city of Victor Harbor

ASSET MANAGEMENT PLAN #02 ROADS, FOOTPATHS, CAR PARKS AND TRAFFIC DEVICES

September 2023

CONTENTS

SUMMARY

OVERVIEW

This Asset Management Plan provides for effective and responsible management of sealed and unsealed roads, footpath, traffic devices and car parks, their replacement cycles and funding requirements. The Plan incorporates information from a variety of sources including data stored in Council's Asset Register and should be read in conjunction with the Asset Management Policy.

Council has a network of 390 kilometres of roads broken into 269 sealed and 121 unsealed, with a total replacement cost of $155,371,006 as at 30 June 2022. Forecast capital expenditure over the term of this Plan is $20,143,600.

Council has a network of over 368,780m² of paths with a replacement cost of $19,957,715 as at 30 June 2022. Forecast capital expenditure over the term of this Plan is $9,219,900.

Council has a network of over 200,000m² of car parks and traffic device assets with a replacement cost of $13,094,514 as at 30 June 2022. Forecast capital expenditure over the term of this Plan is $3,563,000.

The combined capital expenditure for all of these asset classes over the period of the plan is $32,926,500 with the annual breakdown provided in the table below:

Year 1 2023/24 $ '000	Year 2 2024/25 $ '000	Year 3 2025/26 $ '000	Year 4 2026/27 $ '000	Year 5 2027/28 $ '000	Year 6 2028/29 $ '000	Year 7 2029/30 $ '000	Year 8 2030/31 $ '000	Year 9 2031/32 $ '000	Year 10 2032/33 $ '000
Renewal and Replacement									
$1,133	$3,311	$2,170	$2,148	$1,656	$1,788	$2,328	$1,428	$1,428	$1,428
New and Upgrade									
$1,286	$2,856	$1,224	$3,350	$868	$1,056	$1,446	$954	$594	$474
Total Capital Expenditure									
$2,419	**$6,167**	**$3,394**	**$5,498**	**$2,524**	**$2,844**	**$3,774**	**$2,382**	**$2,022**	**$1,902**
								TOTAL EXPENDITURE OVER TERM OF PLAN	**$32,926**

The impacts of climate change, including sea level rise, coastal inundation and erosion, extreme temperatures, and flood risk, continue to be assessed as new information is gathered. The Plan will be updated as new data becomes available.

PROJECT SELECTION

Projects are selected for inclusion in Asset Management Plans (AMPs) based on a number of factors.

Renewal and replacement projects are determined by risk, useful life, age of the asset, condition rating, defect and failure levels, external reports, utilisation, impact on users, operational and maintenance costs.

New and upgrade projects are identified from various sources including strategic plans of Council, community or Elected Member requests, grant funding availability and partnership proposals from other organisations.

Council is committed to the replacement of existing assets as per the life cycle and condition rating of the asset. The expectation is that all renewal and replacement projects will be fully funded in Council's Long Term Financial Plan in line with optimal replacement cycles.

New and upgrade projects included in these AMPs exceed Council's ability to fund sustainably without external contributions from grants and/or private partnerships.

An annual review of the projects in the AMPs will be undertaken to re-assess the optimal replacement schedule and re-prioritise works in consideration of community needs, risk assessments, external factors and funding opportunities. This review will form part of the Annual Business Plan and Budget process.

The appendices to this document provide a list of the capital projects under consideration with timing and budget estimates. In line with above, these estimates are subject to change and the appendices will remain in draft as they are working documents.

Feedback from public consultation may also affect the timing of the projects. Projects will be confirmed once the Annual Business Plan and Budget has been adopted by Council each year.

ROADS

OUR ASSETS

Council provides a road network to enable safe, well maintained, fit for purpose transport routes in accordance with Council's strategic aspiration:

ASPIRATION 5
WE HAVE SERVICES AND INFRASTRUCTURE THAT MEET OUR COMMUNITY'S NEEDS

The road network comprises 2,696 individual assets made up of 390 km categorised into two asset types:

Sealed Roads

Unsealed Roads

These asset subclasses are broken into components as below:

Asset Subclass	Asset Component	Quantity (#)	Quantity (m²)
Sealed Roads	Pavement Subbase	786	1,922,042
	Pavement Base	786	1,922,042
	Surface	787	1,766,951
Unsealed Roads	Pavement Subbase	125	565,853
	Pavement Base	125	564,013

LEVELS OF SERVICE

Levels of service for road assets are defined in regards to both community and technical requirements. The assets are assessed in terms of quality, function and capacity.

The City of Victor Harbor aims to maintain road assets at a condition rating of < 3.

Current levels of service and performance measures for each asset per annum (p/a) are provided in the table below:

Service Level *	Description	Measurement Process	Desired fp
Quality	Asset Maintenance	Condition assessments	Condition Rating < 3
	Community Feedback	Customer service requests and complaints requiring action	< 3 requests and/or complaints p/a
	Structural defects	Maintenance requirements	< 1 reactive works p/a
Function	Fit for purpose	Meets standards and design specifications	Compliant
	Cleanliness	Street sweeping frequency	As per sweeping program
	Lighting	Meets standards and design specifications	Compliant
	Grading	Provides adequate shape for drainage purposes	As per annual program
Capacity	Traffic Flow	Speed limit and traffic controls meet utilisation	< 3 requests and/or complaint p/a
	Flooding	Continued use during rain events	< 1 road closure p/a

**Major emergencies and disaster events are excluded from the service level measurement*

VALUATION

Road assets are valued in accordance with AASB13 (Fair Value Measurement) with revaluations programmed on a four-year cycle. The latest revaluation for road assets was undertaken in 2021/22.

The value of assets by road type recorded in the Asset Register as at 30 June 2022 that are covered by this Plan are shown below:

Asset Type	Replacement Value	Accumulated Depreciation	Written Down Value
Sealed Roads	$142,444,444	$46,617,017	$95,827,427
Unsealed Roads	$12,926,563	$3,968,585	$8,957,977
Total	**$155,371,006**	**$50,585,602**	**$104,785,404**

USEFUL LIVES

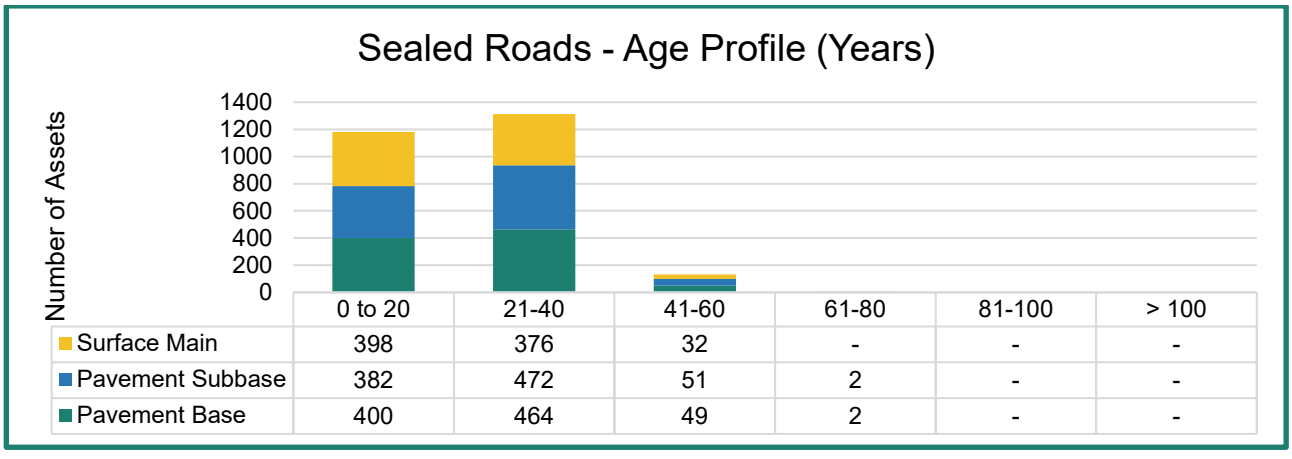
Useful lives of road assets are determined by short and long life components. These components include the pavement subbase, pavement base and surface as provided in the table below:

Component Name	Minimum	Maximum	Average
Sealed Roads			
Pavement Subbase	45	210	183
Pavement Base	15	70	61
Surface Main	12	30	23
Unsealed Roads			
Pavement Subbase	45	45	45
Pavement Base	15	15	15

All sealed road assets are made up of all three components, unsealed roads with only two (excludes surface). The useful life sets the depreciation rate, net of any residual values of the asset at end of life.

AGE PROFILE

The age profile of road assets is determined by the principal component and construction date. The age profile by individual asset (segment) for sealed roads is provided in the graph below:



	0 to 20	21-40	41-60	61-80	81-100	> 100
Surface Main	398	376	32	-	-	-
Pavement Subbase	382	472	51	2	-	-
Pavement Base	400	464	49	2	-	-

The minimum, maximum and average age by sealed road asset component is provided in the table below:

Asset Component	Minimum Age	Maximum Age	Average Age
Pavement Subbase	0	61	25
Pavement Base	1	61	25
Surface	1	61	23

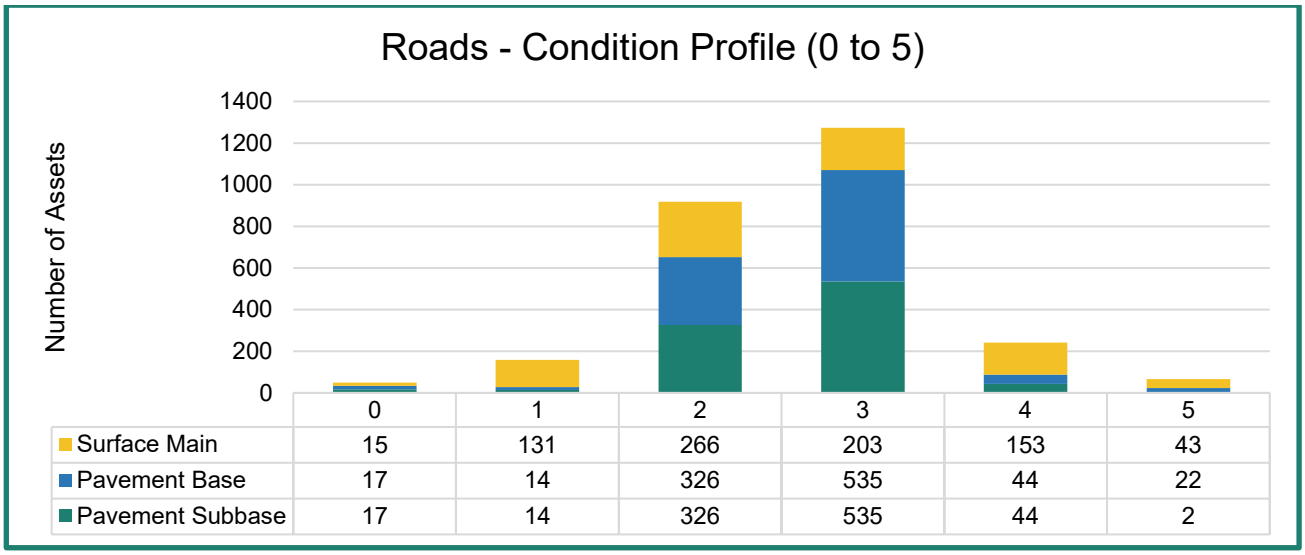
THE AVERAGE AGE OF SEALED ROAD ASSETS IS 23 YEARS

CONDITION PROFILE

Condition of road assets is monitored through ongoing data collection which is incorporated into relevant attribute criteria within Council's corporate asset software. The data is reviewed and updated during revaluation cycles, after significant weather events, with community feedback or complaints as well as during routine maintenance duties. Condition ratings and descriptions are provided in the table below:

Condition Rating	Summary Description	Detailed Description
0	Brand New	Asset is brand new
1	Very Good	Near as new condition with no defects
2	Good	Superficial deterioration, reliable and no maintenance is required.
3	Fair	Minor deterioration present and routine maintenance may be required
4	Poor	Significant deterioration present, maintenance required to keep the asset serviceable with program for renewal within the next five years
5	Very Poor	Extensive deterioration present, significant maintenance required to keep the asset serviceable with program for renewal within the following year

The condition profile of road assets is determined by the components and construction materials with the condition ratings for roads demonstrated in the graph below:



	0	1	2	3	4	5
Surface Main	15	131	266	203	153	43
Pavement Base	17	14	326	535	44	22
Pavement Subbase	17	14	326	535	44	2

Assets with a condition rating of 2 or under make up only 42% of the asset class demonstrating that the condition of over half of the Council road network is deteriorating and renewal is not being undertaken in line with life cycle estimates. An increased allowance for renewal of existing assets has been included in the Capital Works Program for roads at Appendix A.

THE AVERAGE CONDITION RATING FOR ROADS IS 2.6

FORECAST EXPENDITURE

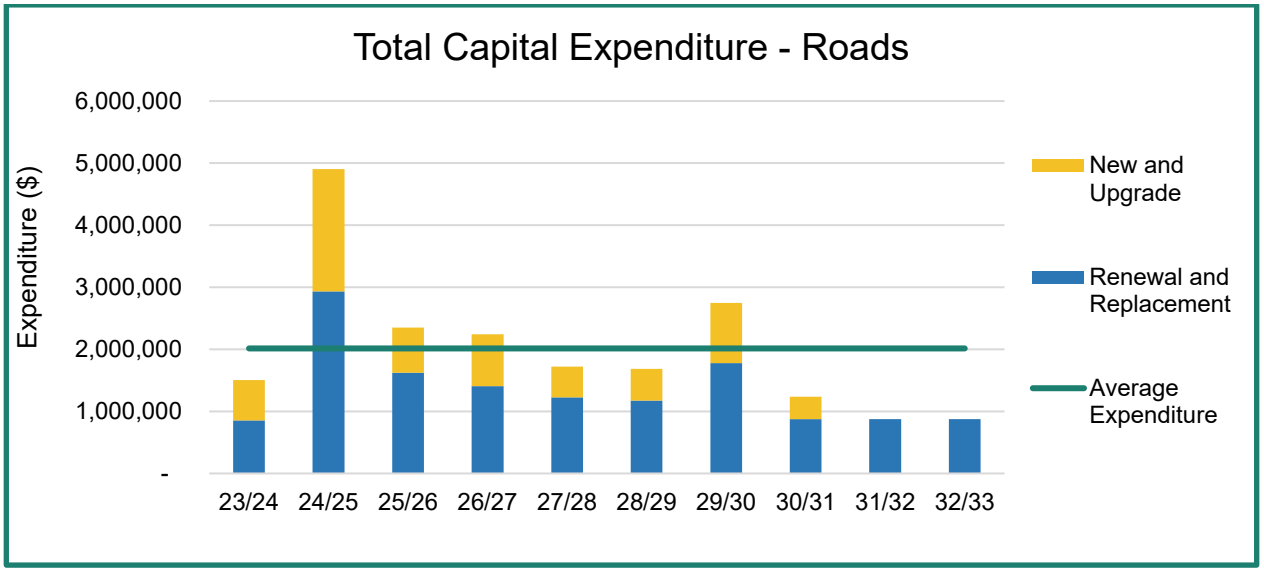
Forecast expenditure over the next ten years totals $20,143,600. This is made up of 68% renewal and replacement works and 32% new and upgrade works. The average annual spend over the ten year plan is $2,014,360 per year.

Projects are determined to be renewal / replacement or new / upgrade depending on the project scope and the existing asset attributes.

Renewal and replacement applies where the asset is reconstructed to the same size / capacity of the existing asset. Changes in the use of materials and/or useful life does not constitute an increase in capacity.

New and upgrade applies where the asset did not previously exist or where there is an increase in the size / capacity of the asset. The principal attribute considered for determining whether there is an increase for roads is length and width (m²). In addition to the above, capitalisation thresholds need to be considered in line with Council's Asset Accounting Policy with projects that fall below the financial limits considered to be operating and maintenance rather than capital.

The graph below shows the total expenditure over the ten years of the Plan as well as the breakdown of renewal / replacement and new / upgrade:



Significant expenditure is projected in 2024/25 due to the reconstruction of Whalers Road. Detailed design undertaken in 2021 includes pavement reconstruction, new kerbing and footpath, stormwater upgrades and supplementary street lighting. The plan includes a $3.6 million allocation to undertake this construction work.

The peak in 2029/30 is an allowance for the construction of Mainstreet Stage 5. Timing of this project may change if a relevant grant funding opportunity arises.

CAPITAL – RENEWAL AND REPLACEMENT

Renewal and replacement expenditure is major work which does not increase the asset's design capacity but returns the asset to its original or required service potential.

Renewal of road assets is typically undertaken to ensure the infrastructure can deliver the service it was constructed to facilitate or to ensure that it is of sufficient quality to meet the service requirements.

Renewal schedules are determined by undertaking an assessment based on risk, useful life, age of the asset, condition rating, defect and failure levels, external reports, utilisation, impact on users, operational and maintenance costs. The assessment and weighting are summarised in the table below:

Criteria	Weighting
Condition Rating (4 and 5)	50%
Risk Rating (residual high or extreme)	30%
Utilisation	20%
Total	**100%**

Forecast expenditure on renewal and replacement of road assets over the next ten years totals $13,619,800 and is summarised in the table below with a detailed listing provided in the Capital Works Program for Roads at Appendix A.

Year 1 2023/24 $ '000	Year 2 2024/25 $ '000	Year 3 2025/26 $ '000	Year 4 2026/27 $ '000	Year 5 2027/28 $ '000	Year 6 2028/29 $ '000	Year 7 2029/30 $ '000	Year 8 2030/31 $ '000	Year 9 2031/32 $ '000	Year 10 2032/33 $ '000
$855	$2,933	$1,624	$1,404	$1,224	$1,176	$1,776	$876	$876	$876
						Total Expenditure on Renewal / Replacements			**$13,620**

Roads that have been identified as being part of the proposed Southern Freight Route (Range Road, Waitpinga Road, Mill Road, Armstrong Road, The Ring Road, Welsh Road and Waterport Road) have historically required a high level of repairs and maintenance.

Investigation is being undertaken regionally as to the future ownership and maintenance responsibilities of roads along the proposed Southern Freight Route.

CAPITAL – NEW AND UPGRADE

New and upgrade expenditure is major work that creates a new asset or upgrades an existing asset to increased capacity. Increased capacity may be required due to growth, social or environmental needs. Changes to appearance or materials used is not an increase in capacity.

New and upgrade projects are identified from various sources including strategic plans of Council, community or elected member requests, grant funding availability and partnership proposals from other organisations.

Throughout the year, new proposals and requests are added to a Project Register for consideration during the annual budget process and strategic document review.

Inclusions are determined by undertaking an assessment based on risk, community benefit, utilisation, impact on users, future operational and maintenance costs (life cycle costs). The assessment and weighting are summarised in the table below:

Criteria	Weighting
Public Need	60%
Risk	10%
Utilisation	30%
Total	**100%**

The total forecast expenditure on renewal and replacement of road assets over the next ten years is $6,523,800 and is summarised in the table below with a detailed listing provided in the Capital Works Program for Roads at Appendix A.

Year 1 2023/24 $ '000	Year 2 2024/25 $ '000	Year 3 2025/26 $ '000	Year 4 2026/27 $ '000	Year 5 2027/28 $ '000	Year 6 2028/29 $ '000	Year 7 2029/30 $ '000	Year 8 2030/31 $ '000	Year 9 2031/32 $ '000	Year 10 2032/33 $ '000
$652	$1,969	$726	$836	$498	$510	$972	$360	$0	$0
								Total Expenditure on New / Upgrade	**$6,524**

OPERATING - REPAIRS AND MAINTENANCE

Repairs and maintenance includes all costs and actions necessary for retaining an asset at the appropriate service level and includes both planned and reactive works, as well as administrative expenses such as insurance. Regular cyclic replacement may also be included where the capitalisation threshold is not met.

Operating budgets for maintenance are generally driven by historic costs and the Consumer Price Index and do not always allow for variances, peaks and troughs in maintenance cycles, weather and environmental conditions or new / upgraded assets. Increases above these levels are detailed in the annual budget process as separate budget proposals.

Operating expenditure on road assets over the previous ten years is provided below:

2012/13 $ '000	2013/14 $ '000	2014/15 $ '000	2015/16 $ '000	2016/17 $ '000	2017/18 $ '000	2018/19 $ '000	2019/20 $ '000	2020/21 $ '000	2021/22 $ '000
$471	$494	$470	$462	$506	$481	$527	$527	$321	$407

This represents an average spend over the ten years of $466,500 per year. This historic expenditure is not sufficient to meet the maintenance requirements for these assets as per condition assessment reports. Maintenance expenditure has been based on historic costs, works identified during condition assessments and new assets.

Forecast operating expenditure for this asset class is as follows:

Year 1 2023/24 $ '000	Year 2 2024/25 $ '000	Year 3 2025/26 $ '000	Year 4 2026/27 $ '000	Year 5 2027/28 $ '000	Year 6 2028/29 $ '000	Year 7 2029/30 $ '000	Year 8 2030/31 $ '000	Year 9 2031/32 $ '000	Year 10 2032/33 $ '000
$511	$514	$524	$528	$532	$534	$539	$544	$546	$546

CLIMATE CHANGE

The impacts of climate change will have consequences for infrastructure assets. Rising sea levels in low lying areas may affect not only individual assets but also connectivity. Higher temperatures are expected to increase heat stress, particularly on transport infrastructure.

The Costal Adaptation Study endorsed by Council in 2021 identified several coastal road assets at risk, from storm events or projected sea level rise. An implementation plan currently being developed will provide recommendations for actions that may need to be taken within the next 10 years to reduce the impacts of climate change on road assets. These recommendations will be included in the next review of the Asset Management Plan.

FOOTPATHS

OUR ASSETS

Council provides a footpath network to enable safe, well maintained, fit for purpose pedestrian pathways in accordance with Council's strategic aspiration:

ASPIRATION 5
WE HAVE SERVICES AND INFRASTRUCTURE THAT MEET OUR COMMUNITY'S NEEDS

The footpath system includes the following asset categories:

Shared Pathway

Pedestrian Pathway

Pram Ramp

Footpaths are made up of 2,143 individual assets (segments) within the register representing a footpath system of over 368,786 m² broken down into asset types as below:

Asset Type	Quantity (#)	Quantity (m²)
Pedestrian Area	1	297
Pedestrian Pathway	713	256,979
Pram Ramp	1258	N/A
Shared Pathway	73	47,889
Walking Trails	98	63,621

LEVELS OF SERVICE

Levels of service for footpath assets are defined in relation to both community and technical requirements. The assets are assessed in terms of quality, function and capacity.

The City of Victor Harbor aims to maintain footpath assets at a condition rating of < 3.

Current levels of service and performance measures for each asset per annum (p/a) are provided in the table below:

Service Level*	Description	Measurement Process	Desired Level of Service
Quality	Asset Maintenance	Condition assessments	Condition Rating < 3
	Safety	Non-slip and trip surface Customer service requests and complaints requiring action	< 3 requests and/or complaints p/a
	Structural defects	Unplanned reactive works requirements	< 1 reactive works p/a
Function	Fit for purpose	Meets standards and design specifications	Compliant
		Inclusive access	Improvements for existing assets as per program
	Risk Minimisation	Pedestrian safety and separation from traffic	< 1 Injury and damages claim p/a
Capacity	Connectivity	Network gaps identified Customer service requests and complaints requiring action	< 3 requests and/or complaint p/a
	Accessibility	High use areas identified, width and incline standards applied Customer service requests and complaints requiring action	< 3 requests and/or complaints p/a

**Major emergencies and disaster events are excluded from the service level measurement*

A service level hierarchy is also used to prioritise competing works depending on utilisation rates of the assets (how many people are affected) and risk assessments.

Kent Reserve Pathway, Encounter Bay

VALUATION

Footpath assets are valued in accordance with AASB13 (Fair Value Measurement) with revaluations programmed on a four-year cycle. The latest revaluation for footpath assets was undertaken in 2021/22.

The value of assets by footpath category recorded in the Asset Register as at 30 June 2022 that are covered by this Plan are shown in the table below:

Asset Category	Replacement Value	Accumulated Depreciation	Written Down Value
Pedestrian Area	$23,525	$423	$23,101
Pedestrian Pathway	$15,735,991	$4,852,313	$10,883,677
Pram Ramp	$900,376	$170,268	$730,107
Shared Pathway	$2,289,384	$812,588	$1,476,796
Walking Trails	$1,088,440	$508,036	$500,404
Total	**$19,957,715**	**$6,343,629**	**$13,614,086**

USEFUL LIVES

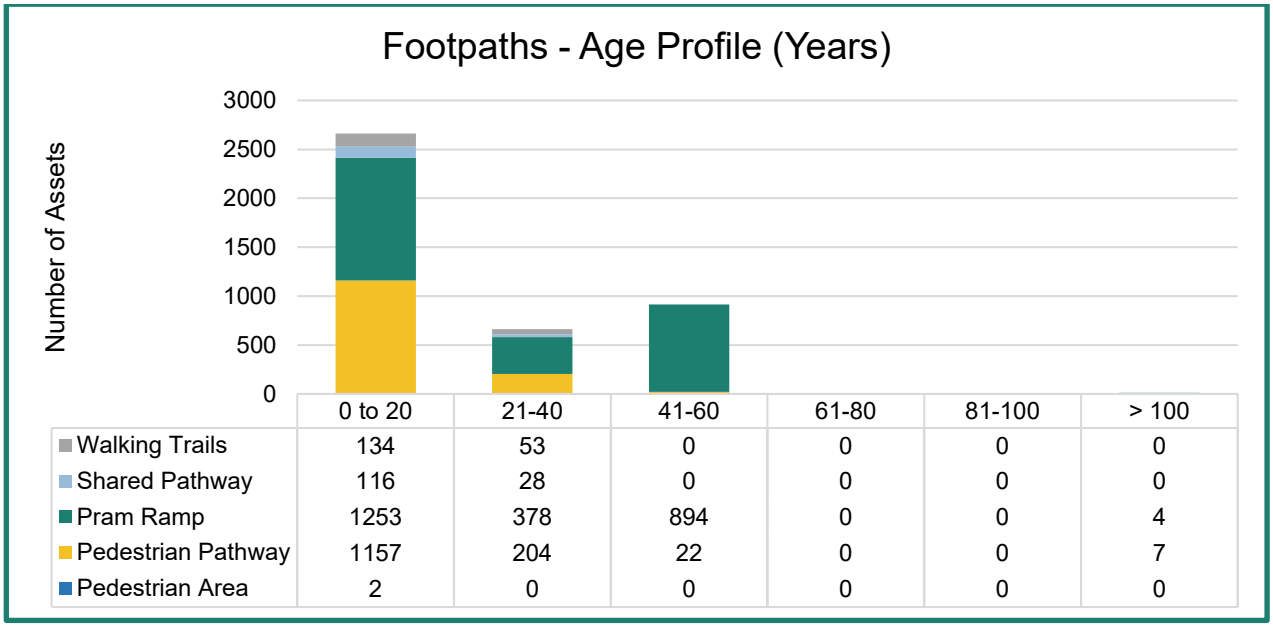
Useful lives of footpath assets are determined by short and long life components. Useful lives by asset type for the principal component are provided in the table below:

Asset Type	Minimum	Maximum	Average
Pedestrian Area	40	40	40
Pedestrian Pathway	20	150	40
Pram Ramp	50	150	52
Shared Pathway	20	50	35
Walking Trails	5	40	20

The useful life sets the depreciation rate, net of any residual values of the asset at end of life. The average useful life for all footpath assets is 46 years, with the minimum useful life set at five years for unsealed walking trails and the maximum set at 150 years for concrete.

AGE PROFILE

The age profile of footpath assets is determined by the construction date. The age profile of footpath assets by principal component is provided in the graph below:



	0 to 20	21-40	41-60	61-80	81-100	> 100
Walking Trails	134	53	0	0	0	0
Shared Pathway	116	28	0	0	0	0
Pram Ramp	1253	378	894	0	0	4
Pedestrian Pathway	1157	204	22	0	0	7
Pedestrian Area	2	0	0	0	0	0

Footpath assets range in age from 0 years to 124 years, with 763% of assets in the 0 to 20 year range.

THE AVERAGE AGE OF ALL FOOTPATH ASSETS IS 20

Minimum, maximum and average ages provided in the table below:

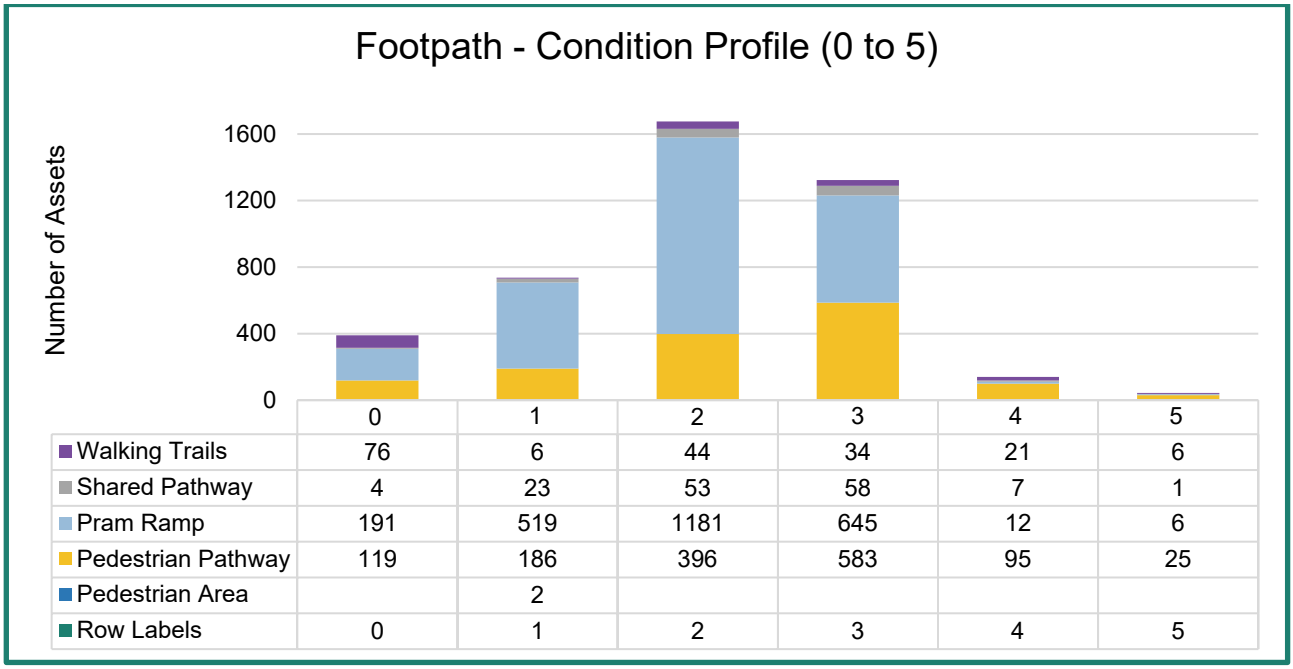
Asset Type	Minimum	Maximum	Average
Pedestrian Area	4	4	4
Pedestrian Pathway	0	124	13
Pram Ramp	0	124	24
Shared Pathway	2	40	14
Walking Trails	2	39	16

CONDITION PROFILE

Condition of footpath assets is monitored through ongoing data collection which is incorporated into relevant attribute criteria within Council's corporate asset software. The data is reviewed and updated during revaluation cycles, after significant weather events, with community feedback or complaints as well as during routine maintenance duties. Condition ratings and descriptions are provided in the table below:

Condition Rating	Summary Description	Detailed Description
0	Brand New	Asset is brand new
1	Very Good	Near as new condition with no defects
2	Good	Superficial deterioration, reliable and no maintenance is required.
3	Fair	Minor deterioration present and routine maintenance may be required
4	Poor	Significant deterioration present, maintenance required to keep the asset serviceable with program for renewal within the next five years
5	Very Poor	Extensive deterioration present, significant maintenance required to keep the asset serviceable with program for renewal within the following year

The condition profile of footpath assets is determined by the components and the construction materials with the condition ratings demonstrated in the graphs below:



	0	1	2	3	4	5
Walking Trails	76	6	44	34	21	6
Shared Pathway	4	23	53	58	7	1
Pram Ramp	191	519	1181	645	12	6
Pedestrian Pathway	119	186	396	583	95	25
Pedestrian Area		2				
Row Labels	0	1	2	3	4	5

Assets with a condition rating of 3 or less make up 96% of the total class with 4% at condition rating 4 and 5.

THE AVERAGE CONDITION RATING FOR FOOTPATHS IS 2

FORECAST EXPENDITURE

Forecast expenditure over the next ten years totals $9,219,900. This is made up of 38% renewal and replacement works and 62% new and upgrade works. The average annual spend over the ten year plan is $921,990 per year.

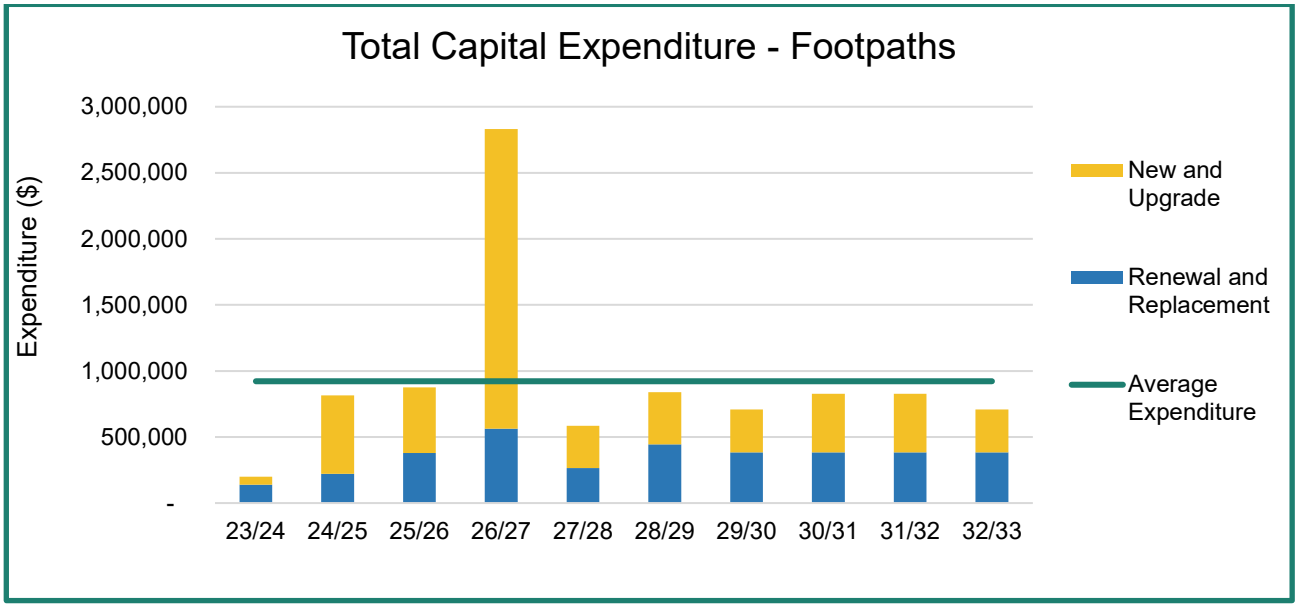
Projects are determined to be renewal / replacement or new / upgrade depending on the project scope and the existing asset attributes.

Renewal and replacement applies where the asset is reconstructed to the same size / capacity of the existing asset. Changes in the use of materials and/or useful lives does not constitute an increase in capacity.

New and upgrade applies where the asset did not previously exist or where there is an increase in the size / capacity of the asset. The principal attribute considered for determining whether there is an increase for footpaths is length and width (m²).

In addition to the above, capitalisation thresholds need to be considered in line with Council's Asset Accounting Policy with projects that fall below the financial limits considered to be operating and maintenance rather than capital.

The graph below shows the total expenditure over the ten years of the Plan as well as the breakdown of renewal / replacement and new / upgrade:



The spike in expenditure in 2026/27 is due to proposed upgrades of the Encounter Bikeway, in Hayborough.

CAPITAL – RENEWAL AND REPLACEMENT

Renewal and replacement expenditure is major work which does not increase the asset's design capacity but returns the asset to its original or required service potential.

Renewal of a footpath asset is typically undertaken to ensure the reliability of the existing infrastructure to deliver the service it was constructed to facilitate or to ensure that it is of sufficient quality to meet the service requirements.

Renewal schedules are determined by undertaking an assessment based on risk, useful life, age of the asset, condition rating, defect and failure levels, external reports, utilisation, impact on users, operational and maintenance costs. The assessment and weighting are summarised in the table below:

Criteria	Weighting
Condition Rating (4 and 5)	50%
Risk Rating (residual high or extreme)	30%
Utilisation	20%
TOTAL	**100%**

Forecast expenditure on renewal and replacement of footpath assets over the next ten years totals $3,547,910 and is summarised in the table below with a detailed listing provided in the Capital Works Program for footpaths at Appendix B.

Year 1 2023/24 $ '000	Year 2 2024/25 $ '000	Year 3 2025/26 $ '000	Year 4 2026/27 $ '000	Year 5 2027/28 $ '000	Year 6 2028/29 $ '000	Year 7 2029/30 $ '000	Year 8 2030/31 $ '000	Year 9 2031/32 $ '000	Year 10 2032/33 $ '000
$140	$222	$378	$564	$264	$444	$384	$384	$384	$384
						TOTAL EXPENDITURE ON RENEWAL / REPLACEMENT			**$3,548**

CAPITAL- NEW AND UPGRADE

New and upgrade expenditure is major work that creates a new asset or upgrades an existing asset to increased capacity. Increased capacity may be required due to growth, social or environmental needs. Changes to appearance or materials used is not an increase in capacity.

New and upgrade projects are identified from various sources including strategic plans of Council, community or elected member requests, grant funding availability and partnership proposals from other organisations.

Throughout the year, new proposals and requests are added to a Project Register for consideration during the annual budget process and strategic document review.

Inclusions are determined by undertaking an assessment based on risk, community benefit, utilisation, impact on users, future operational and maintenance costs (life cycle costs). The assessment and weighting are summarised in the table below:

Criteria	Weighting
Footpath Strategy	40%
Public Need	30%
Risk (residual high or extreme)	20%
Connectivity	10%
Total	**100%**

Forecast expenditure on new and upgrade of footpath assets over the next ten years totals $5,671,990 and is summarised in the table below with a detailed listing provided in the Capital Works Program for footpaths at Appendix B.

Year 1 2023/24 $ '000	Year 2 2024/25 $ '000	Year 3 2025/26 $ '000	Year 4 2026/27 $ '000	Year 5 2027/28 $ '000	Year 6 2028/29 $ '000	Year 7 2029/30 $ '000	Year 8 2030/31 $ '000	Year 9 2031/32 $ '000	Year 10 2032/33 $ '000
$59	$593	$498	$2,268	$322	$396	$324	$444	$444	$324
								TOTAL EXPENDITURE ON NEW / UPGRADE	**$5,672**

OPERATING - REPAIRS AND MAINTENANCE

Repairs and maintenance includes all costs and actions necessary for retaining an asset at the appropriate service levels and includes both planned and reactive works, as well as administrative expenses such as insurance. Regular cyclic replacement may also be included where the capitalisation threshold is not met.

Operating budgets for maintenance are generally driven by historic costs and the Consumer Price Index and do not always allow for variances, peaks and troughs in maintenance cycles, weather and environmental conditions or new / upgraded assets. Increases above these levels are detailed in the annual budget process as separate budget proposals.

Operating expenditure on footpath assets over the previous ten years is provided below:

2012/13 $ '000	2013/14 $ '000	2014/15 $ '000	2015/16 $ '000	2016/17 $ '000	2017/18 $ '000	2018/19 $ '000	2019/20 $ '000	2020/21 $ '000	2021/22 $ '000
$116	$80	$91	$149	$92	$64	$99	$118	$91	$166

This represents an average spend over the ten years of $106,600 per year. This historic expenditure is not sufficient to meet the maintenance requirements for these assets due to new and gifted assets. Maintenance expenditure has been based on historic costs as well as an index for new and gifted assets.

Forecast operating expenditure for this asset class including new and gifted assets is as follows:

Year 1 2023/24 $ '000	Year 2 2024/25 $ '000	Year 3 2025/26 $ '000	Year 4 2026/27 $ '000	Year 5 2027/28 $ '000	Year 6 2028/29 $ '000	Year 7 2029/30 $ '000	Year 8 2030/31 $ '000	Year 9 2031/32 $ '000	Year 10 2032/33 $ '000
$111	$111	$114	$116	$128	$129	$131	$133	$135	$137

CLIMATE CHANGE

The impacts of climate change will have consequences for infrastructure assets. Rising sea levels in low lying areas may affect not only individual assets but also connectivity. Higher temperatures are expected to increase heat stress, particularly on transport infrastructure.

The Costal Adaptation Study endorsed by Council in 2021 identified several coastal footpath assets at risk from storm events or projected sea level rise, including sections of the Encounter Bikeway. An implementation plan currently being developed will provide recommendations for actions that may need to be taken within the next 10 years to reduce the impacts of climate change on the footpath assets. These recommendations will be included in the next review of the Asset Management Plan.

CAR PARKS AND TRAFFIC DEVICES

OUR ASSETS

Council provides car parks and traffic devices to enable safe, well maintained and fit for purpose parking and traffic control in accordance with Council's strategic aspiration:

ASPIRATION 5
WE HAVE SERVICES AND INFRASTRUCTURE THAT MEET OUR COMMUNITY'S NEEDS

The car park and traffic device network includes the following asset categories:


Car Parks


Lighting


Road Ancillary


Traffic Devices


Road Signals

Car parks and traffic devices are made up of 1,446 individual assets within the register broken down as below:

Asset Subclass	Description	Quantity
Car Parks	Sealed and Unsealed (Subbase, Base and Surface)	192,916m²
Lighting	Decorative, Heritage, Solar and Flood Lights	245
Road Ancillary	Fence, Safety / Handrails, Guard Rails	4
Traffic Devices	Kerb - Median Strips, Splitter Islands, Roundabouts	16,874m
	Infill - Median Strips, Speed Humps, Splitter Islands, Roundabouts	12,676²
Traffic Signals	Ticket Machines, Flashing Signals and Pedestrian Operated	18

LEVELS OF SERVICE

Levels of service for car park and traffic assets are defined in relation to both community and technical requirements. The assets are assessed in terms of quality, function and capacity. The City of Victor Harbor aims to maintain car park and traffic assets at a condition rating of < 3. Current levels of service and performance measures for each assets per annum (p/a) are provided in the table below:

Service* Level	Description	Measurement Process	Desired Level of Service
Quality	Asset Maintenance	Condition assessments	Condition Rating < 3
	Community Feedback	Customer service requests and complaints requiring action	< 3 requests and/or complaints p/a
	Structural defects	Unplanned works required	< 1 reactive capital p/a
Function	Fit for purpose	Meets standards and design specifications	Compliant
		Improvements to existing car parks for inclusive access and appropriate number of parking spaces for people with disabilities	Program currently under development
Capacity	Utilisation Levels	Customer service requests and complaints requiring action	< 3 requests and/or complaint p/a

**Major emergencies and disaster events are excluded from the service level measurement*

A service level hierarchy is also used to prioritise competing works dependent on utilisation rates of the assets (how many people are affected) and risk assessments.

VALUATION

Car park and traffic device assets are valued in accordance with AASB13 (Fair Value Measurement) with revaluations programmed on a four-year cycle. The latest revaluation for car park and traffic assets was undertaken in 2021/22.

The value of assets by car park and traffic devices recorded in the Asset Register as at 30 June 2022 that are covered by this Plan are shown in the table below:

Asset Subclass	Replacement Value	Accumulated Depreciation	Written Down Value
Car Parks	$5,918,170	$746,896	$5,171,275
Lighting	$1,959,558	$256,113	$1,723,445
Road Ancillary	$48,000	$11,840	$36,160
Traffic Controls	$249,481	$47,579	$201,902
Traffic Management Devices	$4,189,100	$1,017,803	$3,171,297
Traffic Signals	$730,205	$322,992	$407,213
Total	**$13,094,514**	**$2,383,222**	**$10,711,292**

USEFUL LIVES

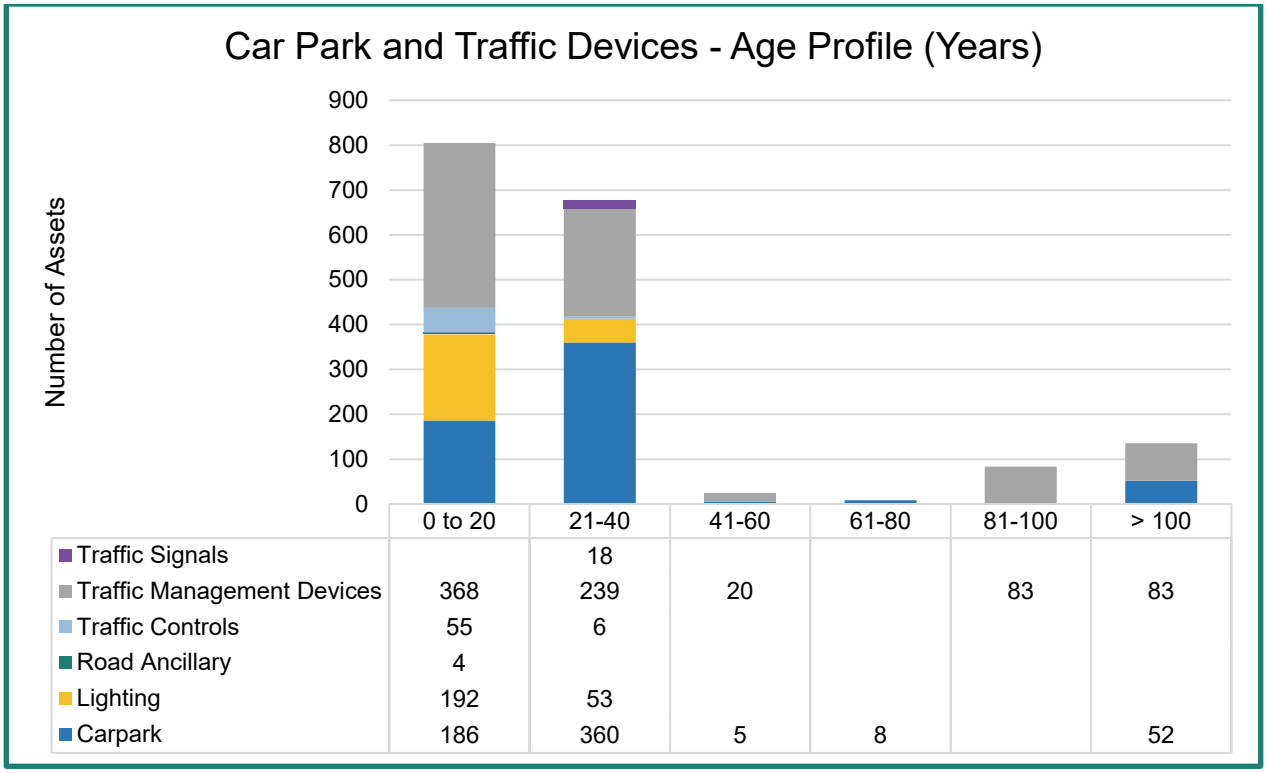
Useful lives of car park and traffic device assets by component is shown in the table below:

Asset Subclass	Minimum	Maximum	Average
Car Parks	0	210	79
Lighting	25	40	38
Road Ancillary	15	15	15
Traffic Controls	25	25	25
Traffic Management Devices	20	70	54
Traffic Signals	20	60	37

The useful life sets the depreciation rate, net of any residual values of the asset at end of life. The average useful life for all car park and traffic device assets is 59 years, with the minimum useful life set at 0 years and the maximum set at 210 years for pavement subbases.

AGE PROFILE

The age profile of car park assets is determined by the construction date. The age profile of car parks and traffic device assets is provided in the graph below:



Car park and traffic assets range in age from one year to 124 years, with minimum, maximum and average ages provided in the table below:

Asset Subclass	Minimum Age	Maximum Age	Average Age
Car Parks	1	124	31
Lighting	1	39	14
Road Ancillary	7	7	7
Traffic Controls	1	24	9
Traffic Management Devices	1	124	30
Traffic Signals	24	27	25

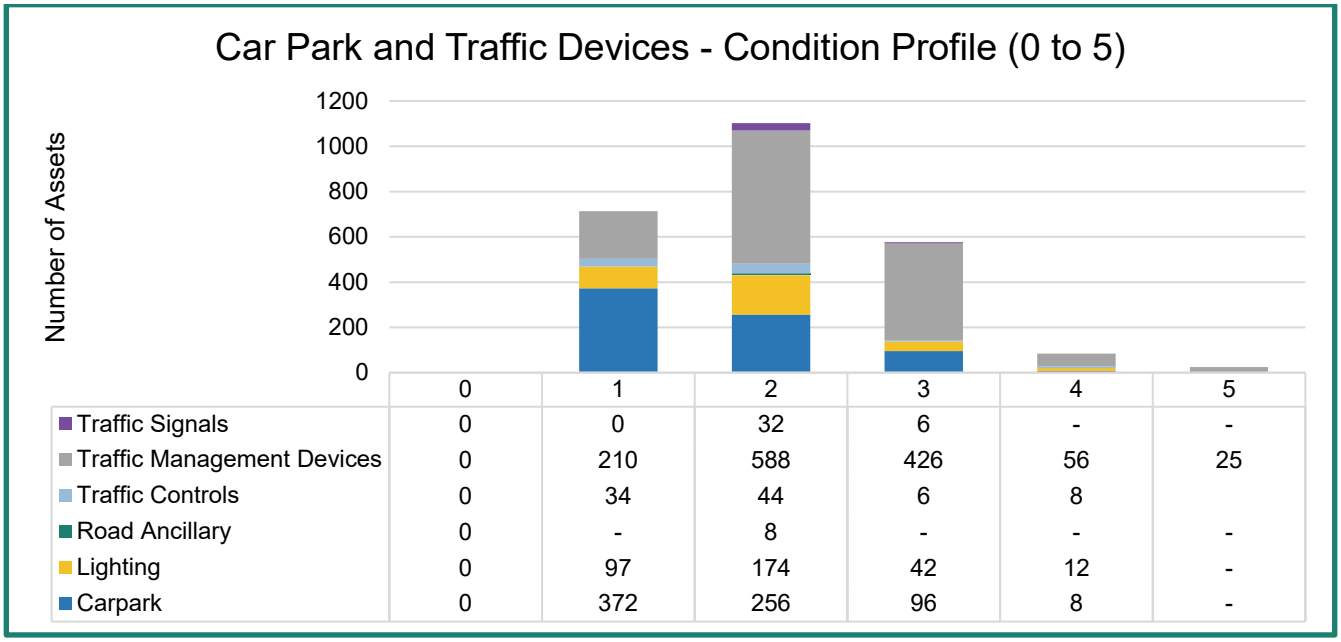
THE AVERAGE AGE OF ALL CAR PARK AND TRAFFIC DEVICE ASSETS IS 27

CONDITION PROFILE

The condition of car park and traffic assets is monitored through ongoing data collection which is incorporated into relevant attribute criteria within Council's corporate asset software. The data is reviewed and updated during revaluation cycles, after significant weather events, with community feedback or complaints as well as during routine maintenance duties. Condition ratings and descriptions are provided in the table below:

Condition Rating	Summary Description	Detailed Description
0	Brand New	Asset is brand new
1	Very Good	Near as new condition with no defects
2	Good	Superficial deterioration, reliable and no maintenance is required.
3	Fair	Minor deterioration present and routine maintenance may be required
4	Poor	Significant deterioration present, maintenance required to keep the asset serviceable with program for renewal within the next five years
5	Very Poor	Extensive deterioration present, significant maintenance required to keep the asset serviceable with program for renewal within the following year

The condition profile of car park and traffic assets is determined by the components and the construction materials with the condition ratings demonstrated in the following graph:



	0	1	2	3	4	5
Traffic Signals	0	0	32	6	-	-
Traffic Management Devices	0	210	588	426	56	25
Traffic Controls	0	34	44	6	8	
Road Ancillary	0	-	8	-	-	-
Lighting	0	97	174	42	12	-
Carpark	0	372	256	96	8	-

THE AVERAGE CONDITION RATING FOR CAR PARKS AND TRAFFIC DEVICES IS 1.5

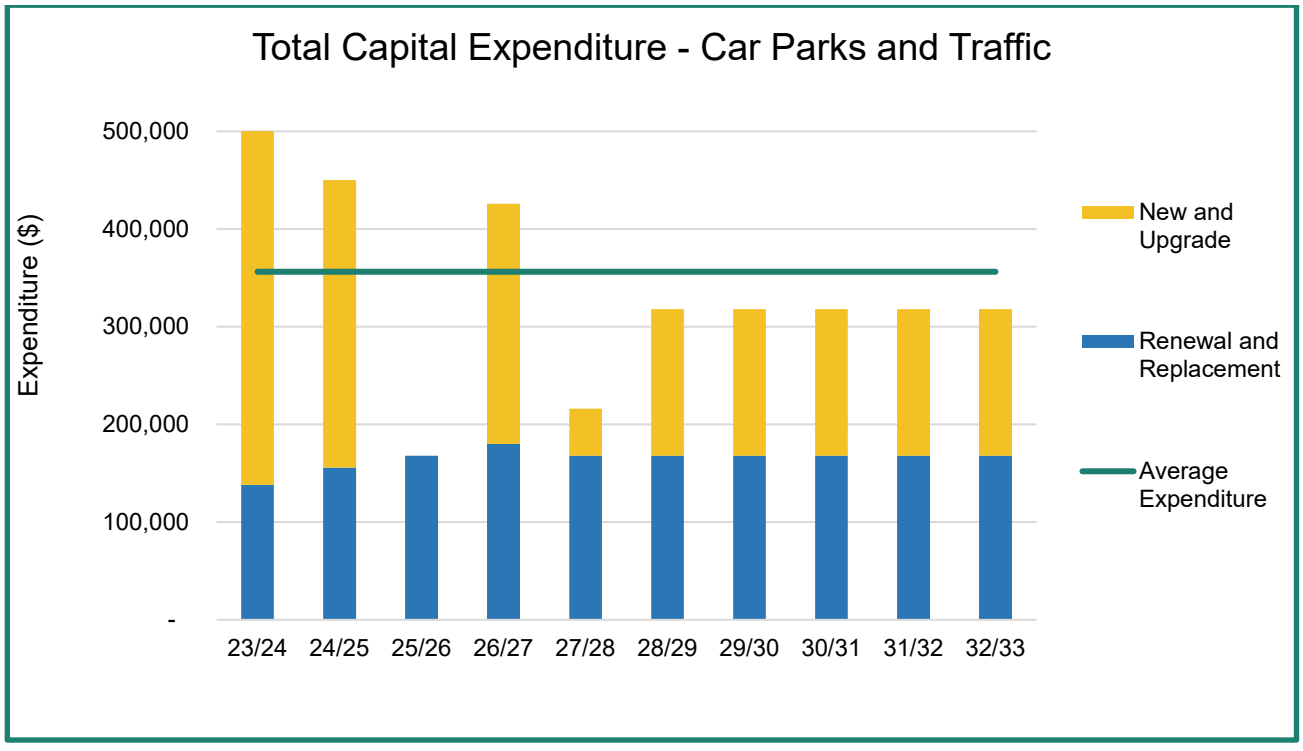
FORECAST EXPENDITURE

Forecast expenditure over the next ten years totals $3,563,000. This is made up of 46% renewal and replacement works and 54% new and upgrade works. The average annual spend over the ten year plan is $356,300 per year.

Projects are determined to be renewal / replacement or new / upgrade depending on the project scope and the existing asset attributes. *Renewal and replacement* applies where the asset is reconstructed to the same size / capacity of the existing asset. Changes in the use of materials and/or useful lives does not constitute an increase in capacity. *New and upgrade* applies where the asset did not previously exist or where there is an increase in the size / capacity of the asset. The principal attribute considered for determining whether there is an increase for car parks is size (m²) and for traffic controls is length (lm).

In addition to the above, capitalisation thresholds need to be considered in line with Council's Asset Accounting Policy with projects that fall below the financial limits considered to be operating and maintenance rather than capital.

The graph below shows the total expenditure over the ten years of the Plan as well as the breakdown of renewal / replacement and new / upgrade:



Above average expenditure is expected in 2023/24 and 2024/25 due to construction of pedestrian crossings on Flinders Parade and The Esplanade. The peak in 2026/27 is an allowance for the upgrade of the railway crossing on Eyre Terrace. This may need to be deferred or brought forward to align with the completion of other developments impacting on traffic movements along Eyre Terrace, including private development or the car park construction in McKinlay Street.

CAPITAL – RENEWAL AND REPLACEMENT

Renewal and replacement expenditure is major work which does not increase the asset's design capacity but returns the asset to its original or required service potential.

Renewal of a car park and traffic asset is typically undertaken to ensure the reliability of the existing infrastructure to deliver the service it was constructed to facilitate or to ensure that it is of sufficient quality to meet the service requirements.

Renewal schedules are determined by undertaking an assessment based on risk, useful life, age of the asset, condition rating, defect and failure levels, external reports, utilisation, impact on users, operational and maintenance costs. The assessment and weighting are summarised in the table below:

Criteria	Weighting
Condition Rating (4 and 5)	70%
Risk Rating (residual high or extreme)	30%
TOTAL	**100%**

Forecast expenditure on renewal and replacement of car park and traffic devices over the next ten years totals $1,650,000 and is summarised in the table below with a detailed listing provided in the Capital Works Program for car park and traffic devices at Appendix C.

Year 1 2023/24 $ '000	Year 2 2024/25 $ '000	Year 3 2025/26 $ '000	Year 4 2026/27 $ '000	Year 5 2027/28 $ '000	Year 6 2028/29 $ '000	Year 7 2029/30 $ '000	Year 8 2030/31 $ '000	Year 9 2031/32 $ '000	Year 10 2032/33 $ '000
$138	$156	$168	$180	$168	$168	$168	$168	$168	$168
								Total Expenditure on Renewal / Replacement	**$1,650**

CAPITAL - NEW AND UPGRADE

New and upgrade expenditure is major work that creates a new asset or upgrades an existing asset to increased capacity. Increased capacity may be required due to growth, social or environmental needs. Changes to appearance or materials used is not an increase in capacity.

New and upgrade projects are identified from various sources including strategic plans of Council, community or Council Member requests, grant funding availability and partnership proposals from other organisations.

Throughout the year, new proposals and requests are added to a Project Register for consideration during the annual budget process and strategic document review.

Inclusions are determined by undertaking an assessment based on risk, community benefit, utilisation, impact on users, future operational and maintenance costs (life cycle costs). The assessment and weighting are summarised in the table below:

Criteria	Weighting
Public Need	50%
Capacity	30%
Risk (residual high or extreme)	20%
Total	**100%**

Forecast expenditure on new and upgrade of car park and traffic devices over the next ten years totals $1,913,000 and is summarised in the table below with a detailed listing provided in the Capital Works Program for car parks and traffic devices at Appendix C.

Year 1 2023/24 $ '000	Year 2 2024/25 $ '000	Year 3 2025/26 $ '000	Year 4 2026/27 $ '000	Year 5 2027/28 $ '000	Year 6 2028/29 $ '000	Year 7 2029/30 $ '000	Year 8 2030/31 $ '000	Year 9 2031/32 $ '000	Year 10 2032/33 $ '000
$575	$294	$0	$246	$48	$150	$150	$150	$150	$150
								Total Expenditure on New / Upgrade	**$1,913**

OPERATING - REPAIRS AND MAINTENANCE

Repairs and maintenance includes all costs and actions necessary for retaining an asset at the appropriate service levels and includes both planned and reactive works, as well as administrative expenses such as insurance. Regular cyclic replacement may also be included where the capitalisation threshold is not met.

Operating budgets for maintenance are generally driven by historic costs and the Consumer Price Index and do not always allow for variances, peaks and troughs in maintenance cycles, weather and environmental conditions or new / upgraded assets. Increases above these levels are detailed in the annual budget process as separate budget proposals.

Operating expenditure on car park and traffic assets over the previous ten years is provided below:

2012/13 $ '000	2013/14 $ '000	2014/15 $ '000	2015/16 $ '000	2016/17 $ '000	2017/18 $ '000	2018/19 $ '000	2019/20 $ '000	2020/21 $ '000	2021/22 $ '000
$137	$151	$124	$130	$174	$146	$151	$165	$131	$142

This represents an average spend over the ten years of $145,100 per year. This historic expenditure has been used as a base to forecast the maintenance expenditure requirements for the next ten years as well as an increase for maintenance on new assets.

Forecast operating expenditure for this asset class including new assets is as follows:

Year 1 2023/24 $ '000	Year 2 2024/25 $ '000	Year 3 2025/26 $ '000	Year 4 2026/27 $ '000	Year 5 2027/28 $ '000	Year 6 2028/29 $ '000	Year 7 2029/30 $ '000	Year 8 2030/31 $ '000	Year 9 2031/32 $ '000	Year 10 2032/33 $ '000
$148	$150	$152	$152	$153	$153	$154	$155	$156	$156

CLIMATE CHANGE

The impacts of climate change will have consequences for infrastructure assets. Rising sea levels in low lying areas may affect not only individual assets but also connectivity. Higher temperatures are expected to increase heat stress, particularly on transport infrastructure.

The Costal Adaptation Study endorsed by Council in 2021 identified several car park and traffic assets at risk, from storm events or projected sea level rise. An implementation plan currently being developed will provide recommendations for actions that may need to be taken within the next 10 years to reduce the impacts of climate change on the car park and traffic assets. These recommendations will be included in the next review of the Asset Management Plan.

APPENDIX A

CAPITAL WORKS PROGRAM - POTENTIAL ROAD PROJECTS

DESCRIPTION	Year 1 23/24 $'000	Year 2 24/25 $'000	Year 3 25/26 $'000	Year 4 26/27 $'000	Year 5 27/28 $'000	Year 6 28/29 $'000	Year 7 29/30 $'000	Year 8 30/31 $'000	Year 9 31/32 $'000	Year 10 32/33 $'000
Sealed Roads										
Bitumen Reseals, Asphaltic & Rehabilitation Works - Annual Allowance	500	600	600	600	600	660	660	660	660	660
Jagger Rd - Resolution No. OC1672017 (Bluff Rd / Passatt St, western side)	815	-	-	-	-	-	-	-	-	-
Waitpinga Road / Battye Road Rectification of Intersection	-	60	-	-	-	-	-	-	-	-
Ring Route Bridge Approaches	-	144	-	-	-	-	-	-	-	-
Valley View Rd (Waggon Rd to End) Design (24/25) and Construct (25/26)	-	60	220	-	-	-	-	-	-	-
Whalers Rd - Construction Franklin Parade to White Crescent	-	3,600	-	-	-	-	-	-	-	-
Hart Avenue (Battye Rd to Lot 1) Design (24/25) and Construct (26/27)	-	32	-	78	-	-	-	-	-	-
River Road (Baudin Rd to Canterbury Rd) Design (24/25) and Construct (26/27)	-	33	-	150	-	-	-	-	-	-
Ridge Avenue Construction (Battye to Clair)	-	-	648	-	-	-	-	-	-	-
Passatt Street Construction	-	-	-	606	-	-	-	-	-	-
Sturt Street (Burke to Oval Road) Design and Construct (27/28)	-	-	-	-	762	-	-	-	-	-
Mainstreet Precinct Stage 5 Commence (28/29), Complete (29/30) *Subject to Grant Funding	-	-	-	-	-	600	1,800	-	-	-
Unsealed Roads to Sealed Roads										
Day Road Seal (Resolution OC4292018) Design (24/25) and Construct (25/26)	-	84	264	-	-	-	-	-	-	-
Fuller East Rd Seal (Res No. OC4292018) Design (24/25) and Construct (25/26)	-	65	294	-	-	-	-	-	-	-
Glenvale Road Seal Design (25/26) and Construct (26/27)	-	-	66	468	-	-	-	-	-	-
Colebatch Rd Seal Design 24/25) and Construct (26/27)	-	20	-	135	-	-	-	-	-	-
Lincoln Road Change of Seal Design (25/26) and Construct (27/28)	-	-	54	-	144	-	-	-	-	-
Martha Close Road Construction	-	-	-	-	-	210	-	-	-	-
Mont Rosa Road sealing (300m from Victor Harbor Road) Design (29/30) and Construct (30/31)	-	-	-	-	-	-	72	360	-	-
Unsealed Roads										
Resheeting Unsealed Roads Annual Allowance	192	204	204	204	216	216	216	216	216	216
ANNUAL TOTALS	**1,507**	**4,902**	**2,350**	**2,241**	**1,722**	**1,686**	**2,748**	**1,236**	**876**	**876**

APPENDIX B

CAPITAL WORKS PROGRAM - POTENTIAL FOOTPATH PROJECTS

DESCRIPTION	Year 1 23/24 $'000	Year 2 24/25 $'000	Year 3 25/26 $'000	Year 4 26/27 $'000	Year 5 27/28 $'000	Year 6 28/29 $'000	Year 7 29/30 $'000	Year 8 30/31 $'000	Year 9 31/32 $'000	Year 10 32/33 $'000
Bikeways										
Bikeway - Bike Strategy 7.1 Bluff Jetty Rd (End Bikeway to Bluff Ring Rd)	-	58	-	-	-	-	-	-	-	-
Bikeway (Bike Strategy 1.13) Olivers Parade - Reroute to below Reserve	-	-	240	-	-	-	-	-	-	-
Encounter Bikeway Upgrades (Hayborough)	-	-		1,200	-	-	-	-	-	-
Median Refuge (Bike Strategy 5.13) Adelaide Rd - North of Strawberry Hill	-	-	-	-	-	-	-	60	60	-
Shared Pathways										
Shared Pathway - Franklin Parade Staged project - widen to 3.5m	-	-	360	360	-	-	-	-	-	-
Shared Pathway - Bike Strategy 6.5 Adelaide Rd via Strawberry Hill Rd, Stan Farquhar Reserve, The Rise to Ocean Rd	-	-	-	240	-	-	-	-	-	-
Footpaths										
Footpath - Kleinig Drive	49	14	-	-	-	-	-	-	-	-
Footpath (concrete) Port Elliot Rd - 525m	-	114	-	-	-	-	-	-	-	-
Footpath - Ridgeway St - 235m (Russell St to Franklin Parade)	-	58	-	-	-	-	-	-	-	-
Footpath - Lamont Rd, McCracken - 650m (Cudmore Rd to Wattle Drive)	-	151	-	-	-	-	-	-	-	-
Footpath - Rapid Drive, McCracken - 370m (Cudmore Rd to Tom Thumb Street)	-	72	-	-	-	-	-	-	-	-
Footpath - Cudmore Road, McCracken - 375m (Rapid Drive to Lamont Road)	-	72	-	-	-	-	-	-	-	-
Footpath - Port Elliot Rd - 140m (nth side, Adelaide Rd to Mentone Rd)	-	36	-	-	-	-	-	-	-	-
Footpath (concrete) Renown Avenue 130m west of Field	-	-	-	60	-	-	-	-	-	-
Footpath - Kullaroo Road / Oval Park Tce - 462m	-	-	-	90	-	-	-	-	-	-
Footpath - Poltong Crescent - 410m (Mill Rd to End)	-	-	-	78	-	-	-	-	-	-
Footpath - Bacchus Rd - 140m (Bacchus Road to Inman Valley Rd)	-	-	-	30	-	-	-	-	-	-
Footpath - Mill Rd - 600m (Tabernacle Rd to near Poltong Cres)	-	-	-	120	-	-	-	-	-	-
Footpath - Charles Street - 155m (Ainsile Roberts Drive to Franklin Pd)	-	-	-	30	-	-	-	-	-	-
Footpath - Nicolaus Baudin Drive - 805m (Tabernacle Rd to Bartel Boulevard)	-	-	-	216	-	-	-	-	-	-

DESCRIPTION	Year 1 23/24 $'000	Year 2 24/25 $'000	Year 3 25/26 $'000	Year 4 26/27 $'000	Year 5 27/28 $'000	Year 6 28/29 $'000	Year 7 29/30 $'000	Year 8 30/31 $'000	Year 9 31/32 $'000	Year 10 32/33 $'000
Footpath - Tabernacle Rd - 125m (Bay Rd to Mill Rd)	-	-	-	-	24	-	-	-	-	-
Footpath - Wood Street - 115m (Encounter Tce to Franklin Parade)	-	-	-	-	24	-	-	-	-	-
Footpath (concrete) Seagull Ave - 385m (First Ave to Third Ave)	-	-	-	-	-	72	-	-	-	-
Implementation of Mountain Bike Strategy	-	-	-	-	-	-	-	60	60	-
Footpaths - Allowance for expansion in priority pedestrian networks (disability and access)	-	-	-	-	250	300	300	300	300	300
Footpath Replacement - Annual Allowance As per condition assessments 4 and 5	120	204	240	360	240	420	360	360	360	360
Other										
Pram Ramps - Annual Allowance As per disability access requirements	30	36	36	48	48	48	48	48	48	48
ANNUAL TOTALS	**199**	**815**	**876**	**2,832**	**586**	**840**	**708**	**828**	**828**	**708**

APPENDIX C

CAPITAL WORKS PROGRAM – POTENTIAL CAR PARKS AND TRAFFIC DEVICES PROJECTS

DESCRIPTION	Year 1 23/24 $'000	Year 2 24/25 $'000	Year 3 25/26 $'000	Year 4 26/27 $'000	Year 5 27/28 $'000	Year 6 28/29 $'000	Year 7 29/30 $'000	Year 8 30/31 $'000	Year 9 31/32 $'000	Year 10 32/33 $'000
Car Parks										
Encounter Bay Bowling Club	-	144	-	-	-	-	-	-	-	-
Traffic Devices										
Crossing - Flinders Parade / Esplanade	250	150	-	-	-	-	-	-	-	-
Acraman Street Construction	300	-	-	-	-	-	-	-	-	-
Wattle Drive Turning Lanes	85	-	-	-	-	-	-	-	-	-
Carlyle Street/Cornhill Road/Grantley Ave Crossing (2017 Traffic Study)	-	-	-	36	-	-	-	-	-	-
Eyre Terrace Railway Crossing Installation of Flashing Lights and pedestrian maze on northern side	-	-	-	222	-	-	-	-	-	-
Burke Street / Crozier Road (Design 27/28) and Construct (28/29)	-	-	-	-	24	150			-	-
Oval Road/Kingford Street Intersection (2017 Traffic Study)	-	-	-	-	24	-		-	-	-
Allowance for Traffic Management Projects	-	-	-	-	-	-	150	150	150	150
Guard Rail Replacement Program (High Risk - Major Culverts)	78	156	168	168	168	168	168	168	168	168
ANNUAL TOTALS	**713**	**450**	**168**	**426**	**216**	**318**	**318**	**318**	**318**	**318**

city of
Victor Harbor

STAY IN TOUCH

PO Box 11
Victor Harbor SA 5211

Ph. (08) 8551 0500
Fax. (08) 8551 0501

Email: localgov@victor.sa.gov.au
www.victor.sa.gov.au

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