Bdy for the start/finish node that



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denotes the location of the outer edge of the boundary to the curtilage of a premises

- The Contractor shall use the following node naming structure for all nodes on the Drain: DrainMh1, DrainMh2 etc.
- If available to the Contractor, full Irish Water node references should be used for the connection node to the Irish Water sewer. However, it is accepted that in many cases these references will not be available and therefore the Contractor may use references such as IWMh1, IWMh2 etc. for manholes or other types of access chambers and IWCn1, IWCn2 etc. for connections or junctions to the Irish Water sewer;

6.10 All CCTV Survey video files shall be compatible with avi, wmv, wma, mpg, mpeg, mp4 or dv format.

6.11 Video file naming convention shall be as follows

Start node\_Finish node\_Direction of Survey (D or U) Date\_ Survey Start Time

Date shall be in DDMMYYYY format and Time shall be in HHMM format for 24 hour clock.

For example, a CCTV Survey started on 10th of November 2012 at 14.23 from node Mh1 to node Mh2 in an upstream direction would have the name:

Mh2\_Mh1\_U\_10112012\_1423

6.12 During the survey, the following information shall be available on the video footage: Date, Automatic update of the camera's meterage position, Sewer dimension(s), Start and Finish Node References, Survey Direction.

## Reporting Requirements

6.13 Each Final Report issued by the Contractor shall be a fully checked and edited version and shall have passed through a documented quality control procedure for approval and shall be signed off by a designated company representative with appropriate training, experience and seniority.

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6.14 The Final Report and Deliverables shall include the following items:

- a) The Final Report in digital (PDF) format that shall include:
  - i. Introduction, including date(s) of execution of the work, location of the works, name of Client, name of Contractor, the length of Surveys undertaken;
  - ii. Statement confirming the name and qualifications of the person(s) undertaking the pipe sewer condition classification;
  - iii. Statement confirming the format used for pipe sewer condition classification;
  - iv. General description of the sewer inspection including details of the equipment used;
  - v. General description of cleaning/jetting works undertaken and remarks on material removed. If no cleaning jetting/works was undertaken, this should also be stated;
  - vi. Description of the methodology of how the chainage to node 'Bdy', the outer edge of the curtilage of a premises, was estimated (e.g. above ground detection of sonde or other means) and any other relevant remarks relating to this estimation;
  - vii. Digital photograph(s) in jpeg or similar format of the above ground or surface features above the location of the service connection;
  - viii. The internal diameter, pipe material, structural condition grade and service condition grade of the pipe(s);
  - ix. General assessment of the condition of the pipe(s) and a summary of the types of defects encountered in carrying out the survey;
  - x. Details and results of any investigations carried out for locating sewer(s) and or drain(s) e.g. use of sonde and above ground detection;
  - xi. Printed Pipe Sewer Classification Coding Sheets. Sheets to include defect scoring and condition grades; each defect and connection encountered shall include the chainage, and position on pipe circumference (e.g. 4 o'clock), the frame number and photograph number (if any) in each case;
  - xii. List of video footage files, including an index of the sections of pipe covered;
  - xiii. Overall plan drawing/sketch including:-

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- Annotated node references which correspond with the coding sheets and the CCTV recordings;
- The route of the surveyed pipe including all horizontal and vertical bends (annotated) noted during the Survey;
- Representation of location of Irish Water sewer pipe and the location of the connection of the Service Connection to the Irish Water sewer. Denote street/road names and landmarks;
- Boundaries, other permanent features such as building boundary walls, public footpaths, roads etc.

To allow for ease of interpretation of the drawing(s), all drawing(s) shall be clean, clear and concise to an appropriate scale that clearly displays the locations of each annotated note (with reference i.d.) and pipe included in the Survey in relation to features (buildings, footpaths, roads etc.) visible on the background mapping. The drawing(s) shall be clearly annotated to show any significant changes from sewer records (if available to the Contractor) noted in the course of the Survey.

- xiv. Digital photographs in jpeg or similar format taken during the CCTV Survey.
  - xv. Details of any additional documentation being submitted with the Final Report.
  - b) CCTV pipe sewer condition classification file in accordance with this Guidance Document;
  - c) CCTV survey video footage files in accordance with this Guidance Document;
- 6.15 The Final Report and classification file, as per Section 6.14(a) & 6.14(b), are required to be submitted to Irish Water in the first instance; however, the information described in Section 6.14(c) must be available for submission upon request by Irish Water.

The Final Report (as per Section 6.14(a)) shall be issued to Irish Water in PDF format as an attachment to e-mail and sent to operations@water.ie as soon as completed with the subject on the e-mail noted as "Customer WW Service Connection Survey – Address of survey", with the address of survey correctly entered.

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## 7 REFERENCED DOCUMENTS

<i>Document Name</i>	<i>Document Number</i>	<i>Location</i>
N/A		