

In the matter of The Resource Management Act 1991

and

**In the matter of Resource Consent Application LUC
2016-384, 58 Nairn Street, 25 Shetland
Street and 25 LynnStreet Dunedin
(Being the Shetland Street Reserve and
Kaikorai Commons between
Bishopscourt and School Street).**

STATEMENT OF EVIDENCE OF JANAN NIRAINJANAN FOR DUNEDIN CITY COUNCIL

Dated 30 November 2016

QUALIFICATIONS AND EXPERIENCE

1. My name is Janan Theivanayagam Nirainjanan (MIPENZ).
2. I am an Engineering Project Manager with Water and Waste Services of the Dunedin City Council (DCC). I am responsible for managing a range of projects for the department including Ross Creek Reservoir Refurbishment, wastewater, stormwater and watermain renewal projects. I hold the Bachelor of Engineering Degree in Civil Engineering from University of Peradeniya, Sri Lanka, Diploma in Hydropower Development from University of Trondheim, Norway and Diploma in Engineering Management, University of Auckland, New Zealand.
3. I have over 35 years of professional experience in the field of Civil Engineering.
4. My experience includes 12 years of construction monitoring of wastewater, stormwater and water pipelines and associated pumping stations for Dunedin City Council.
5. As the DCC Engineering Project Manager for the Kaikorai Valley Phase 3 Pipeline Renewals, I have been tasked to prepare Engineering Project Management evidence in relation to the resource consent application LUC 2016-384, .
6. I confirm I have read the code of conduct for expert witness contained in the Environment Court Practice Note and that I agree to comply with it. I confirm that I have considered the material facts that I am aware might alter or detract from the opinions expressed here and have not omitted to consider material facts known to me that might alter or detract from the opinions I express.

SCOPE OF EVIDENCE

7. In my evidence I will discuss the following:
 - An overview of Kaikorai common sewer renewal
 - Contract and Council Guidelines for Construction Methodology
 - Submitters Concerns

- Conclusion

OVERVIEW OF KAIKORAI VALLEY SEWER RENEWAL

8. The Kaikorai Valley catchment is known to be a significant contributor to discharge and surcharge issues within the foul sewer network both within the Kaikorai catchment and within the downstream South Dunedin catchment. The Council is progressively renewing this network as part of the Kaikorai Valley Pipeline Renewal Project.
9. Phase 3 of this project includes replacing the sewer and stormwater pipes through Kaikorai Common and Shetland Street Reserves. The existing sewer pipes in this location consist of approximately 950m of 300mm diameter earthenware (EW) wastewater pipe constructed in 1914 and 1918.
10. The age of the existing pipework has meant this section of the network has been assessed as being at the end of its useful life. CCTV inspection and condition assessment of the existing wastewater sewer indicates a structural failure due to frequent dipped pipe with infiltration and faulty joints.
11. The Council has therefore proposed to renew and realign the existing 300mm wastewater sewer and manholes with approximately 953m of 375mm UPVC pipeline and new manholes. The Council is also taking the opportunity to upgrade the stormwater pipes along the route at two locations where there renewal will entail the removal of vegetation in the ULCA16.
12. The proposed realignment of wastewater sewer has been walked, photographed, topographically surveyed and assessed in order to determine a route which balances; minimisation of pipes in private land / increasing pipe in DCC land, separation distance from the Kaikorai Stream, elimination of crossings of the Kaikorai Stream and minimisation of disturbance to vegetation in the Kaikorai Common.
13. Alternative trenchless methodologies have been considered, these have been outlined in the resource consent application. These alternatives were assessed against the project objectives and identified as either not technically feasible or too costly. Hence the proposal is to replace the pipes using an open trench construction methodology.

CONTRACT AND COUNCIL GUIDELINES FOR CONSTRUCTION METHODOLOGY

14. Council intend to tender the contract for the project including the vegetation removal in early December 2016 for contractors to price. Construction is programmed to begin in the first quarter of 2017.
15. If consent is granted the consent and consent conditions will be notified to the tenderers. This will enable the tenderers to evaluate the methodology for the vegetation management making accommodation for the consent requirements.
16. Tenderers will provide a methodology of their proposed sequence of construction and alternative safe walkway access (where practical) for the evaluation by Council before a tender is accepted by Council and the contract is let.
17. The sewer pipes are likely to be renewed in sections from manhole to manhole. The section of the wastewater sewer renewed will be reinstated once works are complete and replanting of tress within the reinstated section will commence as soon as practical depending on the prevailing planting conditions.
18. The Council has nominated the Dunedin Environmental Centre Trust, who has maintained the reserve for the last 20 years, as the sub-contractor to undertake the removal of vegetation, storing, replanting and maintenance of the plantings for a 2 year period after completion of the works.
19. Trees will be removed by an experienced arborist if required and only if they are within the construction corridor access. The removed tress will be replanted if possible at an appropriate location. The preferred period to remove and replant the tress will be in autumn/winter period.
20. The contractor will also have to provide an approved Traffic Management Plan before commencing the work. The traffic management plan will be part of the overall Construction Management plan and will amongst other matters the contractor is required to adhere to be monitored and audited regularly.

21. The Contractor will be required as part of the contract requirement to regularly notify affected property owners in accordance with the contractor's programme of work and at least two weeks before any work is carried out within their property.
22. The Contractor will also be required to take photographic records before commencing the work in private properties. The affected properties will be reinstated to the property owner's satisfaction in order to obtain an entry release form from the property owner.

SUBMITTERS CONCERNS

Consultation

23. A number of submitters have noted that they would like to be consulted with prior to the works being commenced. DCC will write letter to all affected property owners before tender for the works to obtain relevant information or concerns about the work and of anything that the property owner aware of that may impact on construction such as any sensitive dates/areas, any pets in the vicinity of the works or any other matters. The information provided by the property owner will be notified to the contractor and the contractor will contact each affected land owner two weeks prior to works being undertaken on their property. At this time a discussion with each property owner will be undertaken in terms of the specifics of the works and how it will affect their property and the appropriate measures taken on their concerns and how they would like their property reinstated.

Walkway

24. It is most likely the walkway through the reserve will be closed during various stages of the construction works for safety reasons. During these times the public including school children will not be able to use the walkway as a shortcut instead they will have to use the footpath on the street. I note the Council planner has suggested a condition around signage advertising when the walkway is closed and consultation with local schools over the closures. These conditions are acceptable to Council.

Site Office

25. One submitter has raised the issue of the site office or depot and concerns about the previous contract using an area adjacent to Wales Street. Ms Darby in her report has

also requested that the applicant could discuss this aspect further. These works are not unlike other Council sewer replacement works where contractors require a site office/storage area. It is up to the contractor to decide where best their site office /storage space will be. However in this instance it is unlikely to be within the area of the consent due to the space constraints. In my opinion It is more likely to be within Bishopscourt recreation reserve as discussion with Council Parks and Recreational Staff.

CONCLUSION

26. The sewer and stormwater pipes are old and creating discharge and surcharge issues. They are over one hundred years old and require replacing. Council has an obligation to rate payers to do this in a cost effective manner. Construction will therefore require the vegetation in Kaikorai Common and Shetland Street Reserve will need to be removed to facilitate this renewal.
27. However Council are prepared to mitigate the effects of the vegetation removal by replanting and maintaining the plantings so eventually the effects on the amenity affected by the works is mitigated. Council will also ensure all those parties directly affected by the construction works will be consulted with prior to the works being undertaken. Given these effects can be mitigated, I believe these works should be permitted to proceed and consent granted.

Dated at Dunedin this 30 day of November 2016



Name: Janan Nirainjanan

Title: Engineering Project Manager

Organisation: Dunedin City Council

References: Trenchless Construction Methodology – Opus International Consultants Ltd -March 2016.

