STRATEGIC TRANSPORT PROJECTS REVIEW

PROTECTING OUR CLIMATE AND IMPROVING LIVES

Appendix I: Recommendation Appraisal Summary Tables

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1. Detailed Appraisal Summary

An 'Appendix I: Recommendation Appraisal Summary Tables (ASTs) Explanatory Note' accompanies this AST.

1.1. Recommendation 8 – Increasing active travel to school

Recommendation Description

The school run is a significant contributor to traffic levels in the morning peak. Rates of walking to school in Scotland have been steadily declining over the past decade (from 46% in 2010 to 41% in 2019, but with a partly-offsetting increase in scooting and cycling from 3.5% to 6.5%). Road safety concerns are one of the most reported barriers amongst parents/carers preventing greater uptake of active travel to school; safe routes and slower traffic speeds are the top-cited improvements to encourage more active travel.

The benefits of providing safe active travel links has been highlighted in the STPR2 National Case for Change. Increasing walking, wheeling and cycling to school leads to health and wellbeing benefits for young people, their family groups and carers. This can help create healthy active travel habits for life. This recommendation would provide interventions that create safer, more inclusive environments for pupils in most of Scotland's primary and secondary schools to walk, wheel and cycle to school, where appropriate to do so.

This recommendation would deliver a comprehensive package of infrastructure and supporting behaviour change measures targeted towards enabling and encouraging active travel to schools. Interventions would seek to improve routes, reduce traffic volumes and speeds, tackle congestion, improve air quality directly outside of schools and increase uptake of active travel amongst children and their parents/carers. Interventions would build upon on the work that local and regional partners have been leading to plan and implement measures at and around schools across Scotland.

The type of interventions to be implemented would be planned in light of local circumstances at each school but are expected to include:

- Reallocation of road space to better provide for walking, wheeling and cycling;
- Improved surfacing and lighting of foot and cycle ways;
- Improved road crossing points;
- Measures to reduce traffic volumes and/or speeds;
- 'School Streets' (where appropriate): sections of roads around schools that are closed to vehicular traffic during school drop-off and pick-up times to create pedestrian and cycle only zones in the vicinity of schools;
- Campaigns to promote better driver behaviour (such as safe parking initiatives), reduce air pollution (such as no engine idling initiatives) and provide encouragement to travel actively (through social marketing campaigns); and
- Connections to active freeways and other active travel routes where appropriate to enable longer-distance active journeys.

1.2. Relevance

Relevant to most primary and secondary schools across Scotland

Increasing active travel to school interventions are likely to be relevant to almost all primary schools (and their associated co-located nursery provision, where relevant) and secondary schools across Scotland.

For the purposes of appraisal, it is assumed that:

- Infrastructure improvements would be introduced on key routes to/from each school, where appropriate, extending for around an 800 meters radius (approximate 10-minute walk) for primary schools, and around a 1.6 kilometres radius (approximate 20-minute walk) for secondary schools;
- School Streets schemes would be appropriate for introduction on streets near at least half of all schools; and
- Campaign activities would be delivered at every school.

1.3. Estimated Cost

£1 billion - £2.5 billion Capital

Capital costs for implementation would depend on local circumstances but would typically be in the range of £1 million to £2 million per school for infrastructure and campaign measures, and from £5,000 to £30,000 per school for School Streets schemes. A total capital cost of £1.5 billion to £3billion for primary schools, and £360 million to £720 million for secondary schools is estimated, giving an overall capital cost estimate of around £1.9 billion to £3.7 billion.

Increased revenue funding would be required if the facilities provided are to be maintained to a high standard.

1.4. Position in Sustainable Investment Hierarchy

Reduces the need to travel unsustainably

This recommendation would contribute to 10 of the 12 NTS2 outcomes, as follows:

- Provide fair access to services we need;
- Be easy to use for all;
- Be affordable for all;
- Be reliable, efficient and high quality;
- Help deliver our net-zero target;
- Promote greener, cleaner choices;
- Be safe and secure for all;
- Get people and goods to where they need to get to;
- Enable us to make healthy travel choices; and
- Help make our communities great places to live.

1.5. Summary Rationale

Summary of Appraisal

	TPO					STAG					SIA				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Low Scenario	++	++	+++	+	+++	+	+	+++	+	+++	+	+++	+	+++	++
High Scenario	++	++	+++	+	+++	+	+	+++	+	+++	+	+++	+	+++	++

This recommendation makes a positive contribution to the STPR2 Transport Planning Objectives (TPOs), STAG criteria, and Statutory Impact Assessment criteria. This is an assessment based on evidence from across Scotland and the UK where similar schemes have been implemented successfully, and with considerable benefits realised. It is, with support from local authorities, implementable on a wide scale at schools in all types of settings across Scotland.

Increasing active travel to school particularly contributes to objectives for social inclusion, safety and health and wellbeing for young people and their family groups and can also assist in meeting goals for environmental improvement.

Increasing active travel to school interventions are implementable from a feasibility perspective, although costs of comprehensive implementation across all relevant schools would be substantial. Detailed local engagement and design work would be required to identify the most appropriate locations, and types of intervention for each school.

Details behind this summary are discussed in Section 3 below.

2. Context

2.1. Problems and Opportunities

This recommendation could help to tackle the following problems and opportunities:

Relevant Problem & Opportunity Themes Identified in National Case for Change

- **Poverty and Child Poverty:** public transport is very important to those on low incomes, yet in many areas of high social deprivation public transport options can be limited and relatively expensive. A key challenge is providing fair and affordable access to the services people need. Active travel is free / low cost and so increasing the attractiveness of travelling this way can bridge this gap.
- **The Changing Transport Needs of Young People:** key issues for young people include the availability of public transport, particularly to further and higher education, and personal safety when using services[i]. Again active travel is free / low cost and so increasing the attractiveness of travelling this way can bridge this gap
- **Changing Travel Behaviour:** changing people's travel behaviour to use more sustainable modes will have a positive impact on the environment, as well as health and wellbeing.
- **Physical Activity:** the importance of active travel is becoming more evident as the consequences of physical inactivity are studied. It is recognised that one of the most effective ways to secure the required 30 minutes of moderate activity per day is to reduce reliance on motorised transport, changing the means of everyday travel to walking and cycling[ii].

2.2. Interdependencies

This recommendation has potential overlap with other STPR2 recommendations and would also complement other areas of Scottish Government activity.

Other STPR2 Recommendations

- Connected neighbourhoods (1);
- Behavioural change initiatives (6);
- Changing road user behaviour (7);
- Improving access to bikes (9);
- Expansion of 20mph limits and zones (10); and
- Improving active travel on trunk roads through communities (37).

Other areas of Scottish Government activity

- Active Travel Framework (2020)[iii];
- The National Walking Strategy (2014)[iv];
- Cycling Action Plan for Scotland (CAPS)[v];
- Clean Air for Scotland 2 – Towards a Better Place for Everyone (2021)[vi]; and
- Revised Draft Fourth National Planning Framework (Revised Draft NPF4)[vii]

In some instances, infrastructure improvements may require reallocation of road space away from other modes. Where this is the case, designs would require to balance the sometimes-conflicting aspirations for improved active travel routes with those for bus priority, local access and servicing, and minimisation of traffic pollution and congestion.

3. Appraisal

This section provides an assessment of the recommendation against:

- STPR2 Transport Planning Objectives (TPOs);
- STAG criteria;
- Deliverability criteria; and
- Statutory Impact Assessment criteria.

The seven-point assessment scale has been used to indicate the impact of the recommendation when considered under the 'Low' and 'High' Transport Behaviour Scenarios (which are described in Appendix F of the Technical Report).

3.1. Transport Planning Objectives

1. A sustainable strategic transport system that contributes significantly to the Scottish Government's net-zero emissions target

Low Scenario	High Scenario
++	++

Around one-quarter of cars travelling in the morning peak are undertaking the school run[viii] and most school journeys are short - 72% of primary school children travel less than 2 kilometres, a distance ideally suited to active travel modes for many people (for secondary school children, 42% travel less than 2kilometres)[ix].

Evidence shows that interventions reduce car journeys and increase rates of active travel, contributing to net zero. Much of the available evidence is from School Streets schemes, which alongside road closures outside schools at peak times, are often accompanied by infrastructure improvements, speed limit reductions and campaign work. A trial scheme in Perth & Kinross saw a 47% fall in the proportion of pupils travelling to school by car[x]. In London, a scheme in Eltham resulted in a 54% reduction in car journeys to school, a 27% increase in cycling and a 9% increase in scooting[xi]. Schools that participate in campaigns such as Living Streets' Travel Tracker can achieve a 30% reduction in car journeys and a 23% in walking journeys[xii]. School travel planning activities can result in a 5 – 15% reduction in car journeys to school[xiii].

This recommendation is expected to have a moderate positive impact on this objective in both Low and High scenarios.

2. An inclusive strategic transport system that improves the affordability and accessibility of public transport

Low Scenario	High Scenario
++	++

Interventions in this recommendation would enhance inclusiveness by providing safe, low-cost transport options to school, without the need for private transport. They would reduce transport poverty for disadvantaged and vulnerable people and improve mobility and inclusion. 24% of Scottish children were living in relative poverty in 2017/18[xiv]. Over 1 million people in Scotland live in areas at a high risk of transport poverty. Risk of transport poverty could be reduced in these areas by making active travel safe and accessible for all[xv]. It is estimated that more than 0.5 meters children could directly benefit if school active travel interventions were introduced across Scotland. There would be resulting benefits to parents and carers who escort children to school, and many other people living in communities where schools are located would benefit from these improvements, including other most at risk users such as older people and disabled people.

Not feeling safe on the roads is the biggest single barrier to active travel use[xvi], with young people particularly affected. Improved infrastructure can help overcome this. Additionally, active travel infrastructure improvements provide a more affordable access to education for children and their broader family groups. Local active travel interventions would also enable more people to access public transport nodes, such as bus stops, safely and conveniently

This recommendation is expected to have a moderate positive impact on this objective in both Low and High scenarios.

3. A cohesive strategic transport system that enhances communities as places, supporting health and wellbeing

Low Scenario	High Scenario
+++	+++

31% of children in Scotland do not meet recommended guidelines for physical activity (at least 60 minutes of moderate to vigorous activity per day)[xvii]. Active travel to school can be one of the easiest ways to incorporate activity into the daily routine for children, and their adult carers alike. Supporting children to be more physically active from a young age increases the likelihood that they will continue to be physically active as adolescents and adults[xviii].

Fifteen-minute bouts of aerobic exercise (a typical active journey to school for many) can lead to significant increases in positive mood in younger children and can improve their control over symptoms of anxiety and depression[xix]. With as little as five minutes of physical activity, positive results in academic behaviour can be seen[xx].

Children who regularly walk to school also feel more connected to their communities, have a wider social network, a better understanding of their local area, and a greater level of

social development[xxi].

This recommendation is expected to have a major positive impact on this objective in both Low and High scenarios

4. An integrated strategic transport system that contributes towards sustainable inclusive growth in Scotland

Low Scenario	High Scenario
+	+

Reallocating road space and prioritising active modes can have economic benefits and provide better spaces for people to live, work and shop in. Typical increases in footfall in retail areas of up to 20-30% result[xxii]. Local shops and businesses that are located in the vicinity of schools could benefit from investment in improved routes, and resultant increases in footfall amongst those who are walking, wheeling or cycling

Much peak-time congestion is caused by 'school run' traffic, increasing motoring costs and adding to burdens on businesses. The English Sustainable Travel Demonstration Towns projects (which focussed on a variety of journey types, not only those to school) reduced traffic flow by around 7%. Businesses dependent on road transport benefit from reduced delays as a result[xxiii].

This recommendation is expected to have a minor positive impact on this objective both Low and High scenarios.

5. A reliable and resilient strategic transport system that is safe and secure for users

Low Scenario	High Scenario
+++	+++

There were 331 child pedestrian casualties and 68 child pedal cycle casualties recorded in 2019 in Scotland[xxiv]. Children on foot or bike are more than three times as likely to be involved in a traffic accident in the 20% most deprived areas in Scotland than the 20% least deprived areas[xxv].

Improved active travel infrastructure together with other interventions such as measures to reduce traffic speeds and volumes can significantly reduce the number and severity of road casualties. Accident survival rates are between about three[xxvi] and five[xxvii] times higher when a pedestrian is hit by a car driving at 20mph, compared to 30mph.

Road safety fears are the biggest concern of adults when it comes to children walking and cycling; improving infrastructure could significantly improve safety conditions and perceptions for novice cyclists and pedestrians, especially children[xxviii].

Active journeys to school help children to learn road safety skills; those who walk to school have greater spatial awareness and understanding of the risks posed by traffic than children who are driven[xxix].

More people walking, wheeling and cycling in and around neighbourhoods would increase natural surveillance and so improve personal security.

This recommendation is expected to have a major positive impact on this objective in both Low and High scenarios.

3.2. STAG Criteria

1. Environment

Low Scenario	High Scenario
+	+

See Strategic Environmental Assessment (SEA) below.

This recommendation is expected to have a minor positive impact on this criterion in both Low and High scenarios.

2. Climate Change

Low Scenario	High Scenario
+	+

This recommendation would help generate a modal shift from car to active modes for some journeys and would thus lead to a modest reduction in greenhouse gas emissions.

No impact on the Vulnerability to Effects of Climate Change or Potential to Adapt to Effects of Climate Change is anticipated.

This recommendation is expected to have a minor positive impact on this criterion in both Low and High scenarios.

3. Health, Safety and Wellbeing

Low Scenario	High Scenario
+++	+++

The importance of safety for people travelling actively was highlighted in the STPR2 Case for Change. On average, for the period 2014 to 2018, the weekday peak time for child casualties was from 3pm to 5pm, with 29% of all casualties occurring during this time period. There was a smaller peak in the morning period, between 8am and 9am[xxx].

Providing improved active travel infrastructure, combined with measures to reduce traffic speeds, would address fears around road safety, which is the most significant barrier to the uptake of active travel[xxxi]; evidence suggests that perceived safety is more influential on active travel behaviour than journey time reliability or speed[xxxii]. Proposed interventions could significantly improve safety conditions and perceptions for novice cyclists and walkers, especially children[xxxiii].

31% of children in Scotland do not meet recommended guidelines for physical activity (at least 60 minutes of moderate to vigorous activity per day)[xxxiv]. Active travel to school can be one of the easiest ways to incorporate activity into the daily routine for children, and their adult carers alike. Supporting children to be more physically active from a young age increases the likelihood that they will continue to be physically active as adolescents and adults[xxxv].

Fifteen-minute bouts of aerobic exercise (a typical active journey to school for many) can lead to significant increases in positive mood in younger children and can improve their control over symptoms of anxiety and depression[xxxvi]. With as little as five minutes of physical activity, positive results in academic behaviour can be seen[xxxvii].

Children who regularly walk to school also feel more connected to their communities, have a wider social network, a better understanding of their local area, and a greater level of social development[xxxviii].

Active journeys to school help children to learn road safety skills; those who walk to school have greater spatial awareness and understanding of the risks posed by traffic than children who are driven[xxxix].

The resulting increase in rates of active travel would improve health, as well as improve personal security because of increased natural surveillance.

This recommendation would not impact on access to health and wellbeing infrastructure, or on visual amenity.

This recommendation is expected to have a major positive impact on this criterion in both Low and High scenarios.

4. Economy

Low Scenario	High Scenario
+	+

Reallocating road space and prioritising active modes can have economic benefits and provide better spaces for people to live, work and shop in. Typical increases in footfall in retail areas of up to 20-30% result[xl]. Local shops and businesses that are located in the vicinity of schools could benefit from investment in improved routes, and resultant increases in footfall amongst those who are walking, wheeling or cycling.

Much peak-time congestion is caused by 'school run' traffic, increasing motoring costs and adding to burdens on businesses. Reducing the numbers of cars on the school run would deliver wider economic benefits.

The English Sustainable Travel Demonstration Towns projects (which focussed on a variety of journey types, not only those to school) reduced traffic flow by around 7%. Businesses dependent on road transport benefit from reduced delays as a result[xli].

No impact on transport economic efficiency is anticipated.

This recommendation is expected to have a minor positive impact on this criterion in both Low and High scenarios.

5. Equality and Accessibility

Low Scenario	High Scenario
+++	+++

In Scotland, around one-third of households did not have access to a car in 2019, and a much higher proportion of people cannot drive[xlii]. 24% of Scottish children were living in relative poverty in 2017/18[xliii]. Improving conditions for active travel delivers benefits for young people, who are more likely to be affected by traffic-dominated environments.

Children who regularly walk to school also feel more connected to their communities, have a wider social network, a better understanding of their local area, and a greater level of social development[xliv].

No impact on public transport network coverage is anticipated. The recommendation would significantly expand active travel network coverage around almost all schools across Scotland; with benefits for young people and their family groups, and with positive impacts for the communities that they serve, as other groups of people (for example, older people and disabled people) would also benefit from improved infrastructure and slower traffic speeds.

Over 1 million people in Scotland live in areas at a high risk of transport poverty. Risk of transport poverty could be reduced in these areas by making active travel safe and accessible for all, providing more affordable access to education for children and their broader family groups.

This recommendation is expected to have a major positive impact on addressing this criterion in both Low and High scenarios.

Also refer to EQIA/ICIA/FSDA/CRWIA Assessment in the next section.

3.3. Deliverability

1. Feasibility

Increasing active travel to school interventions are readily feasible and would comprise more extensive roll-out of interventions for which there is already significant experience of implementation in Scotland and elsewhere.

However, the feasibility at any specific school location remains to be tested, and much detailed development work and local decision-making is required to identify the most

appropriate solutions around any particular school.

Very few of the interventions would be on/adjacent to trunk roads, so projects would typically be for local authorities to lead. Transport Scotland's role could be to support and facilitate implementation, largely in a sponsor or funding role.

2. Affordability

Given the scale of investment required to deliver interventions at schools across Scotland, delivery of this recommendation would likely need be phased over a number of years and would require further assessment to determine the most appropriate approaches in any given location. There are also likely to be revenue costs to ensure that infrastructure is well maintained.

3. Public Acceptability

A UK-wide survey conducted in 2020 showed that the public are in favour of measures to encourage walking and cycling with 6.5 people supporting changes to their local streets for every 1 person against[xlv]. In addition, surveys in 12 UK cities showed that 55% of residents think too many people drive in their neighbourhood, 68% support building more cycle tracks even when this would mean less room for other road traffic, and 58% of residents would like to see more government spending on cycling[xlvi].

Research conducted after the pilot of a School Streets scheme in Edinburgh showed that fewer than two in ten parents, and an equal proportion of residents, perceived that the scheme had made their daily life more difficult. 87% of residents living on a designated street agreed or strongly agreed that the streets felt safer during operating times. For residents on peripheral streets, 61% agreed or strongly agreed. Results showed that two-thirds of both parents and residents in the area affected by the scheme perceived safety benefits as a result of the pilot intervention[xlvii].

However, whilst school active travel interventions are typically popular overall post-implementation, some pre- and post-implementation challenges are expected from people who feel they would be adversely affected, in particular those that drive through affected areas.

3.4. Statutory Impact Assessment Criteria

1. Strategic Environmental Assessment (SEA)

Low Scenario	High Scenario
+	+

This recommendation is likely to result in positive effects on the SEA objectives to reduce greenhouse gas emissions (Objective 1) and improve air quality (Objective 3), as it seeks to encourage a modal shift to more sustainable and active travel methods and reduce traffic and congestion through reallocation of road space and, as a result, decreasing levels of transport-related air pollution outside of schools, and carbon emissions. The recommendation would also have a positive effect on sustainable transport (Objective 8) and four Objectives that fall under the population and human health SEA topic. These objectives are related to quality of life and sustainable accessibility, noise and vibration, the public realm and safety (Objectives 4 to 7). The positive scores are derived from the aims of this recommendation to promote a more sustainable use of the existing transport network, encourage sustainable access and increase travel choice, with a focus on improved safety and creating accessible spaces for all users. There would be improvements to the public realm (Objective 6), for example through the reallocation of road space, improved surfacing, improved crossing points and the introduction of 'school streets.' There would also be a likely reduction in noise and vibration around schools due to the reductions in private vehicle traffic.

It is considered that the recommendation would have negligible effects on the remaining SEA objectives for natural resource usage, water environment, biodiversity, soils, cultural heritage, and landscape and visual amenity (Objectives 9 to 14).

This recommendation is expected to have a minor positive effect on this criterion in both Low and High scenarios.

2. Equalities Impact Assessment (EqIA)

Low Scenario	High Scenario
+++	+++

This recommendation provides the opportunity to provide healthier, more affordable access to education for children and their broader family groups. The infrastructure installed would be designed to benefit certain groups directly involved in travelling to school (such as disabled people, women and older people), although it is also likely to have an indirect positive effect on the wider community. The targeted safety measures (including the infrastructure installed, the reduction in traffic speed and congestion, and the creation of 'School Streets'), would also reduce road safety concerns for children, their parents / carers and other active travel users.

An uptake in active travel may additionally improve health outcomes through physical fitness and is also likely to lead to air quality improvements if the uptake is matched by a reduction in private vehicle use and traffic congestion. Traffic reduction measures outside

of schools and behavioural change campaigns would likely lead to further localised air quality improvements. Improved health outcomes as a result of better air quality are of particular benefit to those who are more vulnerable to air pollution, including children, older people and disabled people.

However, the extent to which groups with protected characteristics would benefit from this recommendation would depend on the location of active travel interventions around schools, the number of interventions adopted (as this would depend on local circumstances) and the ability for certain to groups to access active travel networks and facilities.

This recommendation is expected to have a major positive impact on this criterion in both Low and High scenarios.

3. Island Communities Impact Assessment (ICIA)

Low Scenario	High Scenario
+	+

As with the EqIA assessment above, there are potential benefits for children and other protected characteristic groups on island communities in regard to improved, safer and less costly access to education and active travel improvements in the community.

However, the extent to which island communities would benefit would depend on the location and routing of active travel networks, the number of interventions adopted and the ability for those from island communities to access active travel networks and facilities.

This recommendation is expected to have a minor positive impact on this criterion in both Low and High scenarios.

4. Children's Rights and Wellbeing Impact Assessment (CRWIA)

Low Scenario	High Scenario
+++	+++

Road safety concerns are the most frequently reported barrier amongst adults when it comes to children walking and cycling[xlviii], so lessening this by improving infrastructure for local journeys can enable many more children to travel to school using safe, healthy modes. Independent travel is particularly beneficial to children's social development[xlix].

Children, particularly in low social economic income groups, are over four times more likely to be killed or seriously injured while using local streets than children of the wealthiest income group[l]. With a focus on schools, this recommendation is likely to lead to significant improvements for children due to a reduction in the perceived danger of road collisions and casualties.

Improved air quality, as a result of potential reduction in private vehicle use, and less costly access to education are also likely to have significant benefits for children and

young people. 24% of Scottish children were living in relative poverty in 2017/18[li]. Improving conditions for active travel delivers benefits for young people, who are more likely to be affected by traffic-dominated environments. Children who regularly walk to school also feel more connected to their communities, have a wider social network, a better understanding of their local area, and a greater level of social development[lii].

However, the extent to which this recommendation would improve outcomes for children would depend on the extent that the interventions listed are adopted (especially with regards to the reallocation of road space and other safety measures), the location and routing of the active travel networks, and the success of reductions in traffic levels, speed and congestion.

This recommendation is expected to have a major positive impact on this criterion in both Low and High scenarios.

5. Fairer Scotland Duty Assessment (FSDA)

Low Scenario	High Scenario
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Beneficiaries of this recommendation are likely to include deprived communities across Scotland, including rural and island communities, with consequential positive effects on access to education. As well as benefitting these 'communities of place', the recommendation is likely to additionally improve access to services for 'communities of interest'.

In Scotland, around one-third of households did not have access to a car in 2019, and a much higher proportion of people cannot drive[liii]. As such, those with lower access to private vehicle use (such as women, young people and low-income households) could benefit from less costly travel options created through improvements to school active travel measures.

However, the extent to which this recommendation would reduce inequalities of outcome would depend on the extent that the interventions listed are adopted, the location and routing of active travel networks, and the ability for those from deprived and disadvantaged communities to access the active travel network and facilities.

This recommendation is expected to have a moderate positive impact on this criterion in both Low and High scenarios.

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