

Schedule 3, Section 9  
Measuring Performance  
Attachment 9.2 Rev C.3

No.	Title	Measure Description	Reporting Period	Monitoring Indicator Status
01	Operations Instructions completed on Target	Percentage of Operations Instructions completed by the proposed finish date.	Monthly, from the Commencement of Service Date	Active
02	Network availability	The Lane length availability on the Unit.	Monthly, from the Commencement of Service Date	Active
03	Traffic Disruption caused by Un-programmed Work	The Lane length and duration unavailable on the Unit due to un-programmed work.	Monthly, from the Commencement of Service Date	Active
04	Orders against Budget	Percentage of ordered work against budget.	Monthly, from the Commencement of Service Date	Active
05	Programme Completion	Percentage of the annual forward programme delivered within 7 days of initial programme completion date	Monthly, from the Commencement of Service Date	Suspended
06	Accuracy of Operations cost estimates	Accuracy of cost estimates for Operations on site.	Monthly, from the Commencement of Service Date	Active
07	Forward Planning Spend	Percentage of the spend for works delivered against original allocation	Monthly, from the Commencement of Service Date	Active
08	Staff turnover	Percentage staff turnover during last 12 months	Monthly, from the Commencement of Service Date	Active
09	Working hours	Average hours worked per employee in the reporting period.	Monthly, from the Commencement of Service Date	Active
10	Training	Average number of training hours per employee provided in last 12 months.	Monthly, from the Commencement of Service Date	Active
11	KSI Accident Frequency Rate	Counting incidents of Killed or Seriously Injured across the Unit.	Quarterly, from the Commencement of Service Date	Active
12	Observations Resulting from Inspections and Hazard Notices	Percentage of Observations Resulting from Inspections and Hazard Notices responded to within the required timescales.	Monthly, from the Commencement of Service Date	Active
13	Innovation	Financial value of innovations introduced by the Operating Company.	Monthly, from the Commencement of Service Date	Active
14	Collaboration	Value of collaborative services provided by Operating Company.	Monthly, from the Commencement of Service Date	Active
15	Submission of Reports	Percentage of monthly reports and submissions that are submitted within the required timescales.	Monthly, from the Commencement of Service Date	Active
16	(Ultra) Low Emission Vehicles (ULEV)	Percentage of the car and van fleet (up to 3.5 tonnes) classified as ultra-low emission vehicles.	Monthly, from the Commencement of Service Date	Active
17	ULEV Usage	Percentage of the total distance travelled in the car and van fleet (up to 3.5 tonnes) using electric mode, classified as ultra-low emission vehicles.	Monthly, from the Commencement of Service Date	Active
18	Salt Usage	Total amount of salt used in each Annual Period as a percentage of the amount used in the first Annual Period following Commencement of Service Date (used as a benchmark).	Monthly, from the second Annual Period	Active

No.	Title	Measure Description	Reporting Period	Monitoring Indicator Status
19	Potassium Acetate Usage	Total amount of potassium acetate used in each Annual Period as a percentage of the amount used in the first Annual Period following Commencement of Service Date (used as a benchmark). Base potassium acetate usage to be established and Monitoring Indicator reported annually from the second Annual Period following the Commencement of Service Date onwards.	Monthly, from the second Annual Period	Active
20	Community Engagements and Community Benefits	The percentage of all opportunities created, visits and tours undertaken, and meetings attended during the reporting period.	Quarterly, from the Commencement of Service Date	Active
21	Injurious Weeds	Percentage reduction in injurious weed extents on the network.	Annually, from the second Annual Period	Suspended
22	Winter Treatments Time Compliance	Percentage of Winter Service treatments carried out in compliance with the required timescales.	Monthly during Winter Service Period as from the Commencement of Service Date	Active
23	Ice Alarms	Total number of activations from road sensors and mobile road sensors due to the presence of ice on the surface.	Monthly during Winter Service Period as from the Commencement of Service Date	Active
24	Electronic Data Capture of Pavement Maintenance Schemes	Percentage of schemes >£250k where electronic data has been captured during the delivery of the works.	Monthly, from the Commencement of Service Date	Active
25	User's Perception of the Quality of Maintenance	The perceived quality of the maintenance of the roads based on the annual Survey of trunk road users in Scotland.	Annually, from the Second Annual Period	Active
26	Satisfaction Level with OC Responses to Enquiries	Percentage of customers declaring satisfied with the Operating Company-related enquiries response on the satisfaction questionnaire.	Periodically, when surveys are available	Suspended
27	Works Contracts Cost Estimates	Accuracy of Works Contracts cost estimates.	Quarterly, from the first Annual Period	Active
28	Works Contracts Out Turn Costs	Success in delivering Schemes at the awarded tender value.	Annually, from the Commencement of Service Date	Active
29	Structures Condition Management (BCI <sub>AVE</sub> )	Target percentage of Structures listed within the Structures Programme exhibiting poor or very poor Bridge Condition Indices (BCI <sub>AVE</sub> ) scores.	Monthly, from the Commencement of Service Date	Suspended
30	Structures Condition Management (BCI <sub>CRIT</sub> )	Target percentage of Structures not exhibiting poor or very poor Bridge Condition Indices (BCI <sub>CRIT</sub> ) scores.	Monthly, from the Commencement of Service Date	Suspended
31	Bids against expenditure profile	Percentage of ordered work against expenditure profile.	Monthly, from the Commencement of Service Date	Suspended
32	Accessibility Barriers	Percentage yearly reduction in the number of barriers to access on the trunk road network.	Monthly, from the Commencement of Service Date	Suspended
33	Use of reused, recycled, renewable materials	Percentage of raw materials used sourced from reused, recycled or renewable sources.	Quarterly, from the Commencement of Service Date	Active
34	Well-lit Network	Number of defects resulting in one or more lamps being out compared to the number of lit assets.	Monthly, from the Commencement of Service Date	Active

<b>Monitoring Indicator 1 – Operations instructions completed on target</b>			
<b>Related High-Level Contract Objective</b>	Value for Money and Innovation – To make economic and efficient use of available resources for road maintenance and foster innovation in all aspects of work.		
<b>Related Detailed Contract Objective(s)</b>	Schedule 3, Contract Management, 7.10 Operating Company Operations Instructions		
<b>Measure Description</b>	Percentage of Operations Instructions completed by the proposed finished date.		
<b>Measure Aim</b>	To measure the Operating Company's performance in completing Operations Instructions.		
<b>Methodology</b>	The Operating Company shall use the proposed and actual finish dates for each Operations Instruction in the APMS to produce the Monitoring Indicator.		
<b>Data input</b>	<p>A = number of Operations Instructions programmed for completion during reporting period.</p> <p>B = number of Operations Instructions not completed to programme and outstanding from previous reporting periods.</p> <p>C = number of Operations Instructions programmed for completion during reporting period with a valid actual completion date entered.</p> <p>D = number of Operations Instructions not completed to programme from previous reporting periods completed in current reporting period.</p>		
<b>Formula</b>	Monitoring Indicator = $(C+D)/(A+B) \times 100$		
<b>Required supporting information</b>	<p>In addition to reporting the Monitoring Indicator, the Operating Company shall provide the following supporting information:</p> <ul style="list-style-type: none"> <li>• Individual breakdown of Investigation Operations Instructions and Constructions Operations Instructions</li> <li>• Data input values.</li> <li>• Any trends in the figures.</li> </ul>		
<b>Monitoring Indicator Reporting Period</b>	Monthly, from the Commencement of Service Date	<b>Data Source for calculation</b>	APMS
<b>Monitoring Indicator Assessment Frequency</b>	Monthly, starting in first Annual Period		
<b>Return Format</b>	Percentage (%)	<b>Decimal places</b>	0

<b>Monitoring Indicator 2 - Network availability</b>			
<b>Related High-Level Contract Objective</b>	Accessibility and Integration – To provide a network that is accessible to all users, with improved connectivity, and to ensure that traffic moves freely and quickly across Scotland.		
<b>Related Detailed Contract Objective(s)</b>	Schedule 2, Scope, Section 7 Network Operations – Disruption Risk Management.  Schedule 3, Contract Management, Section 7.3, Programme Development		
<b>Measure Description</b>	The Lane length availability on the Unit.		
<b>Measure Aim</b>	To measure Lane availability over the existing network.		
<b>Methodology</b>	The Operating Company shall use the required Records of traffic management to produce the Monitoring Indicator.		
<b>Data input</b>	A = lane km of the network, B = addition of the /Lane Closure or Lane Occupation/ in the network, being a closure/occupation measured by Lane km affected x hours of closure/occupation.  From above, we obtain: P = A x 24 x days in reporting period. Network supply measured during the reporting period in km*hour.		
<b>Formula</b>	Monitoring Indicator = $(P - B)/P \times 100$		
<b>Required supporting information</b>	In addition to reporting the Monitoring Indicator, the Operating Company shall provide the following supporting information: <ul style="list-style-type: none"> <li>• Data input values.</li> <li>• Reasons for the closures.</li> <li>• Any trends in the figures.</li> </ul>		
<b>Monitoring Indicator Reporting Period</b>	Monthly, from the Commencement of Service Date	<b>Data Source for calculation</b>	Operating Company's Records (Traffic management Records)
<b>Monitoring Indicator Assessment Frequency</b>	Monthly, starting in the first Annual Period		
<b>Return Format</b>	Percentage (%)	<b>Decimal places</b>	0

<b>Monitoring Indicator 3 - Traffic disruption caused by un-programmed work</b>			
<b>Related High-Level Contract Objective</b>	Resilience and Prosperity – To provide consistent, predictable and reliable journeys for the movement of people and goods, and to minimise disruption caused by roadworks, unplanned incidents and severe weather conditions.		
<b>Related Detailed Contract Objective(s)</b>	Schedule 2, Scope, Provisions 5.3.6, 5.4.1 & 5.5.8. Schedule 2, Scope, Section 7 Network Operations – Disruption Risk Management		
<b>Measure Description</b>	The Lane length and duration unavailable on the Unit due to un-programmed work.		
<b>Measure Aim</b>	To measure disruption caused by un-programmed work in terms of Lane/km/hours.		
<b>Methodology</b>	The Operating Company shall use the required Records of traffic management to produce the Monitoring Indicator.		
<b>Data input</b>	A = length of un-programmed Lane closed in km B = duration of closure in hours		
<b>Formula</b>	Monitoring Indicator = A x B		
<b>Required supporting information</b>	In addition to reporting the Monitoring Indicator, the Operating Company shall provide the following supporting information: <ul style="list-style-type: none"> <li>• Data input values.</li> <li>• Any trends in the figures.</li> </ul>		
<b>Monitoring Indicator Reporting Period</b>	Monthly, from the Commencement of Service Date	<b>Data Source for calculation</b>	Traffic management Records
<b>Monitoring Indicator Assessment Frequency</b>	Monthly, starting in the first Annual Period		
<b>Return Format</b>	km x h	<b>Decimal places</b>	0

<b>Monitoring Indicator 4 - Orders against Budget</b>	
<b>Related High-Level Contract Objective</b>	Value for Money and Innovation – To make economic and efficient use of available resources for road maintenance and foster innovation in all aspects of work.
<b>Related Detailed Contract Objective(s)</b>	Schedule 3, Contract Management, Provision 7.2.1
<b>Measure Description</b>	Percentage of ordered work against budget.
<b>Measure Aim</b>	To measure value of work Ordered for the current Financial Year at the end of each reporting period against the budget for the Financial Year as set at the end of the reporting period.
<b>Methodology</b>	Analysis for each budget heading shall be carried out. The ordered work value shall be calculated by summing the ordered work values for each scheme as recorded in contract control and management function of the Integrated Roads Information System at the end of each reporting period. The budget value shall be the current Financial Year budget as notified in writing by Transport Scotland. Where budget values are varied during the year, the last notified value shall be used.
<b>Data input</b>	<p>A = sum of Ordered Work for all routine/cyclic schemes</p> <p>B = notified Financial Year Budget for routine/cyclic schemes</p> <p>C = sum of Ordered Work for all Structural Maintenance schemes</p> <p>D = notified Financial Year Budget for Structural Maintenance schemes</p> <p>E = sum of Ordered Work for all Structures schemes</p> <p>F = notified Financial Year Budget for Structures schemes</p> <p>G = sum of Ordered Work for all Minor Improvement schemes</p> <p>H = notified Financial Year Budget for Minor Improvement schemes</p> <p>I = sum of Ordered Work for all Strategic Road Safety schemes</p> <p>J = notified Financial Year Budget for Strategic Road Safety schemes.</p>
<b>Formula</b>	<p>Monitoring Indicator for routine and cyclic = <math>A/B \times 100</math></p> <p>Monitoring Indicator for Structural Maintenance = <math>C/D \times 100</math></p> <p>Monitoring Indicator for Structures = <math>E/F \times 100</math></p> <p>Monitoring Indicator for Minor Improvements = <math>G/H \times 100</math></p> <p>Monitoring Indicator for Strategic Road Safety schemes = <math>I/J \times 100</math></p> <p>Reported Monitoring Indicator = <math>(A+C+E+G+I) / (B+D+F+H+J) \times 100</math></p>

<b>Required supporting information</b>	<p>In addition to reporting the Monitoring Indicator, the Operating Company shall provide the following supporting information:</p> <ul style="list-style-type: none"> <li>• Data input values.</li> <li>• Any trends in the figures.</li> <li>• Any significant findings as a result of further link/section analysis by Work Code or expenditure type.</li> </ul>		
<b>Monitoring Indicator Reporting Period</b>	Monthly, from the Commencement of Service Date	<b>Data Source for calculation</b>	APMS
<b>Monitoring Indicator Assessment Frequency</b>	Monthly, starting in the first Annual Period		
<b>Return Format</b>	Percentage (%)	<b>Decimal places</b>	0



**SUSPENDED***(MI 5 – Programme Completion)***Monitoring Indicator 5 – Programme Completion**

<b>Related High-Level Contract Objective</b>	Value for Money and Innovation: To make economic and efficient use of available resources in road maintenance and foster innovation in all aspects of work.		
<b>Related Detailed Contract Objective(s)</b>	Schedule 3, Contract Management, Section 7.5 Programmes and profiles and Section 7.24 Scheme completion & closure		
<b>Measure Description</b>	An outcome-based measure of expenditure profile reviewing the number of projects close on time		
<b>Measure Aim</b>	To measure the percentage accuracy of the completion dates of works outlined in the expenditure profile		
<b>Methodology</b>	Each month, the Operating Company shall provide to Transport Scotland details of all planned works to be completed in month, including an expected date of completion, and all works completed in the prior month. The dates provided at the start of each month period will provide a baseline for the comparison of actual completion dates of works.		
<b>Data input</b>	A = Total number of projects expected to be completed in month (based on monthly baseline) B = Total number of these projects not completed within 7 days of the expected completion date		
<b>Formula</b>	$MI = (A-B)/A*100$		
<b>Required supporting information</b>	The monthly baseline expenditure profile.		
<b>Monitoring Indicator Reporting Period</b>	Monthly, from the Commencement of Service Date	<b>Data Source for calculation</b>	Operating Company's Records
<b>Monitoring Indicator Assessment Frequency</b>	Monthly, starting in first Annual Period		
<b>Return Format</b>	Percentage (%) Completion Planned Works	<b>Decimal places</b>	0

<b>Monitoring Indicator 6 - Accuracy of Operations cost estimates</b>			
<b>Related High-Level Contract Objective</b>	Value for Money and Innovation – To make economic and efficient use of available resources for road maintenance and foster innovation in all aspects of work.		
<b>Related Detailed Contract Objective(s)</b>	Schedule 3, Contract Management, Section 7.5, Programmes and Profiles and 7.17 Financial monitoring and forecasting process		
<b>Measure Description</b>	Accuracy of cost estimates for Operations on Site.		
<b>Measure Aim</b>	Measure the accuracy of the Operating Company's estimates for Operations.		
<b>Methodology</b>	<p>For each Operation on Site the Operating Company shall use the Records of the estimate, out turn value and Scheme Completion Date in the APMS to produce the Monitoring Indicator.</p> <p>For each Scheme the quantum accuracy shall be calculated, and the Monitoring Indicator based on all Operations completed during the previous 3 months or number of months elapsed after the Commencement of Service Date, whichever is the lesser.</p>		
<b>Data input</b>	<p>The following data shall be used:</p> <p>A = Construction bid estimate</p> <p>B = Construction out turn value</p> <p>C = individual scheme accuracy = <math>(1 - \sqrt{((A-B)^2)/A}) \times 100</math>  note: square and square root to make (A-B) always positive</p> <p>D = number of Schemes completed in previous 3 months or number of months elapsed after the Commencement of Service Date, whichever is the lesser.</p>		
<b>Formula</b>	<p>Overall Monitoring Indicator shall be the average of the individual Scheme accuracy percentages, calculated as follows:</p> <p>Monitoring Indicator = <math>(C_1 + C_2 + C_3 + \dots) / D</math></p>		
<b>Required supporting information</b>	<p>In addition to reporting the Monitoring Indicator, the Operating Company shall provide the following supporting information:</p> <ul style="list-style-type: none"> <li>• Data input values.</li> <li>• Any trends in the figures.</li> </ul>		
<b>Monitoring Indicator Reporting Period</b>	Quarterly, from the Commencement of Service Date	<b>Data Source for calculation</b>	APMS
<b>Monitoring Indicator Assessment Frequency</b>	Quarterly, starting in the first Annual Period		
<b>Return Format</b>	Percentage (%)	<b>Decimal places</b>	0

<b>Monitoring Indicator 7 – Forward Programming Spend</b>	
<b>Related High-Level Contract Objective</b>	Value for Money and Innovation: To make economic and efficient use of available resources in road maintenance and foster innovation in all aspects of work.
<b>Related Detailed Contract Objective(s)</b>	Schedule 3, Contract Management, Schedule 3, Contract Management, Section 7.5, Programmes and Profiles and 7.17 Financial monitoring and forecasting process
<b>Measure Description</b>	Percentage of total spend on Schemes as a proportion of profiled total spend.
<b>Measure Aim</b>	To measure actual spend at the end of each reporting period against the profiled spend set at the start of the reporting period.
<b>Methodology</b>	The Operating Company shall use the records of profiled and actual spend recorded in the contract control and management function of the Integrated Roads Information System to produce the Monitoring Indicator.
<b>Data input</b>	<p>A = sum of actual spend included in the Statement for all routine/cyclic schemes</p> <p>B = sum of profiled spend for all routine/cyclic schemes</p> <p>C = sum of actual spend included in the Statement for all Structural maintenance schemes</p> <p>D = sum of profiled spend for all Structural maintenance schemes,</p> <p>E = sum of actual spend included in the Statement for all Structures schemes</p> <p>F = sum of profiled spend for all Structures schemes</p> <p>G = sum of actual spend included in the Statement for all Minor Improvement schemes</p> <p>H = sum of profiled spend for all Minor Improvement schemes</p> <p>I = sum of actual spend included in the Statement for all strategic road safety schemes</p> <p>J = sum of profiled spend for all strategic road safety schemes.</p>
<b>Formula</b>	<p>Monitoring Indicator for routine and cyclic = <math>(A/B) \times 100</math></p> <p>Monitoring Indicator for Structural maintenance = <math>(C/D) \times 100</math></p> <p>Monitoring Indicator for Structures = <math>(E/F) \times 100</math></p> <p>Monitoring Indicator for minor improvements = <math>(G/H) \times 100</math></p> <p>Monitoring Indicator for strategic road safety = <math>(I/J) \times 100</math></p> <p>Reported Monitoring Indicator = <math>(A+C+E+G+I) / (B+D+F+H+J) \times 100</math></p>
<b>Required supporting information</b>	<p>In addition to reporting the Monitoring Indicator, the Operating Company shall provide the following supporting information:</p> <ul style="list-style-type: none"> <li>• Data input values.</li> <li>• Any trends in the figures</li> <li>• Reasons for deviation from the allocated spend against cost code.</li> </ul>

<b>Monitoring Indicator Reporting Period</b>	Monthly, from the Commencement of Service Date	<b>Data Source for calculation</b>	APMS
<b>Monitoring Indicator Assessment Frequency</b>	Monthly, starting in the first Annual Period		
<b>Return Format</b>	Percentage (%) Completion Spend against allocation.	<b>Decimal places</b>	0

<b>Monitoring Indicator 8 - Staff turnover</b>			
<b>Related High-Level Contract Objective</b>	Value for Money and Innovation – To make economic and efficient use of available resources for road maintenance and foster innovation in all aspects of work.		
<b>Related Detailed Contract Objective(s)</b>	Schedule 3, Contract Management, provision 4.2.21.		
<b>Measure Description</b>	Percentage staff turnover during the last 12 months.		
<b>Measure Aim</b>	To measure staff turnover.		
<b>Methodology</b>	The Operating Company shall use the Records required by Schedule 3 Contract Management, Section 9 Measuring Performance, including the number of Contract Personnel on the Unit leaving and the number of Contract Personnel on the Unit during each reporting period to produce the Monitoring Indicator.		
<b>Data input</b>	<p>P = number of direct employees leaving during previous 12 months*,</p> <p>Q = average number of all direct employees during previous 12 months*.</p> <p>* or number of months elapsed after the Commencement of Service Date, whichever is the lesser.</p>		
<b>Formula</b>	Monitoring Indicator = $P/Q \times 100$		
<b>Required supporting information</b>	<p>In addition to reporting the Monitoring Indicator, the Operating Company shall provide the following supporting information:</p> <ul style="list-style-type: none"> <li>• Data input values;</li> <li>• Evidence of action the OC is taking to reduce staff turnover.</li> </ul>		
<b>Monitoring Indicator Reporting Period</b>	Monthly, from the Commencement of Service Date	<b>Data Source for calculation</b>	Operating Company's Records
<b>Monitoring Indicator Assessment Frequency</b>	Monthly, starting in the first Annual Period		
<b>Return Format</b>	Percentage (%)	<b>Decimal places</b>	0

<b>Monitoring Indicator 9 – Working hours</b>			
<b>Related High-Level Contract Objective</b>	Value for Money and Innovation – To make economic and efficient use of available resources for road maintenance and foster innovation in all aspects of work.		
<b>Related Detailed Contract Objective(s)</b>	Schedule 3, Contract Management, provision 4.2.21.		
<b>Measure Description</b>	Average hours worked per employee in the Reporting Period.		
<b>Measure Aim</b>	To measure the average number of hours worked per employee.		
<b>Methodology</b>	The Operating Company shall keep a record of the number of working hours of Contract Personnel on the Unit and the number of Contract Personnel employed on the Unit during each Reporting Period to produce the Monitoring Indicator.		
<b>Data input</b>	P = sum of working hours by all employees during the reporting period, Q = average number of all direct employees during the reporting period, R = number of working weeks within the reporting period.		
<b>Formula</b>	Average working hours per person per week = (P/Q)/R		
<b>Required supporting information</b>	In addition to reporting the Monitoring Indicator, the Operating Company shall provide the following supporting information: <ul style="list-style-type: none"> <li>• Data input values.</li> <li>• Any trends in the figures.</li> </ul>		
<b>Monitoring Indicator Reporting Period</b>	Monthly, from the Commencement of Service Date	<b>Data Source for calculation</b>	Operating Company's Records
<b>Monitoring Indicator Assessment Frequency</b>	Monthly, starting in the first Annual Period		
<b>Return Format</b>	Hours per week	<b>Decimal places</b>	0

<b>Monitoring Indicator 10 - Training</b>			
<b>Related High-Level Contract Objective</b>	Value for Money and Innovation – To make economic and efficient use of available resources for road maintenance and foster innovation in all aspects of work.		
<b>Related Detailed Contract Objective(s)</b>	Schedule 3, Contract Management, provision 4.1.10.		
<b>Measure Description</b>	Average number of training hours per employee provided in the reporting period.		
<b>Measure Aim</b>	To measure the Operating Company's performance in providing training and development to all direct employees.		
<b>Methodology</b>	The Operating Company shall keep a record by Contract Personnel on the Unit and the total number of Contract Personnel employed on the Unit during each reporting period to produce the Monitoring Indicator.		
<b>Data input</b>	<p>P = sum of all training hours provided during previous 12 months* ,</p> <p>Q = average number of all direct staff during previous 12 months*.</p> <p>* or number of months elapsed after the Commencement of Service Date, whichever is the lesser.</p>		
<b>Formula</b>	Monitoring Indicator = P/Q		
<b>Required supporting information</b>	<p>In addition to reporting the Monitoring Indicator, the Operating Company shall provide the following supporting information:</p> <ul style="list-style-type: none"> <li>• Data input values.</li> <li>• Any trends in the figures.</li> </ul>		
<b>Monitoring Indicator Reporting Period</b>	Annually, from the Commencement of Service Date	<b>Data Source for calculation</b>	Operating Company's Records
<b>Monitoring Indicator Assessment Frequency</b>	Annually, from the Commencement of Service Date		
<b>Return Format</b>	Number of hours	<b>Decimal places</b>	1

<b>Monitoring Indicator No. 11 – KSI Accident Frequency Rate</b>			
<b>Related High-Level Contract Objective</b>	Safety – To provide a road network that is safe for all users, seeking to continually reduce risk and casualties.		
<b>Related Detailed Contract Objective(s)</b>	Schedule 1, Conditions of Contract, provision 2.15.1.		
<b>Measure Description</b>	Counting incidents of Killed or Seriously Injured across the OC's network.		
<b>Measure Aim</b>	Incentivise the OC to reduce KSI incidents through own initiatives, safety schemes and innovations.		
<b>Methodology</b>	The Operating Company shall record the number of fatalities, serious injuries, children (<16 years old) fatalities, children (<16 years old) serious injuries and slight injuries occurring on the Unit.		
<b>Data input</b>	<p>A= Number of recorded fatalities on network annually (Base year 2014-2018 average.)</p> <p>B= Number of recorded fatalities on network annually (Current year)</p> <p>C= Number of recorded serious injuries on network annually (Base year 2014-2018 average.)</p> <p>D= Number of recorded serious injuries on network annually (Current year)</p> <p>E= Number of recorded children (&lt;16 years old) fatalities on network annually (Base year 2014-2018 average.)</p> <p>F= Number of recorded children (&lt;16 years old) fatalities on network annually (Current year)</p> <p>G= Number of recorded children (&lt;16 years old) seriously injured on network annually (Base year 2014-2018 average.)</p> <p>H= Number of recorded children (&lt;16 years old) seriously injured on network annually (Current year)</p>		
<b>Formula</b>	<p>Fatalities Monitoring Indicator = <math>(A-B) / A \times 100</math></p> <p>Serious injuries Monitoring Indicator = <math>(C-D) / C \times 100</math></p> <p>Children fatalities Monitoring Indicator = <math>(E-F) / E \times 100</math></p> <p>Children serious injuries Monitoring Indicator = <math>(G-H) / G \times 100</math></p>		
<b>Required supporting information</b>	OC to relate performance monitoring indicator against progress in meeting the Scottish Government Casualty Reduction and to state any rectifying actions that are planned to ensure targets are met.		
<b>Monitoring Indicator Reporting Period</b>	Quarterly, from the Commencement of Service Date	<b>Data Source for calculation</b>	Operating Company's Records (KSI Records)



<b>Monitoring Indicator Assessment Frequency</b>	Quarterly, starting in the first Annual Period		
<b>Return Format</b>	Percentage (%)	<b>Decimal places</b>	0

<b>Monitoring Indicator 12 - Observations Resulting from Inspections and Hazard Notice responses</b>			
<b>Related High-Level Contract Objective</b>	Safety – To provide a road network that is safe for all users, seeking to continually reduce risk and casualties.		
<b>Related Detailed Contract Objective(s)</b>	Schedule 2, Scope of Works, Part 2, Defects, Hazard Notices & Observations Resulting from Inspections Schedule 3, Contract Management, Provision 4.4.1 (a)		
<b>Measure Description</b>	Percentage of Observations Resulting from Inspections and Hazard Notices responded to within the required timescale.		
<b>Measure Aim</b>	To measure the number of Observations resulting from Inspections and Hazard Notices responded to within the required timescale.		
<b>Methodology</b>	The Operating Company shall use the Records necessary to comply with the requirements of Schedule 3 Part 4, to produce the Monitoring Indicator.		
<b>Data input</b>	<p>A = total number of Observations resulting from Inspections due a response during the reporting period,</p> <p>B = total number of Hazard Notices due a response during the reporting period,</p> <p>C = total number of Observations resulting from Inspections due a response during the reporting period and responded to by the required response date.</p> <p>D = total number of Hazard Notices due a response during the reporting period and responded to by the required response date.</p>		
<b>Formula</b>	$\text{MI (Observations resulting from Inspections)} = (C/A) \times 100$ $\text{MI (Hazard Notices response)} = (D/B) \times 100$		
<b>Required supporting information</b>	<p>In addition to reporting the Monitoring Indicator, the Operating Company shall provide the following supporting information:</p> <ul style="list-style-type: none"> <li>• Data input values.</li> <li>• Any trends in the figures.</li> </ul>		
<b>Monitoring Indicator Reporting Period</b>	Monthly, from the Commencement of Service Date	<b>Data Source for calculation</b>	Operating Company's Records
<b>Monitoring Indicator Assessment Frequency</b>	Monthly, starting in the first Annual Period		
<b>Return Format</b>	Percentage (%)	<b>Decimal places</b>	0

<b>Monitoring Indicator 13 – Innovation</b>			
<b>Related High-Level Contract Objective</b>	Value for Money and Innovation – To make economic and efficient use of available resources for road maintenance and foster innovation in all aspects of work.		
<b>Related Detailed Contract Objective(s)</b>	Schedule 1, Conditions of Contract, Provision 6.5.2 Schedule 3, Contract Management, Provision 1.3.8		
<b>Measure Description</b>	Financial value of innovations introduced by the Operating Company.		
<b>Measure Aim</b>	To measure the Operating Company's performance in delivering an efficient and effective service whilst minimising costs.		
<b>Methodology</b>	The Operating Company shall use the Records of innovations submitted and accepted by the Director and the agreed financial benefits attributable to each innovation, as referred to in Schedule 1, to calculate the total financial benefit.		
<b>Data input</b>	The financial benefit to Transport Scotland of each introduced innovation.		
<b>Formula</b>	Total financial value to Transport Scotland of benefits of all accepted innovations to date = sum of individual innovation benefits financial values.		
<b>Required supporting information</b>	In addition to reporting the Monitoring Indicator, the Operating Company shall provide the following supporting information: <ul style="list-style-type: none"> <li>• Financial benefit for each innovation accepted by the Director.</li> </ul>		
<b>Monitoring Indicator Reporting Period</b>	Monthly, from the Commencement of Service Date	<b>Data Source for calculation</b>	Operating Company's Records
<b>Monitoring Indicator Assessment Frequency</b>	Monthly, starting in first Annual Period		
<b>Return Format</b>	Value (£)	<b>Decimal places</b>	0

<b>Monitoring Indicator 14 - Collaboration</b>			
<b>Related High-Level Contract Objective</b>	Value for Money and Innovation – To make economic and efficient use of available resources for road maintenance and foster innovation in all aspects of work.		
<b>Related Detailed Contract Objective(s)</b>	Schedule 3, Contract Management. Section 1.3, Collaboration and Partnering.		
<b>Measure Description</b>	Value of collaborative services provided by Operating Company.		
<b>Measure Aim</b>	To measure the Operating Company's performance in providing efficiency savings in the provision of public sector services through collaborative agreements.		
<b>Methodology</b>	The Operating Company shall keep records of collaboration with organisations.		
<b>Data input</b>	The financial value of goods and services provided to local authorities through collaboration agreements.		
<b>Formula</b>	Monitoring Indicator = sum of the values of goods and services provided to local authorities through collaboration agreements to date.		
<b>Required supporting information</b>	<p>In addition to reporting the Monitoring Indicator, the Operating Company shall provide the following supporting information:</p> <ul style="list-style-type: none"> <li>• Financial benefit for each of the collaborative agreements.</li> </ul>		
<b>Monitoring Indicator Reporting Period</b>	Monthly, from the Commencement of Service Date	<b>Data Source for calculation</b>	Operating Company's Records
<b>Monitoring Indicator Assessment Frequency</b>	Monthly, starting in the first Annual Period		
<b>Return Format</b>	Value (£)	<b>Decimal places</b>	0

<b>Monitoring Indicator 15 - Submission of reports and submissions</b>			
<b>Related High-Level Contract Objective</b>	Value for Money and Innovation – To make economic and efficient use of available resources for road maintenance and foster innovation in all aspects of work.		
<b>Related Detailed Contract Objective(s)</b>	Schedule 3, Contract Management, Appendix 1. Introduction Attachments. Attachment 1.1 Reporting & Submissions Defects & Inspections Attachment 1.2 Reporting & Submissions – Other.		
<b>Measure Description</b>	Percentage of reports and submissions listed in the above attachments that are submitted within the required timescales.		
<b>Measure Aim</b>	To measure the Operating Company's performance in the submission of the reports and submissions.		
<b>Methodology</b>	The Operating Company shall use the Records necessary to produce all reports and submissions required by Attachment 1.1 Reporting & Submissions Defects & Inspections and Attachment 1.2 Reporting & Submissions – Other to produce the Monitoring Indicator.		
<b>Data input</b>	A = total number of reports and submissions due in the reporting period, B = total number of reports and submissions submitted as required in the reporting period, C = total number of reports and submissions outstanding from previous periods, D = total number of reports and submissions outstanding from previous periods submitted in the reporting period.		
<b>Formula</b>	Monitoring Indicator = $((B+D)/(A+C)) \times 100$		
<b>Required supporting information</b>	In addition to reporting the Monitoring Indicator, the Operating Company shall provide the following supporting information: <ul style="list-style-type: none"> <li>• Data input values.</li> <li>• Any trends in the figures.</li> <li>• Reasons for any failures and actions taken to prevent reoccurrence.</li> </ul>		
<b>Monitoring Indicator Reporting Period</b>	Monthly, from the Commencement of Service Date	<b>Data Source for calculation</b>	Operating Company's Records
<b>Monitoring Indicator Assessment Frequency</b>	Monthly, starting in the first Annual Period		
<b>Return Format</b>	Percentage (%)	<b>Decimal places</b>	1

<b>Monitoring Indicator 16 – (Ultra) Low Emission Vehicles (ULEV)</b>			
<b>High-level Contract Objective</b>	Sustainability – use of reused, recycled, renewable materials		
<b>Detailed Contract Objective</b>	Schedule 3, Contract Management, provisions 1.5.10, 3.2.5 & 3.2.6.		
<b>Measure Description</b>	Percentage of the car and van fleet (up to 3.5 tonnes) classified as ultra-low emission vehicles.		
<b>Measure Aim</b>	To measure the amount of ULEV in the Operating Company's fleet.		
<b>Methodology</b>	The Operating Company shall use the records of the vehicles in its fleet to calculate the percentage of (Ultra) Low Emission Vehicles.		
<b>Data Input</b>	A = total number of cars and vans (up to 3.5 tonnes) in the Operating Company's fleet. B = total number of cars and vans (up to 3.5 tonnes) in the Operating Company's fleet classified as ultra-low emission vehicle.		
<b>Formula</b>	Monitoring Indicator = (B/A) x 100		
<b>Required supporting information</b>	Not Applicable.		
<b>Monitoring Indicator Reporting Period</b>	Monthly, from the Commencement of Service Date	<b>Data Source for Calculations</b>	Operating Company's Records & Data Logging System
<b>Monitoring Indicator Assessment Frequency</b>	Monthly, starting in the first Annual Period		
<b>Return Format</b>	Percentage (%)	<b>Decimal places</b>	1

<b>Monitoring Indicator 17 – ULEV Usage</b>			
<b>High-level Contract Objective</b>	Sustainability – use of reused, recycled, renewable materials		
<b>Detailed Contract Objective</b>	Schedule 3, Contract Management, provisions 1.5.10, 3.2.5 & 3.2.6.		
<b>Measure Description</b>	Percentage of the total distance travelled in the car and van fleet (up to 3.5 tonnes) using electric mode, classified as ultra-low emission vehicles.		
<b>Measure Aim</b>	To measure the usage of ULEV in the Operating Company's fleet.		
<b>Methodology</b>	The Operating Company shall use the records of the vehicles in its fleet to calculate the percentage of the total distance travelled by (Ultra) Low Emission Vehicles.		
<b>Data Input</b>	<p>A = Distance travelled in electric mode by cars and vans (up to 3.5 tonnes) in the Operating Company's fleet classified as ultra-low emission vehicles.</p> <p>B = Total distance travelled by cars and vans (up to 3.5 tonnes) in the Operating Company's fleet classified as ultra-low emission vehicles.</p>		
<b>Formula</b>	Monitoring Indicator = (A/B) x 100		
<b>Required supporting information</b>	Not Applicable.		
<b>Monitoring Indicator Reporting Period</b>	Monthly, from the Commencement of Service Date	<b>Data Source for Calculations</b>	Operating Company's Records & Data Logging System
<b>Monitoring Indicator Assessment Frequency</b>	Monthly, starting in the first Annual Period		
<b>Return Format</b>	Percentage (%)	<b>Decimal places</b>	1

<b>Monitoring Indicator 18 – Salt Usage</b>			
<b>High-level Contract Objective</b>	Resilience and Prosperity – To provide consistent, predictable and reliable journeys for the movement of people and goods, and to minimise disruption caused by roadworks, unplanned incidents and severe weather conditions.		
<b>Detailed Contract Objective</b>	Schedule 2 Scope, Section 6.3 Treatments		
<b>Measure Description</b>	Total amount of salt used in each Annual Period as a percentage of the amount used in the Annual Period following the Commencement of Service Date (used as benchmark). Base salt usage to be established and Monitoring Indicator reported annually from the second Annual Period following the Commencement of Service Date onwards.		
<b>Measure Aim</b>	To monitor the amount of salt used during the Winter Service Period.		
<b>Methodology</b>	The Operating Company shall use the route cards and the data logging system fitted into the Winter Service vehicles to provide the data to produce this Monitoring Indicator.		
<b>Data Input</b>	Total amount of salt used per month in tonnes.		
<b>Formula</b>	Total amount of salt used aggregated for the Annual Period as a percentage of the amount used in the Annual Period following the Commencement of Service Date.		
<b>Required supporting information</b>	Not Applicable.		
<b>Monitoring Indicator Reporting Period</b>	Monthly, from the second Annual Period	<b>Data Source for Calculations</b>	Operating Company's Records & Data Logging System
<b>Monitoring Indicator Assessment Frequency</b>	Monthly, from the second Annual Period		
<b>Return Format</b>	Percentage (%)	<b>Decimal places</b>	1



<b>Monitoring Indicator 19 – Potassium Acetate Usage</b>			
<b>High-level Contract Objective</b>	Resilience and Prosperity – To provide consistent, predictable and reliable journeys for the movement of people and goods, and to minimise disruption caused by roadworks, unplanned incidents and severe weather conditions.		
<b>Detailed Contract Objective</b>	Schedule 2 Scope, Section 6.3 Treatments		
<b>Measure Description</b>	Total amount of potassium acetate used in each Annual Period as a percentage of the amount used in the Annual Period following Commencement of Service Date (used as benchmark). Base potassium acetate usage to be established and Monitoring Indicator reported annually from the second Annual Period following Commencement of Service Date onwards.		
<b>Measure Aim</b>	To monitor the amount of potassium acetate used during the Winter Service Period.		
<b>Methodology</b>	The Operating Company shall use the route cards and the data logging system fitted into the Winter Service vehicles to provide the data to produce this Monitoring Indicator.		
<b>Data Input</b>	Total amount of potassium acetate used per month in litres.		
<b>Formula</b>	Total amount of potassium acetate used aggregated for the Annual Period as a percentage of the amount used in the first Annual Period following Commencement of Service Date.		
<b>Required supporting information</b>	Not Applicable.		
<b>Monitoring Indicator Reporting Period</b>	Monthly, from the second Annual Period	<b>Data Source for Calculations</b>	Operating Company's Records & Data Logging System
<b>Monitoring Indicator Assessment Frequency</b>	Monthly, starting in the second Annual Period		
<b>Return Format</b>	Percentage (%)	<b>Decimal places</b>	1

<b>Monitoring Indicator 20 - Community Engagements and Community Benefits</b>	
<b>Related High-Level Contract Objective</b>	Sustainability – To reduce carbon and waste and enhance environments.
<b>Related Detailed Contract Objective(s)</b>	Schedule 3, Contract Management, Section 1.4 Community Benefits
<b>Measure Description</b>	Number of all opportunities created, visits and tours undertaken, and meetings attended during the reporting period.
<b>Measure Aim</b>	To measure the Operating Company's performance in engaging with communities.
<b>Methodology</b>	The Operating Company shall use its Records to produce the Monitoring Indicator, by reporting against the eleven (11) data inputs in the Monitoring Indicator.
<b>Data input</b>	<p>Young people and schools</p> <ol style="list-style-type: none"> <li>1. Number of sponsorships offered to high schools within or adjacent to the Unit</li> <li>2. Number of visits undertaken to primary and secondary schools within or adjacent to the Unit to make presentations regarding Operating Company's role and work</li> </ol> <p>Employment and economy</p> <ol style="list-style-type: none"> <li>3. Number of job opportunities advertised through Jobcentres and local employability partnerships</li> <li>4. Number of new SME sub-contractors</li> <li>5. Number of New Entrants engaged</li> <li>6. Number of opportunities offered to young people on the Unit in accordance with the Scottish Government's Creating Opportunities Together document</li> <li>7. Number of Work Clubs supported on the Unit or adjacent to the Unit, in accordance with the UK Government's Get Britain Working policy Charitable support</li> <li>8. Number of local charities supported by the Operating Company</li> <li>9. Number of large-scale charity events undertaken by the Operating Company during the reporting period</li> </ol> <p>Local engagement</p> <ol style="list-style-type: none"> <li>10. Number of attended dialogue, feedback and consultation events related to the major works affecting bridge users and in accordance with the Operating</li> </ol>

	<p>Company's Unit Specific Communication Plan required in Schedule 3, Section 5.3 Communications.</p> <p>11. Number of industry related lectures, mentoring and public speaking engagements</p>	
<b>Formula</b>	<b>Young people and schools</b>	<b>Target</b>
	1. Number of sponsorships offered to high schools within or adjacent to the Unit this Annual Period	No Target
	2. Number of visits undertaken to primary and secondary schools within or adjacent to the Unit to make presentations regarding Operating Company's role and work this Annual Period	Minimum of four each Annual Period
	<b>Employment and economy</b>	<b>Target</b>
	3. Number of job opportunities advertised through Jobcentres and local employability partnerships	No Target
	4. Number of new SME sub-contractors	No Target
	5. Number of New Entrants engaged in this Annual Period	No Target
	6. Number of opportunities offered to young people on the Unit in accordance with the Scottish Government's Creating Opportunities Together document this Annual Period	Minimum of one each Annual Period
7. Number of Work Clubs supported on the Unit or adjacent to the Unit, in accordance with the UK Government's Get Britain Working policy this Annual Period	Minimum of two each Annual Period	

	<b>Charitable support</b>	<b>Target</b>	
	8. Number of local charities supported by the Operating Company this Annual Period	Minimum of two each Annual Period	
	9. Number of large-scale charity events undertaken by the Operating Company during the reporting period	Minimum of one in every two Annual Periods.	
	<b>Local engagement</b>	<b>Target</b>	
	10. Number of attended dialogue, feedback and consultation events related to the major works affecting bridge users and in accordance with the Operating Company's Unit Specific Communication Plan required in Schedule 3, Section 5.3 Communications.	No Target	
	11. Number of industry related lectures, mentoring and public speaking engagements this Annual Period	Minimum of 20 hours each Annual Period	
<b>Required supporting information</b>	In addition to reporting the Monitoring Indicator, the Operating Company shall provide the following supporting information: <ul style="list-style-type: none"> <li>• Data input values.</li> <li>• Any trends in the figures.</li> </ul>		
<b>Monitoring Indicator Reporting Period</b>	Monthly, from the Commencement of Service Date	<b>Data Source for calculation</b>	Operating Company's Records
<b>Monitoring Indicator Assessment Frequency</b>	Monthly, starting in the first Annual Period		
<b>Return Format</b>	Integers	<b>Decimal places</b>	0

## SUSPENDED

(MI 21 – Injurious weeds)

### Monitoring Indicator 21 - Injurious weeds

<b>Related High-Level Contract Objective</b>	Sustainability – To reduce carbon and waste and enhance environments.		
<b>Related Detailed Contract Objective(s)</b>	Schedule 2, Scope, provision 3.5.31 and 3.5.33. Schedule 2 Scope, Appendix 3 Roads Attachment 3.46 Annual Invasive or Injurious Species Management Plan Schedule 5, Specifications and Drawings, Appendix 30/2. Transport Scotland – Trunk Road Information Manual.		
<b>Measure Description</b>	Percentage change of the area of injurious weeds on the Unit achieved during the reporting period.		
<b>Measure Aim</b>	To measure the performance of the operating companies in relation to management of injurious weeds within the unit with a target (to be agreed with the director) to increasingly reduce the amount each year.		
<b>Methodology</b>	The Operating Company shall use records of the areas of infestation of invasive or injurious species within the Asset Performance Management System, and as identified in the Annual Invasive or Injurious Species Management Plan to calculate the Monitoring Indicator.		
<b>Data input</b>	<p>A = area infested by injurious weeds at the end of the previous reporting period (m<sup>2</sup>),                      B = area infested by injurious weeds at the end of the reporting period (m<sup>2</sup>),                      C = target reduction of the area infested by injurious weeds agreed with director.</p> <p>From the above:                      P = A-B, reduction of the area infested by injurious weeds at the end of the reporting period.</p>		
<b>Formula</b>	Monitoring Indicator = (P/A) x 100		
<b>Required supporting information</b>	In addition to reporting the Monitoring Indicator, the Operating Company shall provide the following supporting information: <ul style="list-style-type: none"> <li>• Data input values.</li> <li>• Any trends in the figures.</li> <li>• Reasons for any failures and actions taken to prevent reoccurrence.</li> </ul>		
<b>MI Reporting Period</b>	Annually, from the second Annual Period	<b>Data Source for MI calculation</b>	APMS
<b>MI Performance Assessment Frequency</b>	Annually, from the second Annual Period		
<b>Return Format</b>	Percentage (%)	<b>Decimal places</b>	0

<b>Monitoring Indicator 22 - Winter treatments time compliance</b>			
<b>Related High-Level Contract Objective</b>	Resilience and Prosperity – To provide consistent, predictable and reliable journeys for the movement of people and goods, and to minimise disruption caused by roadworks, unplanned incidents and severe weather conditions.		
<b>Related Detailed Contract Objective(s)</b>	Schedule 2, Scope, Section 6.3, Treatments		
<b>Measure Description</b>	Percentage of Winter Service treatments carried out in compliance with required timescales.		
<b>Measure Aim</b>	To measure the Operating Company's performance in carrying out Winter Service activities.		
<b>Methodology</b>	The Operating Company shall use the register of all daily proposed and actual actions including all dates and times for each route and each treatment to produce the Monitoring Indicator.		
<b>Data input</b>	<p>A = total number of planned (precautionary) treatments required,</p> <p>B = total number of planned (precautionary) treatments completed within the required treatment timescale,</p> <p>C = total number of unplanned (call out) treatments called out,</p> <p>D = total number of unplanned (call out) treatments commenced and completed within required timescales.</p>		
<b>Formula</b>	<p>Precautionary treatments Monitoring Indicator = <math>B/A \times 100</math></p> <p>Call-out treatments Monitoring Indicator = <math>D/C \times 100</math></p>		
<b>Required supporting information</b>	<p>In addition to reporting the Monitoring Indicator, the Operating Company shall provide the following supporting information:</p> <ul style="list-style-type: none"> <li>• Data input values.</li> <li>• Any trends in the figures.</li> <li>• Reasons for any failures and actions taken to prevent reoccurrence.</li> </ul>		
<b>Monitoring Indicator Reporting Period</b>	Monthly during Winter Service Period, from the Commencement of Service Date	<b>Data Source for calculation</b>	Operating Company's Records
<b>Monitoring Indicator Assessment Frequency</b>	Monthly during Winter Service Period, from the Commencement of Service Date		
<b>Return Format</b>	Percentage (%)	<b>Decimal places</b>	0

<b>Monitoring Indicator 23 - Ice Alarms</b>			
<b>Related High-Level Contract Objective</b>	Resilience and Prosperity – To provide consistent, predictable and reliable journeys for the movement of people and goods, and to minimise disruption caused by roadworks, unplanned incidents and severe weather conditions.		
<b>Related Detailed Contract Objective(s)</b>	Schedule 2, Scope, Section 6.2 Management		
<b>Measure Description</b>	Total number of activations from road sensors and mobile road sensors due to the presence of ice on the surface.		
<b>Measure Aim</b>	To measure the Operating Company's performance in carrying out Winter Service activities.		
<b>Methodology</b>	The Operating Company shall keep the information from the weather information system and a record of the road conditions the patrols encounter during Winter Time Service.		
<b>Data input</b>	A = total number of activations from road sensors due to the presence of ice on the surface, B = total number of activations from mobile road sensors due to the presence of ice on the surface.		
<b>Formula</b>	Monitoring Indicator = A + B		
<b>Required supporting information</b>	<p>In addition to reporting the Monitoring Indicator, the Operating Company shall provide the following supporting information:</p> <ul style="list-style-type: none"> <li>• Data input values.</li> <li>• Breakdown by route.</li> <li>• Any trends in the figures.</li> <li>• Reasons for any failures and actions taken to prevent reoccurrence.</li> </ul>		
<b>Monitoring Indicator Reporting Period</b>	Monthly during Winter Service Period, from the Commencement of Service Date	<b>Data Source for calculation</b>	Operating Company's Records
<b>Monitoring Indicator Assessment Frequency</b>	Monthly during Winter Service Period, from the Commencement of Service Date		
<b>Return Format</b>	Integer	<b>Decimal places</b>	0

<b>Monitoring Indicator 24 – Electronic Data Capture of Pavement Maintenance Schemes</b>			
<b>Related High-Level Contract Objective</b>	Condition: To measure and maintain our trunk road assets in a condition that meets the needs of our users, but which is also affordable.		
<b>Related Detailed Contract Objective(s)</b>	Pavement Maintenance Guidance		
<b>Measure Description</b>	Percentage of schemes >£250k where electronic data has been captured during the delivery of the works.		
<b>Measure Aim</b>	To measure the performance of the Operating Company's performance in the collection of electronic data during pavement maintenance works.		
<b>Methodology</b>	The Operating Company shall identify the number of pavement maintenance schemes over £250k where electronic data capture was utilised. This shall be compared to the total number of schemes >£250k that have been delivered.		
<b>Data input</b>	T = total number of pavement maintenance schemes >£250k N = number of pavement maintenance schemes >£250k where electronic data capture has been utilised		
<b>Formula</b>	Monitoring Indicator = (N/T) * 100		
<b>Required supporting information</b>	Works programme data and electronic data capture records.		
<b>Monitoring Indicator Reporting Period</b>	Monthly, starting in first Annual Period	<b>Data Source for calculation</b>	Operating Company's Records (Works programme list)
<b>Monitoring Indicator Performance Assessment Frequency</b>	Monthly, starting in first Annual Period		
<b>Return Format</b>	Percentage (%)	<b>Decimal places</b>	1



<b>Monitoring Indicator 25 – Users' perception of the quality of road maintenance</b>	
<b>Related High-Level Contract Objective</b>	Condition – To measure and maintain our trunk road assets in a condition that meets the needs of our users but which is also affordable.
<b>Related Detailed Contract Objective(s)</b>	Schedule 3, Contract Management, Section 5.2, Customer and Stakeholder Management
<b>Measure Description</b>	The perceived quality of the maintenance of the roads based on the annual Survey of trunk road users in Scotland.
<b>Measure Aim</b>	To measure the satisfaction of the Operating Company's quality delivery to road users.
<b>Methodology</b>	<p>The Operating Company shall collect the data from the annual Road User Perception survey on the conditions and maintenance of the road in the previous year and the concerned region. The data collected is the percentage of the users answering “satisfied” to the following statements:</p> <ul style="list-style-type: none"> <li>• Satisfaction with the management of vegetation on verges and central reserves.</li> <li>• Satisfaction with the amount of litter and debris on the road surface.</li> <li>• Satisfaction with the speed with which road defects such as potholes are repaired.</li> <li>• Satisfaction with the quality of repairs.</li> <li>• Satisfaction with promptness with which roads are cleared in the winter.</li> <li>• Satisfaction with promptness with which roads are gritted in winter.</li> </ul>
<b>Data input</b>	<p>A = % of satisfied users with the management of vegetation on verges and central reserves,  B = % of satisfied users with the amount of litter and debris on the road surface,  C = % of satisfied users with the speed with which roads defects such as potholes are repaired,  D = % of satisfied users with the quality of repairs,  E = % of satisfied users with promptness with which roads are cleared in the winter,  F = % of satisfied users with promptness with which roads are gritted in the winter.</p> <p>The following data shall be derived based on some of the above questions/statements:</p> <p>P = mean average of the main non-surface condition related users' satisfaction <math>(A+B)/2 \times 100</math>,  Q = mean average of the repairs users' satisfaction <math>(C+D)/2 \times 100</math>,  R = mean average of the maintenance in winter time users' satisfaction <math>(E+F)/2 \times 100</math>.</p>
<b>Formula</b>	Monitoring Indicator = $(P+Q+R)/3$

<b>Required supporting information</b>	N/A		
<b>Monitoring Indicator Reporting Period</b>	Annually, from the second Annual Period	<b>Data Source for calculation</b>	Operating Company's Records (Road User Perception survey)
<b>Monitoring Indicator Assessment Frequency</b>	Annually, from the second Annual Period		
<b>Return Format</b>	Aggregated percentage (%) of users' maintenance satisfaction	<b>Decimal places</b>	0

## SUSPENDED

*(MI 26 – Satisfaction level with OC responses to enquiries and complaints)*

<b>Monitoring Indicator 26 - Satisfaction level with OC responses to enquiries and complaints</b>			
<b>Related High-Level Contract Objective</b>	Customer Care and Travel Information – To provide customers with up-to-date, reliable travel information and support the level of satisfaction in trunk road services.		
<b>Related Detailed Contract Objective(s)</b>	Schedule 3, Contract Management, provision 5.2.4.		
<b>Measure Description</b>	Percentage of customers declaring satisfied with the Operating Company-related enquiries and complaints response in road user and stakeholder surveys.		
<b>Measure Aim</b>	To measure the satisfaction of the Operating Company's quality delivery to customers in its responses.		
<b>Methodology</b>	The Operating Company shall collect the data provided by Transport Scotland on customer satisfaction on OC enquiries and complaints.		
<b>Data input</b>	A = number of customers completing the satisfaction questionnaire on OC enquiries/complaints, B = number of customers declaring “satisfied” with OC responses to their enquiries/complaints.		
<b>Formula</b>	Monitoring Indicator = (B/A) x 100		
<b>Required supporting information</b>	In addition to the Monitoring Indicator, the Operating Company shall provide the following supporting information: <ul style="list-style-type: none"> <li>• Reasons for any failures and actions taken to prevent reoccurrence.</li> </ul>		
<b>Monitoring Indicator Reporting Period</b>	Periodically from the Commencement of Service Date	<b>Data Source for calculation</b>	Road user and stakeholder surveys
<b>Monitoring Indicator Assessment Frequency</b>	Periodically, when surveys are available		
<b>Return Format</b>	Percentage (%)	<b>Decimal places</b>	0

<b>Monitoring Indicator 27 - Works Contracts cost estimates</b>			
<b>Related High-Level Contract Objective</b>	Value for Money and Innovation – To make economic and efficient use of available resources for road maintenance and foster innovation in all aspects of work.		
<b>Related Detailed Contract Objective(s)</b>	Schedule 3, Contract Management, Section 7.5, Programmes and Profiles and 7.17 Financial monitoring and forecasting process		
<b>Measure Description</b>	Accuracy of Works Contracts cost estimates.		
<b>Measure Aim</b>	To measure the accuracy of the Operating Company's estimates for Works Contracts.		
<b>Methodology</b>	<p>The Operating Company shall use the Records of pre-tender estimate, awarded tender value and tender return date to produce the Monitoring Indicator.</p> <p>For each Scheme tender the accuracy shall be calculated and the Monitoring Indicator shall be based on all Scheme tenders completed during the previous 12 months or number of months elapsed after the Commencement of Service Date, whichever is the lesser.</p>		
<b>Data input</b>	<p>The following data shall be used:</p> <p>A = pre-tender Scheme estimate for each Scheme,</p> <p>B = tender value for each Scheme,</p> <p>C = individual scheme accuracy = <math>(1 - \sqrt{((A-B)^2)/A}) \times 100</math></p> <p>note: square and square root to make (A-B) always positive</p> <p>D = number of Schemes tendered in previous 12 months or number of months elapsed after the Commencement of Service Date, whichever is the lesser.</p>		
<b>Formula</b>	<p>Overall Monitoring Indicator shall be the average of the individual Scheme accuracy percentages, calculated as follows:</p> <p>Monitoring Indicator = <math>(C_1 + C_2 + C_3 + \dots) / D</math></p>		
<b>Required supporting information</b>	<p>In addition to reporting the Monitoring Indicator, the Operating Company shall provide the following supporting information:</p> <ul style="list-style-type: none"> <li>• Data input values.</li> <li>• Any trends in the figures.</li> </ul>		
<b>Monitoring Indicator Reporting Period</b>	Quarterly, from the Service of Commencement Date	<b>Data Source for calculation</b>	Operating Company's Records
<b>Monitoring Indicator Assessment Frequency</b>	Quarterly, starting in the first Annual Period		
<b>Return Format</b>	Percentage (%)	<b>Decimal places</b>	0

<b>Monitoring Indicator 28 - Works Contracts out turn cost</b>			
<b>Related High-Level Contract Objective</b>	Value for Money and Innovation – To make economic and efficient use of available resources for road maintenance and foster innovation in all aspects of work.		
<b>Related Detailed Contract Objective(s)</b>	Schedule 3, Contract Management, Section 7.5, Programmes and Profiles and 7.17 Financial monitoring and forecasting process		
<b>Measure Description</b>	Success in delivering Schemes at the awarded tender value.		
<b>Measure Aim</b>	To measure the Operating Company's success in delivering Schemes at the awarded tender value.		
<b>Methodology</b>	<p>The Operating Company shall use the Records of awarded tender value, final value and Scheme Completion Dates recorded to produce the Monitoring Indicator.</p> <p>For each Scheme the accuracy shall be calculated and the Monitoring Indicator shall be based on all Schemes completed during the previous 12 months or number of months elapsed after Commencement of Service Date 1, whichever is the lesser.</p>		
<b>Data input</b>	<p>The following data shall be used:</p> <p>A = awarded tender value for each Scheme,  B = final value for each Scheme,  <math>C = \text{individual scheme accuracy} = (1 - \sqrt{((A-B)^2)/A}) \times 100</math>  note: square and square root to make (A-B) always positive  D = number of Schemes completed in previous 12 months or number of months elapsed after the Commencement of Service Date, whichever is the lesser.</p>		
<b>Formula</b>	<p>Overall Monitoring Indicator shall be the average of the individual Scheme accuracy percentages, calculated as follows:</p> <p>Monitoring Indicator = <math>(C_1 + C_2 + C_3 + \dots) / D</math></p>		
<b>Required supporting information</b>	<p>In addition to reporting the Monitoring Indicator, the Operating Company shall provide the following supporting information:</p> <ul style="list-style-type: none"> <li>• Data input values.</li> <li>• Any trends in the figures.</li> </ul>		
<b>Monitoring Indicator Reporting Period</b>	Annually, from the Commencement of Service Date	<b>Data Source for calculation</b>	Operating Company's Records
<b>Monitoring Indicator Assessment Frequency</b>	Annually, from the Commencement of Service Date		
<b>Return Format</b>	Percentage (%)	<b>Decimal places</b>	0

## SUSPENDED

(MI 29 – Structure Condition Management (BCI<sub>AVE</sub>))

<b>Monitoring Indicator 29 – Structure Condition Management (BCI<sub>AVE</sub>)</b>			
<b>High-level Contract Objective</b>	Condition – To measure and maintain our trunk road assets in a condition that meets the needs of our users but which is also affordable.		
<b>Detailed Contract Objective</b>	Schedule 2, Scope of Works, Provision 4.11.1-7		
<b>Measure Description</b>	Target percentage of Structures listed within the Structures Programme exhibiting poor or very poor Bridge Condition Indices (BCI <sub>AVE</sub> ) scores in accordance with Transport Scotland Structures Manual, Part A - A13 Prioritising, Ranking of Defective Main Elements		
<b>Measure Aim</b>	To measure the Operating Company's performance in maintaining or improving asset condition for all assets within its programme remit.		
<b>Methodology</b>	The Operating Company shall use the Records in the APMS to determine the number of Structures within the programme where the BCI <sub>AVE</sub> score is poor or very poor to produce the Monitoring Indicator.		
<b>Data Input</b>	<p>A = total cumulative number of Structures assets, within the Programme with reported BCI<sub>ave</sub> values (rolling monthly period) by the end of current reporting period,</p> <p>B = total cumulative number of Structures assets, within the Programme with poor or very poor reported BCI<sub>ave</sub> values (rolling monthly period) by the end of current reporting period.</p>		
<b>Formula</b>	Reported Monitoring Indicator = $100 - ((B/A) \times 100)$		
<b>Required supporting information</b>	<p>In addition to reporting the Monitoring Indicator, the Operating Company shall provide the following supporting information:</p> <ul style="list-style-type: none"> <li>Data input values.</li> <li>Any trends in the figures.</li> <li>Lists of all Structures assets where the reported BCI is poor or very poor along with description of reason for inclusion on the Programme.</li> </ul>		
<b>Monitoring Indicator Reporting Period</b>	Monthly, from the Commencement of Service Date	<b>Data Source for Calculations</b>	APMS
<b>Monitoring Indicator Assessment Frequency</b>	Monthly, starting in the first Annual Period		
<b>Return Format</b>	Percentage (%)	<b>Decimal places</b>	1

## SUSPENDED

*(MI 30 – Structure Condition Management (BCI<sub>CRIT</sub>))*

<b>SUSPENDED</b>			
<i>(MI 30 – Structure Condition Management (BCI<sub>CRIT</sub>))</i>			
<b>Monitoring Indicator 30 – Structure Condition Management (BCI<sub>CRIT</sub>)</b>			
<b>High-level Contract Objective</b>	Condition – To measure and maintain our trunk road assets in a condition that meets the needs of our users but which is also affordable, safe for use and fit for purpose.		
<b>Detailed Contract Objective</b>	Schedule 2, Scope of Works, Provision 4.11.1-7		
<b>Measure Description</b>	Target percentage of Structures not exhibiting poor or very poor Bridge Condition Indices (BCI <sub>CRIT</sub> ) scores in accordance with Transport Scotland Structures Manual, Part A - A13 Prioritising, Ranking of Defective Main Elements.		
<b>Measure Aim</b>	To measure the Operating Company's performance in maintaining or improving asset condition.		
<b>Methodology</b>	The Operating Company shall use the Records in the structure's management function of the APMS to determine the number of Structures where the BCI <sub>CRIT</sub> score is poor or very poor to produce the Monitoring Indicator		
<b>Data Input</b>	<p>A = total cumulative number of Structures assets with reported BCI<sub>CRIT</sub> values (rolling monthly period) by the end of current reporting period,</p> <p>B = total cumulative number of Structures assets, within the Programme with poor or very poor reported BCI<sub>CRIT</sub> values (rolling monthly period) by the end of current reporting period.</p>		
<b>Formula</b>	Reported Monitoring Indicator = $100 - ((B/A) \times 100\%)$		
<b>Required supporting information</b>	<p>In addition to reporting the Monitoring Indicator, the Operating Company shall provide the following supporting information:</p> <ul style="list-style-type: none"> <li>Data input values.</li> <li>Any trends in the figures.</li> <li>Lists of all Structures assets where the reported BCI is poor or very poor along with description of reason for inclusion on the Programme.</li> </ul>		
<b>Monitoring Indicator Reporting Period</b>	Monthly, from the Commencement of Service Date	<b>Data Source for calculations</b>	APMS
<b>Monitoring Indicator Assessment Frequency</b>	Monthly, starting in the first Annual Period		
<b>Return Format</b>	Percentage (%)	<b>Decimal places</b>	1

## SUSPENDED

*(MI 31 – Bids against expenditure profile)*

### Monitoring Indicator 31 – Bids against expenditure profile

<b>Related High-Level Contract Objective</b>	Value for Money and Innovation – To make economic and efficient use of available resources for road maintenance and foster innovation in all aspects of work.
<b>Related Detailed Contract Objective(s)</b>	Schedule 3, Contract Management, Provision 7.2.1
<b>Measure Description</b>	Percentage of ordered work against expenditure profile.
<b>Measure Aim</b>	To measure value of work ordered for the current Financial Year at the end of each reporting period against the accumulated profiled spend as set at the end of the reporting period.
<b>Methodology</b>	The profiled spend will be determined as accumulative from the start of the financial year to the current month. The ordered work value shall be calculated by summing the ordered work values for each Scheme as recorded in Records of the APMS at the end of each reporting period.
<b>Data input</b>	A = sum of ordered work for all routine/cyclic Schemes, B = profiled spend for routine/cyclic Schemes, C = sum of ordered work for all structural maintenance (roads) Schemes, D = profiled spend for structural maintenance (roads) Schemes, E = sum of ordered work for all Structures Schemes, F = profiled spend for Structures Schemes, G = sum of ordered work for all minor improvement Schemes, H = profiled spend for minor improvement Schemes, I = sum of ordered work for all strategic road safety Schemes, J = profiled spend for strategic road safety Schemes.
<b>Formula</b>	Monitoring Indicator for routine and cyclic Schemes = $A/B \times 100$ Monitoring Indicator for structural maintenance = $C/D \times 100$ Monitoring Indicator for Structures = $E/F \times 100$ Monitoring Indicator for minor improvements = $G/H \times 100$ Monitoring Indicator for strategic road safety Schemes = $I/J \times 100$ Reported Monitoring Indicator = $(A+C+E+G+I) / (B+D+F+H+J) \times 100$



<b>Required supporting information</b>	<p>In addition to reporting the Monitoring Indicator, the Operating Company shall provide the following supporting information:</p> <ul style="list-style-type: none"> <li>• Data input values.</li> <li>• Any trends in the figures.</li> <li>• Any significant findings as a result of further link/section analysis by Work Code or expenditure type.</li> </ul>		
<b>Monitoring Indicator Reporting Period</b>	Monthly, from the Commencement of Service Date	<b>Data Source for calculation</b>	APMS
<b>Monitoring Indicator Assessment Frequency</b>	Monthly, from the Commencement of Service Date		
<b>Return Format</b>	Percentage	<b>Decimal places</b>	0

**SUSPENDED***(MI 32 – Accessibility Barriers)*

<b>Monitoring Indicator No. 32 – Accessibility Barriers</b>			
<b>Related High-Level Contract Objective</b>	Accessibility and Integration – To provide a network that is accessible to all users, with improved connectivity, and to ensure that traffic moves freely and quickly across Scotland.		
<b>Related Detailed Contract Objective(s)</b>	Schedule 3, Scope, Section 1.6 Investment objectives of the contract		
<b>Measure Description</b>	Percentage yearly reduction in the number of barriers to access on the trunk road network.		
<b>Measure Aim</b>	To measure the Operating Company's success in providing a Unit that is accessible to all road users.		
<b>Methodology</b>	The Operating Company shall report the number of accessibility barriers that have been removed by works that have been completed within the reporting period.		
<b>Data input</b>	The following data shall be used:  A = Number of accessibility barriers removed within the reporting period.		
<b>Formula</b>	Monitoring Indicator = A		
<b>Required supporting information</b>	In addition to reporting the Monitoring Indicator, the Operating Company shall provide the following supporting information: <ul style="list-style-type: none"> <li>• Details of accessibility barriers removed including the types of barriers removed and the value of each removal scheme.</li> </ul>		
<b>Monitoring Indicator Reporting Period</b>	Monthly, from the Commencement of Service Date	<b>Data Source for calculation</b>	APMS
<b>Monitoring Indicator Assessment Frequency</b>	Annual, from the Commencement of Service Date		
<b>Return Format</b>	Number	<b>Decimal places</b>	0

<b>Monitoring Indicator No. 33 – Use of reused, recycled, renewable materials</b>			
<b>Related High-Level Contract Objective</b>	Sustainability – To reduce carbon and waste and enhance environments.		
<b>Related Detailed Contract Objective(s)</b>	Schedule 3, Contract Management, provision 1.5.7 & 1.5.10.		
<b>Measure Description</b>	Percentage of raw materials used sourced from reused, recycled or renewable sources.		
<b>Measure Aim</b>	To encourage sustainability and the use of reused, recycled, renewables materials.		
<b>Methodology</b>	The Operating Company shall keep a record of the quantities of raw materials used and quantities of raw materials obtained from recycled, reused, renewable or certified sources. This PI applies to all Works Contracts with an Estimated Bid Value greater than £100,000.		
<b>Data input</b>	A = total raw materials consumed (tonnes), B = total raw materials from a recycled or reused source (tonnes), C = total raw materials from a renewable or certified source (tonnes).		
<b>Formula</b>	Monitoring Indicator = $(B + C) / A \times 100$		
<b>Required supporting information</b>	In addition to reporting the Monitoring Indicator, the Operating Company shall provide the following supporting information: <ul style="list-style-type: none"> <li>• Data input values</li> <li>• Any trends in the figures</li> <li>• Reasons for any failures and actions taken to prevent recurrence.</li> </ul>		
<b>Monitoring Indicator Reporting Period</b>	Quarterly, from the Commencement of Service Date	<b>Data Source for calculation</b>	Operating Company's Records
<b>Monitoring Indicator Assessment Frequency</b>	Quarterly, starting in the first Annual Period		
<b>Return Format</b>	Percentage (%)	<b>Decimal places</b>	1

<b>Monitoring Indicator 34 – Well-lit Network</b>			
<b>Related High-Level Contract Objective</b>	Safety – To provide a road network that is safe for all users, seeking to continually reduce risk and casualties.		
<b>Related Detailed Contract Objective(s)</b>	Schedule 2, Scope, Section 3.8 - Electrical		
<b>Measure Description</b>	Number of defects resulting in one or more lamps being out compared to the number of lit assets		
<b>Measure Aim</b>	To monitor the proportion of lit assets to lighting defects on the network.		
<b>Methodology</b>	The Operating Company shall use the Records of all lighting defects in the AMPS to produce the Monitoring Indicator.		
<b>Data input</b>	A = number of Lighting Points B = number of Lighting Point Defects resulting in one or more non-operational Lamps C = number of Illuminated Signs D = number of Illuminated Sign Defects resulting in one or more non-operational Lamps E = number of Illuminated Bollards F = number of Illuminated Bollard Defects resulting in one or more non-operational Lamps		
<b>Formula</b>	Performance Indicator for Lighting Points = $((A - B) / A) \times 100$ Performance Indicator for Illuminated Signs = $((C - D) / C) \times 100$ Performance Indicator for Illuminated Bollards = $((E - F) / E) \times 100$  Reported Performance Indicator: $((A+C+E) - (B+D+F)) / (A+C+E) \times 100$		
<b>Required supporting information</b>	In addition to reporting the Performance Indicator, the Operating Company shall provide the following supporting information: <ul style="list-style-type: none"> <li>• Data input values.</li> <li>• Any trends in the figures.</li> </ul>		
<b>Monitoring Indicator Reporting Period</b>	Monthly, from the Commencement of Service Date	<b>Data Source for calculation</b>	AMPS
<b>Monitoring Indicator Assessment Frequency</b>	Monthly, from the Commencement of Service Date		
<b>Return Format</b>	Percentage (%)	<b>Decimal places</b>	1