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## NORTH AYRSHIRE COUNCIL

8 March 2022

### Cabinet

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**Title:** Roads, Structures and Street Lighting Maintenance Programme 2022/23

**Purpose:** To seek Cabinet approval of the proposed Roads, Structures and Street Lighting Maintenance Programme for 2022/23.

**Recommendation:** That the Cabinet (a) notes the approach taken to determining the asset maintenance programme for roads, structures and street lighting; (b) approves the maintenance programme for 2022/23, as shown at Appendix 1a and 1b; and (c) notes that the programme will be issued to the Locality Planning Partnerships for information.

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### 1. Executive Summary

- 1.1 North Ayrshire Council has a statutory obligation under the Roads (Scotland) Act 1984 to manage and maintain its public road network. The adopted road network within North Ayrshire has a total length of 1044km. The core roads assets are currently estimated at a value of approximately £1.7billion.
- 1.2 The Council's Roads Service has adopted an asset management approach to road maintenance to allocate available road maintenance funds to locations that will offer the most beneficial return on the investment.
- 1.3 The Roads Asset Management Plan (RAMP) and the roads assets maintenance strategy follows the recommendations contained within the 'Well Maintained Highway's Code of Practice, ensuring that the Council's statutory obligations as delegated Roads Authority are met.
- 1.4 In complying with the Code of Practice, an effective regime of inspection, assessment and condition recording is well established which assists in not only providing a road network for the future but one that promotes social inclusion and contributes to economic growth within the area. This approach also ensures the Council is providing value for money on any investment attributed to road maintenance.
- 1.5 The proposed Roads, Structures and Street Lighting Maintenance Programme 2022/23 is attached in Appendix 1a and 1b. The Programme is based on approved Revenue and Capital budgets, including an additional £1m which will be funded from approved capital infrastructure investment.

## **2. Background**

- 2.1 North Ayrshire Council is responsible for the maintenance of the adopted local road network including lighting and structures assets as well as its other non-adopted road assets. However, the Council has no responsibility for the maintenance of the Trunk Road Network which falls to Transport Scotland and their management contractor, Amey. The Trunk Road network includes the A78, the A737 from Kilwinning to the Renfrewshire Boundary and A738 from the Pennyburn Roundabout to the A737 Dalry Road Kilwinning.
- 2.2 North Ayrshire Council's roads are the Council's largest community asset and play a vital role in supporting the local and wider economy by facilitating the movement of people, goods and services and connecting people with economic and social opportunities.
- 2.3 The proposed Roads, Structures and Street Lighting Maintenance Programme for 2022/23 has been developed in accordance with the strategy contained within the Roads Asset Management Plan (RAMP) to deliver the maximum return on investment and ensures the provision of an effective road network throughout North Ayrshire.
- 2.4 Road Condition is measured nationally through the Scottish Road Maintenance Condition Survey (SRMCS). The measure in place, the Road Condition Index (RCI), records the percentage of the Council's roads which should be considered for maintenance. North Ayrshire's RCI has been improving in recent years and is currently 37.1.
- 2.5 The estimated carriageway maintenance backlog figure for North Ayrshire is currently £34.800 million. The 'steady state' figure for maintaining our roads at present condition is £4.300 million per year. The capital budget supported by revenue funding is £4.380 million for 2022/23. An additional £1.000m has been identified from the 'core infrastructure, property and vehicles renewal investment' capital budget allocation, taking the total investment in the road network to £5.380m for 2022/23. This level of investment outpaces the 'steady state' figure and should therefore contribute to an improvement in the road network condition over time.
- 2.6 Road lighting condition is measured through programmes of structural and electrical assessment and testing and is complemented through the ongoing review of age profile and material type life expectancy. The results are categorised and recorded in the lighting asset management database to inform a prioritised list of replacement schemes. Lighting is allocated an annual Capital budget of £1.000m to address a 'steady state' position of maintaining our lighting at present annualised depreciation rate.
- 2.7 Bridge and retaining wall condition is also evaluated through a robust inspection programme. General inspections are undertaken every 2 years, while an in-depth 'principal inspection' is carried out every 6 years and the results of the inspections are used to inform work programmes. The results of the inspections are input into a Structures database which is then used to calculate an average Bridge Structure Condition Index (BSClav). The BSClav is currently 86.13 (2020/21 figure) which falls within the 'good' classification of 85 to 94 which is a slight improvement on the

previous year. The allocated capital budget supported by revenue funding is £0.710m. In addition, for 2022/23 the capital budget has been supplemented by a further 'one off' grant from the Scottish Government of £0.800m for bridge replacement work on Arran.

- 2.8 Details of how condition assessments are carried out and how roads, structures and lighting locations are prioritised for inclusion in our maintenance programme are provided in Appendix 2. The assessment matrix used for scoring and ranking footways for inclusion in our footway resurfacing programme is attached in Appendix 3. The assessment matrix used for scoring and ranking structures for inclusion in the Structures Maintenance Programme is attached in Appendix 4.

### **3. Proposals**

- 3.1 That Cabinet notes the approach taken to determining the asset maintenance programme for roads, structures and street lighting.
- 3.2 That Cabinet approves the maintenance programme for 2022/23, as shown at Appendix 1a and 1b.
- 3.3 That Cabinet notes that the programme will be issued to Locality Planning Partnerships for information.

### **4. Implications/Socio-economic Duty**

#### **Financial**

- 4.1 The Roads, Structures and Street Lighting Maintenance Programme will be delivered from allocated Capital and Revenue budgets. Estimated costs are detailed within the appendices.

#### **Human Resources**

- 4.2 Delivery of the programme will be met from existing staff resources.

#### **Legal**

- 4.3 North Ayrshire Council has a statutory obligation to manage and maintain its public road network under the terms of the Roads (Scotland) Act 1984.

#### **Equality/Socio-economic**

- 4.4 There are no equality implications. The maintenance programme contributes to the Council's socio-economic duty, as well-maintained roads are essential for the social and economic prosperity of North Ayrshire.

## **Environmental and Sustainability**

- 4.5 Effective programming and management of these assets will assist in reduced carbon associated with mobilisation of unplanned reactive maintenance resources and extends the use of assets in a cost effective and sustainable manner.

## **Key Priorities**

- 4.6 Effective management of these assets contributes to a number of Council plan objectives ensuring that North Ayrshire is well-connected with effective infrastructure and that we maximise resources and provide value for money.

## **Community Wealth Building**

- 4.7 The maintenance programme contributes to Community Wealth Building through community benefits clauses associated with maintenance contracts. It is also the case that a proportion of the maintenance programme is also delivered in-house by the Roads Operations Team and Building Services.

## **5. Consultation**

- 5.1 The maintenance programme will be shared with each Locality Partnership.

RUSSELL McCUTCHEON  
Executive Director (Place)

For further information please contact **Campbell Dempster, Senior Manager, Commercial Services (Roads)**, on **Tel: 01294 324845**.

## **Background Papers**

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# Mainland Roads Programme 2022/23

<i>Carriageway Resurfacing</i>			
<i>Street</i>	<i>Town</i>	<i>Location</i>	<i>Estimate Cost</i>
A737 Kilwinning Road	Irvine	James Crescent to Marress Road	£97,000
A738 Eglinton Road	Ardrossan	Red Gables to North Crescent Avenue	£113,000
A760 Haylie Brae	Largs	A78 uphill	£155,000
B7080 Long Drive	Irvine	Towerlands Interchange to Newmoor Roundabout (North & South)	£313,000
B7080 Newmoor Roundabout	Irvine	Full Length	£129,000
B7080 Long Drive	Irvine	Eglinton Interchange to Eglinton Mains	£108,000
B777 Kirkland Road	Kilbirnie	Medical Practice to joint at Glengarnock	£60,000
B780 James Street	Dalry	Full Length	£72,000
B782 Roundabout	West Kilbride	Full Length	£22,000
B896 Cardiff Street & West Bay Rd	Cumbrae	Millburn Street to Stuart Street	£86,000
C87	Kilwinning	sections between Whitehurst Park to A737	£73,000
Greenacres	Ardrossan	Full Length	£73,000
Keir Hardie Drive	Ardrossan	Between existing joints + Bevan Court	£37,000
Stanley Road	Ardrossan	2 Stanley Road and Stanley Court	£86,000
Barrington Avenue	Beith	Laigh Road to Beech Avenue	£10,000
Muirpark Road	Beith	Full Length	£33,000
Castlepark Drive	Fairlie	Hill section	£19,000
Arkwright Way	Irvine	Crompton Way full loop around industrial units	£138,000
Braefoot	Irvine	up to Braeside	£27,000
Cheviot Way	Irvine, Bourtreehill	Towerlands Road to Medical Centre	£50,000
Dickson Drive	Irvine	Livingstone Terrace to Bilby Terrace	£68,000
Fintry Place	Irvine, Bourtreehill	Full Length	£27,000
Gigha Wynd / Terrace	Irvine, Bourtreehill	Roundabout to no.7 Gigha Terrace	£26,000
Hillshaw Green	Irvine, Bourtreehill	Hillshaw Green and Sidlaw Foot	£38,000
Hunter Drive	Irvine	Full Length	£81,000
Kilpatrick Place & Court	Irvine, Bourtreehill.	Full Length	£24,000
Lammermuir Court	Irvine, Bourtreehill	Full Length	£13,000
Mull Crescent & Mull Court	Irvine, Bourtreehill	Full Length	£34,000
Pentland Place	Irvine, Bourtreehill	Full Length	£13,000
Roundabout at Moorfoot Way	Irvine, Bourtreehill	Full Length	£6,000
South Newmoor	Irvine	Full Length, including Whittle Place	£85,000

# Mainland Roads Programme 2022/23

Windlestraw Court	Irvine, Bourtreehill	Full Length	£7,000
Girdle Toll	Irvine	Lanfine Way to Lawthorn Roundabout & Lochlibo Road Littlestone Roundabout to mini roundabout	£156,000
Towerlands Road	Irvine, Bourtreehill	Crammond Way to Pladda	£101,000
Brownhill Drive	Kilbirnie	Full Length	£26,000
High Street	Kilbirnie	Auchenhove to Stockbridge, Milton Quad to Lindsay Avenue	£40,000
Holmhead	Kilbirnie	Roundabout to No 15	£96,000
Knoxville Road South	Kilbirnie	Full Length	£25,000
Milton Quadrant	Kilbirnie	Full Length	£46,000
Parkview / Bathville	Kilbirnie	To junction Langside Place	£50,000
Pundeavon Ave/Lynn Drive	Kilbirnie	Pundeavon Avenue / Lynn Drive to No 26	£37,000
Abbots Avenue	Kilwinning	Full Length	£25,000
Bannoch Place	Kilwinning	Full Length	£22,000
Brodict Avenue	Kilwinning	Full Length	£58,000
Church Street / Ladyford	Kilwinning	Vaults lane to Almswall Road	£59,000
Dalmahoy Way	Kilwinning	Full Length	£30,000
Hawthorn Court	Kilwinning	Full Length	£57,000
Seymour Avenue	Kilwinning	Full Length	£35,000
Shavian Terrace	Kilwinning	Spur only	£9,000
Holehouse road	Largs	15 Holehouse Road to Phillips Avenue	£64,000
Moorburn Road	Largs	Kelvin Street to surfacing joint at Nelson Street	£75,000
Phillips Avenue	Largs	Full Length	£64,000
Galloway Place	Saltcoats	Full Length	£13,000
Ivanhoe Drive	Saltcoats	Middlepart Crescent to No.47	£19,000
Stanley Road	Saltcoats	Full Length	£81,000
Campbell Avenue	Stevenston	Full Length	£68,000
Golf Avenue	Stevenston	Full Length	£9,000
Graham Avenue	Stevenston	High Road to new development	£22,000
Hillhead / Cambuskeith Road	Stevenston	Full Length	£80,000
Hyslop Road	Stevenston	Community Centre to 85 Morrison Avenue	£30,000
			<b>£3,520,000</b>

# Mainland Roads Programme 2022/23

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<i>Carriageway Surface Dressing</i>			
<i>Street</i>	<i>Town</i>	<i>Location</i>	<i>Estimate Cost</i>
B777	Kilbirnie	Kirkland Rd from cemetery to bridge	£5,000
B777	Kilbirnie	U28 jct to C80 jct	£55,000
U19	Dalry	Cubeseid full length	£24,000
B782	West Kilbride	Portencross Rd from Corse St to A78	£15,000
B781	West Kilbride	From Gill Farm to approx. 600m past Blackshaw Farm	£40,000
B778	Kilwinning	Goldcraigs to A736	£162,000
B769	Irvine	Chapelton crossroads to EAC boundary	£27,000
B706	Beith	Barrmill to just past C19 jct	£45,000
U5	Barrmill	Restricted area Barrmill to C67 jct	£12,000
U28	Beith/Gateside	C80 jct to B777	£26,000
U31	Beith/Gateside	C80 jct to U28 jct	£11,000
C5	Kilwinning	Barrmill restricted section to C67	£90,000
B780	Dalry	Lintseedridge farm to Pitcon Bridge	£25,000
B777	Beith	Willowyard ind estate to just past Crawfords	£20,000
C24	Irvine	B769 to jct C40	£12,000
C40	Springside	B769 jct to Springside	£58,000
Unc	Saltcoats	Border Avenue	£16,000
Unc	Saltcoats	Adair Avenue	£7,000
			£650,000

# Mainland Roads Programme 2022/23

<i>Carriageway Screeding</i>			
<i>Street</i>	<i>Town</i>	<i>Location</i>	<i>Estimate Cost</i>
C19	Beith	Little Barkip to Jct B707	£80,000
C5	Beith	Jct B707 northwards towards Nettlehirst jct	£86,000
U47	Beith	From Jct C25 to Renfrewshire Boundary at Roebank Bridge	£46,000
U5	Beith	Balgraymuir from restricted area Barrmill to jct C80	£40,000
U25	Gateside	from restricted area Gateside to C67 to B706 (part done 19/20)	£34,000
C24	Irvine	jct C40 to boundary	£51,000
C40	Irvine	Overtoun	£50,000
U23	Irvine	Fairlie Crevoch	£31,000
U70	Irvine	Bankend Alton from EAC boundary to B769	£23,000
C43/U55	Kilwinning	from Ashgrove Mount to Ladywell Cottage	£57,000
U22 Diddup Road	Saltcoats	From surfacing joint to Lochwood Farm	£37,000
C41 Brisbane Glen Rd	Largs	From Outerwards Farm access to cattle grid	£15,000
			<b>£550,000</b>



# Mainland Roads Programme 2022/23

<i><b>Footway Resurfacing</b></i>			
<i>Street</i>	<i>Town</i>	<i>Location</i>	<i>Estimate Cost</i>
Glebe Road	Beith	Glebelands Way to main Glebe Road	£16,000
Corsehill Mount Road	Dreghorn	2 sections outside Greenwood Academy	£5,000
Lewis Terrace	Irvine, Bourtreehill	Full Length	£22,000
Coldgreen Avenue	Kilbirnie	Full Length	£16,000
Castle Drive	Kilbirnie	Number 34 to 56	£10,000
Hillpark Rise	Kilwinning	Part Length	£56,000
Kennedy Road	Saltcoats	Part Length	£38,000
Wellpark Road	Saltcoats	Number 23 to 21 (one side only)	£5,000
Kenilworth Drive	Saltcoats	Kenilworth Drive to Munro Place	£6,000
Miller Road	Saltcoats	Full Length	£15,000
Campbell Avenue	Stevenston	Reids Avenue (one side only)	£26,000
St Andrews Road	Ardrossan	Number 1 to 35	£36,000
Provosts Loan	Cumbræ	Full Length	£20,000
Braeside Avenue / Meadowbank Road	Largs	Part Length	£42,000
			<b>£350,000</b>

# Mainland Roads Programme 2022/23

<i>Lighting Deteriorated Infrastructure Replacements</i>		
<i>Area</i>	<i>Town</i>	<i>Estimate Cost</i>
Barony Court Bonnyton Row Killoch Place Killoch Way Maxwell Green West Bowhouse Workshops Bensley Rise Bensley Rise F/path to West Bowhouse Way Bonnyton Foot West Bowhouse Gardens West Bowhouse Way Bonnyton Place	Irvine Deteriorated Infrastructure Replacement A	£220,800
Village Centre F/path to Campsie Way Kersland Foot Highfield Place Auchenharvie Place Craigmark Place Kiln Walk Girdle Gate Village Centre Bourtreehill Sillars Meadow	Irvine Deteriorated Infrastructure Replacement B	£216,600
<b>Dreghorn</b> Dundonald Road Dundonald Service Road Greenwood Road <b>Saltcoats</b> Arthurlie Place Galloway Place Mitchell Place	Dreghorn / Saltcoats	£80,000
Scott Drive Hamilton Drive Lovat Street Stakehill Millburn Gardens Waterside Street Silverdale Gardens Bellesdale Avenue Burnlea Road East Castle Avenue Greenhill Park View Aitken Street	Largs Deteriorated Infrastructure Replacement A	£212,200
Hollywood Huttonpark Crescent Mount Stuart Road Paton Quadrant	Largs Deteriorated Infrastructure Replacement B	£205,900

# Mainland Roads Programme 2022/23

Nelson Street		
Burnside Road		
Routenburn Road		
North Middleton Drive		
Phillips Avenue		
Kyles View		
Middleton Drive		
Spalding Drive		
Danefield Avenue		
Gallowgate Lane		
Holmwood		
Boathouse Drive		
Barony Glebe		
Manse Road	West Kilbride	£57,000
Blackshaw Drive		
Caldwell Road		
St Andrews Gardens	Dalry	£56,000
		<b>£1,048,500</b>

<i>Lighting Deteriorated Column Replacements</i>			
<i>Area</i>	<i>Town</i>	<i>Location</i>	<i>Estimate Cost</i>
Various Unplanned Locations			<b>£163,000</b>

<i>Lighting Deteriorated Column Inspections</i>			
<i>Area</i>	<i>Town</i>	<i>Location</i>	<i>Estimate Cost</i>
Various Locations			<b>£38,500</b>

<i>Structures Projects</i>			
<i>Structure</i>	<i>Town</i>	<i>Project</i>	<i>Estimate Cost</i>
Sevenacres Mill Bridge	Kilwinning	Bridge Replacement	£350,000
Maybole Bridge	Kilbirnie	CP / Concrete Repairs	£60,000
Barrie Terrace Footbridge	Ardrossan	Assessment / Feasibility Study	£35,000
Bungle Burn Bridge	A736	Parapet Upgrade & repairs	£40,000
			<b>£485,000</b>

# Mainland Roads Programme 2022/23

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Carriageway Resurfacing: £3,520,000

Carriageway Surface Dressing: £650,000

Carriageway Screeding: £550,000

Footway Resurfacing: £350,000

Lighting Infrastructure Replacements: £1,048,500

Deteriorated Column Replacements: £163,000

Deteriorated Column Inspections: £38,500

Structures Projects: £485,000

**Overall Mainland Total: £6,805,000**

# Arran Roads Programme 2022/23

<i>Carriageway Resurfacing</i>			
<i>Street</i>	<i>Town</i>	<i>Location</i>	<i>Estimate Cost</i>
C147	Pirnmill	South of Whitefarland from Cnoc a Chaibeil to Cave	£170,000
C147	Lochranza	Sailors Grave to approximately Kintyre View	£90,000
U87 Machrie Moor Road	Machrie	Machrie Farm and Gate cottage to Glaister Bridge	£172,000
Bungalow Road	Lamlash	Full Length	£25,000
Canberra Brae	Whiting Bay	Part Length	£15,000
West Mayish	Brodick	Full Length	£80,000
Barn Brae	Whiting Bay	Full Length	£12,000
Bailemargaidh / Drumaghinier	Blackwaterfoot	Full Length	£78,000
South Feorline	Blackwaterfoot	Full Length	£18,000
			<b>£660,000</b>

<i>Structures Projects</i>			
<i>Structure</i>	<i>Town</i>	<i>Project</i>	<i>Estimate Cost</i>
Culvert West of Ballymeanoch	Kildonan	Retaining Wall strengthening	£76,000
Allt nam Pairc Beaga Culvert North	Blackwaterfoot	Culvert replacement, new parapets	£35,000
Doctors Bridge	Brodick	Invert and other repairs	£44,000
Newton Bridge	Lochranza	Bridge replacement	£450,000
Pirnmill Bridge	Pirnmill	Bridge re-decking	£420,000
			<b>£1,025,000</b>

Carriageway Resurfacing: £660,000

Structures Projects: £1,025,000

**Overall Arran Total: £1,685,000**

### **Condition Assessment and Prioritisation Process**

- 1.1 The Audit Scotland Follow-up report, Maintaining Scotlands Roads published in August 2016 stated that Councils should use their RAMPs to establish long term investment plans for maintaining the road network taking into account whole-life costing and treatment options.
- 1.2 As part of the Roads Asset Management process, annual condition assessments are carried out on the public road network as part of the inspection regime. All locations are assessed using a risk based approach.
- 1.3 Condition assessments are carried out simultaneously with the Safety Inspections in accordance with the pre-determined timescales contained within our Safety Inspection Manual. All faults noted during these inspections are logged within our electronic Routine Maintenance System (RMS).
- 1.4 For carriageways, to take account of whole-life and different treatment options the carriageway maintenance programme is developed using road asset management principles. Lifecycle planning is at the core of this approach and takes into account, hierarchies, condition and local community priorities. Preventative treatments are used to prolong the life of carriageway surfaces before their condition deteriorates and requires extensive resurfacing.
- 1.5 The main factors considered are:-
  - Road Condition – based on detailed visual inspection and the Scottish Road Maintenance Conditions Survey (SRMCS).
  - Road Hierarchy – this takes account of the strategic importance of the road and is determined from our Local Transport Plan.
  - Assistance to Council and Community Priorities – this takes account of other priorities such as economic development, access to shops, amenity housing or schools.
- 1.6 Carriageways and footways are both condition assessed and scored in accordance with the assessment table below. Where the condition assessment score (referring to table below) is assessed as being 11 or more, then a priority assessment is carried out, in accordance with the Scheme Assessment Form attached as Appendix 3.

**Assessment Table**

<b>Extent</b>	<b>CONDITION</b>			
	<b>1 (Acceptable)</b>	<b>2 (Safe but poor appearance)</b>	<b>3 (Minor deterioration)</b>	<b>4 (Major deterioration)</b>
1 - Up to 25%		<b>5</b>	<b>9</b>	<b>13</b>
2 – 25% to 50%		<b>6</b>	<b>10</b>	<b>14</b>
3 – 50% to 75%		<b>7</b>	<b>11</b>	<b>15</b>
4 – 75% to 100%	<b>4</b>	<b>8</b>	<b>12</b>	<b>16</b>

Each location that progresses onto the prioritisation process is rated using the additional criteria contained in the Scheme Assessment Form and is placed on the strategic list of priorities relative to its score. Each location is also reviewed at least once a year depending on its location within the Roads Hierarchy as part of the routine inspection process.

- 1.7 There are various types of surfacing materials and processes available depending on the particular road type, location and level of existing deterioration. Options available for treatment include preventative measures such as surface dressing, micro surfacing or asphalt preservation. Resurfacing options such as screeding, resurfacing (inlay and overlay), retread and overlay and depending on the severity of deterioration full reconstruction may be the most effective option.
- 1.8 The level of investment associated with the varying treatment types identified in the table below was established using the Society of Chief Officers of Transportation in Scotland's cost projection model, developed as part of the Roads Asset Management Planning project. The model assists with identifying the effect of various treatments on the on-going condition of the carriageway. This enables a more accurate design life for the treatments currently available to be developed and ensuring value for money on their use. An option appraisal matrix has also been developed to assist with the identification of the most appropriate treatment to be used at each location.

**Treatment Option Table**

<b>Treatment Option</b>	<b>Cost / Sqm</b>	<b>Extension to life</b>
Surface Dressing	£3.30	Up to 10 years
Micro Surfacing	£11.35	7 – 10 years
Asphalt Preservation	£5.00	Up to 5 years
Screeding	£9.00	5 – 10 years
Retread	£22.50	Up to 20 years
Inlay HRA	£18.00	Up to 20 years
Inlay SMA	£18.00	Up to 10 years
Overlay <100mm	£20.70	Up to 20 years
Inlay 100mm	£27.26	Up to 20 years
Reconstruction 300mm	£112.40	Up to 20 years

- 1.8 Street Lighting column replacement is prioritised through non-destructive strength testing to determine the level of deterioration associated with the columns. Following testing, columns are categorised within the Asset Management database for road lighting.
- 1.9 Testing is carried out in accordance with the Institute of Lighting Engineer's Technical Report No.22 Managing a Vital Asset: Lighting Supports as well as UK Lighting Board Code of Practice: Well-lit Highways.
- 1.10 Once results are input, the database then compares these results against the more general age profile to determine a final list of priority repairs. This produces recommendations in order of priority for both individual units and whole streets or areas.
- 1.11 Recommendations are generally categorised as Category A through K as follows:
- A: Immediate replacement
  - B: Replace urgently or reinspect within 6 months
  - C1: Column Material failure, replace as soon as possible or reinspect within 1 year
  - C2: Bracket failure, sleeve where possible or replace unit within 1 year
  - D: Foundation failure, realign, reinstate and reinspect within 6 months



- E: Material approaching failure, replace as part of planned maintenance programme or reinspect within 2 years
- F: Material approaching failure, replace as part of planned maintenance programme or reinspect within 5 years
- G: Condition reasonable, but age expired and certified insured for 2 year periods until replaced
- H: Condition reasonable, but age expired and certified insured for 5 year periods until replaced
- I: Acceptable condition but age expired and insured for 5 years periods until replaced.
- J: Sound condition but age expired & visually poor (evidence of concrete cracking etc.)
- K: Sound condition and not age expired – no current requirement for strength structural inspection, visual only at planned maintenance cycle.

1.12 Where non-urgent replacement recommendations (Category F through to J) are on an individual column basis, the data is further analysed to determine a percentage value for recommended replacement numbers against the balance of units in a street. If this figure exceeds 30% then the entire street will be considered for higher prioritisation which will address the design class standard of the street beyond individual replacement for safety reasons only.

1.13 The structures programme is identified based on the structures prioritisation matrix which ranks assets based on a number of factors including its condition, safety, and usage.

# North Ayrshire Council - Roads Carriageway Scheme Assessment Form



Number

Town:

Area:

Road Name:

Location:

Comments:

Category: **CONDITION RATING**

Type: **CARRIAGEWAY**

Rated By:

Date Rated:

Criteria	Score (S)	Weighting (W)	Priority Score (S x W)
1. Condition		<b>4</b>	
2. Maintenance Category		<b>2</b>	
3. Public Liability Claims / Fault Reports / Complaints		<b>1</b>	
4. Assistance to Other Priorities		<b>1</b>	
<b>Total Priority Score:</b>			

<b>Treatment Type:</b>					
<b>Length:</b>		<b>Breadth:</b>		<b>Area:</b>	
<b>Patching Required:</b>	<b>Area:</b>			<b>Depth:</b>	
<b>Kerbing Required:</b>	<b>Length:</b>				

## Additional Comments

<b>Assessed By:</b>	
<b>Assessment Date:</b>	
<b>Checked By:</b>	

<b>Reassessed By:</b>	
<b>Reassessment Date:</b>	
<b>Checked By:</b>	

# North Ayrshire Council - Roads Carriageway Resurfacing Scheme Priority System

## General

The weighting system devised enables the programme of carriageway resurfacing schemes to be objective, rated against a number of important criteria.

Scoring System			
Criteria	Maximum Score	Weighting	Score
1. Condition	16	4	64
2. Maintenance Category	22	2	44
3. Public Liability Claims / Fault Reports / Complaints	6	1	6
4. Assistance to Other Priorities	14	1	14
Maximum Total:			128

## 1. Condition

Taken from initial Condition Assessment Score generated during inspection

Condition → Extent ↓	1 – Acceptable	2 – Safe but poor appearance	3 – Minor deterioration	4 – Major Deterioration
1 – Up to 25%		5	9	13
2 – 25% - 50%		6	10	14
3 – 50% - 75%		7	11	15
4 – 75% - 100%	4	8	12	16

## 2. Maintenance Category - Local Transport Strategy (LTS)

Maintenance Category	Score
Strategic Routes - (A760 / A736 / A71)	22
Main Distributor Routes	15
Secondary Distributor Routes	11

## 3. Public Liability Claims / Fault Reports / Complaints

Score according to the type / source of complaint / fault report / request for service received for the location

- 1 - Public Complaint or a Fault Report resulting in a confirmed defect
- 2 - Multiple Requests for service or Fault Reports resulting in confirmed defects
- 4 - Elected Member Complaint or Request for Service
- 6 - Public Liability Claim

## 4. Assistance to Other Priorities

Use your own knowledge of the surrounding area to rate the location in relation to:

- 2 - Adjacent to Local Shops
- 4 - Adjacent to Amenity Housing, Residential Care Homes and Medical Centres
- 6 - Adjacent to Schools, Leisure Facilities and Tourist Attractions
- 8 - Business Parks and Industrial Estates
- 10 - Access to Train Stations and Park & Ride facilities
- 14 - Town Centre

# North Ayrshire Council - Roads

## Footway & Footpath Scheme Assessment Form



Number

Town:

Area:

Road Name:

Location:

Comments:

Category: **CONDITION RATING**

Type: **FOOTWAY**

Rated By:

Date of Rated:

Criteria	Score (S)	Weighting (W)	Priority Score (S x W)
1. Condition		4	
2. Importance / Accessibility		2	
3. Public Liability Claims / Fault Reports / Complaints		1	
4. Assistance to Other Priorities		2	
Total Priority Score:			

Treatment Type:					
Length:		Breadth:		Area:	
Kerbing Required:	Length:				

### Additional Comments

Assessed By:	
Assessment Date:	
Checked By:	

Reassessed By:	
Reassessment Date:	
Checked By:	

# North Ayrshire Council - Roads Footway & Footpath Resurfacing Scheme Priority System

## General

The weighting system devised enables the programme of footway & footpath resurfacing schemes to be objective, rated against a number of important criteria.

Scoring System			
Criteria	Maximum Score	Weighting	Score
1. Condition	16	4	64
2. Importance / Accessibility	5	2	10
3. Public Liability Claims / RMS Faults / Complaints	6	1	6
4. Assistance to Other Priorities	10	2	20
Maximum Total:			100

## 1. Condition

Taken from initial Condition Assessment Score generated during inspection

Condition Extent → ↓	1 – Acceptable	2 – Safe but poor appearance	3 – Minor deterioration	4 – Major Deterioration
1 – Up to 25%		5	9	13
2 – 25% - 50%		6	10	14
3 – 50% - 75%		7	11	15
4 – 75% - 100%	4	8	12	16

## 2. Importance / Accessibility

	Score
Footway / Footpath Priority 1 Gritting Route	5
Footway / Footpath Priority 2 Gritting Route	3
Footway / Footpath Priority 3 Gritting Route	2
Other Footway / Footpath	1

## 3. Public Liability Claims / Fault Reports / Complaints

Score according to the type / source of complaint / fault report / request for service received for the location

- 1 - Public Complaint or Fault Report resulting in a confirmed defect
- 2 - Multiple Requests for service or Fault Reports resulting in confirmed defects
- 4 - Elected Member Complaint or Request for Service
- 6 - Public Liability Claim

## 4. Assistance to Other Priorities

Use your own knowledge of the surrounding area to rate the location in relation to:

- 1 - Shared Cycle / Footways
- 2 - Adjacent to Local Shops
- 4 - Adjacent to Schools, Leisure Facilities and Tourist Attractions
- 6 - Adjacent to Amenity Housing, Residential Care Homes and Medical Centres
- 8 - Local Bus Route, access to Train Stations and Park & Ride facilities
- 10 - Town Centre

Structure Name:  
Date when the scoring is carried out:

Enter score based on the description in the following coloured cells

Priority Ranking for structure capital programme					Structure Name:				
		Maximum			Structure Score Input		Net score	% of total Score	
No.	Factors	Score							Additional commentry
1	Type of Bridge	1	Score 1 if road bridge and 0 if foot bridge	Culverts, Subways which carry road shall be considered as road bridge as per this scoring system. Structures which carry only pedestrians, cyclists and equestrians shall be considered as footbridge.			NA		
2	Route Factor	40	Score based on NAC route hierachy	Route hierachy Cat 2 - SPT/ NAC strategic routes - 40 Cat 3a - Main distributor routes - 30 Cat 3b - secondary distributor routes - 20 Any other category - 10 Routes serving fewer than 5 properties - 5			0	0%	
3	HGV Restriction factor	60	Score based on weight capacity	Weight restriction 3 tonnes - 60 7.5 to 13 tonnes tonnes - 50 18 tonnes - 40 26 tonnes - 30 No weight restriction - 0			0	0%	
4	Condition factor	10	Score based on the condition of the bridge	Sliding score based on 0 for very good condition to 10 for poor condition. (10 - (BCI crit/ 10))			0	0%	
5	Deterioration factor	10	Score based on the rate of deterioration of the structure	Sliding score based on 0 for very slow deterioration to 10 for rapid deterioration			0	0%	
6	Pedestrian factor	20	Score based on pedestrian usage. Bridges with footways of heavy pedestrian usage shall score a maximum of 30.	Structures with footways in heavily used urban areas score 20. Score 20 if route is access to a school or railway station. Apply a sliding scale going down to 0 for rural structures without footways.			0	0%	
7	Flooding factor	40	Score based on the potential for the existing structure to contrubute to flooding	A structure that makes no contribution to flooding risk will score 0. Structures that are know to increase the risk of flooding due to restrictions in width or soffit height will score 30.			0	0%	
8	Scour factor	60	Score based on risk of collapse due to expose to scour in heavy flow conditions	Risk of collapse of structure due to scouring. Structures which have been deterioted severely because of inadequate scour protection and on verge of collapse score maximum. Scour risk based on a sliding scale.			0	0%	
9	Parapet Condition Factor	15	Score based on the condition of the parapets	Structures with substandard Parapets with poor conditon will score 15 . Structures with substandard parapets with a 'monitor only' recommendation will score 10. Structures which have parapets to current standards will score 0.			0	0%	
10	Parapet Risk Factor	10	Score based on risk in the event of a parapet collapse leading to high risk injuries and human casualties.	What is the likelihood of severe injury or even death while the parapet is open to use considering the condition of the structure. Risk based on a sliding scale.			-5	100%	

11	Delay factor	10	Score based on whether existing restrictions such as limited width cause delays at the structure	Structures where delays are caused by width, weight, height or other restrictions such as traffic lights will be given a score higher than zero. Delays less then 2 minutes at peak times will score 5 and longer than 2 minutes will score 10. Score maximum if fire station, railway station or hospital affected by delay.		0	0%	
12	Structure Risk factor	10	Score based on risk in the event of a Structure collapse leading to high risk injuries and human casualties.	What is the likelihood of someone getting a high risk injury or even death while the structure is open to use considering the condition of the structure. Risk based on a sliding scale.		0	0%	
13	Maintenance factor	20	Score based on maintenance required to keep the existing structure open.	Score based on known maintenance history and requirement. No maintenance requirement will score 0. Listed structures score 15.		0	0%	
14	Diversion factor	10	Score based on the length of the diversion route if the structure is closed in an unplanned manner with no finite time limit.	Score based on diversion length. Any diversion equal to or more than 20 miles scores 20. Score 1 for each 2 miles of diversion up to 20. Score 10 if a road closure adversely affects a fire or railway station or hospital. Score 10 if there is no alternative diversion.		0	0%	
						-5		

Note maximum score that can be achieved for road bridge= 500

Priority level Chart		Structure Name: Date of Scoring: 00-Jan-00							
Priority Level Indicator		Overall works (500)		Structure works (100)		Parapet works (70)		Scour Protection (60)	
		Level	Score	Level	Score	Level	Score	Level	Score
No Action Rquired									
Low Priority									
Medium Priority									
High Priority									
Immediate action required									

Note : Works are divided above into three sub categories as each work can be independent and each has its own significance in terms of attention required.