

3. Specification

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Specification

Closed Circuit Television Inspection of Stormwater Pipes

1. Scope

To undertake Closed Circuit Television (CCTV) surveys of nominated Council stormwater drains for investigation purposes, defect identification, asset data collection, condition assessment and condition rating.

2. Background

The City of Port Phillip lies on the northern edge of Port Phillip Bay, to the south of the Melbourne central business district. It is approximately 20km² in area with 11km of foreshore and it has a population of 85,000. Significant areas of the municipality are 2 to 3 metres above sea level and relatively flat. It is predominately residential with a high proportion of flats and high rise accommodation, although there are significant pockets of light and medium industry, notably in South Melbourne and Port Melbourne. The area has been extensively developed which reflects its location as an inner suburb of Melbourne.

The municipality is one of the oldest in Victoria and this is reflected in much of the infrastructure. There are approximately 224 km of Council underground stormwater drains that have been constructed over many years. There are also a number of Melbourne Water main drains within the municipality. Due to the location on Port Phillip Bay most of the large drains close to the coast are subject to tidal influences and seawater can extend several hundred metres upstream inside some pipes.

In 2008 a stormwater condition study was completed using existing and new CCTV surveys. The 2008 study's findings were based on a relatively small number of CCTV surveys. The purpose of this contract is to add to the 2008 data set of knowledge. This project will be primarily focused on Council's drains that are 600mm diameter and greater.

In previous investigations some CCTV surveys have had to be abandoned due to debris and sediment within the pipes. While Council has a proactive pit cleaning program, the cleaning of pipes is undertaken on an as needs basis. The CCTV contractor will be required to clear any blocked drain to facilitate the survey.

3. Available Information

The stormwater drainage network consists of approximately 12,000 pits and 12,000 pipes. This information is available spatially in MapInfo format, GDA94 projection. The location and sizing information is relatively accurate but other attributes are variable in extent and accuracy. The availability of drainage construction plans is also variable.

4. Services

The required services include but are not limited to:

- The CCTV inspection of enclosed stormwater drains less than 1500mm diameter at locations to be nominated by Council.
- The provision of defect and condition reports on Council's drainage infrastructure in both hard copy and soft copy formats.
- The cleaning of Council's drainage infrastructure to allow CCTV surveys to be completed.
- Inspections of the drainage system to verify the accuracy of Council's drainage information, to capture drainage asset information and to determine need for prior cleaning or other services.

5. Description of Work

The drains to be surveyed and the programming of work will be at the discretion of Council.

The contractor may be required to undertake inspections of Council's drainage infrastructure to verify the accuracy of drainage information, to undertake the capture of drainage asset information and to determine need for prior cleaning or other services.

The contractor will be required to provide a quotation of the anticipated hours and cost of each CCTV survey before approval to commence will be given.

Work will be undertaken between the hours of 7.00am to 5.00pm Monday to Friday unless otherwise agreed by Council's project manager.

Any CCTV surveys in pipes containing water will be undertaken at a time close to low tide in Port Phillip Bay to ensure the maximum exposure of the pipe to the camera

The recording of information is to be in accordance with the current industry standard Sewer Inspection Report Code (SIRC) or otherwise agreed with Council.

Defect types to be recorded include cracks, fractures, missing bricks, deformation, collapse, dropped inverts, mortar loss, tree roots, obstructions, erosion, rusting and spalling.

The CCTV camera position is to be continuously recorded to an accuracy of 0.3 metres. The Contractor shall demonstrate when requested by Council's project manager that the required accuracy is within tolerance.

All dimensions are to be metric and all levels shall be to Australian Height Datum (AHD).

Photographs shall be taken of all significant defects and included in the report. The location of the photographs must be clearly identifiable.

The DVD recording shall display the camera position relative to the start, the upstream and downstream manhole reference numbers, the date, road name or location, direction of survey, time, pipe size and material.

The DVD image shall be in colour and have a picture quality suitable for the clear identification of defects and for the rating of pipe condition.

Unless otherwise agreed the CCTV images for each pipe survey are to be recorded and supplied to Council on DVD in a format that can be viewed on Windows Media Player. Any associated report is to be provided with one hardcopy and one soft copy in Microsoft Office format.

Council will have unlimited rights to use all items and information from the CCTV survey for the ongoing management of Port Phillip's drainage system.

The survey shall be undertaken by appropriately trained personnel with experience and equipment applicable to the task, including safety apparatus, first aid and confined space accreditation.

The Contractor will be responsible to for arranging and managing all traffic control measures necessary for the safe conduct of the services.

Where the abandonment of a CCTV survey is considered necessary the Contractor shall contact Council's project manager as soon as reasonably possible. The amount payable to the Contractor for the abandoned survey may be adjusted to reflect the extent of work undertaken.

The Contractor will be responsible for all costs associated with recovery of, or damage to any of their equipment used in the survey.

The Contractor will be liable for any damage to Council assets unless that damage could not be reasonably foreseen or unless it is carried out under instructions from Council's project manager.

No water used in providing these services is to taken from a metered service or mains without the approval of the responsible authority.

The supply of water to provide these services will be at the Contractor's cost.

The Contractor must ensure that all pit covers are replaced at the completion of works with due regard to public safety, in accordance with Council requirements or manufacturers specifications. The Contractor is to contact Council's project manager as soon as practical if they are any problems with the pits or covers and is to provide temporary protection of any hazard.

The Contractor must comply with; and ensure that its employees, sub-contractors and agents comply with any Acts, regulations, local laws, codes of practice, WorkSafe publications and Australian Standards which are in any way applicable to OH&S and the performance of the Services.

The Contractor is to provide, operate and maintain the facilities, vehicles and equipment necessary for the proper performance of the required services.