

Transport and Environment Committee

10.00am, Thursday, 14 September 2023

Roads and Transport Infrastructure Investment

Executive/routine
Wards

Routine
All

1. Recommendations

- 1.1 It is recommended that Transport and Environment Committee:
- 1.1.1 Notes the options for investment, as detailed in section 4 of the report and in Appendix 5; and
 - 1.1.2 Notes the strategy for setted streets, as detailed in section 4 of the report and Appendix 6.

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Executive Director of Place

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Roads and Transport Infrastructure Investment

2. Executive Summary

- 2.1 This report updates Committee on the current strategies for roads and infrastructure investment. This includes the current condition status, future condition estimates and funding options for future investment and provides details of the setted streets strategy.

3. Background

- 3.1 On [20 April 2023](#), Committee requested a report on the current status of roads and infrastructure investment and the future options that should be considered for funding.
- 3.2 A workshop was held with Committee members on 7 August 2023 detailing the capital investment and maintenance strategies.
- 3.3 The condition of Edinburgh's roads is assessed annually as part of the Scottish Roads Maintenance Condition Survey (SRMCS), an independent survey of road conditions in all 32 Scottish local authorities. The survey provides each local authority with a Road Condition Index (RCI) which identifies the percentage of roads in need of maintenance. A methodology of prioritisation, approved by Transport and Environment Committee in [January 2016](#), is used to identify which projects should be included in the programme.
- 3.4 The RCI consists of three categories of deterioration: Red, Amber 1 and Amber 2, with roads in the red category being in the worst condition. Roads in the red category have deteriorated beyond preventative maintenance and will require more robust treatments in order to prolong its future. Roads in the Amber condition require further investigation to establish if preventative treatment is required.
- 3.5 As part of the modelling work for the Transport Asset Management Plan (TAMP), alternative scenarios for capital investment were developed. These scenarios were predicated on a more preventative approach, aimed at roads that are in the Amber condition categories. Investment on these roads require less expensive treatments (e.g. surface dressing, micro asphalts), which improve the condition of the carriageway or footway and delay the need for more expensive resurfacing or strengthening treatments. Owing to the lower cost of the

- treatments required on Amber condition roads, more roads can be treated each year.
- 3.6 The UK Pavement Management System (UKPMS) is the national standard for management systems for assessing the condition of the local road network and for planning the type of investment that is required.
 - 3.7 The UKPMS is used for systematic collection and analysis of condition data (e.g. SRMCS). The UKPMS analyses specific types of defects (e.g. cracking, texture, profile and rutting) to select which roads should be considered for preventative, resurfacing or strengthening treatments
 - 3.8 Based on current capital budget strategy and existing condition, analysis of the UKPMS forecasts deterioration of the carriageway network in future financial years. Several options have been developed to demonstrate the level of investment required to achieve a Steady State condition and an improvement to the overall network condition.
 - 3.9 A one-off investment of £11m for roads and infrastructure was approved in the Council budget for 2023/24. This has been allocated using the existing prioritisation procedures for carriageway and footway investment. It is forecast that this additional investment will achieve a short-term improvement in the overall condition of Edinburgh's road network.
 - 3.10 The current and projected capital allocation for Infrastructure for 2022 to 2024 is shown in Appendix 1. This outlines how the budget was allocated across the six elements of the programme in 2023/24.

4. Main report

- 4.1 Edinburgh's current Road Condition Index is 35.1%. This is an improvement compared with the previous year (36.2%). A breakdown of the RCI across the road network is shown in Appendix 2. Analysis of the defect data contained within the road condition data is carried out to determine the appropriate treatment that should be carried out in order to achieve both best value and the best return in condition for investment. Appendix 3 details the threshold applied to determine the appropriate treatment.
- 4.2 Edinburgh has shown an improvement in the overall condition of the carriageway network in the past few years. However, based on the current funding allocations within the capital strategy 2020-2030, future condition projections show a deterioration in the carriageway network. The graph in Appendix 4 shows the current condition forecast. This is based on the current investment forecast, existing construction rates, existing condition and investment strategies. This will result in deterioration across all road classifications and an increase in all Red, Amber 1 and Amber 2 roads. The forecast accounts for a presumed improvement in condition in 2023/24 as a result of the additional £11m investment.

- 4.3 The Society of Chief Engineers of Transportation in Scotland (SCOTS) provide each local authority with their “steady state” figure. This is the level of investment that is required to maintain the local road network in its current condition. The current steady state for Edinburgh’s road network is £10.98m for carriageways only.
- 4.4 Edinburgh currently applies the Street Design Guidance to carriageway and footway renewals. This has resulted in major enhancements for streetscape and active travel in conjunction with capital renewals schemes. Schemes that have benefited from applying this strategy include Ponton Street, Holyrood Road, Portobello Road, Gilmerton Road and Lothian Road.
- 4.5 While the Street Design Guidance has been a welcome addition to the capital investment strategy, it has resulted in a large increase in cost, design time and scheme delivery time. On major schemes, it costs three to four times more to apply the guidance than a like-for-like renewal. It also takes three times longer to design and deliver the scheme.
- 4.6 To maximise delivery the additional one-off investment in 2023/24, the full Street Design Guidance is not being applied to all carriageway schemes. It is forecast that focusing on like-for-like carriageway renewals will double the number of schemes completed in 2023/24.
- 4.7 If the Street Design Guidance continues to be applied in future financial years’, then, based on the current recurring capital budget, a deterioration of the carriageway network will occur across all road classifications. This means that:
- 4.7.1 To maintain a steady state in condition and continue to apply the guidance, it is estimated that an additional £8m - £10m will be required in each financial year. Additional in-house resources will also be required to deliver schemes due to the increased design time; or
- 4.7.2 If the like-for-like carriageway investment strategy, as applied in 2023/24, was to continue there would be an increase in the number of resurfacing and strengthening schemes that could be carried out. However, due to the increase in delivery costs (plant, labour, fuel), an additional £2m - £4m would still be required each financial year to achieve a steady state in carriageway condition. To achieve an improvement in the road condition in future years, applying a like-for-like carriageway investment approach, an additional £3m - £5m would be required in each financial year.
- 4.8 Appendix 5 shows four scenarios for future investment and the associated carriageway condition. The additional investment would continue to be allocated between carriageway and footway investment on a 70:30 ratio. Therefore, footway investment would also increase with any additional capital funding. The scenarios are based on the current capital budget strategy and do not include £11m additional funding in future years.
- 4.9 In order to achieve a steady state or improvement in carriageway condition additional funding will be required for all scenarios.

- 4.10 It should be noted that carriageway condition is only one indicator for network improvement. Active Travel, streetscape and mobility improvements should also be considered.

Footway Investment

- 4.11 The footway element of the capital programme is based on a scheme of prioritisation which uses condition assessment scores, prioritisation criteria and footfall weightings to determine which projects should be prioritised for investment. The methodology is detailed in Appendix 6.
- 4.12 The prioritisation system for the capital programme is designed to ensure that the strategic road and footway network is maintained in line with the City Mobility Plan and the Active Travel Action Plan.
- 4.13 Footway schemes will continue to implement the Street Design Guidance proposals as part of the main footway renewal schemes. This will result in both condition and streetscape improvements for footway users. Common footway improvements that are implemented include the introduction of dropped kerbs, the tightening of junction radii, raising table levels and widening footway widths where required.
- 4.14 The Footway Capital Programme also supports public realm and active travel projects.

Setted Streets

- 4.15 Setted streets do not form part of the carriageway investment strategy as they cannot be scanned to determine their condition. The condition of setted streets is determined by a visual inspection, based on the criteria set out in the current prioritisation procedures and detailed in Appendix 6.
- 4.16 The current funding allocated for setted streets is £1m per financial year. This funding results in one setted street renewal in each financial year. This is due to the significantly higher costs associated with sett renewals. It can cost five times more to renew a setted street compared with a carriageway resurfacing.
- 4.17 Approximately 4.6% of Edinburgh's streets are setted and the Council's Setted Street policy states that setts should be retained in the World Heritage Site and conservation areas.

5. Next Steps

- 5.1 The capital investment programme will continue to be reviewed regularly to ensure that any adjustment is made to the programme as soon as possible.
- 5.2 The assessment of the condition of the city's roads is measured annually by the SRCMS.
- 5.3 A continual gradual improvement in Edinburgh's RCI will be a measure of the success of the Council's road maintenance policies. Additional funding in 2023/24 has been targeted at improving Edinburgh's RCI.

- 5.4 An updated TAMP will be presented to Committee in October 2023.
- 5.5 The 2024/25 programme of works will be presented to Committee following approval of the Council budget in February 2024.

6. Financial impact

- 6.1 The cost of roads and infrastructure investment is funded by the existing capital investment strategy.
- 6.2 It should be noted that the Council's Capital Investment Programme is funded through a combination of General Capital Grant from the Scottish Government, Developers and Third-Party Contributions, capital receipts and borrowing. The borrowing required is carried out in line with the Council's approved Treasury Management Strategy and is provided for on an overall programme basis rather than for individual capital projects.
- 6.3 A deterioration in carriageway and footway condition will put a significant pressure on the road's revenue budget due to an increase in the number of defects on the network.

7. Equality and Poverty Impact

- 7.1 An integrated Impact Assessment is prepared annually on presentation of the Infrastructure Investment Programme
- 7.2 The investment in the city's roads, footways, gullies and street lighting improves the accessibility and safety of the road and footway network and therefore has a positive impact for all users, particularly older people and those with a disability.

8. Climate and Nature Emergency Implications

- 8.1 As a public body, the Council has statutory duties relating to climate emissions and biodiversity. The Council

"must, in exercising its functions, act in the way best calculated to contribute to the delivery of emissions reduction targets"

(Climate Change (Emissions Reductions Targets) (Scotland) Act 2019), and

"in exercising any functions, to further the conservation of biodiversity so far as it is consistent with the proper exercise of those functions"

(Nature Conservation (Scotland) Act 2004)

- 8.2 The City of Edinburgh Council declared a Climate Emergency in 2019 and committed to work towards a target of net zero emissions by 2030 for both city and corporate emissions and embedded this as a core priority of the Council Business Plan 2023-27. The Council also declared a Nature Emergency in 2023.

Environmental Impacts

- 8.3 The Capital Resurfacing programme is committed to using warm mix asphalts in order to reduce the carbon footprint associated with carriageway resurfacing.
- 8.4 The Council will continue to look at all surfacing methods available and have recently established a product innovation group. This group will focus on trialling new material with an emphasis on carbon reducing materials. This will include expanding the road recycling programme.

9. Risk, policy, compliance, governance and community impact

- 9.1 There are no significant compliance, governance or regulatory implications expected as a result of noting the recommendations in this report.
- 9.2 A deterioration in the Edinburgh's carriageway and footway network will increase the number of defects on the network and could potentially lead to an increase in public liability claims.

10. Background reading/external references

- 10.1 [Carriageway and Footway Investment Strategy 2016](#)
- 10.2 [Capital Investment Programme 2023/24](#)
- 10.3 [Setted Street Policy](#)

11. Appendices

- 11.1 Appendix 1 Capital Budget Allocation
- 11.2 Appendix 2 Road Condition Index
- 11.3 Appendix 3 Road Defect Criteria
- 11.4 Appendix 4 Road Condition Forecast
- 11.5 Appendix 5 Future Investment Scenarios
- 11.6 Appendix 6 Prioritisation Procedures

Capital Budget Allocation

Current and Predicted Capital Allocation

	2022/23	2023/24	2023/24
£m	13.178	21.781	12.585

Proposed Budget Allocation for 2023/24

<u>Carriageways & Footways</u>	<u>£m</u>	
Budget for Carriageway Works	8.436	
Budget for Carriageway Surface treatments	2.000	
Budget for Setted Carriageways	1.000	
Budget for Footway Works	3.000	
Budget for Local Footways	0.500	
TOTAL		-14.936
<u>Street Lighting & Traffic Signals</u>	<u>£m</u>	
Street Lighting	1.120	
Traffic Signals	0.100	
TOTAL		-1.220
<u>Road Structures</u>	<u>£m</u>	
TOTAL	0.845	-0.845
<u>Other Asset Management</u>	<u>£m</u>	
Asset replacement ¹	0.300	
TOTAL		-0.300
<u>Road Operations</u>	<u>£m</u>	
Drop crossings	0.080	
Drainage improvements	0.300	
Bus Stop Maintenance	0.500	
In Year Priorities	0.500	
Surface Enhancements	0.800	
TOTAL		-2.180
<u>Miscellaneous</u>	<u>£m</u>	
Budget for Inspection, Design & Supervision costs, including TTRO's	1.800	
Local Environment Projects	0.500	
TOTAL		-2.300
TOTAL SPEND		-21.781

¹ Other asset replacement within schemes i.e. footway schemes involving street lighting replacement of columns over 30 years old, street furniture, sign renewal etc.

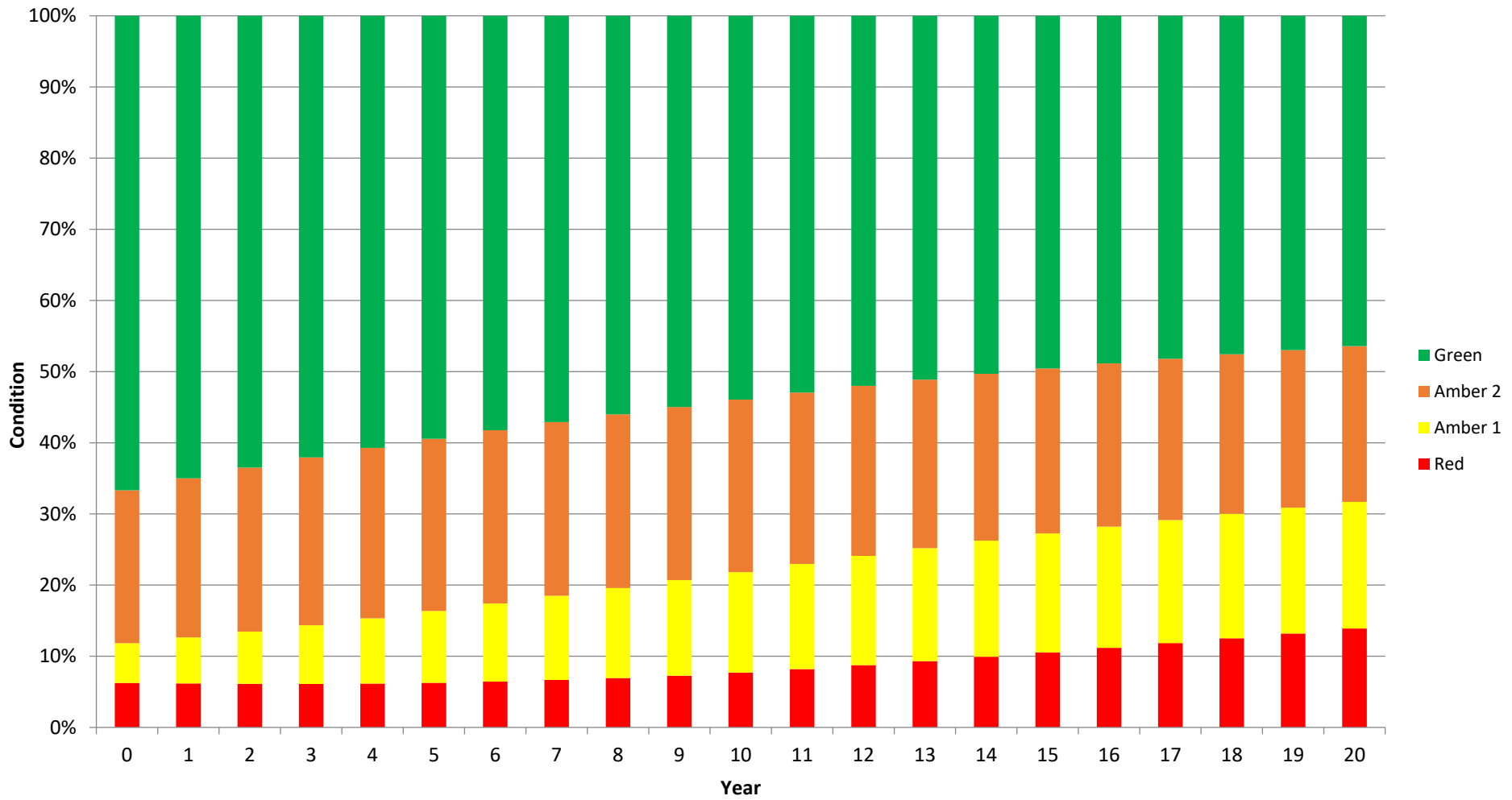
Road Condition Index

					Red		Amber 1		Amber 2		Green	
Category	U-R	Length (m)	Width (m)	Area (sqm)	RCI %	Area (sqm)	RCI %	Area (sqm)	RCI %	Area (sqm)	RCI %	Area (sqm)
Principal (A) Roads	Urban	129000	10.6	1367400	4.22	57704	6.77	92573	18.52	253242	70.48	963744
	Rural	44000	9.6	422400	1.52	6420	3.35	14150	13.79	58249	81.34	343580
Classified (B) Roads	Urban	41000	9.9	405900	2.36	9579	5.14	20863	14.35	58247	78.16	317251
	Rural	12000	8.8	105600	1.82	1922	2.16	2281	8.83	9324	87.19	92073
Classified (C) Roads	Urban	75000	9.7	727500	5.27	38339	5.91	42995	22.46	163397	66.36	482769
	Rural	45000	6.6	297000	2.86	8494	3.13	9296	18.00	53460	76.01	225750
Unclassified Roads	Urban	1110000	7.2	7992000	7.00	559440	7.68	613786	24.07	1923674	61.25	4895100
	Rural	55000	4.7	258500	11.31	29236	8.72	22541	28.75	74319	51.22	132404

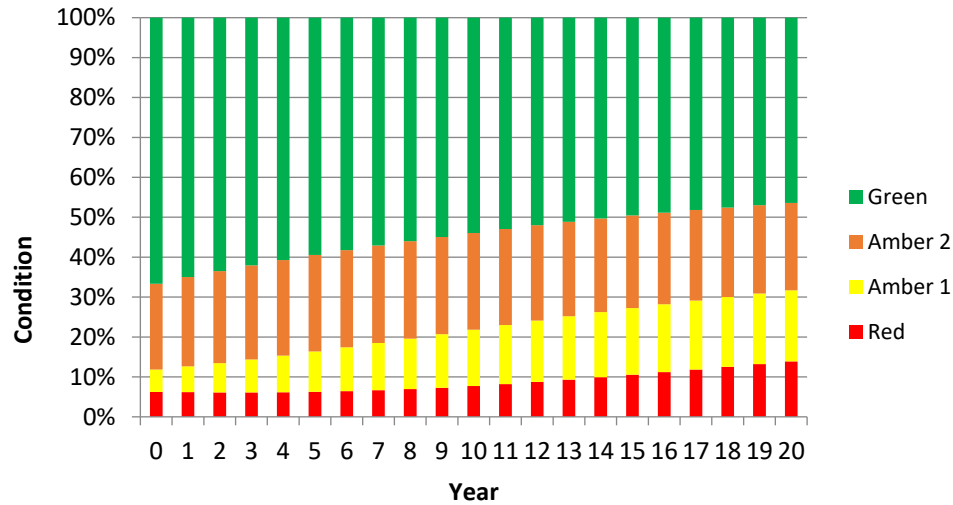
Road Defect Criteria

	Strengthening	A Roads		B Roads		C Roads		U Roads	
Criteria No:	Defect	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower
1	Rut Depth (mm)	Max	8	Max	10	NA	NA	NA	NA
2	Rut Depth %>10mm	NA	NA	NA	NA	100%	40%	100%	50%
3	LPV (3m) (mm ²)	Max	10	Max	10	NA	NA	NA	NA
4	LPV (3m) (mm ²) (>10mm ²)	NA	NA	NA	NA	100%	40%	100%	50%
5	Cracking (>4)	100%	30%	100%	40%	NA	NA	NA	NA
	Resurfacing	A Roads		B Roads		C Roads		U Roads	
Criteria No:	Defect	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower
1	Rut Depth (mm)	8	4	10	7	NA	NA	NA	NA
2	Rut Depth %>8mm	NA	NA	NA	NA	100%	40%	100%	50%
3	LPV (3m) (mm ²)	10	6	10	8	NA	NA	NA	NA
4	LPV (3m) (mm ²) (>8mm ²)	NA	NA	NA	NA	100%	40%	100%	50%
5	Cracking (>4)	30%	10%	40%	20%	100%	40%	100%	40%
	Surface Treatment	A Roads		B Roads		C Roads		U Roads	
Criteria No:	Defect	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower
1	Texture Depth (mm)	0.5	0	0.5	0	0.5	0	0.3	0
2	High Texture (mm)		1.5		1.5		1.5		1.5
3	Rutting / LPV (3m)	NA	NA	NA	NA	NA	NA	25%	0%
4	Cracking (>1)	100%	50%	100%	50%	100%	20%	100%	20%

Road Condition Forecast

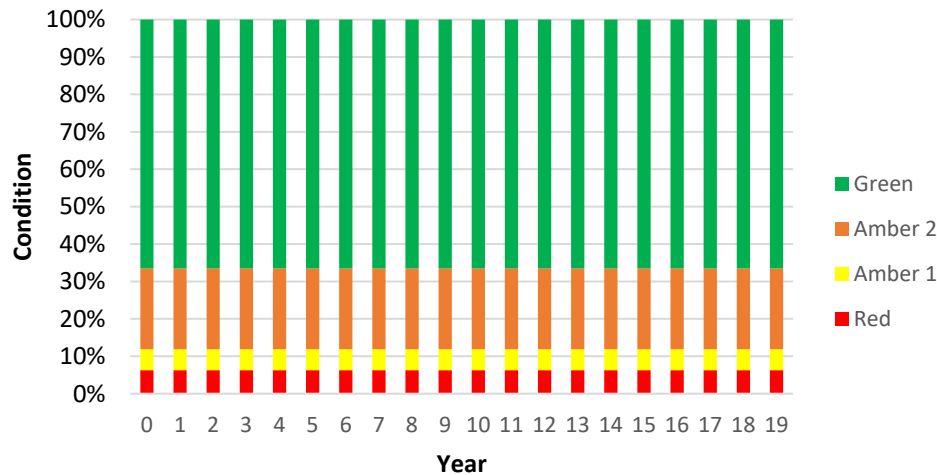


Future Investment Scenarios



Scenario 1 - Current Strategy

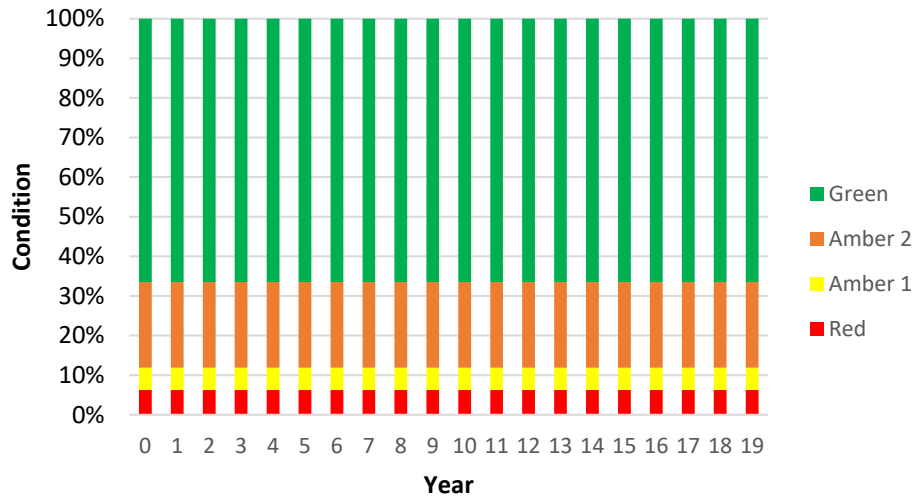
- Continues to deliver streetscape and active travel improvements in conjunction with renewals.
- Uses existing budget forecasts.
- Deterioration across the network
- Significant pressure on revenue budget.



Scenario 2 - Steady State 1

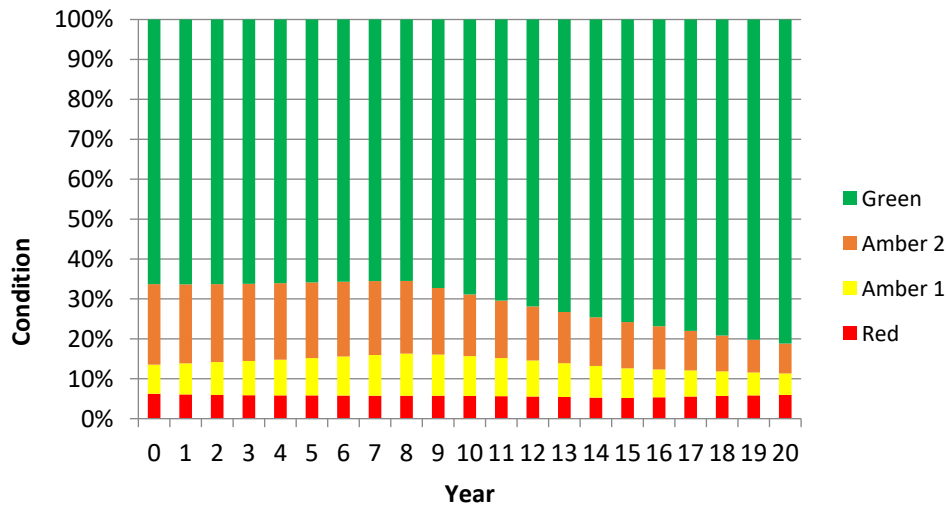
- Continues to deliver streetscape and active travel improvements in conjunction with renewals.
- Will require an additional £8-£10m per financial year.

Future Investment Scenarios



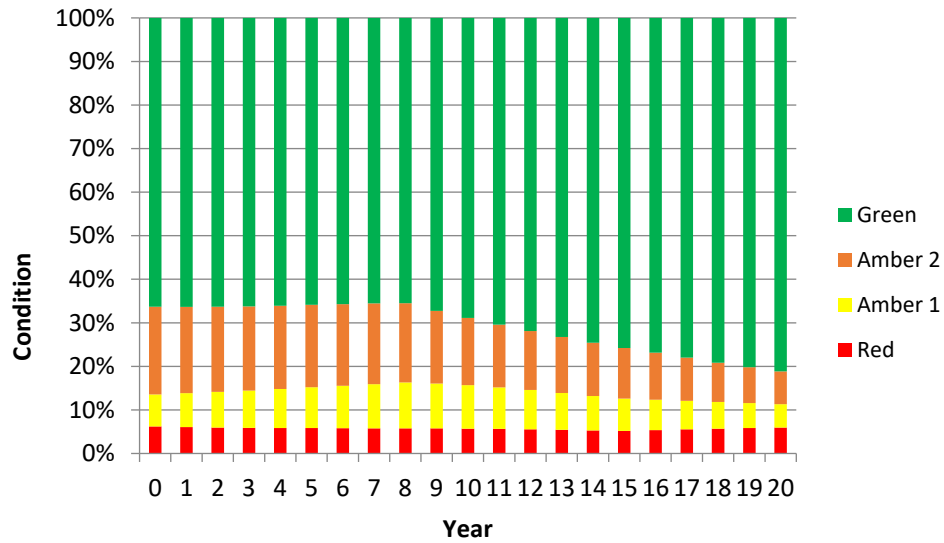
Scenario 3 - Steady State 2

- Focus on like-for-like carriageway renewals.
- Will require an additional £2-£4m per financial year.



Scenario 4 – Improvement 1

- Focus on like-for-like carriageway renewals.
- Will require an additional £3-£5m per financial year.



Scenario 5 – Improvement 2

- Continues to deliver streetscape and active travel improvements in conjunction with renewals.
- Will require an additional £10-£15m per financial year.

Appendix 6 - PRIORITISATION OF MAINTENANCE SCHEMES

CARRIAGEWAY EVALUATION

The assessment of the condition of the city's roads is measured annually by the Scottish Road Maintenance Condition Survey (SRMCS). The survey provides each authority with its Roads Condition Index (RCI). This is the percentage of roads that should be considered for investment.

The RCI consists of three levels of deterioration: Red, Amber 1 and Amber 2, with Red classed roads being in the worst condition. The majority of carriageways currently selected for investment fall within the Red condition category.

The UK Pavement Management System (UKPMS) is the national standard for management systems for assessing the condition of the local road network and for planning the type of investment that is required.

The UKPMS is used for systematic collection and analysis of condition data, i.e. Scottish Road Maintenance Condition Survey. This analysis is then used to recommend the type of resurfacing method that should be used on specific defects on a particular category of road.

The UKMPS is configured to ensure that the recommended maintenance is in line with the full investment strategy and within the parameters set out in the Roads Asset Management Plan.

The defect criteria used to select the appropriate treatment is shown in Table 1.

Criteria to be used when selecting the appropriate treatment type on Edinburgh Carriageway Network:

Table 1

	Strengthening	A Roads		B Roads		C Roads		U Roads	
Criteria No:	Defect	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower
1	Rut Depth (mm)	Max	8	Max	10	NA	NA	NA	NA
2	Rut Depth %>10mm	NA	NA	NA	NA	100%	40%	100%	50%
3	LPV (3m) (mm ²)	Max	10	Max	10	NA	NA	NA	NA
4	LPV (3m) (mm ²) (%>10mm ²)	NA	NA	NA	NA	100%	40%	100%	50%
5	Cracking (>4)	100%	30%	100%	40%	NA	NA	NA	NA

	Resurfacing	A Roads		B Roads		C Roads		U Roads	
Criteria No:	Defect	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower
1	Rut Depth (mm)	8	4	10	7	NA	NA	NA	NA
2	Rut Depth %>8mm	NA	NA	NA	NA	100%	40%	100%	50%
3	LPV (3m) (mm ²)	10	6	10	8	NA	NA	NA	NA
4	LPV (3m) (mm ²) (%>8mm ²)	NA	NA	NA	NA	100%	40%	100%	50%
5	Cracking (>4)	30%	10%	40%	20%	100%	40%	100%	40%

	Surface Dressing	A Roads		B Roads		C Roads		U Roads	
Criteria No:	Defect	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower
1	Texture Depth (mm)	0.5	0	0.5	0	0.5	0	0.3	0
2	High Texture (mm)		1.5		1.5		1.5		1.5
3	Rutting / LPV (3m)	NA	NA	NA	NA	NA	NA	25%	0%
4	Cracking (>1)	100%	50%	100%	50%	100%	20%	100%	20%

Carriageway Prioritisation

The table below shows the value of the priority rating, which is applied to the UKPMS condition score:

Table 2

Road Category (As shown in Table 1 above)	Weighting Roads not on Bus Route	Low Bus Use Roads with less than 15 Buses per hour	Medium Bus Use Roads with 15 to 50 Buses per hour	High Bus Use Roads with more than 50 Buses per hour	Cycle Use Carriageways that are on the Family Friendly Network
Special	2.0	Increase the score by 10%	Increase the score by 25%	Increase the score by 50%	Increase the score by 5%
Type 1	1.8	Increase the score by 10%	Increase the score by 25%	Increase the score by 50%	Increase the score by 5%
Type 2	1.6	Increase the score by 10%	Increase the score by 25%	Increase the score by 50%	Increase the score by 5%
Type 3	1.3	Increase the score by 10%	Increase the score by 25%	Increase the score by 50%	Increase the score by 5%
Type 4	1.0	Increase the score by 10%	Increase the score by 25%	Increase the score by 50%	Increase the score by 5%

Table 3 below shows how the Type of the carriageway is determined:

Table 3

Type	MSA
Special	Over 30
Type 1	10 - 30
Type 2	2.5 - 10
Type 3	0.5 – 2.5
Type 4	Up to 0.5

Traffic count data is measured in Million Standard Axels (MSA). It takes into account number of vehicles passing per day with all direction combined. Once the condition score is multiplied by the prioritisation score a list of schemes can be sorted. The list shows highest priority to lowest priority.

These schemes are then passed to the Design Team to allocate costs to give an estimate of repair depending on the extent of reconstruction required.

Once these estimates are placed on the priority list and the annual budget allocation has been determined the list of schemes which can be carried out can be determined.

SETTED CARRIAGEWAY EVALUATION

The evaluation of the Setted Carriageways is not suitable for the SRMCS. Therefore a visual assessment is carried out in order to produce a condition score. This involves a visual condition assessment of the road surface by qualified staff, together with a potential risk assessment.

The criteria used for the assessment are as follows:

- Drainage Condition
- Surface irregularity/Deformation
- Whole Carriageway Deterioration
- Deterioration beyond Cyclic Maintenance Levels
- Will Exclusion Cause Risk

Condition Scoring

1. Drainage Condition

Ideally in purely drainage schemes this rating should be given after a period of bad weather. This will obviously not always be possible, so the existence of any gullies, grips, piped grips and ditches should be taken into account.

Rating 0 = Sufficient drainage facilities, no standing water after rainfall.

Rating 1 = Carriageway surface allowing minor standing water, although most of the water is draining away.

Rating 2 = Drainage facilities severely lacking, causing standing water over large proportion of the carriageway.

Rating 3 = Severe flooding, lasting long after rain has dried in surrounding area, causing major disruption to vehicle movements.

2. Surface Irregularity/Deformation

Here the ratings relate to the overall continuity of the surface of the carriageway, i.e. wheel track rutting, pushing, general shape, etc.

Rating 0 = Completely uniform surface.

Rating 1 = Slight undulation of surface.

Rating 2 = Minor rutting or pushing of surface.

Rating 3 = Rutting noticeable to drivers, giving uncomfortable journey.

Rating 4 = Surface shape giving indications of deeper structural damage.

Rating 5 = Severe undulations indicating major deep structural damage.

3. Whole Carriageway Deterioration

The rating should indicate the actual condition of the surface material of the carriageway.

- Rating 0 = New looking surface, no material loss
- Rating 1 = Slight crazing of the main running surface
- Rating 2 = Start of wheel track cracks and some patches already exist.
- Rating 3 = Cracking both horizontally and vertically Existing patches starting to break up.
- Rating 4 = Serious wheel track cracking and crazing of surface, existing patches failure.
- Rating 5 = Surface breaking up and liable to cause injury.

4. Has Section deteriorated beyond Cyclic Maintenance levels?

This section has been provided to allow the assessors to rate the overall scheme condition. The rating is given between 0 and 5.

- Rating 0 = Very good condition, probably more than 10 years residual life
- Rating 1 = Good condition, probably 5-10 years residual life
- Rating 2 = Still in good condition, starting to wear in areas but still probably 5-7 years residual life.
- Rating 3 = Reasonable condition, wear and tear starting to show, probably 2-5 years residual life.
- Rating 4 = Poor condition, giving pedestrians difficulties, requires maintenance in the next 2 years.
- Rating 5 = Requires maintenance urgently.

5. Will exclusion increase risk?

Here, the assessor should be thinking "If this Scheme is not included in this year's maintenance list, would risk be increased before next year's assessment?"

- Rating 0 = Definitely no increase in risk.
- Rating 1 = No increase in risk levels should be expected
- Rating 2 = Slight possibility of rise in minor damage to vehicles
- Rating 3 = Possibility of rise in more serious damage to vehicles
- Rating 4 = High risk of injury to pedestrians / damage to vehicles
- Rating 5 = Very high risk if excluded from the maintenance list this year.

The same prioritisation weightings for carriageways are applied to setted carriageways. Setted carriageways are prioritised against each other and not against other carriageways.

FOOTWAY EVALUATION

Schemes are prioritised based on a condition assessment carried out by a Roads Inspector. The condition score is then multiplied by a prioritisation weighting to give the priority score.

A condition assessment will be carried out to identify potential footway schemes that require capital investment. A condition assessment is initiated by one or more of the following methods:

Footway Network Survey (FNS): Carried out by 1 inspector on the carriageway over an 18 month period. It highlights areas that require a condition assessment.

Neighbourhood Inspectors walkabout inspection: Neighbourhood inspectors rate the carriageways on a scale from 1 to 5. Anything that scores a 5 will be given a condition assessment.

The evaluation of the Footway involves a visual condition assessment of the surface by qualified staff together with a potential risk assessment.

The criteria used for the assessment are as follows:

- Kerb Upstand
- Kerb Deterioration/Alignment
- Footpath/Footway Deformation
- Footpath/Footway Deterioration
- Surface Water
- Deterioration beyond Cyclic Maintenance Levels
- Will Exclusion Cause Risk

A needs assessment form is completed and numerical values given to each of the 7 criteria within the bands given on the sheet.

Condition Scoring

1. Kerb Upstand:-

This element should be evaluated giving a rating between zero and three e.g. where a kerb upstand should be 110 mm. the rating applied shall be as follows:-

Rating 0 =	Upstand	110 - 100 mm.
Rating 1 =	Upstand	100 - 70 mm.
Rating 2 =	Upstand	70 - 40 mm.
Rating 3 =	Upstand	40 - 0 mm.

2. Kerb Deterioration/Alignment

The rating of this element should reflect the actual appearance of the kerb with respect to the condition and the continuity of the level.

- Rating 0 = New looking kerbs, no unnecessary rise and fall, no trips.
- Rating 1 = Slightly chipped edges/missing corners, slight rising of few kerbs, occasional trips.
- Rating 2 = Some kerbs may be cracked/spalling, rising of kerbs causing major trips.
- Rating 3 = Missing kerbs/major deterioration, rising of kerbs liable to cause injury.

3. Footpath/Footway Deformation

Here the ratings relate to the overall continuity of the surface of the footpath/footway, i.e. sunken flags, raising of sand carpet by tree roots etc.

- Rating 0 = Completely flat.
- Rating 1 = Slight undulation of surface.
- Rating 2 = More serious movement in the surface.
- Rating 3 = Undulation severe, causing difficulty walking.

4. Footpath/Footway Deterioration

The rating should indicate the actual condition of the surface material of the footpath/footway.

- Rating 0 = New looking surface, no material loss.
- Rating 1 = Slight material loss or damage to flags.
- Rating 2 = Approx. 25% material loss, broken flags.
- Rating 3 = Serious material loss, missing flags, etc. liable to cause injury.

5. Surface Water

This section allows the assessor to indicate the extent of the problem caused by the footpath/footway surface allowing surface water to stand after the rest of the area has dried.

- Rating 0 = No standing surface water.
- Rating 1 = 0-10% of surface covered with shallow pools of standing water.
- Rating 2 = 10-40% of surface covered with shallow pools of standing water.
- Rating 3 = Greater than 40% of surface with major water problems.

6 Has section deteriorated beyond Cyclic Maintenance Levels?

This section has been provided to allow the assessor to rate the overall scheme condition. The rating is given between zero and five.

- Rating 0 = Very good condition, probably more than 10 years residual life.
- Rating 1 = Good condition, probably 5-10 years residual life.
- Rating 2 = Still in good condition, starting to wear in areas but still probably 5-7 years residual life.

- Rating 3 = Reasonable condition, wear and tear starting to show probably 2-5 years residual life.
- Rating 4 = Poor condition, giving pedestrians difficulties, requires maintenance in the next 2 years.
- Rating 5 = Requires maintenance urgently.

7 Will exclusion cause risk?
 Here, the assessor should be thinking “If this scheme is not included in this year’s maintenance list, would risk be increased before next year’s assessment?”

- Rating 0 = Definitely no increase in risk
- Rating 1 = No increase in risk levels should be expected
- Rating 2 = Slight possibility of rise in minor injuries to pedestrians
- Rating 3 = Possibility of rise in more serious injuries to pedestrians
- Rating 4 = High risk of injury to pedestrians
- Rating 5 = Very high risk to be excluded from the maintenance list for this year

Prioritisation

Table 3 below shows the value of the priority rating, which is applied to the condition score:

Table 4					
Usage Category	Super High Use	High Use	Medium Use	Low Use	Ultra Low Use
Weighting Multiplier	2.5	2.0	1.6	1.2	1.0

Once the condition score is multiplied by the prioritisation score a list of schemes can be sorted. The list shows highest priority to lowest priority.

These schemes are then passed to the Design Team to allocate costs to give an estimate of repair depending on the extent of reconstruction required.

Once these estimates are placed on the priority list and the annual budget allocation has been determined the list of schemes which can be carried out can be determined.

The priority list keeps the Footway and Carriageway schemes separated.

Off-Road Cycleways

Off-Road cycleways are treated as part of the Footways allocation but are ranked separately depending on their usage.

Table 4 below shows the value of the priority rating, which is applied to the condition score:

Table 5			
Usage Category	High	Medium	Low
Weighting Multiplier	2.0	1.5	1.0