

Challenges of the City of Hobart Precinct Upgrade Works – Lenah Valley Precinct

KEYWORDS: construction, precinct upgrade, local government.

1 Introduction

In spring 2015, the City of Hobart and a team of consultants undertook a programme of community engagement to identify and prioritise streetscape upgrades for retail precincts across Hobart's local areas. A total of six projects were identified in this study with the first precinct upgrade works – Lenah Valley Precinct Upgrade, commenced in October 2017 and completed a year later in late 2018.

The Lenah Valley precinct upgrade project involved significant amount of community engagement process and delivered mainly using the City's internal resources from planning, design, and construction of the project.

This paper will focus mainly on the delivery of the construction of the project using the City's internal workforce, and the challenges faced during the construction of the project.

2 Lenah Valley Precinct Upgrade

Augusta Road, Lenah Valley is a former tram route connecting Lenah Valley with North Hobart. The extent of the precinct upgrade works were mainly between Greenway Avenue and Giblin Street. The businesses within the precinct consists of predominantly a small but varied mix of cafes, a pizza shop, pharmacy, medical centre, florists, post office, grocery shop and a clothes shop.

Augusta Road is relatively wide and is the main thoroughfare between New Town and Lenah Valley. There are significant amount of vehicular traffic and very high pedestrian usage in the precinct. It is located in an older area in Hobart with a lot of old infrastructure.

The scope of the project was developed through extensive community consultation process. The consultation process involved community groups, traders, businesses, and local residents. Detailed design was carried out by the City's Design Unit and constructed by the City's Civil Works Unit.

The project involved the construction of new street lighting, underground electrical works, widening of footpath, installation of level pedestrian crossing, rain garden, upgrade of storm water infrastructure, plumbing works, and installation of various street furniture.

The preliminary estimate for the project was \$2,000,000 and completed at a cost of \$2,600,000.

3 Key Challenges

There were many challenges encountered during the planning and delivery of the project. Some of the key challenges are discussed below.

3.1 Moving Scope and Managing Community Expectation

There were constant change in the scope of the works due to the number of community interests in the project. Some of the changes were due to the late involvement by key stakeholders in the project and in one occasion due to unforeseen heritage issue. This resulted in late change in scope of works which impacted on the construction program, and timeline. It was also one of the key risk to the project. The project team had to constantly change the program to ensure the successful delivery of the project within the required deadline.

The construction program had been consulted with the community during the pre-construction stage which resulted in the community having an expectation on the completion date of the project. As the scope changes the community expectation on the completion date did not change. This put additional stress on the construction team and was something that could have been managed better.

3.2 Construction hours

The precinct consists of cafes, post office, and grocery stores which operates from the early hours of the day, and a pizza shop which operates from late afternoon to late evening. This was considered during the planning of the works. The availability of materials and resources, proximity to residential properties, and budget constraint were also considered, and the construction team determined that it was best to carry out the majority of the construction works during the day.

The key challenge to undertaking the works during the day was the implementation of good traffic management plan to safely direct the pedestrian around the precinct, and also maintaining full time access to each businesses. This was crucial to ensure maximum community support to the project. The traffic management also had to consider the impact of parking to the businesses. A considerable amount of time was spent by the project planning team to ensure that the staging of works did not result in a significant loss in parking spots. Temporary parking arrangements were also considered during the works.

3.3 Improved Lighting in the Precinct

One of the key wish list from the community group was the lack of lighting in the precinct, and this made the precinct appeared to be closed for business at night. The challenge in improving the lighting in the precinct requires reconnection of all private electrical lot connection to the businesses and residential properties. The overhead electrical power line also needed to be upgraded and taken underground. A total of ten new street lights were installed to provide sufficient lighting to meet the Australian Standard.

The construction team also had to deal with deep trenches next to one of the busiest route in Hobart, with many existing underground services. The area was also known to have old town gas line.

3.4 Redundant Old Town Gas

The precinct is located in an older part of Hobart and were known to have old town gas pipes. The old town gas (coal gas) pipes were made redundant in Hobart in 1978, and the redundant pipes are known to contain harmful gases and Volatile Organic Compounds (VOC). The gases and contaminated soil is extremely harmful and can starve the brain of oxygen leading to long term or permanent illness or injury such as memory loss, impaired spatial ability and nerve damage.

During the installation of the underground electrical power line, a 100mm old town gas line was found and had to be removed to allow for the electrical conduit to be installed. The City's construction team enacted the standard operating procedure for the removal of the gas line which included the testing of the pipe for hazardous gas, and having appropriate personal protective equipment (PPE). Fortunately the ground surrounding the gas line was not found to be contaminated and no hazardous gas was found inside the pipe.

3.5 Contaminated Soil

The site was identified to have contaminated material. The source of the contaminated material was unknown but suspected to originate from the coal mining activity in the area in the early to mid-1800s. It was likely some of the spoils from the mining activity were used for the construction of the road. The total concentration of contaminants measured in the soil sample specifically, total Polycyclic Aromatic Hydrocarbons (PAH) and Benzo(a)pyrene, were classified as level 3 and 4 contaminant.

This impacted on the construction process and budget of the works as there were no local landfill that can accept this type of contaminated material. The contaminated material had to be removed from site and put in a holding facility before being transported to the Copping Landfill.

The construction team also had to be briefed about these materials and an appropriate safe work procedure was implemented when handling this material. The City also considered the possible media coverage on the issue and engaged directly with the community, to educate them about the risk of the contaminated materials.

3.6 Coordination of Works with Key Stakeholders

The project involved the coordination with various key stakeholders, particularly TasNetworks. The City's construction team had to work closely with TasNetworks and around their schedule. The construction program also had to change multiple times to suit various stakeholder's schedule. This required a lot of planning by the City's officers to ensure a smooth delivery of the works.

4 Conclusions

The project was considered a success as it was delivered to scope and within the estimated timeframe. This was also one of the projects that involved extensive community engagement process. There were many learnings from this project, however the key learnings were identified below:

- Managing community expectation, clearly outlining the negotiables and non-negotiables at the start of the project. This will help with managing the community expectation and to keep the project within budget.
- Good community engagement team that maintain a good relationship and continuous communication with the local businesses and residents throughout the project.
- Having a clear scope, and construction documentation prior to construction to ensure minimum change in project scope and assist with the programming of works.
- A good team that is customer focus, and outcome oriented that are determined to ensure the successful delivery of the project.

5 References

1. MRCagney 2015. *"A plan for Hobart's local retail precincts"* City of Hobart, 24 November 2015.
2. "Old Town Gas" Tasmanian Government, accessed 5 August 2019, <https://www.cbos.tas.gov.au/topics/technical-regulation/gas-standards-safety/practitioners/old-town-gas>.