



# TasWater Requirements for Sewer CCTV Conduit Inspections

**Version 2.0**

## Document Approval and Issue Notice

The TasWater Requirements for Sewer CCTV Conduit Inspections is a controlled document. Recipients should remove superseded versions from circulation. This document is authorised for issue once it has been approved.

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### Amendments in this release:

| Section Title                | Section Number | Amendment Summary                          |
|------------------------------|----------------|--|
| Manhole inspections          | 10.2           | Clarification of MH inspection scope       |
| Section and node identifiers | 11.5           | Section and node identifiers               |
| Scope                        | 2              | Clarified scope                            |
| Delivery arrangements        | 11.1           | Added preference for TW ShareFile delivery |

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## 1. Purpose

The purpose of this document is to specify the requirements and considerations that must be met when undertaking a Closed-circuit television (CCTV) pipeline conduit inspection for TasWater (TW), including the return of the data. This document is intended to be used along with WSA 05 2008 Standard, so both standards must be referenced for the completion of an inspection. Where there is contradiction or ambiguity with the WSAA code, the requirements listed within this document take precedence.

A copy of this document must be supplied to any contractor or internal operator who is engaged in CCTV work for supply to TW. Contractors and internal staff must ensure that they meet the requirements of this document before commencing work.

TW may review the returned inspection report(s) against these standards, and may use them as the basis to request a re-survey or a re-supply of data.

## 2. Scope

This standard applies to any CCTV conduit inspections undertaken by or for supply to TW, including those undertaken with an IBAK Panorama system, except for:

- Push camera inspections of small (i.e. 100mm) pipes.
- Specialised inspections of critical or non-typical infrastructure such as outfall pipes that are specified by a particular job.

## 3. Safety Considerations

Contractors must never enter any TW maintenance shaft, manhole or node for data collection purposes. All node inspections must be completed without entry to a confined space by using measurement devices operated from the surface.

## 4. Definitions

Refer to **WSA 05 2008 Second Edition (Version 2.2) Conduit Inspection Reporting Code of Australia** for complete definitions around sewer infrastructure and CCTV inspections.

**LISTMap:** Land Information Systems Tasmania Map <https://maps.thelist.tas.gov.au/listmap/app/list/map>

**Node:** An asset or other feature that marks the beginning or end of a pipeline; for gravity mains it is generally a manhole, inspection opening or end cap.

### 4.1. Abbreviations

| Acronym | Description  |
|---------|--|
| CCTV    | Closed Circuit Television (video for pipeline inspection)  |
| TW      | Tasmanian Water and Sewerage Corporation known as TasWater |
| WSAA    | Water Services Association of Australia                    |

## 5. Considerations

TW regularly requests and receives CCTV data for various reasons across the business. Data is currently returned in a variety of formats and may or may not comply with WSAA coding standards. To best utilise CCTV data across the business and avoid duplication of work, this document is needed to:

- Enforce compliance with WSA 05 2008 guidelines across the full breadth of CCTV data being received by TW.
- Provide clear instruction on TW's requirements that are supplementary to the WSA 05 2008 code.
- Ensure that all data is supplied in a standard format so that it can be utilised by TW's corporate systems.

## 6. Roles and Responsibilities

The roles and responsibilities associated with the ongoing implementation of this standard are listed in the table below.

| Role  | Person   |
|---|--|
| Receipt and use of CCTV data for maintenance action   | As per request for work or contract  |
| Receipt and use of CCTV data for renewals and relining planning and validation  | <b>Senior Engineer Asset Performance (Sewer Pipelines)</b><br><a href="mailto:damian.devlin@taswater.com.au">damian.devlin@taswater.com.au</a> |
| Receipt and assessment of CCTV data to allow construction near TW assets to record condition  | <b>Assessment Officer</b><br><a href="mailto:development@taswater.com.au">development@taswater.com.au</a>                                      |
| Receipt and use of CCTV data for acceptance of new assets   | <b>Field Services Officer</b><br><a href="mailto:development@taswater.com.au">development@taswater.com.au</a>                                  |
| Receipt of CCTV data: <ul style="list-style-type: none"> <li>• for import into TW's asset information systems and</li> <li>• quality assurance processes</li> </ul> | <b>Asset Data Services Officer</b><br><a href="mailto:assetinfo@taswater.com.au">assetinfo@taswater.com.au</a>                                 |
| Application Administrator *<br>(system configuration, user support)   | <b>Asset Information Quality Specialist</b><br><a href="mailto:patrick.kent-fahey@taswater.com.au">patrick.kent-fahey@taswater.com.au</a>      |
| Business Application Owner *<br>Business Process Owner *<br>Business Information Owner *  | <b>DM Asset Information</b><br><a href="mailto:matt.tilyard@taswater.com.au">matt.tilyard@taswater.com.au</a>                                  |
| Technical Owner *<br>(server, OS, network, security)  | <b>Business Systems</b><br><a href="mailto:ServiceCentre@taswater.com.au">ServiceCentre@taswater.com.au</a>                                    |

\* **13/12798** Business Systems IT Governance Framework v1.0

## 7. References

WSA 05 – 2008 Version 2.2 – Conduit Inspection Reporting Code of Australia

## 8. Compliance with this Standard

If there is doubt as to whether the requirements listed in this document or the WSA 05 2008 standard can be met, TW must be approached prior to undertaking work to reach a practical agreement.

Where CCTV data provided to TW is not compliant with these requirements, TW reserves the right to not accept the work and can request the following:

- Re-supply of data with changes made
- Re-coding based on the existing footage, and/or
- Complete re-inspection.

Subsequent submissions will be re-assessed until they demonstrate compliance.

## 9. General Requirements

### 9.1. WSAA standard

In addition to the specifications of this document, TW requires that all CCTV inspections be completed to the requirements and guidelines of WSA 05 2008 version 2.2. Where the WSA code and this specification are in contradiction, this document takes precedence.

### 9.2. Reasons for CCTV inspection

CCTV inspections are undertaken for a number of reasons. The reason for each inspection must be recorded in the inspection header information as specified in the table below:

Table 1

| Reason                           | Notes  |
|----------------------------------|--|
| New construction                 | Newly constructed asset inspection at time of practical completion.  |
| End of warranty period           | Inspection of newly constructed main at end of defects liability period.   |
| Routine inspection of condition  | Planned program of condition inspections.  |
| Operational condition inspection | Reactive or unplanned maintenance inspection.  |
| Structural condition inspection  | Post reline or renewal inspection.   |
| Other                            | Build-over or working nearby inspection to understand potential impact(s) on assets; To record pre and post condition to determine any impacts of nearby construction; Or any other reason for the inspection. |

This document will refer to the reasons listed in this table for certain considerations.

### 9.3. Camera and Software

All inspections must be undertaken using a pan and tilt capable camera according to WSA 05 2008 guidelines or an IBAK Panoramo camera system. Camera systems must be equipped with an inclinometer.

All inspections must be coded on-site using the software WinCan (CDLab Switzerland) VX.

**Note:** Inclinometer readings may not be required if the size of the inspected main (i.e. <DN 100mm) precludes its use.

#### 9.4. Quality assurance

Contractors engaged for CCTV inspections to be supplied to TW must be able to demonstrate to TW that their operators comply with the requirements of WSA 05 2008.

Contractors must also be able to demonstrate that they have a quality assurance mechanism in place such that all reports are reviewed for issues before submission to TW.

#### 9.5. Inspection scope

A CCTV inspection is defined as a satisfactorily complete inspection of a single sewer main asset – as identified by TW.

A sewer main asset is the whole length of an individual line with a single asset ID as supplied by TW or indicated by TW data on LISTMap<sup>1</sup>. For *new construction inspections* where the asset number is not yet available in TW system, it is defined as the complete length between two nodes (manholes, a rod eye and a manhole, or a manhole and other end of line features).

For *operational condition inspections*, satisfactorily complete means inspected for any length that provides sufficient insight regarding the cause of a blockage or other event (an inspection usually proceeds until it must be abandoned at an obstruction).

For all other reasons, the full length of the main must be inspected unless there is a need for it to be abandoned. If the inspection must be abandoned, the requirements in section 10.6 must be followed.

**Note:** Where TW has identified multiple, separate sewer sections that should logically be aggregated into a single sewer main, complete the full length and choose one of the two asset identifiers as the section ID. The asset ID that is not used should be raised as skipped to TasWater (see section 10.7)

#### 9.6. Cleaning

Requirements for cleaning depend upon the reason for inspection as per the table below:

Table 2

| Reason                           | Notes   |
|----------------------------------|---|
| New construction                 | Pipe must be clean before undertaking CCTV inspection, unless otherwise advised.    |
| End of warranty period           | Cleaning required unless otherwise advised.   |
| Routine inspection of condition  | Cleaning required unless otherwise advised.   |
| Operational condition inspection | Cleaning required unless otherwise advised.   |
| Structural condition inspection  | No cleaning required if inspection carried out within 24 hours of relining/renewal. |
| Other                            | Cleaning required unless otherwise advised.   |

<sup>1</sup> Land Information Systems Tasmania Map <https://maps.thelist.tas.gov.au/listmap/app/list/map>

## 10. Observations and Procedures

### 10.1. Pipe unit lengths

Pipe unit lengths must be recorded for any inspection as an aid to validation of pipe material types from their standard manufactured lengths. The pipe unit length recorded in the header information should generally be the measured distance between the second and third joint of the sewer main, as per figure 1 below, however the chosen points of measurement need to be representative of the majority of pipes between manholes (for example when a shorter junction is laid between second and third joints).

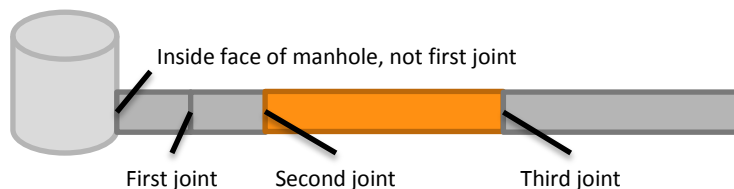


Figure 1<sup>2</sup>

### 10.2. Manhole inspections

**SAFETY ALERT- CONFINED SPACES ARE HAZARDOUS AND POTENTIALLY DEADLY:** Note that contractors must *never* enter any TW maintenance shaft, manhole or node for data collection purposes. All node inspections must be completed without entry to a confined space by using measurement devices operated from the surface.

Some jobs or contracts will require inspection of manholes as part of the CCTV inspections.

If requested, TW requires an inspection to be completed for any manhole node encountered during pipeline inspections where it is accessible and can have its lid opened. Cleaning of the MH is not required unless explicitly requested.

Any manhole that has an inspection completed against it must be correctly referenced in the US MH and DS MH fields on all inspected main(s) that connect to it.

The inspection must be entered within WinCan as a node inspection associated with the correct node as referenced by the main(s) and must provide information as listed in the tables below.

Only the following header information is required by TW for a node inspection undertaken under these circumstances:

Table 3

| Header Info                  | Description   |
|------------------------------|---|
| Node name                    | The Asset ID of the manhole as specified by TasWater  |
| Node type                    | The type of manhole   |
| Node material                | The construction material of the manhole  |
| Depth to Invert              | Depth from the lid to the invert (lowest point of base or benching) in metres. Survey methodologies such that the precision of the measurement is at $\pm 30\text{mm}$ (at 95% confidence) are acceptable.<br><b>Note:</b> for manholes, the lowest point is the invert of the channel at the outlet. |
| Type of cover                | The type of cover.  |
| Type of lifting arrangements | The lifting mechanism required for the lid.   |

<sup>2</sup> Figure adapted from *Queensland Urban Utilities - CCTV Inspection Guide for Sewers* pg. 9



Full condition inspection of manholes as per WSA 05 2008 guidelines is **not** required. Only the following observations must be made at a minimum:

| Code | Description          | Notes   |
|------|----------------------|---|
| HFH  | Inspection Completed | A remark must be added to this observation which is just a number from 1 to 5 reflecting the condition of the manhole (see Appendix A). |
| HGC  | General Comment      | Free-text description of particular issues or observations that may be of use to TW. Add as many of this code as needed.                |

At least two photos must be associated with the HFH observation within WinCan as per the requirements below:

| Photo   | Name          | Description   |
|---------|---------------|---|
| Photo 1 | Lid off photo | <ul style="list-style-type: none"> <li>Must be taken over the top of the manhole with the lid completely moved</li> <li>Must have sufficient lighting so that the base and channel are clearly shown. This may require the use of flash or a separate artificial light.</li> <li>Must be oriented such that the outflow of the manhole is at the very top of the photo</li> </ul> |
| Photo 2 | Context photo | <ul style="list-style-type: none"> <li>Photo that captures the lid and surround of the manhole and some background context as to where it is situated (such that the photo could be used to help find the manhole).</li> </ul>  |

All photos must be 5MP or greater resolution and in .JPG format.

Examples of acceptable photos are shown below in Figure 2.



Figure 2

The photo(s) must be associated with the HFH code as an attachment within WinCan.

**Note:** Compliance with this specification for manholes of exceptional depth (i.e. deeper than 3 meters) may prove difficult and best-efforts for good lid off photos and accurate depth measurements are acceptable. At no times is safety to be compromised to obtain inspection information. i.e. **NEVER enter a sewer manhole.**

### 10.3. External drop-pipe condition assessment

Where a manhole external drop-pipe is encountered at the end of an inspection, TW requires condition information to be entered into the section inspection within WinCan by way of specifically formatted remark on the end observation:

| Code | Description                | Notes   |
|------|----------------------------|---|
| FHVD | Finish node, vertical drop | <p>A remark must be added to this observation which gives a 1-5 rating (See Appendix A) of the drop-pipe condition and a comment on any issues found. The following format must be used in the remark:</p> <p><i>Condition:[1-5];description of issue of any</i></p> <p>For example, a drop-pipe in extremely poor condition blocked with roots:</p> <p><i>Condition:5;severely blocked by roots, broken pipes etc.</i></p> |

All FHVD codes should have remarks in the above format.

### 10.4. Missing manhole

As shown in Figure 3 below, there are instances where TW's data may incorrectly list 3 manholes, with two separate sections. The middle manhole may be found not to exist in the course of completing the inspection, meaning there should only be the one section.

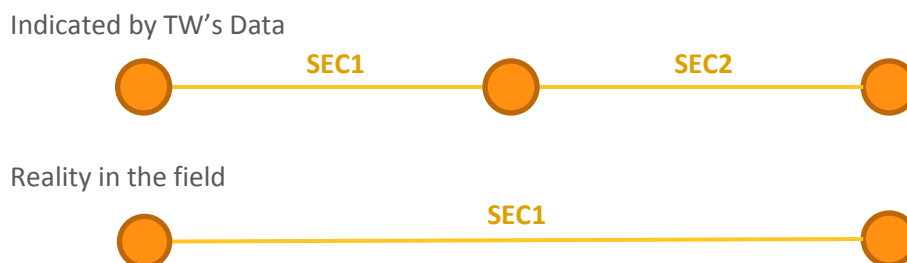


Figure 3

In this scenario, internal staff and contractors are advised to contact the TW representative responsible for the work or an appointed supervisor if possible for advice to proceed. If this is not possible, continue the inspection through to the next node and ensure that:

- A general comment (GC) observations is made in WinCan at the point where the manhole was confirmed not to exist with the following text: [Missing Node](#).
- TW is informed that the other asset ID that would have had its own inspection has been *skipped* (See 10.7).
- The finish node is given the correct Asset ID, not the ID of the node that was skipped.

The inspection should be abandoned with a remark that states the reason for abandonment as being '*manhole end does not exist*'.

### 10.5. Discovered manhole

As shown in Figure 4 below, there are instances where TW's data may incorrectly list 2 manholes at either end of a single section. In the course of the inspection, a new manhole may be discovered somewhere along this section.

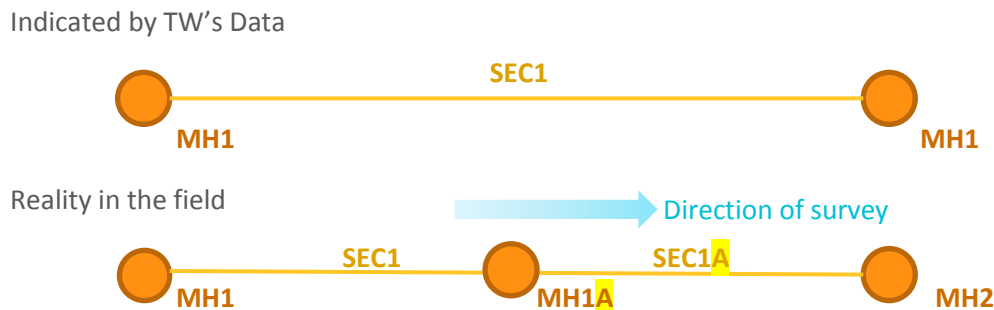


Figure 4

In this scenario, the inspection should be stopped at the newly discovered manhole and a new inspection should be started for the remaining length. Adhere to the following, as shown in Figure 4 :

- The remaining length should be given a section ID of the original section asset number appended with the letter 'A'.
- The downstream node of the inspection for the first section and the upstream node for the remaining length should be set to the original upstream node appended with the letter 'A'.

**Note:** If additional missing manholes are found, use the same process with the next letter (B and so on)

### 10.6. Abandonment

Where an inspection has been commenced but can only be partially completed, it is considered **abandoned**. This does not apply to reactive or unplanned maintenance inspections which are considered complete when they reach any length that provides sufficient insight regarding the cause of a blockage or other event

Reasons for abandonment may include obstructions or high water flow/level.

When an inspection is abandoned due to obstruction, a reverse inspection must be attempted from the other direction to create a single combined-reverse inspection for the main. A reverse inspection is *not* required where the remaining length is either:

- 5m or less.
- 5% of the total length of the main or less.
- There is not suitable access node from the other direction.

If an inspection must be abandoned due to high flow/water level, contact TW to confirm what flow control measures can be put in place to successfully carry out the inspection unless otherwise detailed within the contractual documents.

### 10.7. Skipped due to non-existing asset or inability to access

An inspection is considered **skipped** where the asset:

- is proven not to exist in the field (no nearby nodes appear to exist that would match the requested asset);
- Cannot be accessed for camera inspection from either node.

The inability to complete the survey must be reported back to TW via best available contact for person responsible for the request the same day that it was skipped. TW may provide further action such as a rescheduled attempt if it is able to locate the asset or ensure access.

### 10.8. Inclinator readings

Inclinometer readings are required to be recorded in WinCan for the full length of the inspection.

## 11. Data Format & Submission

### 11.1. Delivery arrangements

CCTV Data must be submitted via TW's online file sharing platform, ShareFile. TW will supply an upload link to CCTV providers as part of a contract or job. Unless it is in addition to ShareFile upload, any other means of delivery such as OneDrive, or physical media such as USB or hard drive are by exception only and to be arranged with the contact person for the job or contract.

### 11.2. General requirements

TW requires CCTV data to be in WinCan VX format.

The full WinCan project and associated folder structure with all contents must be delivered to TW whenever CCTV data is supplied. This includes the WinCan database (.mdb or .sdf file), all PDF files, all media files and photos within their original folders.

All media and report files within the project must have filenames that exactly match their references within the WinCan database, and comply with the filename requirements in the subsequent sections.

WinCan projects supplied to TW must only contain sections/mains which have been inspected within the project.

### 11.3. Job number format

The job number within WinCan must include a date-time stamp of the format **YYYYMMDD**. For example, a project that was started on the 17<sup>th</sup> of March 2017 could have a project name of:

*TASWATER - JM 402 - GEEVESTON 20170317*

This ensures that it will be unique when imported into TW's systems.

Where there is only one job for the project, the project name must be the same as the job number within WinCan (as per Figure 5).

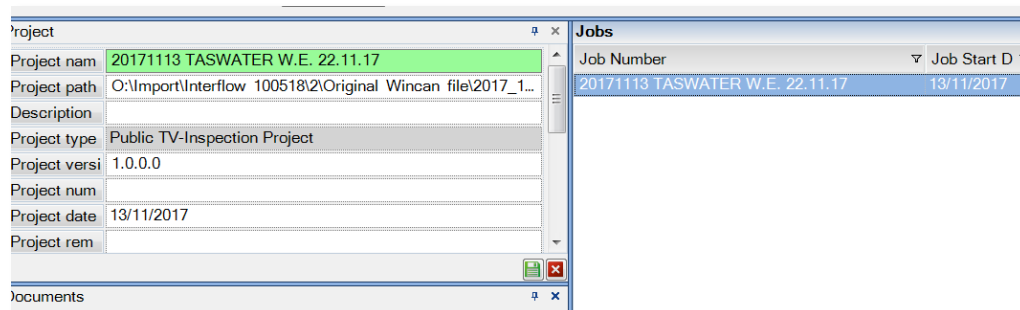


Figure 5

All sections and inspections within the project must be assigned to a valid job number.

#### 11.4. Timeframes

The time within which TW requires WinCan inspection data to be delivered depends upon the purpose of inspection. The table below lists maximum allowable timeframes for the return of final data

| Reason                           | Timeframe  |
|----------------------------------|--|
| New construction                 | Supplied along with delivery of as-constructed data to TW.   |
| End of warranty period           | Supplied along with application for final certificate.   |
| Routine inspection of condition  | As per contractual arrangement.  |
| Operational condition inspection | Final data must be supplied within 1 business day of carrying out the inspection unless otherwise agreed to by TW. |
| Structural condition inspection  | Final data must be supplied within 2 weeks of carrying out the inspection unless otherwise agreed to by TW.        |
| Other                            | Final data must be supplied within 2 weeks of carrying out the inspection unless otherwise agreed to by TW.        |

**Note:** If timeframes cannot be met, contact the relevant TW representative for the reason for inspection so that an agreement can be reached.

#### 11.5. Section and node identifiers

All sections and nodes within the project should be uniquely identified using TW's asset number (e.g. A1235322), either as provided, or obtained from LISTMap.

Within a single project, each section should have exactly one inspection entered against it. This requires that:

- Reverse inspections should be combined within WinCan to make a single 'combined reverse' inspection.
- Inspections that are re-attempted should over-write the existing inspection for that section – TW only requires the most recent inspection.

Where the TW asset number of the section is not provided and cannot be obtained (e.g. for new infrastructure inspections where the assets do not yet exist in TW's system), use a combination of a unique ID for the pipe that is referenced in an as-constructed drawing and the Job Ref. No for the project or development.

the following naming convention as the asset ID:

[Job Ref No.]\_[Unique ID of pipe]

Example: for a job with a reference of WO14234 on 17<sup>th</sup> of January 2019:

PA2018/00129-LC\_PIPE12

#### 11.6. Report requirements

Reports must be included in the supply of CCTV data to TW. Each section in the supplied project must have a separate PDF report created for it using a standard WinCan template.

The report filenames must exactly comply with TasWater's naming convention as shown below:

[Asset ID of section]\_[WinCan Section OBJ\_PK].pdf

Example: A441375\_f7250d72-44b8-4815-82a2-da1027fa8709.pdf

Instructions on how to generate these filenames from within WinCan are included in **Appendix B**.

Reports must include the following components, as defined within WinCan:

- Cover page
- Project information
- Section Inspection
- Section Pictures
- Section inclination
- Node inspection (if applicable)

On request for CCTV work to be done, TW may provide a set of report templates for use with WinCan VX. If a report template is supplied, all reports must be generated using these report template files.

### 11.7. Media requirements

All video files or Panoramio image files (.ipf) associated with the inspections in a supplied project must be included in the delivery of the data within the original WinCan folder structure. Each video/image must be properly linked to the relevant section within the WinCan project.

Video and IPF image files must include the asset ID of the section and a unique string in the filename. For example:

*A12345\_68fec1cf-b43a-482c-ae57-d6761fbf243f.mpg*

All video files must be provided in .mpg format and adhere to all WSA 05 2008 guidelines.

## 12. Contact Details

Where severe structural damage of pipes or other issues requiring urgent attention, contact TW on **13 6992** and advise of urgent works required.

For reasons mentioned within this document or any other issue that arises as part of an inspection, contact the relevant TW representative as nominated by contract or other agreement.






For questions related to data format and return, or to provide feedback on this specification, please email [assetinfo@taswater.com.au](mailto:assetinfo@taswater.com.au).

## 13. Appendices





### Appendix A: Condition rating descriptions

When recording a condition rating for adhere to the descriptions in the following tables to ensure a consistent approach to ratings. These tables are based on descriptions in WSA 05 2008-2.2:

#### Manhole nodes

| Rating | Description            |   |
|--------|------------------------|---|
| 1      | Good condition         | As New or only insignificant deterioration with no or insignificant loss of hydraulic performance or structural integrity.  |
| 2      | Minor deterioration    | <p>Minor deterioration/degrading of hydraulic performance or structural integrity.</p> <p>This may include minor evidence of ground water infiltration e.g. lightly discoloured walls or benching. Fine root penetration under the surround.</p> <div data-bbox="518 745 857 1001" data-label="Image">  </div> <div data-bbox="880 745 1227 1001" data-label="Image">  </div> <p>Hairline cracking of any concrete portion related to any portion of the structure e.g. the lid and surround, the shaft, benching or channel.</p> <div data-bbox="735 1090 1078 1328" data-label="Image">  </div>  |
| 3      | Moderate deterioration | <p>Poor construction or defects that may cause loss of hydraulic performance. This may include amplified evidence of ground water infiltration e.g. substantial staining of walls or benching. Root penetration under the surround or through a joint in the shaft which left unattended will eventually cause loss of hydraulic performance.</p> <div data-bbox="533 1554 877 1814" data-label="Image">  </div> <div data-bbox="901 1554 1214 1814" data-label="Image">  </div> <p>Poor construction or defects that may cause eventual loss of integrity of the structure or a safety hazard. This may include minor voids, honeycombing or erosion of fine aggregate from concrete related to any portion of the structure e.g. the lid and surround, the shaft, benching or channel.</p> |



|   |                            |  |
|---|----------------------------|--|
| 4 | Significant deterioration  | <p>Poor construction or defects that are causing partial loss of hydraulic performance e.g. A large build-up of deposits on the walls or benching from ground water infiltration or evidence of water penetrating at the time of inspection. Tree roots invading into the channel / benching region.</p>  <p>Poor construction or defects that if left unattended will cause the loss of the structure integrity of the structure or a safety hazard. This will include: Breaking away of concrete, evidence of corrosion of the reinforcing fabric or exposed reinforcing fabric related to any portion of the structure e.g. the lid and surround, the shaft, benching or channel.</p>  |
| 5 | Failed or imminent failure | <p>Defects that are causing loss of hydraulic performance e.g. large volume of continuous ground water infiltration or root mass causing blockage or partial blockage of the sewer at the time of inspection.</p>  <p>Structural defects which have caused loss of integrity of the structure and are a safety hazard e.g. major cracking of concrete, collapse or displacement of any a portion of the structure.</p>   |



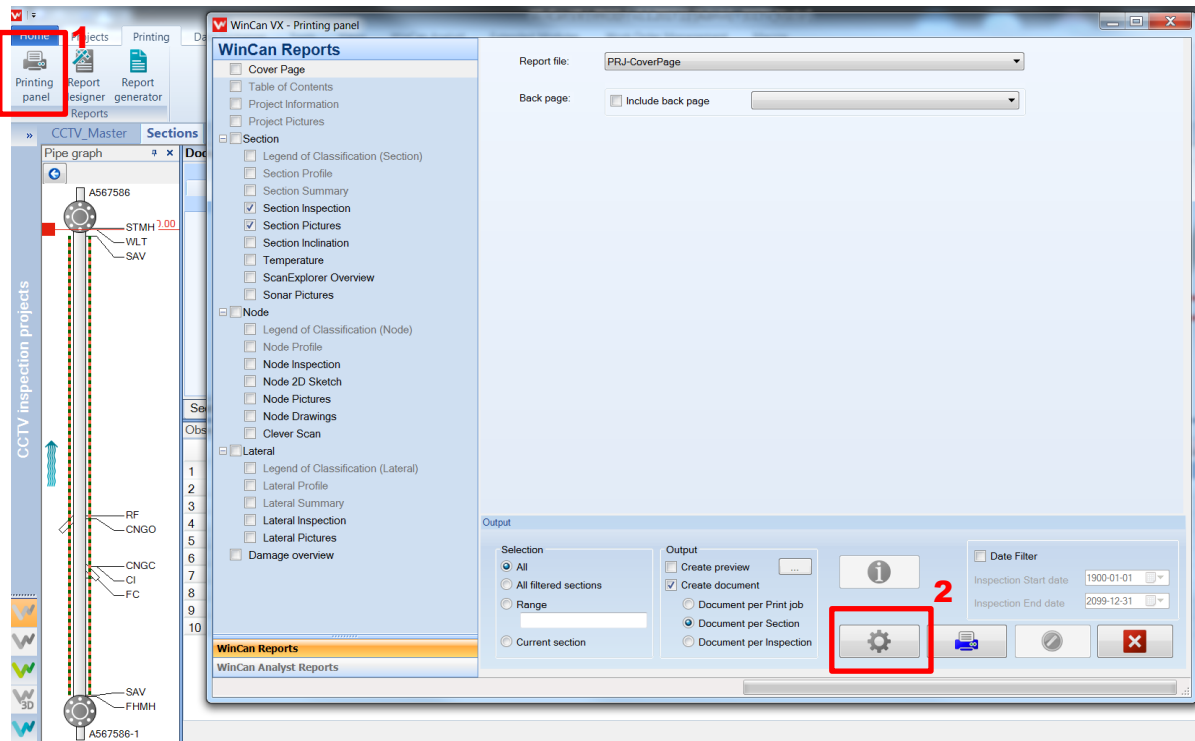
## Internal drop pipes

| Rating   | Description                |  |
|----------|----------------------------|--|
| <b>1</b> | Good condition             | As New or only insignificant deterioration with no significant loss of hydraulic performance. No Defects apparent  |
| <b>2</b> | Minor deterioration        | Minor defects are present causing minor loss of hydraulic performance and small likelihood of causing surcharge or overflow. Typical Defects: minor joint displacements  |
| <b>3</b> | Moderate deterioration     | Moderate deterioration with developed defects that do not affect short-term structural integrity. Moderate loss of hydraulic performance and likelihood of surcharge or overflow occurring. Typical Defects :joint displacement, fine root entry, cracking evident, some sharp edges that may cause foreign object blockages   |
| <b>4</b> | Significant deterioration  | Serious deterioration with significant defects presently affecting structural integrity. Hydraulic performance currently impacted with a significant chance of causing surcharge/overflow. Action required which may include rehabilitation and/or renewal in the short-term. Typical defects: Broken or displaced pipes, multiple sharp edges, choked with tree roots, some voids visible |
| <b>5</b> | Failed or imminent failure | Failure of sewer drop pipe has occurred or is imminent. Immediate action is required which may include rehabilitation and/or renewal. Typical Defects: Collapsed, Severely broken pipes with pieces missing, voids visible, soil entering  |

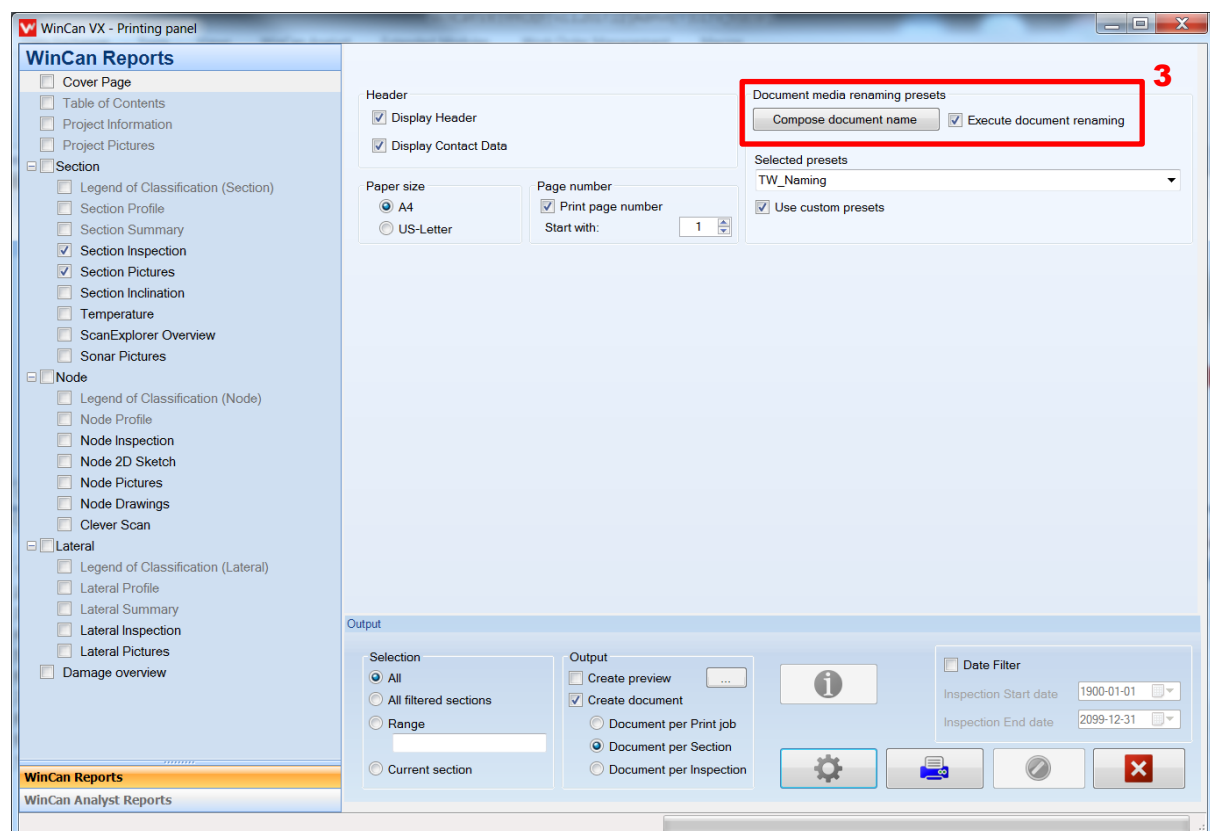
## Appendix B: Instructions for report naming in WinCan VX

Follow the following procedure to ensure CCTV reports generated from within WinCan VX comply with TW's naming convention:

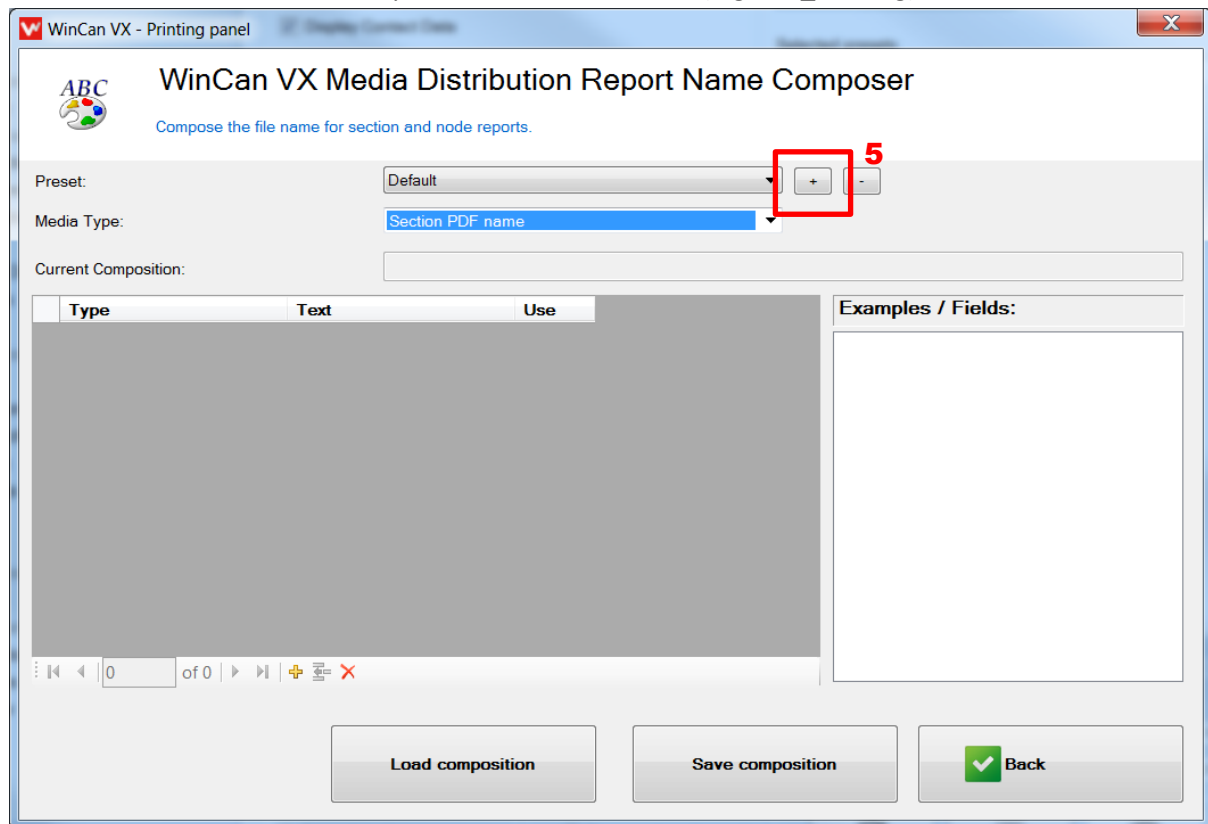
1. With the relevant project open, launch the Printing Panel in WinCan VX
2. Open the settings



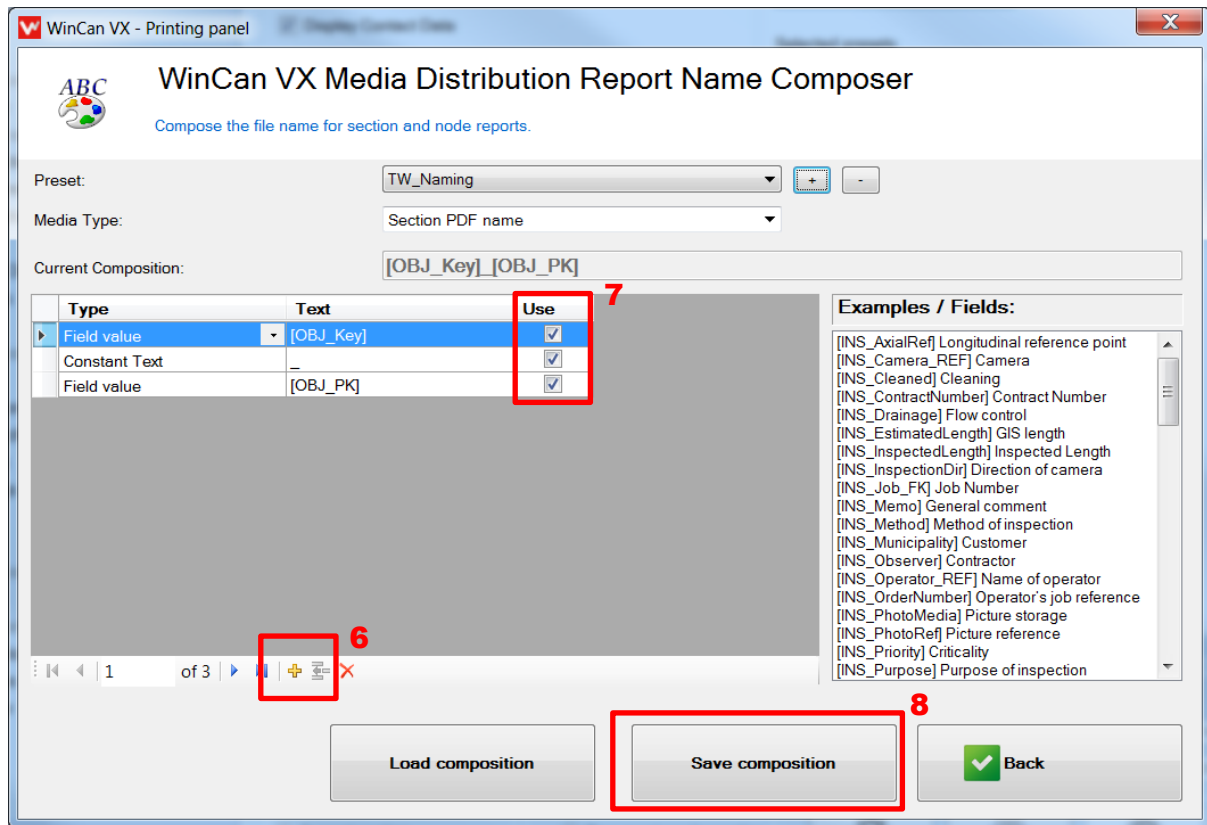
3. Tick Execute document renaming and click Compose document name



4. Tick use custom pre-set and hit compose pre-set
5. Hit the + button next to pre-set and enter a name (e.g. TW\_Naming)



6. Hit the plus button along the bottom to add a component. Add the components listed in the screenshot below. Note: you will need to type the field name [OBJ\_PK] as it doesn't appear on the list.
7. Tick use on all rows
8. Save Composition and then hit Back



**WinCan VX - Printing panel**

**WinCan VX Media Distribution Report Name Composer**  
Compose the file name for section and node reports.

Preset: TW\_Naming

Media Type: Section PDF name

Current Composition: [OBJ\_Key] [OBJ\_PK]

| Type          | Text      | Use                                 |
|---------------|-----------|-------------------------------------|
| Field value   | [OBJ_Key] | <input checked="" type="checkbox"/> |
| Constant Text | _         | <input checked="" type="checkbox"/> |
| Field value   | [OBJ_PK]  | <input checked="" type="checkbox"/> |

**Examples / Fields:**

- [INS\_AxialRef] Longitudinal reference point
- [INS\_Camera\_REF] Camera
- [INS\_Cleaned] Cleaning
- [INS\_ContractNumber] Contract Number
- [INS\_Drainage] Flow control
- [INS\_EstimatedLength] GIS length
- [INS\_InspectedLength] Inspected Length
- [INS\_InspectionDir] Direction of camera
- [INS\_Job\_FK] Job Number
- [INS\_Memo] General comment
- [INS\_Method] Method of inspection
- [INS\_Municipality] Customer
- [INS\_Observer] Contractor
- [INS\_Operator\_REF] Name of operator
- [INS\_OrderNumber] Operator's job reference
- [INS\_PhotoMedia] Picture storage
- [INS\_PhotoRef] Picture reference
- [INS\_Priority] Criticality
- [INS\_Purpose] Purpose of inspection

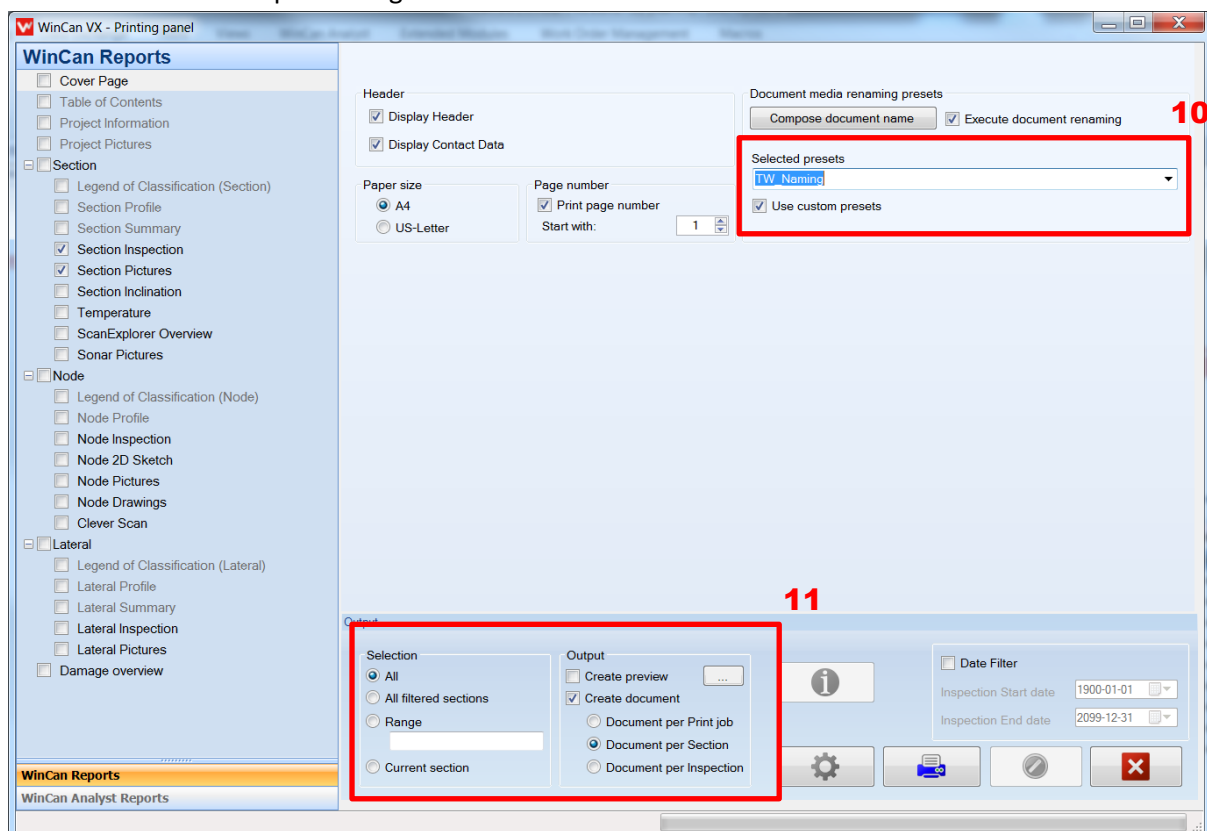
1 of 3

Load composition Save composition Back

9. Save selected pre-set and Close

10. Select the newly created custom pre-set in the printing panel settings.

11. Match the output settings shown in the screenshot below



**WinCan Reports**

- ☐ Cover Page
  - ☐ Table of Contents
  - ☐ Project Information
  - ☐ Project Pictures
- ☐ Section
  - ☐ Legend of Classification (Section)
  - ☐ Section Profile
  - ☐ Section Summary
  - ☒ Section Inspection
  - ☒ Section Pictures
  - ☐ Section Inclination
  - ☐ Temperature
  - ☐ ScanExplorer Overview
  - ☐ Sonar Pictures
- ☐ Node
  - ☐ Legend of Classification (Node)
  - ☐ Node Profile
  - ☐ Node Inspection
  - ☐ Node 2D Sketch
  - ☐ Node Pictures
  - ☐ Node Drawings
  - ☐ Clever Scan
- ☐ Lateral
  - ☐ Legend of Classification (Lateral)
  - ☐ Lateral Profile
  - ☐ Lateral Summary
  - ☐ Lateral Inspection
  - ☐ Lateral Pictures
  - ☐ Damage overview

**Header**

☒ Display Header

☒ Display Contact Data

Paper size: ☒ A4 ☐ US-Letter

Page number: ☒ Print page number

Start with: 1

**Document media renaming presets**

Compose document name ☒ Execute document renaming

Selected presets: TW\_Naming

☒ Use custom presets

**Output**

☐ Create preview

☒ Create document

☐ Document per Print job

☒ Document per Section

☐ Document per Inspection

**Date Filter**

Inspection Start date: 1900-01-01

Inspection End date: 2099-12-31