

# Transport and Environment Committee

10.00am, Tuesday, 28 October 2014

## Road and Footway Prioritisation Review 2014

Item number	7.6
Report number	
Executive/routine	
Wards	

### Executive summary

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This report seeks approval for amendments to the procedures currently being used, to prioritise road and footway resurfacing throughout Edinburgh.

The purpose of the amendments recommended in this report, are to ensure that the condition of roads and footways continue to improve, whilst maintaining the objective that prioritisation reflects and supports the Council's Local Transport Strategy and, in particular, the Active Travel Action Plan.

### Links

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Coalition pledges	<a href="#">P28</a> , <a href="#">P33</a> , <a href="#">P44</a> , <a href="#">P45</a>
Council outcomes	<a href="#">CO8</a> , <a href="#">CO19</a> , <a href="#">CO21</a> , <a href="#">CO22</a> , <a href="#">CO23</a> , <a href="#">CO24</a> , <a href="#">CO25</a> , <a href="#">CO26</a> , <a href="#">CO27</a>
Single Outcome Agreement	<a href="#">SO4</a>

## Road and Footway Prioritisation Review 2014

### Recommendations

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- 1.1 It is recommended that the Committee approves:
  - 1.1.1 the introduction of an on-road cycling prioritisation weighting as shown in Appendix B; and
  - 1.1.2 a further review of on-road cycle prioritisation as detailed in 3.6.
  - 1.1.3 a review on the policy for renewing setted streets as detailed in 3.7 and 3.8.

### Background

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- 2.1 At its meeting on 27 July 2010, the Transport, Infrastructure and Environment Committee called for a report that outlined options in relation to the criteria used to prioritise roads and pavements investment in the city. The Committee asked for the criteria to be reviewed, to ensure that future prioritisation reflects and supports the Council's Local Transport Strategy objectives and, in particular, the Active Travel Action Plan.
- 2.2 The report on the new scheme of prioritisation for roads and pavements was agreed on 23 November 2010. Further revisions to this scheme were agreed on 29 October 2013.
- 2.3 At its meeting on 29 October 2013, this Committee asked for a further review of the scheme to look at the introduction of a prioritisation weighting for on-road cycle use. This report shows the findings and proposals of the review.
- 2.4 A further review has been requested on the current approach on the prioritisation of repairs to setted streets. This report shows how this policy will be reviewed.

### Main report

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- 3.1 The existing prioritisation scheme for roads is shown in Appendix A. This scheme gives a higher prioritisation weighting to carriageways on bus routes.

- 3.2 It is accepted that there are many benefits to the existing prioritisation scheme for roads. The bus percentage weighting has a significant effect on the carriageways selected for prioritisation, benefiting both bus use and cycle use. However, there is no current weighting for cycle use on roads that are not located on a bus route. It is, therefore, proposed to introduce a 5% weighting for cycle use on roads. The new weightings for road prioritisation are shown in Appendix B.
- 3.3 It is proposed that the Active Travel Action Plan 'Family Network' is used as an initial basis for identifying roads/paths that should receive additional weighting to reflect their use by cyclists. Appendix C shows some of the roads that will benefit from this weighting.
- 3.4 The Family Network consists of on/off-road cycle routes that have been identified as part of a citywide network suitable for all cyclists, particularly those who are less confident in traffic. The Council is in the process of delivering a 10 year programme to implement the Family Network, but much of the infrastructure is already in place and there are significant numbers of cyclists already using parts of the routes where improvements are planned. It is, therefore, considered that the Family Network is a suitable starting point for identifying roads/paths that should receive an additional prioritisation weighting. Appendix D shows a map of the Family Network.
- 3.5 The Family Network does not generally include main arterial corridors in the city, many of which are well used by cyclists. These carriageways will already receive the maximum priority available due to the weightings associated with the many bus routes using these routes.
- 3.6 A review of cycle usage on the city's roads network is currently being developed by the Council's Cycle Team. The usage data could be used to target and prioritise capital investment. The findings of this work will be reported to a future meeting of this Committee.
- 3.7 Setted streets are currently prioritised in the same categories as all other streets in Edinburgh. The cost to renew and maintain streets with setts is significantly greater than streets with asphalt surfaces. In some cases setted repairs have to be phased over several years due to the high cost. The current position, in line with the Edinburgh Standards for Streets, is that setts form part of the character of the conservation area, particularly in the World Heritage Site, and should be retained.
- 3.8 A working group has been established, lead by Planning, to review the Council's approach to the maintenance of setted streets. The policy on sett renewal will form a major part of the review. This review will also look at the funding available and how this should be best used. The findings of this review may have an impact on the current carriageway and footway prioritisation procedures and these findings will be reported to a future meeting of this committee.

## Measures of success

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- 4.1 The Active Travel Action Plan includes a number of targets for increasing cycle use and these will be monitored over the Plan's duration (2010-2020). The latest detailed figures are contained within the 'Active Travel Action Plan – Two Year Review' which was reported to this Committee.

## Financial impact

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- 5.1 The cost of improvement works will be funded from the approved capital allocation for roads and footway investment.

## Risk, policy, compliance and governance impact

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- 6.1 There are no significant risks, compliance, governance or regulatory implications expected, as a result of approving the recommendations in this report.

## Equalities impact

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- 7.1 A full impact assessment, which will be preceded by consultation, will be carried out on future road and footway programmes of work on a scheme by scheme basis.
- 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. All footway reconstruction schemes incorporate new dropped crossings at all junction points, if not already existing.

## Sustainability impact

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- 8.1 The proposals in this report should have a positive impact on the environment by improving vehicle and bicycle ride quality through carriageway surfacing works and improved pedestrian passage on footway reconstruction schemes.

## Consultation and engagement

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- 9.1 The revised methodology for prioritising roads and footways for capital investment was the subject of consultation with Spokes and the Council's Cycle Team.

## **Background reading/external references**

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[Prioritisation for a New System of Prioritisation for Road and Footway Investment – November 2010.](#)

[Road and Footway Prioritisation Review 2013](#)

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## Links

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<b>Coalition pledges</b>	<p><b>P28</b> - Further strengthen links with the business community by developing and implementing strategies to promote and protect the economic well being of the City.</p> <p><b>P33</b> - Strengthen Neighbourhood Partnerships and further involve local people in decisions on how Council resources are used.</p> <p><b>P44</b> - Prioritise to keep our streets clean and attractive.</p> <p><b>P45</b> - Spend 5% of the transport budget on provision for cyclists.</p>
<b>Council outcomes</b>	<p><b>CO8</b> - Edinburgh's economy creates and sustains job opportunities.</p> <p><b>CO19</b> - Attractive Places and Well-Maintained – Edinburgh remains an attractive city through the development of high quality buildings and places and the delivery of high standards and maintenance of infrastructure and public realm.</p> <p><b>CO21</b> - Safe – Residents, visitors and businesses feel that Edinburgh is a safe city.</p> <p><b>CO22</b> - Moving Efficiently – Edinburgh has a transport system that improves connectivity and is green, healthy and accessible.</p> <p><b>CO23</b> - Well-Engaged and Well-Informed – Communities and individuals are empowered and supported to improve local outcomes and foster a sense of community.</p> <p><b>CO24</b> - The Council communicates effectively and internally and externally and has an excellent reputation for customer care.</p> <p><b>CO25</b> - The Council has efficient and effective services that deliver on objectives.</p> <p><b>CO26</b> - The Council engages with stakeholders and works in partnership to improve services and deliver on agreed objectives.</p> <p><b>CO27</b> - The Council supports, invests in and develops our people.</p>
<b>Single Outcome Agreement</b>	<p><b>SO4</b> - Edinburgh's communities are safer and have improved physical and social fabric.</p>
<b>Appendices</b>	<p>A Existing Carriageway and Footway Prioritisation Procedures</p> <p>B Proposed Cycle Weighting – October 2014</p> <p>C Family Network Streets</p> <p>D Family Network</p>

### PRIORITISATION OF MAINTENANCE SCHEMES

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 carriageway and footway schemes that require capital investment. A condition assessment is initiated by one or more of the following methods:

**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.

**Detailed Visual Inspection (DVI):** Carried out by one inspector on the carriageway over an 18 month period. It highlights areas that require a condition assessment.

**Scottish Road Maintenance Condition Survey data (SRMCS):** Vehicle scan of the carriageways that highlights areas of the carriageway that should be investigated further.

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

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.

## **CARRIAGEWAY EVALUATION**

The evaluation of the Carriageway involves a visual condition assessment of the road surface by qualified staff, together with a potential danger 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 Danger

### **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, ie 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 cause danger?

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

- Rating 0 = Definitely no increase in danger.
- Rating 1 = No increase in danger 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 = Too dangerous to be excluded from the maintenance list this year.

## Prioritisation

Table 1 below shows the value of the priority rating, which is applied to the condition score:

<b>Table 1</b>				
<b>Road Category (As shown in Table 1 above)</b>	<b>Weighting</b>	<b>Low Bus Use</b>	<b>Medium Bus Use</b>	<b>High Bus Use</b>
	Roads not on Bus Route	Roads with less than 15 Buses per hour	Roads with 15 to 50 Buses per hour	Roads with more than 50 Buses per hour
Special	2.0	Increase the score by 10%	Increase the score by 25%	Increase the score by 50%
Type 1	1.8	Increase the score by 10%	Increase the score by 25%	Increase the score by 50%
Type 2	1.6	Increase the score by 10%	Increase the score by 25%	Increase the score by 50%
Type 3	1.3	Increase the score by 10%	Increase the score by 25%	Increase the score by 50%
Type 4	1.0	Increase the score by 10%	Increase the score by 25%	Increase the score by 50%

Table 2 below shows how the Type of the carriageway is determined:

<b>Table 2</b>	
<b>Type</b>	<b>MSA</b>
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.

## Local Roads

Local Roads Thin Overlay carriageways are assessed in the same way as the main carriageways. They all have a prioritisation multiplier of 1 as they are all Type 4 roads that are not on a bus route.

## FOOTWAY EVALUATION

The evaluation of the Footway is carried out in the same way as the Carriageway assessment and involves a visual condition assessment of the surface by qualified staff together with a potential danger 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 Danger

A needs assessment form is completed and numerical values given to each of the seven 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 eg 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, ie 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 danger?

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

- Rating 0 = Definitely no increase in danger
- Rating 1 = No increase in danger 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 = Too dangerous 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:

<b>Table 3</b>					
<b>Usage Category</b>	<b>Super High Use</b>	<b>High Use</b>	<b>Medium Use</b>	<b>Low Use</b>	<b>Ultra Low Use</b>
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:

<b>Table 5</b>			
<b>Usage Category</b>	<b>High</b>	<b>Medium</b>	<b>Low</b>
Weighting Multiplier	2.0	1.5	1.0

**Proposed Cycle Weighting – October 2014**

<b>Road Category (As shown in Table 1 above)</b>	<b>Weighting</b> Roads not on Bus Route	<b>Low Bus Use</b> Roads with less than 15 Buses per hour	<b>Medium Bus Use</b> Roads with 15 to 50 Buses per hour	<b>High Bus Use</b> Roads with more than 50 Buses per hour	<b>Cycle Use</b> Roads on the Family 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%

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

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

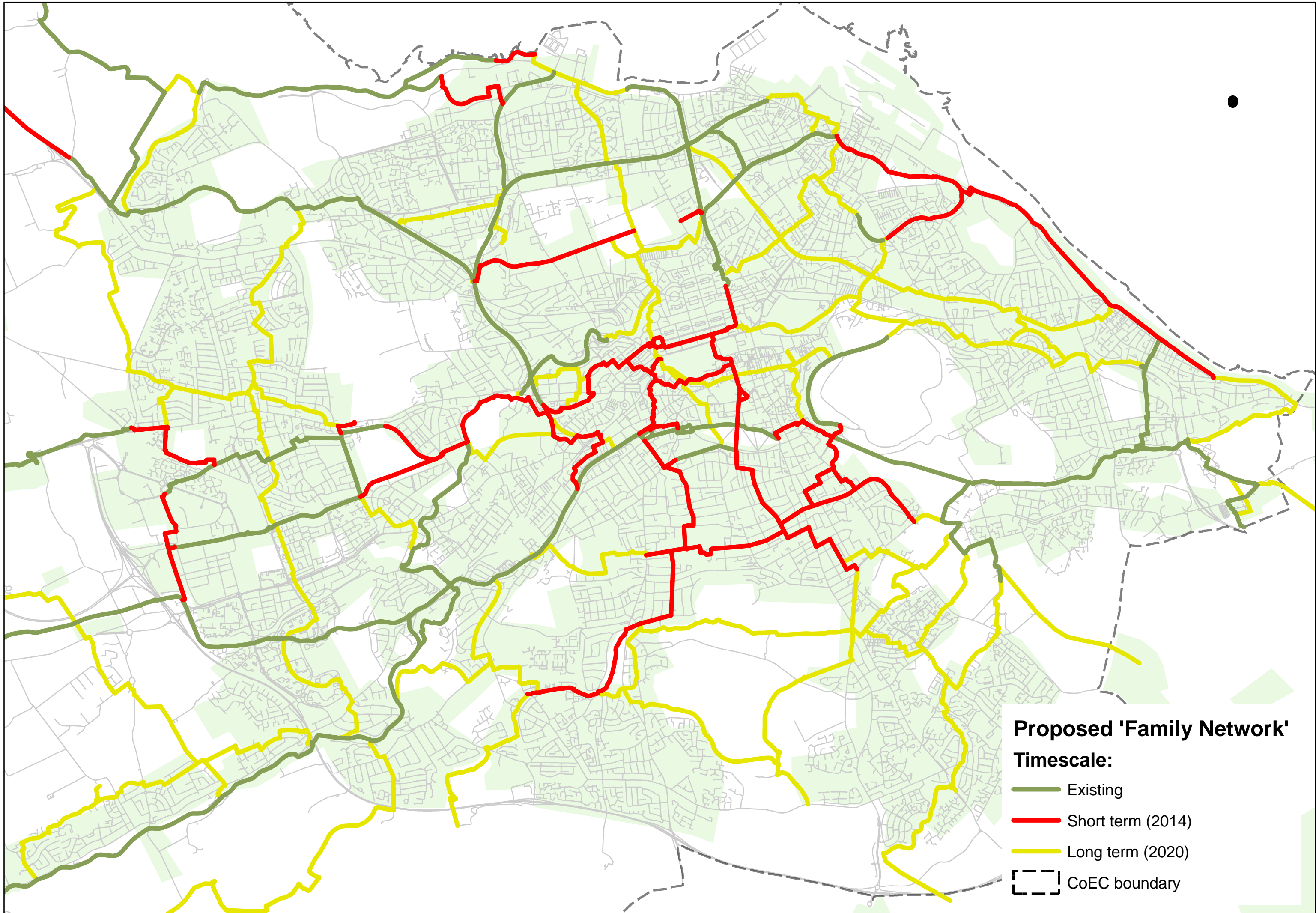
Traffic count data is measured in Million Standard Axels (MSA). It takes into account number of vehicles passing per day will all direction combined.

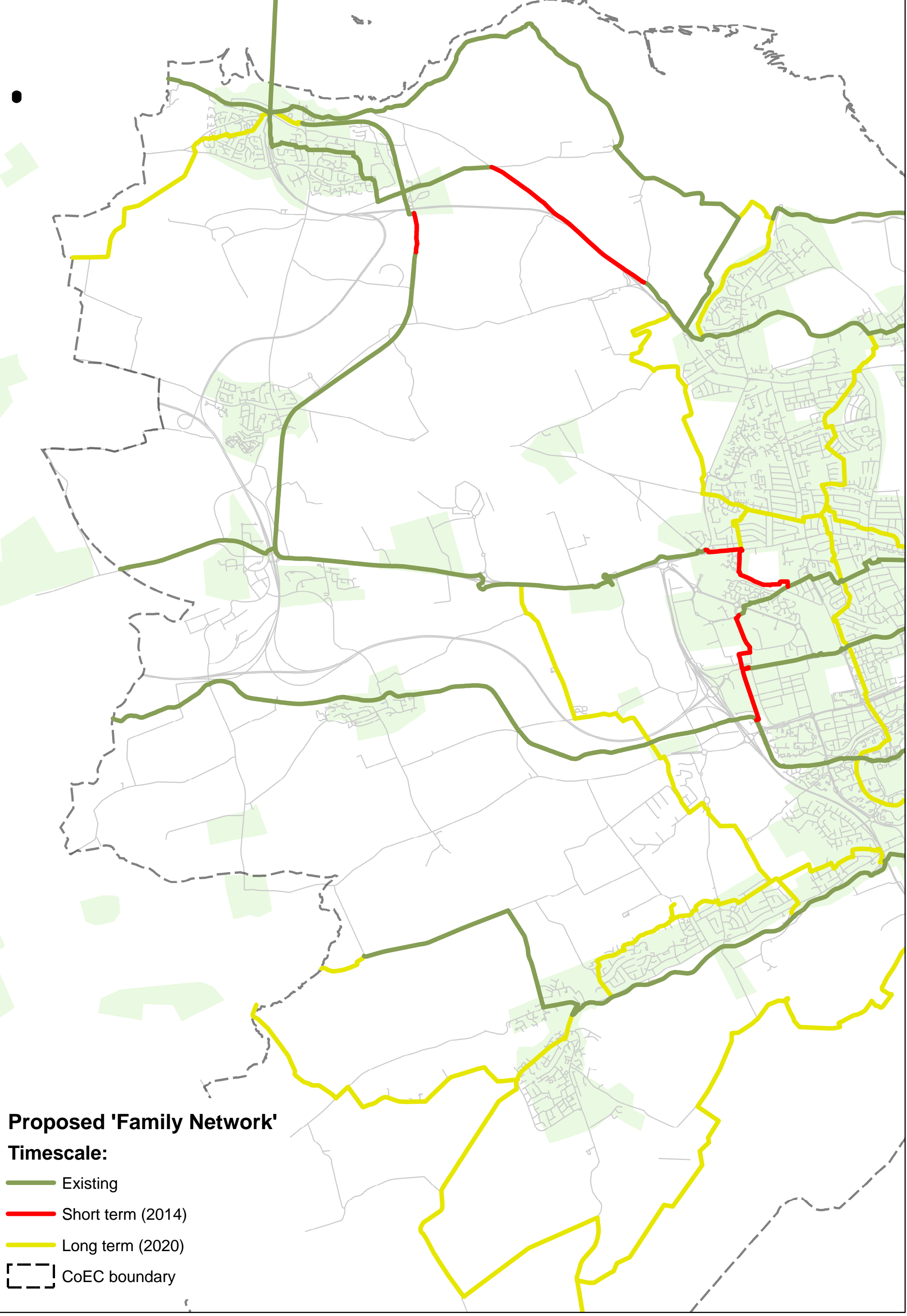
## Streets with Additional Cycling Weighting

Street	Road Type	Previous Prioritisation Weighting	Previous Estimated Year for Resurfacing	New Prioritisation Weighting	Previous Estimated Year for Resurfacing
Whitehouse Loan	Type 3	23.4	>3 Years	24.57	2015/16
Rutland Square	Type 4	18.5	>3 Years	19.43	2016/17
Hillview Terrace	Type 4 Local Road	15.5	2017/18	16.28	2015/16
Firrhill Drive	Type 4 Local Road	15.5	2017/18	16.28	2015/16
Lochend Road	Type 2	28.16	2017/18	29.57	2015/16
Stenhouse Drive	Type	27.00	>3 Years	28.35	2017/18

NB All dates are estimates and are subject to change as the road network condition changes.







### Proposed 'Family Network'

#### Timescale:

- Existing
- Short term (2014)
- Long term (2020)
- CoEC boundary