Asset Management Plan



Bus Stop Assets



Providing a quality lifestyle

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The entity can choose either template to write/update their plan regardless of their level of asset management maturity and in some cases may even choose to use only the Executive Summary.

The illustrated content is suggested only and users should feel free to omit content as preferred (e.g. where info is not currently available).

This Asset Management Plan may be used as a supporting document to inform an overarching Strategic Asset Management Plan.

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1.0 EXECUTIVE SUMMARY

1.1 The Purpose of the Plan

Asset management planning is a comprehensive process ensuring delivery of services from infrastructure is financially sustainable.

This Asset Management Plan (AMP) details information about infrastructure assets with actions required to provide an agreed level of service in the most cost-effective manner while outlining associated risks. The plan defines the services to be provided, how the services are provided and what funds are required to provide over the 20 year planning period. The AMP will link to a Long Term Financial Plan (LTFP) which typically considers a 10 year planning period.

This plan covers the infrastructure assets that provide **Bus Stops** related Assets.

1.2 Asset Description

Bus Stop Assets	Quantity	Current Replacement Cost (\$)	
Shelters	80 Nos	672,121	
Floors	8337 m2	897,514	
Tactiles	5786 Nos	145,090	
Stops (without shelters)	107 Nos		

The Bus Stops network comprises:

Note: The floor areas, tactiles of the stops (without shelters) are included in the quantities and Current Replacement Cost shown on the table.

The above infrastructure assets have significant total renewal value estimated at \$1,714,725



Location of the bus stop assets are shown below:



1.3 Levels of Service

Our present funding levels are sufficient to continue to provide existing services at current service levels in the medium term.

The main service consequences of the Planned Budget are:

- Litigation
- General Community demands

1.4 Future Demand

The main demands for new services are created by:

- Community requests
- Community needs
- Department of Planning and Transport Infrastructure (DPTI)

These demands will be assessed using a combination of; managing the existing assets, upgrading of the existing assets and providing new assets to meet demand. Demand management practices may also include a combination of non-asset solutions, insuring against risks and managing failures.

1.5 Lifecycle Management Plan

1.5.1 What does it Cost?

The forecast lifecycle costs necessary to provide the services covered by this AMP includes operation, maintenance, renewal, acquisition, and disposal costs. Although the AMP may be prepared for a range of time periods, it is typically framed around a LTFP period of 10 years. Therefore, a summary output from the AMP is the forecast of 10 year total outlays, which for the Bus Stop Assets is estimated as \$476,123 or \$47,612 on average per year.

1.6 Financial Summary

1.6.1 What we will do

Estimated available funding for the 10 year period is \$475,370 or \$47,537 on average per year as per the LTFP plan or Planned Budget. This is 99.84% of the cost to sustain the current level of service at the lowest lifecycle cost.

The infrastructure reality is that only what is funded in the long-term financial plan can be provided. The Informed decision making depends on the AMP emphasising the consequences of Planned Budgets on the service levels provided and risks.

The anticipated Planned Budget for Bus Stop Assets leaves a negligible shortfall over the 10 year lifecycle period of (\$75) per year to provide these services. This is shown in the figure below.



Forecast Lifecycle Costs and Planned Budgets

Summary of total funding

	Planned Total Budget Per Year (\$)	Funding Surplus/(Shortfall) for 10 Year Period (\$) Per Year	Funding Surplus/(Shortfall) for 20 Year Period (\$) Per Year
10 Year Average renewal Funding	47,500	(75)	(24,000)
20 Year Average renewal Funding	71,500	24,000	70

Note:

- This plan is based on total budgeted expenditure with 10 year average funding of \$47,500 per year
 - This level of funding create no shortfall of funding or \$75 per year for the 10 year
 - It should be noted that this level of funding, if continued for 20 years, will create a shortfall of \$24,000 per year
- The disposal life cycle costs shown are minimal, as these cost are built into renewal costs.
- Figure Values are in 2019 dollar values.

We plan to provide Bus Stops Asset services for the following:

- Operation, maintenance, renewal and upgrade of shelters, floors and tactiles to meet service levels set by in annual budgets.
- Renewal works as listed in the Appendix D within the 10 year planning period.
- Continue to improve technology, process and procedures for managing asset data thereby improving our knowledge of the assets helping is to make more informed decisions.

1.6.2 What we cannot do

Based on 10 yrs plan, our funding is slightly under allocated (\$75 per year), however based on the 20 year plan we have adequately allocated enough budget to sustain these services at the proposed standard or to provide all new services being sought. Works and services that cannot be provided under present funding levels are:

- New requests from DPTI
- Changing Bus Routes
- New requests from the residents

Unless additional capital funding is provided.

1.6.3 Managing the Risks

Our present budget levels are sufficient to continue to manage risks in the medium term.

The main risk consequences are:

- Litigation
- Financial
- Reputation

We will endeavour to manage these risks within available funding by:

- Undertaking frequent inspections and maintenance to ensure that the assets meet current legislative and safety requirements
- Undertake efficient and effective systems to record and manage maintenance work and data collection in the field



- Allocate sufficient funds to ensure that assets meet compliance requirements
- Communicate effectively with the community

1.7 Asset Management Practices

Our systems to manage assets include:

- Finance One to manage finance data
- Conquest to manage Asset data
- QGIS/Intramap to manage spatial asset data.

Assets requiring renewal/replacement are identified from either the asset register or an alternative method. These methods are part of the Lifecycle Model.

Asset Register data is used to forecast the renewal costs. This is done using the acquisition year and the useful life.

The Asset Register is used to forecast the renewal life cycle costs for this AMP.

1.8 Monitoring and Improvement Program

The next steps resulting from this AMP to improve asset management practices are to:

- further develop/improve Mobile Field Data Collection technology which will enable Staff to record defects in the Maintenance Management in Conquest Asset Management System (ASM).
- continue to use Mobile Capital Works Project Data Capture in the field. Council has developed this methodology to capture the asset data when a capital Work Project is complete. The asset team is coordinating this process with the project managers.
- develop a further data capture programme will be developed to collect cyclic maintenance works, in addition to scheduled condition assessment programme, where bridge assets are captured every four years.
- develop inspection regimes for expired Assets based on the information contained in Conquest.
- train staff in order to update their knowledge with current Asset Management Practices

2.0 Introduction

2.1 Background

This AMP communicates the requirements for the sustainable delivery of services through the management of assets, compliance with regulatory requirements, and required funding to provide the appropriate levels of service over the long term planning period.

Council's Asset Management Policy has been used to develop its suite of AMPs, along with the following key planning documents:

- Campbelltown City Council Strategic Plan 2010-2020
- Campbelltown City Council Asset Capitalisation Administrative Procedure
- Campbelltown City Council Depreciation Policy
- Unit Rate Review Document
- Useful Live Review Document
- Resilient East Vulnerability Assessment and Climate Projects for the eastern Region
 - o <u>https://www.resilienteast.com/resources</u>
- State of the Environment reporting (done every 5 years, most recent is 2018)
 - https://www.epa.sa.gov.au/data_and_publications/state_of_the_environment_repo_ rting
- Campbelltown City Council Social Plan 2020



The infrastructure assets included in this plan have a total replacement value of \$1,714,724. Key stakeholders in the preparation and implementation of this AMP are shown in Table 2.1.

Key Stakeholder	Role in Asset Management Plan
Elected Members	 Represent needs of community/shareholders Allocate resources to meet the organisation's objectives in providing services while managing risks Ensure organisation is financial sustainable. Adoption of AMP
CEO/ Executive Management team	 Provide direction of AMP to meet the organisation's objectives in providing services while managing risks, Ensure organisation is financially sustainable
General Manager Infrastructure Services	 Manage organisation operational activities and future strategic planning direction Allocate resources
Manager Assets and Engineering	 Overseeing the design of capital works projects, documentation Manage technical Level of Service Co-ordination of Asset Team
Manager City Operations	Manage the delivery of Capital Works program
Maintenance Coordinator	 Supervision of Capital Works and maintenance in relation to this asset
Finance Department	LTFP, Asset Registers and operational financial data
Team Leader Asset Planning	 Collate asset information Write, review and update AMPs Manage and maintain asset management system
GIS Analysist & Asset Technical	 Assist in the development, maintenance and improvement of corporate spatial data and asset management Develop, maintain and improve Council's GIS Asset Management SQL Server Database Management and Scripting Undertake asset related inspections
Community & Ratepayers	End users of the servicesProvide feedback on services
Governance	 Development of Strategic Plans and other key strategic plans

Table 2.1: Key Stakeholders in the AMP

Councils organisational structure for service delivery from infrastructure assets is detailed below,



2.2 Goals and Objectives of Asset Ownership

Our goal in managing infrastructure assets is to meet the defined level of service (as amended from time to time) in the most cost effective manner for present and future consumers. The key elements of infrastructure asset management are:

- Providing a defined level of service and monitoring performance
- Managing the impact of growth through demand management and infrastructure investment
- Taking a lifecycle approach to developing cost-effective management strategies for the long-term that meet the defined level of service
- Identifying, assessing and appropriately controlling risks and
- Linking to a LTFP which identifies the income, expenses and funding required to provide its services to the community.

Key elements of the planning framework are

- Levels of service specifies the services and levels of service to be provided
- Future demand how this will impact on future service delivery and how this is to be met
- Lifecycle management how to manage its existing and future assets to provide defined levels of service
- Financial summary what funds are required to provide the defined services
- Asset management practices how we manage provision of the services
- Monitoring how the plan will be monitored to ensure objectives are met
- Asset management improvement plan how we increase asset management maturity.

Other references to the benefits, fundamentals principles and objectives of asset management are:

- International Infrastructure Management Manual 2015¹
- ISO 55000² is an international standard covering management of assets of any kind. The ISO 55000 series of Asset Management Standards was launched in January 2014.

A road map for preparing an Asset Management Plan is shown below.



¹ Based on IPWEA 2015 IIMM, Sec 2.1.3, p 2 | 13

² ISO 55000 Overview, principles and terminology

3.0 LEVELS OF SERVICE

Level of service dictate the targeted asset performance in relation to customer expectation, and associated legislative and technical provisions. They also provide achievable milestones for the continuous upgrading of levels of service currently practiced.

Understanding the level of service required of an asset is vital for its lifecycle management as this largely determines an asset's development, operation m, maintenance, replacement and disposal. Levels of service are pivotal in asset management as they have a direct financial impact due to their importance in both operational and risk-based prioritisation.

When establishing Level of Service they should be based on:

- Stakeholder Expectation information gained from stakeholders on expected quality and price of services.
- Strategic and Corporate Goals provides guidance for the scope of current and future services offered the manner of the services delivery and defines the specific level of service, which Council wishes to achieve.
- Legislative Requirements legislation, regulation, environmental standards and industry and Australian Standards that impact on the way these assets are managed.

3.1 Customer Research and Expectations

Council's Community Satisfaction Survey ask the community to rate:

- The importance of an asset on a scale from 0 (not important at all) to 10 (very important)
- How satisfied they are with Council's performance in providing and maintaining its assets from 0 (very dissatisfied) to 10 (very satisfied).

The community was asked to rate the level of importance and level of satisfaction with bus stop assets for the first time in 2016 survey. With only single data, it is not possible to look at trends, however the inclusion of bus stop assets in future community satisfaction survey will provide this over time.

Table 3.1 summarises the results from our Customer Satisfaction Survey.

	Satisfaction Level				
Performance Measure	Very Satisfied (8-10)	Fairly Satisfied (6-8)	Satisfied (4-6)	Somewhat satisfied (2-4)	Not satisfied (0-2)
Satisfaction		\checkmark			
Importance	\checkmark				

Table 3.1: Customer Satisfaction Survey Levels

Community Levels of Importance and Satisfaction



Satisfaction

The Community consider bus stop assets as reasonably important and is moderately satisfied with Council's performance in providing and maintaining these assets. The following graph shows the gap between importance and satisfaction rating for the 2016 survey year and this is useful in gauging how the community feels about the quality of service received (the aim being to close the gap between the level of importance and the level of satisfaction).

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Importance



The gap analysis shows the Community's perception of Council's performance in relation to bus stop assets and action is still required. This asset Management Plan will assist Council to close the gap between the Community importance and satisfaction rating.

It should be noted that the recent community consultation (17th February to 10th March 2020) for the Campbelltown Transport Plan (Southern section) indicated that the efficiency of bus stop related services within the study area was at a 76% satisfaction level.

The outcome of the community engagement survey conducted from 12th October 2020 through to 2nd November 2020 indicated that the community consider bus stop assets as extremely important. The overall average rating provided by the community for 'importance' was over 8.7.

Community engagement results also indicated that they are fairly satisfied with the bus stop assets by providing an average rating of 7.7 for 'Satisfaction'.

In summary, there is an upward trend of overall 'Importance' and 'Satisfaction' measured through the community engagement survey.

3.2 Strategic and Corporate Goals

This Asset Management Plan is prepared under the direction of the Bus Stops vision, mission, goals and objectives.

Our vision is "Campbelltown provides a quality lifestyle for its people".

Our mission is " At Campbelltown we will place a high value on living together, respecting each other's views and building strong partnerships to support the needs of the community".

Our vision statement for Council's Assets is: *"To effectively manage our City's assets in an affordable and equitable way; ensuring the long term needs of the community are met".*

The relevant goals and objectives and how these are addressed in this Asset Management Plan are summarised in Table 3.2.

Goal	Objective	How Goal and Objectives are addressed in the AM Plan
Goal 1 – Quality Living	1.3. City Infrastructure that provides a range of welcoming, attractive and safe facilities that encourage social interaction and an active community.	Provide appropriate infrastructure and services.
Goal 2 – Leadership	2.2. Investment in strong leadership through training and development	Further develop the Asset Management system to include mobile technology to assist in the management of our assets.
Goal 3 – City Planning	3.2. Effective Infrastructure and Asset Management that allows for growth	Continual development of processes and systems to ensure we have the best available data to enable us to make more informed decisions.
Goal 4 – Environmental Responsibility	4.2 Opportunities to conserve energy and resources are maximised	Investigate design options that are available in the market at the time which can be utilised to have cooler, greener and more liveable outcomes in upgrading and of renewing assets.
Goal 5 – Local economy	5.2 Business and industry partnerships which support growth in the local economy	Giving priorities to local businesses in selecting contractors for asset upgrade/ renewal works

Table 3.2: Goals and how these are addressed in this Plan

3.3 Legislative Requirements

There are many legislative requirements relating to the management of assets. Legislative requirements that impact the delivery of the Bus Stop Assets service are outlined in Table 3.3.

Table 3.3: Legislative Requirements

Legislation	Requirement
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Local Government Act 1999	Sets out the role, purpose, responsibilities and powers of local governments including the preparation of a LTFP supported by AMPs for sustainable service delivery.
Local Government Act – Annual Reporting Section 428(2)(d)	A report on the condition of the public works, under the control of the Council as at the end of that year together with: (i) An estimate (current values) of the amount of money required to bring the works up to a satisfactory standard; and (ii) An estimate (current values) of the annual expense of maintain the works at that standard; and (iii) Council's programme for maintenance for that year in respect of the works.
Australian Road Rules	Contains power for Council to install and remove traffic control devices.
Disability Discrimination Act 1992	The objectives of this Act are to eliminate, as far as possible, discrimination against persons on the grounds of disability. It sets the standard for accessibility.
Australian Accounting Standards	Set out the financial reporting standards relating to, inter alia, the revaluation and depreciation of infrastructure assets.
Local Government (Financial Management) Regulations 2011	Impetus for the development of a Strategic Management Plan, comprising an (Infrastructure) AMP and LTFP.
Work Health & Safety Act 2012	To secure the health, safety and welfare of persons at work. To eliminate, at their source, risks to the health, safety and welfare of persons at work. To protect the public against risks to health or safety arising out of or in connection with the activities of persons at work, or the use of operation of various types of plant.
Highways Act 1926	Set out the legislative framework for roads and road authorities in SA
Environmental Protection Act 1993	 An Act to provide for the protection of the environment: to establish the Environment Protection Authority to define its functions and powers; and for other purposes.
Road Traffic Act 1961	Contains powers for Council to install or remove traffic control devices.

3.4 Customer Values

Service levels are defined in three ways, customer values, customer levels of service and technical levels of service.

Customer Values indicate:

- what aspects of the service is important to the customer,
- whether they see value in what is currently provided and
- the likely trend over time based on the current budget provision

Table 3.4: Customer Values

Service Objective: Maintain the service level to meet or exceed the existing customer satisfaction level

Customer Values	Customer Satisfaction Measure	Current Feedback	Expected Trend Based on Planned Budget
Importance	via Customer Satisfaction Survey	*The community considered bus stops assets are reasonably important with the rating of 8.1	Close the gap between importance and satisfaction
Satisfaction	via Customer Satisfaction Survey	*The community is moderately satisfied with the bus stops assets and the overall satisfaction level was 7.2	close the gap between importance and satisfaction

3.5 Customer Levels of Service

The Customer Levels of Service are considered in terms of:

Quality How good is the service ... what is the condition or quality of the service?

Function Is it suitable for its intended purpose Is it the right service?

Capacity/Use Is the service over or under used ... do we need more or less of these assets?

In Table 3.5 under each of the service measures types (Quality, Function, Capacity/Use) there is a summary of the performance measure being used, the current performance, and the expected performance based on the current funding level.

These are measures of fact related to the service delivery outcome e.g. number of occasions when a service is not available, condition percentages of Very Poor/Poor/Average/Good/Very Good and provide a balance in comparison to the customer perception that may be more subjective.

Type of Measure	Level of Service	Performance Measure	Current Performance	Expected Trend Based on Planned Budget
Condition	Provide well designed and easy to maintain infrastructure	Customer Satisfaction Surveys, Community Service Requests (CRM's) and scheduled inspections	Perform regular condition audits, remedy defects through Capital Works and Maintenance plans to ensure the network is maintained in good condition.	Improve conditions if required
	Confidence levels		Medium	Medium to High
Function	Bus Stops / shelters and associated assets comply with DDA standards and provide users with a safe and comfortable place to wait for buses	Monitor CRMs (Customer Service Requests).	Asset Management System providing detailed information regarding the bus stop assets and defects, enabling Planned Maintenance work.	Improve function as required by regulations, if required.
	Confidence levels		Medium	Medium to High
Capacity	Ensure bus stop / shelter assets are used and enjoyed by the community.	Monitor CRMs.	Perform regular defect inspections.	Undertake necessary changes as required
	Confidence levels		Medium	Medium to High

Table 3.5: Customer Level of Service Measures

3.6 Technical Levels of Service

Technical Levels of Service – Technical measures of performance drive delivering customer values and the expected level of service. These technical measures relate to the activities and allocation of resources to best achieve the desired customer outcomes and demonstrate effective performance.

Technical service measures are linked to the activities and annual budgets covering:

- Acquisition the activities to provide a higher level of service or a new service that did not exist previously (e.g. a new bus shelter).
- **Operation** the regular activities to provide services (e.g. Cleansing, inspections, etc.)

- Maintenance the activities necessary to retain an asset as near as practicable to an appropriate service condition. Maintenance activities enable an asset to provide service for its planned life (e.g. general maintenance work like painting, replacing tactiles, rectify floors etc.,)
- Renewal the activities that return the service capability of an asset up to that which it had originally provided (e.g. replacing shelters, renewing tactile, replacing floors)

Service and asset managers plan, implement and control technical service levels to influence the service outcomes.³

Table 3.6 shows the activities expected to be provided under the current Planned Budget allocation, and the Forecast activity requirements being recommended in this AM Plan.

Lifecycle Activity	Purpose of Activity	Activity Measure	Current Performance*	Recommended Performance **
TECHNICAL LEVI	ELS OF SERVICE			
Acquisition	Assets are located at optimal locations for community's use and enjoyment.	Compliance to relevant Codes and Standards (Department of Planning and Transport Infrastructure requirements)	New assets are designed and installed in accordance with the adopted Council strategies and design, and relevant Australian Standards.	All bus stop/shelters and its surrounding are DDA compliant.
		Budget	No budget allocated for acquisitions	No budget allocated for acquisitions
Operation	Regular tasks such as cleaning to ensure the assets are functional and safe to use	Minimal complaints received from residents	Assets are cleaned regularly	Assets are cleaned regularly through yearly cleaning program. Bins are cleaned regularly as per the current contract scheduled.
		Budget	\$10587	\$10587
Maintenance	Planned and emergency maintenance are carried out in accordance with Level of Service	Assets are maintained to standard in line with the Levels of Service	Greater level of maintenance works are of reactive nature	Majority of maintenance is planned leading to less customer complaints and more cost effective practices
		Budget	\$11450	\$11450

Table 3.6: Technical Levels of Service

³ IPWEA, 2015, IIMM, p 2|28.

Lifecycle Activity	Purpose of Activity	Activity Measure	Current Performance*	Recommended Performance **
Renewal	Infrastructure meets community's needs	Renewals are carried out per AMP, legislative or community requirements	Renewals are carried out in accordance with the adopted strategies and plans, Council's design and relevant Australian standards.	All bus shelters and its surrounding are DDA compliant
		Budget	\$25500	\$25550
Climate Change	Review assets for Climate risk/ impact	Number of assets reviewed	Identify main climate impact and those likely to be affected e.g. increased heat	Potential for mitigation for heat such as shade otherwise understand impact of this on life of asset.
Disposal	To remove existing component/s of bus stops / shelters that are no longer required or will be replaced	Component has reached the end of its useful life or is no longer fit for purpose Asset needs to be removed due to unforeseen situation such as crash	Components disposed in accordance with AMPs.	Components disposed in accordance with AMPs.
		Budget	\$0, as disposal cost is included in the replacement cost of components.	\$0, as disposal cost is included in the replacement cost of components.

Note: * Current activities related to Planned Budget.

** Forecast required performance related to forecast lifecycle costs.

It is important to monitor the service levels provided regularly as these will change. The current performance is influenced by work efficiencies and technology, and customer priorities will change over time.

4.0 FUTURE DEMAND

4.1 Demand Drivers

Drivers affecting demand include things such as population change, regulations, changes in demographics, seasonal factors, vehicle ownership rates, consumer preferences and expectations, technological changes, economic factors, agricultural practices, environmental awareness, etc.

4.2 Demand Forecasts

The present position and projections for demand drivers that may impact future service delivery and use of assets have been identified and documented.

4.3 Demand Impact and Demand Management Plan

Demand for new services will be managed through a combination of managing existing assets, upgrading of existing assets and providing new assets to meet demand and demand management. Demand management practices can include non-asset solutions, insuring against risks and managing failures.

Opportunities identified to date for demand management are shown in Table 4.3. Further opportunities will be developed in future revisions of this AMP.

Demand driver	Current position	Projection	Impact on services	Demand Management Plan
Population	Estimated residential population in the Campbelltown Council area is 52,192 – 2019 ERP figures.	The population is projected to growth to 63,963 by 2031.	Population growth throughout Adelaide will increase. This will result in more people using the bridges as part of their recreational activities and or commuting.	Develop demand management strategies. Demand for new assets and services will be managed through a combination of managing existing assets, upgrading of existing assets and providing new and expanded assets to meet demand plus implementing demand management strategies where appropriate.
Climate Change	Council Bus Stops Assets are constructed based on the current environmental conditions and current environmental standards.	Temperatures rise, less rainfall, weather events becoming more extreme.	Potential for ground movement in reactive soils during periods of drought.	Continue to monitor the bus stops network, research new engineering techniques and materials, investigate and, if appropriate, apply techniques in problem areas.

Table 4.3: Demand Management Plan

Social Healthy lifestyles are promoted with people recognising the importance of social connectivity. More people walking and using trails and footpaths	Potential for increased community expectation on services provided, i.e. more footbridges and to a higher	Develop master plans and strategies accordingly ensuring any increased demand is planned for strategically.
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4.4 Asset Programs to meet Demand

The new assets required to meet demand may be acquired, donated or constructed. Additional assets are discussed in Section 5.4.

Acquiring new assets will commit the Bus Stops Assets to ongoing operations, maintenance and renewal costs for the period that the service provided from the assets is required. These future costs are identified and considered in developing forecasts of future operations, maintenance and renewal costs for inclusion in the LTFP (Refer to Section 5).

4.5 Climate Change and Adaption

The impacts of climate change can have a significant impact on the assets we manage and the services they provide. In the context of the Asset Management Planning process climate change can be considered as both a future demand and a risk.

How climate change will impact on assets can vary significantly depending on the location and the type of services provided, as will the way in which we respond and manage those impacts.

As a minimum we should consider both how to manage our existing assets given the potential climate change impacts, and then also how to create resilience to climate change for any new works or acquisitions. Council recently has declared a Climate Emergency and Staff are developing a Climate Solution Strategy. This strategy will be considered in future AMPs.

Opportunities identified to date for the management of climate change impacts on existing assets are shown in Table 4.5.1.

Climate Change	Projected	Potential Impact on	Management
Description	Change	Assets and Services	
Extreme weather events	Increased frequency and duration of extreme heat events.	 Deterioration to assets Soil movement which will impact on bridge foundation and hence the structure Comfort and exposure of those needing to use bus stops network in extreme heat. 	 Undertake inspections following an extreme weather events and monitor Regular maintenance/ painting of shelters Review of materials used in various bus stops components that perform well in the heat (including seating).

Table 4.5.1 Managing the Impact of Climate Change on Assets

Additionally, the way in which we construct new assets should recognise that there is opportunity to build in resilience to climate change impacts. Building resilience will have benefits:

- Assets will withstand the impacts of climate change
- Services can be sustained
- Assets that can endure may potentially lower the lifecycle cost and reduce their carbon footprint.

5.0 LIFECYCLE MANAGEMENT PLAN

The lifecycle management plan details how the Bus Stops Assets plans to manage and operate the assets at the agreed levels of service (Refer to Section 3) while managing life cycle costs.

5.1 Background Data

5.1.1 Physical parameters

The assets covered by this Asset Management Plan are shown in Table 5.1.1.

Table 5.1.1: Assets covered by this Plan

Asset Category	Dimension	Replacement Value
Shelters	80 Nos	\$672,121
Floors	8337 m2	\$897,514
Tactiles	5786 Nos	\$145,090
*Bus Stops (without Shelters)	107 Nos	

TOTAL

^{\$1,714,725}



The age profile of the assets included in this AMP are shown in Figure 5.1.1.



Figure 5.1.1: Asset Age Profile

All figure values are shown in 2019 dollar values.

Assets acquisitions are from 1967 to 2019

5.1.2 Asset capacity and performance

Assets are generally provided to meet design standards where these are available. Locations where deficiencies in service performance are known are detailed in Table 5.1.2.

Table 5.1.2:	Known Service	Performance	Deficiencies
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Location	Service Deficiency
Bus Stop/Shelters	All Bus Stops/Shelters are DDA compliant with the exception of
	some lighting requirements.

5.1.3 Asset condition

Apart from the scheduled condition assessment programme where bus stops assets are captured on a four yearly basis, a further data capture programme will be developed to collect cyclic maintenance works. The asset condition survey is undertaken by experienced Council staff.

Condition is measured using a 1-5 grading system⁴ as detailed in Table 5.1.3. It is important that consistent condition grades be used in reporting various assets across an organisation. This supports effective communication. At the detailed level assets may be measured utilising different condition scales, however, for reporting in the AM plan they are all translated to the 1-5 grading scale.

⁴ IPWEA, 2015, IIMM, Sec 2.5.4, p 2 80.

Table 5.1.3: Simple Condition Grading Model

Condition Grading	Description of Condition
1	Very Good: only planned maintenance required
2	Good: minor maintenance required plus planned maintenance
3	Fair: significant maintenance required
4	Poor: significant renewal/rehabilitation required
5	Very Poor: physically unsound and/or beyond rehabilitation

The condition profile of our assets is shown in Figure 5.1.3.

Figure 5.1.3: Asset Condition Profile



All figure values are shown in 2019 dollar values.

5.2 Operations and Maintenance Plan

Operations include regular activities to provide services. Examples of typical operational activities include jet wash cleaning of the shelter, litter bin collection, sweeping and asset inspection.

Maintenance includes all actions necessary for retaining an asset as near as practicable to an appropriate service condition including regular ongoing day-to-day work necessary to keep assets operating. Examples of typical maintenance activities include footpath /floor repair, tactile repairs, repainting and shelter/sign repairs.

Operation and Maintenance Strategies

The organisation will operate and maintain assets to provide the defined level of service to approved budgets in the most cost-efficient manner. The operation and maintenance activities include:

- Scheduling operations activities to deliver the defined level of service in the most efficient manner,
- Undertaking maintenance activities through a planned maintenance system to reduce maintenance costs and improve maintenance outcomes. Undertake cost-benefit analysis to determine the most cost-effective split between planned and unplanned maintenance activities (50 - 70% planned desirable as measured by cost),
- Maintain a current infrastructure risk register for assets and present service risks associated with providing services from infrastructure assets and reporting Very High and High risks and residual risks after treatment to management and Council,
- Review current and required skills base and implement workforce training and development to meet required operations and maintenance needs,
- Review asset utilisation to identify underutilised assets and appropriate remedies, and over utilised assets and customer demand management options,
- Maintain a current hierarchy of critical assets and required operations and maintenance activities,
- Develop and regularly review appropriate emergency response capability,
- Review management of operations and maintenance activities to ensure Council is obtaining best value for resources used.

The trend in maintenance budgets are shown in Table 5.2.1.

Year	Maintenance Budget (\$)	Operation Budget (\$)
2018	10,533	10,550
2019	12,971	10,000
2020	14,240	10,750

Table 5.2.1: Operation & Maintenance Budget Trends

Note: For this AMP, for operation and maintenance budgets, average value of 2018 and 2019 values are used.

Maintenance budget levels are considered to be adequate to meet projected service levels, which may be less than or equal to current service levels. Where maintenance budget allocations are such that they will result in a lesser level of service, the service consequences and service risks have been identified and are highlighted in this AMP and service risks considered in the Infrastructure Risk Management Plan.

Assessment and priority of reactive maintenance is undertaken by Staff using experience and judgement.

Maintenance work is carried out in accordance with the following Standards and Specifications.

- AS 1428.1 Design for Access and Mobility
- AS 1428.4 Design for Access and Mobility Tactile Ground Surface Indicators

- AS 1428.2 Design for Access and Mobility
- AS 2899 Public Information Symbol Signs
- Australian Human Rights Commission ' Guideline for promoting compliance for bus stops with Disability Standards for Accessible Public Transport 2002'
- Australian Road Rules 1999
- AS 3856.1-1991 Hoists and ramps for people with disabilities vehicle –mounted
- Austroads AP 11.13/95 Guide to Traffic Engineering Part 13 Pedestrians
- Austroads Guide to Road Design Park 6, 6A & 6B
- Disability Discrimination Act 1992
- Disability Standards for Accessible Public Transport 2002
- Council's Street Furniture and Distance Requirements SD13
- Council's Block Paving Footpath SD5
- Council's reinstatement/construction of concrete footpath SD6
- AS 1742 Manual of Uniform Traffic Control Devices
- AS 1743 Road Signs specifications
- AS 1906 Retroreflective materials and devices for road traffic control purposes
- AS 2890.3 Bicycle rack design
- AS 4373 Pruning of amenity trees
- AS 4123.7 Mobile Waste Containers Colours, Markings and Designation Requirements

Asset hierarchy

An asset hierarchy provides a framework for structuring data in an information system to assist in collection of data, reporting information and making decisions. The hierarchy includes the asset class and component used for asset planning and financial reporting, with the service level hierarchy used for service planning and delivery.

The service hierarchy is shown is Table 5.2.2.

Table 5.2.2: Asset Service Hierarchy

Service Hierarchy	Service Level Objective
Bus Shelter	DDA Compliant, Clean & good condition
Floor	DDA Compliant, Clean & good condition
Tactiles	DDA Compliant, Clean & good condition



Summary of forecast operations and maintenance costs

Forecast operations and maintenance costs are expected to vary in relation to the total value of the asset stock. If additional assets are acquired, the future operations and maintenance costs are forecast to increase. If assets are disposed of and not required, the forecast operation and maintenance costs are expected to decrease. Figure 5.2 shows the forecast operations and maintenance costs relative to the proposed operations and maintenance Planned Budget.





All figure values are shown in 2019 dollar values.

5.3 Renewal Plan

Renewal is major capital work which does not significantly alter the original service provided by the asset, but restores, rehabilitates, replaces or renews an existing asset to its original service potential. Work over and above restoring an asset to original service potential is considered to be an acquisition resulting in additional future operations and maintenance costs.

Assets requiring renewal are identified from one of two approaches in the Lifecycle Model.

- The first method uses Asset Register data to project the renewal costs (current replacement cost) and renewal timing (acquisition year plus updated useful life to determine the renewal year)
- The second method uses an alternative approach to estimate the timing and cost of forecast renewal work. Examples include the use of the condition modelling system, staff judgement and average network renewals.

The typical useful lives of assets used to develop projected asset renewal forecasts are shown in Table 5.3. Asset useful lives were last reviewed in 2018/19 financial year as a part of scheduled condition survey assessment.

Table 5.3: Useful Lives of Assets

Asset (Sub)Category	Useful life
Bus Shelter	10 years
Floor	40 years
Tactiles	10 years

A review of the useful life of the bus stops/shelter assets will be undertaken as part of the future revision of this plan.

The estimates for renewals in this Asset Management Plan were based on the Asset Register method.

5.3.1 Renewal ranking criteria

Asset renewal is typically undertaken:

- To ensure the infrastructure is of sufficient quality to meet the service requirements (e.g. condition of a shelter, floor, tactile, signs).
- To meet with the compliance or legislative requirement

It is possible to prioritise renewals by identifying assets or asset groups that have a:

- high consequence of failure(poor condition),
- high use and subsequent impact on users would be significant(lack of compliance),
- higher than expected operational or maintenance costs, and
- potential to reduce life cycle costs by replacement with a modern equivalent asset that would provide the equivalent service.⁵

⁵ Based on IPWEA, 2015, IIMM, Sec 3.4.5, p 3 97.

The ranking criteria used to determine priority of identified renewal proposals is detailed in Table 5.3.1.

Criteria	Weighting
Risk and Safety	25%
Physical Condition	20%
Financial impact	20%
Social impact	20%
Environmental Impact	15%
Total	100%

Table 5.3.1: Renewal Priority Ranking Criteria

Summary of future renewal costs 5.4

Unfunded

Gen 1

Forecast renewal costs are projected to increase over time if the asset stock increases. The forecast costs associated with renewals are shown relative to the proposed renewal budget in Figure 5.4. A detailed summary of the forecast renewal costs is shown in Appendix D.



Gen 2+

- Budget

Figure 5.4: Forecast Renewal Costs

20 year cycle

50 year cycle



Gen 1: refers to the first renewal figure shown on a particular asset, or group of assets, within the planning period.

Gen 2: refers to the next generations of an asset, or group of assets, within the planning period. For example an asset with a 5 year life cycle would show up multiple times in a 20 year planning period.

In terms of forecast renewal costs, Council attempt every efforts to allocate budget to meet renewals works. This is one of the assumptions made in developing the above graphs.

In the event that assets identified for renewal and not scheduled in capital works programs, the deferred renewals will include in the risk analysis process in the risk management plan.

5.5 Acquisition Plan

Acquisitions are new assets that did not previously exist or works which will upgrade or improve an existing asset beyond its existing capacity, which may result from growth, demand, social or environmental needs. Bridge Assets may also be donated to Council.

5.5.1 Selection Criteria

Proposed upgrade of existing assets, and new assets, are identified from various sources such as community requests, proposals identified by strategic plans or partnerships with other parties. Potential upgrade and new works should be reviewed to verify that they are essential to the eentity's needs. Proposed upgrade and new work analysis should also include the development of a preliminary renewal estimate to ensure that the services are sustainable over the longer term. Verified proposals can then be ranked by priority based on funding available, then scheduled in future works programmes. The priority ranking criteria is detailed in Table 5.4.1

Table 5.5.1: Acquired Assets Priority Ranking Criteria

Criteria	Weighting
Social Impact	20%
Financial Impact	20%
Environmental impact	15%
Legislative Impact	20%
Risk and Safety	25%
Total	100%

Summary of future asset acquisition costs

No projected capital upgrade/new asset expenditure is assumed for bridge assets in the foreseeable future.

Summary of asset forecast costs

The financial projections from this asset plan are shown in Figure 5.5.3. These projections include forecast costs for acquisition, operations, maintenance, renewal, and disposal. These forecast costs are shown relative to the proposed budget.

The graph represents the forecast costs needed to minimise the life cycle costs associated with the service provision. The gap between the forecast work and the proposed budget (available funding) is the basis of the discussion on achieving balance between costs, levels of service and risk to achieve the best value outcome.



Summary of total funding

Summary of total funding

	Planned Total Budget Per Year (\$)	Funding Surplus/(Shortfall) for 10 Year Period (\$) Per Year	Funding Surplus/(Shortfall) for 20 Year Period (\$) Per Year
10 Year Average renewal Funding	47,500	(75)	(24,000)
20 Year Average renewal Funding	71,500	24,000	70

Note:

- This plan is based on total budgeted expenditure with 10 year average funding of \$47,500 per year
 - This level of funding create no shortfall of funding or \$75 per year for the 10 year
 - It should be noted that this level of funding, if continued for 20 years, will create a shortfall of \$24,000 per year

- The disposal life cycle costs shown are minimal, as these cost are built into renewal costs.
- Figure Values are in 2019 dollar values.

5.6 Disposal Plan

Disposal includes any activity associated with the disposal of a decommissioned asset including sale, demolition or relocation. Assets identified for possible decommissioning and disposal are shown in Table 5.6. A summary of the disposal costs and estimated reductions in annual operations and maintenance of disposing of these assets are also outlined in Table 5.6.

Any costs or revenue gained from asset disposals is included in the LTFP. However, it is envisage that there are no bus stop asset that are identified for disposal.

Asset	Reason for Disposal	Timing	Disposal Costs	Operations & Maintenance Annual Savings
N/A				

Table 5.6: Assets Identified for Disposal

6.0 RISK MANAGEMENT PLANNING

The purpose of infrastructure risk management is to document the findings and recommendations resulting from the periodic identification, assessment and treatment of risks associated with providing services from infrastructure, using the fundamentals of International Standard ISO 31000:2018 Risk management – Principles and guidelines.

Risk Management is defined in ISO 31000:2018 as: 'coordinated activities to direct and control with regard to risk'⁶.

An assessment of risks⁷ associated with service delivery will identify risks that will result in loss or reduction in service, personal injury, environmental impacts, a 'financial shock', reputational impacts, or other consequences. The risk assessment process identifies credible risks, the likelihood of the risk event occurring, and the consequences should the event occur. The risk assessment should also include the development of a risk rating, evaluation of the risks and development of a risk treatment plan for those risks that are deemed to be non-acceptable.

6.1 Critical Assets

Critical assets are defined as those which have a high consequence of failure causing significant loss or reduction of service. Critical assets have been identified and along with their typical failure mode, and the impact on service delivery, are summarised in Table 6.1. Failure modes may include physical failure, collapse or essential service interruption.

Critical Asset(s)	Failure Mode	Impact
Disability access	Non DDA Compliant Bus shelters	Maintenance and repairs in accordance with Council's agreed response times and service levels
Floor/Paver	Soil movement which may create a trip hazard	Regular inspections. Maintenance and repairs in accordance with Council's agreed response times and service levels
Signage	Faded/broken/graffiti	Regular inspections. Maintenance and repairs in accordance with Council's agreed response times and service levels

Table 6.1 Critical Assets

⁶ ISO 31000:2009, p 2

⁷ REPLACE with Reference to the Corporate or Infrastructure Risk Management Plan as the footnote

Critical Asset(s)	Failure Mode	Impact
Shelter	Damage, graffiti, reach its useful life	Regular inspections. Maintenance and repairs in accordance with Council's agreed response times and service levels, including repainting

By identifying critical assets and failure modes an organisation can ensure that investigative activities, condition inspection programs, maintenance and capital expenditure plans are targeted at critical assets.

6.2 Risk Assessment

The risk management process used is shown in Figure 6.2 below.

It is an analysis and problem-solving technique designed to provide a logical process for the selection of treatment plans and management actions to protect the community against unacceptable risks.

The process is based on the fundamentals of International Standard ISO 31000:2018.



Fig 6.2 Risk Management Process – Abridged Source: ISO 31000:2018, Figure 1, p9 The risk assessment process identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, development of a risk rating, evaluation of the risk and development of a risk treatment plan for non-acceptable risks.

An assessment of risks⁸ associated with service delivery will identify risks that will result in loss or reduction in service, personal injury, environmental impacts, a 'financial shock', reputational impacts, or other consequences.

Critical risks are those assessed with 'Very High' (requiring immediate corrective action) and 'High' (requiring corrective action) risk ratings identified in the Infrastructure Risk Management Plan. The residual risk and treatment costs of implementing the selected treatment plan is shown in Table 6.2. It is essential that these critical risks and costs are reported to management.

Service or Asset at Risk	What can Happen	Risk Rating (VH, H)	Risk Treatment Plan	Residual Risk *	Treatment Costs
The existing bus stop assets do not achieve their assumed useful lives	Asset needs to be replaced sooner than scheduled	Н	Develop specification, regular and documented inspections to ascertain remaining life	Low	Significantly high depending on the asset type
The existing bus stop asset classes have not been constructed in accordance with sound engineering and design practices.	Failure, damage	Н	Constructed as per the standard design and Australian Standards. Constructed by qualified contractors	Low	Significantly higher depending on the asset type
Non Compliance of DDA Legislation	Potential litigation	Н	Regular inspection to ensure compliance is maintained	Low	Significantly higher depending on the asset type
Bus route changes	Asset needs to be remove or added	VH	Continue communication with DPTI	High	Significantly high.

Table 6.2: Risks and Treatment Plan

Note * The residual risk is the risk remaining after the selected risk treatment plan is implemented.

⁸ REPLACE with Reference to the Corporate or Infrastructure Risk Management Plan as the footnote

6.3 Infrastructure Resilience Approach

The resilience of our critical infrastructure is vital to the ongoing provision of services to customers. To adapt to changing conditions we need to understand our capacity to 'withstand a given level of stress or demand', and to respond to possible disruptions to ensure continuity of service.

Resilience is built on aspects such as response and recovery planning, financial capacity, climate change and crisis leadership.

We do not currently measure our resilience in service delivery. This will be included in future iterations of the AMP.

6.4 Service and Risk Trade-Offs

The decisions made in adopting this AMP are based on the objective to achieve the optimum benefits from the available resources.

6.4.1 What we cannot do

This section is not applicable at present as Council will allocate sufficient funds (shortfall of \$75 per year) to meet the delivery of bus stop assets for the next 10 years.

6.4.2 Service trade-off

This section is not applicable at present as Council will allocate sufficient funds (shortfall of \$75 per year) to meet the delivery of bus stop assets for the next 10 years.

6.4.3 Risk trade-off

This section is not applicable at present as Council will allocate sufficient funds (shortfall of \$75 per year) to meet the delivery of bus stop assets for the next 10 years.

7.0 FINANCIAL SUMMARY

This section contains the financial requirements resulting from the information presented in the previous sections of this AMP. The financial projections will be improved as the discussion on desired levels of service and asset performance matures.

7.1 Financial Statements and Projections

7.1.1 Asset valuations

The best available estimate of the value of assets included in this Asset Management Plan are shown below. The assets are valued at fair value at cost to replace service capacity.

Current (Gross) Replacement Cost	\$1,714,724	Gross Replacement Cost
Depreciable Amount	\$1,714,724	Accumulated Depreciated Replacement Cost Cost Cost Cost Cost Cost Cost Cos
Depreciated Replacement Cost ⁹	\$1,481,505	End of reporting period 1
Depreciation	\$70,553	↓ period 2 ↓ ↓ Useful Life

Key assumptions made in preparing the valuations were:

- Straight line depreciation
- All figures are based on 2018/19 unit rates
- Yearly review of Useful Lives and Unit Rates
- Regular condition surveys every 4 years of the bus stops assets

7.1.2 Sustainability of service delivery

There are two key indicators of sustainable service delivery that are considered in the AMP for this service area. The two indicators are the:

- Asset Renewal Funding Ratio (proposed renewal budget for the next 10 years / forecast renewal costs for next 10 years), and
- medium term forecast costs/proposed budget (over 10 years of the planning period).

Asset Renewal Funding Ratio

Asset Renewal Funding Ratio¹⁰ 99.71%

The Asset Renewal Funding Ratio is an important indicator and illustrates that over the next 10 years we expect to have 99.71% of the funds required for the optimal renewal of assets. This is largely due to Council has replaced all of its bus stops/shelter to meet the DDA legislative requirements in the years 2017 and 2018.

The forecast renewal work along with the proposed renewal budget, and the cumulative shortfall, is illustrated in Appendix D.

⁹ Also reported as Written Down Value, Carrying or Net Book Value.

¹⁰ AIFMM, 2015, Version 1.0, Financial Sustainability Indicator 3, Sec 2.6, p 9.

This AMP identifies the forecast operations, maintenance and renewal costs required to provide an agreed level of service to the community over a 10 year period. This provides input into 10 year financial and funding plans aimed at providing the required services in a sustainable manner.

This forecast work can be compared to the proposed budget over the 10 year period to identify any funding shortfall.

The forecast operations, maintenance and renewal costs over the 10 year planning period is an average of \$47,612 per year.

The proposed (budget) operations, maintenance and renewal funding is \$47,537 on average per year giving a 10 year funding shortfall of (\$75) per year. This indicates that 99.84% of the forecast costs needed to provide the services documented in this AMP are accommodated in the proposed budget. This calculation is based off existing assets only.

Medium term – 20 year financial planning period

Summary of finance

- Planned total budget per year is \$71,500
- Total funding required to maintain, operate and complete renewal works is \$1,429,352
- Total fund available (assuming \$49,500 renewal funding will be available each planning year) to complete life cycle cost is \$1,430,740
- Asset Renewal Funding Ratio is 100%
- Surplus funding is \$70per year

7.1.3 Forecast Costs (outlays) for the long-term financial plan

Table 7.1.3 shows the forecast costs (outlays) for the 10 year LTFP.

Forecast costs are shown in 2018/19 dollar values.

Table 7.1.3: Forecast Costs (Outlays) for the Long-Term Financi	al Plan

Year	Forecast Acquisition (\$)	Forecast Operation (\$)	Forecast Maintenance (\$)	Forecast Renewal (\$)	Forecast Disposal (\$)
2020	0	10,587	11,450	26,630	0
2021	0	10,587	11,450	0	0
2022	0	10,587	11,450	0	0
2023	0	10,587	11,450	27,239	0
2024	0	10,587	11,450	18,937	0
2025	0	10,587	11,450	0	0
2026	0	10,587	11,450	0	0
2027	0	10,587	11,450	99,414	0
2028	0	10,587	11,450	10,725	0
2029	0	10,587	11,450	72,808	0
2030	0	10,587	11,450	2,550	0
2031	0	10,587	11,450	0	0
2032	0	10,587	11,450	0	0
2033	0	10,587	11,450	27,239	0

Year	Forecast Acquisition (\$)	Forecast Operation (\$)	Forecast Maintenance (\$)	Forecast Renewal (\$)	Forecast Disposal (\$)
2034	0	10,587	11,450	0	0
2035	0	10,587	11,450	0	0
2036	0	10,587	11,450	0	0
2037	0	10,587	11,450	491,958	0
2038	0	10,587	11,450	110,949	0
2039	0	10,587	11,450	100,163	0

7.2 Funding Strategy

The proposed funding for assets is outlined in Councils budget and LTFP.

The financial strategy of Council determines how funding will be provided, whereas the AMP communicates how and when it will be spent, along with the service and risk consequences of various service alternatives.

7.3 Valuation Forecasts

During the formulation of this plan, it is anticipated that asset numbers are forecast to remain consistent as there is no plan to add nor remove assets from service.

Additional assets will generally add to the operations and maintenance needs in the longer term. Additional assets will also require additional costs due to future renewals. Any additional assets will also add to future depreciation forecasts.

7.4 Key Assumptions Made in Financial Forecasts

In compiling this Asset Management Plan, it was necessary to make some assumptions. This section details the key assumptions made in the development of this AM plan and should provide readers with an understanding of the level of confidence in the data behind the financial forecasts.

Key assumptions made in this Asset Management Plan are:

- Council Asset Data registry reflects accurate data with a confidence level of ± 10%
- Operation and Maintenance cost remain within the same range for the next 10years
- Council will allocate sufficient funding to meet operations, maintenance and renewal expenditure.
- The useful Lives of the bus stops components are accurate
- Present service levels to remain constant over the life of this AMP
- Nil Growth
- All valuations are based on 2018/19 unit rates

7.5 Forecast Reliability and Confidence

The forecast costs, proposed budgets, and valuation projections in this AMP are based on the best available data. For effective asset and financial management, it is critical that the information is

current and accurate. Data confidence is classified on a A - E level scale¹¹ in accordance with Table 7.5.1.

Confidence Grade	Description
A. Highly reliable	Data based on sound records, procedures, investigations and analysis, documented properly and agreed as the best method of assessment. Dataset is complete and estimated to be accurate ± 2%
B. Reliable	Data based on sound records, procedures, investigations and analysis, documented properly but has minor shortcomings, for example some of the data is old, some documentation is missing and/or reliance is placed on unconfirmed reports or some extrapolation. Dataset is complete and estimated to be accurate ± 10%
C. Uncertain	Data based on sound records, procedures, investigations and analysis which is incomplete or unsupported, or extrapolated from a limited sample for which grade A or B data are available. Dataset is substantially complete but up to 50% is extrapolated data and accuracy estimated ± 25%
D. Very Uncertain	Data is based on unconfirmed verbal reports and/or cursory inspections and analysis. Dataset may not be fully complete, and most data is estimated or extrapolated. Accuracy \pm 40%
E. Unknown	None or very little data held.

Table 7.5.1: Data Confidence Grading System

The estimated confidence level for and reliability of data used in this AMP is shown in Table 6.5.1.

Table 7.5.1: Data Confidence Assessment for Data used in AMP

Data	Confidence Assessment	Comment
Demand drivers	Reliable	Based on Council's adopted Asset Management Policy
Growth projections	Reliable	Data based on government populations data
Acquisition forecast	Reliable	Data based on past experience
Operation forecast	Reliable	Expenditures have been apportioned across each asset class
Maintenance forecast	Reliable	Council will allocate sufficient fund to meet maintenance forecast
Renewal forecast - Asset values	reliable	Unit Rates are reviewed each year and endorsed independently. Asset values are calculated using unit rates multiplied by valuation measurement.
- Asset useful lives	reliable	Useful lives are reviewed yearly and endorsed independently.

¹¹ IPWEA, 2015, IIMM, Table 2.4.6, p 2 | 71.

- Condition		Council undertakes a detailed bus stops
modelling	reliable	survey and condition audit every 4 years.
Disposal forecast	reliable	Based on the financial data

The estimated confidence level offor and reliability of data used in this AMP is considered to be reliable.

8.0 PLAN IMPROVEMENT AND MONITORING

8.1 Status of Asset Management Practices12

8.1.1 Accounting and Financial Data Sources

This AMP utilises accounting and financial data. The source of the data is from the Council's corporate finance system, Finance One.

8.1.2 Asset Management Data Sources

This AMP also utilises asset management data. The source of the data is from the Council's Asset Management Data System, Conquest.

8.2 Improvement Plan

It is important that an entity recognise areas of their AMP and planning process that requires future improvements to ensure effective asset management and informed decision making. The improvement plan generated from this Asset Management Plan is shown in Table 8.2.

Task	Task	Responsibility	Resources Required	Timeline
1	Further develop Mobile Technology for field work defect recording and Maintenance Management in Conquest AMS	GIS Analyst, Team Leader Asset Planning	GIS Analyst, Team Leader Asset Planning, IT, Depot Staff Equipment: Mobile Device	1 to 2 years
2	Continue program for data collection of cyclic maintenance works	GIS Analyst, Team Leader Asset Planning, Coordinators, Team Leaders, Outside Staff	GIS Analyst, Team Leader Asset Planning, Depot Staff Equipment: Mobile Device	Ongoing for all Asset Classes
3	Develop Inspection Regimes for expired Assets (Fully Depreciated Assets past their useful lives)	GIS Analyst, Team Leader Asset Planning, Coordinators, Team Leaders, Outside Staff	GIS Analyst, Team Leader Asset Planning, Depot Staff Equipment: Mobile Device	12 month cycle
4	Undertake risk assessment inspections	GIS Analyst, Team Leader Asset Planning, Coordinators, Team Leaders, Outside Staff	GIS Analyst, Team Leader Asset Planning, Depot Staff Equipment: Mobile Device	12 month cycle

Table 8.2: Improvement Plan

¹² ISO 55000 Refers to this the Asset Management System

8.3 Monitoring and Review Procedures

This AMP will be reviewed during the annual budget planning process and revised to show any material changes in service levels, risks, forecast costs and proposed budgets as a result of budget decisions.

The AMP will be reviewed and updated annually to ensure it represents the current service level, asset values, forecast operations, maintenance, renewals, upgrade/new and asset disposal costs and proposed budgets. These forecast costs and proposed budget are incorporated into the Long-Term Financial Plan or will be incorporated into the Long-Term Financial Plan once completed.

The AM Plan has a maximum life of 4 years and is due for complete revision and updating within 2 years of appointment of new Council.

8.4 Performance Measures

The effectiveness of this AMP can be measured in the following ways:

- The degree to which the required forecast costs identified in this AMP are incorporated into the LTFP.
- The degree to which the 1-5 year detailed works programs, budgets, business plans and corporate structures take into account the 'global' works program trends provided by the AMP.
- The degree to which the existing and projected service levels and service consequences, risks and residual risks are incorporated into the Strategic Plan and associated plans.
- The Asset Renewal Funding Ratio achieving the Councils adopted target (100%)

9.0 REFERENCES

- IPWEA, 2006, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, <u>www.ipwea.org/IIMM</u>
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- IPWEA, 2012 LTFP Practice Note 6 PN Long-Term Financial Plan, Institute of Public Works Engineering Australasia, Sydney
- ISO, 2018, ISO 31000:2018, Risk management Guidelines
- Towards 2020 Campbelltown City Council Strategic Plan
- Annual Financial Statements for the Year Ended 30 June 2019.

10.0 APPENDICES

Appendix A Acquisition Forecast – N/A

Appendix B Operation Forecast

B.1 – Operation Forecast Assumptions and Source

Operation cost will remain unchanged for next 20years. The operation forecast figure listed in the blow table is the average operation cost that the council incurred for the last two years.

B.2 – Operation Forecast Summary

NAMS+ Outputs Summary for Renewal

Table B2 - Operation Forecast Summary

Year	Operation Forecast (\$)	Additional Operation Forecast (\$)	Total Operation Forecast (\$)
2020	10,587	0	10,587
2021	10,587	0	10,587
2022	10,587	0	10,587
2023	10,587	0	10,587
2024	10,587	0	10,587
2025	10,587	0	10,587
2026	10,587	0	10,587
2027	10,587	0	10,587
2028	10,587	0	10,587
2029	10,587	0	10,587
2030	10,587	0	10,587
2031	10,587	0	10,587
2032	10,587	0	10,587
2033	10,587	0	10,587
2034	10,587	0	10,587
2035	10,587	0	10,587
2036	10,587	0	10,587
2037	10,587	0	10,587
2038	10,587	0	10,587
2039	10,587	0	10,587

Appendix C Maintenance Forecast

C.1 – Maintenance Forecast Assumptions and Source

Maintenance cost will remain unchanged for next 20years. The maintenance cost forecast figure listed in the blow table is the average maintenance cost that the council incurred for the last two years.

C.2 – Maintenance Forecast Summary

NAMS+ Outputs Summary for Renewal

Year	Maintenance Forecast (\$)	Additional Maintenance Forecast (\$)	Total Maintenance Forecast (\$)
2020	11,450	0	11,450
2021	11,450	0	11,450
2022	11,450	0	11,450
2023	11,450	0	11,450
2024	11,450	0	11,450
2025	11,450	0	11,450
2026	11,450	0	11,450
2027	11,450	0	11,450
2028	11,450	0	11,450
2029	11,450	0	11,450
2030	11,450	0	11,450
2031	11,450	0	11,450
2032	11,450	0	11,450
2033	11,450	0	11,450
2034	11,450	0	11,450
2035	11,450	0	11,450
2036	11,450	0	11,450
2037	11,450	0	11,450
2038	11,450	0	11,450
2039	11,450	0	11,450

Table C2 - Maintenance Forecast Summary

Appendix D Renewal Forecast Summary

D.1 – Renewal Forecast Assumptions and Source

The renewal summary is generated through National Asset Management System+ (NAMS+) based on the information contained in the Council asset registry

It is assumed that Council will allocate enough fund to meet the renewal projects expenditure.

D.2 – Renewal Project Summary

The project titles included in the lifecycle forecast are included in the table D.4

D.3 – Renewal Forecast Summary

NAMS+ Outputs Summary for Renewal

Table D3 - Renewal Forecast Summary

Year	Renewal Forecast (\$)	Renewal Budget (\$)
2020	26,630	25,500
2021	0	25,500
2022	0	25,500
2023	27,239	25,500
2024	18,937	25,500
2025	0	25,500
2026	0	25,500
2027	99,414	25,500
2028	10,725	25,500
2029	72,808	25,500
2030	2,550	25,500
2031	0	25,500
2032	0	25,500
2033	27,239	25,500
2034	0	25,500
2035	0	25,500
2036	0	25,500
2037	491,958	25,500
2038	110,949	25,500
2039	100,163	25,500

D.4 – Renewal Plan

Detail output from NAMS+ Report for the Register Method

10 Year Renewal Plan

Backlog from the previous years to complete - Tactile and Floor works - \$26,300

Asset ID	Category	Location	Planned Renewal Year	Renewal Forecast (\$)
1	1		I	1
67507.0	Duc Stop Tastila	195 - Montacute Road,	2022	475
0/50/.0			2023	475
101562.0	Bus Stop Tactile		2023	800
67481.0	Bus Stop Tactile	23N- Montacute Road, Newton	2023	550
67468.0	Bus Stop Tactile	40N- Lower Atheistone Road, Atheistone	2023	650
67593.0	Bus Stop Tactile	32S - Gameau Road, Paradise	2023	750
		25S- Montacute Road.		
67576.0	Bus Stop Tactile	Rostrevor	2023	700
67569.0	Bus Stop Tactile	37S -Graves Street, Newton	2023	600
67570.0	Bus Stop Tactile	37N -Graves Street, Newton	2023	550
67563.0	Bus Stop Tactile	25S - Gorge Road, Newton	2023	700
67537.0	Bus Stop Tactile	23AE -Newton Road, Newton	2023	100
67490.0	Bus Stop Tactile	20N- Reid Avenue, Hectorville	2023	600
67493.0	Bus Stop Tactile	22N -Reid Avenue, Hectorville	2023	500
		21N-Montacute Road,		
67486.0	Bus Stop Tactile	Campbelltown	2023	450
67501.0	Bus Stop Tactile	19N - Reid Avenue, Hectorville	2023	650
99335.0	Bus Stop Tactile	30S -Gorge Road, Athelstone	2023	750
		31W - Maryvale Road,		
97555.0	Bus Stop Tactile	Athelstone	2023	625
97556.0	Bus Stop Tactile	37S - Gorge Road, Athelstone	2023	1,075
		35N - Addison Avenue,		
97507.0	Bus Stop Tactile	Athelstone	2023	650
97535.0	Bus Stop Tactile	25AW - Darley Road, Paradise	2023	750
07542.0	Pus Ston Tastila	255 - Lower North East Road,	2022	600
97542.0	Bus stop factlie	Paradise	2023	600
		24S - Lower North East Road,		
97543.0	Bus Stop Tactile	Paradise	2023	500
97501.0	Bus Stop Tactile	45N- George Street, Paradise	2023	650
		28N- Stradbroke Road,		
97502.0	Bus Stop Tactile	Rostrevor	2023	725
97488.0	Bus Stop Tactile	24N- Koonga Avenue, Rostrevor	2023	600

		21BE - St Bernards Road,		
67707.0	Bus Stop Tactile	Rostrevor	2023	950
		23S or SE - Lower North East		
67600.0	Bus Stop Tactile	Road, Paradise	2023	650
67578.0	Bus Stop Tactile	22S- Reid Avenue, Magill	2023	150
		22S - Montacute Road,		
67607.0	Bus Stop Tactile	Rostrevor	2023	350
67583.0	Bus Stop Tactile	21S- Moules Road, Magill	2023	400
		31W- Stradbroke Road,		
97484.0	Bus Stop Tactile	Athelstone	2023	100
114511.0	Bus Stop Tactile	35S-Graves Street, Newton	2023	550
114506.0	Bus Stop Tactile	24E- Vine Street, Magill	2023	500
114507.0	Bus Stop Tactile	29S-Montacute Road, Rostrevor	2023	750
		25W - Sycamore Terrace,		
99337.0	Bus Stop Tactile	Campbelltown	2023	750
		30W)- Maryvale Road,		
97505.0	Bus Stop Tactile	Athelstone	2023	700
		27S or SW - Mapel Avenue,		
99820.0	Bus Stop Tactile	Rostrevor	2023	550
		27E - Mcshane Street,		
120238.0	Bus Stop Tactile	Campbelltown	2023	702
67463.0	Bus Stop Tactile	43N-George Street, Paradise	2023	650
67525.0	Bus Stop Tactile	17N - Arthur Street, Tranmere	2023	250
		34W - Hakea Avenue,		
114518.0	Bus Stop Tactile	Athelstone	2023	600
114863.0	Bus Stop Tactile	28 S - Gorge Road, Newton	2023	550
114867.0	Bus Stop Tactile	36 N - Gorge Road, Athelstone	2023	600
114854.0	Bus Stop Tactile	21 N - Reid Avenue, Hectorville	2023	550
		26 E- Shepherds Lane,		
114860.0	Bus Stop Tactile	Campbelltown	2023	450
100941.0	Bus Stop Tactile	26N-Morialta Road, Rostrevor	2023	450
		33ME- Maryvale Road,		
101559.0	Bus Stop Tactile	Athelstone	2023	1,037
Total I	Renewal Works in 2023			\$ 27,239

Total Renewal Works in 2024\$ 18,937				
100940.0	Bus Stop Floor	26N- Morialta Road, Rostrevor	2024	2,717
67250.0	Bus Stop Floor	Rostrevor	2024	3,688
	· · · · · · · · · · · · · · · · · · ·	22S - Montacute Road,		
67216.0	Bus Stop Floor	Athelstone	2024	2,624
		31W - Maryvale Road.		
67337.0	Bus Stop Floor	25S - Koonga Avenue, Rostrevor	2024	2,532
67394.0	Bus Stop Floor	Road, Campbelltown	2024	3,688
		21S or E - Lower North East		
67459.0	Bus Stop Floor	25E - Darley Road, Paradise	2024	3,688

114862.0	Bus Stop Tactile	27 W- Shepherds Lane, Campbelltown	2027	400
114868.0	Bus Stop Tactile	48 W-Silkes Road, Paradise	2027	700
114850.0	Bus Stop Tactile	Bus Stop Tactile (19 N) - Magill Road, Magill	2027	550
114851.0	Bus Stop Tactile	20 N- Montacute Road, Campbelltown	2027	350
114852.0	Bus Stop Tactile	20 S-Montacute Road, Hectorville	2027	900
114853.0	Bus Stop Tactile	20 W-St Bernards Road, Magill	2027	400
114864.0	Bus Stop Tactile	Bus Stop Tactile (30 N) - Gorge Road, Athelstone	2027	550
114865.0	Bus Stop Tactile	31 N- Gorge Road, Athelstone	2027	550
114866.0	Bus Stop Tactile	35 S- Hakea Avenue, Athelstone	2027	400
114861.0	Bus Stop Tactile	26 W-Shepherds Lane, Campbelltown	2027	400
100950.0	Bus Stop Tactile	27AW-Mcshane Street, Campbelltown	2027	650
100956.0	Bus Stop Tactile	22N-Moules Road, Magill	2027	750
100959.0	Bus Stop Tactile	26AN-Lower North East Road, Paradise	2027	600
100965.0	Bus Stop Tactile	35S-Gorge Road, Athelstone	2027	687
101554.0	Bus Stop Tactile	38W-Coulls Road, Athelstone	2027	725
101556.0	Bus Stop Tactile	25E-Sycamore Terrace, Campbelltown	2027	750
114855.0	Bus Stop Tactile	21C E-St Bernards Road, Rostrevor	2027	500
114856.0	Bus Stop Tactile	22A E-St Bernards Road, Rostrevor	2027	650
114857.0	Bus Stop Tactile	22B E-St Bernards Road, Rostrevor	2027	600
114858.0	Bus Stop Tactile	23 E-Newton Road, Newton	2027	350
114859.0	Bus Stop Tactile	24 S -Montacute Road, Rostrevor	2027	500
114845.0	Bus Stop Tactile	16 N -Magill Road, Tranmere	2027	600
		18/18C S or SE - Lower North East Road,		
114848.0	Bus Stop Tactile	Campbelltown	2027	800
114849.0	Bus Stop Tactile	18B E-Glynburn Road, Hectorville	2027	550
6//1/.0	Bus Stop Tactile	25E -Vine Street, Magill	2027	650
6/5//.0	Bus Stop Tactile	26AN-Gorge Road, Paradise	2027	600
6/5/9.0	Bus Stop Tactile	24E-Newton Road, Newton	2027	550
67595.0	Bus Stop Tactile	33N-Graves Street, Newton	2027	600
67596.0	Bus Stop Tactile	335-Graves Street, Newton	2027	550
67597.0	Bus Stop Tactile	34N-Graves Street, Newton	2027	600
67598.0	Bus Stop Tactile	20N-Lower North East Road, Campbelltown	2027	550
67599.0	Bus Stop Tactile	23N or NW-Lower North East Road, Paradise	2027	600
67608.0	Bus Stop Tactile	23AN-IVIONTACUTE ROAd, Newton	2027	600
67609.0	Bus Stop Tactile	24N-Montacute Road, Newton	2027	575
67610.0	Bus Stop Tactile	21N-Moules Road, Rostrevor	2027	650
67611.0	Bus Stop Tactile	23N-Woules Road, Rostrevor	2027	700
67612.0	Bus Stop Tactile	23 W Newton Road, Campbelltown	2027	700
67613.0	Bus Stop Tactile	23AW-Newton Road, Campbelltown	2027	750
67704.0	Bus Stop Tactile	47W -Slikes Road, Paradise	2027	750
07/00.0		43W-SIIKES KOdu, Paradise	2027	/50
97480.0		21E-SL BEITIGIUS ROGO, Magili	2027	800
9/48/.0		25N-Koonga Avenue, Rostrevor	2027	550
97489.0		2011-KOUNING AVENUE, KOSTEVOR	2027	000
97506.0	Bus Stop Tactile	34IN-Addison Avenue, Atheistone	2027	650

97545.0	Bus Stop Tactile	19S or SE-Lower North East Road, Campbelltown	2027	650
97552.0	Bus Stop Tactile	39N-Lower Athelstone Road, Athelstone	2027	700
97553.0	Bus Stop Tactile	17S-Arthur Street, Tranmere	2027	550
97557.0	Bus Stop Tactile	32N-Gameau Road, Paradise	2027	650
99333.0	Bus Stop Tactile	34S-Gorge Road, Athelstone	2027	450
99334.0	Bus Stop Tactile	32S-Gorge Road, Athelstone	2027	675
100943.0	Bus Stop Tactile	30E-Victor Road, Campbelltown	2027	725
100945.0	Bus Stop Tactile	31E-Victor Road, Campbelltown	2027	500
100947.0	Bus Stop Tactile	28S-Hill Street, Campbelltown	2027	500
100949.0	Bus Stop Tactile	29N-Hill Street, Campbelltown	2027	625
100951.0	Bus Stop Tactile	33N-Addison Avenue, Athelstone	2027	625
67465.0	Bus Stop Tactile	26AS or SE-Lower North East Road, Paradise	2027	600
67467.0	Bus Stop Tactile	41N-Lower Athelstone Road, Athelstone	2027	450
67469.0	Bus Stop Tactile	27N-Gorge Road, Paradise	2027	850
67470.0	Bus Stop Tactile	22N-Reserve Road, Campbelltown	2027	1000
67475.0	Bus Stop Tactile	44N-George Street, Paradise	2027	700
67478.0	Bus Stop Tactile	38E-Coulls Road, Athelstone	2027	500
		19N or NW)-Lower North East Road,		
114524.0	Bus Stop Tactile	Campbelltown	2027	500
114519.0	Bus Stop Tactile	36E-Quondong Avenue, Athelstone	2027	750
114556.0	Bus Stop Tactile	24E-Sycamore Terrace, Campbelltown	2027	650
101560.0	Bus Stop Tactile	24W-Vine Street, Magill	2027	600
99336.0	Bus Stop Tactile	24W-Sycamore Terrace, Campbelltown	2027	750
100937.0	Bus Stop Tactile	31S-Gorge Road, Athelstone	2027	900
97503.0	Bus Stop Tactile	23N-Cresdee Road, Campbelltown	2027	650
97504.0	Bus Stop Tactile	32MW-Maryvale Road, Athelstone	2027	650
102312.0	Bus Stop Tactile	47E-Silkes Road, Paradise	2027	800
114502.0	Bus Stop Tactile	18S-Arthur Street, Tranmere	2027	550
114503.0	Bus Stop Tactile	19S-Arthur Street, Magill	2027	600
114504.0	Bus Stop Tactile	20S-Arthur Street, Magill	2027	600
114505.0	Bus Stop Tactile	23S-Moules Road, Magill	2027	600
114508.0	Bus Stop Tactile	30E-Maryvale Road, Athelstone	2027	600
114509.0	Bus Stop Tactile	31E-Maryvale Road, Athelstone	2027	800
114510.0	Bus Stop Tactile	32S-Graves Street, Newton	2027	550
114512.0	Bus Stop Tactile	35N-Graves Street, Newton	2027	600
114513.0	Bus Stop Tactile	32N-Graves Street, Newton	2027	300
114514.0	Bus Stop Tactile	33S-Addison Avenue, Athelstone	2027	750
114515.0	Bus Stop Tactile	27AE-Mcshane Street, Campbelltown	2027	750
114516.0	Bus Stop Tactile	24W-Vine Street, Magill	2027	550
67581.0	Bus Stop Tactile	21S-Reid Avenue, Magill	2027	600
67582.0	Bus Stop Tactile	27S-Gorge Road, Newton	2027	750
67601.0	Bus Stop Tactile	24N-Lower North East Road, Paradise	2027	600
67602.0	Bus Stop Tactile	26N-Lower North East Road, Paradise	2027	550
67603.0	Bus Stop Tactile	14N- Magill Road, Tranmere	2027	300
67604.0	Bus Stop Tactile	32W-Maryvale Road, Athelstone	2027	850

67606.0	Bus Stop Tactile	32E-Maryvale Road, Athelstone	2027	850
67708.0	Bus Stop Tactile	22E-St Bernards Road, Rostrevor	2027	650
67709.0	Bus Stop Tactile	22W-St Bernards Road, Hectorville	2027	700
67710.0	Bus Stop Tactile	22BW-St Bernards Road, Hectorville	2027	600
67711.0	Bus Stop Tactile	30E-Stradbroke Road, Rostrevor	2027	800
67712.0	Bus Stop Tactile	30W-Stradbroke Road, Rostrevor	2027	600
67713.0	Bus Stop Tactile	27S-Lower North East Road, Paradise	2027	500
67714.0	Bus Stop Tactile	31W-Victor Road, Campbelltown	2027	650
67715.0	Bus Stop Tactile	30W-Victor Road, Campbelltown	2027	650
67716.0	Bus Stop Tactile	23E-Vine Street, Magill	2027	550
67505.0	Bus Stop Tactile	25W-Darley Road, Paradise	2027	700
67494.0	Bus Stop Tactile	23S-Cresdee Road, Campbelltown	2027	150
67498.0	Bus Stop Tactile	20E-St Bernards Road, Magill	2027	100
67499.0	Bus Stop Tactile	34S-Graves Street, Newton	2027	550
67482.0	Bus Stop Tactile	41S-Lower Athelstone Road, Athelstone	2027	300
67483.0	Bus Stop Tactile	19N-Montacute Road, Campbelltown	2027	350
		21N or W-Lower North East Road,		
67484.0	Bus Stop Tactile	Campbelltown	2027	600
67461.0	Bus Stop Tactile	28N-Gorge Road, Paradise	2027	650
67489.0	Bus Stop Tactile	18N-Reid Avenue, Hectorville	2027	600
67526.0	Bus Stop Tactile	24W-Glen Stuart Road, Rostrevor	2027	700
67527.0		20AN or NW-Lower North East Road,	2027	700
67527.0	Bus Stop Tactile		2027	700
67528.0	Bus Stop Tactile	25N-Morialta Road, Rostrevor	2027	600
67529.0	Bus Stop Tactile	265-Montacute Road, Rostrevor	2027	850
67532.0	Bus Stop Tactile	21S or E-Lower North East Road, Campbelltown	2027	650
6/533.0	Bus Stop Tactile	205-Lower North East Road, Campbelltown	2027	700
6/535.0	Bus Stop Tactile	25AN-IVIORIAITA ROAd, ROSTREVOR	2027	700
67509.0	Bus Stop Tactile	21CW-St Bernards Road, Magili	2027	900
67510.0	Bus Stop Tactile	26N-Koonga Avenue, Rostrevor	2027	900
67511.0	Bus Stop Tactile	28N-Hill Street, Campbelltown	2027	100
6/512.0	Bus Stop Tactile	36S-Gorge Road, Athelstone	2027	100
6/51/.0	Bus Stop Tactile	29N-Gorge Road, Newton	2027	550
67519.0	Bus Stop Tactile	16N-Arthur Street, Iranmere	2027	650
67520.0	Bus Stop Tactile	46S-George Street, Paradise	2027	1,000
67521.0	Bus Stop Tactile	46N-George Street, Paradise	2027	700
67522.0	Bus Stop Tactile	20N-Arthur Street, Magili	2027	550
67523.0	Bus Stop Tactile	19N-Arthur Street, Magill	2027	550
67524.0	Bus Stop Tactile	18N-Arthur Street, Iranmere	2027	550
6/538.0	Bus Stop Tactile	15N-Magill Road, Tranmere	2027	850
67540.0	Bus Stop Tactile	16/16DE-Glynburn Road, Tranmere	2027	/00
6/541.0	Bus Stop Factile	49AE-SIIkes Road, Paradise	2027	/50
6/542.0	Bus Stop Tactile	295-Gorge Road, Newton	2027	450
67546.0	Bus Stop Tactile	22AW-St Bernards Road, Hectorville	2027	700
67549.0	Bus Stop Tactile	22N-Montacute Road, Campbelltown	2027	700

67550.0	Bus Stop Tactile	21S-Montacute Road, Hectorville	2027	750
67551.0	Bus Stop Tactile	21AE-St Bernards Road, Magill	550	
67552.0	Bus Stop Tactile	36S-Graves Street, Newton	700	
67553.0	Bus Stop Tactile	22S-Moules Road, Magill	650	
67554.0	Bus Stop Tactile	28S-Hill Street, Campbelltown 2		750
67555.0	Bus Stop Tactile	20N-Heading Avenue, Campbelltown 2027		450
67556.0	Bus Stop Tactile	23AS-Montacute Road, Rostrevor	2027	725
67557.0	Bus Stop Tactile	26S-Gorge Road, Newton	2027	750
67558.0	Bus Stop Tactile	18AE-Glynburn Road, Hectorville	2027	450
67559.0	Bus Stop Tactile	16CE-Glynburn Road, Tranmere	2027	550
67560.0	Bus Stop Tactile	16BE-Glynburn Road, Tranmere	2027	550
67561.0	Bus Stop Tactile	18-Glynburn Road, Tranmere	2027	400
67562.0	Bus Stop Tactile	26S-Koonga Avenue, Rostrevor	2027	350
67564.0	Bus Stop Tactile	25N-Gorge Road, Paradise	2027	150
67565.0	Bus Stop Tactile	17E-Glynburn Road, Tranmere	2027	600
67566.0	Bus Stop Tactile	26N-Gorge Road, Paradise	2027	600
67567.0	Bus Stop Tactile	36N-Graves Street, Newton	2027	550
67568.0	Bus Stop Tactile	24AE-Darley Road, Paradise	2027	650
67571.0	Bus Stop Tactile	21W-St Bernards Road, Magill	2027	600
67572.0	Bus Stop Tactile	27W-Stradbroke Road, Rostrevor	2027	400
67573.0	Bus Stop Tactile	42N-Lower Athelstone Road, Athelstone	2027	400
67574.0	Bus Stop Tactile	26AS-Gorge Road, Newton 20		650
67575.0	Bus Stop Tactile	27N-Lower North East Road, Paradise	2027	600
67584.0	Bus Stop Tactile	26N-Montacute Road, Newton 2027		700
67479.0	Bus Stop Tactile	22N-Lower North East Road, Campbelltown 2027		550
67585.0	Bus Stop Tactile	17N-Magill Road, Magill 2027		700
67586.0	Bus Stop Tactile	16EE-Glynburn Road, Tranmere	2027	650
		18/18CN or NW-Lower North East Road,		100
6/58/.0	Bus Stop Tactile	Campbelltown 2027		100
67588.0	Bus Stop Tactile	24AW-Darley Road, Paradise	bad, Paradise 2027	
67589.0	Bus Stop Tactile	25E Darley Road, Paradise	2027	200
67590.0	Bus Stop Tactile	25AE-Darley Road, Paradise	2027	700
67591.0	Bus Stop Tactile	22 -Church Street, Magill 2027		550
6/592.0	Bus Stop Tactile	21N-Clairville Road, Campbelltown	2027	/00
			2020	\$ 99,414
120228.0	Bus Shelter	20S-Reid Avenue, Tranmere	2029	9,181
120233.0	Bus Stop Tactile	20S-Reid Avenue, Tranmere	2029	652
120234.0	Bus Stop Tactile	18S-Montacute Road, Hectorville 2029		652
120236.0	Bus Stop Tactile	37W-Gorge Road, Athelstone 2029		802
120239.0	Bus Stop Tactile	18 N-Montacute Road, Campbelltown 2029		802
121050.0		40 S-LOWER ALTERSTONE KOAD, ATTRESTONE	2029	250
121057.0		275-IVIOIITacute Road, Rostrevor	2029	552
67502.0	Bus Stop Tactile	21Avv-St Bernards Road, Magili	2029	832
0/1/0.0	Bus Shelter		2029	8,352
6/1/1.0	Bus Shelter	ZIAE-ST Bernards Koad, Magill	2029	8,352

67067.0	Bus Shelter	25AW-Darley Road, Paradise	8,352		
67156.0	Bus Shelter	23AE-Newton Road, Newton	8,352		
67160.0	Bus Shelter	19S-Reid Avenue, Tranmere	8,352		
67163.0	Bus Shelter	22S-Reid Avenue, Magill	22S-Reid Avenue, Magill 2029		
114820.0	Bus Shelter	31 W-Stradbroke Road, Newton	2029	8,352	
114846.0	Bus Stop Tactile	18 N-Magill Road, Magill	2029	615	
Total Renewal Works in 2029\$ 72,				\$ 72,808	

100939.0	Bus Stop Tactile	Bus Stop Tactile (48E) - Silkes Road, Paradise	2030	650
		Bus Stop Tactile (21BW) St Bernards Road,		
67506.0	Bus Stop Tactile	Magill	2030	500
67580.0	Bus Stop Tactile	Bus Stop Tactile (19S) Reid Avenue, Tranmere	2030	600
		Bus Stop Tactile (28S) Montacute Road,		
100934.0	Bus Stop Tactile	Rostrevor	2030	800
Total Renewal Works in 2030				\$ 2,550

Cumulative Renewal Budget Shortfall for 20yrs

Year	Forecast Renewal (\$)	Planned Renewal Budget (\$)	Annual Budget shortfall (\$)	Cumulative Renewal Budget Shortfall (\$)
2020	26,630	25,500	-1,130	-1,130
2021	0	25,500	25,500	24,370
2022	0	25,500	25,500	49,870
2023	27,239	25,500	-1,739	48,131
2024	18,937	25,500	6,563	54,694
2025	0	25,500	25,500	80,194
2026	0	25,500	25,500	105,694
2027	99,414	25,500	-73,914	31,780
2028	10,725	25,500	14,775	46,555
2029	72,808	25,500	-47,308	-753
2030	2,550	25,500	22,950	22,197
2031	0	25,500	25,500	47,697
2032	0	25,500	25,500	73,197
2033	27,239	25,500	-1,739	71,458
2034	0	25,500	25,500	96,958
2035	0	25,500	25,500	122,458
2036	0	25,500	25,500	147,958
2037	491,958	25,500	-466,458	-318,500
2038	110,949	25,500	-85,449	-403,949
2039	100,163	25,500	-74,663	-478,612

Appendix E Disposal Summary – N/A

Appendix F Budget Summary by Lifecycle Activity

Key Assumptions Made:

- The existing bus stop assets will achieve their assumed useful life
- The existing bus stop asset classes have been constructed using sound engineering and design practices to ensure they are fit for purpose
- The unit rate for replacement of bus stop asset classes are realistic
- Accuracy of future financial forecasts may be improved in future revisions of the Bus Stop Asset Management Plan
- No acquisitions and hence operation and maintenance cost remain the same for next 20yrs

Year	Acquisition (\$)	Operation (\$)	Maintenanc e (\$)	Renewal (\$)	Disposal (\$)	Total (\$)
2020	0	10,587	11,450	25,500	0	47,537
2021	0	10,587	11,450	25,500	0	47,537
2022	0	10,587	11,450	25,500	0	47,537
2023	0	10,587	11,450	25,500	0	47,537
2024	0	10,587	11,450	25,500	0	47,537
2025	0	10,587	11,450	25,500	0	47,537
2026	0	10,587	11,450	25,500	0	47,537
2027	0	10,587	11,450	25,500	0	47,537
2028	0	10,587	11,450	25,500	0	47,537
2029	0	10,587	11,450	25,500	0	47,537
2030	0	10,587	11,450	25,500	0	47,537
2031	0	10,587	11,450	25,500	0	47,537
2032	0	10,587	11,450	25,500	0	47,537
2033	0	10,587	11,450	25,500	0	47,537
2034	0	10,587	11,450	25,500	0	47,537
2035	0	10,587	11,450	25,500	0	47,537
2036	0	10,587	11,450	25,500	0	47,537
2037	0	10,587	11,450	25,500	0	47,537
2038	0	10,587	11,450	25,500	0	47,537
2039	0	10,587	11,450	25,500	0	47,537

Table F1 – Budget Summary by Lifecycle Activity