

# City of Hobart

## Challenges of City of Hobart Precinct Upgrade Works

### *Lenah Valley Precinct*

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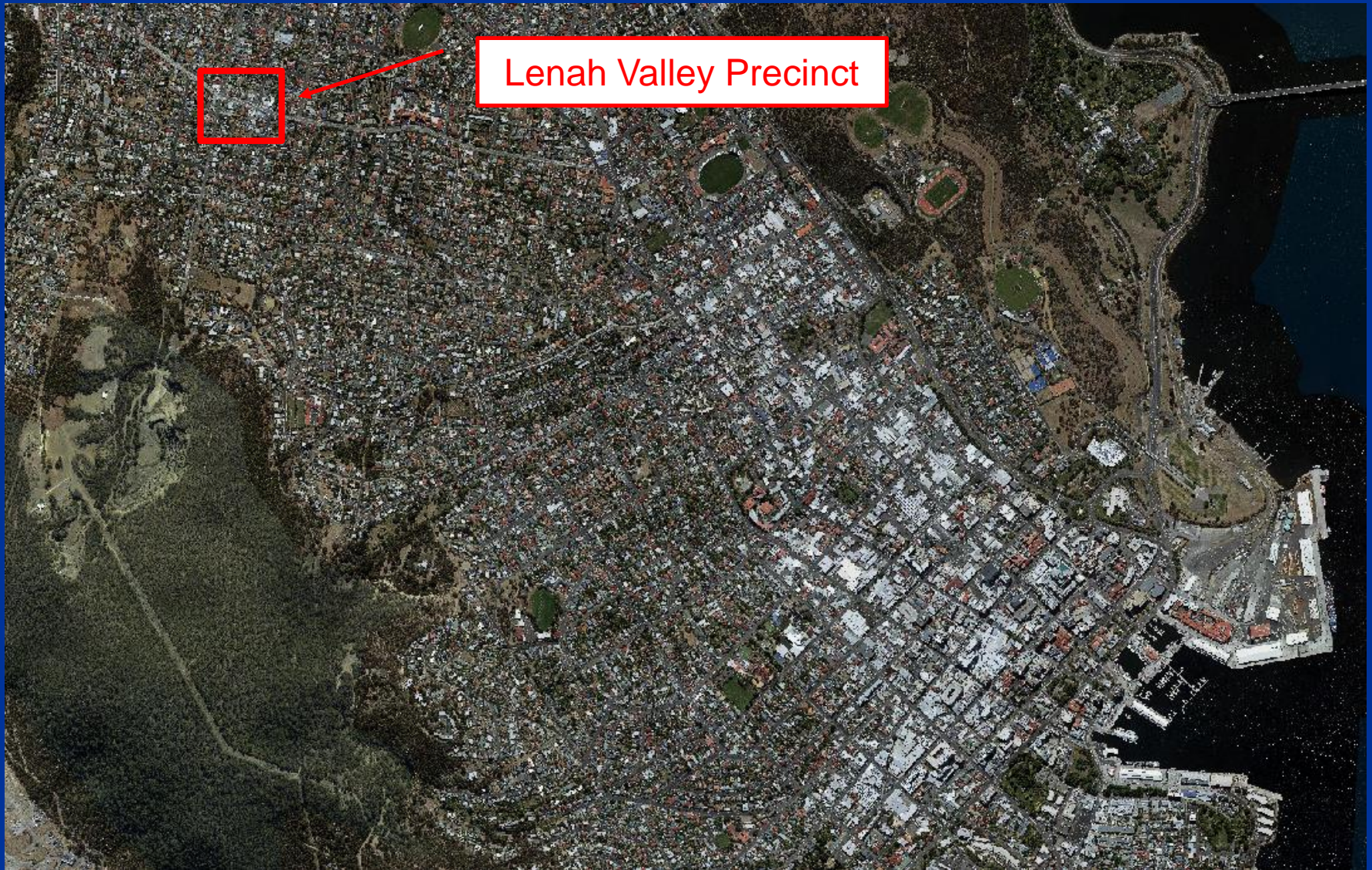
August 2019



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# Introduction





# Lenah Valley Precinct



# Community Consultation



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# Concept Design

## LENAH VALLEY RETAIL PRECINCT Augusta Road Streetscape Upgrade

Top five\* most important features in attracting people to a new, improved Lenah Valley retail precinct:

- 1 Pedestrian crossings
- 2 Spaces for people
- 3 Lighting
- 4 Frequent bus service
- 5 Street trees

\*according to the recent Lenah Valley retail precinct upgrade community survey



New street furniture and trees will improve the comfort and appearance of the shopping village



A westbound bike lane will improve safety for bike riders in the uphill direction



The addition of an accessible car parking space in the precinct will assist people with disabilities



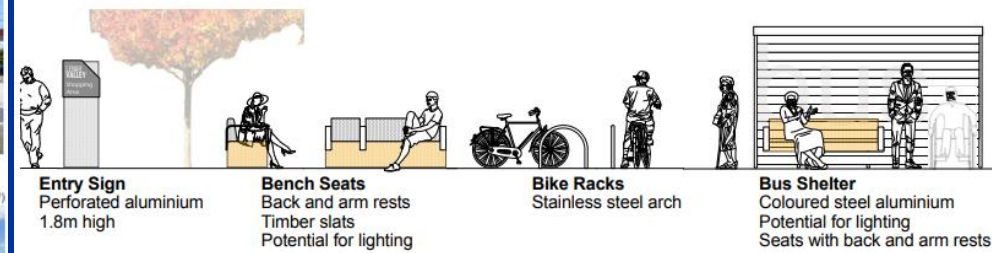
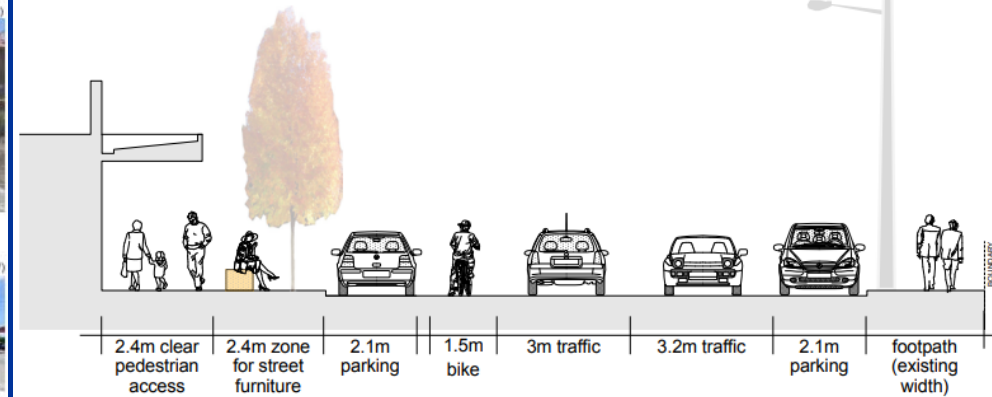
Wider footpaths will improve access and create space for alfresco dining



Improved median island crossing points will make it easier to cross Augusta Road



## LENAH VALLEY RETAIL PRECINCT Augusta Road Streetscape Upgrade



### INDICATIVE FURNITURE AND URBAN ELEMENTS



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# Project Delivery

Almost the entire project was delivered via the City's internal resources:

- Project management
- Survey, design, documentation
- Civil construction



# Key Challenges



# Moving scope and managing expectations



## Scope change

- Heritage issue
- New requests
- Latent conditions
- Increased scope





# Construction Hours



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# Traffic Management





# Improved Lighting



# Deep Electrical Trenching



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# Old Town Gas



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## Safe Work Method Statement – Old Town Gas

This SWMS is to be used in conjunction with the existing site SWMS – it does not include pre-existing hazards associated with the core task.

Site/Location:	Lenah Valley Road	Unit:	Civil Works	Date:	12 October 2017
Task/Job Description:	Disturbance of soil in proximity of redundant town gas infrastructure or deliberately breaking through the same.			Work Permit Required:	No
Prepared By:	John Eckel (WHS Coord) In consultation with TASGas, W&T, & Civil Works employees.		Reviewed By:	Russell Dowd (Manager Civil Works)	

Specific task/activity	Hazard(s) Identified	Control Measures Elimination Substitution Isolation Engineering Administration PPE	Person/s Responsible For Controls
<u>PREPARATION for:</u> Disturbance of soil in close proximity to redundant gas infrastructure or Deliberately breaking through redundant gas infrastructure	Exposure to soil/air contaminants by:  Inhalation of Volatile Organic Compounds or Cyanide (HCN).  Skin contact with the contaminants above	Review HCC GIS "Construction Advice" Layer on for known safety hazards.	OPS Manager
As above	As above	Review TasGas GIS Map of old gas infrastructure for indication of possible presence of redundant gas infrastructure. "This is a guide only as accurate records are not available.	OPS Manager






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# Contaminated Ground



id	Urgency Stage	Report Investigation (Basis World)	Potential Design Hazard identified	Risk Assessment			Risk Control Measures	Control Type	Report Risk Assessment				Report of Control Response			
				Likelihood	Consequence	Risk Rating			Likelihood	Consequence	Risk Rating	Control Stage	Risk Rating	Construction	Operation	Person Responsible
1	Construction	Traffic hazard	Ability to isolate construction zones from pedestrian using temporary access project area and vehicle access to parking and properties	Possible	Minor	High	This is a busy road with frequent pedestrian movements using the footpath to access and commercial properties and parked vehicles and bus stops. It is important to control pedestrian movements to ensure safety, controlling construction vehicles and equipment, and pedestrian movements with an approved Traffic Management Plan. The Traffic Management Plan must be reviewed and amended to suit the changing construction needs.	Isolate	None	Minor	Low	Construction	None	None	Construction Team Leader	
2	Construction	Plant and equipment availability	Ability to isolate construction zones from pedestrian using temporary access project area and vehicle. Potential risk to pedestrians from plant and equipment, dust, uneven surfaces etc.	Unlikely	Minor	High	This is a busy road with frequent pedestrian movements using the footpath to access and commercial properties and parked vehicles and bus stops. It is important to control pedestrian movements to ensure safety, controlling construction vehicles and equipment, and pedestrian movements with an approved Traffic Management Plan. The Traffic Management Plan must be reviewed and amended to suit the changing construction needs.	Isolate	None	Minor	Low	Construction	None	None	Construction Team Leader	
3	Construction	Urban Conditions	Old town gas	Unlikely	Minor	Medium	Old town gas is a highly volatile gas with frequent pedestrian movements using the footpath to access and commercial properties and parked vehicles and bus stops. It is important to control pedestrian movements to ensure safety, controlling construction vehicles and equipment, and pedestrian movements with an approved Traffic Management Plan. The Traffic Management Plan must be reviewed and amended to suit the changing construction needs.	Isolate	None	Minor	Low	Construction	None	None	Construction Team Leader	
4	Construction	Urban Conditions	Contaminated soil	Possible	Minor	Medium	Old town gas is a highly volatile gas with frequent pedestrian movements using the footpath to access and commercial properties and parked vehicles and bus stops. It is important to control pedestrian movements to ensure safety, controlling construction vehicles and equipment, and pedestrian movements with an approved Traffic Management Plan. The Traffic Management Plan must be reviewed and amended to suit the changing construction needs.	Isolate	None	Minor	Low	Construction	None	None	Construction Team Leader	
5	Construction	Urban Conditions	Interests continued in traffic control and safety at the site	Unlikely	Minor	Medium	Old town gas is a highly volatile gas with frequent pedestrian movements using the footpath to access and commercial properties and parked vehicles and bus stops. It is important to control pedestrian movements to ensure safety, controlling construction vehicles and equipment, and pedestrian movements with an approved Traffic Management Plan. The Traffic Management Plan must be reviewed and amended to suit the changing construction needs.	Isolate	None	Minor	Low	Construction	None	None	Construction Team Leader	
6	Construction	Urban Conditions	Working existing services	Unlikely	Minor	High	Old town gas is a highly volatile gas with frequent pedestrian movements using the footpath to access and commercial properties and parked vehicles and bus stops. It is important to control pedestrian movements to ensure safety, controlling construction vehicles and equipment, and pedestrian movements with an approved Traffic Management Plan. The Traffic Management Plan must be reviewed and amended to suit the changing construction needs.	Isolate	None	Minor	Low	Construction	None	None	Construction Team Leader	
7	Construction	Urban Conditions	Working with live services that are not isolated	Unlikely	Minor	High	Old town gas is a highly volatile gas with frequent pedestrian movements using the footpath to access and commercial properties and parked vehicles and bus stops. It is important to control pedestrian movements to ensure safety, controlling construction vehicles and equipment, and pedestrian movements with an approved Traffic Management Plan. The Traffic Management Plan must be reviewed and amended to suit the changing construction needs.	Isolate	None	Minor	Low	Construction	None	None	Construction Team Leader	

Task	Hazard	Effect	Controls	Daily SWMS Review							Who
				S	M	T	W	T	F	S	
EXCAVATION AND BACKFILLING    	Services Mobile plant, Traffic, Noise, Trenches Uneven/ Steep Ground	Crush, Sprains Electrocution Cuts	<ul style="list-style-type: none"><li>Dedicated, trained road traffic controller(s) to direct traffic entering and leaving site and control traffic (pedestrian and vehicle) on adjacent pedestrian footpaths and roadways.</li><li>Current essential services information to be obtained prior to start of works.</li><li>Location and Marking of services prior to start of works.</li><li>Excavation plan.</li><li>Emergency Plan.</li><li>Pothole to locate services.</li><li>Workers to wear gas detectors.</li><li>From outside of the trench, hand trim edges of trenches to remove loose or unstable materials.</li><li>Workers to use hearing protection with elevated noise levels.</li><li>Workers to wear high visibility clothing.</li><li>Powered mobile plant to use mounted warning device.</li><li>Use portable safety barriers to stop unauthorized entry to work site.</li><li>Barricade or cover trenches when not in use.</li><li>Maintain safe approach distances to essential services installations.</li><li>Dedicated spotter required to warn of encroachment into NO GO Zone to electrical installations.</li><li>Do not excavate lower than 300mm at the base of a power pole or light pole.</li></ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Team Leader   <	



# Coordination of Works





# Outcome





# Learnings

- Managing community expectation
- Good community engagement team
- Having a clear scope, and construction documentation
- A good team that is customer focus, and outcome oriented

## Lesson Learnt Register (80 items registered!!!)

LENAH VALLEY RETAIL PRECINCT UPGRADE						
LESSONS LEARNT REGISTER						
Register update: 16 April 2018						
<p><b>NOTE:</b> This register records the experiences and lessons learnt throughout the different phases of the project. The register shall progress until the consummation of the entire project, with the expectation that new learnings may continue to be added into this document for a period of time after the construction. The 'Recommendation' section aims at providing approach to minimise or lessen the impact of a problem but it may not be taken as the absolute way to resolve an identified issue, nor can it be linked definitely to a certain phase of the project. This is because the root problem may be inherited from the previous phases before its complete manifestation. The 'Project Phase' in the table indicates the period where the matter was discovered. Successful events are also recorded within this register. It is important to corporately acknowledge that issues are often complex and could happen from various reasons and probabilities by the virtue of Murphy's Law, and in many instances they are associated with the fallible nature of human beings. This document may be sensitive, and here one will generally see the 'butterfly effect' going through the entire project.</p>						
ID	PROJECT PHASE	SPECIFIC AREA	ISSUES	TYPE	DETAILS   DESCRIPTION	IMPACT
	Planning	There is not much information available from the planning and preliminary design phases as the project manager was not involved during the early stage of the project. The planning and associated communications occurred within this period formed the overall project framework. Lesson learnt within this time shall be referenced separately from the Design phase.				
	Preliminary Design					
D1	Detailed Design	Urban Architecture	Changes were still being made to design drawings as a result of public consultations during detailed design phase	Problem	The concept design should have been mature by now. Elements such as dog bowl, seat location, trees or planter options at 108 Augusta Rd News Agency, shifting of rubbish bin at 111 Augusta Rd Tsunami Hair, Telstra Payphone final location, public arts and etc. are still floating in the air during this period.	Designers cannot work effectively as changes were being made regularly in this stage. In mid July 2017, the project manager received one set of fully completed general precinct plan.
D2	Detailed Design	General	Insufficient time allocated to complete design documentation before construction. The problem widespread to all following phases of the project.	Problem	This is a serious matter as project planning only allowed 4 months of detailed design period and lack of consideration given for review and amendment, tender and procurement, including the requirement to submit the construction documents to Civil Works Unit 3 months ahead of the commencement of construction.	The program had to be crashed at various points, designers and project manager working under stress trying to deliver the complete package in a very short timeframe, personnel time spent to achieve the deadline. The 3 months period was chewed to the bone and Civil Construction Unit received drawings full of errors. During the construction, multiple revisions were made to drawings and details, causing tense relationship between Design Services, Delivery and Civil Works Unit. Construction risks were high due to uncertainties and the lack of faith for the drawings. This also led to mistrust from Civil Works Unit against Design Office. The above excludes external authorities.
D3	Detailed Design	Civil Works	Lead designer failed to review and coordinate design works between all disciplines and service authorities before construction. Coordination work is too much and broad for the designer.	Problem	Designer was probably under heavy pressure and work load to deliver the design documents on time, and overlooked important details and integrity of the drawings. In essence, with the lack of time, there's no resources to ensure that the drawings for civil works, water sensitive urban design, electrical, telecommunications, hydraulic, urban architecture, and traffic are communicating with one another.	Project manager had to bear some of the responsibilities from the designer to put the design together, especially for telecommunication and electrical works. The PM had to check to ensure that certain design components were considered and communication with service authorities were maintained. The issue extended into the construction period and the consequence was that a complete set of documents that lack of communication and references were released to Civil Works Unit.
D4	Detailed Design	General	Mindset to allow issue(s) to be sorted out on site or during construction	Controversial	This could be an irresponsible thinking that puts the designer in a position that allows the unknown to live on unresolved, until its manifestation. This means potential risk can slip through the net into later stage of the project.	Risks that may affect the project construction in different range i.e finance, time, personnel morale, and the unknown that leads to further unknowns etc.
D5	Detailed Design	Environmental	Discovery of contaminated soil material during the commencement of delivery phase	Problem	The matter was made known by planning division but was not taken into consideration during the planning phase. The project manager discovered the correspondence from the Council planner and initiated investigation before the construction commenced.	Large amount of funding were spent on the assessment of the material under footpath to ensure safety and implementation of EMP for construction personnel. The assessment revealed the widespread of contamination under the footpaths in Lenah Valley and New Town. Allowance for the disposal of the material was not accounted for the project in the early stage.

# Questions/Comments

