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Date: 13 November 2019

Dear Sir/Madam

You are invited to the following meeting:

Environment and Transport Committee
Council Chamber, Town Hall, Lerwick
Wednesday 20 November 2019 at 2pm

Apologies for absence should be notified to Leisel Malcolmson, at the above number.

Yours faithfully

Executive Manager – Governance and Law

Chair: R Thomson
Vice Chair: R McGregor

AGENDA

- (a) Hold circular calling the meeting as read.
- (b) Apologies for absence, if any.
- (c) Petition – Traffic Calming – Gilbertson Road, etc
- (d) Declarations of Interest - Members are asked to consider whether they have an interest to declare in relation to any item on the agenda for this meeting. Any Member making a declaration of interest should indicate whether it is a financial or non-financial interest and include some information on the nature of the interest. Advice may be sought from Officers prior to the meeting taking place.
- (e) Confirm the minutes of the meeting held on 4 September 2019 (enclosed).

1. Development Directorate Performance Report – Q2 2019/20
DV-34
2. Strategic Roads Network – Strategic Outline Programme
RD-06
3. Carriageway Condition of Shetland's Roads
RD-07
4. Infrastructure Services Business Programme – 2019/20
ISD-15

PETITION

Hello, our names are Eddie and Ollie Tindall. We are petitioning to get roads in Shetland made safer for children. We like to play outside and go on our bikes but it's so dangerous with lots of cars driving really fast. Our mam and dad have made this petition to present to the SIC Roads department to show the support from local residents to changes being made to keep us safe. We would like to see traffic calming measures the full length of Gilbertson Road and surrounding crescents and streets such as Cheyne Crescent and St Sunniva St. Please sign our petition if you agree traffic calming measures should be made to these areas.

170 signatures received.



Shetland Islands Council

MINUTE

A&B - PUBLIC

Environment and Transport Committee
Council Chamber, Town Hall, Lerwick
Wednesday, 4 September 2019 at 2.00pm

Present:

P Campbell	S Coutts
C Hughson	S Leask
R McGregor	G Smith
R Thomson	

Apologies:

C Hughson (lateness)
A Manson A Priest
D Sandison

In Attendance (Officers):

J Smith, Director of Infrastructure Services
N Grant, Director of Development Services
A Inkster, Executive Manager – Marine and Airport Infrastructure
C Symons, Executive Manager – Environmental Services and Estate Operations
K Main, Team Leader – Port & Marine Operations
N Hutcheson, Team Leader – Roads
B Robb, Management Accountant
P Wishart, Solicitor
L Malcolmson, Committee Officer

Chair:

Mr Thomson, Chair of the Committee, presided.

Circular:

The circular calling the meeting was held as read.

Declarations of Interests

None

Minutes

The Committee approved the minutes of the meeting held on 7 May 2019 on the motion of Mr Leask, seconded by Mr G Smith.

16/19 **Infrastructure Directorate Performance Reporting - Environment and Transport Performance Report Quarter 4 to 31 March 2019 and Quarter 1 to 30 June 2019**

The Committee considered a report by the Director of Infrastructure Services (ISD-13-19-F) that summarised the activity and performance of the

Infrastructure Directorate for Quarter 4 to 31 March 2019 and Quarter 1 to 30 June 2019

The Director of Infrastructure Services introduced the main terms of the report, and in responding to questions he provided clarity on the different figures in the Appendix compared to those in paragraph 4.10 of the report.

Reference was made to the replacement ferries for Whalsay and Fair Isle and Officers were asked for an update on the Business Cases for these projects. The Director of Development Services advised that the capital case had been submitted to the Scottish Government where Ministers would consider it in connection with the request for revenue funding. The Director of Development Services was however unable to advise on the date of any response from the Scottish Government. The Committee was advised that Officers had provided all information sought and Transport Scotland had also been involved in the process. The Director of Development Services reported also that additional analysis of the Whalsay Ferry would be completed soon.

During further discussion, reference was made to the Risk Register and the emergency plan in place to respond to animal or infectious diseases, and it was noted that the bespoke scheme in place in Shetland was the envy of the UK. The Director of Infrastructure Services advised however there was no further information available on Brexit but concern was then expressed that animal health issues could be less stringent following Brexit. It was noted that the Council would work closely with industry on all Brexit issues.

The Director of Development Services added that the Government is leading the Brexit process but the Council is part of that process as the country prepares.

During debate, reference was made to the fair funding for internal ferries and it was hoped that following the recent Scottish Parliamentary Campaign engagement would continue to ensure connectivity with the remote isles. The Chair said that through the Sounding Board it was clear that there was no more to be done at a local level, and lobbying was now political. He added however that he had been heartened by the pledge from the Scottish Government, to continue to work with the North Isles. He advised however that agreement had been reached on what "fair" means. He stated that Officers would continue to work with the Scottish Government to reach a conclusion and as the First Minister said, we will work to make a better service.

(Mrs Hughson attended the meeting)

During further debate, there was concern expressed that there had been a number of pledges some time ago and it was hoped these would be honoured. It was noted however that the new MSP for Orkney and Shetland would be better informed than her predecessors, and it was hoped that the pledges made would reach a conclusion.

Through the Chair a further question was asked regarding the recycling shed and the Director of Infrastructure Services confirmed that the work was nearing completion and he would advise specifically on a date in early course. The Director of Infrastructure Services advised that the project had been delayed affecting some savings but when completed he would report back. He added that once the commercial recycling is implemented performance would be improved performance and he would also report in that regard and include how the project has been affected by the slippage.

In responding to a further question, the Executive Manager – Environmental Services and Estate Operations confirmed that the pool car scheme was achieving savings and the tracked vehicles are a benefit to staff whilst these savings are made. The Director of Infrastructure Services advised that once twelve months of data was available the pool car scheme performance would be reported to Committee.

Decision:

The Committee **NOTED** the;

- achievements of the Directorate during 2018/19,
- plans and progress in 2019/20 and
- proposals for 2020/21 activity and priorities

17/19

Development Directorate Performance Report 2018/19

The Committee considered a report by the Director of Development Services (DV-04-F) summarising the activity and performance of the Development Directorate for 2018/19.

The Director of Development Services summarised the main terms of the report that related to the remit of the Committee, commenting particularly on Islands with Small Populations, Fair Funding of Internal Ferry Services, North Isles Ferry Services and the Inter Islands Air Services.

There being no question or debate, the Committee noted the report.

Decision:

The Committee NOTED the report and the achievements of the Directorate during 2018/19 and the progress against the priorities set out in the Directorate Plan.

18/19

Development Services Directorate Plan 2019-2022

The Committee considered a report by the Director of Development Services (DV-10-F) that set out the actions to be taken by the Directorate between 2019-2022.

The Director of Development Services summarised the main terms of the report and drew attention specifically to the external transport links, internal transport networks and the three service redesign projects.

The Committee discussed the need for a better payment system on the internal ferries as the public, including tourists, may arrive without cash in

the expectation that card or phone payment is possible. It was considered that a solution should be found and whilst acknowledging that the broadband connectivity was an issue onboard the vessels it may be appropriate to have a shore based facility, and the crew could check that a ticket has been purchased. It would also be important to link ticketing facilities with the bus services, and the Committee urged that the matter be progressed. The Chair said that ZetTrans smart ticketing had not been progressed due to the cost and the specific software that is needed. He advised that in terms of funding it was not possible to progress smart ticketing until the end of this calendar year. The Committee agreed that this project should be pushed forward and the Director of Development Services agreed to provide a progress update on smart ticketing for ferries for the next meeting. Further comment was made in regard to the need for card or phone payment facilities for inter islands transport.

A concern was raised in regard to bus transport, and the Committee heard from a Community Council meeting there had been discussion around how uncomfortable the low level buses are particularly on longer routes where the conditions of the roads may add to this discomfort. The Director of Development Services said that the new bus contract was an opportunity to influence the next set of contracts but there are some of the feeder services that do not have disabled access. The Committee were informed that Peter Brett Associates were working with Officers who would consider the different options whilst trying to keep the costs down.

During debate, comment was made on the condition of Shetland's roads and although it was acknowledged that the roads are better maintained than other areas of Scotland, within the resources available.

Decision:

The Committee ENDORSED the Directorate Plan, recognising that the Director of Development Services will make any adjustments required to ensure it is fully aligned to the Council's Corporate Plan.

19/19 **Traffic Regulation Orders Etc. – Annual Progress Report**

The Committee considered a report by the Team Leader – Asset and Network (RD-03-19-F) that provided information on the Traffic Orders etc. made in the past year.

The Team Leader – Asset and Network introduced the report, and the Committee noted its content.

Decision:

The Committee NOTED the report.

20/19 **Infrastructure Services Business Programme – 2019/20**

The Committee considered a report by the Director of Infrastructure Services (ISD-14-19-F) that provided information on the Business Programme of the Committee for the financial year 1 April 2019 to 31 March 2020 including items where the date is still to be determined.

The Director of Infrastructure Services introduced the report, and it was agreed that the matter of Smart Ticketing on Ferries Update would be added to the meeting scheduled for 20 November 2019.

Decision:

The Committee APPROVED the business planned in the financial year 2019/20, as amended.

The meeting concluded at 3pm.

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Chair



Meeting(s):	Development Committee Environment and Transport Committee	20 November 2019 20 November 2019
Report Title:	Development Directorate Performance Report – Q2 2019/20	
Reference Number:	DV-34-19-F	
Author / Job Title:	Neil Grant - Director of Development Services	

1.0 Decisions / Action Required:

- 1.1 That the Development Committee discuss the contents of this report and make any relevant comments on the achievements of the Directorate during Q1 & Q2 2019/20, progress against the priorities set out in the Directorate Plan (2019/22) and contribution to forward plans.

2.0 High Level Summary:

- 2.1 This report summarises the activity and performance of the Development Directorate for Q1 & Q2 2019/20, enabling Members to analyse its performance against the Directorate's Service objectives and the Corporate Plan outcomes.

3.0 Corporate Priorities and Joint Working:

- 3.1 Effective Planning and Performance Management are key aspects of Best Value and features of "Our Plan", the Council's Corporate Plan 2016-2020.

4.0 Key Issues:

- 4.1 The Directorate's objectives as detailed in the Directorate Plan are the outcomes the Directorate aims to deliver in the year. We said **"what we must do in 2019/20"** was:
- 4.1.1 Ensure alignment between Shetland's Partnership Plan, Our Plan 2016-2020 and key Development Directorate policies in order to improve the long term outcomes related to Participation, People, Place, and Money within the Plan.
 - 4.1.2 A key element is enablement of a 10 year plan to attract people to Shetland to live, work, study, and invest.
 - 4.1.3 At the same time we will continue to:
 - reliably and safely deliver our day to day services that meet the needs of our customers;
 - meet our statutory requirements and deliver compliant services;
 - deliver our objectives to ensure the Corporate Plan commitments are met;
 - maintain our existing assets;

- protect the environment and reduce the environmental impact of our activities;
- address inequality- supporting those most in need and not making inequalities worse;
- provide best value for the public funds invested in our services.

4.2 In the first half of 2019/20 the Development Directorate achieved the following progress, which is recorded against the four priorities of the Shetland Partnership Plan; PARTICIPATION, PEOPLE, PLACE and MONEY, the main focus of the Development Directorate's activity being in the PLACE priority.

- **Shetland's Partnership Plan 2018-28**, Governance arrangements now in place, with appointment of Management and Leadership Team, and Partnership Network. Delivery Plans have been identified for each of the four priorities.

PLACE

4.2.1 Enable Development to Happen

- **Local Development Plan (LDP):** The Call for sites process has recently been completed and responses are being evaluated. Housing Land Audit has also been completed, and the Housing Needs and Demands Assessment has been updated and resubmitted to Scottish Government. An early response is expected.
- **Scalloway Making Places Project** has achieved very good community engagement and will help to establish the community priorities and how they can be achieved in future place and service plans. This will ultimately contribute to planning policy for the area.
- **Town Centre Capital Grant Fund:** The Scottish Government made available an allocation of £205k to the Council to be invested in town centres to encourage their diversification, and increase footfall. The funds must be fully committed by March 2020. Projects in Lerwick and Scalloway have been agreed and are currently being implemented, including: redevelopment of old youth centre (phase1), Church Road pedestrian facilities, Lerwick arts and culture trail, tourism infrastructure, and civic space improvements.
- **Scottish Government's Regeneration Capital Grant Fund:** Funding bid for development of parking at Hoswick Visitor Centre was successful, and the update on Cullivoe Industrial Estate and Marina development bid is awaited.

4.2.2 Increase the Supply of Housing Across all Tenures

- **'Building for the Future in Shetland':** Workshops involving builders and developers identified three priority issues which are being progressed: Workforce Development (ii) Business Development, and (ii) Procurement. We are currently working on a Shetland Procurement Framework, and a framework for Mid-Market Rented accommodation.
- **'Strategic Housing Investment Plan (SHIP)'**: A new 5 year programme has been developed and will be presented to Development

Committee for approval at this cycle for agreement, before submission to the Scottish Government. The Programme target is for 339 new units of affordable accommodation, or an average of 68 units per year over the next 5 years. When combined with private sector build these numbers are intended to meet the housing challenge of the 10 year plan to attract people to Shetland to Live, Work, Study and Invest.

- **Knab Site Masterplan:** The draft Masterplan for the site has gone through public consultation, and was presented to the Development Committee [Min Ref 12/19] and Council [Min Ref 39/19] on 11 June 2019. The Masterplan has been adopted as planning guidance with a condition to further engage local residents on traffic flow and parking issues. The Project details and phasing are currently being developed by a multi discipline project team.

4.2.3 Develop Shetland's Skilled Workforce

- **Colleges Merger:** The Ministerial Merger Business Case (MMBC) is currently being developed with Shadow Board and stakeholder input. The vesting date target of 6 January 2020 will be delayed because of complications in preparing the MMBC including imposition of the pre-election period for the UK Parliamentary election, and a revised date will be provided as soon as this is available. The Principal Designate, Jane Lewis was appointed and started in her new role on the 1 October 2019.
- **Developing the Young Workforce (DYW):** Work with the Children's Service, Adult Care Service, Corporate Services, stakeholders and businesses to increase the number of modern apprentices, and relationships with Businesses, Colleges and Schools.
- **Centre for Rural Creativity:** This project is now making significant progress and is achieving notable inward investment for local research activity, for example the 'Home and belonging project'

4.2.4 Achieve Sustainable and Affordable Internal and External Transport Links

- **Fair Funding of Internal Ferry Services:** Outline Business Case, Economic cases have been prepared for Fair Isle, Whalsay and the revenue options for inter-island ferry services. These were agreed by Council on 26 June 2019 [Min Ref 44/19], after a period of public consultation.

The Northern Isles Inter-island Transport Working Group (involving Scottish Government, Transport Scotland, Shetland Islands Council, Orkney Islands Council, ZetTrans, HiTrans) has also concluded its work and reported to the Scottish Government.

Based on the above analysis, the Council has submitted a revenue ask of £9.4m for 2020/21, and a further ask for projected capital spending.

Ferries Fair Funding Sounding Board meets regularly to pursue this matter with Government.

An update is expected from Scottish Government ahead of the 2020/21 budget setting.

- **Public, School and Adult Social Care Transport:** An Outline Business case for Public, School, and Adult Social Care has been agreed by Council and ZetTrans on 6 November 2019 and the next step is to tender the network as per the preferred option. The Full Business case will be completed once tenders have been received and a decision will be taken by Council in February 2020 on the reconfiguration of Public, School, and Adult Social care transport networks to be implemented in August 2020.
- **Internal Air Service:** Inter-island Air Service Outline Business case has been prepared and presented to the Council in June and September [Min Refs 45/19 and 60/19] and ZetTrans in June and September. Tingwall airstrip was confirmed as the preferred mainland location for Inter island flights. The agreed flying route specification which is for Fair Isle and Foula only is now out to tender. New air contracts are planned to commence in March 2020.
- **Northern Isles Ferry Services:** The current contract to operate the Northern Isles Ferry Services has been extended by three months to run until 31 January 2020, whilst the Scottish Government deal with an on-going challenge from a third party.
- **Strategic Transport Projects Review (STPR2):** We continue to engage with the process to develop Scottish Government Transport 20 year policy, including exploration of fixed links options, and due to conclude and report at end of 2020.

4.2.5 Support for Local Businesses and Entrepreneurs

- **Islands Deal:** The Islands Deal project continues to be developed across the three OIOF islands, and was submitted to the UK and Scottish Governments in November 2019, with a £300m combined ask, and includes projects such as Knab site redevelopment, and deep water decommissioning.
- **Shetland 600MW Interconnector:** Engagement with Ofgem, and network operators to secure the HVDC interconnector. Ofgem have stated that it is willing to consider a revised needs case for the interconnector, from developers and network operator. Establishment of the electrical interconnector is also strategically important to the future development options for the Sullom Voe Terminal, and Oil and Gas Hub
- **Shetland Space Centre Project:** Development services are currently engaging with Shetland Space Centre Ltd, the UK Space Agency and other key private sector stakeholders to identify how this very significant opportunity can best be supported and facilitated by the Council. The project includes both satellite launch and satellite tracking and data download development.

4.2.6 Resilient Rural Communities

- **Islands with Small Populations:** Continue to work with the islands with small populations to develop better coordination of public support services and alignment to achieving community plans. The Islands event held in September 2019, was an excellent demonstration of community empowerment. Work is ongoing with key projects, and member briefing notes are being issued on progress.

4.2.7 Achieve High Speed Broadband and Full Mobile Coverage to all Shetland Settlements

- **North Isles Fibre Network:** Implementation of the public sector fibre network to Yell and Unst is progressing, the works having recently been tendered.

Staff Achievements

4.3 The following examples capture just some of the notable performances of our teams in living our Values, of providing excellent service by taking personal responsibility and working well together.

- **Housing Support Shetland:** Following a recent inspection the Care Inspectorate ranked the Service Very Good for Quality of Staff, and Quality of Care and Support. The inspection report will be presented separately to Development Committee this meeting cycle.
- **Transport Planning Team:** extensive public consultation and community engagement on bus networks, involving area transport forum events, operator, and user group consultations.
- **Islands with Small Populations:** The Islands event held 6 September 2019 was an exemplar for community led place planning, which was well facilitated by the Community Planning and Development Team.
- **Chair of Heads of Planning Scotland:** Our Executive Manager - Planning was elected to serve as the Chairperson of the organisation which represents Scottish Local Authorities during 2018/19, and was very active in promoting islands issues and 'Islands Proofing' in the development of the new Planning (Scotland) Act 2019.

Financial Performance

4.4 The Directorate is currently predicted to spend £14,796k against an annual approved budget of £13,679k, an overspend of £1,117k.

4.5 The projected overspend is primarily due to the Scottish Funding Council (SFC) no longer agreeing to underwrite the operational costs of the College in the lead up to the proposed merger. The SFC had originally sent a letter of intent in December 2018, following internal discussion no budget provision was made by the Council to meet this cost. This projected variance of (£1.074m) is up to the 31 March 2020.

- 4.6 A further predicted overspend of £84k is predicted in the Train Shetland operation, mainly due to additional staffing requirements to deliver the increased modern apprentice programme.
- 4.7 The overspend is partly offset by a predicted underspend of £153k in Transport Planning. The projected underspend is primarily due to the ZetTrans public bus operations under budget by £123k; a number of school transport services is no longer required with a projected saving of £163k; and additional support needs school transport underspent by £56k due to the introduction of "parental mileage claims". This is offset by additional consultancy costs in delivering the transport network redesign across Transport Planning and ZetTrans (£227k).
- 4.8 Housing Revenue Account: Additional unforeseen expenditure re painting contracts offset by additional capital receipts results in the projected overspend for the HRA of £30k.

Risk and Service Challenges

- 4.9 Performance monitoring and performance reporting must also consider the areas of risk arising from our operations, the service challenges the directorate faces, actions and projects which have not progressed as planned, and where we do not meet Performance Indicator Benchmarks:
- Colleges Integration – It has been agreed by the various stakeholders that the vesting date of 6 January 2020 cannot be met, and the programme of activities is currently being worked through to establish a new date. If the vesting date is later than 30 March 2020, there will be an impact on the 2020/21 Directorate budget.
 - Homelessness and Temporary Accommodation - we continue to experience significant pressure on housing stock particularly in the Lerwick area where there is a high demand for single person accommodation, leading to long periods in temporary accommodation. This is being addressed through the Strategic Housing Investment Plan in trying to rebalance the proportion of stock of the right size.
 - Islands with small populations - we are already experiencing reducing numbers in some of the communities and difficulties in meeting need, for example, island fire crew required for island air services. Good progress is being made in engagement with these communities to develop future plans through the Islands with Small Populations project.
 - We continue to experience difficulty in recruiting to posts within the service notably Planning Service posts where there is an acute national shortage of qualified staff. The Planning Service has undertaken a successful pilot project, supported by Human Resources and Corporate Services, to recruit to vacant posts which resulted in successful recruitment to some of the vacancies. However this situation is not limited to Planning, as Economic Development and Community Planning & Development Services are also working with vacancies.
- 4.10 The Director of Development seeks to mitigate the projected overspend through a combination of the following actions:
- Management of the Colleges Merger project and project funding from the Scottish Funding Council;
 - Contribution of one off underspends in all services for the current year;

<ul style="list-style-type: none"> Continuing to find further efficiencies across all services; Offset Train Shetland Vocational Training additional staff costs required to deliver the additional apprenticeship places against the increased income from the Apprenticeship Levy fund. 	
5.0 Exempt and/or Confidential Information:	
5.1 None.	
6.0 Implications:	
6.1 Service Users, Patients and Communities:	Effective performance management and continuous improvement are important duties for all statutory and voluntary sector partners in maintaining appropriate services for the public. The Directorate uses customer feedback and complaint analysis to drive service change and service improvement.
6.2 Human Resources and Organisational Development:	<p>There are a number of actions in this service plan with staffing implications. Care is taken to ensure that staff are involved and informed about changes that might affect them, that HR are closely involved and that relevant Council policies are followed. Ensuring staff feel valued and supported especially through periods of challenge and change is a key consideration for the Directorate Management team.</p> <p>Recruitment continues to be an issue in some services.</p>
6.3 Equality, Diversity and Human Rights:	The Directorate carries out Integrated and Equalities Impact Assessments to ensure its services are supporting those most in need and not making inequalities worse.
6.4 Legal:	The Directorate delivers statutory services, monitoring performance provides assurance that statutory requirements are met and the Council complies with its duties in delivering Services.
6.5 Finance:	The services under the remit of the Development Committee are projecting to spend more than their Council approved budget, which may require additional resources if the Directorate's mitigating actions outlined above are insufficient to remedy the overspend.
6.6 Assets and Property:	A number of the actions in the Directorate Plan relate to maintenance and replacement of Development and Council assets to maintain delivery of services to the people of Shetland.
6.7 ICT and New Technologies:	Limitations of the Shetland wide Broadband and Mobile networks impact on delivery of services which require remote access to digital networks and databases.
6.8 Environmental:	The Directorate works closely with Infrastructure and other Directorates to reduce energy usage and carbon emissions.
6.9 Risk Management:	Embedding a culture of continuous improvement and customer focus are key aspects of the Council's improvement activity. Effective performance management is an important component

	<p>of that which requires the production and consideration of these reports. Failure to deliver and embed this increases the risk of the Council working inefficiently, failing to focus on customer needs and being subject to negative external scrutiny.</p> <p>Risk management is a key component of the performance cycle and the Directorate Plan actions are determined to be priorities to manage the Directorate risks.</p>	
6.10 Policy and Delegated Authority:	<p>The Council's Constitution – Part C - Scheme of Administration and Delegations provides in its terms of reference for Functional Committees (2.3.1 (2)) that they;</p> <p>"Monitor and review achievement of key outcomes in the Service Plans within their functional area by ensuring –</p> <p>(a) Appropriate performance measures are in place, and to monitor the relevant Planning and Performance Management Framework.</p> <p>(b) Best value in the use of resources to achieve these key outcomes is met within a performance culture of continuous improvement and customer focus."</p>	
6.11 Previously Considered by:	None.	

Contact Details:

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Date Cleared: 14 November 2019

Background Documents:

Directorate Plan 2019-22



Meeting(s):	Environment & Transport Committee Policy & Resources Committee Shetland Islands Council	20 November 2019 25 November 2019 27 November 2019
Report Title:	Strategic Roads Network – Strategic Outline Programme	
Reference Number:	RD-06-19-F	
Author / Job Title:	Dave Coupe Executive Manager Roads Services Neil Hutcheson/ Team Leader – Asset and Network	

1.0 Decisions / Action required:

That the Environment and Transport Committee and the Policy and Resources Committee recommend that the Council:

- 1.1 **NOTE** actions taken to date regarding the development and maintenance of Shetlands Strategic Roads network.
- 1.2 **ENDORSE** the objectives and critical success factors set out in the Strategic Outline Programme including the proposed reporting arrangements;
- 1.3 **APPROVE** the identification of the B9082 Cullivoe road as the priority project for resolution within the Strategic Roads network;
- 1.4 **DELEGATE** authority to the Director of Infrastructure Services or his nominee to initiate the preparation of a Strategic Outline Business case for the B9082 Cullivoe Road again in January 2020; and
- 1.5 **NOTE** the addition of the road to the West Burrafirth Ferry Terminal to the strategic road network.

2.0 High Level Summary:

- 2.1 The Strategic Roads Network Programme is intended to provide the information on current and projected needs, issues and opportunities around large-scale potential projects which might be required to maintain or develop the capability of the core Roads network in Shetland.
- 2.2 It will help inform the identification of issues and options and assist in evidence based planning and decision making so that economic and social needs for roads transport are met efficiently, effectively and economically to support key outcomes for Shetland and it's residents.

3.0 Corporate Priorities and Joint Working:

- 3.1 Access to services and economic activity across Shetland all depend on transport one way or another. There are well-developed strategies and plans for inter-island ferries, internal air services, bus services and active travel.
- 3.2 The road network that these services use is generally well developed due to very significant investments during the oil construction era and a very comprehensive network of roads was developed to connect communities, businesses, public service centres like schools and care and health centres, airports, ferry terminals and piers and harbours.
- 3.3 That road network is used extensively by services, commercial businesses, residents and visitors to allow goods and people to move between places and is directly important in delivering key “place” priority outcomes in;
- The Shetland Partnership Plan,
 - the Councils “Our Plan”,
 - the Shetland Transport Strategy,
 - the Local Housing Strategy,
 - the Local Development Plan and
 - the 10-Year Plan.

4.0 Key Issues:

4.1 Shetland’s Strategic Road Network

4.1.1 A “Review of the Main Road Improvement Policy” was, reported to the Infrastructure Committee on 1 September 2009 (min ref 70/09). This set out the list of Shetland’s strategic or “main roads.” The list was as follows:

- the Principal Roads (A968, A969, A970 and A971) formally established by the Government in the 1960’s;
- the Spine Route Network established by the Council in “Shetland Transport Policies and Programmes (TPP)” documents from the 1970’s until the 1990’s. It was described as “intended to link Lerwick to Sumburgh Airport, the Sullom Voe Oil Terminal, Scalloway, and the main ferry terminals. It also includes branches westwards as far as Bixter, and northwards into Northmaven.” Therefore, in addition to the Principal Roads it included the B9071 Voe to Laxo, the B9073 Black Gaet and the B9074 Brae (via Graven) to Firth; and
- the highest priority roads in the Council’s maintenance hierarchy policy that takes traffic flow, bus routes, heavy vehicle usage etc. into account. This includes the majority of the above roads plus the B9074 Scalloway to Hamnavoe, B9082 Cullivoe Road, King Harald Street, Knab Road, Castle Street, Central Sandwick and Gremista Road.

- 4.1.2 The report went on to recommend that the B9071 Bixter to Aith, B9071 Laxo to Vidlin and B9081 Mid Yell Link roads also be considered “main” roads because they are the only links to Junior High schools or ferry terminals. This and the report’s other recommendations were approved by the Committee. A map of the strategic road network is attached in Appendix 1.

4.2 Current Issues with the Strategic Road Network

4.2.1 Road Safety

Accident reduction on the road network is generally sought by means of small scale improvements at locations with a poor “accident history.” However, these locations in Shetland have largely been addressed over the years leaving issues that can only be resolved with route treatments or larger scale capital improvements.

4.2.2 Development Related

There is no doubt that the upgrading of Shetland’s main roads over the years has been a significant factor in encouraging and facilitating development in rural areas. The increased capacity of “two-lane” roads and reduction in journey times has been vital in enabling the haulage of goods and materials, and in allowing staff to access their workplace. There are still lengths of road that could be upgraded in order to promote economic development in the North Isles, North Mainland and West Mainland. However, perhaps of more importance is the addressing of issues that if not resolved will have a significant negative impact on existing development.

4.2.3 Deteriorated Condition

Revenue budgets are used to undertake a wide range of maintenance works. However, there are situations where it can be more cost-effective in the long-term to reconstruct or even replace certain roads or parts of them, rather than bear the costs and effects of frequent heavy maintenance and repairs. These works can involve footways, bridges, lighting, safety barriers and carriageways or any combination of these. The annual carriageway condition reports have stated for a number of years that recent improvements in the surveyed road condition “will to a certain extent mask the long term decline of the “structure” of the road network.....that can only be addressed with more expensive treatments such as overlay resurfacing or reconstruction.” This decline is now becoming evident on certain lengths of road.

4.2.4 West Burrafirth Ferry Terminal/Pier

The road to the West Burrafirth Ferry Terminal is not currently listed as part of the strategic road network. Since it is the only link to the ferry terminal we intend that it will now be added.

4.3 Reporting of the “Strategic Roads Network Programme”

- 4.3.1 The issues currently affecting the strategic road network and potential solutions are discussed in further detail in Appendix 1.

- 4.3.2 That analysis concludes that the priority issue on the Network is the B9082 Cullivoe Road. A length of this road between the Gutscher “crossroads” and the Cullivoe Pier is no longer considered fit for purpose due to the recent significant increase in the number of heavy goods vehicles (HGV’s) using the road. There is a risk that should this level of usage continue it will deteriorate to the point

where a weight restriction will have to be introduced as an interim measure. The level of maintenance, which would include some reconstruction, could not be undertaken without road closures resulting in disruption to the businesses and road users

4.3.3 The recommendation is that a “Strategic Outline Case (SOC)” should be developed for the Cullivoe Road. That SOC will establish specific investment objectives and critical success factors, a long list of options to meet these, initial option appraisal and recommendations of the short list for further investigation. The target for that SOC will be reported again in January 2020.

4.3.4 It is also recommended that the Roads Service monitor the strategic roads network programme and presents a report, annually, to the Environment and Transport Committee. Similarly to this report it would detail the current issues and where required would seek guidance from the Committee as to how these issues are to be addressed. The report would inform the Committee of the progress made as these decisions are actioned. The addition and/or removal of lengths of road from the strategic road network would also be reported for approval.

4.4 Design Works

4.4.1 The work required for preparation of the action plan would in part be funded from existing roads budgets. However, there would be a requirement for additional funding for the advanced design of improvements that are deemed necessary. This funding would need to be sufficient to also allow for scheme design, the preparatory work for land acquisition, land acquisition and utility diversions / accommodation works. Indicative costs for design works for each potential scheme are included in the Strategic Outline Programme. The identification and draw down of any specific design budgets will only be confirmed as the development of “Business Cases” as individual schemes are approved for progression by programme reporting.

5.0 Exempt and/or confidential information:

5.1 None.

6.0 Implications :

6.1 Service Users, Patients and Communities:	The road network is the largest community asset for which Shetland Islands Council is responsible. It is vital and fundamental to the economic, social and environmental well being of the community. It helps to shape the character of an area, the quality of life of the local community and makes an important contribution to wider Council priorities including growth, regeneration, education, health and community safety. Roads also make a wider contribution to society, providing access to ferry terminals, ports and airports.
6.2 Human Resources and Organisational Development:	No implications.

6.3 Equality, Diversity and Human Rights:	No implications.
6.4 Legal:	<p>The Council's statutory duties are defined by Section 1 of the Roads (Scotland) Act 1984 which requires that <i>"a local roads authority shall manage and maintain all such roads in their area as are for the time being entered in a list (in this Act referred to as their "list of public roads")."</i></p> <p>The Council has a statutory duty under the "Road Traffic Regulation Act 1984" to <i>"secure the expeditious, convenient and safe movement of vehicular and other traffic."</i> Among other duties under the Road Traffic Act 1988 the Council <i>"must prepare and carry out a programme of measures designed to promote road safety"; "must carry out studies into accidents arising out of the use of vehicles on roads or parts of roads within their area"; and "must, in the light of those studies, take such measures as appear to the authority to be appropriate to prevent such accidents....."</i></p>
6.5 Finance:	<p>The estimated average overall indicative capital cost of the projects included in the Programme is £14.5m which would require to be funded from borrowing in line with the Council Policy. Delivery of the full programme would take 10-15 years if the projects were to run in succession.</p> <p>The average indicative capital cost of the priority Cullivoe project referred to at paragraph 1.3 above is £4.3m.</p>
6.7 ICT and new technologies:	None.
6.8 Environmental:	Improvements to the road network may have implications for a range of environmental issues such as noise, air quality, carbon emissions, water quality, biodiversity/habitats, visual amenity and cultural heritage. All proposals for the development of the road network will evaluate the environmental and climate change impacts during both the construction and operational phase. A planned and structured approach to these evaluations will allow any environmental implications to be considered alongside other issues.
6.9 Risk Management:	<p>Failure to manage and maintain the road network and the net ongoing running costs of the Council carries a significant risk of the Council's financial policies not being adhered to and will require a further draw on Reserves.</p> <p>Should there be insufficient investment in managing and maintaining the strategic road network there is a risk of significant negative economic and social impacts that would affect large areas of Shetland. Given the nature of the network the more isolated rural areas are the most vulnerable to this risk.</p>

6.10 Policy and Delegated Authority:	<p><u>Environment and Transport Committee</u> In accordance with Section 2.3.1 of the Council's Scheme of Delegations the Environment and Transport Committee has functional responsibility for the Roads Service to advise Policy and Resources Committee and the Council in the development of service objectives, policies and plans concerned with service delivery within its remit.</p> <p><u>Policy and Resources Committee</u> In accordance with Section 2.2.1(2) advise the Council in the development of its strategic objectives, policies and priorities; and 2.2.1(7) secures the co-ordination, control and proper management of the financial affairs of the Council.</p> <p><u>Shetland Islands Council</u> In accordance with Section 2.1.3(6) the Council has the power of incurring any expenditure not provided for in the Annual Estimates of Revenue and Capital Expenditure.</p> <p>The Council's Constitution – Part C - Scheme of Administration and Delegations provides in its terms of reference for Functional Committees (2.3.1 (2)) that they;</p> <p>"Monitor and review achievement of key outcomes in the Service Plans within their functional area by ensuring –</p> <ul style="list-style-type: none"> (a) Appropriate performance measures are in place, and to monitor the relevant Planning and Performance Management Framework. (b) Best value in the use of resources to achieve these key outcomes is met within a performance culture of continuous improvement and customer focus."
6.11 Previously considered by:	None.

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31 October 2019

Appendices:

Appendix 1: Strategic Outline Programme – Strategic Roads Network

Background Documents:

Shetland Partnership Plan

STRATEGIC OUTLINE PROGRAMME (SOP)

Project Title:
Strategic Roads Network

Version No: 0.1

Issue Date: 20th November 2019

Purpose of this document

VERSION HISTORY

Version	Date Issued	Brief Summary of Change	Owner's Name
0.1	30.09.19	First Draft Version	
0.2	30.10.19	Final Draft Version	

OVERVIEW OF THE SOP PRODUCTION PROCESS

Stages	Development Process	Deliverables
Phase 0 –	Determining strategic context	
Step 1/ action1	Ascertain strategic fit	Strategic context
Output	<i>Strategic Outline Programme (SOP)</i>	
Outcome	<i>Strategic fit</i>	
Review point	<i>Gateway 0 – strategic fit</i>	

CONTENTS – STRATEGIC OUTLINE PROGRAMME

TEMPLATE AND SUPPORTING GUIDANCE

1. Executive summary
2. Purpose
3. Strategic case
4. Economic case
5. Commercial case
6. Financial case
7. Management case

1. Executive summary

This Strategic Outline programme provides information on the needs, issues and opportunities around large-scale potential projects which may be required on Shetland's core road network. Access to services and economic activity is largely dependent on this network and, therefore, it is important in delivering a number of key priority outcomes from Shetland's Partnership Plan that would benefit public organisations, communities, individuals and businesses.

The strategic road network is generally well developed due to significant investments during the oil construction era. However there are sections of the network with existing or emerging issues which require consideration for potential future action. These issues which could entail larger scale projects have been identified but not progressed as they are out with the scope of the existing arrangements for the maintenance and management of the network. This programme seeks to address this by creating a framework for these issues and opportunities to be analysed and evaluated so that decisions can be taken between the alternative ways forward.

It would be possible to take these projects forward as individual business cases but the lack of any network overview inhibits decision making. This programme is intended to collate the information that could address that cross network issue and allow structured forward planning.

The programme has concentrated on arrangements for the identification of aspects of the network which has current or emerging issues or where there are current or future developments which might be constrained or affected by road provision. The sections of the network which have issues, together with analysis of the potential for improvement of these sections when set against investment objectives, are appended to this programme. A summary analysis of potential for improvement against critical success factors, such as "strategic fit" and "benefits optimisation", is also appended.

This programme would be delivered as self-contained projects with each requiring its own strategic, outline and full business cases before implementation. The benefit of considering these projects together as a "programme" is that it is a structured method of comparing the relative merits of each against a consistent set of objectives, creates a better understanding of the overall scale of the potential works and helps identify a timeline for future assessment and delivery.

The overall cost of projects identified within this programme is between £9.45M and £17.0M depending on the chosen options. The projects would be funded through the Council's Asset Investment Plan, when resources allowed, although opportunities for contributions from external sources will be investigated. There is no specified timetable anticipated, however given that the programme is to be implemented sequentially, it would be likely to take at least 10 to 15 years to deliver the seven schemes identified.

It is recommended that a Strategic Outline Case for the Cullivoe Road should be considered first by Council.

2. Purpose

The Strategic Roads Network Programme is intended to provide the information on current and projected needs, issues and opportunities around large-scale potential projects which might be required to maintain or develop the capability of the core Road network in Shetland.

It will help inform the identification of issues and options and will assist in evidence based planning and decision making. It will ensure that economic and social needs for roads transport are met efficiently, effectively and economically to support key outcomes for Shetland and it's residents.

The investment objectives of this programme are to ensure that the core roads network continues to support key outcomes effectively and efficiently. It will ensure that significant developments are considered in a planned fashion, and that the information required is identified and presented in a way that helps structured management and decision making.

3. Strategic case

Access to services and economic activity across Shetland all depend on transport one way or another. There are well developed strategies and plans for inter-island ferries, internal air services, bus services and active travel.

The road network that these services use is generally well developed due to very significant investments during the oil construction era and a very comprehensive network of roads was developed to connect communities, businesses, public service centres like schools, care and health centres, airports, ferry terminals, piers and harbours.

That road network is used extensively by services, commercial businesses, residents and visitors to allow goods and people to move between places and is directly important in delivering key “place” priority outcomes in,

- The Shetland Partnership Plan,
- the Councils “Our Plan”,
- the Shetland Transport Strategy,
- the Local Housing Strategy,
- the Local Development Plan and
- the 10 Year Plan.

It is of particular significance for;

- Place Priority Outcome 1 – People will be accessing employment, education, training and services in innovative ways designed to minimise the barriers to involvement for all
- Place Priority Outcome 3 – All areas of Shetland will be benefitting from a more resilient low carbon economy underpinned by a culture of innovation, inclusion and skills development
- Place Priority Outcome 4 – Communities will be actively involved in shaping their own future resilience, creating positive places that are economically, socially and environmentally sustainable

The “connectivity” that the strategic roads network enables is also a very significant factor in creating opportunities for communities and services that support “participation”, “people” and “money” priorities and outcomes including;

- Participation Priority Outcome 2 – Communities will feel empowered and the majority of people in Shetland will feel more able to influence the decisions that affect them and have a strong understanding of how and why decisions are taken
- People Priority Outcome 1 – The number of disadvantaged people and households in Shetland will be considerably reduced as a result of people being enabled and empowered to address the issues they face and helping others to thrive in the same way
- People Priority Outcome 3 – Shetland will continue to be a safe and happy place, with more people feeling connected to their communities and benefitting from living in good places and keeping active

- Money Priority Outcome 1 – Everyone will be able to access the support they need to maximise their income potential; including innovative, flexible and entrepreneurial employment opportunities throughout Shetland
- Money Priority Outcome 2 – Everyone will be able to access the support they need to minimise their outgoings with low income households benefitting from reduced bills
- Money Priority Outcome 4 – Communities will be empowered to provide innovative solutions and support to help people maximise their incomes and minimise their outgoings from the support available

3.1 Organisation overview

The strategic “core roads network” runs up, down and across the mainland and extends into the larger islands.

Shetland’s strategic or “main roads” consist of the following:

- the Principal Roads (A968, A969, A970 and A971) formally established by the Government in the 1960’s;
- the Spine Route Network described as “intended to link Lerwick to Sumburgh Airport, the Sullom Voe Oil Terminal, Scalloway, and the main ferry terminals. It also includes branches westwards as far as Bixter, and northwards into Northmaven.” Therefore, in addition to the Principal Roads it included the B9071 Voe to Laxo, the B9073 Black Gaet and the B9074 Brae (via Graven) to Firth;
- the highest priority roads in the Council’s maintenance hierarchy policy which includes the majority of the above roads plus the B9074 Scalloway to Hamnavoe, the B9082 Cullivoe Road, King Harald Street, Knab Road, Castle Street, Central Sandwick and Gremista Road; and
- plus the B9071 Bixter to Aith, B9071 Laxo to Vidlin and B9081 Mid Yell Link roads also be considered “main” roads because they are the only links to Junior High schools or ferry terminals.

A map of the strategic road network is attached in Appendix 1.

3.2 Strategy and programme investment aims

The investment objectives of the Strategic Roads Network Programme are to ensure that the core roads network in Shetland continues to support key outcomes effectively and efficiently. It is intended to ensure that significant actions or developments are considered in a planned fashion and that the information required for decision making is identified and presented in a fashion that helps structured management and decision making.

Key investment objectives for the strategic roads network are;

- Road connections that cater for the vehicles and communities that need to use them so that people and businesses can achieve key outcomes
- Roads that make journeys as safe as possible
- Roads that minimise journey times
- Roads that support low energy travel and active travel
- Roads that strike the best balance between investment costs and ongoing maintenance costs

3.3 Existing arrangements

The Shetland strategic roads network is largely well developed, aligned with business and community needs and is well maintained. However there are a number of areas where there are existing or emerging issues which require consideration for potential future action not fully catered for in existing arrangements.

Most of Shetland's strategic roads network was built in the 1970's, 80's and 90's, generally to a very high standard and has been generally maintained very well since then.

Further development of the network was undertaken incrementally during the 1990's and 2000's as individual schemes, however that largely ceased from around 2010.

The maintenance of the strategic network has been delivered through capital and revenue maintenance programmes since then, and limited scale reconstruction and improvement (typically projects costing less than a few hundred thousand pounds) have been possible from time to time within those programmes.

Over time a number of issues which could entail larger scale (generally over £500,000) projects have been identified, however these have not been progressed.

It would be possible to take these projects forward as individual business cases but the lack of any network overview inhibits decision making. This programme is intended to collate the information that could address that cross network issue and allow structured forward planning.

3.4 Business needs

The Council are the statutory Roads Authority for Shetland and are required to plan for the maintenance and development of roads in Shetland in line with the obligations that accompany that role.

As a critical enabler of transport and access, the strategic roads network needs to meet current and future business and community needs that allow key outcomes to be achieved.

Maintaining what we currently have is catered for in terms of current arrangements, dealing with emerging or future issues and improving on current arrangements is not. This programme seeks to help address that issue by creating a framework for those issues and opportunities to be analysed, evaluated and decisions taken between alternative ways forward.

3.5 Potential scope and service requirements

The Strategic Roads Network programme is limited in scope to potential road rebuilds or developments which are situated within the limits of the agreed “Strategic Roads Network” (see appendix 1) and are of a large scale, generally £500K+, therefore placing them beyond the scope of existing arrangements.

3.6 Benefits, risks, dependencies and constraints

Benefits

Potential programme benefits have been considered in terms of beneficiaries

Direct public sector benefits (Council)

- Better planning of spend, capital and revenue
- Improvements to service organisation or efficiency

Indirect public sector benefits (Other public sector organisations)

- Improvements to service organisation or efficiency

Wider benefits to communities, individuals and businesses

- Road connections that cater for the vehicles/communities that need to use them so that people and businesses can achieve key outcomes
- Roads that make journeys safer
- Roads that minimise journey times
- Roads that support low energy travel and active travel

Risks

The strategic roads network programme should be inherently low risk as its scope is constrained to the delivery of a limited number of “fill-in” or short extensions to existing core roads.

The technical challenges to the delivery of individual projects should be well understood as they are essentially repetitions or completion of many road construction projects successfully undertaken in the past.

While it is possible that any rebuild or development might mismatch with actual future needs as they develop over time, it remains most likely that addressing these in a structured fashion will yield best results.

Dependencies

There are a limited number of dependencies currently identified for the programme as most issues relating to rebuild or development of sections of the network relate to existing roads which provide at least some current service level.

Where there are dependencies, these are related to potential future economic development opportunities, in Cullivoe and possibly Unst.

Constraints

Technical constraints within the programme relate to design, supervision and construction capacity, which probably means any development projects would need to be sequential.

There are also likely to be constraints on timescales associated with design, compulsory purchase and contracting periods.

The principle constraint however will be the availability of the capital budgets to undertake works as these are generally constrained and the subject of many other competing priorities.

4. Economic case

4.1 Critical success factors

The critical success factors for this programme, and the individual projects which will be considered within it, are closely linked to the Shetland Partnership Agreement and Our Plan Key outcomes, which also underwrite the key investment objectives;

- CSF1: business needs – how well the option satisfies the existing and future business needs of the organisation.
- CSF2: strategic fit – how well the option provides holistic fit and synergy with other key elements of national, regional and local strategies.
- CSF3: benefits optimisation – how well the option optimises the potential return on expenditure – business outcomes and benefits (qualitative and quantitative, direct and indirect to the organisation) – and assists in improving overall VFM (economy, efficiency and effectiveness).
- CSF4: potential achievability – the organisation's ability to innovate, adapt, introduce, support and manage the required level of change, including the management of associated risks and the need for supporting skills (capacity and capability). Also the organisation's ability to engender acceptance by staff.
- CSF5: supply side capacity and capability – the ability of the market place and potential suppliers to deliver the required services and deliverables.
- CSF6: potential affordability – the organisation's ability to fund the required level of expenditure – namely, the capital and revenue consequences associated with the proposed investment.

4.2 Main options

As provision of the strategic roads network is statutorily a responsibility of the Council as the statutory Roads Authority then there are few options for the planned rebuild or development of the network.

Therefore, the programme has concentrated on arrangements for the identification of aspects of the network which has current or emerging issues or where there are current or likely future developments which might be constrained or affected by road provision.

The sections listed in the table below have been identified as a result of road condition inspections, safety checks, analysis of road carriageway and width characteristics, verge characteristics, blind summits and bends, absence of safety barriers, maintenance history, constrained planning applications and community engagement.

In addition to an identification of sections of the road network which are within the scope of the programme, consideration has been given to their relative priority in terms of the key outcome and CSF objectives

Sections of the strategic roads network which have current or emerging issues are listed in Appendix 3 with a summary analysis of potential for improvement against investment objectives.

A summary analysis of potential for improvement against critical success factors has also been undertaken and listed in Appendix 4.

4.3 Preferred way forward

This Strategic Roads Programme would have to be delivered as a series of self-contained projects which will have to be evaluated and decided on individually. Each would require its own strategic, outline and full business case before implementation.

A benefit of considering these projects together as a “programme” is that it is a more structured method of comparing the relative merits of each against a consistent set of objectives, creates a better understanding of the overall scale of the potential works and helps identify a timeline for future assessment and delivery.

It would also create the structure where any new issues or opportunities that emerge could be considered against these objectives and allow these to be placed within an overall timetable for detailed consideration and decision making.

The Cullivoe road upgrade is clearly identified as the development which would be most likely to improve Shetland Partnership Agreement and Our Plan key outcome objectives. These include *“We will be investing development funds wisely to produce the maximum benefit for Shetland’s economy,” “There will be transport arrangements in place that meet people’s needs and that we can afford to maintain in the medium term” and “Our communities will feel better connected using new community transport solutions developed by communities themselves.”* It is recommended that a Strategic Outline Case for this road section should be considered first by Council.

5. Commercial case

5.1 Commercial strategy

This Strategic Roads Programme would have to be delivered as a series of self-contained projects which will have to be evaluated and decided on individually. Each would require its own strategic outline and full business case before implementation.

5.2 Procurement strategy

It is likely that each project would be progressed through an independent procurement exercise conducted through the established procurement arrangements for Roads construction projects in accordance with the Contract Standing Orders.

6. Financial Case

6.1 Indicative cost

The figures in the table below are estimated average costs to give an overall indication only. The costs will be fully detailed at Outline Business Case stage for each project and the options available.

Project	Outline Design £000	Detailed Design £000	Land Purchase £000	Build Cost £000	Total Capital Cost £000
Cullivoe	103	145	25	4,000	4,273
Mid Yell	49	68	20	2,000	2,137
Ollaberry - Urafirth	28	43	5	800	876
Murrister Bend	13	27	5	500	545
Haggersta - Cova	Complete	20	Complete	2,000	2,020
Levenwick	50	69	25	1,900	2,044
Bridge of Walls - Walls	15	94	25	2,500	2,634
Total Element Costs	258	466	105	13,700	14,529

6.2 Funding arrangements

In line with the Council's Capital Funding Policy these projects will require to be financed by borrowing. Possible opportunities for contributions from other external sources will be investigated and secured where possible to offset the borrowing requirement.

6.3 Affordability

Any potential borrowing commitment will require to be factored into the Council's Prudential Indicators as part of the Borrowing & Investment Strategy demonstrating prudence, affordability and sustainability for the Council.

7. Management case

7.1 Programme management arrangements

The programme and any resultant projects will be managed to Prince standards.

7.2 Programme milestones

Programme milestones will be established in relation to individual project evaluation, decision making and implementation.

7.3 Programme assurance

Programme assurance will be managed to Prince standards.

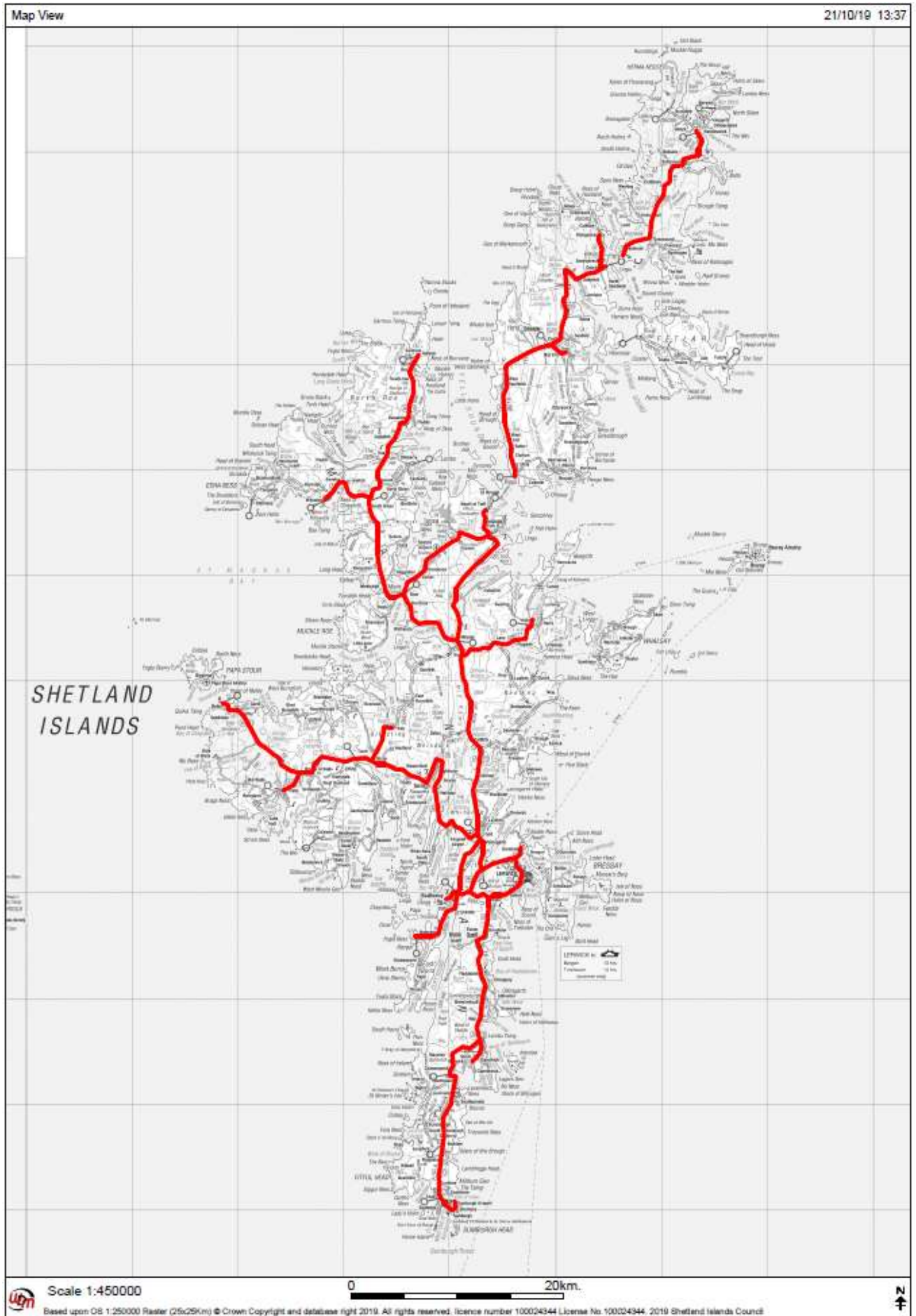
Signed:

Date:

Senior Responsible Owner

Project Team

APPENDIX 1: Shetland's Strategic Road Network and Scheme Location Plan



APPENDIX 2: Issues Affecting the Strategic Road Network & Potential Schemes

A970 Lerwick to Sumburgh Road at Levenwick:

In December 2009 a "Road Safety Check" was undertaken on the A970 Sumburgh to Lerwick Road, between its north and south junctions with the Levenwick Loop Road. The check was made following a traffic accident at a blind summit that resulted in expressions of concerns from local Councillors and members of the public. These concerns were raised by Councillor Budge at a meeting of the Road Safety Advisory Panel in February 2010. He quoted the following excerpt from the safety check report *"I am of the opinion that due to the location of this hazard on the main route between Lerwick and Sumburgh it should be improved, even if it has to be listed as a named scheme for inclusion on the Council's Capital Programme."*

The Council's Capital Programme was reported to a meeting of the Infrastructure Committee in May 2010 where Councillor Duncan expressed concern that the blind summit at Levenwick did not appear on the attached list and that it should be given high priority. Following this the Roads Service held a meeting with the local Councillors where it was agreed that costed proposals would be prepared for the autumn. However, the inclusion of a road improvement at Levenwick was not progressed when the Council's medium term financial plan required that funds be spent on maintaining existing assets rather than on the provision of new.

Concerns regarding the A970 at Levenwick came to prominence again in January 2015 due to an accident involving an articulated truck towing a low loader trailer. Following this incident Councillor Duncan again expressed his concerns regarding the poor road alignment and narrow road width at this location. An update of the "Road Safety Check" was subsequently reported to the Environment and Transport Committee in June 2015, this recommended a number of safety improvements including a width restriction. The Committee approved Councillor Smith's motion that the recommendations be approved and "that a service needs case, taking account of the STAG process, be prepared and submitted for the funding required to design the major capital scheme."

The service need case was reported to a meeting of the Policy and Resources Committee, in February 2016, on completion of the STAG appraisal. It concluded "that the most expensive option considered, which would improve the A970's alignment and width to Design Manual for Roads and Bridges (DMRB) standard over a 2.26 kilometre section of the road above Levenwick would achieve more of the planning objectives than the other options, but that the safety, economic, social and environmental benefits to be gained from this high cost project are all minimal."

However, Councillor Smith's motion that "the A970 Levenwick Capital Improvements project be approved and scheduled in any future Asset Investment Plan (AIP) subject to the availability of funding" was approved. The preliminary design of a number of improvement options has since been done to allow for initial cost estimates. However, more detailed design would need approval as the "gateway process" policy states that a project will not be considered for design fees unless the scheme has been approved.

Please note that this scheme is currently ranked third on the "Prioritised List of Road Improvement Schemes" (SIC min ref 07/15).

A971 Haggersta to Cova:

The existing A971 between Haggersta and Cova is sub-standard in a number of important respects. It has a very poor horizontal and vertical alignment, especially at the bend near Haggersta itself, and over the summit to the north. There is limited visibility from several junctions and accesses, especially the one at Haggersta. There have been a number of accidents, including a fatality about 30 years ago. There is poor carriageway width, and no footpath for those walking between the school, hall, playing fields, and houses at the south end, and the houses and shop in the Kalliness area. Safety concerns regarding this length of the A971 have been repeatedly raised by local members in recent years, primarily relating to the narrow carriageway.

Improvements to this length of road were previously a named scheme on the capital programme, first listed in 1988. The scheme was considered to meet all of the principles of the then Shetland Transport Strategy, particularly those of Accessibility and Inclusion, Compliance, and Environmental Responsibility. The final design of the scheme was completed with a cost estimate of £2.25M at 2009 prices. This included land acquisition, design and preparation, utility diversions, works, environmental mitigation, and supervision.

The land acquisition process was protracted but eventually concluded following the preparation of compulsory purchase and stopping up orders. However, this delay meant that the scheme was not listed in the approved provisional 5-year capital programme in October 2009, and has not been listed since. For the project to proceed, it will have to be presented for scrutiny under the “Business Justification process” and then be given a slot in the capital programme when budget is available.

This scheme is currently ranked fourth on the “Prioritised List of Road Improvement Schemes.”

A971 Murraster Bend:

There is inadequate visibility along the A971 at Murraster, due to a bend, to allow for the recommended safe stopping distance at the point where the road narrows from two-lane to single-track. This results in frequent over running of the verges as approaching vehicles, many of them travelling at speeds close to the national speed limit, manoeuvre to avoid each other. The transition is sub-standard, a safety concern and not fit for purpose on the “main” road linking the West Mainland with the rest of Shetland.

This situation has arisen following the implementation of the Asset Investment Policy that “all capital expenditure is to be focused on the maintenance of existing assets rather than the creation/purchase of new assets.” This led to the indefinite postponement the A971 West Burrafirth Junction to Brig o’ Walls Improvement Scheme. This scheme had “passed” a STAG stage 1 study and was being “promoted by the Member/Officer Working Group for Roads.” It was to be presented to the Capital Programme Review Team (CPRT) and Council for consideration and possible inclusion in the Capital Programme. The design was nearly complete and the scheme advanced enough for CPRT to approve the purchase then demolition of the Nurse’s House located on the proposed alignment.

Therefore, there was an expectation that the A971 West Burrafirth Junction to Brig o’ Walls Scheme would proceed. When the A971 Parkhall to West Burrafirth Junction Scheme was completed, in 2003, a temporary transition was constructed between the new two-lane road and the single-track section to the south. However, this temporary arrangement, which does not comply with national design guidance, now dates back 15 years. The Roads Service is concerned about the potential for a serious road accident at Murraster and now consider improvement of this transition necessary. There are a number of possible solutions to be considered which, if any scheme is to proceed, will have to be presented for scrutiny under the “gateway process.” These mainly involve the widening of the A971 to two-lanes around the bend until the required visibility is achieved. The alternative would be to reconsider the construction of the A971 West Burrafirth Junction to Brig o’ Walls Improvement Scheme which would provide a two-lane road from Murraster to Walls.

Any development option would require design budget to be established.

This scheme is currently ranked sixth on the “Prioritised List of Road Improvement Schemes.”

A971 Brig o' Walls to Walls:

A local member and the Roads Service have safety concerns regarding the hard standing overrun areas that “developed” alongside this single-track road over a number of years. The intention was to replace the original soil verges with type 1 or “hard” verges in order to reduce maintenance requirements. Unfortunately, it has had the opposite effect due to the verges being regularly over run by passing vehicles. This has resulted in an increased incidence of damage to the verges and to the edges of the carriageway.

However, of greater concern is the lack of clarity for road users as to what constitutes the running surface of the road. Would it be the “tarred” carriageway or does it include the “over run” areas on the inside of the bends? This is a hazardous situation, especially for cyclists who prefer to stay on the carriageway but can be approached by motor vehicles using an “over run” area to cut around a bend. This arrangement is not best practice so should be rectified and removed from this important road that forms part of our strategic network.

In September 2011 the Member/Officer Working Group - Roads stated, regarding the A971 West Burrafirth Junction to Walls Improvement Scheme, that “several design options have been considered and we are now developing the preferred one. The final design of the scheme was progressed and was almost complete with the safety check done. However, as stated above the scheme was indefinitely postponed following the implementation of the Asset Investment Policy.

There are a number of possible solutions to be considered which, if any scheme is to proceed, will have to be presented for scrutiny under the “gateway process.” These would range from the removal of the “over run” areas and reinstatement of the soil verges to the construction of a new two-lane engineered road on a new alignment.

Any development option would require design budget to be established.

This length of road forms a large part of the “A971 West Burrafirth Junction to Walls” scheme that is currently ranked eighth on the “Prioritised List of Road Improvement Schemes.”

B9082 Cullivoe Road:

This length of road was designed and constructed by the Highland Destitution Relief Board in 1851, the work being undertaken by the then residents of North Yell. It was designed for use by horse and cart with the only improvements since being localised widening, passing places and a bitumen bound surface. Considering this it has coped remarkably well with the level of traffic loading to which it has been subjected. However, in September 2018 the Area Maintenance Engineer for the North Isles expressed concern regarding the deterioration in the condition of the road and the implications this had for road safety. This resulted in a request for a safety check from the Executive Manager – Roads. The check identified a number of concerns including the substandard width of the road, the very poor condition of the carriageway and the lack of safety barriers at locations where national guidance deems them necessary.

The B9082 is the only road link serving the Cullivoe Pier, a vital facility for a number of industries including aquaculture, which is now Shetland's largest industry. Government figures show that in 2017 the total tonnage of whitefish landed at Cullivoe was 3,213 valued at £6.3 million, placing Cullivoe among the top twelve landing ports in the UK. According to figures from Shetland Aquaculture and Seafood Shetland 30,360 tonnes of salmon were landed at Cullivoe valued at £130.5 million. This is almost half of all the salmon produced in Shetland. The Council received £304,000 in dues for the landings of this salmon and whitefish in 2017. Therefore, this section of the B9082 is currently used by seven articulated trailers daily (5 days for 46 weeks) for the haulage of salmon and whitefish landings. In the past year there has also been 95 articulated trailer loads to the pier with materials for the construction of new salmon cages. This level of use, which has significantly increased within the past two years, amounts to a total of 3,410 articulated truck movements per year on this single-track road. It is likely to continue for the foreseeable future. The aquaculture industry in the north isles, including the salmon processing factory in Mid Yell, relies on the Cullivoe Pier. The deterioration of the B9082, to the point where it can no longer be used by HGV's, would cut off the pier with serious implications for the economy of Yell and Shetland as a whole.

In addition to aquaculture traffic the pier is used by the renewable energy industry and is the location of a business park and marina. The North Yell Development Council has recently submitted planning applications for the extension of the business park, a new caravan park and a new marina. It is understood that these developments will eventually generate 11 new jobs. The road also serves approximately 100 dwellings, Cullivoe Primary School, Cullivoe Hall, St Olaf's Church, Cullivoe Galley Shed, various crofts, a shop, the garage premises of a coach hire business and tourist attractions.

In March 2007 the Member/Officer Working Group (Roads) reported that several main options were still under development for the STAG Stage 2 study for a B9082 Gutter to Cullivoe Improvement Scheme. These included a major improvement of the entire route or a number of medium scale projects to improve specific issues along the route. However, in September 2009 the Group reported that it had agreed to "a series of minor improvements." In August 2010 two of these medium or minor improvements were funded in the indicative capital programme for financial year 2013/14. These were the "Garth Bends" and "Stonganess Bend" improvements. A lesser version of the latter, which is located to the north of the pier, is still on the capital programme and is now expected to be constructed in 2020/21 as part of the bridge replacement scheme. The former scheme is no longer on the programme.

The widening of the B9082 over its entire length is not a practical or economic option due to the peat soils on which the road was built. The surface of this road has consolidated over the years as it has been trafficked by an increasing number and weight of vehicles. Therefore, despite having a very shallow construction it is able to withstand relatively heavy loading. However, as soon as the surface is disturbed by any excavation through or adjacent to the road it becomes difficult to achieve a consistent reinstatement without disturbing the existing surface.

The overlay resurfacing of the road is not an option either. The edge of any resurfacing is not vertical and slopes back from the carriageway edge with a grade of approximately 2 in 1. Therefore, for every 150mm increase in height the road will narrow by 75mm on each side giving a total reduction in width of 150mm. The result being that the narrowest sections of road, that are currently 2.6 metres wide, would be reduced to 2.45 metres in width. This is less than the legal permitted width of 2.55 metres for vehicles specified in "The Road Vehicles (Construction and Use) Regulations 1986" as amended, meaning that HGV's would be overhanging the road edge.

The safety issues are either impractical or difficult to address due to the nature of the road, the topography through which it runs and the ground conditions on which it was constructed. These findings lead to the conclusion that, on consideration of road safety alone, this section of the B9082 is no longer fit for purpose. This conclusion is supported by the economic case. A road with a width of 2.6 metres is not suitable for use by over 3,400 articulated trucks per year especially when those trucks are hauling goods with a value in excess of £100 million that equates to almost half of the total production of Shetland's largest industry. This issue has been brought to our attention by the safety implications of the continued deterioration of the carriageway caused by the high number of HGV's using the road. Action is essential to ensure the reliability of the B9082 and thereby meet the long-term economic and social needs of Cullivoe, Yell and Shetland. The only viable long-term solution is to construct a new road on a new alignment, in accordance with the Design Manual for Roads and Bridges that is of sufficient width to suit the increasing use of the road by HGV's.

The rate at which the B9082 is deteriorating means that this is an issue that should be treated with some urgency. In common with the other schemes above any proposal will have to be presented for scrutiny under the "gateway process."

Any development option would require design budget to be established.

This scheme is currently ranked first on the "Prioritised List of Road Improvement Schemes."

B9081 Mid Yell Link Road (to A968):

This is the south end of the same route used to haul salmon from Cullivoe Pier to the processing factory in Mid Yell. The increase in HGV usage will also result in the deterioration of this road over time. The Roads Service has already had to undertake an “urgent” reconstruction of the Factory/Cemetery road in Mid Yell due to significant damage resulting from this additional loading. There are now a number of defects in the link road attributable to this loading, including a sunken section of carriageway that will be repaired later this year following concerns expressed by the Community Council.

However, the Mid Yell Link road is better founded and wider than the Cullivoe road so as is already evident will take longer to deteriorate. There are also more possible solutions for the improvement of the road ranging from localised widening and bend improvements to a major improvement of the entire route.

The B9081 Mid Yell Link Road was previously a named scheme on the capital programme. In October 2003 it was identified by the Member Officer Working Group (Roads) and prioritised for a feasibility study prior to placing within the Capital Programme. A report on the link road was presented to the Infrastructure Committee in May 2005 with a recommendation to approve “works to provide a strong modern road with widening to double width over the section from the main A968 to, and including, the Laxa burn bridge and on bends. Remaining as a single-track road with large passing places where this is all that is required.” The cost of this was estimated to be £1.2M at 2005 prices. It was also recommended that the scheme be included in the Capital Programme in “later years” and that funding for design and land acquisition be allocated. These recommendations were all approved. However, in November 2005 the Committee approved a recommendation that the scheme be extended to address concerns regarding a bend of narrow width and with poor visibility at Hillend. The extension was considered of “much higher priority” so was to be constructed in 2008/9 at a cost of £200K. The original part of the scheme was to remain in “future years” with only sufficient funds meantime to cover preparatory costs. This was still the situation when the “gateway process” was introduced at which point the Mid Yell Link Road scheme was not approved for inclusion in the Asset Investment Plan.

This scheme is currently ranked second on the “Prioritised List of Road Improvement Schemes.”

A970 Hillswick/Ollaberry Junction:

This is similar to Murraster in that there is inadequate visibility along the A970 here, due to a bend, to allow for the recommended safe stopping distance at the point where the road narrows from two-lane to single-track. This results in frequent over running of the verges as approaching vehicles, many of them travelling at speeds close to the national speed limit, manoeuvre to avoid each other. The transition is sub-standard, a safety concern and not fit for purpose on the “main” road linking the North Mainland with the rest of Shetland.

It was reported to a meeting of the Infrastructure Committee in December 2005 that a scheme to upgrade the A970 to a two-lane engineered road, between the Hillswick/Ollaberry Junction and Urafirth, had proceeded through the Stage 1 STAG process and was due to go through Stage 2 before prioritisation and recommendation to Council. In September 2009 the preliminary design was well advanced, but the scheme was not considered a priority and was not being progressed. This remained the case before the scheme was overtaken by events and the implementation of the current Asset Investment Policy.

There are a number of possible solutions to be considered which, if the scheme is to proceed, will have to be presented for scrutiny under the “gateway process.” These all involve the widening of the A970 to two-lanes around a number of bends until the required visibility is achieved. This would extend the two-lane road as far as the junction of the A970 with the Orbister road.

This scheme is currently ranked sixteenth on the “Prioritised List of Road Improvement Schemes.”

Skaw Road and A968, Unst:

The Skaw road would become a part of the strategic network with improvements to the road access to Lambaness required if the “Shetland Space Centre” development proceeds. Widening of the A968 between the Setter’s Hill Quarry and Brookpoint to two-lanes should also be considered. This would remove the current lane and a half arrangement which can be confusing for drivers and requires larger vehicles to use the passing places provided.

The A968 Setter’s Hill Quarry to Brookpoint Road was previously a named scheme on the capital programme. In May 2005 a report on the scheme made to the Infrastructure Committee resulted in it being split in two with the north section at Brookpoint being prioritised. This was considered necessary due to the poorly shaped “y-junction,” drainage problems and the structurally unsound bridge at Brookpoint. Subsequently, on completion of the Brookpoint section, the remainder of this scheme was reduced in priority. This was still the situation when the “gateway process” was introduced at which point the Brookpoint scheme was not approved for inclusion in the Asset Investment Plan.

This scheme is not currently ranked on the “Prioritised List of Road Improvement Schemes.” This would be ranked should the space centre development be confirmed.

APPENDIX 3: Summary Analysis of Potential for Improvement Against Objectives

Road Section	Avoid traffic restrictions	Improve safety	Reduce journey times	Promote low energy and active travel	Minimise Whole life cycle costs
B9082 Cullivoe	High - Possibility of weight restriction on road if its condition deteriorates, overlay not possible due to narrow carriageway	High - concerns due to narrow carriageway, poor structural condition and lack of safety barriers.	Limited - improvement due to provision of two-lane, rather than single-track road, on improved alignment.	Moderate - two-lane road would be an improvement for cyclists and verges would be improved for pedestrian use. Possibility of retaining old road?	Limited - revenue savings would be relatively high but would only offset a limited portion of the high initial capital cost.
B9081 Mid Yell	Limited/Moderate - possibility of weight restriction in future if level of HGV's serving salmon factory continues.	Moderate - visibility issues on single-track road due to poor vertical alignment, bridge needs safety barriers.	Limited - improvements, even if widened to two-lanes would not significantly reduce journey times.	Moderate - two-lane road would be an improvement for cyclists and verges would be improved for pedestrian use.	Limited - revenue expenditure low currently so savings would only offset a minimal amount of the high initial capital cost.
A970 Ollaberry – Urafirth	Limited - low HGV numbers mean deterioration will not occur rapidly and maintenance treatments should be sufficient to prevent need for restrictions.	Moderate/High - the Council by not progressing with a two-lane improvement to Urafirth and by leaving a temporary layout in place for a number of years have created a safety hazard.	Limited/Moderate - this needs to be a relatively lengthy improvement to achieve the correct visibility along the road, would tie in with a section of single-track that could be improved to two-lane for minimal cost. road	Limited/Moderate - two-lane road would be an improvement for cyclists and verges would be improved for pedestrian use.	Limited - revenue savings would be relatively high but would only offset a limited portion of the high initial capital cost.

Road Section	Avoid traffic restrictions	Improve safety	Reduce journey times	Promote low energy and active travel	Minimise Whole life cycle costs
A971 Murrister Bend	Limited - deterioration of carriageway is not an issue.	High - the Council by not progressing with a two-lane improvement to Walls and by leaving a temporary layout in place for a number of years have created a safety hazard.	Limited - improvement to two - lane is not over a long length so savings would not be significant	Limited - improvement to two - lane is not over a long length so improvement for cyclists would not be significant	Limited - revenue savings would be relatively high but would only offset a limited portion of the initial capital cost.
A971 Haggersta – Cova	Limited - deterioration of carriageway is not an issue.	Moderate - the provision of a cycle/footpath between the Whiteness School and Kalliness is a major part of the scheme, also carriageway widening and visibility improvements.	Limited - little benefit as the road is already two-lane.	Moderate/High - the provision of a cycle/footpath between the Whiteness School and Kalliness is a major part of the scheme	Limited - revenue expenditure low currently so savings would only offset a minimal amount of the high initial capital cost.
A970 Levenwick	Limited - width restriction already in place, unlikely that further restrictions would be needed	Moderate/High - a number of blind summits, narrow carriageway and significant lengths where safety barrier is required but can't be provided due to narrow verges	Limited - little benefit as the road is already two-lane.	Moderate - two-lane road would be an improvement for cyclists and verges would be improved for pedestrian use.	Limited - revenue expenditure relatively low currently so savings would only offset a minimal amount of the high initial capital cost.

Road Section	Avoid traffic restrictions	Improve safety	Reduce journey times	Promote low energy and active travel	Minimise Whole life cycle costs
A971 Brig o' Walls – Walls	Limited - some deterioration of carriageway edges but can be repaired with revenue funding so need for restrictions unlikely.	High - an issue with the verges being overrun on a regular basis.	Limited/Moderate - depending on the extents of the improvement, new verges with improved passing places or two-lane road.	Moderate/Limited - two-lane road would be an improvement for cyclists and verges would be improved for pedestrian use.	Limited - revenue savings would be relatively high but would only offset a limited portion of the high initial capital cost.

APPENDIX 4: Issues Affecting the Strategic Road Network & Potential Schemes

Road Section	business needs	strategic fit	Benefits optimisation	potential achievability	supply side capacity and capability	potential affordability
B9082 Cullivoe	High - very significant negative impact on the businesses and the pier in Cullivoe if a weight restriction is required. Implications for Yell and Shetland as a whole due to Mid Yell Salmon factory. Proposed developments with suspensive planning conditions due to concerns regarding deterioration of the road.	High - would improve road safety and promote active travel due to better provision for cyclists and pedestrians. May also provide part of the route to a future fixed link to Unst. Increased resilience/reliability of route. There will be transport arrangements in place that meet people's needs and that we can afford to maintain in the medium term. Our communities will feel better connected using new community transport solutions developed by communities themselves. We will be investing development funds wisely to produce the maximum benefit for Shetland's economy.	High - direct benefits would be retaining the dues from the Cullivoe Pier that could significantly reduce if weight restriction introduced. The road is important for the Yell and Shetland economy due to the number of existing and planned businesses plus the value of fish/shellfish landed.	High - the Roads Service has experience of undertaking this type of project, may require additional employees in the Design Section.	High - civil's contractors have the experience and capability required for this type and scale of work. Capacity is not expected to be an issue but would be dependent on whether any other large scale projects were underway in Shetland within the same timeframe.	High - cost would be offset by retention of landing fees in a relatively short period also the potential for grant funding.

Strategic Roads Network - SOC

Road Section	business needs	strategic fit	Benefits optimisation	potential achievability	supply side capacity and capability	potential affordability
B9081 Mid Yell	Moderate - unlikely that the road would need restrictions as it can be repaired with revenue funding if necessary. However, there are still implications for Yell and Shetland as a whole if this link is not resilient and reliable.	Moderate - a new road with improved vertical alignment would address visibility issues and safety concerns. Increased resilience/reliability of route. There will be transport arrangements in place that meet people's needs and that we can afford to maintain in the medium term. Our communities will feel better connected using new community transport solutions developed by communities themselves. We will be investing development funds wisely to produce the maximum benefit for Shetland's economy.	Moderate - this is the south end of the route between Cullivoe Pier and the Mid Yell Salmon Factory so temporary restrictions here would have the same impact as on the B9082 but in the short term only. Less businesses in Mid Yell and road is currently in better condition than the B9082.	High - the Roads Service has experience of undertaking this type of project, depending on workload may require additional employees in the Design Section.	High - civil's contractors have the experience and capability required for this type and scale of work. Capacity is not expected to be an issue.	Limited - revenue expenditure low currently so savings would only offset a minimal amount of the high initial capital cost.

Strategic Roads Network - SOC

Road Section	business needs	strategic fit	Benefits optimisation	potential achievability	supply side capacity and capability	potential affordability
A970 Ollaberry – Urafirth	Moderate - relatively lengthy two-lane improvement would reduce journey times and increase the reliability on this route for the road users and businesses in Eshaness/Hillswick.	Moderate - a new road with improved visibility would address visibility issues and safety concerns. Avoid reputational damage to Council of accident on "unfinished" road layout. There will be transport arrangements in place that meet people's needs and that we can afford to maintain in the medium term. Our communities will feel better connected using new community transport solutions developed by communities themselves.	Limited/Moderate - would benefit existing businesses in the North Mainland and would have the potential to promote future economic growth, reduces the potential of injury accidents and their associated cost to society but the number of accidents currently occurring is low.	High - the Roads Service has experience of undertaking this type of project.	High - civil's contractors have the experience and capability required for this type and scale of work. Capacity is not expected to be an issue.	Limited - revenue savings would be relatively high but would only offset a limited portion of the high initial capital cost.

Strategic Roads Network - SOC

Road Section	business needs	strategic fit	Benefits optimisation	potential achievability	supply side capacity and capability	potential affordability
A971 Murrister bend	Limited - short length of widening to two-lane so little improvement in journey times or resilience of route.	Moderate - would improve road safety, Shetland "remains a safe place to live." Avoid reputational damage to Council of accident on "unfinished" road layout. There will be transport arrangements in place that meet people's needs and that we can afford to maintain in the medium term.	Moderate - reduces the potential of injury accidents and their associated cost to society.	High - the Roads Service has experience of undertaking this type of project.	High - civil's contractors have the experience and capability required for this type and scale of work. Capacity is not expected to be an issue.	Moderate - revenue savings would only offset a limited portion of the initial capital cost. However, build cost is relatively low compared to safety benefits.

Strategic Roads Network - SOC

Road Section	business needs	strategic fit	Benefits optimisation	potential achievability	supply side capacity and capability	potential affordability
A971 Haggersta – Cova	Limited - the road is already two-lane so no significant improvement to journey times or resilience.	Moderate - a new widened road with improved visibility would address visibility issues and safety concerns. Cycle/footpath between Whiteness School and Haggersta is a major part of the scheme so would address poor health outcomes and improve built environment/sense of place. There will be transport arrangements in place that meet people's needs and that we can afford to maintain in the medium term. Our communities will feel better connected, scheme already designed.	Moderate - reduces the potential of injury accidents and their associated cost to society, significant benefit to society of promoting active travel thereby reducing poor health outcomes and the resulting costs to NHS etc.	High - the Roads Service has experience of supervising this type of project, scheme has already been designed.	High - civil's contractors have the experience and capability required for this type and scale of work. Capacity is not expected to be an issue but would be dependent on whether any other large scale projects were underway in Shetland within the same timeframe.	Limited - revenue expenditure low currently so savings would only offset a minimal amount of the high initial capital cost.

Strategic Roads Network - SOC

Road Section	business needs	strategic fit	Benefits optimisation	potential achievability	supply side capacity and capability	potential affordability
A970 Levenwick	Limited - the road is already two-lane so no significant improvement to journey times or resilience.	Moderate - a new widened road with improved visibility would address visibility issues and safety concerns. Increase of road width and verges would encourage active travel. There will be transport arrangements in place that meet people's needs and that we can afford to maintain in the medium term. Our communities will feel better connected using new community transport solutions developed by communities themselves.	Moderate - reduces the potential of injury accidents and their associated cost to society, significant benefit to society of promoting active travel thereby reducing poor health outcomes and the resulting costs to NHS etc.	High - the Roads Service has experience of undertaking this type of project, depending on workload may require additional employees in the Design Section.	High - civil's contractors have the experience and capability required for this type and scale of work. Capacity is not expected to be an issue but would be dependent on whether any other large scale projects were underway in Shetland within the same timeframe.	Limited - revenue savings would be relatively high but would only offset a limited portion of the initial capital cost (depends on option).

Strategic Roads Network - SOC

Road Section	business needs	strategic fit	Benefits optimisation	potential achievability	supply side capacity and capability	potential affordability
A971 Brig o' Walls – Walls	Moderate or Limited - depends on the chosen solution whether it is two-lane throughout or just at blind summits with passing places elsewhere.	Moderate - a new road with improved vertical alignment or two-lane widening at blind summits would address visibility issues and safety concerns. Would provide improved facilities for walking and cycling, especially the two-lane option. There will be transport arrangements in place that meet people's needs and that we can afford to maintain in the medium term. Our communities will feel better connected using new community transport solutions developed by communities themselves. We will be investing development funds wisely to produce the maximum benefit for Shetland's economy.	Moderate - reduces the potential of injury accidents and their associated cost to society, some benefit from promotion of active travel through improved facilities.	High - the Roads Service has experience of undertaking this type of project.	High - civil's contractors have the experience and capability required for this type and scale of work. Capacity is not expected to be an issue.	Limited - revenue savings would be relatively high but would only offset a limited portion of the initial capital cost (depends on option).



Meeting(s):	Environment & Transport Committee	21 November 2019
Report Title:	Carriageway Condition of Shetland's Roads	
Reference Number:	RD-07-19-F	
Author / Job Title:	Neil Hutcheson/ Team Leader – Asset and Network	

1.0 Decisions / Action required:

- 1.1 That the Environment and Transport Committee NOTE the contents of this report including the improvement in the overall Road Condition Indicator (RCI) figure shown in the 2017-19 results, the benchmarking of Shetland's roads against the other Scottish local authorities and the predicted impact of budgetary decisions on the future condition of our carriageways.

2.0 High Level Summary:

2.1 Carriageway Condition 2017-19

- 2.1.1 The Council in its role as roads authority has a statutory duty to “manage and maintain” the public road network. The carriageway condition is measured each year and the results submitted as a statutory performance indicator to Audit Scotland. The Road Condition Indicator (RCI) that is used is a measure of “the percentage of the road network that should be considered for maintenance treatment.” Therefore, the lower the RCI the better the carriageway condition.
- 2.1.2 The overall RCI for Shetland's public road network, as at April 2018, has deteriorated to 36.1% “that should be considered for maintenance” from a percentage of 35.3 the previous year. The Scottish average is 36.3%. The breakdown of the RCI for the various road classifications is detailed in Appendix 1.
- 2.1.3 The general improvement in the overall RCI over the past 5 years has largely been due to the surface dressing undertaken on our “A class” roads. The slight deterioration, between 2017 and 2018, may have been due to the preceding winter which was more severe than the norm. The condition of the unclassified roads had remained fairly steady at a figure of around 50 to 55% that should be considered for maintenance. However, the last two surveys show significant improvement in our unclassified roads with the condition now at 46.8%. This may in part be due to the micro-surfacing of a significant number of unclassified roads in Lerwick during the summer of 2016. It may also be due to the unclassified roads that were selected for the survey. With only 10% of them surveyed each year the random sample may have contained a higher proportion of roads in the best condition than was the case in previous years. However, the condition indicator has stayed significantly under 50% for two years now so may be an indication that the unclassified roads are actually improving.

2.1.4 The surface dressing of our roads, to address poor texture has improved their RCI. However, this is likely to mask the long term decline of the structure of the road network, indicated by heavy cracking, rutting and poor longitudinal profile, that can only be addressed with more expensive treatments such as overlay resurfacing or reconstruction. The cost of surface dressing is £3 per square metre while resurfacing and reconstruction cost approximately £30 and £125 respectively.

2.2 Benchmarking

2.2.1 Shetland Islands Council is now ranked 20th out of the 32 Scottish authorities for the road carriageway condition, down from 17th the previous year. In 2017/18 the Council ranked 5th for lowest expenditure on maintenance cost per kilometre of road network, an improvement from 10th the previous year. The poorer ranking in 2016/17 was due to £450K of additional expenditure on the micro-surfacing of streets in Lerwick. The Council was ranked 1st for the percentage of the network that is surface dressed and 2nd for the percentage of the network that received any type of treatment (either resurfacing, surface dressing or micro-surfacing). Further information on the Council's performance over the years is detailed in Appendix 2.

2.3 Impact of Budgetary Decisions

2.3.1 This report presents a number of options for the future maintenance of the road network that have been analysed using the SCOTS Cost Projection Tool to predict the effects on carriageway condition. The options are:

- a continuance of current funding levels;
- a reduction in current funding levels; and
- the predicted effect of a preventative strategy.

Since road assets deteriorate slowly the impact of a level of investment cannot be shown by consideration of only a couple of years. Therefore, the report includes 20 year predictions in Appendix 3 to give an understanding of the long term implications of budgetary decisions.

2.3.2 The tool indicates that the best method for reducing deterioration of the carriageway network is to increase the amount of surface dressing done to address poor surface texture and cracking of the carriageway. However, the Road Service only has enough capacity to complete a limited additional amount during the short surface dressing season. Therefore, an option for a 10% transfer of funds from resurfacing to surface dressing has been modelled. This predicts that over a 20 year period the RCI would increase by 5.3% from the current figure. This compares to the current spending regime that would result in a 7.5% increase in the RCI. The increase in surface dressing would still result in an increase in the lengths of unclassified road in the worst condition category, which would require a significant increase in the level of reconstruction and resurfacing to prevent the predicted 9.1% deterioration in the condition of our unclassified roads.

2.3.4 The tool was also used to predict the effects of a 10% reduction in the overall carriageway maintenance budget. This would result in the RCI increasing by 10.8% from the current figure over a 20 year period. This is 3.3% worse than

retaining the current regime. This means that an additional 34.8 kilometres of road would be in the category “that should be considered for maintenance.”

3.0 Corporate Priorities and Joint Working:

- 3.1 An outcome from Shetland’s Partnership Plan is that “Shetland will continue to be a safe and happy place.” The condition of the carriageway has direct implications for road safety.
- 3.2 A top priority of “Our Plan,” the Council’s corporate plan, is to “provide quality transport services within Shetland.” Further aims are that “there will be transport arrangements in place that meet people’s needs and that we can afford to maintain in the medium term” and “we will have a clearer understanding of the options and the investment needed to create a sustainable internal transport system over the next 50 years.”
- 3.3 Development of a sustainable public road network contributes to the Corporate aim to “have prioritised spending on building and maintaining assets and be clear on the whole-of-life costs of those activities, to make sure funding is being targeted in the best way to help achieve the outcomes set out in this plan and the community plan.”
- 3.4 Shetland Islands Council Improvement Plan 12/13
Area 6.5 – To deliver the agreed savings reviews within the timescales agreed by Council.
Area 8.1 – Make sure the Council has a comprehensive view of its asset needs and how they are to be most effectively delivered.

4.0 Key Issues:

4.1 Analysis of Road Condition Indicator (RCI) Data

- 4.1.1 The survey results show that between 2017 and 2018 there was a deterioration of 0.8% in the overall condition of Shetland’s public roads from 35.3% to 36.1%. This is due to minor deterioration of between 1.2% and 1.6% in the “B class,” “C Class” and unclassified roads which outweighed the 1.3% improvement in condition of the “A class” roads.
- 4.1.2 The unclassified roads make up of 44% of the length of the public road network, but are only surveyed once every 10 years. Therefore, we must consider the long term trend when evaluating progress. In the past 5 years there has been an improvement of 5.8% in the overall RCI equating to a 12 kilometre reduction per year in the length of road requiring maintenance treatment.
- 4.1.3 Over a 14 year period the overall condition of the network is neither improving nor deteriorating. The “A class” roads have slightly improved while the “B class” roads have deteriorated with a further 2.5% of road length to be “considered for maintenance.” The “C class” roads are improving with 1.9% less in need of maintenance and the unclassified roads are also in a slightly improved condition to where they were 13 years ago. This is shown by the “linear” trend lines on the graphs of Shetland’s RCI figures (see Graph 1 in Appendix 1).

4.2 Road Condition Conclusions

- 4.2.1 In 2014 it was determined that the improvement of unclassified roads should be given more priority, but that this may result in a deterioration of the overall RCI as

unclassified roads are surveyed once every 10 years and it would take a number of years for any improvement in them to register in the overall RCI figure. However, it was felt that if this was not undertaken the roads would continue to decline resulting in the failure of road surfaces and the need for more costly repairs.

4.2.2 Based on the latest figures the initial indications are that the unclassified roads are improved and the overall RCI is not suffering. Their condition will continue to be monitored over the longer term.

4.2.3 The updated graphs also show that there has been a recent deterioration in our “B and C class” roads. This has already been addressed with significant lengths of these classifications of road being resurfaced last financial year in Fetlar, Califf, Grobsness and the Coubal. This strategy has been continued into this financial year with roads of this classification at North Nesting, Lunna Ness, Wester Skeld, Mid Yell and Hoswick programmed for resurfacing.

4.3 Rural Housing Estate Roads

4.3.1 The poor condition of a number of rural housing estate roads was brought to the attention of Committee in the carriageway condition report for 2018. Following its successful use in Lerwick in 2016 micro-surfacing was identified as the most appropriate treatment for these roads.

4.3.2 This is a specialist process which requires to be outsourced. The allocation of funding to the “Road Surface Treatments” budget over the next five years will be done in such a way as to allow the tendering of the micro-surfacing in financial year 2020/21. The increase in this year will be offset by reduction of the budget in the other four years.

4.3.3 There is a considerable saving to be made from using micro-surfacing rather than asphalt resurfacing or reconstruction as the treatment for these estate roads. The unit rate for the micro-surfacing is inexpensive but the real benefit is that it allows significant lengths of carriageway to be repaired sooner. This avoids further deterioration and much more expensive repairs at a later date and demonstrates best value for the Council.

4.3.4 The micro-surfacing process and programme for 2020/21 is reported in more detail elsewhere on this agenda.

5.0 Exempt and/or confidential information:

5.1 None.

6.0 Implications :

6.1 Service Users, Patients and Communities:

The condition of the road network will affect its reliability which in turn will impact on stakeholders and the community if there are delays and temporary road closures due to maintenance works.

The contribution of road maintenance to communities is recognised by the Audit Commission in their report Going the Distance, 2011. The report states “Councils must use their road

	maintenance to support the economic competitiveness of their area. Roads play a critical role in public service delivery and economic growth – both through the increased mobility of citizens, goods and services, and through building and maintaining infrastructure.”																																																
6.2 Human Resources and Organisational Development:	No implications.																																																
6.3 Equality, Diversity and Human Rights:	No implications.																																																
6.4 Legal:	The Council’s statutory duties are defined by Section 1 of the Roads (Scotland) Act 1984 which requires that “a local roads authority shall manage and maintain all such roads in their area as are for the time being entered in a list (in this Act referred to as their “list of public roads”).”																																																
6.5 Finance:	<p>There are no direct implications arising from this report. The total revenue budget for carriageway maintenance is £1.8m in 2019/20. The table below shows the actual spend on carriageway maintenance over the last three years plus the current year budget, with an overall total of £7.4m over the period.</p> <table><tr><th>Year</th><th>Resurfacing</th><th>Surface Dressing</th><th>Patching</th><th>Reconstruction</th><th>Total</th></tr><tr><td></td><td>£000</td><td>£000</td><td>£000</td><td>£000</td><td>£000</td></tr><tr><td>2016/17</td><td>719</td><td>992</td><td>253</td><td>209</td><td>2,173</td></tr><tr><td>2017/18</td><td>592</td><td>468</td><td>309</td><td>252</td><td>1,621</td></tr><tr><td>2018/19</td><td>716</td><td>500</td><td>331</td><td>269</td><td>1,816</td></tr><tr><td>2019/20</td><td>791</td><td>399</td><td>326</td><td>269</td><td>1,785</td></tr><tr><td>Total</td><td>2,818</td><td>2,359</td><td>1,219</td><td>999</td><td>7,395</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>	Year	Resurfacing	Surface Dressing	Patching	Reconstruction	Total		£000	£000	£000	£000	£000	2016/17	719	992	253	209	2,173	2017/18	592	468	309	252	1,621	2018/19	716	500	331	269	1,816	2019/20	791	399	326	269	1,785	Total	2,818	2,359	1,219	999	7,395						
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6.7 ICT and new technologies:	None.																																																
6.8 Environmental:	No implications.																																																
6.9 Risk Management:	<p>Failure to manage and maintain the road network and the net ongoing running costs of the Council carries a significant risk of the Council’s financial policies not being adhered to and will require a further draw on Reserves.</p> <p>The Highways Term Maintenance Association have stated “there is a compelling commercial argument for investing early in road maintenance to arrest the decline in the condition of a road network with case studies showing benefits to cost ratios in excess of 2:1.”</p>																																																
6.10 Policy and Delegated Authority:	In accordance with Section 2.3.1 of the Council’s Scheme of Delegations the Environment and Transport Committee has responsibility for the Roads Service.																																																

	<p>The Council's Constitution – Part C - Scheme of Administration and Delegations provides in its terms of reference for Functional Committees (2.3.1 (2)) that they;</p> <p>“Monitor and review achievement of key outcomes in the Service Plans within their functional area by ensuring –</p> <p>(a) Appropriate performance measures are in place, and to monitor the relevant Planning and Performance Management Framework.</p> <p>(b) Best value in the use of resources to achieve these key outcomes is met within a performance culture of continuous improvement and customer focus.”</p>
6.11 Previously considered by:	None.

Contact Details:

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7 June 2019

Appendices:

Appendix 1: Carriageway Condition of Shetland's Roads: Detailed Information

Appendix 2: Roads Performance: Detailed Information

Appendix 3: Impact of Budgetary Options

Background Documents:

1. “Carriageway Condition of Shetland's Roads” 2 October 2018 (RD-06-18-F)

Carriageway Condition of Shetland's Roads: Detailed Information

1 SCANNER Survey Results

1.1 Road Condition Indicator

Audit Scotland's statutory performance indicator (SPI) for road carriageways is 'the percentage of the road network that should be considered for maintenance treatment'. The figure reported for the SPI is a Road Condition Indicator (RCI) produced from machine-based measurements taken during a Scotland wide survey of the road network. The parameters measured are:

- surface texture, helps to provide skidding resistance and indicates surface wear;
- cracking, indicates deterioration of the surface course or more deep seated structural defects;
- rutting, can affect vehicle handling or cause water to pond;
- longitudinal profile, the main factor controlling ride quality and hence user perception and is also a good indication of defects in the road structure.

The former two parameters are usually treated with surface dressing and the latter require a minimum of overlay resurfacing or more expensive reconstruction if the damage has reached the base layers.

1.2 Survey Frequency

The required survey coverage of the road network is detailed in the SPI. The "A Class" roads are surveyed in both directions every two years, that is one direction one year and the opposite direction the following year. The "B and C Class" roads are surveyed in both directions over a four year period, that is 50% per year in one direction. The unclassified roads have a 10% sample surveyed on an annual basis selected at random by the survey contractor.

While surveys are carried out on an annual basis, the RCI is calculated over two years to minimise the effect of sampling errors on the results.

1.3 Results

The results are categorised into Green, Amber and Red condition bands where:

Green indicates the carriageway is generally in a good state of repair;

Amber indicates the carriageway has some deterioration that should be investigated to determine the optimum time for planned maintenance treatment; and

Red indicates the carriageway has lengths in poor overall condition that are likely to require planned maintenance soon.

The RCI figure includes both the Amber and Red categories so an increase in the figure indicates deterioration in the condition of the road. Table 1 and Graph 1 show how the RCI for both Shetland's and Scotland's roads have varied since 2004. The graphs show that although there have been crests and troughs over the years the general trend, as indicated by the thick black line, is a deterioration in the condition of each of our road classifications.

Table 1: Road Condition Indicators (RCI) for Shetland and Scotland

	A Class Shetland	A Class Scotland	B Class Shetland	B Class Scotland	C Class Shetland	C Class Scotland	Unclass Shetland	Unclass Scotland	All Shetland	All Scotland
2004-06	18.3	27.4	33.1	32.2	34.5	31.0	48.3	41.3	36.9	35.9
2005-07	21.0	28.6	34.5	33.4	35.8	31.9	48.1	42.8	37.8	37.2
2006-08	19.9	29.2	33.1	34.2	35.7	33.0	54.6	42.5	40.2	37.4
2007-09	16.3	28.5	31.5	33.6	32.4	33.1	54.1	36.6	38.3	34.2
2008-10	21.8	29.6	33.9	34.9	35.9	33.2	51.2	39.4	39.3	36.1
2009-11	24.7	30.5	38.2	35.8	38.8	35.0	50.3	41.9	40.7	37.9
2010-12	26.4	30.5	41.8	36.3	40.7	36.0	53.8	38.3	43.7	36.4
2011-13	25.2	29.4	39.6	35.0	39.9	34.8	53.1	39.0	42.5	36.2
2012-14	21.1	28.7	38.0	35.2	38.2	36.6	54.0	39.4	41.4	36.7
2013-15	21.2	29.0	39.3	36.1	38.1	37.3	54.6	39.3	41.9	37.0
2014-16	20.7	29.0	34.4	34.8	35.0	34.7	51.1	40.2	38.9	36.7
2015-17	19.8	29.5	33.5	34.8	31.5	34.6	50.5	39.5	37.7	36.4
2016-18	18.8	30.2	34.2	35.9	31.0	36.2	45.6	39.0	35.3	36.7
2017-19	17.5	30.0	35.6	35.7	32.6	36.3	46.8	38.2	36.1	36.3

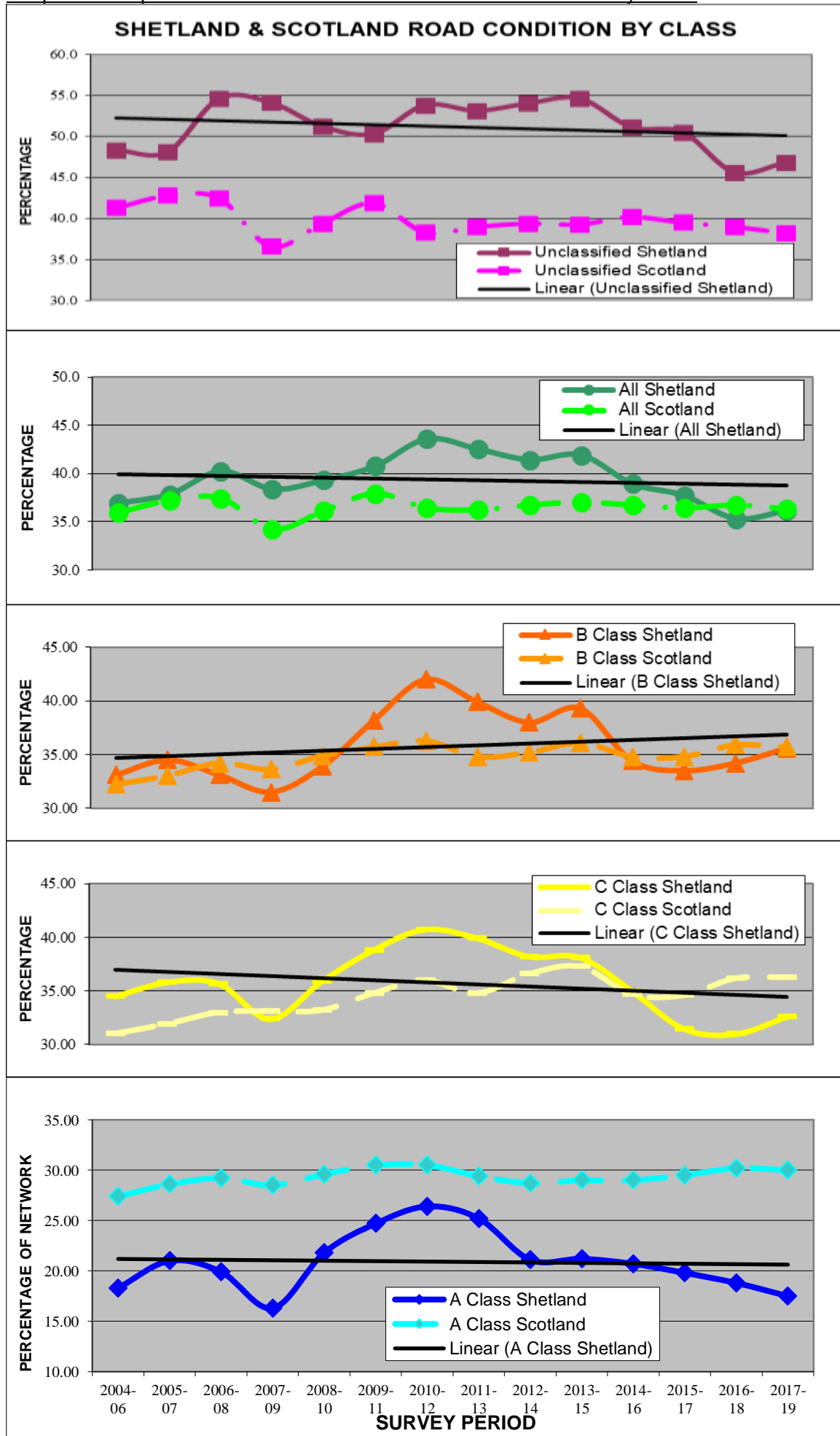
1.4 “A class” Roads

Shetland’s “A class” roads have been and still are in a better condition than the average for “A class” roads in Scotland. The gap between them had reduced from a high of 12.2% in 2007-09 to 4.1% in 2010-12. However, this closing of the figures has slowed then reversed with the latest survey showing that the difference is now 12.5%. This is likely to be because of the large proportion of our network, including “A class” roads, that is surface dressed on an annual basis to address poor texture and skid resistance. This is a low cost treatment that in addition to improving a carriageway’s surface texture also seals any cracking to prevent the ingress of water. The result is an improvement in the condition indicator from amber to green. Surface dressing of “A class” roads will continue but, due to their relatively good condition, to a lesser extent than before. This will allow more budget to be allocated to the treatment of the other road classifications.

1.5 “B and C Class” Roads

While a number of these roads were improved in the 1970’s and 80’s the majority are still single track. Approximately 20% of these are founded on peat that generally has a low load bearing capacity. This can result in uneven road surfaces, differential settlement, edge deterioration, cracking and eventually disintegration of the bitmac surface. This has always been a problem but the rate of deterioration increased as the number of heavy goods vehicles accessing aquaculture sites and other developments increased. This is why Shetland’s “B and C class” roads have over the years tended to be in a poorer condition than the Scottish average. The exception was in a period between 2007 and 2009 when the condition of the “B class” roads improved significantly. In the two years following this period there was a deterioration of approximately 9% in the condition of the “B and C class” roads. However, this has again improved recently and these two classes of road now have a condition figure either equal to or better than the national average. This improvement is likely due to these roads having been given greater priority as funds that would previously have been allocated to the improvement of “A class” roads have become available.

Graph 1: Comparison of Shetland and Scotland Road Condition by Class



1.6 “Unclassified” Roads

The “unclassified” roads have historically been in a worse condition than the national average. They tend to be narrower than their “classified” equivalent and so are even more susceptible to edge damage due to HGV’s or the larger agricultural vehicles now being used. From 2011 to 2014 the condition of Shetland’s unclassified roads was approximately 15% worse than the Scottish average. This was a decline from a figure that was 12% worse in the preceding 4 years. It is likely that this continued decline was partly due to the classified roads being treated with more priority than was previously the case. However, in the past 4 years their RCI has shown an improvement to a figure 8.6% worse than the national average. Given that only 10% of the unclassified roads are surveyed each year it is too early to make any conclusions about the success or otherwise of our practice of giving the treatment of unclassified roads increased priority. For example, it may be that the survey’s random sample contains a high proportion of roads in the best condition.

1.7 Entire Network

The “all” roads figure for the entire network is now only 0.2% better than the average, a relative deterioration of 1.2% since last year. The graph shows that the Shetland figure began to diverge from the Scottish average figure in 2009-11 but has now closed as our figure has improved and the Scottish average has remained relatively steady. Prior to this the percentage of Shetland’s carriageways that should be considered for treatment was approximately 3% greater than the national average largely due to the relatively poor condition of our unclassified roads. The reduction in funding, due to efficiency savings, may have been a contributory factor in the increase from this 3% gap in the period from 2010 to 2013. However, as already discussed in paragraph 2.1.3 of the report, a further reason for the long term decline since 2004 may be that the majority of Shetland’s “classified” roads were improved in a short period during the early years of the oil “boom.” Many of these have shown and continue to show signs of deterioration after 40 years of use. The surface dressing of these roads, to address poor texture (see 1.1 above), has improved the RCI of our “classified” roads. However, this will to a certain extent mask the long term decline of the “structure” of the road network, indicated by heavy cracking, rutting and poor longitudinal profile, that can only be addressed with more expensive treatments such as overlay resurfacing or reconstruction.

2 **Maintenance Backlog**

2.1 “One Off” Repair Cost

The Society of Chief Officers of Transportation in Scotland (SCOTS) has analysed the SCANNER surveys and the carriageway maintenance budgets of local authorities to calculate a maintenance backlog figure. The inputs to the backlog calculation are:

- the survey data parameters;
- the treatment method for each defect type;
- the treatment costs supplied by each Council; and
- the carriageway lengths and widths supplied by each Council.

The resulting figure is the expenditure required to bring the entire road network of an authority to the acceptable or “Green” condition. The 2019 headline backlog figure to improve Shetland's carriageways to this acceptable condition is £33.4 million.

(Please note that in 2015 SCOTS decided to use Scotland wide average treatment costs for calculating the backlog figure rather than each Council's own unit rates for treatment costs).

Table 1: Backlog Figures (Recalculated) for Shetland 2009-19

	BACKLOG (£M)	BACKLOG 2019 RATES (£M)	VARIANCE (£M)	VARIANCE (%)	RCI OVERALL	RCI "A class"	RCI CLASSIFIED	RCI UNCLASSIFIED
2009	27.3	-			36.6	16.3	26.0	54.1
2010	35.5	-	8.2	30.0	39.3	21.8	29.9	51.2
2011	45.7	-	10.2	28.7	40.7	24.7	33.2	50.3
2013	50.5	-	4.8	10.5	42.5	25.2	34.2	53.1
2015	53.8	-	3.3	6.5	41.9	21.2	32.0	54.6
2017	31.9	36.2	n/a	n/a	37.7	19.8	31.5	50.5
2019	33.4	33.4	-2.8	-7.9	36.1	17.5	27.6	46.8

3 "Steady State" Figure

3.1 Budget Required to Maintain Current Condition

SCOTS developed the backlog concept further and arrived at a figure giving the annual budget required to maintain carriageways in a "steady state" so that they are neither improving nor deteriorating. In 2009 this figure for Shetland was £2.4 million per year. The budget allocated for carriageway treatments that year was £2.08 million or 87% of the steady state figure. In 2015 the "steady state" figure increased to £4.1 million per year while that year's budget reduced to £1.78 million which equates to only 43% of the "steady state" figure. The latest "steady state" figure, calculated in 2019, is £4.4 million. Therefore, this year's carriageway maintenance budgets, which totalled £1.78 million amounted to 40.4% of the funding required to maintain our roads in their current condition. (Please note that in 2015 SCOTS decided to use Scotland wide average treatment costs for calculating the "steady state" figure rather than each Council's own unit rates for treatment costs).

An increase in the unit rates of carriageway treatments due to inflation and the stagnation of the revenue budgets to fund these treatments partly explains why the gap between the "steady state" and actual budgets has increased significantly.

3.2 Future Road Condition

The gap between the "steady state" and the budgets, if it continues in the long term, will eventually have a detrimental impact on the condition of Shetland's roads and on the statutory performance indicator. It is vital that planned and preventative maintenance measures, such as surface dressing, are adequately funded in order to avoid much costlier reactive maintenance such as the repair of potholes or deeper failures of the road foundation.

3.3 Structural Failures

It is important to recognise that preventative measures, such as surface dressing, cannot address the structural failure of our carriageways that results from poor "foundations" and heavy loading from larger vehicles. We have already stated "that the majority of Shetland's "classified" roads were improved in a short period during the early years of the oil "boom." Many of these have shown and continue to show signs of deterioration after 40 years of use." Due to the age of these roads a significant proportion of that deterioration is and will be structural. We have to bear this in mind and be prepared for an increase in the lengths of road that will have to be resurfaced or

reconstructed. The “easy” gains to be made in carriageway condition by the inexpensive surface dressing of amber sections of carriageway will in time diminish. This would allow a redistribution of funding with the surface dressing budget being reduced in favour of the resurfacing budget. In turn this would, in the meantime, allow a slight increase in the structural treatment of failed sections thereby reducing the expected peak in structurally failed roads. However, given the higher unit rate of resurfacing and reconstruction this peak is likely to result in a worse RCI figure and an increased backlog.

We are now seeing the first of the predicted structural failures on our roads. This is on the B9082 Cullivoe Road between the Gutcher Crossroads and the Cullivoe Pier. This length of road has not had any structural improvement since it was first constructed in the 1850’s. The number of heavy goods vehicles running whitefish and salmon from the pier has increased significantly in the past two years. The damage that this has caused to the “structure” and subgrade of the road is considerable and is reflected in the rapidly deteriorating condition of the road surface. The road surface has been patched but this is only an interim measure while a long term solution to this problem is sought.

Roads Performance: Detailed Information

1.1 SCOTS Audit

An informal audit of the Roads Services' reporting procedures recommended that more emphasis be given to our performance. Therefore, a section on performance indicators is now included in this annual report.

1.2 Carriageway Performance Indicators

The additional indicators are the percentage of road network treated by length, the percentage of road network surface dressed by area and carriageway maintenance cost per kilometre. The Council's performance benchmarked against the 32 Scottish local authorities is also given in each of these criteria. Figures for these indicators are shown in the following tables. It is notable that Shetland Islands Council is ranked 1st for percentage of the carriageway surface dressed each year but we spend the 5th least of the 32 authorities on the maintenance of our carriageways.

Table 1: Shetland's Performance Indicators and Benchmarking

Financial Year	% of Network Treated (by Length)	R A N K	% of Surface Dressing (by Area)	R A N K	Maintenance Cost per Km (£) (Lowest = 1)	R A N K
2011/12	4.21	15	3.62	5	2,992	9
2012/13	3.98	*	3.38	*	3,222	*
2013/14	4.68	10	3.64	3	3,281	6
2014/15	4.60	10	3.56	3	3,096	5
2015/16	4.97	7	3.90	3	3,274	6
2016/17	6.68	2	4.94	2	4,106	10
2017/18	6.21	2	5.12	1	3,246	5

	A Class RCI Ranking	B Class RCI Ranking	C Class RCI Ranking	Unclassified RCI Ranking	Overall RCI Ranking
2004-06	5	18	20	23	16
2005-07	6	20	19	22	19
2006-08	4	16	20	29	21
2007-09	2	15	14	32	23
2008-10	4	19	18	29	20
2009-11	8	23	19	27	19
2010-12	14	27	21	30	25
2011-13	7	24	17	29	23
2012-14	7	21	17	29	22
2013-15	8	28	16	30	25
2014-16	8	22	19	28	21
2015-17	6	19	16	28	21
2016-18	3	18	14	27	17
2017-18	2	21	13	27	20

Impact of Budgetary Options

1.1 Cost Projection Tool

SCOTS identified a need to assist authorities with assessing and reporting on the predicted effects of varying levels of funding. There was a need to assist authorities to explore and understand the potential for making better use of limited budgets via their deployment in an improved manner. This resulted in the development of the “Cost Projection Tool.” It is a spreadsheet that uses the SCANNER data to predict the future condition of the asset based upon estimated rates of deterioration and the effect of maintenance treatments in improving condition. The projection of costs allows decision makers, including Councillors, to be informed if current and future funding levels are likely to result in an improvement of the network or deterioration. This data is output on graphs showing how the condition is predicted to change over a 20 year period.

1.2 Funding Scenarios

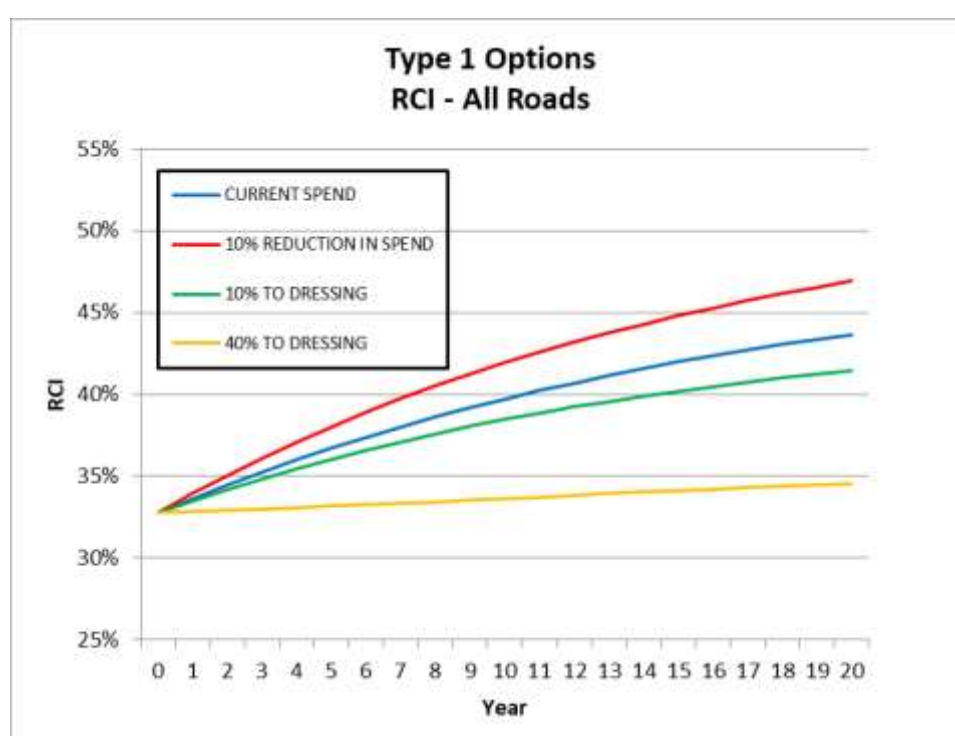
The funding scenarios that have been modelled are as follows:

- Option 1 - the current spending regime;
- Option 2 - a 10% reduction in spending across all treatments;
- Option 3 - transferring 10% of resurfacing budget to surface dressing; and
- Option 4 - transferring 40% of resurfacing budget to surface dressing.

The predicted results over a 20 year period are as shown in graph 2 below.

To enable consideration of the graphs it should also be noted in the situation where the money allocated is greater than the amount of work required the model calculates the amount of ‘surplus budget’ which allows that surplus to be reallocated to other road classes or treatments. This allows all spending to be directed to roads where it will be needed and won’t be wasted.

Graph 2: 20 Year RCI Prediction for Different funding Scenarios



This shows that a 10% reduction in spend across all treatments would increase the RCI by 3.3% in comparison to retaining the current spend. A 10% reallocation of the spend with more surface dressing done rather than resurfacing would give a 2.2% relative improvement over the 20 year period while a 40% reallocation yields a 9.1% relative improvement. This suggests that we should increase the amount of surface dressing we do at the expense of our resurfacing programme. However, as surface dressing is weather dependent and there is a limited time when it can be done, it would not be possible to dress the additional area represented by a 40% transfer of funds. Therefore, a 10% transfer of funds would be a better regime to achieve maximum improvement in the RCI.

1.3 Carriageway Predictions Summary

In summary, the cost tool predicts that it is possible to restrict the deterioration of Shetland's carriageways to only 5.3% in the 20 year period by transferring 10% of the resurfacing budget to surface dressing. Since resources are limited the chosen option would not require any additional funding for carriageway maintenance above that in the current budgets. The model also shows that, if the current spending regime is retained, there would be a surplus of spending on classified rural roads. This would have to be reallocated to unclassified roads if this deterioration of only 5.3% is to be achieved.



Meeting(s):	Environment & Transport Committee	20 November 2019
Report Title:	Environment and Transport Committee Business Programme – 2019/20	
Reference Number:	ISD-15-19-F	
Author / Job Title:	John Smith, Director of Infrastructure Services	

1.0 Decisions / Action required:

That the Environment & Transport Committee:

- 1.1 CONSIDERS the business planned for Environment & Transport Committee in the financial year 2019/20;
- 1.2 ADVISES the Director of Infrastructure Services of any changes required including new items where the timescale will be confirmed at a later date.

2.0 High Level Summary:

- 2.1 The purpose of this report is to facilitate discussion of the Business Programme of the Committee for the financial year 1 April 2019 to 31 March 2020 including items where the date is still to be determined.
- 2.2 The Business Programme 2019/20 will be presented to Environment and Transport Committee at least quarterly to ensure that it is kept up to date incorporating new items as work programmes across the Council are taken forward.

3.0 Corporate Priorities and Joint Working:

- 3.1 Our Plan 2016, in its 20 by 20 states that:-

“High standards of governance, that is, the rules on how we are governed, will mean that the Council is operating effectively and the decisions we take are based on evidence and supported by effective assessments of options and potential effects”.

Maintaining a Business Programme for each Committee/Board of the Council contributes to an effective governance framework for the Council.

4.0 Key Issues:

- 4.1 A range of business scheduled or to be scheduled over the coming year in consultation with the Committee.

5.0 Exempt and/or confidential information:	
5.1	None
6.0 Implications :	
6.1 Service Users, Patients and Communities:	<p>The Business Plan provides the community and other stakeholders with important information regarding the planned business for the coming year.</p> <p>The Business Programme complements the Council's Corporate and Directorate Plans and the Shetland Partnership Plan.</p>
6.2 Human Resources and Organisational Development:	None arising directly from this report. Any implications for staff arising from individual reports in the Business Programme will be addressed through the work on those reports.
6.3 Equality, Diversity and Human Rights:	None arising directly from this report. Any implications in this regard arising from individual reports in the Business Programme will be addressed through the work on those reports.
6.4 Legal:	The Business Programme supports the governance framework of the Council which is underpinned by statute.
6.5 Finance:	None arising directly from this report. Any financial implications arising from individual reports in the Business Programme will be addressed through the work on those reports.
6.6 Assets and Property:	None arising directly from this report. Any implications in this regard arising from individual reports in the Business Programme will be addressed through the work on those reports.
6.7 ICT and new technologies:	None arising directly from this report. Any implications in this regard arising from individual reports in the Business Programme will be addressed through the work on those reports.
6.8 Environmental:	None arising directly from this report. Any implications in this regard arising from individual reports in the Business Programme will be addressed through the work on those reports.
6.9 Risk Management:	The risks associated with setting the Business Programme are around the challenges for officers meeting the timescales required, and any part of the business programme slipping and causing reputational damage to the Council. Equally, not applying the Business Programme would result in decision making being unplanned and haphazard; aligning the Council's Business Programmes with the objectives and actions contained in its corporate plans could mitigate against those risks.

6.10 Policy and Delegated Authority:	<p>Maintaining a Business Programme ensures the effectiveness of the Council's PPMF.</p> <p>The Business Programme supports each Committee's role, as set out in paragraph 2.3 of the Council's Scheme of Administration and Delegations.</p>	
Previously considered by:	N/A	

Contact Details:

John Smith, Director of Infrastructure Services

Email: jrsmith@shetland.gov.uk

Appendices:

Appendix 1 – Environment & Transport Committee Business Programme 2019/20

Background Documents:

None



**Environment & Transport Committee - Meeting Dates and Business Programme 2019/20
as at Wednesday, 13 November 2019**

Date / Type of Meeting	Agenda Item	Referred/Delegated
07 May 2019 10am Ordinary	Taxi Tariff Review	R
	Management of Memorial Safety within Burial Grounds and Management Rules relating to Cemeteries and Burial Grounds	D
	Waste Management – A Zero Waste Strategy for Shetland	D
	Capital Maintenance and Replacement Programme	D
	Environment and Transport Committee – Business Programme 2019/20	D
	Energy Recovery Plant and Shetland Heat Energy and Power – Strategic Outline Case	R
04 September 2019 2pm Ordinary	Environment and Transport Performance Report Quarter 4 to 31 March 2019 and Quarter 1 to 30 June 2019	D
	Development Performance Report 2018/19	D
	Development Services Directorate Plan 2019-2022	D
	Traffic Regulation Orders Etc. – Annual Progress Report	D
	Infrastructure Services Business Programme – 2019/20	D
20 November 2019 2pm Ordinary	Strategic Roads Strategy – Strategic Outline Programme	R
	Carriageway Condition of Shetland's Roads	D
	Environment and Transport Business Programme 2019-20	D
21 January 2020 10am Ordinary	Shetland Climate Change Programme	R
	Grounds Maintenance – Grass Cutting Review	D
	Gritting Review	D
	Strategic Outline Case – Strategic Roads Review	R
	Street Lighting Review	D
	Environment and Transport Committee – Business Programme 2019/20	D
19 February 2020 10am Special – Budget Setting	Infrastructure Services Budget Proposals	R
	Development Services Budget Proposals	R
10 March 2020 2pm Ordinary	Shetland Climate Change Plan	R
	Environment and Transport Committee – Business Programme	R
	Energy Recovery Plant and Shetland Heat Energy and Power –Outline Business Case	R



**Environment & Transport Committee - Meeting Dates and Business Programme 2019/20
as at Wednesday, 13 November 2019**

Date / Type of Meeting	Agenda Item	Referred/Delegated
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Planned Committee business still to be scheduled

- Performance Reporting
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..... END OF BUSINESS PROGRAMME

DRAFT