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A96 Corridor Review

Strategic Business Case – Transport Appraisal Report (Draft)

2024

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Table of Acronyms

Abbreviation	
A96CRAM	A96 Corridor Route Assignment Model
ASTs	Appraisal Summary Tables
AWPR	Aberdeen Western Peripheral Route
CO_2	Carbon Dioxide
COBALT	Cost and Benefit for Accident – Light Touch
CRWIA	Child Rights and Wellbeing Impact Assessment
CT	Community Transport
DRT	Demand Responsive Transport
EqIA	Equality Impact Assessment
EV	Electric Vehicle
FSDA	Fairer Scotland Duty Assessment
GIS	Geographic Information System
HEAT	Health Equity Assessment Tool
HGV	Heavy Goods Vehicle
ICIA	Island Communities Impact Assessment
KSI	Killed or Seriously Injured
LA	Local Authority
MaaS	Mobility as a Service
NaPTAT	National Public Transport Accessibility Tool
NO_2	Nitrogen Dioxide
NNR	National Nature Reserve
NTS2	The Second National Transport Strategy
PAF	Policy Assessment Framework

PIA	Personal Injury Accident
PM	Particulate Matter
RTP	Regional Transport Partnership
SABI	Scottish Accessibility to Bus Indicator
SAC	Special Areas of Conservation
SBC	Strategic Business Case
SEA	Strategic Environmental Assessment
SIA	Statutory (and Duty) Impact Assessment
SIMD	Scottish Index of Multiple Deprivation
SMART	Specific, Measurable, Attainable, Realistic, Timed
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
STAG	Scottish Transport Appraisal Guidance
STPR2	The Second Strategic Transport Projects Review
TEE	Transport Economic Efficiency
TELMoS	Transport and Economic/Land Use Model of Scotland
TMfS	Transport Model for Scotland
TPO	Transport Planning Objective
TUBA	Transport User Benefit Analysis
WEI	Wider Economic Impact

1. Introduction

1.1 Project Overview

1.1.1 In August 2021, it was agreed by the Scottish Government to take forward a transport enhancements programme on the A96 corridor that improves connectivity between surrounding towns, tackles congestion and addresses safety and environmental issues.

1.1.2 Whilst the current plan is to fully dual the A96 route, it was agreed as part of this process there would be a transparent, evidence-based review of the programme, to include a climate compatibility assessment to assess direct and indirect impacts on the climate. Statutory assessments would also be undertaken that include a Strategic Environmental Assessment (SEA) and social and equality related Statutory Impact Assessments (SIAs).

1.1.3 As it has already received Ministerial consent following a Public Local Inquiry, dualling of the A96 from Inverness to Nairn as well as a bypass of Nairn is separate from the wider A96 review process.

1.1.4 The A96 Corridor Review is being carried out in accordance with the Scottish Transport Appraisal Guidance (STAG) (https://www.transport.gov.scot/publication/scottish-transport-appraisal-guidance-managers-guide/). STAG is the best practice, objective-led approach to transport appraisal. The transport appraisal has considered all relevant transport modes within the A96 corridor, including active travel, public transport, rail and roads-based transport modes. Adopting STAG also brings the review in line with the same methodology as set out in the Second Strategic Transport Projects Review (STPR2) (https://www.transport.gov.scot/our-approach/strategy/strategic-transport-projects-review-2/).

1.1.5 The A96 Corridor Review is being carried out by design consultants Jacobs AECOM acting on behalf of Transport Scotland. The review considers transport problems and opportunities within the A96 corridor, the changing policy context and other key considerations, such as development and growth aims for the corridor and surrounding area. Additionally, it considers the impact of the global climate emergency and the COVID-19 pandemic on how people work and travel within the corridor.

1.1.6 The transport appraisal aspect of the A96 Corridor Review assessed the performance of interventions (or package of interventions) against the project specific Transport Planning Objectives (TPOs), and the five STAG criteria comprising Environment; Climate Change; Health, Safety and Wellbeing; Economy; and Equality and Accessibility. The appraisal has also covered the deliverability, affordability and public acceptability elements associated with each intervention (or package), as well as their consistency with key themes identified from established policy objectives at a local, regional and national level. Key outcomes from the separate Statutory Impact Assessments (SIAs), specifically the Equality Impact Assessment (EqIA), Child Rights and Wellbeing Impact Assessment (CRWIA) and Fairer Scotland Duty Assessment (FSDA), that have been undertaken have provided further input to inform the appraisal.

1.2 Report Purpose

1.2.1 The four key stages of STAG, including the current progression of the A96 Corridor Review, are illustrated in Figure 1.1.

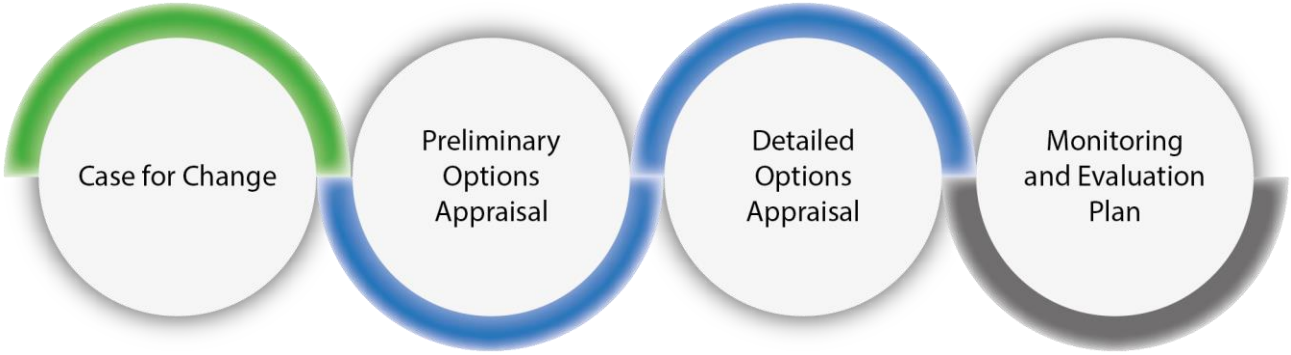


Figure 1.1: The Four Key Stages to the Scottish Transport Appraisal Guidance (STAG)

1.2.2 This report presents details of the Preliminary Appraisal and Detailed Appraisal stages of the A96 Corridor Review, undertaken in accordance with STAG. This comprises both the approach and outcomes of the appraisal process at each of these stages.

1.2.3 STAG defines a multi-criteria framework that appraises options' ability to meet the TPOs and appraises their performance against the five STAG criteria and established policy objectives. The appraisal also covers the 'deliverability' of options through identifying their feasibility, affordability and public acceptability. The A96 Corridor Review Case for Change has already been completed and published on the Transport Scotland website (https://www.transport.gov.scot/publication/initial-appraisal-case-for-change-december-2022-a96-corridor-review/), with key aspects of the Case for Change summarised in Chapter 2 of this report. The remaining key stages of the STAG process for the A96 Corridor Review are:

- Preliminary Options Appraisal – this comprised a qualitative appraisal of the options retained from the Option Sifting stage (presented in the Case for Change)

against the project specific TPOs, STAG criteria, established policy objectives and deliverability. As part of the A96 Corridor Review, the SIAs undertaken in parallel to the transport appraisal have also informed the options appraisal. Further details on the Preliminary Appraisal are presented in Chapter 3 of this report.

- Detailed Options Appraisal – the options remaining from the Preliminary Appraisal were progressed to the Detailed Appraisal stage. The appraisal at this stage transitioned from the qualitative approach adopted at the Preliminary Appraisal stage, to more quantitative appraisal elements where possible. Further details on the Detailed Appraisal are presented in Chapter 5 of this document.
- Monitoring and Evaluation Plan – to determine the success of the implemented option in achieving the TPOs, performance against STAG criteria and any impacts on established policy objectives. A plan for monitoring (gathering and interpreting information on the performance of any implemented intervention) and evaluation (identification of whether the implemented intervention is performing as intended) should be set out prior to implementation of any deliverable. Although the development of a Monitoring and Evaluation plan forms part of STAG, for consistency with the STPR2 it was agreed that this would not be undertaken at this stage as part of the transport appraisal for the A96 Corridor Review.

1.2.4 This report provides a summary of the methodology and outcomes of both the Preliminary and Detailed Appraisals, with full details regarding the appraisal outcomes provided in the accompanying Appraisal Summary Tables (ASTs) contained in the respective report appendices.

1.3 Report Contents

1.3.1 The following chapters of the A96 Corridor Review Transport Appraisal Report consist of:

- Chapter 2: Case for Change Summary – summarises the key aspects of the A96 Corridor Review Case for Change report, published in December 2022, including the problems and opportunities identified for the transport corridor, the development of the TPOs, and the generation, sifting and development of options.
- Chapter 3: Approach to Preliminary Appraisal – outlines the approach taken to undertake the Preliminary Appraisal as part of the A96 Corridor Review, including the scoring process, the appraisal criteria considered and details of the assessment against these criteria.
- Chapter 4: Preliminary Appraisal Outcomes – summarises the performance of each option, including the relevant scoring against the appraisal criteria, and the summary rationale on whether the option was to progress to Detailed Appraisal or not.
- Chapter 5: Approach to Detailed Appraisal – outlines the approach to undertake the Detailed Appraisal as part of the A96 Corridor Review, including the

combining of individual options in to 'packages', the use of relevant quantitative data in the appraisal and additional considerations at this stage of the appraisal process.

- Chapter 6: Detailed Appraisal Outcomes – summarises the performance of each package considered, including the relevant scoring against the appraisal criteria, key details to give context to the scoring, summary rationales and the subsequent development and assessment of the refined package.
- Chapter 7: Appraisal Summary – presents a summary of the appraisal outcomes for the A96 Corridor Review.

2. Case for Change Summary

2.1 Introduction

2.1.1 The Case for Change was the first stage of the STAG process, setting out the justification for taking the study forward. For the A96 Corridor Review, this included:

- a review of current national, regional and local strategy and policy documents used to provide the policy context for the review
- determination of the geographic, socio-economic, environmental and transport context for the transport appraisal study area
- the identification and definition of the key problems and opportunities for the transport corridor, developed from the evidence base that included analyses of a wide range of datasets, and supported by information obtained from the engagement activities that were undertaken and in particular through stakeholder engagement workshops and a public consultation survey with nearly 4,600 responses received
- the development of overarching TPOs, each with a set of corridor-specific sub-objectives, based on the identified problems and opportunities
- the generation and sifting of over 11,000 option suggestions, including approximately 10,700 from the public consultation survey, applicable and relevant to the transport corridor.

2.1.2 The following sections summarise the key findings and outcomes from the A96 Corridor Review Case for Change report.

2.2 Policy Context

2.2.1 To establish the overall strategic fit of the A96 Corridor Review, the relevant national, regional and local policies and strategies were reviewed covering topic areas including Spatial Planning, Economic Development and Climate Change.

2.2.2 Figure 2.1 provides an overview of the policies and strategies that were reviewed.

Figure 2.1: Overview of Policy and Strategy Context

2.2.3 The review of the relevant policies and strategies identified a key theme related to the impact transport related emissions have on climate change, with a focus on developing more sustainable environments and transport systems. This is underpinned by the Scottish Government's Climate Change (Emissions Reduction Targets) (Scotland) Act 2019 and Climate Change Plan 2018-2032 update. A key commitment for transport includes a 20% reduction in car kilometres (from 2019 levels) by 2030 to assist in meeting interim greenhouse gas (GHG) reduction targets up to a final target of achieving 'net zero' by 2045.

2.2.4 The National Transport Strategy 2 (NTS2) sets the vision for the country's transport system over the next 20 years to achieve a more sustainable, inclusive, safe and accessible transport system which helps to deliver a healthier, fairer and more prosperous Scotland for communities, businesses and visitors. At the heart of the NTS2 is the recognition that there needs to be a step-change in behaviour and provision of attractive, affordable, accessible, and sustainable travel options. Embedded within the NTS2 is the Sustainable Travel Hierarchy that prioritises

walking, wheeling, cycling, public transport and shared transport options in preference to single occupancy private car use in decision making, and the Sustainable Investment Hierarchy that prioritises future transport investment aimed at reducing the need to travel unsustainably, maintaining and safely operating existing assets and making better use of existing capacity ahead of targeted infrastructure improvements.

2.2.5 More specific to the A96 transport corridor, current policies and strategies demonstrate a focus on strengthening and enhancing multimodal connections through targeted infrastructure investment, particularly for underserved rural areas. These multimodal connections will play an important role in supporting both the emerging and future planned growth as set out in regional and local development plans. Improvements to both the trunk road and rail network are also highlighted as being essential to facilitate a sustainable and just transition towards meeting the ambitious climate change targets as set by Scottish Government. Safety and congestion concerns are also identified at the regional and local level in the relevant development plans and transport strategies along the length of the transport corridor.

2.2.6 The relationship between the A96 Trunk Road and local communities and businesses is identified as being pivotal. Any enhancement of the current transport corridor will contribute towards successfully achieving strategic objectives and priorities for transport and other complementary sectors.

2.3 Problems and Opportunities

2.3.1 The Case for Change, published in December 2022, identified the transport problems and opportunities relevant to the study area, which were based upon a number of data analyses including those collected for the relevant context sections of the Case for Change, stakeholder engagement workshops and a public consultation survey. The identified problems and opportunities were also used in the development of the TPOs, and subsequently helped to inform the generation of a long list of potential option suggestions. A brief summary of the key problems and opportunities is presented in Table 2.1 and Table 2.2 respectively. For further information on the identification and evidence behind the problems and opportunities, reference should be made to the published A96 Corridor Review Case for Change (https://www.transport.gov.scot/publication/initial-appraisal-case-for-change-december-2022-a96-corridor-review/).

Table 2.1: Key Problems Identified

Key Problem	Description of Problem
Safety and Resilience	For the five-year period pre COVID-19 (2015-19 inclusive), the average accident rate along the A96 Trunk Road was generally lower for the majority of sections of the A96 when compared to the national average for all Trunk A-roads in Scotland for both for Personal Injury Accidents (PIAs) and Killed or Seriously Injured (KSI) accidents. There are, however, sections of the A96 Trunk Road where the accident rates are higher than the national average. Accident rates on the A96 in Keith are almost double the national average (at 1.9 times higher) and higher than the national average in Forres (1.3 times higher), with KSI rates on the A96 also higher in the two towns at 4.8 times the national average in Keith and 3.1 times in Forres. Some rural sections of the A96 also have a KSI rate above the national average, including between Hardmuir and Forres (1.4 times the national average), between Fochabers and Keith (1.1 times the national average), between Keith and East of Huntly (1.3 times the national average) and between Kintore and Craibstone (1.1 times the national average). Some diversion routes recommended in response to accidents and other road closures are very long and increase journey times significantly. For example, road closures on the A96 close to Huntly, which occurred nine times between 2016 and 2021, result in a recommended 65km diversion route via Banff. The rail network within the corridor also demonstrates a level of unreliability in services at key destinations. The Scotrail Public Performance Measure information for November 2019 revealed approximately 20% of services arriving or terminating at Aberdeen, Inverness and Inverurie were over five minutes delayed. Although the PPM of these three stations is in line with some other major stations across Scotland, it fell short of the rolling average target of 92.5% and all three were below the national average for this period.

Key Problem	Description of Problem
Socio-Economic and Location of Services	Employment and key services, including large hospitals and higher education facilities, tend to be located in Aberdeen, Inverness and Elgin. Almost half of the total jobs in the transport appraisal study area are found within these three locations. Outside of the three most populous localities, people are more likely to travel over 10km to work, thus likely to limit the potential for active travel. Cycling is used for less than 5% of travel to work trips for all distances, whereas walking is used for over 50% of trips under 2km, but only between 4-8% of trips between 2km and 10km depending on the local authority area. Considering the travel distances between the three key economic centres and the other settlements in the transport appraisal study area, travelling by active travel modes is relatively unattractive.
Public Transport Accessibility	Outside of Aberdeen, the use of bus for commuting to work is significantly lower than the national average of 10%. This is true in larger settlements such as Inverness (6%) and Elgin (3%), as well as towns such as Nairn (5%) and Lossiemouth (6%) and smaller towns like Keith (4%) and Huntly (4%). The Scottish Accessibility to Bus Indicator (SABI) indicates that accessibility to bus is low outside of the urban areas of Aberdeen and parts of Inverness (SABI assigns a score to each datazone across Scotland based on the availability and frequency of bus services for both a weekday and weekend. Datazones are comparatively ranked against each other to give an indication of performance relevant to the rest of the country). There are also physical accessibility issues at some rail stations, including Nairn, Huntly, Insch and Inverurie such as platform access not being completely step-free that affects usage. Nearly 15% of the population in the transport appraisal study area cannot access key services such as major hospitals or higher education within two hours by public transport. Moray and Aberdeenshire both have particularly low accessibility to these services, which is partly linked to the rural nature of these areas and that people may not be within typical walking distance thresholds to public transport stops to access the network.

Key Problem	Description of Problem
Competitiveness of Public Transport with Other Modes	Journey times are not competitive for bus in relation to train and car for longer trips across the transport appraisal study area. A journey between Aberdeen and Inverness for example is scheduled to take around three and a half hours by bus but estimated to take around three hours by car and under two hours thirty minutes by train, with journey times consistently higher by bus between towns along the route as well. The cost of rail and some long-distance bus trips in commuter zones is high in relation to car fuel costs (as at March 2022). Public consultation as part of the A96 Corridor Review has also indicated that the perception of delay and a lack of multimodal integration combined with the perceived high cost of fares, particularly for rail, makes public transport in the transport appraisal study area unattractive to the public.
Travel Choice and Behaviour	The number of homes without access to a private vehicle in the transport appraisal study area is consistently less than the national average. Within the transport appraisal study area, Aberdeenshire has a high-level of access to a private vehicle, with approximately 90% of households having access to at least one vehicle and over half having access to multiple vehicles. There is a greater availability of car in rural areas than in urban settlements. Travel to work data suggests those in the age brackets of 35 to 49 and 50 to 64 are more reliant on cars. With an aging population across the transport appraisal study area, particularly in the more rural areas, the reliance on private car use is anticipated to increase.
Health and Environment	Transport is a major contributor to CO_2 emissions along the A96 corridor, particularly in the Aberdeenshire and Highland Council areas. Transport contributes over 35% of the total emissions in both Aberdeenshire and Highland Council areas and between 25% and 30% in Aberdeen City and Moray. This is potentially an outcome of the reliance on private vehicles for travel, longer travel distances and the levels of road-based freight movements. The A96 route travels through the centre of towns including Elgin and Keith, which puts a relatively large proportion of the local population in these towns in close proximity to potential noise pollution and transport emissions that affect local air quality.

Table 2.2: Key Opportunities Identified

Key Opportunity	Description of Opportunity
Sustainable Economic Growth	The key industries in the region, including food and drink production and agriculture, forestry and fishing have a high proportion of goods movements, as evidenced through the relatively high proportion of Heavy Goods Vehicles (HGVs) on the A96. Alternative fuelled vehicles and a shift to rail freight would help reduce transport related emissions and improve local air quality. There has been a growth in tourism spend in recent years and in 2019 the sector boosted the Highland and Grampian economies by almost £2.5bn (Highland by £1.553bn and Grampian by £856m). The rise of whisky tourism and the Speyside Whisky Trail are major contributors to the tourism sector, with distilleries welcoming over two million visitors in 2018 representing growth of 56% from 2010. There are opportunities to change the way in which visitors travel to, from and around the region. Walking and cycling tourism is one such opportunity and has the potential to create further economic growth by attracting new visitors to the region.
Improving Safety	There is the opportunity to reduce accidents and accident severities on the A96 Trunk Road. There are a number of sections of the road where KSI accident rates are high when compared to the national average for equivalent urban or rural trunk roads (see Safety and Resilience above). Improving safety for road users would contribute to meeting the targets set out in Scotland's Road Safety Framework to 2030 to achieve the 50% reduction in people killed or seriously injured (60% reduction for children). Reducing the level of car-based kilometres travelled would also contribute to a reduction in accident numbers.

Key Opportunity	Description of Opportunity
Health and Environment Impacts of Travel	Reducing the use of car travel, particularly for short trips that could be made by active travel, would help reduce the transport contribution to CO_2 emissions. Fewer vehicle kilometres travelled would also improve the local air quality in communities which the A96 Trunk Road passes through. Increasing the quantity as well as improving the quality and reliability of charging infrastructure would help assist the transition to electric vehicles (EVs), a market that has shown large growth in the past decade and continues to rise, to help reduce carbon emissions and improve local air quality. Alternative fuelled freight vehicles and buses would also reduce emissions, along with the electrification of rail. Energy production methods are diversifying rapidly into renewable markets that provide cleaner energy that could help fuel EVs and electrify the Aberdeen to Inverness rail line.
Travel Choice and Behaviour	Travel choices could be increased through better integration of modes and the provision of more demand-responsive options in areas with low public transport provision. Physical accessibility at rail stations could also be improved to reduce the reliance on cars for longer trips. Active travel will continue to play a key role in the transition to sustainable and zero carbon travel by reducing the reliance on private vehicles. Within and between towns along the A96 corridor, there is the potential to increase active travel with connections by safe walking and cycling infrastructure. Increasing digital connectivity and technology advancements in broadband and mobile connectivity provide opportunities to reduce the need to travel. Other opportunities brought on by technology can help to integrate public transport and provide better information systems to improve the quality of journeys.

2.4 Transport Planning Objectives

2.4.1 The A96 Corridor Review TPOs have been aligned to those set at the national level in STPR2 which are in turn closely aligned with the four priorities, 12 outcomes and 24 policies contained within the NTS2 (https://www.transport.gov.scot/publication/national-transport-strategy-2/). To reflect the nature of the A96 corridor, the overarching TPOs have been amended slightly from the national-level STPR2 objectives.

2.4.2 A series of sub-objectives has been developed to align with the overall direction of the TPOs, and hence the STPR2 national objectives. These sub-objectives

complement the overarching TPOs, but with a particular focus on the specific evidence-based problems and opportunities for the A96 corridor.

2.4.3 The TPOs for the A96 Corridor Review are presented in Table 2.3.

Table 2.3: A96 Corridor Review Transport Planning Objectives

A96 Corridor Review TPOs	A96 Corridor Review Sub-objectives
TPO1 – A sustainable strategic transport corridor that contributes to the Scottish Government's net zero emissions target.	• Reduce transport related emissions through a shift to more sustainable modes of transport. • Increase the active travel mode share for shorter everyday journeys.
TPO 2 – An inclusive strategic transport corridor that improves the accessibility of public transport in rural areas for access to healthcare, employment and education.	• Increase public transport mode share by improving connections between sustainable modes of transport. • Reduce the reliance on private car for access to healthcare, employment and education. • Improve mobility and inclusion, recognising the specific needs of disadvantaged and vulnerable users.
TPO 3 – A coherent strategic transport corridor that enhances communities as places, supporting health, wellbeing and the environment.	• Reduce demand for unsustainable travel by enhancing placemaking within settlements along the A96. • Increase active travel mode share for both shorter and longer distance journeys. • Reduce real and perceived severance caused by the strategic transport network both between and within communities. • Protect or enhance the natural environment and heritage.
TPO 4 – An integrated strategic transport system that contributes towards sustainable inclusive growth throughout the corridor and beyond.	• Increase sustainable access to labour markets and key centres for employment, education and training. • Increase the mode share of freight by sustainable modes. • Increase competitiveness of key sectors by improving journey time reliability for commercial transport.

A96 Corridor Review TPOs	A96 Corridor Review Sub-objectives
TPO 5 – A reliable and resilient strategic transport system that is safe for users.	• Reduce the accident rates and severity of transport related casualties in line with reduction targets. • Improve resilience to disruption (from climate change events and maintenance activities) through adaptation of the corridor's trunk road and rail infrastructure.

2.5 Option Generation and Sifting

Option Development Process

2.5.1 In keeping with the principles of STAG, the appraisal included a robust method to generate, 'clean' and sift option suggestions, ensuring a broad range of options across all modes were initially considered. The approach to the generation of interventions for the A96 Corridor Review is summarised in Figure 2.2.

Figure 2.2: Approach to Option Generation and Sifting

Generation of Long List of 'Options'

2.5.2 The long list of initial suggestions for options was generated based on a range of sources, including a review of options identified from previous studies, as well as

feedback received from stakeholder workshops and the public consultation survey. Options were also generated by the Jacobs AECOM A96 Corridor Review project team as part of the process.

2.5.3 Overall, the total number of suggestions generated was 11,091.

Option Cleaning

2.5.4 Within the 11,091 individual suggestions, there was a significant number that were either duplicate entries, or were too vague or ambiguous in their definition, or were submissions that could not be considered an 'option' (for example, those submissions that referenced non-transport related items). As such, an exercise was undertaken to 'clean' the long list.

2.5.5 Duplicate entries were identified, with a single 'master option' identified to represent all duplicated options. For example, there was a very high proportion of duplicate options for full or partial dualling of the A96 and bypasses. Removing these duplicates significantly lowered the total number of options retained for consideration as part of the subsequent sifting process.

2.5.6 Those submissions that could not be considered as options, either as a result of not being sufficiently well defined or being non-transport related items, were removed from the subsequent sifting process.

2.5.7 Following on from this cleaning process, a total of 227 options were retained as part of the 'cleaned' long list of options that formed the input to the Option Sifting process.

Option Sifting

2.5.8 Figure 2.3 demonstrates the option sifting process for the A96 Corridor Review, including the relevant criteria that were applied to the sifting of options at this stage.

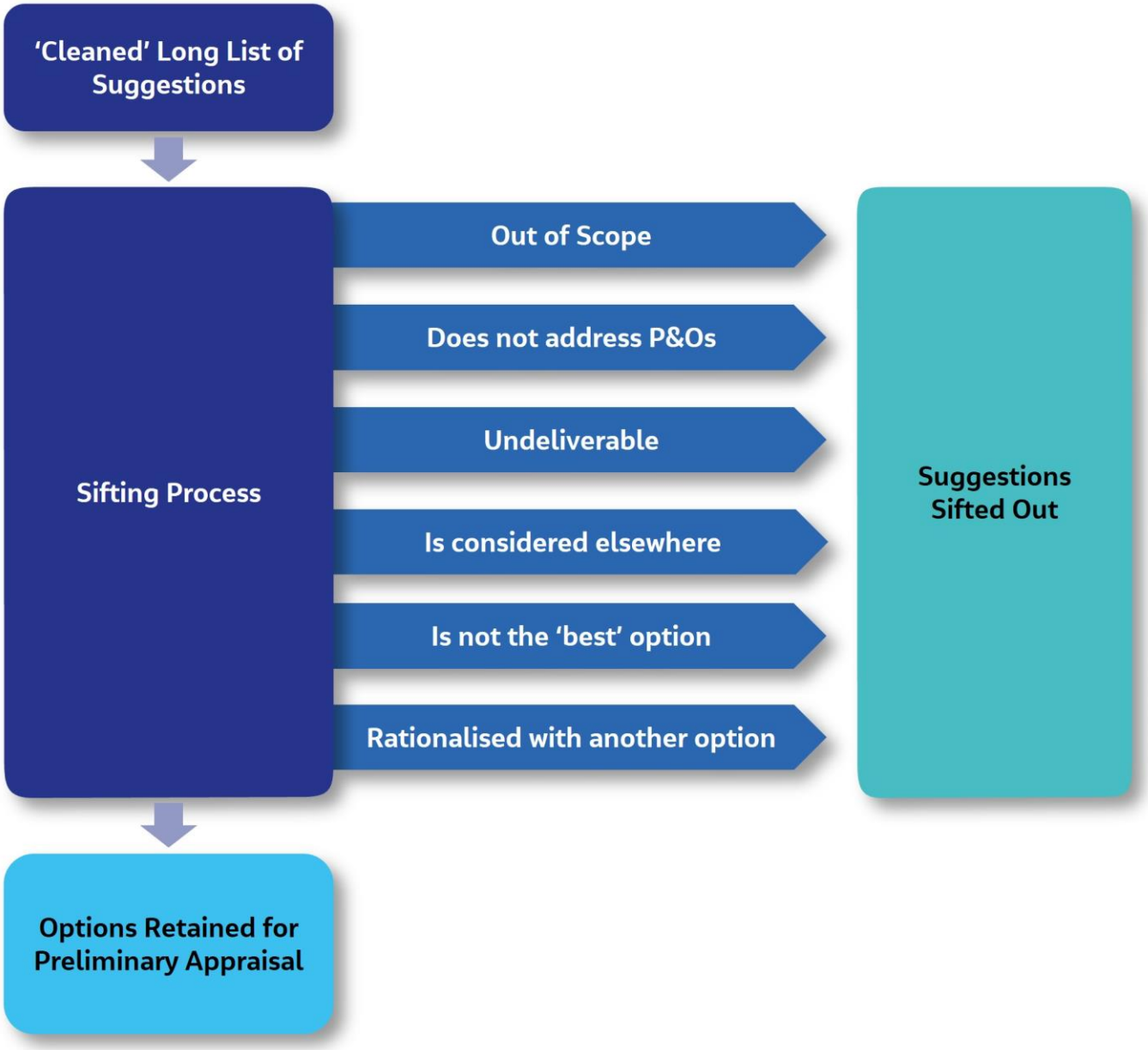


Figure 2.3: Option Sifting Methodology

2.5.9 Options were sifted out at this stage for one or more of the following reasons:

- The option was out of scope based on the agreed set of definitions for the A96 Corridor Review (please refer to Appendix C of the A96 Corridor Review Case for Change (https://www.transport.gov.scot/publication/initial-appraisal-case-for-change-december-2022-a96-corridor-review/)).
- The option would not address the problems/opportunities in the region.
- The option would incur significant deliverability risks.
- The option is being progressed elsewhere, including through STPR2 at a national level, and this would be the most appropriate mechanism by which to progress this option.
- The problems/opportunities would be better addressed through another option.

- The option was rationalised with another, similar option.

2.5.10 Of the options retained, those that were similar or shared common elements were rationalised with each other to form the final list of retained options. A total of 227 options were considered, of which 177 were sifted out, leaving 50 options. Of these 50 options, 34 options were rationalised, leaving a final 'short list' of 16 options.

2.6 Retained Options

2.6.1 Following the sifting exercise, 16 options specific to the A96 Corridor Review remained to progress to Preliminary Appraisal. Table 2.4 lists and describes these options.

Table 2.4: List of Retained Options

Option	Mode of Transport	Description
Active Communities	Active Travel	Deliver networks of high-quality active travel routes and placemaking improvements within key communities along the A96 corridor such as Nairn, Forres, Elgin, Fochabers, Keith, Huntly and Inverurie.
Active Connections	Active Travel	Deliver high quality active travel linkages for people walking, wheeling and cycling between settlements along the A96 corridor, which would combine to form a continuous traffic-free path all the way from Inverness to Aberdeen, either directly adjacent to, or close to, the A96.
Active Hubs	Multimodal	The creation of a strategy for the delivery of active hubs within communities across the length of the A96 corridor.
Improved Public Transport Passenger Interchange Facilities	Multimodal	Improve public transport passenger facilities, including accessibility and quality enhancements at bus stations and railway stations.
Bus Priority Measures and Park and Ride	Bus	Implement schemes targeted at delivering faster and more reliable journey times for bus passengers, coupled with the provision of new bus park and ride sites where appropriate.

Option	Mode of Transport	Description
Investment in Demand Responsive Transport (DRT) and Mobility as a Service (MaaS)	Public Transport	Improve access to travel opportunities in locations with low bus network connectivity or where conventional fixed route services may not be suitable or viable. In these areas, flexible services, such as Demand Responsive Transport (DRT) or Community Transport (CT), may be able to provide improved public transport links.
Introduction of Rail Freight Terminals	Freight	Facilitate the introduction, development and operation of rail freight terminals by the private sector at Inverness, Elgin and Keith, to facilitate freight movements to/from these locations by rail.
Linespeed, Passenger and Freight Capacity Improvements on the Aberdeen to Inverness Rail Line	Rail	Three distinct improvements to the railway between Aberdeen and Inverness; linespeed improvements to cut journey times, the provision of passing loops to enable a more frequent passenger service and the provision of freight facilities to enable intermodal freight to operate.
Improved Parking Provision at Railway Stations	Rail	Enhance parking facilities at railway stations between Aberdeen and Inverness with the aim of encouraging the use of existing low carbon infrastructure for medium and long-distance travel along the corridor.
A96 Full Dualling (plus Targeted Trunk Road Improvements)	Road	Full dualling of the A96 between Hardmuir to Craibstone to address road safety concerns and provide resilience and reliability improvements for a key connection between Inverness and Aberdeen.
Targeted Road Safety Improvements	Road	Improving the safety performance of the A96 Trunk Road to address both real and perceived road safety concerns (with potential measures ranging from minor improvements through to partial dualling).
Elgin Bypass	Road	Improve the safety, resilience, and reliability of the A96 within the vicinity of Elgin through the provision of a bypass of the town.
Keith Bypass	Road	Improve the safety, resilience, and reliability of the A96 within the vicinity of Keith through the provision of a bypass of the town.

Option	Mode of Transport	Description
Inverurie Bypass	Road	Improve the safety, resilience, and reliability of the A96 within the vicinity of Inverurie through the provision of a bypass of the town.
Forres Bypass	Road	Improve the safety, resilience, and reliability of the A96 in Forres through the provision of a bypass within the vicinity of the town
A96 Electric Corridor	Technology	Provision of alternative refuelling infrastructure and facilities along the A96 corridor, its interfacing local roads as well as, where appropriate, strategic economic and transport hubs. This option will directly facilitate the dispensation of alternative sources of fuel for various modes of sustainable transport although it is recognised that the option is likely to focus on road vehicles.

3. Approach to Preliminary Appraisal

3.1 Overview of Preliminary Appraisal

3.1.1 The purpose of this chapter is to outline the approach to Preliminary Appraisal for the A96 Corridor Review. As noted previously the Preliminary Appraisal comprised a qualitative appraisal of the options that were retained from the Option Sifting stage against the following criteria:

- A96 Corridor Review TPOs
- STAG criteria
- established policy objectives (Policy Assessment Framework (PAF) Tool)
- deliverability criteria (feasibility, affordability and public acceptability).

3.1.2 In parallel to the transport appraisal, an SEA and the relevant SIAs were being developed (see Section 3.8) and provided input to inform the Preliminary Appraisal.

3.1.3 The Preliminary Appraisal captured on a qualitative basis the likely positive contributions and negative impacts of each option. The Preliminary Appraisal identified those options that were retained to progress to the Detailed Appraisal stage, and rejected any options that overall were considered highly unlikely to meet the TPOs or provide a positive contribution to the STAG appraisal criteria.

3.1.4 The following sections set out the scoring adopted for the appraisal and describe the key assessment criteria that options were appraised against for the Preliminary Appraisal stage.

3.2 Preliminary Appraisal Scoring

3.2.1 For the Preliminary Appraisal the assessment scoring and the score descriptions shown in Table 3.1 have been adopted.

Table 3.1: Appraisal Scoring Summary

Impact	Symbol and Shading	Description
Major Benefit	+ + +	The option has a major positive contribution to achievement of the objective or has a major (positive) benefit on the appraisal criterion.
Moderate Benefit	+ +	The option has a moderate positive contribution to achievement of the objective or has a moderate (positive) benefit on the appraisal criterion.

Impact	Symbol and Shading	Description
Minor Benefit	+	The option contributes to the achievement of the objective but not significantly or has a minor (positive) benefit on the appraisal criterion.
No Benefit or Impact	0	The option is related to but does not have any direct effect on the achievement of the objective or has no effect (neither positive nor negative) on the appraisal criterion, or the assessment of the category is neither positive nor negative.
Minor Negative Impact	-	The option detracts from the achievement of the objective but not significantly or has a minor (negative) impact on the appraisal criterion.
Moderate Negative Impact	- -	The option has a moderate negative impact on the achievement of the objective or has a moderate (negative) impact on the appraisal criterion.
Major Negative Impact	- - -	The option has a major negative impact on the achievement of the objective or has a major (negative) impact on the appraisal criterion.

3.2.2 For the Preliminary Appraisal this scoring approach has been used to assess the performance of options against the TPOs, the STAG criteria and the relevant SIAs.

3.2.3 The Established Policy Objectives were scored directly within the bespoke PAF tool created for the A96 Corridor Review. Further details on this scoring criteria are provided in Section 3.6.

3.3 Future Appraisal Scenarios

3.3.1 It is recognised that external factors that are out of the direct control or influence of Transport Scotland can have a large influence on future demand for travel. Transport Scotland took the decision to adopt a scenarios approach in STPR2, which looks at a range of possible futures, and how the possible interventions behave in them.

3.3.2 The scenarios that were developed for STPR2 have also been applied to the options appraisal for the A96 Corridor Review. For the Preliminary Appraisal, and subsequent Detailed Appraisal, the following two scenarios with their inherent variants of transport behaviour were considered:

- 'With Policy Scenario' - captures policy ambitions including 20% reduction (from 2019 levels) in car kilometres travelled by 2030, and assumptions to significantly

reduce levels of commuting/business journeys to reflect post COVID-19 working behaviours, leading to low levels of motorised traffic demand and emissions.

- 'Without Policy Scenario' - no policy ambitions are captured, and less significant reductions to levels of commuting/business journeys, leading to higher levels of motorised traffic demand and emissions.

3.3.3 These scenarios were originally developed using the Transport Model for Scotland (TMfS18) and the Transport and Economic/Land Use Model of Scotland (TELMoS18) for use in the appraisal stages of STPR2. Further detail on the development of the future appraisal scenarios can be found in Appendix A.

3.3.4 At the Preliminary Appraisal stage, each option has been appraised against a qualitative assessment of how the option could be expected to perform under a low and higher motorised travel demand.

3.4 Transport Planning Objectives

3.4.1 Each option has been assessed against the TPOs established for the A96 Corridor Review. The TPOs established for this study are:

- TPO1: A sustainable strategic transport corridor that contributes to the Scottish Government's net zero emissions target.
- TPO2: An inclusive strategic transport corridor that improves the accessibility of public transport in rural areas for access to healthcare, employment and education.
- TPO3: A coherent strategic transport corridor that enhances communities as places, supporting health, wellbeing and the environment.
- TPO4: An integrated strategic transport system that contributes towards sustainable inclusive growth throughout the corridor and beyond.
- TPO5: A reliable and resilient strategic transport system that is safe for users.

3.4.2 Further information on the development of these TPOs and the relevant sub-objectives is provided in Chapter 2 of this report.

3.4.3 At Preliminary Appraisal stage, the options have been appraised qualitatively against each of the TPOs using the scoring scale presented in Table 3.1.

3.5 Scottish Transport Appraisal Guidance Criteria

3.5.1 Options have been assessed qualitatively against the five STAG criteria aligned to the refreshed STAG Managers Guide (https://www.transport.gov.scot/publication/scottish-transport-appraisal-guidance-managers-guide/). The STAG criteria, along with a brief description of aspects to consider under each criterion are shown in Table 3.2. Further details about the criteria assessed are presented in the sections that follow.

Table 3.2: STAG Criteria at Preliminary Appraisal Stage

STAG Criterion	General Considerations
Environment	Maximising the quality of the built and natural environment for the enjoyment of all.
Climate Change	Supporting net zero emissions targets. Improving resilience of the transport network.
Health, Safety & Wellbeing	Reducing the risk and incidence of accidents and improving the security of the transport network for all users. Improving access to health and wellbeing facilities.
Economy	Improving connectivity, journey times and reliability to facilitate inclusive economic growth.
Equality and Accessibility	Increasing the accessibility of the public transport and active travel networks. Providing opportunities to travel to all users, particularly socially excluded or remotely located groups as well as those affected by transport poverty.

Environment

3.5.2 This assessment has considered the performance and likely impacts of options at a qualitative level against the relevant Environment sub-criteria as presented in STAG:

- Biodiversity and Habitats
- Geology and Soils
- Land Use (including Agriculture and Forestry)
- Water, Drainage and Flooding
- Air Quality
- Historic Environment
- Landscape
- Noise and Vibration.

3.5.3 As part of the proportionate approach and recognising that the Detailed Appraisal stage considers each of the sub-criteria in more detail, the Preliminary Appraisal has focused on those sub-criteria where key impacts are most likely to occur.

3.5.4 It is recognised that there is significant overlap between the environment assessment requirements for the transport appraisal, with what is required for the SEA being undertaken in parallel.

Climate Change

3.5.5 The assessment considers the performance of options against the three Climate Change sub-criteria: GHG Emissions, Vulnerability to the Effects of Climate Change and Potential to Adapt to the Effects of Climate Change. Consideration at the Preliminary Appraisal stage was given to:

- the likely contribution of options to reducing GHG emissions and help meet Scotland's wider targets to reduce GHG emissions
- how vulnerable options are likely to be to the effects of climate change
- the potential for options to adapt to the anticipated effects of climate change.

3.5.6 Similar to the Environment criterion, there is a degree of overlap with the STAG appraisal and the requirements for the SEA. In the wider context of climate change, as noted in Section 1.1 a separate climate compatibility assessment has been undertaken as part of the A96 Corridor Review.

Health, Safety and Wellbeing

3.5.7 The criterion involves an appraisal impact of the options on five sub-criteria: Accidents, Security, Health Outcomes, Access to Health and Wellbeing Infrastructure, and Visual Amenity. To determine the performance of an option within the Preliminary Appraisal against the health, safety and wellbeing criteria, consideration has been given to the following:

- Accidents:
  - The likely impacts the option would have on the number of people killed or injured in transport accidents.
  - The likely impact the option would have on the risk of travelling by means of accident rates for Killed or Seriously Injured accidents per km.
- Personal Security:
  - The likely impact of the option on crime.
  - The impact the option is likely to have on peoples' fear of crime.
- Health Outcomes:
  - The impact the option is likely to have on the population's physical fitness (e.g. obesity).
- Access to Health and Wellbeing Infrastructure:
  - The impact the option is likely to have on access to health centres, places of exercise (gyms, swimming pools, etc.), parks and community centres.
- Visual Amenity:
  - The likely impact of the option on views experienced at and around its location.

3.5.8 Across these health, safety and wellbeing criteria, a qualitative assessment was made of an option's performance.

Economy

3.5.9 This criterion assesses the impact of an option on the economy with consideration of Transport Economic Efficiency and Wider Economic Impacts:

- Transport Economic Efficiency (TEE) covers the benefits ordinarily captured by standard cost-benefit analysis, derived from changes in traffic volumes, journey times, driver frustration and/or travel time reliability.
- Wider Economic Impacts (WEIs) refer to any economic impacts which are additional to those captured by TEE and associated with business and market performance changes brought about by the introduction of the option. Three WEIs are considered: Agglomeration, considering the connectivity between businesses and areas of economic activity; Market Power, considering the changes in competition and cost bases that affects the total prices paid by customers; and Labour Supply, considering the difference in tax revenue created by the changes in commuting costs that could encourage more people to work.

3.5.10 At Preliminary Appraisal, a high-level assessment of the likely economic impacts of an option has been undertaken, with consideration given to the following:

- Connectivity:
  - The likely impact of the option on end-to-end journey times.
  - Any likely impact on the cost of travel, including but not limited to vehicle operating costs or public transport fares.
- Reliability:
  - The potential impact of the option on day-to-day variability in journey times or average delay.
  - The likely effect of the option on the number of incidents that impact route reliability.
- Resilience:
  - The likely impact of the option on the resilience of transport infrastructure.
- Wider Economic Impacts:
  - The option's likelihood to improve accessibility to key locations, such as business districts, or the ability to stimulate development in areas identified for regeneration.
  - An identification of the particular groups of people likely to be affected by the option.

3.5.11 The assessment has been undertaken qualitatively, with an appreciation that at the Detailed Appraisal stage, an adoption of appropriate modelling and analytical tools, where available, would be used to quantify the economic impacts of an option.

Equality and Accessibility

3.5.12 The criterion involves an appraisal of an option's impact on Equality and Accessibility, with consideration of five sub-criteria:

- Public Transport Network Coverage: Consideration is given to the option's contribution in improving coverage of the public transport system to access employment, health, education, and local services.
- Active Travel Network Coverage: Consideration is given to the option's contribution in improving coverage of walking and cycling facilities to access employment, health, education, and local services.
- Comparative Access by People Group: Consideration is given to the distribution of an option's impacts by people group, particularly vulnerable societal groups such as low income, disabled, children, and the elderly.
- Comparative Access by Geographic Location: Consideration is given to the distribution of an option's impacts by geographic location, including Community Regeneration Areas and areas of deprivation defined by the Scottish Index of Multiple Deprivation (SIMD).
- Affordability: Consideration is given to the option's contribution in reducing transport poverty by increasing travel choice to disadvantaged and vulnerable users and improving mobility and inclusion.

3.5.13 The Equality and Accessibility appraisal at this stage overlaps with the SIAs being considered, namely the EqIA, CRWIA and FSDA, to understand the impacts of transport changes on particular societal groups. Across these criteria, a qualitative assessment has been made of an option's performance.

3.6 Established Policy Objectives

3.6.1 STAG states that the relevant national policies and objectives identified during Objective Setting in the Case for Change should be considered as part of the transport appraisal. A clear conflict between an option and, for example, established land-use planning policy or a transport strategy in an area is likely to jeopardise its potential for funding, support, approval and/or implementation. Whereas an option would have a positive contribution if it were consistent with established policies and hence the achievement of relevant objectives.

3.6.2 The contribution of options towards meeting established Scottish Government policy objectives are demonstrated using the outputs of the Policy Assessment Framework (PAF) Tool. The PAF Tool is typically used to qualitatively assess how each option performs against current Scottish Government transport policy objectives.

3.6.3 For the purposes of the A96 Corridor Review, a bespoke PAF tool was developed which reflected relevant national, strategic (regional) and local policy objectives. A set of assessment 'themes' were derived from a comprehensive policy review and these themes were then aligned to each of the five STAG criteria. The bespoke PAF themes and criteria questions which relate to the policy objectives identified are as follows:

- Environment
  - To what extent does the option or package improve air quality?
  - To what extent does the option or package safeguard and enhance the natural and cultural environment?
  - To what extent does the option or package safeguard and enhance blue networks and waterbodies?
  - To what extent does the option or package support the creation and maintenance of attractive and high-quality places (with reference to the six qualities of successful places in NPF4)?
- Climate Change
  - To what extent does the option or package contribute to the 20% reduction in car km?
  - To what extent does the option or package help meet the net zero by 2045 target?
  - To what extent does the option or package help adapt the transport network to direct and indirect risks associated with climate change projections for Scotland?
  - To what extent does the option or package promote and support the best use of clean fuels/technologies decarbonising travel?
- Health, Safety and Wellbeing
  - To what extent does the option or package promote safe and secure travel for all users?
  - To what extent does the option or package support healthy travel choices as part of a multimodal journey?
  - To what extent does the option or package support the creation of healthy and liveable places?
  - To what extent does the option or package enhance provision of non-motorised transport and promote active travel as part of a 20-minute neighbourhood?
  - To what extent does the option or package support sustainable access to critical services i.e. education, healthcare?
- Economic

- To what extent does the option or package support the creation of a resilient and reliable transport network?
- To what extent does the option or package support future growth areas and national developments identified in land use planning?
- To what extent does the option or package provide a transport system which enables businesses to be competitive locally and within the rest of the UK?
- To what extent will the option or package support and enhance rural economy?

- Equality
  - To what extent does the option or package provide sustainable transport connections to and from more disadvantaged communities?
  - To what extent does the option or package provide sustainable, affordable transport access to education and employment opportunities?
  - To what extent does the option or package provide fair and equal transport access to healthcare services?
  - To what extent does the option or package support a 'just' transition to net zero?

3.6.4 The documents shown in Table 3.3 were used to inform the development of the bespoke PAF assessment.

Table 3.3: Documents Used in the PAF Development

National Documents	Strategic Documents	Local Documents
National Performance Framework	HITRANS – Regional Transport Strategy 2018	Highland Wide Local Development Plan (2012)
Scotland's National Strategy for Economic Transformation: Delivering Economic Prosperity (2022)	NESTRANS – Regional Transport Strategy for the North-East of Scotland (2021)	Inner Moray Firth Local Development Plan (2015)
Infrastructure Investment Plan (2021)	Aberdeen City and Shire Strategic Development Plan (2020)	Cairngorms National Park Local Development Plan (2021)
National Transport Strategy 2 (2020)		Moray Local Development Plan (2020)
National Planning Framework 3 / Scottish Planning Policy (2014)		Aberdeen Local Development Plan (2017)
Draft National Planning Framework 4 (20231)		Aberdeenshire Local Development Plan (2017)
A Fairer, Greener Scotland: Programme for Government 2021-22 (2021)		The Highland Council Local Transport Strategy 2011-2014 (2010)
Securing a green recovery on a path to net zero: climate change plan 2018-2032 update (2020)		Moray Local Transport Strategy (2011)
Climate Ready Scotland: Second Scottish Climate Change Adaptation Programme 2019-2024 (2019)		Aberdeenshire Council Local Transport Strategy (2016-2021)
		Inverness and Highland City Region Deal Annual Report 2020/21 (2021)
		Aberdeen City Region Deal (2016)

3.6.5 At both preliminary and detailed appraisal stages, options were assessed within the Policy Appraisal with each option given a high-level 'score' to determine whether they were consistent with the criteria for each policy objective. For the purposes of the PAF assessment it was considered that both the 'With Policy' and 'Without Policy' transport

behaviour scenarios would have similar outcomes, therefore only one 'score' was provided against each objective.

3.6.6 The following assessment approach was adopted:

- **Consistent** – this 'score' was attributed to each of the objectives if it was decided that the option is consistent with the objective or has general compliance with it.
- **Inconsistent** – this 'score' was attributed to each of the objectives if it was decided that the option is inconsistent with the objective.
- **Neutral** – this 'score' was attributed where further detail or research is required to accurately determine the impact of an option or where the option is to have no significant positive or negative impact in relation to the objectives.
- **Inconclusive (at this stage)** – whilst carrying out the option appraisal it was identified that a 'score' which acknowledged that some of the options may cause both positive and negative impacts needed to be reflected.

3.6.7 Professional judgement was used in conjunction with the information provided in the ASTs to determine the scores. It should be noted that at this early stage of development options are defined at a relatively high-level (i.e. with limited detail on location, engineering design or environmental mitigation), the scoring reflects the information that is available. The scoring does not therefore reflect the potential for design development and mitigation to enable policy consistency, as this is as yet unknown.

3.6.8 The findings of the policy assessment are summarised in Chapter 4 for the Preliminary Appraisal, with additional detail presented in Appendix B.

3.6.9 Through this method, options have been assessed in terms of their contribution to the policies which support the Priorities and Outcomes in the NTS2, as well as the STAG criteria and the A96 Corridor Review TPOs.

3.7 Deliverability Criteria

3.7.1 Each option has been assessed qualitatively against the Deliverability criteria during the Preliminary Appraisal. The relevant elements that have been considered under Deliverability are Feasibility, Affordability and Public Acceptability. Whilst these elements have not been scored, the key factors and likely outcomes have been identified.

Feasibility

3.7.2 This element involves a preliminary assessment of the feasibility of construction or implementation and operation (if relevant) of an option and the status of its technology (e.g. proven, prototype, in development, etc.). It also considers any cost, timescale or deliverability risks associated with the construction or operation of the option. Whether an option can be progressed within current legislation is also a factor. For the A96 Corridor Review, this element also considers whether Transport Scotland

can directly deliver and operate the option, or whether they would need to work collaboratively with partners, such as LAs, RTPs, or transport operators.

Affordability

3.7.3 This element considers the scale of the financing burden on the promoting authority and other possible funding organisations. The risks associated with these are also considered. The level of risk associated with an option's ongoing operating or maintenance costs is also considered for the likely asset owner. Where applicable, likely operating revenues are also considered for a particular option.

3.7.4 At the Preliminary Appraisal stage, a high-level indicative estimate of the capital cost of each option is provided, based on a series of cost bands developed for the A96 Corridor Review. Note, the same cost bands have been used as part of the Detailed Options Appraisal.

3.7.5 The cost bands are shown in Table 3.4.

Table 3.4: Cost Bands for Options

Cost Band	Value (Millions)
1	<£25
2	£25-£50
3	£51-£100
4	£101-£250
5	£251-£500
6	£501-£1,000
7	£1,001-£2,500
8	>£2,500

Public Acceptability

3.7.6 This element considers whether there are likely to be any issues around public acceptability of each option. To support this, reference is made to supporting information from previous studies and/or schemes for similar options, as well as relevant feedback from the public consultation survey and stakeholder engagement undertaken during the development of the Case for Change (https://www.transport.gov.scot/publication/initial-appraisal-case-for-change-december-2022-a96-corridor-review/) and summarised in the A96 Corridor Review

Consultation Report (https://www.transport.gov.scot/publication/stakeholder-public-engagement-consultation-report-december-2022-a96-corridor-review/).

3.8 Statutory Assessments

3.8.1 Parallel to the STAG assessment, work has been progressed on the development of the:

- SEA Draft Environmental Report (https://www.transport.gov.scot/publication/strategic-environmental-assessment-sea-draft-environmental-report-non-technical-summary-a96-corridor-review/)
- EqIA Report (Draft) (https://www.transport.gov.scot/publication/equality-impact-assessment-eqia-report-draft-a96-corridor-review/)
- CRWIA Report (Draft) (https://www.transport.gov.scot/publication/child-rights-and-wellbeing-impact-assessment-crwia-report-draft-a96-corridor-review/)
- FSDA Report (Draft) (https://www.transport.gov.scot/publication/fairer-scotland-duty-assessment-fsda-report-draft-a96-corridor-review/)

3.8.2 An Island Communities Impact Assessment (ICIA) has not been undertaken due to the geographic location of the A96 corridor.

3.8.3 These assessments have informed the transport appraisal process for the A96 Corridor Review, and separately ensure as far as possible that the impact of the transport interventions on the environment is minimised; opportunities for environmental enhancement are identified for implementation; and options have a positive impact on different groups in society, including those with protected characteristics. In summary, the parallel assessments that have been undertaken for the A96 Corridor Review are:

- **Strategic Environmental Assessment (SEA)** – required under European Union Directive 2001/42/EC and a key objective of the SEA process is to afford a high-level of protection to the environment and to ensure environmental considerations feature in the decision-making process.
- **Equality Impact Assessment (EqIA)** – identifies and assesses any likely disproportionate or differential effects on people with characteristics protected by the Equality Act 2010. This includes sex, age, disability, race, religion/belief, gender reassignment, sexual orientation, pregnancy and maternity, and marriage and civil partnership.
- **Child Rights and Wellbeing Impact Assessment (CRWIA)** – considers impacts on children and young people. It covers individual children, groups of children, and

all children up to the age of 18. It also considers young people up to the age of 24.

- **Fairer Scotland Duty Assessment (FSDA)** – identifies and assesses how to reduce inequalities of outcome caused by socio-economic disadvantage when making strategic decisions. In broad terms, 'socio-economic disadvantage' means living on a low income compared to others in Scotland, with little or no accumulated wealth, leading to greater material deprivation, restricting the ability to access basic goods and services.

3.8.4 The SEA has helped inform the Environment criterion of the STAG appraisal, and there is considerable overlap between the SEA and the Climate Change criterion. The appraisal also includes a high-level assessment of each option from the SIA perspective and with this additional information incorporated into the ASTs where appropriate.

3.9 Other Considerations

The Second National Transport Strategy (NTS2)

3.9.1 As noted previously, the A96 Corridor Review TPOs have been developed to align with the four priorities, 12 outcomes and 24 policies contained within the Second National Transport Strategy (NTS2). As part of the Preliminary and Detailed Appraisal, the A96 Corridor Review options have been assessed against the 12 NTS2 outcomes to indicate their consistency, or otherwise, with current national transport strategy.

Sustainable Hierarchies

3.9.2 The position that each option sits within the Sustainable Travel Hierarchy and Sustainable Investment Hierarchy from the NTS2 and shown in Figure 3.1, has been identified. Consideration of the two hierarchies ensures that the study is multimodal, with options sitting across all levels in both hierarchies and priority given, where necessary, to options that sit at the higher end of each hierarchy.

Figure 3.1: Sustainable Travel and Investment Hierarchies

Risk and Uncertainty

3.9.3 Risks and uncertainties associated with each option are identified and accounted for within the information accompanying the appraisal scoring in the ASTs and the discussion of the deliverability criteria. The consideration of the 'With Policy' and 'Without Policy' transport behaviour scenarios and provision of estimated cost ranges also accounts for risks and uncertainties of each option at this stage.

3.10 Progression to Detailed Appraisal

3.10.1 Decisions on whether or not to take options forward from Preliminary to Detailed Appraisal were made based on overall performance against the TPOs, STAG criteria and SIAs, with consideration of deliverability, alignment with established policy objectives and performance in both transport behaviour scenarios.

3.10.2 ASTs have been produced for each option, providing the assessment of performance against each criterion and giving a clear rationale for why an option has been retained or rejected. The Preliminary ASTs are provided in Appendix C. Chapter 4 summarises the outcomes of the Preliminary Appraisal, including whether or not each option has been taken forward to Detailed Appraisal and the rationale behind that decision.

4. Preliminary Appraisal Outcomes

4.1 Introduction to Preliminary Appraisal

4.1.1 This chapter summarises the outcomes of the Preliminary Appraisal for the A96 Corridor Review, including the options that were retained to progress to Detailed Appraisal, and those which have been sifted at this stage.

4.1.2 Although 16 options were identified from the initial option sifting in the Case for Change, not all of these were assessed during the Preliminary Appraisal. The A96 Full Dualling (plus Targeted Trunk Road Improvements), hereon referred to as A96 Full Dualling, and Active Hubs options were not subject to Preliminary Appraisal for the different reasons that are described in the following sections.

4.2 Consideration of A96 Full Dualling

4.2.1 As the Scottish Government's current plan is to fully dual the A96 route between Inverness and Aberdeen, it was considered appropriate that it progressed to the Detailed Appraisal stage, as it has already been the subject of the appraisal undertaken in 2014 that established the Inverness to Aberdeen Corridor Study A96 Dualling Inverness to Aberdeen Strategic Business Case.

4.2.2 The option for A96 Full Dualling has been appraised as part of the Detailed Appraisal to assess its performance against current appraisal criteria including the TPOs developed for the A96 Corridor Review, the current STAG criteria and the relevant SIAs. The outcomes of the Detailed Appraisal for A96 Full Dualling are presented in Chapter 6.

4.2.3 It should be noted that the A96 Dualling Inverness to Nairn (including Nairn Bypass) scheme has been excluded from the scope of the A96 Corridor Review as it already has ministerial consent. In the context of the A96 Corridor Review, the A96 Full Dualling therefore comprises the section of the route from Hardmuir (to the East of Nairn) through to the junction with the Aberdeen Western Peripheral Route (AWPR) at Craibstone.

4.3 Outcomes of Preliminary Appraisal

4.3.1 Early in the Preliminary Appraisal process it was identified that the Active Hubs option would clearly align with and sit within STPR2 recommendation 22 (Framework for Delivery of Mobility Hubs). It was determined that STPR2 would be the most appropriate mechanism by which to progress this option at a national level. As such, the appraisal of Active Hubs was not completed within the A96 Corridor Review, and outcomes relating to this option are therefore not presented in this chapter.

4.3.2 Table 4.1 summarises the Preliminary Appraisal scoring of the 14 remaining options, excluding Active Hubs and A96 Full Dualling as noted previously, based on the

assessment of their performance against the A96 Corridor Review TPOs, STAG criteria and SIAs.

4.3.3 As stated in Section 2.4, within the context of the table, the TPOs are:

- TPO1: A sustainable strategic transport corridor that contributes to the Scottish Government's net zero emissions target.
- TPO2: An inclusive strategic transport corridor that improves the accessibility of public transport in rural areas for access to healthcare, employment and education.
- TPO3: A coherent strategic transport corridor that enhances communities as places, supporting health, wellbeing and the environment.
- TPO4: An integrated strategic transport system that contributes towards sustainable inclusive growth throughout the corridor and beyond.
- TPO5: A reliable and resilient strategic transport system that is safe for users.

4.3.4 Also, within the table, the abbreviations of the STAG criteria refer to the following:

- Env: Environment
- CC: Climate Change
- H, S & W: Health, Safety and Wellbeing
- Econ: Economy
- Eq & A: Equality and Accessibility

Table 4.1: Preliminary Appraisal Scoring Summary

Option and Scenario	TPO1	TPO2	TPO3	TPO4	TPO5	STAG – Env	STAG – CC	STAG – H, S & W	STAG – Econ	STAG – Eq & A	SIA – EqIA	SIA – CRWIA	SIA – FSDA
Active Communities under 'With Policy' Scenario	+++	+	+++	+	+++	+	+	++	+	+++	+++	+++	+++
Active Communities under 'Without Policy' Scenario	+++	+	+++	+	+++	+	+	++	+	+++	+++	+++	+++
Active Connections under 'With Policy' Scenario	++	+	++	+	++	+	+	++	+	+++	++	++	+
Active Connections under 'Without Policy' Scenario	++	+	++	+	++	+	+	++	+	+++	++	++	+
Improved Public Transport Passenger Interchange Facilities under 'With Policy' Scenario	0	+	+	+	+	+	0	+	+	+	+++	+	+
Improved Public Transport Passenger Interchange Facilities under 'Without Policy' Scenario	0	+	+	+	+	+	0	+	+	+	+++	+	+
Bus Priority Measures and Park and Ride under 'With Policy' Scenario	+	+	+	+	+	+	+	+	+	+	+	+	++
Bus Priority Measures and Park and Ride under 'Without Policy' Scenario	+	+	+	+	+	+	+	+	+	+	+	+	++
Investment in DRT and MaaS under 'With Policy' Scenario	+	+	+	+	0	+	+	+	+	+	++	++	++
Investment in DRT and MaaS under 'Without Policy' Scenario	+	+	+	+	0	+	+	+	+	+	++	++	++
Introduction of Rail Freight Terminals under 'With Policy' Scenario	+	0	+	+	+	-	0	+	+	+	+	+	+
Introduction of Rail Freight Terminals under 'Without Policy' Scenario	+	0	+	+	+	-	0	+	+	+	+	+	+
Linespeed, Passenger and Freight Capacity Improvements on the Aberdeen to Inverness Rail Line under 'With Policy' Scenario	++	+	+	+	+	-	+	+	++	+	+	+	+
Linespeed, Passenger and Freight Capacity Improvements on the Aberdeen to Inverness Rail Line under 'Without Policy' Scenario	++	+	+	+	+	-	+	+	++	+	+	+	+
Improved Parking Provision at Railway Stations under 'With Policy' Scenario	-	-	-	0	0	0	0	0	0	-	0	0	0
Improved Parking Provision at Railway Stations under 'Without Policy' Scenario	-	-	-	0	0	0	-	0	0	-	0	0	0
Targeted Road Safety Improvements under 'With Policy' Scenario	0	0	+	+	+++	- -	0	+++	++	+	0	0	0

Option and Scenario	TPO1	TPO2	TPO3	TPO4	TPO5	STAG – Env	STAG – CC	STAG – H, S & W	STAG – Econ	STAG – Eq & A	SIA – EqIA	SIA – CRWIA	SIA – FSDA
Targeted Road Safety Improvements under 'Without Policy' Scenario	0	0	+	+	+++	- -	0	+++	++	+	0	0	0
Elgin Bypass under 'With Policy' Scenario	0	0	+	+	+	- -	0	+	+	+	+	+	+
Elgin Bypass under 'Without Policy' Scenario	-	0	+	+	+	- -	-	+	+	+	+	+	+
Keith Bypass under 'With Policy' Scenario	0	0	+	+	++	- -	0	++	+	+	+	+	+
Keith Bypass under 'Without Policy' Scenario	-	0	+	+	++	- -	-	++	+	+	+	+	+
Inverurie Bypass under 'With Policy' Scenario	-	0	0	+	+	- -	-	0	+	0	0	0	0
Inverurie Bypass under 'Without Policy' Scenario	- -	0	0	+	+	- -	- -	0	+	0	0	0	0
Forres Bypass under 'With Policy' Scenario	0	0	+	0	++	- -	-	++	0	+	0	+	0
Forres Bypass under 'Without Policy' Scenario	-	0	+	0	++	- -	- -	++	0	+	0	+	0
Development of the A96 Electric Corridor under 'With Policy' Scenario	+++	0	0	++	+	0	+	0	++	0	+	+	0
Development of the A96 Electric Corridor under 'Without Policy' Scenario	+++	0	0	++	+	0	++	0	++	0	+	+	0

4.3.5 Of the 14 options assessed almost all are considered likely to result in positive impacts against a number of the appraisal criteria. Only the Improved Parking Provision at Railway Stations option is not considered likely to result in positive impacts against any criterion. The following sections briefly summarise the outcomes of the Preliminary Appraisal for each option and the rationale for progression, or not, to Detailed Appraisal.

4.3.6 Full Preliminary ASTs can be found in Appendix C.

Active Communities

4.3.7 This option makes a positive contribution to all the A96 Corridor Review TPOs, STAG criteria, and SIA criteria in both the 'With Policy' and 'Without Policy' scenarios. Active Communities would aim to increase the mode share of walking, wheeling and cycling in settlements through provision of active travel infrastructure and placemaking improvements, which would have a major positive impact on objectives for contributing to Scottish Government's net zero emissions targets (TPO1), enhancing communities as places to support health, wellbeing and the environment (TP03) and providing a safe, reliable and resilient transport system (TP05). Active Communities can also assist in improving accessibility to public transport (TPO2) and contributing to sustainable inclusive growth (TP04), with minor positive impacts anticipated.

4.3.8 The option would also have a major positive contribution for the STAG Equality and Accessibility criterion with benefits expected for all people groups within communities as a result of the enhanced provision of active travel infrastructure for access to key services. A moderate positive contribution to the STAG Health, Safety and Wellbeing criterion is also anticipated.

4.3.9 Active Communities also scores positively against the SIA criteria, with major positive impacts in relation to Equality, Child Rights and Wellbeing and Fairer Scotland Duty. The option would also build on the STPR2 recommendation 1 (Connected Neighbourhoods).

4.3.10 Active Communities are considered to be implementable from a feasibility perspective in key communities along the A96, although costs of implementation could be relatively high depending on the location and scale of the intervention. Detailed local engagement and design work would be required to identify the most appropriate locations and types of intervention. General public support is anticipated for active travel interventions that improve safety and provide traffic free routes, though there may be some opposition from those who drive if roadspace is reallocated for active travel.

4.3.11 It was recommended that this option be taken forward to the Detailed Appraisal stage.

Active Connections

4.3.12 This option makes a positive contribution to all of the A96 Corridor Review TPOs, STAG criteria, and the SIA criteria in both the 'With Policy' and 'Without Policy' scenarios. Improving and creating new active travel connections between settlements could encourage modal shift away from cars, reducing carbon emissions and inequalities by improving access to jobs, services and leisure activities between neighbouring settlements. Moderate benefits are anticipated in relation to contributing to Scottish Government's net zero targets (TPO1), enhancing communities as places to support health, wellbeing and the environment (TP03) as well as positively impacting in relation to providing a safe, reliable and resilient transport system (TP05). Active Connections can also assist in improving accessibility to public transport (TPO2) and contributing to sustainable inclusive growth (TP04), with minor positive impacts anticipated.

4.3.13 The option particularly contributes to the STAG Equality and Accessibility criterion due to the comparative benefits by people group and improvement in active travel network coverage between communities along the A96 corridor. A moderate positive contribution to the STAG Health, safety and wellbeing criterion is also anticipated.

4.3.14 Active Connections also positively contributes to the SIA criteria around Equality and Child Rights and Wellbeing, as well as the Fairer Duty Scotland assessment. The option would also build on the STPR2 recommendations 3 (Village Town Active Travel Connections), 4 (Connecting Towns by Active Travel) and 5 (Long Distance Active Travel Network).

4.3.15 Connecting settlements by active travel routes is considered to be implementable from a feasibility perspective, albeit detailed local engagement and design work is required to identify the most appropriate routes. As such, costs are dependent on a number of factors including the requirement for earthworks and structures, localised ground conditions and the purchase of land. General public support is anticipated for active travel interventions that improve safety and provide traffic free routes.

4.3.16 It was recommended that this option be taken forward to the Detailed Appraisal stage.

Improved Public Transport Passenger Interchange Facilities

4.3.17 This option has a positive contribution to most of the A96 Corridor Review TPOs and STAG criteria, and all of the SIA criteria in both the 'With Policy' and 'Without Policy' scenarios. By increasing the quality of passenger facilities to reduce the perceived disconnect between public transport services, this option would improve the travel experience, particularly benefiting those who do not have access to a car and from the most deprived households. As such, the option is anticipated to have minor positive impacts on TPOs for improving accessibility to public transport (TPO2), enhancing communities as places to support health, wellbeing and the environment (TP03), and contributing to sustainable inclusive growth (TP04). Improvements to personal

security and reliability of services is also anticipated to have minor positive impacts for providing a safe, reliable and resilient transport system (TP05).

4.3.18 Improving public transport passenger interchange facilities is also anticipated to have minor positive impacts on the STAG Environment, Health, Safety and Wellbeing, Economy and Equality and Accessibility criteria.

4.3.19 The variety of measures considered would reduce barriers to public transport use, especially for the elderly, those with reduced mobility or impaired vision or hearing and for those who are neurodivergent. Therefore, the option would have a major positive impact in relation to the Equalities Impact Assessment, with minor positive impacts for Child Rights and Wellbeing and the Fairer Duty Scotland assessments. It would also build on Scotland's Accessible Travel Framework and Delivery Plan (https://www.transport.gov.scot/publication/scotland-s-accessible-travel-framework-annual-delivery-plan-2021-22/) and on STPR2 recommendations 19 (Infrastructure to provide access for all at railway stations) and 21 (Improved public transport interchange facilities).

4.3.20 Delivery of the option is generally considered to be feasible, though local characteristics and varying constraints may create some challenges. Delivery is considered to be affordable at this stage, with it being assumed that the option would be limited to the provision of targeted improvements at public transport interchange facilities. Public consultation indicated a reasonable level of support for options to improve interchange between different modes.

4.3.21 It was recommended that this option be taken forward to the Detailed Appraisal stage.

Bus Priority Measures and Park and Ride

4.3.22 Provision of strategic bus priority measures and park and ride facilities would have a positive impact against all of the A96 Corridor Review TPOs and STAG criteria in both the 'With Policy' and 'Without Policy' scenarios, as well as delivering positive benefits against most of the SIA criteria. Delivering shorter and more reliable bus journey times is likely to increase the attractiveness of bus, potentially resulting in a modal shift from car. This is anticipated to result in minor positive impacts for all TPOs and STAG criteria.

4.3.23 The option also positively contributes to the SIA criteria around Equality and Child Rights and Wellbeing, with minor positive impacts expected, and a moderate positive impact in relation to the Fairer Duty Scotland assessment. The option would also build on the STPR2 recommendation 14 (Provision of Strategic Bus Priority Measures).

4.3.24 Delivery of the option is considered to be generally feasible, making use of interventions for which there is already significant experience of implementation in Scotland. They should also be affordable, with the ability to tailor funding to suit local

circumstances. Although public consultation indicates a potential level of general support for both bus priority measures and park and ride, there may still be challenges associated with public acceptability, especially where provision of bus priority measures requires reallocation of roadspace or removal of parking.

4.3.25 It was recommended that this option be taken forward to the Detailed Appraisal stage.

Investment in DRT and MaaS

4.3.26 Investment in DRT and MaaS to provide a pilot scheme aimed at delivering better public transport connectivity in locations with low bus network coverage or where conventional fixed route services may not be commercially viable would have a positive impact against most of the TPOs, and all the STAG and SIA criteria in both the 'With Policy' and 'Without Policy' scenarios. Enhancing accessibility to public and shared transport is anticipated to have a minor positive impact for accessibility to public transport (TPO2) and enhancing communities as places to support health, wellbeing and the environment (TP03). The potential to create a modal shift from car would help in contributing to Scottish Government's net zero targets (TPO1) and providing a safe, reliable and resilient transport system (TPO5). A pilot scheme for DRT and MaaS would also result in minor positive impacts for all of the STAG criteria.

4.3.27 Of key importance is the impact that this option might have in reducing inequality of access to the public transport network, given the role that it can play in providing access to employment, education, healthcare and leisure activities, as well as integrating with other services and other modes. The option is therefore anticipated to have a moderate positive impact for all SIA criteria. The option would also build on the STPR2 recommendation 20 (Investment in Demand Responsive Transport and Mobility as a Service).

4.3.28 While it is considered feasible to deliver the pilot scheme to improve public transport connectivity, the availability of appropriate technology and whether passengers could access this technology, including relevant MaaS applications and bank accounts for payment for example, would need to be considered. The extent to which schemes could operate without the need for additional revenue support would also need considered upon completion of the pilot scheme. Improving public transport connectivity is likely to be acceptable to the public, although if fixed routes are to be replaced or fares increase this would likely be viewed negatively.

4.3.29 It was recommended that this option be taken forward to the Detailed Appraisal stage.

Introduction of Rail Freight Terminals

4.3.30 This option makes a largely positive contribution to the A96 Corridor Review TPOs, STAG criteria, and SIA criteria in both the 'With Policy' and 'Without Policy' scenarios, although there are potential negative impacts for the STAG Environment criterion.

Rail freight terminals aim to provide more opportunities for goods movement across the A96 corridor, encouraging a shift away from road freight vehicles to move goods more sustainably, reduce harmful air pollution and potentially reduce local noise impacts. The option would therefore have a minor positive contribution to the TPOs for contributing to Scottish Government's net zero targets (TPO1), enhancing communities as places to support health, wellbeing and the environment (TP03), contributing to sustainable inclusive growth (TPO4) and providing a safe, reliable and resilient transport system (TPO5).

4.3.31 Rail freight terminals are anticipated to have a minor negative impact on the STAG Environment criterion as there are sensitive environmental designations, in places such as Keith and Elgin, that could be affected by the construction footprints of the terminals. This may affect aspects such as biodiversity, agriculture and soils, cultural heritage, landscape and visual amenity.

4.3.32 The option is anticipated to have a minor positive impact on the three SIA criteria and would also build on the STPR2 recommendation 44 (Rail Freight Terminals).

4.3.33 New facilities are considered to be implementable from a feasibility perspective in connection with Scotland's railway network. However, detailed local engagement and design work, including working closely with businesses, could be required to identify the most appropriate locations and types of intervention, and capital costs could vary significantly based upon these assessments. Rail freight terminals are likely to be well received generally due to the potential for carbon dioxide reduction and removal of HGVs from the road network, although some businesses may not favour the option if they are unable to shift modes to move freight by rail.

4.3.34 It was recommended that this option be taken forward to the Detailed Appraisal stage.

Linespeed, Passenger and Freight Capacity Improvements on the Aberdeen to Inverness Rail Line

4.3.35 This option makes a largely positive contribution to the A96 Corridor Review TPOs, STAG criteria, and SIA criteria, with the exception of the STAG Environment criteria, in both the 'With Policy' and 'Without Policy' scenarios. This option sets out a broad range of proposals to increase both the passenger and freight capacity, as well as improve journey times, on the Aberdeen to Inverness rail line to make it a more attractive service and encourage modal shift. Doing so would remove a potential barrier towards using the rail network for medium to long distance travel across the corridor and therefore reduce the inequality of access to the public transport network. As a result, the option is anticipated to have moderate positive impact for contributing to Scottish Government's net zero targets (TPO1), and minor positive impacts for improving accessibility to public transport (TPO2), enhancing communities as places to support health, wellbeing and the environment (TP03), contributing to sustainable inclusive growth (TPO4) and providing a safe, reliable and resilient transport system (TPO5).

4.3.36 The construction of new track and re-use of freight yards could have a negative impact on other aspects of the environment including visual amenity, cultural heritage and biodiversity, though these negative impacts are anticipated to be minor and could be mitigated as part of the detailed design development process. However, it could deliver moderate positive impacts for the STAG Economy criterion, and minor positive impacts for the STAG Climate Change, Health, Safety and Wellbeing and Equality and Accessibility criteria.

4.3.37 Delivery is considered to be feasible at this stage, however a detailed assessment would require to be undertaken to fully establish the details of the option and impacts of construction. The option is considered to be affordable at this stage, though it is noted that there are some risks with respect to ongoing revenue funding. Support in improving capacity and reliability of the rail network is anticipated by the public and businesses throughout the corridor.

4.3.38 It was recommended that this option be taken forward to the Detailed Appraisal stage.

Improved Parking Provision at Railway Stations

4.3.39 This option is expected to have a neutral or minor negative impact against most of the A96 Corridor Review TPOs, STAG criteria and SIAs. The option is intended to increase the potential to achieve modal shift from private car to rail for longer distance trips through enhanced parking facilities at railway stations. However, any modal shift may be outweighed by the potential generation of additional shorter distance car trips associated with travel to rail stations. This could result in the generation of a net increase in car kilometres, not in line with current policy objectives. Notwithstanding the fact that many of the stations serve a large rural hinterland, the settlements themselves are generally compact in nature, meaning that there should be opportunity to address local station access through active modes, which is achieved by other options considered in the Preliminary Appraisal.

4.3.40 The performance of the option against the objectives and criteria is marginal and it is anticipated to have a minor negative impact in both transport behaviour scenarios on multiple TPOs relating to contributing to Scottish Government's net zero targets (TPO1), improving accessibility to public transport (TPO2), and enhancing communities as places to support health, wellbeing and the environment (TP03) as it only benefits those with access to a car and encourages its use for at least part of a trip. The option is also anticipated to have a minor negative impact for the STAG Equality and Accessibility criterion in both scenarios, and for the STAG Climate Change criterion in the 'Without Policy' scenario where car trips are anticipated to be more common.

4.3.41 The option is considered to be feasible from a technical delivery perspective, with no significant construction constraints. Improving parking at railway stations is also considered to be affordable, though costs at individual sites would vary depending on

locational requirements and constraints that may affect the complexity of construction and therefore a more detailed review at each location would be required.

4.3.42 It is considered that Active Communities could provide a much greater degree of benefits that better aligns with policy objectives and without many of the negative impacts as a result of a potential increase in car kilometres. Therefore, it was not recommended that this option be taken forward to the Detailed Appraisal stage.

Targeted Road Safety Improvements

4.3.43 This option makes a generally positive contribution to most of the A96 Corridor Review TPOs and STAG criteria, with a number of neutral impacts including those for the SIAs. However, it is expected that there would be moderate negative impacts on the STAG Environment criterion as a result of this option in both the 'With Policy' and 'Without Policy' scenarios.

4.3.44 This option is focused on improving the safety of the trunk road network through the provision of targeted safety improvements along the A96 corridor. This option is therefore anticipated to have a major positive impact on TPO5 in relation to providing a safe, reliable and resilient transport system, as well as minor positive impacts for enhancing communities as places to support health, wellbeing and the environment (TPO3) and contributing to sustainable inclusive growth (TPO4). In addition to the TPOs, the improvements for road safety are anticipated to have a major positive impact on the STAG Health, Safety and Wellbeing criterion. Economic benefits are expected due to improved reliability and an anticipated reduction in road closures, contributing to a moderate positive impact for the STAG Economy criterion, and a minor positive impact for the STAG Equality and Accessibility criterion.

4.3.45 However, improving road safety may encourage more car trips to be made that might subsequently generate an increase in car kilometres, and the footprint for some interventions could increase the current roadspace, with a negative impact on environmental considerations such as water environment, agriculture and soils, cultural heritage, and visual amenity.

4.3.46 The option would build on the STPR2 recommendation 30 (Trunk Road and Motorway Safety Improvements). Delivery is considered to be feasible with Transport Scotland having significant experience of implementing the type of options considered. Affordability is dependent on the complexity and scale of options. Wider public support is anticipated for improvements to the safety of the trunk road network, with this being noted as a major concern for users of the A96 Trunk Road.

4.3.47 It was recommended that this option be taken forward to the Detailed Appraisal stage.

Elgin Bypass

4.3.48 This option makes a generally positive contribution to most of the A96 Corridor Review TPOs, STAG criteria and SIA criteria. However, it is expected that there would be negative impacts from this option in both the 'With Policy' and 'Without Policy' scenarios on the STAG Environment criterion. In the 'Without Policy' scenario specifically, the option is expected to perform negatively against TPO1 regarding contributing to Scottish Government's net zero targets, and the STAG Climate Change criterion.

4.3.49 This option offers the opportunity to enhance community cohesion and placemaking by addressing the severance issues associated with a busy trunk road bisecting a community. In turn, this could increase the attractiveness of shorter everyday trips undertaken within the community by active modes, positively contributing to TPO3 associated with enhancing communities as places to support health, wellbeing and the environment, and the STAG criteria for Health, Safety and Wellbeing and Equality and Accessibility. The Elgin bypass would provide additional roadspace whilst reducing the amount of traffic and delays in the town itself that is also anticipated to positively impact on the TPOs in relation to contributing to sustainable inclusive growth (TPO4) and providing a safe, reliable and resilient transport system (TPO5), as well as the STAG Economy criterion.

4.3.50 Although the Elgin bypass would remove a proportion of noise and emissions-related pollution from the town, the physical impact of construction could negatively impact the water environment, biodiversity, agriculture and soils, cultural heritage, landscape and visual amenity. This would overall have a moderate negative impact on the STAG Environment criterion in both the 'With Policy' and 'Without Policy' scenarios. In the 'Without Policy' scenario specifically where traffic demand is likely to be higher with greater vehicle kilometres travelled, the option would have a minor negative impact against TPO1 regarding contributing to Scottish Government's net zero targets, and the STAG Climate Change criterion.

4.3.51 Delivery is considered to be feasible, however a detailed assessment would require to be undertaken to fully establish the details of the bypass including the optimal corridor and junction strategy. Although a bypass of Elgin is considered to be affordable at this stage, capital costs are also highly dependent on the potential length and route a bypass may take. A reasonable level of support for the option from the public is anticipated due to the potential safety improvements and reliability benefits for strategic traffic.

4.3.52 The bypass as a standalone intervention performs negatively against the STAG Environment criterion, and TPO1 and the STAG Climate Change criterion particularly in the 'Without Policy' scenario. However, it would likely act as a key enabler for sustainable transport and placemaking within Elgin.

4.3.53 It was recommended that this option be taken forward to the Detailed Appraisal stage.

Keith Bypass

4.3.54 This option makes a generally positive contribution to most of the A96 Corridor Review TPOs, STAG criteria and SIA criteria. This option is expected to perform particularly well against TPO5 for providing a safe, reliable and resilient transport system as well as the STAG Health, Safety and Wellbeing criterion as the bypass would remove strategic trips from the town where accident rates were identified as being higher than the national average.

4.3.55 The bypass would also offer the opportunity to enhance community cohesion and placemaking by addressing the severance associated with a busy trunk road bisecting a community; and in turn, this could increase the attractiveness of shorter everyday trips undertaken by active modes. As such, a minor positive impact is anticipated for TPO3 associated with enhancing communities as places to support health, wellbeing and the environment. A moderate positive impact is anticipated for the STAG Health, Safety and Wellbeing criterion, with further minor positive impacts for the STAG Equality and Accessibility criterion, and the SIAs for Equality, Child Rights and Wellbeing and Fairer Scotland Duty.

4.3.56 Although the Keith bypass could remove some noise and emissions-related pollution from the town, the physical impact of construction could negatively impact the water environment, biodiversity, agriculture and soils, cultural heritage, landscape and visual amenity, with an overall moderate negative impact expected for the STAG Environment criterion in both the 'With Policy' and 'Without Policy' scenarios. In the 'Without Policy' scenario specifically where traffic demand is likely to be higher with greater vehicle kilometres travelled, the option is expected to have a minor negative impact against TPO1 regarding contributing to Scottish Government's net zero targets, and the STAG Climate Change criterion.

4.3.57 Delivery is considered to be feasible, however a detailed assessment would require to be undertaken to fully establish the details of the bypass including the optimal corridor and junction strategy. Although a bypass of Keith is considered to be affordable at this stage, capital costs are also highly dependent on the potential length and route a bypass may take. A reasonable level of support for the option from the public is anticipated due to the potential safety improvements and reliability benefits for through traffic.

4.3.58 The bypass as a standalone intervention performs negatively against the STAG Environment criterion, and TPO1 and the STAG Climate Change criterion in the 'Without Policy' scenario in particular. However, it would likely act as a key enabler for sustainable transport and placemaking within Keith whilst delivering a safety improvement.

4.3.59 It was recommended that this option be taken forward to the Detailed Appraisal stage.

Inverurie Bypass

4.3.60 This option has a generally neutral contribution to a number of the A96 Corridor Review TPOs, STAG criteria and SIA criteria, with some minor positives. However, it is expected that there would be negative impacts as a result from this option in both the 'With Policy' and 'Without Policy' scenarios, specifically considering TPO1, regarding contributing to Scottish Government's net zero targets, and the STAG Environment and Climate Change criteria. The negative impacts are anticipated to be greater for TPO1 and the STAG Climate Change criterion under the 'Without Policy' scenario (moderate negative) than the 'With Policy' scenario (minor negative).

4.3.61 The bypass would remove strategic through trips from the current network, reducing delay experienced by motorists as well as increasing resilience and reducing the accident risk with lower traffic volumes in the urban area. This option is therefore anticipated to have minor positive impacts on the TPOs in relation to providing a safe, reliable and resilient transport system (TPO5) as well as contributing to sustainable inclusive growth (TPO4) and the STAG Economy criterion.

4.3.62 The impact of construction could negatively impact the water environment, biodiversity, agriculture and soils, cultural heritage, landscape and visual amenity, with an overall moderate negative impact expected for the STAG Environment criterion in both the 'With Policy' and 'Without Policy' scenarios. Considering the potential for the bypass to induce travel demand, combined with emissions arising during the construction period and the limited opportunities to increase active travel within the town, a complete bypass of Inverurie is expected to have a moderate negative impact on TPO1 and the STAG Climate Change criterion under the 'Without Policy' scenario. The option would have a minor negative impact under the 'With Policy' scenario.

4.3.63 The location of the section to be bypassed means there are limited opportunities to improve active travel. Whilst a reduction in traffic along this section could reduce both real and perceived severance, this is unlikely to result in a significant benefit to the community to the west, whose sole crossing point of the A96 is likely to remain the grade separated active travel route to the north of Blackhall Roundabout. Depending on the route the bypass could take and the location of any intermediate junctions, it could reduce traffic flows through Inverurie. A bypass may therefore act as a key enabler for sustainable transport and placemaking within Inverurie whilst contributing to safety improvements. This option is therefore anticipated to score neutral against TPO3 associated with enhancing communities as places to support health, wellbeing and the environment, and the STAG criteria for Health, Safety and Wellbeing and Equality and Accessibility.

4.3.64 Delivery is considered to be feasible, however a detailed assessment would require to be undertaken to fully establish the details of the bypass including the optimal corridor and junction strategy. Although a bypass of Inverurie is considered to be affordable at this stage, capital costs are also highly dependent on the potential length and route a bypass may take. A reasonable level of support for the option from

the public is anticipated due to the potential safety improvements and reliability benefits for through traffic.

4.3.65 The bypass as a standalone intervention performs negatively against TPO1 and the STAG Environment and Climate Change criteria. Although it may act as an enabler for a degree of sustainable transport and placemaking improvements to be delivered within Inverurie, the scale of any benefits would be directly linked to the potential route of a bypass and the location of junctions to connect to the existing road network.

4.3.66 It was recommended that this option be taken forward to the Detailed Appraisal stage.

Forres Bypass

4.3.67 This option makes a positive contribution to selected TPOs, STAG criteria and SIA criteria. Reducing the volumes of traffic within Forres through the provision of a bypass is anticipated to reduce the conflict between local and long-distance traffic on the urban section of the A96, potentially reducing the number and severity of accidents which occur at junctions along this route. As such, the option is anticipated to have a moderate positive impact to TPO5 for providing a safe, reliable and resilient transport system and the STAG Health, Safety and Wellbeing criterion.

4.3.68 Generally, the provision of a bypass would be expected to better connect residents to key amenities and employment opportunities through the removal of through traffic, with potential to improve the sense of place and opportunities to travel by active modes. However, as the A96 does not pass directly through the town the degree of severance and the associated impact on community cohesion is likely to be relatively minor. Notwithstanding this, by reducing volumes of traffic on the existing A96 a bypass would likely offer some severance relief for residents accessing the train station, which is situated north of the A96. The reduced conflict between vehicular traffic and those walking, wheeling, or cycling would have a positive contribution to TPO3 regarding enhancing communities as places to support health, wellbeing and the environment, and the STAG criterion for Equality and Accessibility.

4.3.69 However, it is expected that there would be negative impacts as a result from this option, specifically considering the STAG Environment and Climate Change criteria. In the 'Without Policy' scenario, the option is also expected to have a minor negative impact against TPO1 regarding contributing to Scottish Government's net zero targets. There is the potential for increases in congestion in the 'Without Policy' scenario within Forres itself, with the bypass then relieving at least some of this congestion and inducing further road-based travel, thus increasing vehicle kilometres travelled. The negative impacts on Climate Change are also expected to be greater in the 'Without Policy' scenario (moderate negative) than the 'With Policy' scenario (minor negative). Although the Forres bypass could remove some noise and emissions-related pollution from the town, the physical impact of construction could negatively impact the water environment, biodiversity, agriculture and soils, cultural

heritage, landscape and visual amenity. This results in an overall moderate negative impact expected for the STAG Environment criterion in both the 'With Policy' and 'Without Policy' scenarios.

4.3.70 Delivery is considered to be feasible, however a detailed assessment would require to be undertaken to fully establish the details of the bypass including the optimal corridor and junction strategy. Although a bypass of Forres is considered to be affordable at this stage, capital costs are also highly dependent on the potential length and route a bypass may take. It is anticipated that there will be a reasonable level of public acceptability.

4.3.71 The bypass as a standalone intervention performs negatively against the STAG criteria for Environment and Climate Change, and TPO1 in the 'Without Policy' scenario in particular. Although it may act as an enabler for a degree of sustainable transport and placemaking improvements to be delivered within Forres, the scale of any benefits would be directly linked to the potential route of a bypass and the location of junctions to connect to the existing road network.

4.3.72 It was recommended that this option be taken forward to the Detailed Appraisal stage.

Development of the A96 Electric Corridor

4.3.73 This option makes a generally positive contribution to most of the A96 Corridor Review TPOs, STAG criteria and SIA criteria. The delivery of alternative refuelling infrastructure is expected to significantly contribute towards supporting the rapid decarbonisation of the transport sector, improve the provision of these assets across the corridor and be sufficiently flexible to accommodate the varying needs of road users of the A96 and local communities. As such, the option is anticipated to have a major positive impact in relation to TPO1 regarding contributing to Scottish Government's net zero targets. For the STAG Climate Change criterion, a moderate positive impact would be anticipated in the 'Without Policy' scenario, where traffic demand and vehicle kilometres are higher, and a minor positive impact in the 'With Policy' scenario.

4.3.74 The A96 corridor supports a significant volume of trips with there being a notable proportion of goods vehicles associated with key economic sectors in the corridor which alongside the local communities presents a potential base for long-term usage of the option. There is strong emerging growth in the production and distribution of alternative fuels, particularly in relation to renewable energy and hydrogen with there being a desire for continued expansion and development of these facilities and associated infrastructure. Therefore, it is also anticipated to have a moderate positive impact on TPO4 for contributing to sustainable inclusive growth and the STAG Economy criterion. There would also be a minor positive impact for TPO5 relating to providing a safe, reliable and resilient transport system through the additional infrastructure provided for alternative fuelled vehicles.

4.3.75 The benefits to air quality of alternative fuelled vehicles would be of most benefit to those who are vulnerable to the adverse health effects of traffic-related emissions, including children, disabled people, older people and pregnant women. Therefore, the option is anticipated to result in minor positive impacts in relation to the SIA criteria for Equality and Child Rights and Wellbeing. The option would also build on the STPR2 recommendation 28 (Zero Emission Vehicles and Infrastructure Transition).

4.3.76 It is unclear at this stage what the option would comprise in terms of locations, scale and overall offering as well as whether it is likely to be a range or mix of static, demountable and/or mobile refuelling solutions. However, the option is considered to be feasible from a construction and deliverability perspective with significant experience in delivering elements of alternative refuelling infrastructure facilities within Scotland. Affordability is similarly dependent on the locations and scale of the option but is likely to be of modest capital cost with revenue stream potential to potentially offset initial costs. The current market share of alternative fuelled vehicles is relatively low, but wider public support is anticipated and would further improve the number of these vehicles increases.

4.3.77 It was recommended that this option be taken forward to the Detailed Appraisal stage.

4.4 Outcomes of the Preliminary Established Policy Objectives Assessment

4.4.1 This section summarises the general consistency and performance of the 14 options with the five overarching policy objective themes, as set out in Section 3.6, from the outcomes of the bespoke PAF assessment.

Environment

4.4.2 Under the Environment theme, where an option requires significant new infrastructure or the development of land such as the bypass options and the Linespeed, Passenger and Freight Capacity Improvements on the Aberdeen to Inverness Rail Line, there is a potential inconsistency with policy objectives, with key concerns being the safeguarding of natural environment assets and the blue network/waterbodies. Potential design measures or mitigation could minimise the negative impacts, but this cannot be assessed at this stage. Some of the options, including bypasses, are anticipated to improve local air quality by removing car and commercial vehicle through trips from towns, however their overall impact on air quality is uncertain as they may encourage an increase in vehicle kilometres overall, thus increasing emissions produced.

4.4.3 Where sustainable mode shift is facilitated to public transport or active travel, these options are considered generally consistent with objectives relating to improving air quality and contributing towards the creation and maintenance of high-quality places which are attractive, connected and sustainable. However, given the lack of design detail commensurate with this early stage of option appraisal, it is not appropriate to

make comment on whether construction of any of the options would be inconsistent with objectives related to protecting and enhancing the natural environment and potentially blue networks and waterbodies.

Climate Change

4.4.4 Under the Climate Change theme, the four bypass options along with targeted road safety interventions all have the potential to increase vehicle trips and kilometres travelled, which is inconsistent with key climate change policy objectives to reduce vehicle kilometres by 20% by 2030 and achieve net zero emissions by 2045. Bypasses score better against objectives related to adaptation due to the assumption that new infrastructure would be designed to minimise the predicted effects of climate change.

4.4.5 Options supporting mode shift to more sustainable modes including active travel options, rail options and the A96 Electric Corridor are more generally consistent with the climate change objectives. However, not all options supporting mode shift would help adapt the transport network to the risks associated with climate change. Those options that modify existing or introduce new infrastructure would be designed to withstand the predicted impacts of climate change but may still be vulnerable to extreme weather, as is the case for the existing transport networks. Also, only few options, including the A96 Electric Corridor and potentially Linespeed, Passenger and Freight Capacity Improvements on the Aberdeen to Inverness Rail Line, would directly consider promoting and supporting clean fuels/technologies to decarbonise travel.

Health, Safety and Wellbeing

4.4.6 Under the Health, Safety and Wellbeing appraisal theme most of the options have either a general consistency or neutral relationship with the Health, Safety and Wellbeing objectives. Bypasses would remove through trips from towns, supporting safety objectives. This may encourage healthy travel choices and liveable places if accompanied by other active travel improvements, however as they make driving over longer distances between settlements more attractive, they would not encourage sustainable access to critical services within local communities. Similarly, despite improving road safety on the A96 Trunk Road, Targeted Road Safety Improvements could encourage more people to drive which may provide limited contribution towards improving health outcomes.

4.4.7 Active travel options particularly have a high level of consistency with the Health, Safety and Wellbeing appraisal theme as they support healthy travel choices and the creation of liveable places, whilst also enhancing provision of non-motorised transport and provide sustainable access to critical services.

Economic

4.4.8 Under the Economic theme most of the options are considered to either be consistent or have a neutral relationship with the relevant policy objectives. The majority of

options support the resilience and reliability of the transport network and enhance the competitiveness of business locally and across the wider country, either by providing new or improved connections for freight and commuting traffic by road or rail or encouraging a modal shift to increase travel options. Bypass options could make it more desirable to use local amenities by sustainable modes where traffic is removed from the centre of communities.

4.4.9 However, some options are not considered to be fully consistent with the objective to support and enhance the rural economy. For example, the Linespeed, Passenger and Freight Capacity Improvements on the Aberdeen to Inverness Rail Line may encourage more business and travel in areas where there are already rail stations, most commonly found in the larger towns along the A96 corridor. Also, bypasses could reduce the amount of passing trade in towns by encouraging through trips to divert away from town centres and may lead to the loss of productive agricultural land, both of which may result in some negative impacts on the local economy.

Equality

4.4.10 Options demonstrate varying levels of consistency with the Equality theme. Rail freight options were not considered to contribute towards policy objectives for improving equal transport accessibility for all communities. The development of the A96 Electric Corridor was also considered potentially inconsistent with objectives of supporting affordable access to and from disadvantaged communities and education, health care and employment opportunities as it only benefits those with the ability to afford an alternatively fuelled vehicle. The benefits from Linespeed, Passenger and Freight Capacity Improvements on the Aberdeen to Inverness Rail Line similarly may not contribute as positively to improving equal transport accessibility for all communities as rail travel is less affordable for some users, particularly those from disadvantaged communities.

4.4.11 Options that promote active travel and bus as alternatives to use of a car are consistent with providing sustainable, affordable and fair transport access to a range of services including education, employment and health care facilities. Investment in DRT and MaaS is also generally consistent and would assist in creating connections from more disadvantaged communities.

4.4.12 Bypasses have a more neutral relationship with the Equality appraisal theme. Although these options focus on and provide most benefits to those with access to a car, there is some consistency with the objective to provide fair and equal access to health care services as journey times would potentially be quicker and/or more reliable. It is currently uncertain whether bypasses would support an enhanced bus network as this is dependent on alignment and operator decisions on service routing, but there is the potential for greater consistency with the Equality theme if benefits for buses are delivered.

4.5 Options to Progress to Detailed Appraisal

4.5.1 Based on the assessment of the 14 options at Preliminary Appraisal, the 13 options that were progressed to Detailed Appraisal are:

- Active Communities
- Active Connections
- Bus Priority Measures and Park and Ride
- Improved Public Transport Passenger Interchange Facilities
- Investment in DRT and MaaS
- Introduction of Rail Freight Terminals
- Linespeed, Passenger and Freight Capacity Improvements on the Aberdeen to Inverness Rail Line
- Targeted Road Safety Improvements
- Forres Bypass
- Elgin Bypass
- Keith Bypass
- Inverurie Bypass
- Development of the A96 Electric Corridor.

4.5.2 The single option that was sifted at this stage was Improved Parking Provision at Railway Stations.

4.5.3 As noted in Section 4.2, A96 Full Dualling (from Hardmuir to Craibstone) was progressed to the Detailed Appraisal stage, as it has already been the subject of the appraisal undertaken in 2014 that established the Inverness to Aberdeen Corridor Study A96 Dualling Inverness to Aberdeen Strategic Business Case. The option for A96 Full Dualling has been appraised as part of the Detailed Appraisal to assess its performance against current appraisal criteria including the TPOs developed for the A96 Corridor Review, the current STAG criteria and the relevant SIAs.

5. Approach to Detailed Appraisal

5.1 Overview of Detailed Appraisal

5.1.1 The purpose of this chapter is to outline the approach to Detailed Appraisal for the A96 Corridor Review, including packaging of options along with the tools and techniques employed to support the assessment of options at this stage.

5.1.2 The Detailed Appraisal considered all options that progressed from the Preliminary Appraisal. At this stage, multimodal 'packages' were developed using an 'area-based' approach to group options together to enhance characteristics in locations with a similar nature throughout the A96 corridor. Section 5.2 provides further details of the option packaging process.

5.1.3 As noted previously in Section 4.2 the Scottish Government's current plan is to fully dual the A96 route between Inverness and Aberdeen. As such, alongside the packages that have been developed, the option for A96 Full Dualling has also been assessed as part of the Detailed Appraisal.

5.1.4 The appraisal at this stage has involved complementing and/or in some instances replacing the qualitative appraisal adopted at the Preliminary Appraisal stage, with quantitative appraisal as far as possible. In doing so, it should be recognised that the transport appraisal is at an early stage of development and interventions are defined at a relatively high-level such that detailed quantification of certain impacts is not always possible. Tools used for quantification within the context of the A96 Corridor Review include, but are not limited to, the use of the National Public Transport Accessibility Tool (NaPTAT), the World Health Organisation's Health Equity Assessment Tool (HEAT) and transport and economic modelling through use of TMfS18 and the A96 Corridor Route Assignment Model (A96CRAM).

5.1.5 The Detailed Appraisal stage considers the appraisal of options in more detail against:

- TPOs
- STAG criteria (Environment; Climate Change; Health, Safety and Wellbeing; Economy; and Equality and Accessibility)
- Deliverability criteria (Feasibility, Affordability and Public Acceptability)
- Cost to Government
- Risk and uncertainty.

5.1.6 In parallel to the transport appraisal, a series of SIAs have also been undertaken (see Section 5.7) to further inform the Detailed Appraisal.

5.1.7 The Detailed Appraisal evaluates each package under the future 'With Policy' and 'Without Policy' transport behaviour scenarios as explained in the Preliminary Appraisal methodology (see Section 3.3), with further information on the development of these scenarios contained in Appendix A.

5.1.8 As with the Preliminary Appraisal, the seven-point scoring scale defined in Table 3.1 has been used to assess the performance of each package and the A96 Full Dualling against the TPOs, STAG criteria and SIAs. Established Policy Objectives are again scored through the bespoke PAF developed for the A96 Corridor Review, with further details on this scoring criteria provided in Section 3.6.

5.1.9 The following sections describe the key assessment criteria for Detailed Appraisal, as well as the approach taken in the A96 Corridor Review to provide quantitative data where appropriate, throughout this stage of the appraisal process.

5.2 Option Packaging

5.2.1 From the Preliminary Appraisal, 13 options were progressed to the Detailed Appraisal stage. In recognition that the retained options covered a range of transport modes and therefore would provide a greater net benefit if combined as a package rather than as standalone options, four multimodal packages were originally developed using an 'area-based' approach. These packages were developed to group options that would work in combination to meet the TPOs and thus address the identified problems and opportunities for the corridor. The area-based approach was adopted to develop multimodal packages to suit the varying needs of local communities and businesses along the transport corridor, and ensured no areas were unduly prioritised over others.

5.2.2 As the appraisal progressed, a fifth package was developed and added to the appraisal process. This package comprises all of the options that progressed from the Preliminary Appraisal to create an 'all in' package across the corridor.

5.2.3 The Detailed Appraisal at this stage appraised these five packages rather than individual options. The five packages that were appraised at this stage are:

- **Package 1** – relating to those towns along the A96 that contain an option to bypass as brought forward from the Preliminary Appraisal, specifically Forres, Elgin, Keith and Inverurie. This also includes Nairn as it is to be bypassed as part of the separate A96 Dualling Inverness to Nairn (including Nairn Bypass) scheme that has ministerial consent. In addition, this package focuses on delivering networks of high-quality active travel routes and placemaking improvements within the bypassed settlements. Public transport interventions are also included, targeted at delivering faster and more reliable journey times as well as improving the overall passenger experience. As part of the public transport interventions, the rail network would see linespeed, passenger and freight capacity improvements delivered for the Aberdeen and Inverness rail line. This package also includes the provision of alternative refuelling infrastructure and facilities throughout the A96 corridor, seeking to encourage a shift from internal combustion engine (ICE) vehicles.
- **Package 2** – relating to other settlements along the A96 where a bypass is not considered, namely Lhanbryde, Mosstodloch, Fochabers, Huntly, Kintore and Blackburn. This package focuses on delivering networks of high-quality active

travel routes and placemaking improvements and public transport interventions, targeted at delivering faster and more reliable journey times. As part of the public transport interventions, the rail network would see linespeed, passenger and freight capacity improvements delivered for the Aberdeen and Inverness rail line. This package also includes the provision of alternative refuelling infrastructure and facilities throughout the A96 corridor, seeking to encourage a shift from ICE vehicles. Targeted road safety improvements, to address both real and perceived safety concerns on the A96 Trunk Road are also included.

- **Package 3** – relating to more rural sections between settlements. This package seeks to address both real and perceived safety concerns on the A96 Trunk Road through targeted road safety improvements, while delivering public transport interventions, targeted at faster and more reliable journey times. As part of the public transport interventions, the rail network would see linespeed, passenger and freight capacity improvements delivered for the Aberdeen and Inverness rail line. This package also aims to deliver networks of high-quality active travel routes between settlements along the A96 corridor. This package also includes the provision of alternative refuelling infrastructure and facilities throughout the A96 corridor, seeking to encourage a shift from ICE vehicles.
- **Package 4** – relating to longer distance components that may not be fully captured in the above three packages, including end-to-end movements. This package would provide high-quality active travel routes linking settlements along the A96 corridor while delivering public transport interventions targeted at delivering faster and more reliable journey times. As part of the public transport interventions, the rail network would see linespeed, passenger and freight capacity improvements delivered for the Aberdeen and Inverness rail line. This package also includes the provision of alternative refuelling infrastructure and facilities throughout the A96 corridor, seeking to encourage a shift from ICE vehicles. The package would also deliver targeted safety improvements aiming to address both real and perceived safety concerns on the A96 Trunk Road.
- **Package 5** – comprising all options brought forward from the Preliminary Appraisal. The multimodal package would provide bypasses of Forres, Elgin, Keith and Inverurie, with targeted road safety improvements delivered elsewhere along the A96 Trunk Road. The package would deliver networks of high-quality active travel routes within and between settlements along the A96 corridor. Public transport improvements would be included to enhance the accessibility and quality of interchange facilities and bus priority measures to provide quicker and more reliable journeys, along with linespeed, passenger and freight capacity improvements for the Aberdeen to Inverness rail line. This package also includes the provision of alternative refuelling infrastructure and facilities throughout the A96 corridor and investment in a DRT and MaaS pilot study.

5.2.4 Although each package was appraised individually, where appropriate and relevant, a number of individual options are included in more than one package. The options included within each package are shown in Table 5.1.

5.2.5 For the Detailed Appraisal the majority of options were considered as 'corridor-wide'. As four of the packages would cover different settlements, for appraisal purposes the Active Communities option would apply to the following locations:

- In Package 1 Active Communities are only considered within the bypassed communities of Forres, Elgin, Keith, Inverurie and Nairn [bypassed as part of the separate A96 Dualling Inverness to Nairn (including Nairn Bypass) scheme that has ministerial consent].
- In Package 2 Active Communities are only considered within the settlements and along the A96 Trunk Road sections related to Package 2, specifically Lhanbryde, Mosstodloch, Fochabers, Huntly, Kintore and Blackburn.
- In Packages 4 and 5 Active Communities are considered in the settlements of Nairn [bypassed as part of the separate A96 Dualling Inverness to Nairn (including Nairn Bypass) scheme that has ministerial consent], Forres, Elgin, Lhanbryde, Mosstodloch, Fochabers, Keith, Huntly, Inverurie, Kintore and Blackburn.

Table 5.1: Option Packaging Summary

	Package 1	Package 2	Package 3	Package 4	Package 5
Active Communities	✓	✓		✓	✓
Active Connections			✓	✓	✓
Bus Priority Measures	✓	✓	✓		✓
Improved Public Transport Passenger Interchange Facilities	✓	✓		✓	✓
Investment in DRT and MaaS	✓	✓	✓		✓
Introduction of Rail Freight Terminals				✓	✓
Linespeed, Passenger and Freight Capacity Improvements on the Aberdeen to Inverness Rail Line	✓	✓	✓	✓	✓
Targeted Road Safety Improvements		✓	✓	✓	✓
Forres Bypass	✓				✓
Elgin Bypass	✓				✓
Keith Bypass	✓				✓
Inverurie Bypass	✓				✓
A96 Electric Corridor	✓	✓	✓	✓	✓

5.3 Transport Planning Objectives

5.3.1 Each package, as well as the option for A96 Full Dualling (Hardmuir to Craibstone), was assessed against the A96 Corridor Review TPOs using the seven-point scoring scale outlined above in Table 3.1. For the Detailed Appraisal, and to provide quantitative outputs to inform the scoring, the performance of the packages was measured using the appropriate tools to demonstrate how well they are likely to meet the A96 Corridor Review TPOs. The tools used included outputs from NaPTAT, HEAT,

TMfS18 and the A96 Corridor Route Assignment Model (A96CRAM), along with Transport User Benefit Analysis (TUBA).

5.4 Scottish Transport Appraisal Guidance Criteria

Environment

5.4.1 The Environment assessment considered the performance of the packages using both quantitative and qualitative inputs relevant to the respective sub-criteria shown in Table 5.2.

Table 5.2: STAG Environment Sub-criteria at Detailed Appraisal

Environment Topics	Approach to Detailed Appraisal
Noise and vibration	Qualitative assessment considering potential increases or decreases in noise levels arising from the delivery of each package. Quantification of noise impacts has not been feasible at this stage due to the lack of detailed design work undertaken for measures to determine the effect on specific sensitive receptors.
Physical fitness	A high-level qualitative assessment of the impact of the delivery of each package on physical fitness through estimating the changes in the levels of walking and cycling.
Biodiversity and habitats	Qualitative appraisal of biodiversity, by identifying the presence of designated sites in the study area – Special Areas of Conservation (SAC), Special Protection Areas (SPA), National Nature Reserves (NNR) and Sites of Special Scientific Interest (SSSI) – and identifying the potential for significant effects on these sites or the species they support.
Water quality, drainage and flood defence	A qualitative assessment of the sensitivity of the water environment within the study area.
Geology	Identification of sites of particular geological importance (designated sites) or significant mineral reserves and a qualitative assessment of the degree to how each package may affect such sites.
Agricultural soils	Identification of the relevant grades of agricultural land in the study area with a qualitative assessment of the likely scale of land take.

Environment Topics	Approach to Detailed Appraisal
Local air quality – particulates ($PM_{2.5}$) and nitrogen oxides (NO_x)	Estimation of the total emissions likely to be generated in the study area on a zonal basis, related to the magnitude of changes in emissions and where these changes occur. Changes in speed by mode by model zone/study area (as defined in the transport model). Changes in vehicle kilometres travelled.
Global air quality – carbon dioxide (CO_2)	Identification of roads that would trigger the traffic change criteria within DMRB LA 105 (https://www.standardsforhighways.co.uk/tses/attachments/10191621-07df-44a3-892e-c1d5c7a28d90?inline=true), referred to as the affected road network.
Landscape	A qualitative assessment of both the landscape character and quality, noting any specific designations.
Visual amenity	A subjective, qualitative assessment, drawing upon desk studies and map exercises to identify key receptors and their views, which could potentially be affected by each package, and the sensitivity of receptors.
Cultural heritage	Identification of the relevant heritage designations in the study area and a qualitative assessment of the likely impact of each package on the importance and integrity of cultural heritage resources and their setting.

5.4.2 Although the appraisal against selected environment sub-criteria is by its nature qualitative, and where a quantitative assessment is not possible or feasible, the assessment is more detailed at the Detailed Appraisal Stage and considers the impact of the packages.

Climate Change

5.4.3 In line with the approach taken during the Preliminary Appraisal, the assessment has considered the performance of the packages against the three Climate Change sub-criteria: GHG Emissions, Vulnerability to the Effects of Climate Change and Potential to Adapt to the Effects of Climate Change.

5.4.4 A quantitative approach has been adopted for the assessment of GHG emissions to provide the anticipated change through construction and in operation over a 60-year appraisal period. The calculation of monetised benefits of the potential change in CO_2 emissions for each package was also considered.

Health, Safety and Wellbeing

5.4.5 At the Detailed Appraisal stage, the packages have been assessed against the five Health, Safety and Wellbeing related sub-criteria as defined in Table 5.3.

Table 5.3: STAG Health, Safety and Wellbeing Sub-criteria at Detailed Appraisal

Health, Safety and Wellbeing Sub-criteria	Description of Assessment at Detailed Appraisal Stage
Accidents	Consideration was given to whether each package would have any measurable impact on the number of transport related accidents and/or the severity of transport related accidents. Where measurable changes to accident numbers and/or severity have been identified, well established methodologies are adopted to quantify the road traffic accidents. A Cost and Benefit to Accidents – Light Touch (COBALT) based approach has been adopted, using the change in vehicle kilometres travelled, extracted from the transport models (post-adjustment to capture the overall modal changes). COBALT is a software package developed to forecast the monetised benefits associated with changes in the number and severity of accidents as a result of introducing a transport scheme. COBALT was used to determine any accident benefits that are anticipated from road improvements over a 60-year appraisal period.
Security	The impacts of each package on the security of those walking, wheeling and cycling, as well as public transport and car users has been considered. Also, the impact of each package on particularly vulnerable sections of the community such as children, the elderly or women travelling alone has been taken into account. The adopted approach to assess security is largely qualitative. For this sub-criterion, the Preliminary Appraisal outcomes have been revisited, with further consideration given at this stage to the effect of each package on actual and perceived health risks associated with travel. This additional consideration is in response to heightened public concern and awareness of aspects such as hygiene, air circulation and ability to socially distance.
Health Outcomes	To capture some of the benefits specific to active travel schemes, HEAT was used to quantify health benefits from increased use of walking and cycling over a 20-year appraisal period.

Health, Safety and Wellbeing Sub-criteria	Description of Assessment at Detailed Appraisal Stage
Access to Health and Wellbeing Infrastructure	NaPTAT was used to set out the relative changes in highway and public transport accessibility and connectivity to health centres, places of exercise (gyms, pools, etc), parks and community centres.
Visual Amenity	For this sub-criterion, the Preliminary Appraisal outcomes have been revisited. At Detailed Appraisal, the impact of each package on visual amenity is still qualitative in the absence of any robust and feasible tool to quantify results.

5.4.6 The Department for Transport (DfT) Transport Analysis Guidance (TAG) Unit A1.1 Cost-Benefit Analysis (https://www.gov.uk/government/publications/webtag-tag-unit-a1-1-cost-benefit-analysis-may-2018) has been used to establish appropriate appraisal periods. In general, the well-established appraisal period of 60 years is suitable for the majority of transport infrastructure schemes. This has therefore been used in the A96 Corridor Review for the majority of transport modelling and economic outputs, including for accident analysis and the calculation of GHG emissions. However, it is noted that a shorter appraisal period is more appropriate for projects that involve assets that may have a more limited lifespan, for example active travel interventions. The DfT Active Mode Appraisal Toolkit User Guide (https://assets.publishing.service.gov.uk/media/631744188fa8f50220e60d1a/active-model-appraisal-toolkit-user-guidance.pdf) indicates that most appraisals of cycling and walking infrastructure schemes should assume an appraisal period of 20 years. As such, when using HEAT to quantify the health benefits associated with active travel interventions, a 20-year appraisal period has been adopted for use in the A96 Corridor Review.

Economy

5.4.7 As in the Preliminary Appraisal, the Economy criterion comprises two sub-criteria of TEE and WEIs.

5.4.8 TEE benefits have been assessed using the DfT TUBA software. As STAG treats the monetised benefits from a reduction in accidents separately to the economic analysis, a separate analysis of changes in accidents has been undertaken using the transport model outputs as well as COBALT.

5.4.9 WEIs were monetised using data describing demand for transport and the cost of travel from the TMfS and A96CRAM, with socio-economic data drawn from the national land use model TELMoS18. WEIs outputs were also mapped using GIS software to better understand effects across the study area.

5.4.10 Further monetised benefits have been identified from HEAT which evaluates health benefits as a result of increases in active travel, i.e. walking and cycling. To quantify Driver Frustration benefits, a microsimulation traffic model of the A96 has been developed with benefits determined from factors including time spent travelling behind a platoon (i.e. a cluster of vehicles travelling in close proximity to one another, often due to a slower moving vehicle at the head of the platoon), the difference between the desired and actual speed, the length of the platoon and its composition in terms of cars and LGVs and the opportunity to overtake.

Equality and Accessibility

5.4.11 As per the Preliminary Appraisal, the Equality and Accessibility criterion comprises five sub-criteria; Public Transport Network Coverage, Active Travel Network Coverage, Comparative Access by People Group, Comparative Access by Geographic Location and Affordability.

5.4.12 For the Detailed Appraisal, the NaPTAT tool was used to inform the public transport network coverage aspect of Community Accessibility. The tool also considers distributional impacts, such as SIMD and car availability. NaPTAT presents results in the context of these identified datasets by the proportion of the resident population to reflect different demographic groups in terms of accessibility to key destinations (such as employment and healthcare) as well as average journey times.

5.4.13 Where active travel measures are sufficiently defined and location-specific, accessibility to local services by walking and cycling were also assessed using NaPTAT.

5.4.14 Additional consideration was given to the impacts of transport changes on particular societal groups through the work undertaken in progressing the EqIA, and this was used to inform the transport appraisal.

5.5 Established Policy Objectives

5.5.1 The bespoke PAF assessment developed for the A96 Corridor Review was used to assess the packages at Detailed Appraisal. The assessment has taken account of the packaging of options and considers their overall likely effect against policy objectives.

5.5.2 As with the PAF assessment undertaken at the Preliminary Appraisal stage, it should be noted that at this early stage of development options are defined at a relatively high level (i.e. with limited detail on location, engineering design or environmental mitigation), the scoring reflects the information that is available. The scoring does not therefore reflect the potential for design development and mitigation to enable policy consistency, as this is as yet unknown.

5.5.3 The A96 Full Dualling follows the same methodology applied to the packages and has been assessed against the same objectives.

5.5.4 More information on the development of the A96 Corridor Review bespoke PAF and its use in the appraisal can be found in Section 3.6.

5.6 Deliverability Criteria

5.6.1 The qualitative assessment regarding the deliverability criteria (Feasibility, Affordability and Public Acceptability) undertaken at Preliminary Appraisal has been revisited at the Detailed Appraisal stage. The section takes cognisance of any additional detail available and the overall impact of combining the individual options together to form the packages.

5.6.2 At the Detailed Appraisal stage this has included reference to the feasibility of constructing multiple options together, the updated costs for each package and the associated risks with uncertainties. Public acceptability again makes reference to supporting evidence from the findings of the public consultation survey and stakeholder engagement, as presented in the A96 Corridor Review Stakeholder & Public Engagement Consultation Report (https://www.transport.gov.scot/publication/stakeholder-public-engagement-consultation-report-december-2022-a96-corridor-review/).

5.7 Statutory Impact Assessments

5.7.1 A review of the qualitative assessment and scoring for the SIAs has been undertaken and updated to reflect the impact of the packages. As the development of the separate SIAs has progressed additional detail has been included at Detailed Appraisal stage, along with updates to reflect the effects of the packages and the inter-relationships of individual options within them. Where possible, quantified outputs have also been produced to further develop the evidence base behind the scoring of these assessments.

5.8 Cost to Government

5.8.1 The Detailed Appraisal has identified the estimated capital cost range of each package, and A96 Full Dualling, and takes into account optimism bias. Monetised and non-monetised benefits of the packages and the A96 Full Dualling option are also presented as part of the Detailed Appraisal.

5.9 Risk and Uncertainty

5.9.1 As stated in the HM Treasury Green Book, in appraisals there is a demonstrated, systematic, tendency for project appraisers to be overly optimistic (known as optimism bias). To redress this tendency appraisers should make explicit, empirically based adjustments to the estimates of a project's costs. As a result, it is important to identify and mitigate risks, making allowances for optimism bias.

5.9.2 For the purposes of the A96 Corridor Review, the 'With Policy' and 'Without Policy' transport behaviour scenarios developed as part of the scenario planning undertaken

for STPR2 were used in the Detailed Appraisal of each package. These demand scenarios were developed to consider the risk associated with future uncertainties and enable the appraisal of the packages to be undertaken using a range of transport demand levels.

5.10 Reporting

5.10.1 ASTs have been produced for each package considered as part of the Detailed Appraisal stage, as well as for the A96 Full Dualling option. Full ASTs are provided in Appendix D with a summary of the outcomes provided in Chapter 6.

5.10.2 The ASTs record how each package and the A96 Full Dualling option perform under the 'With Policy' and 'Without Policy' scenarios against the relevant TPOs, STAG criteria and SIAs, along with a consideration of the Deliverability criteria.

6. Detailed Appraisal Outcomes

6.1 Introduction to Detailed Appraisal

6.1.1 This chapter summarises the outcomes of the Detailed Appraisal for the A96 Corridor Review, including the likely positive and negative impacts of each package. As noted previously the A96 Full Dualling has also been assessed in the Detailed Appraisal to determine its positive and negative impacts.

6.1.2 The A96 Full Dualling has been appraised to assess its performance against current appraisal criteria including the TPOs developed for the A96 Corridor Review, the current STAG criteria and the relevant SIAs.

6.1.3 The packages that contain bus priority measures do not, however, consider the provision of new park and ride facilities for onward travel by bus as they are only likely to be a viable option for capturing trips travelling to the larger cities of Aberdeen and Inverness where congestion is highest. Park and ride was examined for Elgin, but the population size and hence potential demand was not considered of sufficient 'critical mass' to make park and ride viable. In addition, there is restricted opportunity for any accompanying priority measures to be implemented on the A96 within Elgin.

6.2 Outcomes of Detailed Appraisal

6.2.1 Table 6.1 summarises the key appraisal outcomes from the assessment of the A96 Full Dualling and the five packages against the appraisal criteria considered at Detailed Appraisal, that being TPOs (see Section 2.4 for a full description of the TPOs and sub-objectives), STAG criteria and SIAs.

6.2.2 The relevant scoring of the performance of the A96 Full Dualling and the five packages against the TPOs, STAG Criteria and SIAs are presented in Table 6.2.

6.2.3 For reference, the packages referred to in Table 6.1 and Table 6.2 include the following options within each package:

- Package 1 contains the following interventions:
  - Active Communities (in Nairn, Forres, Elgin, Keith and Inverurie)
  - Bus Priority Measures
  - Improved Public Transport Passenger Interchange Facilities
  - Investment in DRT and MaaS
  - Linespeed, Passenger and Freight Capacity Improvements on the Aberdeen to Inverness Rail Line
  - Elgin Bypass
  - Keith Bypass
  - Inverurie Bypass

  - Forres Bypass
  - A96 Electric Corridor.
- Package 2 contains the following interventions:
  - Active Communities (in Lhanbryde, Mosstodloch, Fochabers, Huntly, Kintore and Blackburn)
  - Bus Priority Measures
  - Improved Public Transport Passenger Interchange Facilities
  - Investment in DRT and MaaS
  - Linespeed, Passenger and Freight Capacity Improvements on the Aberdeen to Inverness Rail Line
  - Targeted Road Safety Improvements
  - A96 Electric Corridor.
- Package 3 contains the following interventions:
  - Active Connections
  - Bus Priority Measures
  - Investment in DRT and MaaS
  - Linespeed, Passenger and Freight Capacity Improvements on the Aberdeen to Inverness Rail Line
  - Targeted Road Safety Improvements
  - A96 Electric Corridor.
- Package 4 contains the following interventions:
  - Active Communities (in Nairn, Forres, Elgin, Lhanbryde, Mosstodloch, Fochabers, Keith, Huntly, Inverurie, Kintore and Blackburn)
  - Active Connections
  - Improved Public Transport Passenger Interchange Facilities
  - Introduction of Rail Freight Terminals
  - Linespeed, Passenger and Freight Capacity Improvements on the Aberdeen to Inverness Rail Line
  - Targeted Road Safety Improvements
  - A96 Electric Corridor.
- Package 5 contains the following interventions:
  - Active Communities (in Nairn, Forres, Elgin, Lhanbryde, Mosstodloch, Fochabers, Keith, Huntly, Inverurie, Kintore and Blackburn)
  - Active Connections
  - Bus Priority Measures

- Improved Public Transport Passenger Interchange Facilities;
- Investment in DRT and MaaS
- Introduction of Rail Freight Terminals
- Linespeed, Passenger and Freight Capacity Improvements on the Aberdeen to Inverness Rail Line
- Targeted Road Safety Improvements
- Elgin Bypass
- Keith Bypass
- Inverurie Bypass
- Forres Bypass
- A96 Electric Corridor.

Table 6.1: Key Summary Points of Detailed Appraisal

Appraisal Criteria	Full Dualling	Package 1	Package 2	Package 3	Package 4	Package 5
TPO1 – A sustainable strategic transport corridor that contributes to the Scottish Government's net zero emissions target	• Reduction in time lost due to congestion for general traffic of approximately 2% in the 'With Policy' scenario and 3% in the 'Without Policy' scenario. • Increase in vehicle kilometres of approximately 8% in the 'With Policy' scenario and 10% in the 'Without Policy' scenario. • Modelling suggests that dualling could reduce traffic volumes on the current A96 in 2045 compared to a 'without package' scenario of approximately 55%-75% in Forres, 70%-80% in Keith, 45%-90% in Inverurie, and approximately 45%-60% in Elgin, with the range reflective of direction and the difference between the 'With Policy' and 'Without Policy' scenario. • Road user GHG emissions anticipated to increase by approximately 150,000 tCO2e in the 'With Policy' scenario and 1,450,000 tCO2e in the 'Without Policy' scenario. • Less traffic in settlements results in an approximate one percentage point increase (where percentage point is the	• Reduction in time lost due to congestion for general traffic of approximately 4% in the 'With Policy' scenario and 2% in the 'Without Policy' scenario. • Very minor increase in vehicle kilometres of less than 1% in the 'With Policy' scenario and approximately 1% in 'Without Policy' scenario. • Modelling suggests a potential reduction in traffic volumes estimated on the current A96 in 2045 compared to a 'without package' scenario of approximately 35%-85% in Inverurie, 65%-85% in Keith, 60% in Forres, and 25%-35% in Elgin, with the range reflective of direction and the difference between the 'With Policy' and 'Without Policy' scenario. • Road user GHG emissions anticipated to increase by approximately 4,000 tCO2e in the 'With Policy' scenario and 110,000 tCO2e in the 'Without Policy' scenario. • Removal of through trips in settlements results in an approximate six percentage point increase in walking and 11-12 percentage point increase	• Reduction in time lost due to congestion for general traffic of less than 1% in both the 'With Policy' scenario and 'Without Policy' scenario. • Very minor reduction in vehicle kilometres of less than 1% in both the 'With Policy' and 'Without Policy' scenarios. • No significant reductions in traffic volumes in communities along the A96 corridor. • Road user GHG emissions anticipated to decrease by approximately 1,200 tCO2e in the 'With Policy' scenario and 12,200 tCO2e in the 'Without Policy' scenario. • The package results in an approximate 1-7 percentage point increase in walking and 11-12 percentage point increase in cycling in other settlements across Moray and Aberdeenshire through infrastructure improvements and delivery within settlements. • Potential for mode shift to public transport through improvement to bus, rail and interchanges. • Development of A96 Electric Corridor assists the	• Reduction in time lost due to congestion for general traffic of less than 1% in both the 'With Policy' scenario and 'Without Policy' scenario. • Very minor reduction in vehicle kilometres of less than 1% in both the 'With Policy' and 'Without Policy' scenarios. • No significant reductions in traffic volumes in communities along the A96 corridor. • Road user GHG emissions anticipated to decrease by approximately 1,300 tCO2e in the 'With Policy' scenario and 10,800 tCO2e in the 'Without Policy' scenario. • The package results in an approximate 1 percentage point increase in walking and 1-4 percentage point increase in cycling across rural Moray and Aberdeenshire through infrastructure improvements and delivery between settlements. • Potential for mode shift to public transport through improvement to bus, rail and interchanges. • Development of A96 Electric Corridor assists the transition to cleaner	• Reduction in time lost due to congestion for general traffic of less than 1% in both the 'With Policy' scenario and 'Without Policy' scenario. • Very minor reduction in vehicle kilometres of less than 1% in both the 'With Policy' and 'Without Policy' scenarios. • No significant reductions in traffic volumes in communities along the A96 corridor. • Road user GHG emissions anticipated to decrease by approximately 2,100 tCO2e in the 'With Policy' scenario and 14,100 tCO2e in the 'Without Policy' scenario. • The package, including a long-distance active travel connection and improvements within key settlements, results in an approximate 1-7 percentage point increase in walking and 1-12 percentage point increase in cycling in settlements and rural areas across Moray and Aberdeenshire. • Potential for mode shift to public transport through improvement to bus, rail and interchanges. • Freight terminals also assist in delivering a mode	• Reduction in time lost due to congestion for general traffic of approximately 2% in the 'With Policy' scenario and 1% in the 'Without Policy' scenario. • Very minor increase in vehicle kilometres of less than 1% in the 'With Policy' scenario and approximately 1% in 'Without Policy' scenario. • Modelling suggests a potential reduction in traffic volumes estimated on the current A96 in 2045 compared to a 'without package' scenario, of approximately 35%-85% in Inverurie, 65%-85% in Keith, 50%-60% in Forres, and 25%-35% in Elgin, with the range reflective of direction and the difference between the 'With Policy' and 'Without Policy' scenario. • Road user GHG emissions anticipated to increase by approximately 3,200 tCO2e in the 'With Policy' scenario and 101,400 tCO2e in the 'Without Policy' scenario. • The package, including bypasses removing through trips from settlements and longer distance active travel connection and

Appraisal Criteria	Full Dualling	Package 1	Package 2	Package 3	Package 4	Package 5
	difference being two calculated percentages rather than the percentage difference between two absolute values) in walking and 1-4 percentage point increase in cycling across Moray and Aberdeenshire. **'With Policy' Scenario: Minor Negative** **'Without Policy' Scenario: Moderate Negative**	in cycling in bypassed settlements. • Development of A96 Electric Corridor assists the transition to cleaner vehicles to reduce tailpipe emissions. **'With Policy' Scenario: Moderate Positive** **'Without Policy' Scenario: Moderate Positive**	transition to cleaner vehicles to reduce tailpipe emissions. **'With Policy' Scenario: Minor Positive** **'Without Policy' Scenario: Minor Positive**	vehicles to reduce tailpipe emissions. **'With Policy' Scenario: Minor Positive** **'Without Policy' Scenario: Minor Positive**	shift for movement of goods from road to rail. • Development of A96 Electric Corridor assists the transition to cleaner vehicles to reduce tailpipe emissions. **'With Policy' Scenario: Moderate Positive** **'Without Policy' Scenario: Moderate Positive**	improvements within key settlements, results in an approximate 1-7 percentage point increase in walking and 1-12 percentage point increase in cycling in settlements along the A96 Trunk Road and rural areas across Moray and Aberdeenshire. • Potential for mode shift to public transport through improvement to bus, rail and interchanges. • Freight terminals also assist in delivering a mode shift for movement of goods from road to rail. • Development of A96 Electric Corridor assists the transition to cleaner vehicles to reduce tailpipe emissions. **'With Policy' Scenario: Moderate Positive** **'Without Policy' Scenario: Moderate Positive**
TPO2 – An inclusive strategic transport corridor that improves the accessibility of public transport in rural areas for access to healthcare,	• May improve journey times of public transport due to congestion reduction in towns. • Not likely to have a direct impact on the provision, frequency, and integration of public transport in rural areas. • Additional capacity could encourage more car trips	• NaPTAT modelling indicates a 3.3 percentage point increase in accessibility levels to emergency department hospitals within 30 mins by public transport. • NaPTAT suggests that many of the benefits from the package are attributed to rail improvements. This is more prominent in	• NaPTAT modelling indicates a 2.7 percentage point increase in accessibility levels to emergency department hospitals within 30 mins by public transport. • NaPTAT suggests that many of the benefits from the package are attributed to rail improvements. This is more prominent in	• NaPTAT modelling indicates a 1.5 percentage point increase in accessibility levels to higher education within 60 mins by public transport. • NaPTAT suggests that many of the benefits from the package are attributed to rail improvements. This is more prominent in settlements with access to	• NaPTAT modelling indicates a 1.4 percentage point increase in accessibility levels to higher education within 60 mins by public transport. • NaPTAT suggests that many of the benefits from the package are attributed to rail improvements. This is more prominent in settlements with access to	• NaPTAT modelling indicates a 3.3 percentage point increase in accessibility levels to emergency department hospitals within 30 mins by public transport. • NaPTAT suggests that many of the benefits from the package are attributed to rail improvements. This is more prominent in

Appraisal Criteria	Full Dualling	Package 1	Package 2	Package 3	Package 4	Package 5
employment and education	rather than public transport use. **'With Policy' Scenario: No Benefit or Impact** **'Without Policy' Scenario: No Benefit or Impact**	settlements with access to a rail station and particularly in rural settlements such as Insch and Huntly, observing a travel time reduction of up to five and seven minutes, respectively, to Aberdeen. • The package would enable 9,600 additional people to access Aberdeen from Elgin within two hours by public transport, with most of the benefits attributed to the rail improvements in isolation, contributing around 40-50%. • DRT and MaaS can benefit many in areas and settlements where public transport services are often infrequent or not currently provided. • Active travel improvements in bypassed towns can improve accessibility to key transport interchanges such as bus and rail stations. **'With Policy' Scenario: Moderate Positive** **'Without Policy' Scenario: Moderate Positive**	settlements with access to a rail station and particularly in rural settlements such as Insch and Huntly, observing a travel time reduction of up to five and seven minutes, respectively, to Aberdeen. • The package enables 9,600 additional people to access Aberdeen from Elgin within two hours by public transport, with most of the benefits attributed to the rail improvements in isolation contributing around 40-50%. • DRT and MaaS solutions would increase accessibility to employment, education, healthcare and leisure activities, particularly for those with reduced mobility or additional mobility needs. • Active travel improvements in settlements can enhance connections to public transport options. **'With Policy' Scenario: Minor Positive** **'Without Policy' Scenario: Minor Positive**	a rail station and particularly in rural settlements such as Insch and Huntly, observing a travel time reduction of up to five and seven minutes, respectively, to Aberdeen. • The absence of Improved Public Transport Passenger Interchange Improvements is anticipated to result in fewer journey time reductions within settlements along the corridor compared to other packages. • DRT and MaaS solutions would increase accessibility to employment, education, healthcare and leisure activities, particularly for those with reduced mobility or additional mobility needs. **'With Policy' Scenario: Minor Positive** **'Without Policy' Scenario: Minor Positive**	a rail station and particularly in rural settlements such as Insch and Huntly, observing a travel time reduction of up to five and seven minutes, respectively, to Aberdeen. • The package enables 9,600 additional people to access Aberdeen from Elgin within two hours by public transport, with most of the benefits attributed to the rail improvements. • The absence of bus priority measures is anticipated to result in fewer journey time reductions in settlements with access to bus provision, such as Inverurie. • Active travel improvements in and between settlements can enhance connections to public transport options. **'With Policy' Scenario: Minor Positive** **'Without Policy' Scenario: Minor Positive**	settlements with access to a rail station and particularly in rural settlements such as Insch and Huntly, observing a travel time reduction of up to five and seven minutes, respectively, to Aberdeen. • The package enables 9,600 additional people to access Aberdeen from Elgin within two hours by public transport, with most of the benefits attributed to the rail improvements in isolation, contributing around 40-50%. • DRT and MaaS can benefit many in areas and settlements where public transport services are often infrequent or not currently provided. • Active travel improvements in bypassed towns and connections between settlements can improve accessibility to key transport interchanges such as bus and rail stations. **'With Policy' Scenario: Moderate Positive** **'Without Policy' Scenario: Moderate Positive**
TPO3 – A coherent strategic transport	• Route alignment would result in provision of bypasses that would reduce traffic in settlements.	• Bypasses would reduce traffic in settlements. • Bypasses of Forres, Elgin, Keith and Inverurie would reduce traffic in 2045 on	• The package results in an approximate 1-7 percentage point increase in walking and 11-12 percentage point increase	• The package results in an approximate 1 percentage point increase in walking and 1-4 percentage point increase in cycling across	• The package, including a long-distance active travel connection and improvements within key settlements, results in an	• Bypasses would reduce traffic in settlements. • Bypasses of Forres, Elgin, Keith and Inverurie would reduce traffic in 2045 on

Appraisal Criteria	Full Dualling	Package 1	Package 2	Package 3	Package 4	Package 5
corridor that enhances communities as places, supporting health, wellbeing and the environment	• As a result of the dualling route bypassing Forres, Elgin, Keith and Inverurie, traffic would be reduced in 2045 on the current A96 by between 45%-90% in comparison to a 'without package' scenario, depending on location, direction and whether it is subject to the 'With Policy' or 'Without Policy' scenario. • Minimal traffic impacts anticipated on the local road network in Forres and Inverurie as the A96 does not pass through the centre of the towns. • Less traffic in settlements results in an approximate 1 percentage point increase in walking and 1-4 percentage point increase in cycling across Moray and Aberdeenshire. • Increased active travel estimated to reduce premature deaths by 0.06 a year, an economic benefit of £1m-£2m over a 20-year appraisal period. • The overall scale of the required infrastructure and the necessary land take outwith the extents of the existing A96 carriageway boundaries has the potential to have significant adverse effects	the current A96 by between 25%-85% compared to a 'without package' scenario, depending on location, direction and whether it is subject to the 'With Policy' or 'Without Policy' scenario. • Minimal traffic impacts anticipated on the local road network in Forres and Inverurie as the A96 does not pass through the centre of the towns. • Removal of through trips in settlements results in an approximate 6 percentage point increase in walking and 11-12 percentage point increase in cycling in bypassed settlements. • Increased levels of active travel are estimated to reduce premature deaths by 2.13 a year, an economic benefit of £50-£60m over a 20-year appraisal period. **'With Policy' Scenario: Moderate Positive** **'Without Policy' Scenario: Moderate Positive**	in cycling in other settlements across Moray and Aberdeenshire through infrastructure improvements and delivery within settlements. • Increased levels of active travel are estimated to reduce premature deaths by 0.60 a year, an economic benefit of £10m-£15m over a 20-year appraisal period. • Active travel and public transport improvements, especially improved rail linespeed and capacity, alongside DRT and MaaS can improve access to health and wellbeing facilities. **'With Policy' Scenario: Minor Positive** **'Without Policy' Scenario: Minor Positive**	rural Moray and Aberdeenshire through infrastructure improvements and delivery between settlements. • Increased levels of active travel are estimated to reduce premature deaths by 0.06 a year, an economic benefit of £1m-£2m over a 20-year appraisal period. • Improving public transport connectivity, supported by DRT and MaaS, could reduce social isolation, enhancing locations as attractive places to live and improving the wellbeing of those living in these locations with better access to healthcare. **'With Policy' Scenario: Minor Positive** **'Without Policy' Scenario: Minor Positive**	approximate 1-7 percentage point increase in walking and 1-12 percentage point increase in cycling in settlements and rural areas across Moray and Aberdeenshire. • Increased levels of active travel are estimated to reduce premature deaths by 1.31 a year, an economic benefit of £30m-£40m over a 20-year appraisal period. • Active travel infrastructure is anticipated to reduce severance within communities, create a better sense of place through increased levels of activity, and improve the feeling of connectivity between settlements along the A96 corridor. **'With Policy' Scenario: Moderate Positive** **'Without Policy' Scenario: Moderate Positive**	the current A96 by between 25%-85% compared to a 'without package' scenario, depending on location, direction and whether it is subject to the 'With Policy' or 'Without Policy' scenario. • Minimal traffic impacts anticipated on the local road network in Forres and Inverurie as the A96 does not pass through the centre of the towns. • The package, including bypasses removing through trips from settlements and a long-distance active travel connection and improvements within key settlements, results in an approximate 1-7 percentage point increase in walking and 1-12 percentage point increase in cycling in settlements along the A96 Trunk Road and rural areas across Moray and Aberdeenshire. • Increased levels of active travel are estimated to reduce premature deaths by 2.79 a year, an economic benefit of £60m-£70m over a 20-year appraisal period. • Improving public transport connectivity, supported by DRT and MaaS, could reduce social isolation,

Appraisal Criteria	Full Dualling	Package 1	Package 2	Package 3	Package 4	Package 5
	on the natural environment. **'With Policy' Scenario: Minor Negative** **'Without Policy' Scenario: Minor Negative**					enhancing locations as attractive places to live and improving the wellbeing of those living in these locations with better access to healthcare. • Active travel infrastructure is anticipated to reduce severance within communities, create a better sense of place through increased levels of activity, and improve the feeling of connectivity between settlements along the A96 corridor. **'With Policy' Scenario: Moderate Positive** **'Without Policy' Scenario: Moderate Positive**
TPO4 – An integrated strategic transport system that contributes towards sustainable inclusive growth throughout the corridor and beyond	• Reduction in time lost due to congestion for business vehicles of approximately 3% in both the 'With Policy' and 'Without Policy' scenarios, and for general traffic of approximately 2% in the 'With Policy' scenario and 3% in the 'Without Policy' scenario. • Reduction in delay to business vehicles by approximately 3% and 4% in the 'With Policy' and 'Without Policy' scenarios respectively, and for general traffic of approximately 4% and 5% respectively.	• Reduction in time lost due to congestion for business vehicles of approximately 3% in the 'With Policy' scenario and 2% in the 'Without Policy' scenario, and for general traffic of approximately 4% in the 'With Policy' scenario and 2% in the 'Without Policy' scenario. • Reduction in delay to business vehicles of approximately 3% and 2% in the 'With Policy' and 'Without Policy' scenarios respectively, and for general traffic of	• Reduction in time lost due to congestion for business vehicles of less than 1% in both the 'With Policy' and 'Without Policy' scenarios, and for general traffic of less than 1% in both 'With Policy' and 'Without Policy' scenarios as well. • Reduction in delay to business vehicles of less than 1% in both the 'With Policy' and 'Without Policy' scenarios, and for general traffic by less than 1% in both the 'With Policy' and 'Without Policy' scenarios as well.	• Reduction in time lost due to congestion for business vehicles of less than 1% in both the 'With Policy' and 'Without Policy' scenarios, and for general traffic of less than 1% in both 'With Policy' and 'Without Policy' scenarios as well. • Reduction in delay to business vehicles of less than 1% in both the 'With Policy' and 'Without Policy' scenarios, and for general traffic by less than 1% in both the 'With Policy' and 'Without Policy' scenarios as well.	• Reduction in time lost due to congestion for business vehicles of less than 1% in both the 'With Policy' and 'Without Policy' scenarios, and for general traffic of less than 1% in both 'With Policy' and 'Without Policy' scenarios as well. • Reduction in delay to business vehicles of less than 1% in both the 'With Policy' and 'Without Policy' scenarios, and for general traffic by less than 1% in both the 'With Policy' and 'Without Policy' scenarios as well.	• Reduction in time lost due to congestion for business vehicles of approximately 3% in the 'With Policy' scenario and 1% in the 'Without Policy' scenario, and for general traffic of approximately 2% in the 'With Policy' scenario and 1% in the 'Without Policy' scenario. • Reduction in delay to business vehicles of approximately 3% and 1% in the 'With Policy' and 'Without Policy' scenarios respectively, and for general traffic of approximately 2% for both

Appraisal Criteria	Full Dualling	Package 1	Package 2	Package 3	Package 4	Package 5
	• Improved reliability for freight with fewer accidents anticipated and greater capacity to manage incidents. **'With Policy' Scenario: Minor Positive** **'Without Policy' Scenario: Minor Positive**	approximately 4% and 2% respectively. • Bypasses are likely to improve journey time reliability and facilitate the reallocation of road space, prioritising active modes to promote sustainable access to labour markets in bypassed towns. • NaPTAT modelling indicates that access to employment opportunities would improve in Aberdeenshire. This includes from Inverurie where on average, just under 10% more existing jobs located in Aberdeen City would be accessible by public transport within 60 minutes. • Increased rail capacity improves the reliability of freight movements and would encourage a mode shift from road to rail. **'With Policy' Scenario: Minor Positive** **'Without Policy' Scenario: Minor Positive**	• NaPTAT modelling indicates that access to employment opportunities would improve in Aberdeenshire. This includes from Inverurie where on average, just under 10% more existing jobs located in Aberdeen City would be accessible by public transport within 60 minutes, and in more rural settlements such as Insch where on average an additional 8% of existing jobs located in Aberdeen City could be reached by public transport within 60 minutes. • Increased rail capacity improves the reliability of freight movements and would encourage a mode shift from road to rail. **'With Policy' Scenario: Minor Positive** **'Without Policy' Scenario: Minor Positive**	• NaPTAT modelling indicates that access to employment opportunities would improve in Aberdeenshire. This includes from rural settlements such as Insch where on average an additional 8% of existing jobs located in Aberdeen City are able to be accessed by public transport within 60 minutes. • Increased rail capacity improves the reliability of freight movements and would encourage a mode shift from road to rail. **'With Policy' Scenario: Minor Positive** **'Without Policy' Scenario: Minor Positive**	• NaPTAT modelling indicates that access to employment opportunities would improve in Aberdeenshire. This includes from Inverurie where on average an additional 4% of existing jobs located in Aberdeen City are able to be accessed by public transport within 60 minutes, and in rural settlements such as Insch where on average an additional 8% of existing jobs located in Aberdeen City could be reached. • Increased rail capacity and the creation of freight terminals improves the reliability of freight movements and would encourage a mode shift from road to rail. **'With Policy' Scenario: Minor Positive** **'Without Policy' Scenario: Minor Positive**	the 'With Policy' and 'Without Policy' scenarios. • Bypasses are likely to improve journey time reliability and facilitate the reallocation of road space, prioritising active modes that can connect to the longer distance active travel connections, to promote sustainable access to labour markets in bypassed towns. • NaPTAT modelling indicates that access to employment opportunities would improve in Aberdeenshire. This includes from Inverurie where on average, just under 10% more existing jobs located in Aberdeen City would be accessible by public transport within 60 minutes. • Increased rail capacity and the creation of freight terminals improves the reliability of freight movements and would encourage a mode shift from road to rail. **'With Policy' Scenario: Moderate Positive** **'Without Policy' Scenario: Moderate Positive**
TP05 – A reliable and resilient	• Accident rates on dual carriageway are typically lower than single carriageway and there is	• The provision of bypasses could reduce the accident rate for sections of the existing A96 which route	• Targeted Road Safety Improvements would help reduce the accident rates and severities on the A96.	• Targeted Road Safety Improvements would help reduce the accident rates and severities on the A96.	• Targeted Road Safety Improvements would help reduce the accident rates and severities on the A96.	• The provision of bypasses could reduce the accident rate for sections of the existing A96 which route

Appraisal Criteria	Full Dualling	Package 1	Package 2	Package 3	Package 4	Package 5
strategic transport system that is safe for users	anticipated to be an overall reduction in accidents despite the anticipated rise in overall vehicle kilometres travelled. • Estimated economic benefit of improved safety of £40m-£50m and £70m-£80m in the 'With Policy' and 'Without Policy' scenarios respectively. • Over a 60-year appraisal period, A96 Full Dualling is anticipated to reduce the number of casualties by approximately 970 in the 'With Policy' scenario and nearly 1,680 in the 'Without Policy' scenario over the 'without package' scenario, including approximately 190 KSI casualties in the 'With Policy' Scenario and just over 310 KSIs in the 'Without Policy' Scenario. Similarly, over the same 60-year appraisal period, A96 Full Dualling could save approximately 560 PIAs in the 'With Policy' Scenario and over 1,030 PIAs in the 'Without Policy' Scenario. • The additional carriageway in each direction provides resilience in the case of accidents and maintenance closures to	through towns, with Forres and Keith noted as having higher PIA and KSI rates than the national average for equivalent Trunk A-Roads. • Estimated economic disbenefit for safety of the package of £0.5m-1.0m and £5m-£10m in the 'With Policy' and 'Without Policy' scenarios respectively as the potential increase in vehicle kilometres through the introduction of four bypasses results in a net increase in total accidents. • Over a 60-year appraisal period, the package is anticipated to save approximately 44 PIAs but increase KSIs by 2 in the 'With Policy' Scenario, as well as increasing PIAs by approximately 37 and KSIs by 11 in the 'Without Policy' Scenario. • Bypasses should provide enhanced resilience against road closures, and rail improvements including additional passing loops should improve the reliability of trains. **'With Policy' Scenario: Moderate Positive** **'Without Policy' Scenario: Moderate Positive**	• Estimated economic benefit for safety of £10m-£15m and £15m-£20m in the 'With Policy' and 'Without Policy' scenarios respectively, including the estimated change in vehicle kilometres alongside an assessment of the Targeted Road Safety Improvements throughout the A96 corridor. • Over a 60-year appraisal period, the package is anticipated to save over 350 casualties in the 'With Policy' scenario and almost 500 in the 'Without Policy' scenario over the 'without package' scenario, including more than 50 KSI casualties saved in both scenarios. Similarly, over the same 60-year appraisal period the package could save approximately 250 PIAs in the 'With Policy' Scenario and over 300 PIAs in the 'Without Policy' Scenario. • Reduction in accidents likely to reduce road closures that affects the reliability and resilience of the road network. • Rail improvements including additional passing loops should improve the reliability of trains.	• Estimated economic benefit for safety of £10m-£15m and £15m-£20m in the 'With Policy' and 'Without Policy' scenarios respectively, including the estimated change in vehicle kilometres alongside an assessment of the Targeted Road Safety Improvements throughout the A96 corridor. • Over a 60-year appraisal period, the package is anticipated to save over 350 casualties in the 'With Policy' scenario and almost 500 in the 'Without Policy' scenario over the 'without package' scenario, including approximately 50 and 70 KSI casualties respectively. Similarly, over the same 60-year appraisal period the package could save approximately 250 PIAs in the 'With Policy' Scenario and over 300 PIAs in the 'Without Policy' Scenario. • Reduction in accidents likely to reduce road closures that affects the reliability and resilience of the road network. • Rail improvements including additional passing loops should improve the reliability of trains.	• Estimated economic benefit for safety of £10m-£15m and £15m-£20m in the 'With Policy' and 'Without Policy' scenarios respectively, including the estimated change in vehicle kilometres alongside an assessment of the Targeted Road Safety Improvements throughout the A96 corridor. • Over a 60-year appraisal period, the package is anticipated to save almost 400 casualties in the 'With Policy' scenario and almost 500 in the 'Without Policy' scenario over the 'without package' scenario, including approximately 50 and 70 KSI casualties respectively. Similarly, over the same 60-year appraisal period the package could save approximately 250 PIAs in the 'With Policy' Scenario and over 300 PIAs in the 'Without Policy' Scenario. • Reduction in accidents likely to reduce road closures that affects the reliability and resilience of the road network. • Rail improvements including additional passing loops should improve the reliability of trains.	through towns, with Forres and Keith noted as having higher PIA and KSI rates than the national average for equivalent Trunk A-Roads. • Bypasses should provide enhanced resilience against road closures, and rail improvements including additional passing loops should improve the reliability of trains. • Targeted Road Safety Improvements would help reduce the accident rates and severities on the A96. • Estimated economic benefit for safety of £10m-£15m in both the 'With Policy' and 'Without Policy' scenarios respectively, including the estimated change in vehicle kilometres alongside an assessment of the Targeted Road Safety Improvements throughout the A96 corridor. • Over a 60-year appraisal period, the package is anticipated to save almost 400 casualties in the 'With Policy' scenario and over 350 in the 'Without Policy' scenario over the 'without package' scenario, including nearly 50 KSI casualties saved in both scenarios. Similarly, over

Appraisal Criteria	Full Dualling	Package 1	Package 2	Package 3	Package 4	Package 5
	reduce the need for diversions. **'With Policy' Scenario: Major Positive** **'Without Policy' Scenario: Major Positive**		**'With Policy' Scenario: Moderate Positive** **'Without Policy' Scenario: Moderate Positive**	• Direct active travel routes which offer uninterrupted journeys between settlements, with adequate safe crossing points, could significantly improve safety for all active travel users. **'With Policy' Scenario: Moderate Positive** **'Without Policy' Scenario: Moderate Positive**	• Direct active travel routes which offer uninterrupted journeys between settlements, with adequate safe crossing points, could significantly improve safety for all active travel users. **'With Policy' Scenario: Moderate Positive** **'Without Policy' Scenario: Moderate Positive**	the same 60-year appraisal period the package could save approximately 250 PIAs in both the 'With Policy' and 'Without Policy' scenario. • Reduction in accidents likely to reduce road closures that affects the reliability and resilience of the road network. • Direct active travel routes which offer uninterrupted journeys between settlements, with adequate safe crossing points, could significantly improve safety for all active travel users. **'With Policy' Scenario: Moderate Positive** **'Without Policy' Scenario: Moderate Positive**
STAG – Environment	• Where the dual carriageway creates a bypass, it can reduce noise and air quality impacts in settlements, particularly where the previous A96 runs through the centre of towns such as Elgin and Keith. • Anticipated increase in both the 'With Policy' and 'Without Policy' scenarios for NO_x (94t and 821t respectively) and $PM_{2.5}$ (140t and 159t respectively) over the 60-year appraisal period.	• Bypasses can reduce noise and air quality impacts in settlements, particularly where the current A96 Trunk Road runs through the centre of towns such as Elgin and Keith. • Anticipated increase in both the 'With Policy' and 'Without Policy' scenarios for NO_x (4t and 46t respectively) and $PM_{2.5}$ (4t and 19t respectively) over the 60-year appraisal period. • Modelling suggests a potential reduction in	• Promotion of active travel in settlements and use of alternatively fuelled vehicles have the potential to have positive effects on air quality. • Anticipated reductions in both the 'With Policy' and 'Without Policy' scenarios for NO_x (1t and 8t respectively) and $PM_{2.5}$ (2t and 3t respectively) over the 60-year appraisal period. • Physical works on the road and rail network may negatively impact	• The inclusion of improved public transport infrastructure as well as continuous high-quality active travel connections would help improve air quality. • Anticipated reductions in both the 'With Policy' and 'Without Policy' scenarios for NO_x (1t and 7t respectively) and $PM_{2.5}$ (2t and 2t respectively) over the 60-year appraisal period. • Physical works on the road, active travel and rail	• Promotion of active travel within and between settlements along with the use of alternatively fuelled vehicles have the potential to have positive effects on air quality. • Anticipated reductions in both the 'With Policy' and 'Without Policy' scenarios for NO_x (2t and 12t respectively) and $PM_{2.5}$ (3t and 4t respectively) over the 60-year appraisal period. • Physical works on the road, active travel and rail	• Bypasses can reduce noise and air quality impacts in settlements, particularly where the current A96 Trunk Road runs through the centre of towns such as Elgin and Keith. • Anticipated increases in both the 'With Policy' and 'Without Policy' scenarios for NO_x (2t and 45t respectively) and $PM_{2.5}$ (2t and 17t respectively) over the 60-year appraisal period. • Modelling suggests a potential reduction in

Appraisal Criteria	Full Dualling	Package 1	Package 2	Package 3	Package 4	Package 5
	• Route alignment would result in the provision of bypasses that could reduce noise and air quality impacts in settlements. • Modelling suggests that dualling could reduce traffic volumes on the current A96 in 2045 by between 45%-90% in comparison to a 'without package' scenario, depending on location, direction and whether it is subject to the 'With Policy' or 'Without Policy' scenario. • Potentially significant negative impacts on environmental considerations such as Biodiversity and Habitats, Geology and Soils, Landscape and possibly Historical Environment. • Magnitude of any negative impact dependent on design, alignment and mitigation. **'With Policy' Scenario: Major Negative** **'Without Policy' Scenario: Major Negative**	traffic volumes estimated on the current A96 in 2045 compared to a 'without package' scenario of approximately 35%-85% in Inverurie, 65%-85% in Keith, 60% in Forres, and 25%-35% in Elgin, with the range reflective of direction and the difference between the 'With Policy' and 'Without Policy' scenario. • Physical works on the road and rail network may have significant negative impacts on environmental considerations such as Biodiversity and Habitats, Geology and Soils, Landscape and possibly Historical Environment. • Potential negative impact dependent on design, alignment and mitigation. **'With Policy' Scenario: Moderate Negative** **'Without Policy' Scenario: Moderate Negative**	environmental considerations such as Biodiversity and Habitats, Geology and Soils, Landscape and possibly Historical Environment. **'With Policy' Scenario: Minor Negative** **'Without Policy' Scenario: Minor Negative**	network through more rural sections of the corridor may negatively impact environmental considerations such as Biodiversity and Habitats, Geology and Soils, Landscape and possibly Historical Environment. **'With Policy' Scenario: Minor Negative** **'Without Policy' Scenario: Minor Negative**	network may negatively impact environmental considerations such as Biodiversity and Habitats, Geology and Soils, Landscape and possibly Historical Environment. **'With Policy' Scenario: Minor Negative** **'Without Policy' Scenario: Minor Negative**	traffic volumes estimated on the current A96 in 2045 compared to a 'without package' scenario, of approximately 35%-85% in Inverurie, 65%-85% in Keith, 50%-60% in Forres, and 25%-35% in Elgin, with the range reflective of direction and the difference between the 'With Policy' and 'Without Policy' scenario. • Physical works on the road and rail network may have significant negative impacts on environmental considerations such as Biodiversity and Habitats, Geology and Soils, Landscape and possibly Historical Environment. • Potential negative impact dependent on design, alignment and mitigation. **'With Policy' Scenario: Moderate Negative** **'Without Policy' Scenario: Moderate Negative**
STAG – Climate Change	• Road user GHG emissions anticipated to increase by approximately 150,000 tCO_2e in the 'With Policy' scenario and 1,450,000	• Road user GHG emissions anticipated to increase by approximately 4,000 tCO_2e in the 'With Policy' scenario and 110,000	• Road user GHG emissions anticipated to decrease by approximately 1,200 tCO_2e in the 'With Policy' scenario and 12,200 tCO_2e	• Road user GHG emissions anticipated to decrease by approximately 1,300 tCO_2e in the 'With Policy' scenario and 10,800 tCO_2e	• Road user GHG emissions anticipated to decrease by approximately 2,100 tCO_2e in the 'With Policy' scenario and 14,100 tCO_2e	• Road user GHG emissions anticipated to increase by approximately 3,200 tCO_2e in the 'With Policy' scenario and 100,400

Appraisal Criteria	Full Dualling	Package 1	Package 2	Package 3	Package 4	Package 5
	tCO_2e in the 'Without Policy' scenario. • GHG emissions from construction estimated to contribute in the range of approximately 700,000 tCO_2e to 1,400,000 tCO_2e. • Estimated economic disbenefit for GHGs of £15m-£20m and £100m-£125m in the 'With Policy' and 'Without Policy' scenarios respectively. **'With Policy' Scenario: Minor Negative** **'Without Policy' Scenario: Moderate Negative**	tCO_2e in the 'Without Policy' scenario. • GHG emissions from construction estimated to contribute in the range of approximately 140,000 tCO_2e to just over 280,000 tCO_2e. • Estimated economic disbenefit for GHGs of <£0.5m and £5m-£10m in the 'With Policy' and 'Without Policy' scenarios respectively. **'With Policy' Scenario: Minor Negative** **'Without Policy' Scenario: Minor Negative**	in the 'Without Policy' scenario. • GHG emissions from construction estimated to contribute in the range of approximately 140,000 tCO_2e to just over 280,000 tCO_2e. • Estimated economic benefit for GHGs of <£0.5m and £0.5m-£1m in the 'With Policy' and 'Without Policy' scenarios respectively. **'With Policy' Scenario: Minor Negative** **'Without Policy' Scenario: Minor Negative**	in the 'Without Policy' scenario. • GHG emissions from construction estimated to contribute in the range of approximately 140,000 tCO_2e to just over 280,000 tCO_2e. • Estimated economic benefit for GHGs of <£0.5m and £0.5m-£1m in the 'With Policy' and 'Without Policy' scenarios respectively. **'With Policy' Scenario: Minor Negative** **'Without Policy' Scenario: Minor Negative**	in the 'Without Policy' scenario. • GHG emissions from construction estimated to contribute in the range of approximately 140,000 tCO_2e to just over 280,000 tCO_2e. • Estimated economic benefit for GHGs of <£0.5m and £1m-£5m in the 'With Policy' and 'Without Policy' scenarios respectively. **'With Policy' Scenario: Minor Negative** **'Without Policy' Scenario: Minor Negative**	tCO_2e in the 'Without Policy' scenario. • GHG emissions from construction estimated to contribute in the range of approximately 280,000 tCO_2e to just over 700,000 tCO_2e. • Estimated economic disbenefit for GHGs of <£0.5m and £5m-£10m in the 'With Policy' and 'Without Policy' scenarios respectively. **'With Policy' Scenario: Minor Negative** **'Without Policy' Scenario: Minor Negative**
STAG – Health, Safety and Wellbeing	• Increased active travel estimated to reduce premature deaths by 0.06 a year, an economic benefit of £1m-£2m over a 20-year appraisal period. • Estimated economic benefit of improved safety of £40m-£50m and £70m-£80m in the 'With Policy' and 'Without Policy' scenarios respectively. • Over a 60-year appraisal period, A96 Full Dualling is anticipated to reduce the number of casualties by approximately 970 in the 'With Policy' scenario and nearly 1,680 in the 'Without Policy' scenario over the 'without package' scenario, including	• Increased active travel estimated to reduce premature deaths by 2.13 a year, an economic benefit of £50m-£60m over a 20-year appraisal period. • Estimated economic disbenefit for safety of the package of £0.5m-£1.0m and £5m-£10m in the 'With Policy' and 'Without Policy' scenarios respectively as the potential increase in vehicle kilometres through the introduction of four bypasses results in a net increase in total accidents. • Over a 60-year appraisal period, the package is anticipated to save	• Increased active travel estimated to reduce premature deaths by 0.60 a year, an economic benefit of £10m-£15m over a 20-year appraisal period. • Estimated economic benefit for safety of £10m-£15m and £15m-£20m in the 'With Policy' and 'Without Policy' scenarios respectively, including the estimated change in vehicle kilometres alongside an assessment of the Targeted Road Safety Improvements throughout the A96 corridor. • Over a 60-year appraisal period, A96 Full Dualling	• Increased active travel estimated to reduce premature deaths by 0.06 a year, an economic benefit of £1m-£2m over a 20-year appraisal period. • Estimated economic benefit for safety of £10m-£15m and £15m-£20m in the 'With Policy' and 'Without Policy' scenarios respectively, including the estimated change in vehicle kilometres alongside an assessment of the Targeted Road Safety Improvements throughout the A96 corridor. • Over a 60-year appraisal period, A96 Full Dualling anticipated to save over	• Increased levels of active travel are estimated to reduce premature deaths by 1.31 a year, an economic benefit of £30m-£40m over a 20-year appraisal period. • Estimated economic benefit for safety of £10m-£15m and £15m-£20m in the 'With Policy' and 'Without Policy' scenarios respectively, including the estimated change in vehicle kilometres alongside an assessment of the Targeted Road Safety Improvements throughout the A96 corridor. • Over a 60-year appraisal period, A96 Full Dualling	• Increased levels of active travel are estimated to reduce premature deaths by 2.79 a year, an economic benefit of £60m-£70m over a 20-year appraisal period. • Estimated economic disbenefit for safety of £10m-£15m in both the 'With Policy' and 'Without Policy' scenarios respectively, including the estimated change in vehicle kilometres alongside an assessment of the Targeted Road Safety Improvements throughout the A96 corridor. • Over a 60-year appraisal period, A96 Full Dualling

Appraisal Criteria	Full Dualling	Package 1	Package 2	Package 3	Package 4	Package 5
	approximately 190 KSI casualties in the 'With Policy' Scenario and just over 310 KSIs in the 'Without Policy' Scenario. Similarly, over the same 60-year appraisal period the package could save approximately 560 PIAs in the 'With Policy' Scenario and over 1,030 PIAs in the 'Without Policy' Scenario. • Potential significant negative impacts on visual amenity during construction and in operation. **'With Policy' Scenario: Minor Positive** **'Without Policy' Scenario: Minor Positive**	approximately 44 PIAs but increase KSIs by two in the 'With Policy' Scenario, as well as increasing PIAs by approximately 37 and KSIs by 11 in the 'Without Policy' Scenario. • NaPTAT modelling indicates a 3.3 percentage point increase in accessibility levels to emergency department hospitals within 30 mins by public transport. The improvements are anticipated in Aberdeen City (5,900 people), as a result of interchange interventions which would improve the connection between services, and in Aberdeenshire (6,200 people) and Moray (2,700 people), with a reduction in journey times observed in settlements such as Inverurie, Kintore, and Lossiemouth, which are likely linked to bus related improvements. • Enhanced placemaking bypassed settlements with less severance, along with DRT and MaaS and enhanced public transport interchange facilities all anticipated to benefit personal security. **'With Policy' Scenario: Moderate Positive**	anticipated to save over 350 casualties in the 'With Policy' scenario and almost 500 in the 'Without Policy' scenario over the 'without package' scenario, including more than 50 KSI casualties saved in both scenarios. Similarly, over the same 60-year appraisal period the package could save approximately 250 PIAs in the 'With Policy' Scenario and over 300 PIAs in the 'Without Policy' Scenario. • NaPTAT modelling indicates a 2.7 percentage point increase in accessibility levels to emergency department hospitals within 30 mins by public transport. The improvements are anticipated in Aberdeen City (5,900 people), as a result of interchange interventions which would improve the connection between services, and in Aberdeenshire (3,900 people) and Moray (2,300 people), with a reduction in journey times observed in settlements such as Inverurie, Kintore, and Elgin, which are likely linked to bus related improvements. • Enhanced placemaking with less severance, along with DRT and MaaS and	350 casualties in the 'With Policy' scenario and almost 500 in the 'Without Policy' scenario over the 'without package' scenario, including approximately 50 and 70 KSI casualties respectively. Similarly, over the same 60-year appraisal period the package could save approximately 250 PIAs in the 'With Policy' Scenario and over 300 PIAs in the 'Without Policy' Scenario. • NaPTAT modelling indicates a 1.3 percentage point increase in accessibility levels to emergency department hospitals within 45 mins by public transport. The improvements are anticipated in Aberdeenshire, with a reduction in journey times observed in Inverurie and surrounding settlements such as Oldmeldrum, which are likely linked to bus related improvements as it directly serves the nearest site. • More segregated and traffic-free routes, which include active travel provision across junctions and increase opportunities for safe crossings in rural areas, would address safety concerns and	anticipated to save almost 400 casualties in the 'With Policy' scenario and nearly 500 in the 'Without Policy' scenario over the 'without package' scenario, including approximately 50 and 70 KSI casualties respectively. Similarly, over the same 60-year appraisal period the package could save approximately 250 PIAs in the 'With Policy' Scenario and over 300 PIAs in the 'Without Policy' Scenario. • NaPTAT modelling indicates some journey time reductions by public transport to hospitals, including up to six minutes from Huntly to the nearest emergency department hospital, and up to 14 minutes from parts of Elgin to Raigmore hospital in Inverness. • Providing more segregated and traffic-free routes, which would improve active travel provision across junctions and increase opportunities for safe crossings in rural areas, would address safety concerns and encourage further active travel trips. **'With Policy' Scenario: Moderate Positive**	anticipated to save almost 400 casualties in the 'With Policy' scenario and over 350 in the 'Without Policy' scenario over the 'without package' scenario, including nearly 50 KSI casualties saved in both scenarios. Similarly, over the same 60-year appraisal period the package could save approximately 250 PIAs in both the 'With Policy' and 'Without Policy' scenario. • NaPTAT modelling indicates a 3.3 percentage point increase in accessibility levels to emergency department hospitals within 30 mins by public transport. The improvements are anticipated in Aberdeen City (5,900 people), as a result of interchange interventions which would improve the connection between services, and in Aberdeenshire (6,200 people) and Moray (2,700 people), with a reduction in journey times observed in settlements such as Inverurie, Kintore, and Lossiemouth, which are likely linked to bus related improvements. • Enhanced placemaking, especially in bypassed settlements, with less severance alongside DRT

Appraisal Criteria	Full Dualling	Package 1	Package 2	Package 3	Package 4	Package 5
		'Without Policy' Scenario: Moderate Positive	enhanced public transport interchange facilities all anticipated to benefit personal security. **'With Policy' Scenario: Minor Positive** **'Without Policy' Scenario: Minor Positive**	encourage further active travel trips. **'With Policy' Scenario: Minor Positive** **'Without Policy' Scenario: Minor Positive**	**'Without Policy' Scenario: Moderate Positive**	and MaaS and enhanced public transport interchange facilities all anticipated to benefit personal security. • Providing more segregated and traffic-free routes, which would improve active travel provision across junctions and increase opportunities for safe crossings in rural areas, would address safety concerns and encourage further active travel trips. **'With Policy' Scenario: Moderate Positive** **'Without Policy' Scenario: Moderate Positive**
STAG – Economy	• Reduction in time lost due to congestion for business vehicles of approximately 3% in both the 'With Policy' and 'Without Policy' scenarios. • Reduction in delay to business vehicles of approximately 3% and 4% in the 'With Policy' and 'Without Policy' scenarios respectively. • Improved reliability for freight with fewer accidents anticipated and greater capacity to manage incidents. • Journey time savings accounts of a significant	• Reduction in time lost due to congestion for business vehicles of approximately 3% in the 'With Policy' Scenario and 2% in the 'Without Policy' Scenario. • Reduction in delay to business vehicles of approximately 3% and 2% in the 'With Policy' and 'Without Policy' scenarios respectively. • Approximately half of the TEE benefits can be attributed to the rail linespeed and capacity improvements, with the combination of Elgin and Keith bypasses also	• Reduction in time lost due to congestion for business vehicles of less than 1% in both the 'With Policy' and 'Without Policy' scenarios respectively. • Reduction in delay to business vehicles of less than 1% in both the 'With Policy' and 'Without Policy' scenarios respectively. • A large proportion of the TEE benefits can be attributed to the rail linespeed and capacity improvements. • The core present value of benefits, which included the benefits associated with Transport Economic	• Reduction in time lost due to congestion for business vehicles of less than 1% in both the 'With Policy' and 'Without Policy' scenarios respectively. • Reduction in delay to business vehicles of less than 1% in both the 'With Policy' and 'Without Policy' scenarios respectively. • A large proportion of the TEE benefits can be attributed to the rail linespeed and capacity improvements. • The core present value of benefits, which included the benefits associated with Transport Economic	• Reduction in time lost due to congestion for business vehicles of less than 1% in both the 'With Policy' and 'Without Policy' scenarios respectively. • Reduction in delay to business vehicles of less than 1% in both the 'With Policy' and 'Without Policy' scenarios respectively. • A large proportion of the TEE benefits can be attributed to the rail linespeed and capacity improvements. • The core present value of benefits, which included the benefits associated with Transport Economic	• Reduction in time lost due to congestion for business vehicles of approximately 3% in the 'With Policy' scenario and 1% in the 'Without Policy' scenario. • Reduction in delay to business vehicles of approximately 3% and 1% in the 'With Policy' and 'Without Policy' scenarios respectively. • Approximately half of the TEE benefits can be attributed to the rail linespeed and capacity improvements, with the combination of Elgin and Keith bypasses also

Appraisal Criteria	Full Dualling	Package 1	Package 2	Package 3	Package 4	Package 5
	proportion of the TEE benefits. • The core present value of benefits, which included the benefits associated with Transport Economic Efficiencies (TEE), changes in GHGs and accident analysis, for A96 Full Dualling are forecast to be £300m-£350m in the 'With Policy' scenario and £350m-£400m in the 'Without Policy' scenario. • HEAT analysis suggests the active travel component could deliver an economic benefit of up to £1m-£2m over a 20-year appraisal period. • WEIs for A96 Full Dualling are forecast to provide benefits of £70m-£80m in the 'With Policy' scenario and £120m-£130m in the 'Without Policy' scenario, with the majority of this benefit stemming from business agglomeration. • Driver frustration benefits from provision of consistent overtaking opportunities equate to approximately £200m-£250m under the 'With Policy' scenario and £300m-£350m under the 'Without Policy' scenario. • The monetised benefits achieved are estimated to be significantly lower than	providing significant benefits. • The core present value of benefits, which included the benefits associated with Transport Economic Efficiencies (TEE), changes in GHGs and accident analysis, for Package 1 are forecast to be £70m-£80m in the 'With Policy' scenario and £60m-£70m in the 'Without Policy' scenario. • HEAT analysis suggests Active Communities would deliver an economic benefit of £50m-£60m over a 20-year appraisal period. • WEIs for Package 1 are forecast to provide benefits of £10m-£20m in the 'With Policy' scenario and £20m-£30m in the 'Without Policy' scenario, with the majority of this benefit stemming from business agglomeration. • Driver frustration benefits from provision of overtaking opportunities as part of Targeted Road Safety Improvements equate to approximately £30m-£40m under the 'With Policy' scenario and £40m-£50m under the 'Without Policy' scenario. • Rail linespeed and capacity improvements anticipated to reduce non-	Efficiencies (TEE), changes in GHGs and accident analysis, for Package 2 are forecast to be £60m-£70m in both the 'With Policy' and 'Without Policy' scenarios. • HEAT analysis suggests Active Communities would deliver an economic benefit of £10m-£15m over a 20-year appraisal period. • Minor freight benefits anticipated due to rail improvements increasing capacity and accident reductions as a result of Targeted Road Safety Improvements. • The monetised benefits achieved are estimated to be lower than the anticipated scheme cost. **'With Policy' Scenario: Minor Positive** **'Without Policy' Scenario: Minor Positive**	Efficiencies (TEE), changes in GHGs and accident analysis, for Package 3 are forecast to be £60m-£70m in both the 'With Policy' and 'Without Policy' scenarios. • HEAT analysis suggests Active Connections would deliver an economic benefit of £1m-£2m over a 20-year appraisal period. • Minor freight benefits anticipated due to rail improvements increasing capacity and accident reductions as a result of Targeted Road Safety Improvements. • The monetised benefits achieved are estimated to be lower than the anticipated scheme cost. **'With Policy' Scenario: Minor Positive** **'Without Policy' Scenario: Minor Positive**	Efficiencies (TEE), changes in GHGs and accident analysis, for Package 4 are forecast to be £60m-£70m in both the 'With Policy' and 'Without Policy' scenarios. • HEAT analysis suggests Active Communities and Active Connections would deliver an economic benefit of £30m-£40m over a 20-year appraisal period. • Freight benefits anticipated due to rail improvements increasing capacity and inclusion of freight yards to facilitate a mode shift from road to rail. • Accident reductions as a result of Targeted Road Safety Improvements on the road network would improve the reliability of freight movements by road. • The monetised benefits achieved are estimated to be lower than the anticipated scheme cost. **'With Policy' Scenario: Minor Positive** **'Without Policy' Scenario: Minor Positive**	providing significant benefits. • The core present value of benefits, which included the benefits associated with Transport Economic Efficiencies (TEE), changes in GHGs and accident analysis, for Package 5 are forecast to be £80m-£90m in both the 'With Policy' and 'Without Policy' scenarios. • HEAT analysis suggests Active Communities would deliver an economic benefit of £60m-£70m over a 20-year appraisal period. • WEIs for Package 5 are forecast to provide benefits of £10m-£20m in the 'With Policy' scenario and £20m-£30m in the 'Without Policy' scenario, with the majority of this benefit stemming from business agglomeration. • Driver frustration benefits from provision of overtaking opportunities as part of Targeted Road Safety Improvements equate to approximately £30m-£40m under the 'With Policy' scenario and £40m-£50m under the 'Without Policy' scenario. • Rail linespeed and capacity improvements anticipated to reduce non-productive time spent

Appraisal Criteria	Full Dualling	Package 1	Package 2	Package 3	Package 4	Package 5
	the anticipated scheme cost. **'With Policy' Scenario: Moderate Positive** **'Without Policy' Scenario: Moderate Positive**	productive time spent travelling, and improve access to cities for opportunities for employment, education and other key services. • Freight benefits anticipated due to rail improvements increasing capacity and bypasses improving journey times and enhancing resilience in the case of road closures. • The monetised benefits achieved are estimated to be lower than the anticipated scheme cost. **'With Policy' Scenario: Moderate Positive** **'Without Policy' Scenario: Moderate Positive**				travelling, and improve access to cities for opportunities for employment, education and other key services. • Freight benefits anticipated due to rail improvements increasing capacity and inclusion of freight yards to facilitate a mode shift from road to rail. • Accident reductions as a result of Targeted Road Safety Improvements on the road network would improve the reliability of freight movements by road. • The monetised benefits achieved are estimated to be considerably lower than the anticipated scheme cost. **'With Policy' Scenario: Moderate Positive** **'Without Policy' Scenario: Moderate Positive**
STAG – Equality and Accessibility	• Could improve bus journey times but unlikely to directly improve accessibility. • Would encourage placemaking in bypassed towns to make active travel more attractive. • Impacts on rural areas in particular are likely to be negligible.	• The package should improve comparative access and transport inclusivity for commonly disadvantaged groups, providing social and community benefits particularly to young people, older people and people with disabilities.	• The package should improve comparative access and transport inclusivity for commonly disadvantaged groups, providing social and community benefits particularly to young people, older people and people with disabilities.	• The package should improve comparative access and transport inclusivity for commonly disadvantaged groups, providing social and community benefits particularly to young people, older people and people with disabilities.	• The package should improve comparative access and transport inclusivity for commonly disadvantaged groups, providing social and community benefits particularly to young people, older people and people with disabilities.	• The package should improve comparative access and transport inclusivity for commonly disadvantaged groups, providing social and community benefits particularly to young people, older people and people with disabilities.

Appraisal Criteria	Full Dualling	Package 1	Package 2	Package 3	Package 4	Package 5
	'With Policy' Scenario: No Benefit or Impact **'Without Policy' Scenario: No Benefit or Impact**	• NaPTAT modelling indicates that this package would improve access to key destinations in the study area such as employment, health and education. • The package would benefit groups of people who may be more reliant on public transport to access health services, including 4,000 people aged 65 and over as well as 3,400 people across all age groups with a long-term health problem or disability, to access the nearest emergency department hospital within approximately 30 minutes by public transport. • The package would enable on average an additional 3,100 existing jobs in Aberdeen City to be reached within 60 minutes using public transport from Aberdeenshire for people aged 16 to 64 and in areas categorised as geographically deprived. • DRT and MaaS can benefit many who cannot access current public transport services, including vulnerable users such as those with mobility impairments. • Improvements to active travel and public transport, particularly bus,	• NaPTAT modelling indicates that this package would improve access to key destinations in the study area such as employment, health and education. • The package would benefit groups of people who may be more reliant on public transport to access health services, including 3,100 people aged 65 and over as well as 2,500 people across all age groups with a long-term health problem or disability, to access the nearest emergency department hospital within approximately 30 minutes by public transport. • The package would enable on average an additional 2,700 existing jobs in Aberdeen City to be reached within 60 minutes using public transport from Aberdeenshire for people aged 16 to 64 and in areas categorised as geographically deprived. • DRT and MaaS can benefit those who cannot access current public transport services, including vulnerable users such as those with mobility impairments. • Improvements to active travel and public transport, particularly bus, reduces	• NaPTAT modelling indicates that this package would improve access to key destinations in the study area such as employment, health and education. • The package would benefit groups of people who may be more reliant on public transport to education, including 750 young people aged 16-24, to access the nearest higher education site within approximately 60 minutes by public transport. • The package would enable on average an additional 1,100 existing jobs in Aberdeen City to be reached within 60 minutes using public transport from Aberdeenshire for people aged 16 to 64 and in areas categorised as geographically deprived. • DRT and MaaS can benefit many who cannot access current public transport services, including vulnerable users such as those with mobility impairments. • Improvements to active travel and public transport, particularly bus, reduces the impact of transport poverty. **'With Policy' Scenario: Minor Positive**	• NaPTAT modelling indicates that this package would improve access to key destinations in the study area such as employment, health and education. • The package would benefit groups of people who may be more reliant on public transport to education, including 700 young people aged 16-24, to access the nearest higher education site within approximately 60 minutes by public transport. • The package would enable on average an additional 1,800 existing jobs in Aberdeen City to be reached within 60 minutes using public transport from Aberdeenshire for people aged 16 to 64 and in areas categorised as geographically deprived. • Improvements to active travel and public transport, particularly bus, reduces the impact of transport poverty. • A mode shift of freight to rail can improve public health by reducing emissions, though some localised traffic increases around the freight yards may be witnessed. **'With Policy' Scenario: Minor Positive**	• NaPTAT modelling indicates that this package would improve access to key destinations in the study area such as employment, health and education. • The package would benefit groups of people who may be more reliant on public transport to access health services, including 4,000 people aged 65 and over as well as 3,400 people across all age groups with a long-term health problem or disability, to access the nearest emergency department hospital within approximately 30 minutes by public transport. • The package would enable on average an additional 3,100 existing jobs in Aberdeen City to be reached within 60 minutes using public transport from Aberdeenshire for people aged 16 to 64 and in areas categorised as geographically deprived. • DRT and MaaS can benefit many who cannot access current public transport services, including vulnerable users such as those with mobility impairments. • Improvements to active travel and public transport, particularly bus,

Appraisal Criteria	Full Dualling	Package 1	Package 2	Package 3	Package 4	Package 5
		reduces the impact of transport poverty. **'With Policy' Scenario: Moderate Positive** **'Without Policy' Scenario: Moderate Positive**	the impact of transport poverty. **'With Policy' Scenario: Minor Positive** **'Without Policy' Scenario: Minor Positive**	**'Without Policy' Scenario: Minor Positive**	**'Without Policy' Scenario: Minor Positive**	reduces the impact of transport poverty. • A mode shift of freight to rail can improve public health by reducing emissions, though some localised traffic increases around the freight yards may be witnessed. **'With Policy' Scenario: Moderate Positive** **'Without Policy' Scenario: Moderate Positive**
SIA – Equality Impact Assessment	• Improved access to employment, educational, health, and open space and leisure facilities for those in protected characteristic groups. • Benefits mainly felt by those who are reliant and have access to private vehicles. • Noise, vibration, air quality and traffic impacts are likely to improve within bypassed towns, but those close to the proposed dualling route would be negatively impacted. **'With Policy' Scenario: Minor Positive** **'Without Policy' Scenario: Minor Positive**	• Safer and affordable access to employment, education, shopping and health facilities through improved active travel and public transport for key communities along the A96. • The package would benefit groups of people who may be more reliant on public transport to access health services, including 4,000 people aged 65 and over as well as 3,400 people across all age groups with a long-term health problem or disability, to access the nearest emergency department hospital within approximately 30 minutes by public transport. • Active travel and public transport improvements benefit those in transport	• Safer and affordable access to employment, education, shopping and health facilities through improved active travel and public transport for key communities along the A96. • The package would benefit groups of people who may be more reliant on public transport to access health services, including 3,100 people aged 65 and over as well as 2,500 people across all age groups with a long-term health problem or disability, to access the nearest emergency department hospital within approximately 30 minutes by public transport. • Active travel and public transport improvements benefit those in transport	• Safer and affordable access to employment, education, shopping and health facilities through improved active travel and public transport for key communities along the A96. • The package would benefit groups of people who may be more reliant on public transport to education, including 750 young people aged 16-24, to access the nearest higher education site within approximately 60 minutes by public transport. • Active travel and public transport improvements benefit those in transport poverty as well as vulnerable users including young people, older people and the mobility impaired.	• Safer and affordable access to employment, education, shopping and health facilities through improved active travel and public transport for key communities along the A96. • The package would benefit groups of people who may be more reliant on public transport to education, including 700 young people aged 16-24, to access the nearest higher education site within approximately 60 minutes by public transport. • Active travel and public transport improvements benefit those in transport poverty as well as vulnerable users including young people, older people and the mobility impaired.	• Safer and affordable access to employment, education, shopping and health facilities through improved active travel and public transport for key communities along the A96. • The package would benefit groups of people who may be more reliant on public transport to access health services, including 4,000 people aged 65 and over as well as 3,400 people across all age groups with a long-term health problem or disability, to access the nearest emergency department hospital within approximately 30 minutes by public transport. • Active travel and public transport improvements benefit those in transport

Appraisal Criteria	Full Dualling	Package 1	Package 2	Package 3	Package 4	Package 5
		poverty as well as vulnerable users including young people, older people and the mobility impaired. • DRT and MaaS can benefit many who cannot access current public transport services, including vulnerable users. • Bypasses can negatively impact noise, vibration, air quality and severance in bypassed towns, though the level of impact would be dependent on route alignment. **'With Policy' Scenario: Moderate Positive** **'Without Policy' Scenario: Moderate Positive**	poverty as well as vulnerable users including young people, older people and the mobility impaired. • DRT and MaaS can benefit many who cannot access current public transport services, including vulnerable users. • 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. **'With Policy' Scenario: Minor Positive** **'Without Policy' Scenario: Minor Positive**	• DRT and MaaS can benefit many who cannot access current public transport services, including vulnerable users. • An uptake in active travel may additionally improve physical health and mental wellbeing outcomes. **'With Policy' Scenario: Minor Positive** **'Without Policy' Scenario: Minor Positive**	• An uptake in active travel, especially over longer distances, may additionally improve physical health and mental wellbeing outcomes. **'With Policy' Scenario: Minor Positive** **'Without Policy' Scenario: Minor Positive**	poverty as well as vulnerable users including young people, older people and the mobility impaired. • DRT and MaaS can benefit many who cannot access current public transport services, including vulnerable users. • Bypasses can positively impact noise, vibration, air quality and severance in bypassed towns, though the level of impact would be dependent on route alignment. • An uptake in active travel, especially over longer distances, may additionally improve physical health and mental wellbeing outcomes. **'With Policy' Scenario: Moderate Positive** **'Without Policy' Scenario: Moderate Positive**
SIA – Child Rights and Wellbeing Impact Assessment	• Dual carriageway could improve access to education for children and young people. • Noise, vibration, air quality and traffic impacts likely to be better in bypassed towns, but negatively impact those close to the proposed dualling route.	• Noise, vibration, air quality and traffic impacts likely to be better in bypassed towns, but negatively impact those close to the proposed new roads. • Public transport improvements can benefit young people both for social and leisure trips as well as access to school and education. Improved	• Public transport improvements can benefit young people both for social and leisure trips as well as access to school and education. Improved journey time accessibility of educational premises would largely be observed in Aberdeenshire, where an additional 900 young people aged 16-24 would	• Public transport improvements can benefit young people both for social and leisure trips as well as access to school and education. Improved journey time accessibility of educational premises would largely be observed in Aberdeenshire, where an additional 750 young people aged 16-24 would	• Public transport improvements can benefit young people both for social and leisure trips as well as access to school and education. Improved journey time accessibility of educational premises would largely be observed in Aberdeenshire, where an additional 700 young people aged 16-24 are	• Noise, vibration, air quality and traffic impacts likely to be better in bypassed towns, but negatively impact those close to the proposed new roads. • Improved health outcomes as a result of better air quality, including in bypassed towns with a reduction in through traffic, are of particular

Appraisal Criteria	Full Dualling	Package 1	Package 2	Package 3	Package 4	Package 5
	'With Policy' Scenario: Minor Positive **'Without Policy' Scenario: Minor Positive**	journey time accessibility of educational premises would largely be observed in Aberdeenshire, where an additional 1,000 young people aged 16-24 would be able to access their nearest higher education site within approximately 60 minutes by public transport. • Potential local air quality benefits in bypassed towns if levels of active travel increase along with a reduction in vehicles and congestion. **'With Policy' Scenario: Moderate Positive** **'Without Policy' Scenario: Moderate Positive**	be able to access their nearest higher education site in approximately 60 minutes using public transport. • DRT and MaaS could help to improve connectivity for children and young people, improving access to key services such as education. • 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 and young people. **'With Policy' Scenario: Minor Positive** **'Without Policy' Scenario: Minor Positive**	be able to access their nearest higher education site in approximately 60 minutes using public transport. • DRT and MaaS could help to improve connectivity for children and young people, improving access to key services such as education. • 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 and young people. **'With Policy' Scenario: Minor Positive** **'Without Policy' Scenario: Minor Positive**	expected to access their nearest higher education site in approximately 60 minutes or less by public transport. • 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 and young people. • Rail freight terminals could lead to decreased local traffic, reducing the air quality and traffic impact on children. **'With Policy' Scenario: Minor Positive** **'Without Policy' Scenario: Minor Positive**	benefit to those who are more vulnerable to air pollution, including children and young people. • Public transport improvements can benefit young people both for social and leisure trips as well as access to school and education. Improved journey time accessibility of educational premises would largely be observed in Aberdeenshire, where an additional 1,000 young people aged 16-24 are expected to access their nearest higher education site in approximately 60 minutes by public transport. • DRT and MaaS could help to improve connectivity for children and young people, improving access to key services such as education. • Rail freight terminals could lead to decreased local traffic, reducing the air quality and traffic impact on children. **'With Policy' Scenario: Moderate Positive** **'Without Policy' Scenario: Moderate Positive**

Appraisal Criteria	Full Dualling	Package 1	Package 2	Package 3	Package 4	Package 5
SIA – Fairer Scotland Duty Assessment	• Increased opportunities for those from socio-economically disadvantaged groups to places of employment and education. • Better journey times and journey time reliability would provide more economical and efficient journeys. **'With Policy' Scenario: Minor Positive** **'Without Policy' Scenario: Minor Positive**	• Reduced traffic within the bypassed towns should create benefits for socio-economically disadvantaged groups by improving the active travel environment for those who are unable to afford a car. • Including active travel interventions could aid the removal of barriers in communities through an improved sense of road safety and security for those walking, wheeling and cycling. • Public transport improvements can greatly reduce social isolation and improve health and wellbeing for those who do not have access to a car. The package would improve the access to employment opportunities enabling on average additional 3,100 existing jobs located in Aberdeen City to be reached within 60 minutes using public transport from geographically deprived areas in Aberdeenshire. • Better journey times and journey time reliability would provide more economical and efficient journeys by road.	• Including active travel interventions alongside targeted safety improvements could aid the removal of barriers in communities through an improved sense of road safety and security for those walking, wheeling and cycling. • Public transport improvements can greatly reduce social isolation and improve health and wellbeing for those who do not have access to a car. The package would enable on average an additional 2,700 existing jobs in Aberdeen City to be reached within 60 minutes using public transport from Aberdeenshire for people aged 16 to 64 and in areas categorised as geographically deprived. • DRT and MaaS could help to improve connectivity for many social groups including young people, older people and the disabled, though could exclude those without access to this technology or a bank account. **'With Policy' Scenario: Minor Positive** **'Without Policy' Scenario: Minor Positive**	• Including active travel interventions alongside targeted safety improvements could aid the removal of barriers in communities through an improved sense of road safety and security for those walking, wheeling and cycling. • Public transport improvements can greatly reduce social isolation and improve health and wellbeing for those who do not have access to a car. The package would improve the access to employment opportunities enabling on average an additional 1,700 existing jobs to be reached within 60 minutes using public transport from Aberdeenshire for people aged 16 to 64 who reside in areas where the gross household income is within the 20% lowest in the study area. • DRT and MaaS could help to improve connectivity for many social groups including young people, older people and the disabled, though could exclude those without access to this technology or a bank account.	• Including active travel interventions alongside targeted safety improvements could aid the removal of barriers in communities through an improved sense of road safety and security for those walking, wheeling and cycling. • Public transport improvements can greatly reduce social isolation and improve health and wellbeing for those who do not have access to a car. The package would improve the access to employment opportunities enabling on average an additional 2,900 existing jobs to be reached within 60 minutes using public transport from Aberdeenshire for people aged 16 to 64 who reside in areas where the gross household income is within the 20% lowest in the study area. • The provision of rail freight terminals is expected to enhance economic growth and private sector investment, thereby creating employment opportunities and potentially reducing socio-economic disadvantage.	• Reduced traffic within the bypassed towns should create benefits for socio-economically disadvantaged groups by improving the active travel environment for those who are unable to afford a car. • Including active travel interventions alongside targeted safety improvements could aid the removal of barriers in communities through an improved sense of road safety and security for those walking, wheeling and cycling. • Public transport improvements can greatly reduce social isolation and improve health and wellbeing for those who do not have access to a car. The package would improve the access to employment opportunities enabling on average additional 3,100 existing jobs located in Aberdeen City to be reached within 60 minutes using public transport from geographically deprived areas in Aberdeenshire. • DRT and MaaS could help to improve connectivity for many social groups including young people, older people and the

Appraisal Criteria	Full Dualling	Package 1	Package 2	Package 3	Package 4	Package 5
		'With Policy' Scenario: Minor Positive **'Without Policy' Scenario: Minor Positive**		**'With Policy' Scenario: Minor Positive** **'Without Policy' Scenario: Minor Positive**	**'With Policy' Scenario: Minor Positive** **'Without Policy' Scenario: Minor Positive**	disabled, though could exclude those without access to this technology or a bank account. • The provision of rail freight terminals is expected to enhance economic growth and private sector investment, thereby creating employment opportunities and potentially reducing socio-economic disadvantage. **'With Policy' Scenario: Minor Positive** **'Without Policy' Scenario: Minor Positive**

Table 6.2: Detailed Appraisal Scoring Summary

Option or Package	TP01	TP02	TP03	TP04	TP05	STAG – Env	STAG – CC	STAG – H, S & W	STAG – Econ	STAG – Eq & A	SIA – EqIA	SIA – CRWIA	SIA – FSDA
A96 Full Dualling under 'With Policy' Scenario	-	0	-	+	+++	- - -	-	+	++	0	+	+	+
A96 Full Dualling under 'Without Policy' Scenario	- -	0	-	+	+++	- - -	- -	+	++	0	+	+	+
Package 1 under 'With Policy' Scenario	++	++	++	+	++	- -	-	++	++	++	++	++	+
Package 1 under 'Without Policy' Scenario	++	++	++	+	++	- -	-	++	++	++	++	++	+
Package 2 under 'With Policy' Scenario	+	+	+	+	++	-	-	+	+	+	+	+	+
Package 2 under 'Without Policy' Scenario	+	+	+	+	++	-	-	+	+	+	+	+	+
Package 3 under 'With Policy' Scenario	+	+	+	+	++	-	-	+	+	+	+	+	+
Package 3 under 'Without Policy' Scenario	+	+	+	+	++	-	-	+	+	+	+	+	+
Package 4 under 'With Policy' Scenario	++	+	++	+	++	-	-	++	+	+	+	+	+
Package 4 under 'Without Policy' Scenario	++	+	++	+	++	-	-	++	+	+	+	+	+
Package 5 under 'With Policy' Scenario	++	++	++	++	++	- -	-	++	++	++	++	++	+
Package 5 under 'Without Policy' Scenario	++	++	++	++	++	- -	-	++	++	++	++	++	+

6.2.4 The following sections briefly summarise the outcomes of the Detailed Appraisal for the A96 Full Dualling and the five packages.

6.2.5 The Detailed Appraisal ASTs are contained in Appendix D.

A96 Full Dualling

6.2.6 This option would provide a continuous dual carriageway standard road between Hardmuir (to the east of Nairn) and Craibstone (to the west of Aberdeen), connecting to the eastern extent of the A96 Dualling Inverness to Nairn (including Nairn Bypass) scheme that already has ministerial consent. This would connect Inverness and Aberdeen by a dual carriageway route along the entirety of the A96.

6.2.7 Full Dualling would be expected to offer safety benefits as accident rates would be lower than on a single carriageway national speed limit road. The delivery of a dual carriageway along with bypasses of major towns including Forres, Elgin, Keith and Inverurie would bring improved journey times, and greater reliability to journey times through improved overtaking opportunities. The additional lane in each direction would also offer increased network resilience in the case of maintenance closures or in response to incidents including accidents and/or vehicle breakdowns that may still occur. Benefits would be expected for private cars as well as commercial vehicle movements including HGVs and longer distance bus journeys that use the A96.

6.2.8 This option would deliver both positive and negative impacts in the context of the assessment against the A96 Corridor Review TPOs, STAG criteria, and SIA criteria. This option would result in minor to major negative impacts in the 'With Policy' and 'Without Policy' scenarios, specifically when considering TPO1 (contributing to the Scottish Government's net zero targets) and TPO3 (enhancing communities as places to support health, wellbeing and the environment) as well as the STAG Environment and Climate Change criteria. The negative impacts are anticipated to be more severe for TPO1 and the STAG Climate Change criteria in the 'Without Policy' Scenario, with its higher levels of motorised traffic demand and emissions, than the 'With Policy' Scenario.

6.2.9 Increasing the capacity and travel speeds over the length of the A96 has the potential to encourage additional road-based traffic, which would in turn increase associated transport emissions. Although the option would be expected to include provision for active travel along its length, the option overall would have a minor to moderate negative impact towards TPO1 for contributing to the Scottish Government's net zero targets and STAG Climate Change criterion. Impacts are anticipated to be worse in the 'Without Policy' Scenario (moderate negative) where vehicle kilometres travelled are not anticipated to reduce in line with current policy objectives.

6.2.10 The construction of a new dual carriageway would also have significant impacts on the STAG Environment criterion. Though some benefits are anticipated as the new route would improve air quality and reduce the levels of noise pollution in towns, it would increase total NOx and $PM_{2.5}$ emissions. It would also negatively affect the

natural environment, including the water environment, biodiversity and habitats, landscape, the historic environment, geology and soils, and agriculture and forestry. This option would therefore have a major negative impact on the STAG Environment criterion in both scenarios. The impacts on the natural environment also contribute to the minor negative impact for TPO3 regarding the enhancement of communities as places to support health, wellbeing and the environment.

6.2.11 This option would provide road users, businesses and communities along the route with a consistent road standard that would provide greater connectivity, improve journey time reliability and expand labour catchments along the corridor. Therefore, it is anticipated to make a minor positive contribution against the TPO4 contributing to sustainable inclusive growth, along with a minor positive impact on the STAG Health, Safety and Wellbeing criterion and a moderate positive impact in relation to the STAG Economy criterion. This option would have a major positive impact to TPO5 as a result of the benefits it would provide in terms of a safe, reliable and resilient transport system arising from the improved road standard and consistent overtaking facilities. The option would also have a minor positive impact to the three SIAs considered.

6.2.12 Delivery is considered to be feasible at this stage with Transport Scotland having extensive experience of delivery and implementation of similar projects across Scotland. A detailed assessment would be required to fully establish the details of the dual carriageway, including the optimal corridor, location of bypasses and the junction strategy. Whilst work has been advanced on sections of this route, further work would be required to progress the development of the full corridor.

6.2.13 The capital cost of A96 Full Dualling is estimated to be between £2,501m and £5,000m. Construction costs can vary significantly and are dependent on a number of other factors, such as the complexity of construction, the requirement for earthworks and structures, localised ground conditions, the purchase of land and various other engineering and environmental constraints. Therefore, at this stage an appropriate level of risk has been included in the overall affordability of the option. Transport Scotland would be the asset owner on completion and is therefore anticipated to take on the costs associated with the operation and maintenance of the dual carriageway.

6.2.14 Overall, there is likely to be general support for A96 Full Dualling. It is likely that the option would receive public support from local communities, with evidence that large sections of the local population are in favour of dualling the A96 Trunk Road. Over half of respondents in the A96 Corridor Review public consultation survey named dualling (either full or partial) as their top priority and suggestion (55% for both), while only approximately 11% noted their opposition to full or partial dualling as one of their three biggest priorities. Notable opposition is likely to come from landowners affected by construction and other stakeholders who have concerns over the potential impacts to the environment and the climate compatibility of full dualling.

Package 1

6.2.15 This package is focused primarily on delivering transport network improvements at key towns along the A96 corridor (Nairn, Forres, Elgin, Keith and Inverurie) combined with corridor-wide interventions that are anticipated to deliver benefits across the wider corridor. It should be noted that the A96 Dualling Inverness to Nairn (including Nairn Bypass) scheme does not form part of the A96 Corridor Review as it has successfully progressed through a Public Local Inquiry and has Ministerial consent. Interventions within Nairn itself, similar to those proposed within the other bypassed towns, have however been included in this package for appraisal.

6.2.16 The options that make up Package 1 are:

- Active Communities (specifically in the towns of Nairn, Forres, Elgin, Keith and Inverurie)
- Bus Priority Measures
- Improved Public Transport Passenger Interchange Facilities
- Investment in DRT and MaaS
- Linespeed, Passenger and Freight Capacity Improvements on the Aberdeen to Inverness Rail Line
- Bypasses of Forres, Elgin, Keith and Inverurie
- A96 Electric Corridor.

6.2.17 The delivery of bypasses at key towns would remove through traffic from town centres, improve safety, reduce the impact of severance caused by the A96 and reduce congestion within communities.

6.2.18 The package would enable the delivery of active travel infrastructure within bypassed settlements, supporting the development of Active Communities. Improved placemaking and better connections to key destinations by active travel links would help to increase travel within towns by active modes.

6.2.19 Public transport improvements, including the reallocation of road space within towns to provide bus priority combined with enhanced interchange facilities and rail improvements to linespeed and capacity, would reduce public transport journey times, improve public transport journey time reliability and help to promote mode shift to more sustainable means of transport. Investment in DRT and MaaS would also help to increase the mode share of public transport and reduce the reliance on private cars for travel. Improvements to public transport are also anticipated to improve accessibility to key destinations and services via bus and rail and reduce the need for car travel.

6.2.20 Improved active and sustainable travel choices would help to encourage mode shift away from private car that would in turn improve safety in terms of reducing the number of road traffic accidents.

6.2.21 As part of this package, the delivery of alternative refuelling stations for EVs and hydrogen vehicles throughout the A96 corridor would contribute to the transition away from petrol and diesel cars to reduce the environmental impact of private travel.

6.2.22 This package would provide a positive contribution to all A96 Corridor Review TPOs. The options within this package would deliver moderate positive impacts on the A96 Corridor Review TPOs in relation to contributing to the Scottish Government's net zero targets (TPO1), improving inclusion through the accessibility of public transport (TPO2), enhancing communities as places to support health, wellbeing and the environment (TPO3) and providing a safe, reliable and resilient transport system (TPO5). The package would have a minor positive impact on TPO4 for contributing to sustainable inclusive growth. Benefits predominantly stem from the bypasses reducing trips in the centre of towns and allowing for increased active travel and multimodal trips in these locations whilst also reducing the risks of road accidents.

6.2.23 The package provides a mixed contribution to the STAG criteria, with negative impacts relating to the Environment and Climate Change criteria. Although it would encourage more sustainable travel choices through enhanced active travel networks within communities, promoting public transport use through bus and rail and facilitating the growth in EVs and hydrogen vehicles, the package would negatively impact on environmental considerations such as biodiversity, landscape and visual amenity and agriculture and soils where infrastructure improvements are introduced. This could include new road infrastructure such as the proposed bypasses, new rail lines and the provision of alternative fuelling stations along the A96 corridor. Overall, this is anticipated to result in a moderate negative impact to the Environment criterion.

6.2.24 The proposed infrastructure including the bypasses of Forres, Elgin, Keith and Inverurie, are considered enablers to maximising sustainable travel within these communities. However, these benefits are likely to be offset somewhat by an anticipated increase in GHG emissions through construction and as a result of more vehicle kilometres travelled by vehicles using the bypasses around towns, contributing to a minor negative impact to the Climate Change criterion.

6.2.25 The package is anticipated to have a moderate positive impact on the STAG criteria for Health, Safety and Wellbeing, Economy and Equality and Accessibility through improved public transport and active travel connections to key services, as well as benefits for the wider economy and longer distance trips.

6.2.26 The package is also expected to positively contribute to the three SIAs, including a moderate positive impact for the EqIA and CRWIA, and a minor positive impact for the FSDA.

6.2.27 As the package would include bypasses of the larger towns along the A96 corridor, the benefits achieved are expected to positively impact the towns where the largest concentration of people reside. There would also be benefits for the wider economy and longer distance trips.

6.2.28 The majority of interventions included within this package are considered to be generally feasible and would likely be delivered by Transport Scotland or Network Rail, who have extensive experience of delivery and implementation across Scotland, with local authorities or Regional Transport Partnerships likely to deliver interventions on the local road network. However, the feasibility of delivery at specific locations considered within this package remains to be tested, and detailed development work and local decision-making is required to identify the most appropriate solutions.

6.2.29 The capital cost of this package is estimated to be between £501m and £1,000m at this stage of the assessment process. Construction costs can vary significantly and are dependent on a number of other factors, such as the complexity of construction, the requirement for earthworks and structures, localised ground conditions, the purchase of land and various other engineering and environmental constraints. The relatively high-level nature of a number of the interventions within the package makes capital costs and the operation and maintenance costs more difficult to estimate. Therefore, at this stage an appropriate level of risk has been included in the overall affordability of the package. Strategic partnerships between relevant parties and asset owners can help spread the burden of costs, particularly for ongoing maintenance and operation.

6.2.30 Overall, public acceptability for this package is anticipated to be mixed, with some groups supporting the package, given the focus on active and sustainable modes of travel, whilst others are likely to oppose this package on, for example, environmental grounds as a result of the environmental impact from bypasses. Any landowners who have land acquired to enable interventions to be developed may not be receptive to the proposals.

Package 2

6.2.31 The specific settlements considered in this package are Lhanbryde, Mosstodloch, Fochabers, Huntly, Kintore and Blackburn. This package focuses on delivering transport network improvements within the vicinity of these towns, aiming to encourage a transfer to sustainable modes and improve road safety.

6.2.32 The options that make up Package 2 are:

- Active Communities (specifically in the towns of Lhanbryde, Mosstodloch, Fochabers, Huntly, Kintore and Blackburn)
- Bus Priority Measures
- Improved Public Transport Passenger Interchange Facilities
- Investment in DRT and MaaS
- Linespeed, Passenger and Freight Capacity Improvements on the Aberdeen to Inverness Rail Line
- Targeted Road Safety Improvements
- A96 Electric Corridor.

6.2.33 The package would enable the delivery of active travel infrastructure within the aforementioned settlements, supporting the development of Active Communities. Improved placemaking and better connections to key destinations by active travel links would help to increase travel within towns by active modes.

6.2.34 Public transport improvements, including the provision of bus priority within these towns combined with enhanced interchange facilities and rail improvements to linespeed and capacity, would reduce public transport journey times, improve public transport journey time reliability and help to promote mode shift to more sustainable means of transport. Investment in DRT and MaaS would also help to increase the mode share of public transport, improving connectivity in areas that can be underserved by the current, fixed route public transport services. Improvements to public transport are also anticipated to improve accessibility to key destinations and services via bus and rail to reduce the need for car travel.

6.2.35 It should be noted that whilst this package is primarily targeted at specific settlements, interventions such as DRT and MaaS and rail linespeed and capacity improvements are anticipated to be delivered corridor-wide. This is expected to result in benefits being realised in other areas within the corridor.

6.2.36 Improved active and sustainable travel choices would help to encourage mode shift away from travel by private car that would in turn improve safety in terms of reducing the number of road traffic accidents. Alongside this, targeted safety improvements would be introduced to reduce the accident risk and safety concerns on the A96.

6.2.37 As part of this package, the delivery of alternative refuelling stations for EVs and hydrogen vehicles throughout the A96 corridor would contribute to the transition away from petrol and diesel cars to reduce the environmental impact of private travel.

6.2.38 This package is anticipated to make a positive impact on all A96 Corridor Review TPOs. The focus on sustainable travel choices for these settlements that tend to be smaller in size and population is expected to deliver minor positive contributions in relation to contributing to the Scottish Government's net zero targets (TPO1), improving inclusion through the accessibility of public transport (TPO2), enhancing communities as places to support health, wellbeing and the environment (TPO3), and contributing to sustainable inclusive growth (TPO4). The inclusion of targeted road safety interventions would provide a moderate positive contribution to TPO5 regarding the provision of a safe, reliable and resilient transport system.

6.2.39 However, the package would have a minor negative impact on the STAG Environment and Climate Change criteria. The package is anticipated to encourage more sustainable travel choices through enhanced active travel networks within communities, promote public transport use through bus and rail, and facilitate the growth in EVs and hydrogen vehicles through increased public charging and refuelling infrastructure. However, new infrastructure associated with road safety improvements, alternative refuelling infrastructure along the A96 corridor and improvements to the Aberdeen to Inverness rail line is expected to negatively impact

environmental considerations including biodiversity and habitats, landscape, historic environment, water drainage and flooding, geology and soils and agriculture and forestry. The package would improve local air quality by providing alternatives to private car, but overall a minor negative impact is expected on the Environment criterion. In terms of Climate Change, the anticipated increase in GHG emissions from construction is expected to outweigh any reduction in road user GHG emissions, with a minor negative impact expected on this criterion.

6.2.40 This package is anticipated to have a minor positive impact on the STAG criteria in relation to Health, Safety and Wellbeing, Economy and Equality and Accessibility by providing improved public transport and active travel connections in settlements to encourage their use over private car. There would also be some benefits for the wider economy. The package is also anticipated to have a minor positive contribution to all three of the SIAs.

6.2.41 As components of the package such as Active Communities are focused on smaller settlements along the A96 corridor with generally lower local populations, the magnitude of benefits is not anticipated to be as significant. Benefits are likely to be felt most by those living and working within the six settlements specifically considered by the package, with some corridor-wide benefits through interventions such as road safety improvements and rail improvements to linespeed and capacity. The overall impact on the problems and opportunities of the A96 corridor is therefore anticipated to be more limited.

6.2.42 The majority of interventions included within this package are considered to be generally feasible at this stage and would likely be delivered by Transport Scotland or Network Rail, who have extensive experience of delivery and implementation across Scotland. Local authorities or Regional Transport Partnerships would likely deliver interventions on the local road network. However, the feasibility of delivery at specific locations considered within this package remains to be tested, and detailed development work and local decision-making is required to identify the most appropriate solutions.

6.2.43 The capital cost of this package is estimated to be between £501m and £1,000m at this stage of the assessment process. Construction costs can vary significantly and are dependent on a number of other factors, such as the complexity of construction, the requirement for earthworks and structures, localised ground conditions, the purchase of land and various other engineering and environmental constraints. The relatively high-level nature of a number of interventions within the package makes capital costs and the operation and maintenance costs more difficult to estimate. Therefore, at this stage an appropriate level of risk has been included in the overall affordability of the package. Strategic partnerships between relevant parties and asset owners can help spread the burden of costs, particularly for ongoing maintenance and operation.

6.2.44 Overall, public acceptability is anticipated to be mixed, with some groups supporting the package and others disagreeing with the focus and scale of interventions included. There are certain user groups who are likely to welcome this package, given

the focus on active and sustainable modes of travel. A focus on smaller communities would likely reflect well locally, though there may be some opposition from other areas in the corridor if the perception is that the package does not appear to offer much benefit. Real and perceived safety concerns are evident along the corridor, and so the inclusion of targeted road safety interventions is anticipated to be largely welcomed. Any landowners who have land acquired to enable interventions to be developed may not be receptive to the proposals.

Package 3

6.2.45 This package is focused on delivering transport network improvements to rural areas along the A96 corridor and across the wider transport appraisal study area, aiming to encourage a transfer to sustainable modes and improve road safety.

6.2.46 The options that make up Package 3 are:

- Active Connections
- Bus Priority Measures
- Investment in DRT and MaaS
- Linespeed, Passenger and Freight Capacity Improvements on the Aberdeen to Inverness Rail Line
- Targeted Road Safety Improvements
- A96 Electric Corridor.

6.2.47 Active Connections would provide long distance networks of high-quality active travel routes between settlements along the A96 corridor and improve crossing facilities for active modes to encourage their use and improve safety of walking, wheeling and cycling in rural areas. This would encourage more active travel trips from rural areas to key services, contributing to a mode shift away from private vehicles. Improved connectivity between key destinations by active travel links largely segregated from the A96 Trunk Road would help to increase travel between towns by active modes.

6.2.48 Public transport improvements, including the provision of bus priority, along with rail improvements to linespeed and capacity, would reduce public transport journey times, improve public transport journey time reliability and help to encourage mode shift to more sustainable means of transport across rural areas. Investment in DRT and MaaS would also help to increase the mode share of public transport, improving connectivity in rural areas which are often underserved by the current, fixed route public transport services. Improvements to public transport are also anticipated to improve accessibility to key destinations and services via bus and rail to reduce the need for car travel.

6.2.49 Improved active and sustainable travel choices would help to encourage mode shift away from travel by private car that would in turn improve safety in terms of reducing

the number of road traffic accidents. Alongside this, targeted safety improvements would be introduced to reduce the accident risk and safety concerns on the A96.

6.2.50 As part of this package, the delivery of alternative refuelling stations for EVs and hydrogen vehicles throughout the A96 corridor would contribute to the transition away from petrol and diesel cars to reduce the environmental impact of private travel. This is particularly relevant to the rural areas throughout the A96 corridor where the reliance on private car travel is high.

6.2.51 This package makes a minor positive contribution to the majority of the A96 Corridor Review TPOs, with a moderate positive contribution to TPO5. The package focuses on delivering improvements to sustainable travel choices to promote mode shift away from cars for those within rural areas where the population is sparser, and existing active travel and public transport connections can be infrequent, unreliable or not a viable option. The package is expected to deliver minor positive contributions in relation to contributing to the Scottish Government's net zero targets (TPO1), improving inclusion through the accessibility of public transport (TPO2), enhancing communities as places to support health, wellbeing and the environment (TPO3), and contributing to sustainable inclusive growth (TPO4). A moderate positive contribution is anticipated in relation to TPO5 for providing a safe, reliable and resilient transport system, predominantly as a result of the targeted road safety improvements and provision of high-quality active travel routes between settlements through Active Connections.

6.2.52 However, the package makes a minor negative impact on the STAG Environment and Climate Change criteria. Although it would encourage more sustainable choices through enhanced active travel networks to connect communities, promoting public transport use through bus and rail improvements, and facilitating growth in EVs and hydrogen vehicles through increased public charging and refuelling infrastructure, the package would negatively impact on environmental considerations such as biodiversity and habitats, landscape, water drainage and flooding and geology and soils where infrastructure improvements are introduced. This could include new road infrastructure through road safety interventions, active travel connections between settlements, improvements to the rail line and the provision of alternative fuelling stations along the A96 corridor. Overall, a minor negative impact is expected on the Environment criterion. In terms of Climate Change, the anticipated increase in GHG emissions from construction is expected to outweigh any reduction in road user GHG emissions with a minor negative impact overall.

6.2.53 There would be minor positive impacts on the STAG Health, Safety and Wellbeing, Economy and Equality and Accessibility criteria through improved public transport and active travel connections in rural areas where current provision is often lacking, encouraging their use instead of private car. There would also be benefits for the wider economy and longer distance trips between communities. The improvement to the rail line and longer distance active travel routes, alongside the development of DRT and MaaS would have a positive impact on accessibility to key services for those

in rural areas where current connections are often under provided. The package is also anticipated to have a minor positive contribution to all three SIAs.

6.2.54 As components of the package are focused on rural areas along the A96 with low local populations, the magnitude of benefits is not anticipated to be as significant. Benefits are likely to be felt most by those living and working within the rural areas considered in the package, with some corridor-wide benefits through interventions such as active connections, road safety improvements and rail improvements to linespeed and capacity. The overall impact on the problems and opportunities of the A96 corridor is therefore anticipated to be more limited.

6.2.55 The majority of interventions included within this package are considered to be readily feasible and would likely be delivered by Transport Scotland or Network Rail, who have extensive experience of delivery and implementation across Scotland. Local authorities or Regional Transport Partnerships would likely deliver interventions on the local road network. However, the feasibility of delivery at specific locations considered within this package remains to be tested, and detailed development work and local decision-making is required to identify the most appropriate solutions.

6.2.56 The capital cost of this package is estimated to be between £501m and £1,000m at this stage of the assessment process. Construction costs can vary significantly and are dependent on a number of other factors, such as the complexity of construction, the requirement for earthworks and structures, localised ground conditions, the purchase of land and various other engineering and environmental constraints. The relatively high-level nature of a number of interventions within the package makes capital costs and the operation and maintenance costs more difficult to estimate. Therefore, at this stage an appropriate level of risk has been included in the overall affordability of the package. Strategic partnerships between relevant parties and asset owners can help spread the burden of costs, particularly for ongoing maintenance and operation.

6.2.57 Overall, public acceptability is anticipated to be mixed, with some groups supporting the package and others disagreeing with the focus and scale of interventions included. Certain user groups would likely welcome this package given the focus on active and sustainable modes of travel. A focus on rural areas and smaller communities would likely reflect well locally, though there may be some opposition from other areas in the corridor if the perception is that the package does not appear to offer much benefit. Real and perceived safety concerns are evident on the corridor, and the inclusion of targeted road safety interventions is anticipated to be largely welcomed. Any landowners who have land acquired to enable interventions to be developed may not be receptive to the proposals.

Package 4

6.2.58 This package of interventions is targeted at longer distance journeys along the corridor that tend to be between settlements or into either Inverness or Aberdeen. The package focuses on delivering transport network improvements along the corridor aiming to encourage a transfer to sustainable modes and improve road

safety. It should be noted that the A96 Dualling Inverness to Nairn (including Nairn Bypass) scheme does not form part of the A96 Corridor Review as it has successfully progressed through a Public Local Inquiry and has ministerial consent. Interventions within Nairn itself, similar to those proposed within the other bypassed towns, however, have been included in this package for appraisal.

6.2.59 The options that make up Package 4 are:

- Active Communities
- Active Connections
- Improved Public Transport Passenger Interchange Facilities
- Introduction of Rail Freight Terminals
- Linespeed, Passenger and Freight Capacity Improvements on the Aberdeen to Inverness Rail Line
- Targeted Road Safety Improvements
- A96 Electric Corridor.

6.2.60 Active Connections would provide longer distance networks of high-quality active travel routes between settlements along the A96 corridor and improve crossing facilities for active modes to encourage their use and improve safety of walking, wheeling and cycling for longer distance trips. These would be connected through settlements via Active Communities to provide access to key services in settlements and facilitate a fully connected active travel network between Inverness and Aberdeen. Improved integration of active travel routes with placemaking and better connections to key destinations by active travel links would help to increase travel within and between towns by active modes.

6.2.61 Improved public transport interchange facilities, coupled with improvements to the rail line to increase capacity and linespeed would reduce public transport journey times, improve public transport journey time reliability and help to promote mode shift to more sustainable means of transport for travel across the A96 corridor and into Inverness and Aberdeen. This would benefit those accessing healthcare facilities, education and employment and expand labour markets.

6.2.62 Rail freight terminals would be introduced to facilitate mode shift away from road-based freight and contribute to reducing the number of HGVs on the A96. This would reduce the environmental impact of freight across the A96 corridor, whilst also delivering safety improvements through reduced vehicle numbers and less driver frustration.

6.2.63 Improved active and sustainable travel choices would help to encourage mode shift away from travel by private car that would in turn improve safety in terms of reducing the number of road traffic accidents. Alongside this, targeted safety improvements would be introduced to reduce the accident risk and safety concerns on the A96.

6.2.64 As part of this package, the delivery of alternative refuelling stations for EVs and hydrogen vehicles throughout the A96 corridor would contribute to the transition away from petrol and diesel cars to reduce the environmental impact of private travel. This is particularly relevant to the rural areas throughout the A96 corridor where the reliance on private car travel is high.

6.2.65 This package makes a moderate positive contribution to three of the A96 Corridor Review TPOs, and a minor positive contribution to the remaining two. The focus on sustainable travel choices for longer distance travel, and the potential for mode shift away from car to public transport and active travel, is expected to deliver moderate positive contributions in relation to providing sustainable transport choices to contribute to the Scottish Government's net zero targets (TPO1), enhancing communities as places to support health, wellbeing and the environment (TPO3) and providing a safe, reliable and resilient transport system (TPO5). The package has a minor positive contribution to improving inclusion through the accessibility of public transport (TPO2) and contributing to sustainable inclusive growth (TPO4).

6.2.66 The package would encourage more sustainable choices to be made by people and businesses along the A96 corridor through the creation of a fully connected long distance active travel network between Aberdeen and Inverness, promoting public transport through rail linespeed and capacity and interchange infrastructure improvements, encouraging a shift to more sustainable rail freight and facilitating the growth in alternatively fuelled vehicles through increased public EV charging and refuelling infrastructure. However, the package is expected to have an overall minor negative impact on the STAG Environment criterion as it would affect environmental considerations such as biodiversity and habitats, landscape, water drainage and flooding, and geology and soils where infrastructure improvements are introduced. This could include new road infrastructure such as safety interventions, improvements to the rail line, the active travel connections through rural areas and urban settlements and the provision of alternative fuelling stations along the A96 corridor. In terms of the Climate Change criterion, the anticipated increase in GHG emissions from construction is expected to outweigh any reduction in road user GHG emissions with a minor negative impact overall.

6.2.67 The package is anticipated to have a moderate positive impact on the STAG criterion for Health, Safety and Wellbeing, through increased levels of active travel improving health outcomes, accident reductions through targeted measures, and improved access to health and wellbeing services in key destinations such as Inverness, Elgin and Aberdeen. The package is also expected to deliver a minor positive impact on the STAG Economy and Equality and Accessibility criteria through improved public transport and active travel connections encouraging their use over private car for longer distance trips and providing increased access to labour markets. There would also be benefits for the wider economy, while freight terminals are anticipated to increase the rail mode share for freight, thus reducing the level of HGVs on the A96. The package is also expected to have a minor positive contribution to the three SIAs.

6.2.68 As the package focuses on longer distance travel, the impacts would predominantly affect those who travel between communities along the A96 corridor, or into Aberdeen and Inverness at either end of the trunk road. Those who travel internally within settlements would see some benefits to local placemaking where active travel routes are introduced or enhanced, as well as connections to local transport hubs and public transport interchanges.

6.2.69 The majority of interventions included within this package are considered to be readily feasible at this stage and would likely be delivered by Transport Scotland or Network Rail, who have extensive experience of delivery and implementation across Scotland. Local authorities or Regional Transport Partnerships would likely deliver interventions on the local road network. However, the feasibility of delivery at specific locations considered within this package remains to be tested, and detailed development work and local decision-making is required to identify the most appropriate solutions.

6.2.70 The capital cost of this package is estimated to be between £501m and £1,000m at this stage of the assessment process. Construction costs can vary significantly and are dependent on a number of other factors, such as the complexity of construction, the requirement for earthworks and structures, localised ground conditions, the purchase of land and various other engineering and environmental constraints. The relatively high-level nature of a number of interventions within the package makes capital costs and the operation and maintenance costs more difficult to estimate. Therefore, at this stage an appropriate level of risk has been included in the overall affordability of the package. Strategic partnerships between relevant parties and asset owners can help spread the burden of costs, particularly for ongoing maintenance and operation.

6.2.71 Overall, public acceptability is anticipated to be mixed, with some groups supporting the package and others disagreeing with the focus and scale of interventions included. Certain user groups are likely to welcome this package given the focus on active and sustainable modes of travel as an alternative to car. This package would see direct benefits for many across the corridor, noting the long travel distances across the region for access to key services in Aberdeen, Elgin and Inverness. Real and perceived safety concerns are also evident on the corridor, and the inclusion of targeted road safety measures is anticipated to be largely welcomed. Any landowners who have land acquired to enable interventions to be developed may not be receptive to the proposals.

Package 5

6.2.72 This package is focused on delivering transport network improvements to settlements and rural sections across the A96 corridor, which would aim to encourage a shift to sustainable modes, increase opportunities for residents and businesses and improve road safety. As part of this package, bypasses would be delivered at key towns (Forres, Elgin, Keith and Inverurie) along with corridor-wide interventions that are anticipated to deliver benefits across the wider corridor. It should be noted that the A96 Dualling Inverness to Nairn (including Nairn Bypass) scheme does not form part of the A96

Corridor Review as it has successfully progressed through a Public Local Inquiry and has ministerial consent. Interventions within Nairn itself, similar to those proposed within the other bypassed towns, however, have been included in this package for appraisal.

6.2.73 The options that make up Package 5 are:

- Active Communities
- Active Connections
- Bus Priority Measures
- Improved Public Transport Passenger Interchange Facilities
- Investment in DRT and MaaS
- Introduction of Rail Freight Terminals
- Linespeed, Passenger and Freight Capacity Improvements on the Aberdeen to Inverness Rail Line
- Targeted Road Safety Improvements
- Bypasses of Forres, Elgin, Keith and Inverurie
- A96 Electric Corridor.

6.2.74 The delivery of bypasses at key towns would remove through traffic from town centres, improve safety, reduce the impact of severance caused by the A96 and reduce congestion within communities. Bypassing towns would also enable the reallocation of existing road space to deliver sustainable transport links (such as new active travel routes or bus priority) within towns whilst aiding in the development of placemaking.

6.2.75 Active Connections would provide long distance networks of high-quality active travel routes between settlements along the A96 corridor and improve crossing facilities for active modes to encourage their use and improve the safety of walking, wheeling and cycling for longer distance trips. These would be connected through settlements via Active Communities to provide access to key services in settlements and facilitate a fully connected active travel network between Inverness and Aberdeen. The provision of bypasses of key towns would help maximise the development of active travel infrastructure in larger populated areas. Improved integration of active travel routes with placemaking and better connections to key destinations by active travel links would help to increase travel within and between towns by active modes.

6.2.76 Public transport improvements, including the provision of bus priority measures, the enhancement or creation of interchange facilities and rail improvements to linespeed and capacity, would reduce public transport journey times, improve public transport journey time reliability and help to promote mode shift to more sustainable means of transport. Investment in DRT and MaaS would also help to increase the mode share of public transport and reduce the reliance on private cars for travel. Improvements to

public transport are also anticipated to improve accessibility to key destinations and services such as healthcare facilities, education and employment and expand labour markets via bus and rail to reduce the need for car travel.

6.2.77 Rail freight terminals would be introduced to facilitate a mode shift away from road-based freight and reduce the number of HGVs on the A96. This would reduce the environmental impact of freight across the A96 corridor, whilst also delivering safety improvements through reduced vehicle numbers and less driver frustration.

6.2.78 Improved active and sustainable travel choices would help to encourage mode shift away from travel by private car that would in turn improve safety in terms of reducing the number of road traffic accidents. Alongside this, targeted safety improvements would be introduced to reduce the accident risk and safety concerns on the A96.

6.2.79 As part of this package, the delivery of alternative refuelling stations for EVs and hydrogen vehicles throughout the A96 corridor would contribute to the transition away from petrol and diesel cars to reduce the environmental impact of private travel.

6.2.80 This package would provide a positive contribution to all A96 Corridor Review TPOs. The focus on sustainable travel choices across the corridor, both within settlements and between them, along with the provision of bypasses of the major settlements on the A96 Trunk Road is expected to deliver a moderate positive impact to TPO1 for contributing to the Scottish Government's net zero emissions target. The package is also anticipated to have moderate positive impacts for improving inclusion through the increased accessibility of public transport (TPO2), enhancing communities as places to support health, wellbeing and the environment (TPO3), contributing to sustainable inclusive growth (TPO4), and providing a safe, reliable and resilient transport system (TPO5).

6.2.81 The package provides a mixed contribution to the STAG criteria, with negative impacts relating to the Environment and Climate Change criteria. The package would encourage more sustainable choices through enhanced active travel networks within communities, promoting public transport use through bus and rail, and facilitating the growth in EVs and hydrogen vehicles through increased public charging and refuelling infrastructure. However, it would negatively impact on environmental considerations such as biodiversity, landscape and visual amenity and agriculture and soils where infrastructure improvements are introduced. This could include new road infrastructure through the proposed bypasses, improvements to the rail line, the active travel connection through rural areas and urban settlements and the provision of alternative fuelling stations along the A96 corridor. Overall, this is anticipated to result in a moderate negative impact on the STAG Environment criterion. GHG emissions are anticipated to rise, particularly as a result of the construction and an increase in vehicle kilometres travelled as a result of the inclusion of the four bypasses. However, travel by sustainable modes is anticipated to increase that partially offsets this, with an overall minor negative impact for the STAG Climate Change criterion.

6.2.82 The package is anticipated to have a moderate positive impact on the STAG criteria for Health, Safety and Wellbeing and Equality and Accessibility through improved public transport and active travel connections to key services that include hospitals and other health centres. There is also anticipated to be a moderate positive impact on the STAG criteria in relation to Economy, with benefits expected locally as well as for the wider economy and longer distance trips. The package is also expected to positively contribute to the three SIAs scored as part of the Detailed Appraisal, including a moderate positive impact for the EqIA and CRWIA, and a minor positive impact for the FSDA.

6.2.83 Benefits are expected to be achieved across the corridor and across different demographic groups. As the package delivers bypasses to the larger towns along the A96 corridor, the benefits achieved are expected to be felt within the towns where the largest concentration of people reside.

6.2.84 Smaller communities along the A96 corridor and in more rural areas are also likely to see benefits from aspects of Package 5, though the magnitude is not likely to be as great as those in the more heavily populated communities. Where options within the package are focused on longer distance travel, such as rail improvements and the long-distance active travel connections, the impacts would benefit those that travel between communities along the A96 corridor or into Aberdeen and Inverness at either end of the route.

6.2.85 The majority of interventions included within this package are considered to be generally feasible at this stage and would likely be delivered by Transport Scotland or Network Rail, who have extensive experience of delivery and implementation across Scotland. Local authorities or Regional Transport Partnerships would likely deliver interventions on the local road network. However, the feasibility of delivery at specific locations considered within this package remains to be tested, and detailed development work and local decision-making is required to identify the most appropriate solutions.

6.2.86 The capital cost of this package is estimated to be between £1,001m and £2,500m at this stage of the assessment process. Construction costs can vary significantly and are dependent on a number of other factors, such as the complexity of construction, the requirement for earthworks and structures, localised ground conditions, the purchase of land and various other engineering and environmental constraints. The relatively high-level nature of a number of the interventions within the package makes capital costs and the operation and maintenance costs more difficult to estimate. As this package contains all options brought forward form Preliminary Appraisal, the costs are estimated to be higher than the other four packages. Therefore, at this stage an appropriate level of risk has been included in the overall affordability of the package. Strategic partnerships between relevant parties and asset owners can help spread the burden of costs, particularly for ongoing maintenance and operation.

6.2.87 Overall, public acceptability is anticipated to be mixed, with some groups supporting the package whilst others are likely to oppose the package on for example the

environmental impacts of some of the interventions included. A mixed response is expected for the bypasses, with some welcoming them on account of the safety improvements and journey time reliability, but others having reservations about the environmental impact. Certain user groups are likely to welcome this package given the focus on active and sustainable modes of travel as an alternative to car. Real and perceived safety concerns are also evident on the corridor, and the inclusion of targeted road safety measures is anticipated to be largely welcomed. Any landowners who would have land acquired to enable interventions to be developed may not be receptive to the proposals.

6.3 Package Refinement

6.3.1 The appraisal of the area-based packaging approach has identified the likely benefits and the negative impacts of the five packages that were developed. However, it was acknowledged that there would be added value in disaggregating, as far as possible, the benefits of each package to identify the contribution that individual options were making to the overall packages' performance. The intention of this was to identify which options provided the greatest contribution to the total benefits of the packages, and what proportion of the total estimated cost they would represent.

6.3.2 An assessment of the benefits and contribution of the individual options to the performance of the overall packages has been undertaken. This has included additional detailed assessment using the available transport models to examine the impact of those options that could be represented in the models on an individual basis, and determine what proportion of the total benefits they would provide.

6.3.3 The additional assessments allowed the better performing options to be identified and these were combined to form an additional package, referred to as the Refined Package. This package was developed to maximise the level of potential benefits provided by combining the best performing options, whilst optimising investment within the corridor and delivering value for money.

6.3.4 The options included in the Refined Package are shown in Table 6.3, alongside the original five packages for comparison.

6.3.5 For appraisal of the Refined Package, the majority of options were considered as 'corridor-wide', with the Active Communities option applied to the following locations for the purposes of the appraisal:

- In the Refined Package, Active Communities are considered in the settlements of Nairn [bypassed as part of the separate A96 Dualling Inverness to Nairn (including Nairn Bypass) scheme that has ministerial consent], Forres, Elgin, Lhanbryde, Mosstodloch, Fochabers, Keith, Huntly, Inverurie, Kintore and Blackburn.

Table 6.3: Options Included in the Refined Package

	Package 1	Package 2	Package 3	Package 4	Package 5	Refined Package
Active Communities	✓	✓		✓	✓	✓
Active Connections			✓	✓	✓	
Bus Priority Measures and Park & Ride	✓	✓	✓		✓	
Improved Public Transport Passenger Interchange Facilities	✓	✓		✓	✓	✓
Investment in DRT and MaaS	✓	✓	✓		✓	✓
Introduce Rail Freight Terminals				✓	✓	
Linespeed, Passenger and Freight Capacity Improvements on the Aberdeen to Inverness Rail Line	✓	✓	✓	✓	✓	✓
Targeted Road Safety Improvements		✓	✓	✓	✓	✓
Forres Bypass	✓				✓	
Elgin Bypass	✓				✓	✓
Keith Bypass	✓				✓	✓
Inverurie Bypass	✓				✓	
A96 Electric Corridor	✓	✓	✓	✓	✓	✓

6.3.6 Table 6.4 summarises the rationale for the options included in the Refined Package, and those that were not included in the Refined Package.

Table 6.4: Refined Package Option Selection Rationale

Intervention	Included in Refined Package?	Reasons for inclusion or otherwise
Active Communities	Yes	Would help to drive modal shift, contributing to net zero and placemaking in communities, supporting health and wellbeing and therefore positively contributing to multiple TPOs and STAG criteria. The option also provides significant benefits in reducing premature deaths, contributing £60m-£70m in benefits over a 20-year appraisal period.
Active Connections	No	Whilst there are likely to be some health-related benefits associated with the option, the distance between the towns and limited population catchment area means the likely increase in active travel usage following the inclusion of the intervention is considered very limited. HEAT benefits for Active Connections would be between approximately £1m-£5m over a 20-year appraisal period, which equates to a very small proportion of the Active Communities benefits. The contribution to the overall performance is therefore minimal and was not considered to provide a sufficiently acceptable return on the potential level of investment required.

Intervention	Included in Refined Package?	Reasons for inclusion or otherwise
Bus Priority Measures	No	The types and locations of bus priority measures were further developed during the detailed appraisal stage and resulted in proposed measures on the approaches to Aberdeen and Inverness and around the Port Elphinstone Junction at Inverurie. Whilst the NaPTAT assessment indicates that the bus priority measures would improve access to key services within the corridor, any benefits are predominantly located around Inverurie and on approach to Aberdeen. Bus priority and active travel measures within Aberdeenshire and Aberdeen City are already being assessed via a separate study, the A96 Inverurie to Aberdeen Multi-Modal Transport Study. The anticipated level of benefits on approach to Inverness are expected to be limited as bus priority measures would be constrained by a combination of geographical features, existing developments and structures on approach to the A9/A96 Raigmore Interchange. Separately, park and ride was examined for Elgin, but the population size and hence potential demand was not considered of sufficient 'critical mass' to make park and ride viable. In addition, there is restricted opportunity for any accompanying priority measures to be implemented on the A96 within Elgin.
Improved Public Transport Passenger Interchange Facilities	Yes	The option would enhance public transport connections including with the rail network, allowing a wider population to take advantage of the potential linespeed enhancements. This would result in TEE benefits and encourage a modal shift away from car, whilst improving accessibility of the public transport network, contributing to a number of the TPOs and STAG criteria.
Investment in DRT and MaaS	Yes	The option would provide key accessibility benefits, particularly for vulnerable groups with limited transport options. It would also enhance connections with the wider public transport network including rail, allowing a wider population to take advantage of the potential linespeed enhancements. This would further encourage a modal shift away from car. The option provides a positive contribution to a number of the TPOs and STAG criteria.

Intervention	Included in Refined Package?	Reasons for inclusion or otherwise
Introduction of Rail Freight Terminals	No	Although the option is anticipated to encourage a mode shift from road to rail, resulting in minor positive benefits to many of the TPOs, STAG criteria and SIAs, the level of benefits are likely to be tempered by the available rail freight paths on the Aberdeen to Inverness line. It is also considered that the option would result in a minimal reduction of HGVs on the A96. There is also a degree of overlap between this intervention and the Linespeed, Passenger and Freight Capacity Improvements intervention, which includes making use of existing, disused facilities with Huntly likely to be most suitable for conversion to an intermodal facility. It is noted that STPR2 recommendation 44 'Rail freight terminals and facilities' recommends the need for a market study as a first step, but based on the evidence available at this stage it has not been included in the Refined Package.
Linespeed, Passenger and Freight Capacity Improvements on the Aberdeen to Inverness Rail Line	Yes	The option is anticipated to contribute to over 50% of the TEE benefits, equating to between £40m-£50m for both the 'With Policy' and 'Without Policy' scenarios, and make a significant contribution to improving accessibility to key services from settlements that contain a rail station. Modelling this intervention in isolation indicates that it contributes approximately 50%-60% of the public transport accessibility benefits associated with the larger towns such as Elgin and Inverurie. In the smaller settlements such as Insch, Huntly and Forres it provides an even greater proportion of accessibility benefits as these settlements have fewer alternative public transport options.
Targeted Road Safety Improvements	Yes	The option covers a range of potential measures ranging from minor improvements through to partial dualling and is anticipated to result in safety benefits of approximately £10m-£15m under the 'With Policy' scenario and £15m-£20m under the 'Without Policy' scenario. This intervention would target the areas of the network where there is a known or perceived safety issue to reduce the potential for accidents on the route. This would result in a significant positive contribution to TPO5 and the STAG Safety criterion in particular, with the reduction in accidents also enhancing the reliability of the route.

Intervention	Included in Refined Package?	Reasons for inclusion or otherwise
Forres Bypass	No	The bypass would remove a proportion of through traffic from the existing A96 Trunk Road, but as this does not pass directly through Forres town centre, traffic volumes on local roads through the town are forecast to remain largely unchanged following the introduction of the bypass. Economic benefits are minimal and it would not maximise opportunities for active travel within Forres itself, with little contribution to placemaking. Forres bypass was therefore not considered to provide a sufficiently acceptable return on the potential level of investment required.
Elgin Bypass	Yes	The bypass would remove a significant proportion of through traffic from the town, enhancing safety and providing air quality benefits whilst also adding a level of reliability and resilience to the network. The bypass would also facilitate the Active Communities measures in the town for further localised benefits. Elgin and Keith bypasses in combination would contribute to a significant proportion of the TEE benefits, approximately £20m-£25m in the 'With Policy' scenario and £25m-£30m in the 'Without Policy' scenario.
Keith Bypass	Yes	The bypass would remove a significant proportion of through traffic from the town, enhancing safety where there is a known safety problem and providing air quality benefits whilst also adding a level of reliability and resilience to the network. The bypass would also facilitate the Active Communities measures in the town for further localised benefits. Elgin and Keith bypasses in combination contribute to a significant proportion of the TEE benefits, approximately £20m-£25m in the 'With Policy' scenario and £25m-£30m in the 'Without Policy' scenario.

Intervention	Included in Refined Package?	Reasons for inclusion or otherwise
Inverurie Bypass	No	The bypass would remove a proportion of traffic from the existing A96 Trunk Road, but as this does not pass directly through Inverurie town centre, traffic volumes on local roads through the town are forecast to remain relatively unchanged following the introduction of the bypass. Economic benefits are minimal and it would not maximise opportunities for active travel within Inverurie itself, with little contribution to placemaking. Inverurie bypass was therefore not considered to provide a sufficiently acceptable return on the potential level of investment required.
A96 Electric Corridor	Yes	The A96 Electric Corridor would seek to support the rapid decarbonisation of the transport sector, ensuring sufficient flexibility to accommodate the varying needs of transport users and local communities in the corridor whilst improving local and global air quality. It would therefore contribute significantly to a number of the TPOs as well as the STAG Climate Change criterion.

6.3.7 Table 6.5 summarises the key appraisal outcomes and scoring for the Refined Package against the appraisal criteria considered at Detailed Appraisal, that being TPOs, STAG criteria and SIAs.

6.3.8 The Detailed Appraisal AST for the Refined Package is contained in Appendix D.

Table 6.5: Key Summary Points of the Refined Package

Appraisal Criteria	Scoring	Key Details of Refined Package
TPO1 – A sustainable strategic transport corridor that contributes to the Scottish Government's net zero emissions target	**'With Policy' Scenario: Moderate Positive** **'Without Policy' Scenario: Moderate Positive**	• Reduction in time lost due to congestion for general traffic of approximately 2% in the 'With Policy' scenario and 1% in the 'Without Policy' scenario. • Very minor increase in vehicle kilometres of less than 1% in the 'With Policy' scenario and approximately 1% in 'Without Policy' scenario. • Modelling indicates a potential reduction in traffic volumes estimated on the current A96 in 2045 compared to a 'without package' scenario of approximately 65%-85% in Keith and 25%-35% in Elgin, with the range reflective of direction and the difference between the 'With Policy' and 'Without Policy' scenario. • Road user GHG emissions anticipated to increase by approximately 2,300 tCO2e in the 'With Policy' scenario and 88,000 tCO2e in the 'Without Policy' scenario. • The package, including bypasses removing through trips from settlements, results in an approximate 5-7 percentage point increase in walking and 11-12 percentage point increase in cycling in settlements along the A96 Trunk Road and rural areas across Moray and Aberdeenshire. • Potential for mode shift to public transport through improvement to bus, rail and interchanges. • Development of A96 Electric Corridor assists the transition to cleaner vehicles to reduce tailpipe emissions.
TPO2 – An inclusive strategic transport corridor that improves the accessibility of public transport in rural areas for access to healthcare, employment and education	**'With Policy' Scenario: Minor Positive** **'Without Policy' Scenario: Minor Positive**	• NaPTAT modelling indicates a 1.8 percentage point increase in accessibility levels to emergency department hospitals within 30 mins by public transport. • NaPTAT indicates that many of the benefits from the package are attributed to rail improvements. This is more prominent in settlements with access to a rail station and particularly in rural settlements such as Insch and Huntly, observing a travel time reduction of up to five and seven minutes, respectively, to Aberdeen. • The package would enable 8,700 additional people to access Aberdeen from Elgin within two hours, with most of the benefits attributed to the rail improvements in isolation, contributing around 40-50%. • The absence of bus priority measures is anticipated to result in fewer journey time reductions in settlements with access to bus provision, such as Inverurie. • DRT and MaaS can benefit many in areas and settlements where public transport services are often infrequent or not currently provided. • Active travel improvements in bypassed towns can improve accessibility to key transport interchanges such as bus and rail stations.
TPO3 – A coherent strategic transport corridor that enhances communities as places, supporting health, wellbeing and the environment	**'With Policy' Scenario: Moderate Positive** **'Without Policy' Scenario: Moderate Positive**	• Bypasses would reduce traffic volumes in both Elgin and Keith by approximately 25%-35% and 65%-85% respectively. • The package, including bypasses removing through trips from settlements within Elgin and Keith, results in an approximate 5-7 percentage point increase in walking and 11-12 percentage point increase in cycling in settlements along the A96 Trunk Road and rural areas across Moray and Aberdeenshire. • Increased levels of active travel are estimated to reduce premature deaths by 2.75 a year, an economic benefit of £60m-£70m over a 20-year appraisal period. • Active travel infrastructure is anticipated to reduce severance within communities and create a better sense of place through increased levels of activity. • Improving rail connectivity, supported by DRT and MaaS and improvements to interchange facilities, could reduce social isolation, enhancing locations as attractive places to live and improving the wellbeing of those living in these locations with better access to healthcare.

Appraisal Criteria	Scoring	Key Details of Refined Package
TPO4 – An integrated strategic transport system that contributes towards sustainable inclusive growth throughout the corridor and beyond	**'With Policy' Scenario: Minor Positive** **'Without Policy' Scenario: Minor Positive**	• Reduction in time lost due to congestion for business vehicles of approximately 2% in the 'With Policy' scenario and 1% in the 'Without Policy' scenario, with the same reductions for general traffic in both scenarios as well. • Reduction in delay to business vehicles of approximately 2% and 1% in the 'With Policy' and 'Without Policy' scenarios respectively, with the same reductions for general traffic in both scenarios as well. • Bypasses are likely to improve journey time reliability and facilitate the reallocation of road space, prioritising active modes to promote sustainable access to labour markets in bypassed towns. • NaPTAT modelling indicates that access to employment opportunities would improve in Aberdeenshire. This includes from rural settlements with access to a rail station such as Insch where on average an additional 8% of existing jobs located in Aberdeen City are able to be accessed by public transport within 60 minutes. • Increased rail capacity improves the reliability of freight movements and would encourage a mode shift from road to rail.
TPO5 – A reliable and resilient strategic transport system that is safe for users	**'With Policy' Scenario: Moderate Positive** **'Without Policy' Scenario: Moderate Positive**	• The provision of bypasses could reduce the accident rate on the sections of the existing A96 which route through towns, with Keith in particular noted as having high PIA and KSI rates. • Bypasses should also provide enhanced resilience against road closures. • Targeted Road Safety Improvements would also reduce the accident rates and severities on the A96. • Estimated economic benefit for safety of £10m-£15m in both the 'With Policy' and 'Without Policy' scenarios respectively, including the estimated change in vehicle kilometres alongside an assessment of the Targeted Road Safety Improvements throughout the A96 corridor. • Over a 60-year appraisal period, the Refined Package is anticipated to save over 400 casualties in the 'With Policy' scenario and nearly 450 in the 'Without Policy' scenario over the 'without package' scenario, including over 50 KSI casualties in both scenarios. Similarly, over the same 60-year appraisal period the package could save approximately 300 PIAs in both the 'With Policy' and 'Without Policy' scenario. • Reduction in accidents likely to reduce road closures that affects the reliability and resilience of the road network. • Rail improvements including additional passing loops should improve the reliability of trains.
STAG – Environment	**'With Policy' Scenario: Minor Negative** **'Without Policy' Scenario: Minor Negative**	• Bypasses can reduce noise and air quality impacts in Elgin and Keith where the current A96 Trunk Road runs through the centre of these towns. • Anticipated increase in both the 'With Policy' and 'Without Policy' scenarios for NO_x (2t and 43t respectively) and $PM_{2.5}$ (0.4t and 13t respectively) over the 60-year appraisal period. • Physical works on the road and rail network may have significant negative impacts on environmental considerations such as Biodiversity and Habitats, Geology and Soils, Landscape and possibly Historical Environment. • Potential negative impact dependent on design, alignment and mitigation.
STAG – Climate Change	**'With Policy' Scenario: Minor Negative** **'Without Policy' Scenario: Minor Negative**	• Road user GHG emissions anticipated to increase by approximately 2,300 tCO_2e in the 'With Policy' scenario and 88,000 tCO_2e in the 'Without Policy' scenario. • GHG emissions from construction estimated to contribute in the range of 140,000 tCO_2e to just over 280,000 tCO_2e. • Estimated economic disbenefit for GHGs of <£0.5m and £5m-£10m in the 'With Policy' and 'Without Policy' scenarios respectively.

Appraisal Criteria	Scoring	Key Details of Refined Package
STAG – Health, Safety and Wellbeing	**'With Policy' Scenario: Moderate Positive** **'Without Policy' Scenario: Moderate Positive**	• Increased active travel estimated to reduce premature deaths by 2.75 a year, an economic benefit of £60m-£70m over a 20-year appraisal period. • Estimated economic benefit for safety of £10m-£15m in both the 'With Policy' and 'Without Policy' scenarios respectively, including the estimated change in vehicle kilometres alongside an assessment of the Targeted Road Safety Improvements throughout the A96 corridor. • Over a 60-year appraisal period, the Refined Package is anticipated to save over 400 casualties in the 'With Policy' scenario and nearly 450 in the 'Without Policy' scenario over the 'without package' scenario, including over 50 KSI casualties in both scenarios. Similarly, over the same 60-year appraisal period the package could save approximately 300 PIAs in both the 'With Policy' and 'Without Policy' scenario. • NaPTAT modelling indicates a 1.8 percentage point increase in accessibility levels to emergency department hospitals within 30 mins by public transport. The improvements are anticipated in Aberdeen City (5,900 people), as a result of interchange interventions which would improve the connection between services, and in Moray (2,300 people), with a reduction in journey times observed in surrounding settlements such as Lossiemouth. • Enhanced placemaking in bypassed settlements with less severance, along with DRT and MaaS and enhanced public transport interchange facilities are all anticipated to benefit personal security.
STAG – Economy	**'With Policy' Scenario: Moderate Positive** **'Without Policy' Scenario: Moderate Positive**	• Reduction in time lost due to congestion for business vehicles of approximately 2% in the 'With Policy' scenario and 1% in the 'Without Policy' scenario. • Reduction in delay to business vehicles by approximately 2% and 1% in the 'With Policy' and 'Without Policy' scenarios respectively. • Approximately half of the TEE benefits stem from the rail linespeed and capacity improvements, with the combination of Elgin and Keith bypasses also providing significant benefits. • The core present value of benefits, which included the benefits associated with Transport Economic Efficiencies (TEE), changes in GHGs and accident analysis, for the Refined Package are forecast to be £80m-£90m in the 'With Policy' scenario and £70m-£80m in the 'Without Policy' scenario. • HEAT analysis indicates Active Communities would deliver an economic benefit of £60m-£70m over a 20-year appraisal period. • WEIs for the Refined Package are forecast to provide benefits of £10m-£20m in the 'With Policy' scenario and £20m-£30m in the 'Without Policy' scenario, with the majority of this benefit stemming from business agglomeration. • Driver frustration benefits from provision of overtaking opportunities as part of Targeted Road Safety Improvements equate to approximately £30m-£40m under the 'With Policy' scenario and £40m-£50m under the 'Without Policy' scenario. • Accident reductions as a result of Targeted Road Safety Improvements on the road network would improve the reliability of freight movements by road. • Rail linespeed and capacity improvements are also anticipated to reduce non-productive time spent travelling, and improve access to cities for opportunities for employment, education and other key services. • The monetised benefits achieved are estimated to be lower than the anticipated scheme cost.

Appraisal Criteria	Scoring	Key Details of Refined Package
STAG – Equality and Accessibility	**'With Policy' Scenario: Moderate Positive** **'Without Policy' Scenario: Moderate Positive**	• The package should improve comparative access and transport inclusivity for commonly disadvantaged groups, providing social and community benefits particularly to young people, older people and people with disabilities. • NaPTAT modelling indicates that this package would improve access to key destinations in the study area such as employment, health and education. • The package would benefit groups of people who may be more reliant on public transport to access health services, including 2,100 people aged 65 and over as well as 1,900 people across all age groups with a long-term health problem or disability, to access the nearest emergency department hospital within approximately 30 minutes by public transport. • The package would enable on average an additional 1,800 existing jobs in Aberdeen City to be reached within 60 minutes using public transport from Aberdeenshire for people aged 16 to 64 and in areas categorised as geographically deprived. • DRT and MaaS can benefit many who cannot access current public transport services, including vulnerable users such as those with mobility impairments. • Improvements to active travel and public transport, particularly bus, reduces the impact of transport poverty.
SIA – Equality Impact Assessment	**'With Policy' Scenario: Moderate Positive** **'Without Policy' Scenario: Moderate Positive**	• Safer and affordable access to employment, education, shopping and health facilities through improved active travel and public transport for key communities along the A96. • The package would benefit groups of people who may be more reliant on public transport to access health services, including 2,100 people aged 65 and over as well as 1,900 people across all age groups with a long-term health problem or disability, to access the nearest emergency department hospital within approximately 30 minutes by public transport. • Active travel and public transport improvements benefit those in transport poverty as well as vulnerable users including young people, older people and the mobility impaired. • DRT and MaaS can benefit many who cannot access current public transport services, including vulnerable users. • Bypasses can positively impact noise, vibration, air quality and severance in bypassed towns, though the level of impact would be dependent on route alignment. • An uptake in active travel may additionally improve physical health and mental wellbeing outcomes.
SIA – Child Rights and Wellbeing Impact Assessment	**'With Policy' Scenario: Moderate Positive** **'Without Policy' Scenario: Moderate Positive**	• Noise, vibration, air quality and traffic impacts likely to be better in bypassed towns, but negatively impact those close to the proposed new roads. • Improved health outcomes as a result of better air quality, including in bypassed towns with a reduction in through traffic, are of particular benefit to those who are more vulnerable to air pollution, including children and young people. • Rail and public transport interchange improvements can benefit young people both for social and leisure trips as well as access to school and education. Improved journey time accessibility of educational premises would largely be observed in Aberdeenshire, where an additional 550 young people aged 16-24 are expected to access their nearest higher education site in approximately 60 minutes by public transport. • DRT and MaaS could help to improve connectivity for children and young people, improving access to key services such as education.
SIA – Fairer Scotland Duty Assessment	**'With Policy' Scenario: Minor Positive** **'Without Policy' Scenario: Minor Positive**	• Reduced traffic within the bypassed towns should create benefits for socio-economically disadvantaged groups by improving the active travel environment for those who are unable to afford a car. • Including active travel interventions alongside targeted safety improvements could aid the removal of barriers in communities through an improved sense of road safety and security for those walking, wheeling and cycling. • Public transport improvements for rail and interchange can greatly reduce social isolation and improve health and wellbeing for those who do not have access to a car. The package is also shown to improve the access to employment opportunities found in Aberdeen City, whereby it would enable on average an additional 3,800 existing jobs to be reached within 60 minutes using public transport from Aberdeenshire for people aged 16 to 64 who reside in areas where gross household income is within the 20% lowest in the study area. • DRT and MaaS could help to improve connectivity for many social groups including young people, older people and the disabled, though could exclude those without access to this technology or a bank account.

6.3.9 The Refined package would provide a positive contribution to all A96 Corridor Review TPOs. The options within this package would deliver moderate positive impacts in relation to contributing to the Scottish Government's net zero targets (TPO1), enhancing communities as places to support health, wellbeing and the environment (TPO3) and providing a safe, reliable and resilient transport system (TPO5). The package would contribute a minor positive impact to TPO2 relating to improving inclusion through the accessibility of public transport, and contributing to sustainable inclusive growth (TPO4). Selected benefits arise as a result of the bypasses reducing trips in the centre of Elgin and Keith, which in turn would facilitate an increase in active travel and multimodal trips in these locations. This package also encourages modal shift away from car for longer distance journeys through improvements on the rail network, whilst also reducing the risks of road accidents along the A96 Trunk Road through targeted road safety improvements.

6.3.10 The package is anticipated to result in negative impacts on the STAG Criteria relating to the Environment and Climate Change. This package would encourage more sustainable travel choices through enhanced active travel networks within communities, promote public transport use through improved interchange and rail improvements, and facilitate the growth in EVs and hydrogen vehicles through increased public charging and refuelling infrastructure. However, the construction of interventions within the package is likely to have a negative impact on the natural environment such as biodiversity, landscape and visual amenity and agriculture and soils. This could include new road infrastructure such as the proposed bypasses, new rail lines, and the provision of alternative fuelling stations along the A96 corridor. As a result, overall the package is anticipated to result in a minor negative impact on the STAG Environment criterion.

6.3.11 Whilst the proposed bypasses of Elgin and Keith would act as key enablers to enhancing sustainable travel within these communities, benefits to short distance trips and within communities are likely to be partially offset by an anticipated increase in GHG emissions at a corridor level, both during the construction and operational phases. In operation there is the potential for increased car kilometres travelled due to an increase in journey distance as a result of the bypasses. As such, overall this package would have a minor negative impact on the STAG Climate Change criterion.

6.3.12 The package is anticipated to have a moderate positive impact on the remaining three STAG criteria relating to Health, Safety and Wellbeing, Economy and Equality and Accessibility. The package would improve sustainable transport connections to key services that include hospitals and employment opportunities, reduce the risk of accidents on the A96 Trunk Road, as well as resulting in benefits for the wider economy and longer distance trips.

6.3.13 The package is also expected to positively contribute to the three SIAs, including a moderate positive impact for the EqIA and CRWIA, and a minor positive impact for the FSDA.

6.3.14 The majority of interventions included within this package are considered to be generally feasible at this stage and would likely be delivered by Transport Scotland or Network Rail, who have extensive experience of delivery and implementation across Scotland. Local authorities or Regional Transport Partnerships would likely deliver interventions on the local road network. However, the feasibility of delivery at specific locations considered within this package remains to be tested, and detailed development work and local decision-making is required to identify the most appropriate solutions.

6.3.15 The capital cost of this package is estimated to be between £501m and £1,000m at this stage of the assessment process. Construction costs can vary significantly and are dependent on a number of other factors, such as the complexity of construction, the requirement for earthworks and structures, localised ground conditions, the purchase of land and various other engineering and environmental constraints. The relatively high-level nature of a number of the interventions within the package makes capital costs and the operation and maintenance costs more difficult to estimate. Therefore, at this stage an appropriate level of risk has been included in the overall affordability of the package. Strategic partnerships between relevant parties and asset owners can help spread the burden of costs, particularly for ongoing maintenance and operation.

6.3.16 Overall, public acceptability of this package is anticipated to be mixed, with some groups supporting the package given the focus on active and sustainable modes of travel across the corridor. Real and perceived safety concerns are evident on the corridor, with improving road safety being the second most popular priority and suggestion theme identified in the A96 Corridor Review public consultation survey, so the inclusion of targeted road safety improvements is anticipated to be welcomed. Opposition to the package is likely to come from, for example, environmental grounds as the bypasses would be constructed in greenfield sites. Any landowners who would have land acquired as a result of this package may not be receptive to the proposals.

6.4 Detailed Appraisal Costs and Benefits

6.4.1 The estimated cost ranges and the range of core benefits for each of the packages considered at Detailed Appraisal, including the Refined Package and the A96 Full Dualling are shown in Table 6.6.

Table 6.6: Detailed Appraisal Costs and Core Benefits

Package	Cost Bands (Undiscounted)	Core Present Value Benefits 'With Policy' (2010 values)	Core Present Value Benefits 'Without Policy' (2010 values)
Package 1	£501m - £1,000m	£70m - £80m	£60m - £70m
Package 2	£501m - £1,000m	£60m - £70m	£60m - £70m

Package	Cost Bands (Undiscounted)	Core Present Value Benefits 'With Policy' (2010 values)	Core Present Value Benefits 'Without Policy' (2010 values)
Package 3	£501m - £1,000m	£60m - £70m	£60m - £70m
Package 4	£501m - £1,000m	£60m - £70m	£60m - £70m
Package 5	£1,001m - £2,500m	£80m - £90m	£80m - £90m
Refined Package	£501m - £1,000m	£80m - £90m	£70m - £80m
A96 Full Dualling	£2,501m - £5,000m	£300m - £350m	£350m - £400m

6.4.2 The core present value of benefits includes the results from the economic assessment undertaken using TUBA, GHG benefits (or disbenefits) calculated using the DfT's TAG Unit A3, and accident benefits. Note transport appraisal requires benefits to be expressed in a common base year defined by the DfT, which is currently 2010, with the assessment software automatically calculating the values taking account of the effects of inflation and discounting to the base year. This is standard practice across for all transport appraisals undertaken across the UK.

6.4.3 As shown in Table 6.6, the A96 Full Dualling demonstrates a considerably higher range of benefits than the other packages, with the majority of these benefits attributed to the journey time improvements for road users. However, it also has the highest capital cost range estimate, and is anticipated to have a significant detrimental impact on the natural environment, whilst also resulting in the highest level of disbenefits in terms of GHG emissions.

6.4.4 The Refined Package and Package 5 demonstrate the highest level of benefits in the 'With Policy' scenario when compared to the other four packages, with the Refined Package having a much lower cost range estimate than Package 5. Only Package 5 in the 'Without Policy' scenario and the A96 Full Dualling in both scenarios would result in a higher level of benefits. The majority of the benefits that are anticipated to be realised by the Refined Package are attributed to public transport journey time benefits plus road journey time benefits, derived from the inclusion of the rail improvements option and Elgin and Keith bypasses. The inclusion of the targeted road safety improvements is also anticipated to result in accident savings.

6.4.5 In addition to the core benefits, further assessments have been undertaken to capture wider benefits for each package and A96 Full Dualling from Wider Economic Impacts (WEIs), health benefits from active travel derived using HEAT, and benefits associated with reduced Driver Frustration. These wider benefits have been combined with the core benefits to give the combined benefit ranges presented in Table 6.7 alongside the estimated cost ranges, for the six packages and A96 Full Dualling.

Table 6.7: Detailed Appraisal Costs and Full Benefits

Package	Cost Bands (Undiscounted)	Present Value Benefits 'With Policy' (2010 values)	Present Value Benefits 'Without Policy' (2010 values)
Package 1	£501m - £1,000m	£130m - £160m	£130m - £160m
Package 2	£501m - £1,000m	£100m - £125m	£110m - £135m
Package 3	£501m - £1,000m	£90m - £115m	£100m - £125m
Package 4	£501m - £1,000m	£120m - £150m	£130m - £160m
Package 5	£1,001m - £2,500m	£180m - £220m	£200m - £240m
Refined Package	£501m - £1,000m	£180m - £220m	£190m - £230m
A96 Full Dualling	£2,501m - £5,000m	£570m - £690m	£770m - £890m

6.4.6 Table 6.7 shows a similar pattern for combined benefits with the A96 Full Dualling having the highest range of benefits in both scenarios, but with the highest estimated cost range. The increase in the combined benefit range for the A96 Full Dualling is largely driven by the inclusion of driver frustration benefits, through the provision of consistent overtaking opportunities and the associated reduction in driver stress.

6.4.7 The Refined Package and Package 5 again have the highest range of benefits in both scenarios, with Package 5 having a slightly higher benefit range in the 'Without Policy' scenario albeit at a significantly higher cost range. Considering the monetised range of benefits captured as part of the assessment, the Refined Package represents the best performing package in comparison to Packages 1 to 5. Driver frustration benefits stem from the Targeted Road Safety Improvements, which provide an increase in the number of overtaking opportunities.

6.5 Refined Package – Summary of Appraisal

6.5.1 The Refined Package targets investment at locations which are anticipated to maximise the benefits within the corridor. The range of options covering all modes included in the Refined Package represents an inclusive multimodal corridor approach.

6.5.2 The delivery of bypasses at Elgin and Keith would remove through traffic from town centres, supporting mode shift and reducing traffic volumes in both Elgin and Keith by approximately 25%-35% and 65%-85% respectively, depending on the travel behaviour scenario. The bypasses would enable the reallocation of existing road space to deliver sustainable transport links within towns whilst aiding in the development of placemaking to maximise the benefits associated with Active Communities. The bypasses would also improve safety particularly in Keith, where PIA and KSI rates are greater than the national average for similar trunk A-roads in Scotland, reduce the impact of severance caused by the A96 and reduce congestion within these communities.

6.5.3 The package would enable the delivery of active travel infrastructure within bypassed settlements, supporting the development of Active Communities. Improved placemaking and better connections to key destinations by active travel links would help to increase travel within towns by active modes.

6.5.4 Public transport benefits would be realised through the inclusion of the linespeed and capacity enhancements on the rail network and Public Transport Passenger Interchange Improvements. These options, as part of the Refined Package, would reduce rail journey times, improve journey time reliability and help to promote mode shift to more sustainable means of transport. Improvements to public transport are also anticipated to improve accessibility to key destinations and services via rail to reduce the need for car travel.

6.5.5 Investment in DRT and MaaS would complement these interventions to help increase the mode share of public transport and reduce the reliance on private cars for travel. DRT and MaaS would also provide benefits through enhancing accessibility within the corridor for those without access to a car, particularly for vulnerable groups such as children and the elderly.

6.5.6 The inclusion of targeted road safety improvements should help to reduce accidents at locations where the propensity for accidents to occur is greater, improving both real and perceived safety of the route. This would also improve the overall reliability of the route by reducing the level of disruption to road users and the local communities from incidents. The range of measures included in road safety improvements could also allow for the inclusion of additional overtaking opportunities, which would help contribute towards a reduction in driver frustration within the corridor. Improved active and sustainable travel choices would also help to encourage mode shift away from private car that would in turn improve safety in terms of reducing the number of road traffic accidents. Alongside this, as part of the

Refined Package, the inclusion of the A96 Electric Corridor would also facilitate decarbonisation within the corridor for those who would still rely on car travel.

6.6 Outcomes of the Detailed Established Policy Objectives Assessment

6.6.1 The following sections summarise the outcomes of the bespoke PAF assessment for the six packages and A96 Full Dualling. This assessment considers the consistency of the packages and the A96 Full Dualling option with Established Policy Objectives as set out in Section 3.6.

A96 Full Dualling

6.6.2 A96 Full Dualling is not fully consistent with a number of areas of current policy, including those with objective themes covering Environment, Climate Change and Equality. Although dualling would result in reduced traffic through settlements, it would be expected to result in an increased number of vehicles overall. The scale of the infrastructure involved has the potential to significantly impact the environment which will need to be assessed and mitigated, for example impacts on biodiversity and species. In general, the option does not promote a modal shift and the anticipated overall increase in vehicle kilometres travelled does not support the key Climate Change policy target of 20% reduction in car kilometres by 2030 and meeting net zero by 2045. In terms of Equality, the option predominantly only benefits those with access to private vehicles. Any impact upon the reliability or frequency of public transport remains uncertain and dependant on both the alignment of the potential dual carriageway and operator decisions with regards to service routing.

6.6.3 A96 Full Dualling is considered to have some potential consistency with the objective theme of Health, Safety and Wellbeing. A96 Full Dualling would likely improve the overall safe operation of the network by providing safer overtaking options and removing traffic and congestion from the bypassed towns. However, it is likely to reinforce the use of private vehicles for journeys and fails to provide attractive sustainable alternatives to benefit health outcomes and general wellbeing.

6.6.4 The option would provide reliability and resilience benefits to freight and other road users, supporting the transport of goods and providing additional capacity for key economic sectors in the northeast so has a general consistency with the Economic objective theme. However, A96 Full Dualling is only largely consistent with this theme as agricultural land may be lost to allow construction of the dualled trunk road with a consequent impact on local rural economies and there is potentially a reduction in passing trade for towns bypassed by the new dualled A96 Trunk Road.

Package 1

6.6.5 Package 1 has limited consistency with the Environment and Climate Change objective themes, with the impact of bypasses a key consideration. Whilst bypasses would remove some through traffic from towns, allowing for improved active travel

and access to sustainable transport, overall traffic volumes may increase due to the increase in road capacity. Air quality may improve in settlements as a result but overall the contribution towards key Climate Change policy targets of a 20% reduction in car kilometres by 2030 and meeting net zero by 2045 may be limited by the inclusion of the four bypasses. Investment in the decarbonisation of travel through the A96 Electric Corridor is consistent with Climate Change policy but the extent of the physical works associated with the construction of some interventions, particularly rail improvements and the four bypasses, could introduce environmental impacts which will need to be assessed and mitigated, for example impacts on biodiversity and species. Whilst any new infrastructure should be designed to withstand predicted impacts of climate change it is likely to remain subject to damage from extreme weather, as is the case for the existing transport networks.

6.6.6 However, the package is generally consistent with the Health, Safety and Wellbeing and Equality objective themes. Reducing traffic volumes in bypassed settlements could improve actual and perceived feelings of safety whilst encouraging more people to take up active travel for shorter everyday journeys, supporting the 20-minute neighbourhood concept and improving health outcomes. The package also provides improvements in active travel network coverage within the bypassed settlements. The public transport improvements to the bus and rail network, as well as interchange facilities that along with the introduction of DRT and MaaS would help vulnerable users access critical services such as health care, employment and education, ensure Package 1 is consistent with the Equality objective theme.

6.6.7 Additionally, the package is mostly consistent with the Economic objective theme. Bypasses would improve the reliability of the trunk road network and reduce journey times. They are also anticipated to strengthen the reliability of local and regional supply chains. However, agricultural land may be lost and there is potentially a reduction in passing trade for the bypassed towns.

Package 2

6.6.8 Package 2 has limited consistency with the Environment and Climate Change objective themes. The package has the potential to create a modal shift away from private car through improvements to active travel in the settlements considered and rail improvements. Positive impacts may be limited by the scale of the package, and so it is only somewhat consistent with a key Climate Change policy target of 20% reduction in car kilometres by 2030. Investment in the decarbonisation of travel through the A96 Electric Corridor is also consistent with Climate Change policy but the extent of the physical works associated with the construction of some interventions, particularly rail improvements, could introduce environmental impacts which will need to be assessed and mitigated, for example impacts on biodiversity and species. Whilst any new infrastructure should be designed to withstand predicted impacts of climate change it is likely to remain subject to damage from extreme weather, as is the case for the existing transport networks.

6.6.9 The package however is consistent with the objective themes for Health, Safety and Wellbeing and Equality. The inclusion of active travel improvements and placemaking measures could improve actual and perceived feelings of safety as well as encourage more people to take up active travel for shorter everyday journeys within settlements, supporting the 20-minute neighbourhood concept and improving health outcomes. Education, employment and health facilities would be more accessible through improved public transport connections, particularly rail, and along with DRT and MaaS would support vulnerable groups. Improvements to active travel infrastructure and public transport interchanges would enhance sustainable connections in areas often underserved by commercial transport.

6.6.10 In addition, Package 2 is also consistent with the Economic objective theme. The package would support faster and more reliable public transport journeys, enhance rail capacity for movement of people and goods, and improve the reliability of the A96 Trunk Road by reducing the impact of accidents.

Package 3

6.6.11 Package 3 has limited consistency with the Environment and Climate Change objective themes. Whilst the package would promote alternatively fuelled vehicles and possibly induce a modal shift to sustainable transport in rural areas, the construction associated with the package, particularly rail improvements and Active Connections, have the potential to adversely impact the environment and would need to be assessed further as design progresses. Investment in public transport improvements and the provision of active travel routes between towns may encourage a small mode shift, supporting Climate Change objectives but are not likely to have a significant impact on a key policy target of achieving a 20% reduction in car kilometres by 2030. Investment in the decarbonisation of travel through the A96 Electric Corridor is also consistent with Climate Change policy but the extent of the physical works associated with the construction of some interventions could introduce environmental impacts which will need to be assessed and mitigated, for example impacts on biodiversity and species. Whilst any new infrastructure should be designed to withstand predicted impacts of climate change it is likely to remain subject to damage from extreme weather, as is the case for the existing transport networks.

6.6.12 The package has a degree of consistency with the objective theme of Health, Safety and Wellbeing. Targeted road safety improvements and traffic-free active travel routes between towns would reduce the perceived and actual safety risks associated with the current A96 Trunk Road, whilst public transport accessibility to critical services would also be enhanced. However, Package 3 has no active travel provision within communities so would not support the 20-minute neighbourhood concept or encourage healthy travel choices as part of multimodal trips, as it relates to the rural stretches of the corridor only.

6.6.13 The package is consistent with the Economic objective theme. The package would support faster and more reliable public transport journeys, enhance rail capacity for

movement of people and goods, and improve the reliability of the A96 Trunk Road by reducing the impact of accidents.

6.6.14 Package 3 is also consistent with the objective theme of Equality. Education, employment and health facilities would be more accessible through improved public transport connections, particularly rail, and along with DRT and MaaS would support vulnerable groups. The package would also increase the active travel network coverage from rural communities towards key services, providing sustainable and affordable transport options.

Package 4

6.6.15 Package 4 is not fully consistent with the Environment and Climate Change objective themes. Whilst this package would promote alternatively fuelled vehicles and possibly induce a modal shift to sustainable transport for longer distance journeys, the construction associated with the package, particularly rail improvements and Active Connections, may adversely impact the environment and would need to be subject to further assessment during design development. Investment in active travel and rail infrastructure should induce a modal shift away from car, supporting some Climate Change policy objectives but not likely to have a significant impact on a key target of achieving a 20% reduction in car kilometres by 2030. Investment in the decarbonisation of travel through the A96 Electric Corridor is also consistent with Climate Change policy but the extent of the physical works associated with the construction of some interventions could introduce environmental impacts which will need to be assessed and mitigated, for example impacts on biodiversity and species. Whilst any new infrastructure should be designed to withstand predicted impacts of climate change it is likely to remain subject to damage from extreme weather, as is the case for the existing transport networks.

6.6.16 The package is consistent with the Health, Safety and Wellbeing and Equality objective themes. Both perceived and real safety concerns would be addressed on the A96 Trunk Road through targeted road safety improvements and the inclusion of pedestrian and cycling infrastructure in the form of long-distance active travel routes and local place improvements support the package's consistency with Health, Safety and Wellbeing policy. In terms of Equality, the increase in active travel network coverage would provide sustainable and affordable transport options. It would also improve the reliability of the rail network for access to health care services, employment and education. However, as the only public transport interventions in this package relate to rail improvements, and does not include bus or DRT based interventions, the consistency with the Equality objective theme would be subject to the cost of ticketing and accessibility of the rail network.

6.6.17 The package is also consistent with the Economic objective theme. The package would support faster and more reliable rail journeys and enhance the rail capacity for movement of people and goods, whilst also improving the reliability of the A96 Trunk Road by reducing the impact of accidents. Alongside this, the inclusion of public transport interventions, targeted road safety improvements and a shift towards more

sustainable transport modes for goods through the introduction of rail freight terminals supports the enhancement and reliability of travel for both people and goods.

Package 5

6.6.18 Package 5 is not fully consistent with the Environment and Climate Change objective themes. Whilst this package would promote alternatively fuelled vehicles and possibly induce a modal shift away from cars, consistent with both the Environment and Climate Change themes, the construction of interventions within the package, particularly for the rail improvements and the four bypasses, have the potential to adversely impact the environment and would need to be subject to further assessment as design development is progressed. The four bypasses may also increase overall vehicle kilometres, which would limit the contribution towards key policy objectives for a 20% reduction in car kilometres by 2030 and reaching net zero targets by 2045. Investment in the decarbonisation of travel through the A96 Electric Corridor is consistent with Climate Change policy but the extent of the physical works associated with the construction of some interventions could introduce environmental impacts which will need to be assessed and mitigated, for example impacts on biodiversity and species. Whilst the new infrastructure should be designed to withstand the predicted impacts of climate change it may still be vulnerable to extreme weather, as is the case for the existing transport networks.

6.6.19 The package is generally consistent with the objective theme of Health, Safety and Wellbeing. Removing through traffic from settlements through the introduction of bypasses and introducing measures through Active Communities to enable walking and cycling in these locations could improve actual and perceived feelings of safety whilst encouraging active travel for shorter everyday journeys within settlements, supporting the 20-minute neighbourhood concept and improving health outcomes. Targeted road safety improvements would also improve real and perceived safety concerns and access to critical services would be enhanced through improvements to both active travel and public transport services.

6.6.20 Package 5 is also largely consistent with the Economic objective theme. Public transport and targeted road safety improvements along with a potential modal shift to more sustainable transport modes from interventions such as rail freight terminals would benefit journey time reliability for both people and goods. However, agricultural land may be required for construction for some interventions within the package so productive farming land may be lost, and the bypasses may result in a loss of passing trade within the bypassed towns.

6.6.21 The package is also consistent with the Equality objective theme. Access to key services and transport inclusivity would be improved for vulnerable groups through public transport improvements to bus, rail and interchanges, supported by DRT and MaaS. Enhanced active travel network coverage for journeys between and within settlements could help a range of community groups to access employment, education, healthcare and leisure facilities.

Refined Package

6.6.22 This package is not fully consistent with the Environment and Climate Change objective themes. Whilst the package would promote alternatively fuelled vehicles and possibly induce a modal shift to sustainable transport, the physical works associated with construction of interventions within the package, particularly for the rail improvements and the two bypasses, may adversely impact the environment and will require further assessment as design development is progressed. Air quality is likely to improve in the bypassed settlements of Elgin and Keith but, overall, the contribution towards key Climate Change policy targets of a 20% reduction in car kilometres by 2030 and reaching net zero targets by 2045 may be limited by the inclusion of these bypasses. The opportunity to increase active travel opportunities within bypassed settlements could further benefit air quality. Investment in the decarbonisation of travel through the A96 Electric Corridor is also consistent with Climate Change policy but the extent of the physical works associated with the construction of some interventions could introduce environmental impacts which will need to be assessed and mitigated, for example impacts on biodiversity and species. Whilst any new infrastructure should be designed to withstand the predicted impacts of climate change it is likely to remain vulnerable to the effects of extreme weather, as is the case for the existing transport networks.

6.6.23 The package is also generally consistent with the Health, Safety and Wellbeing and Equality objective themes. Removing through traffic from settlements through the introduction of bypasses at Keith and Elgin could improve actual and perceived feelings of safety, whilst encouraging more people to take up active travel for shorter everyday journeys within the settlements, supporting the 20-minute neighbourhood concept and improving health outcomes. Targeted road safety improvements would also improve real and perceived safety concerns, while access to critical services would be enhanced through active travel and rail improvements. In terms of Equality, improved access and transport inclusivity for vulnerable groups through improvements to the rail network and public transport interchanges, supported by DRT and MaaS, along with enhanced active travel network coverage in settlements would enable better access to locations of employment, education, healthcare and leisure facilities.

6.6.24 The Refined Package is also largely consistent with the Economic objective theme. Rail capacity enhancements and targeted road safety improvements would enhance journey time reliability for both people and goods. The two bypasses are also anticipated to strengthen the reliability of local and regional supply chains. However, agricultural land may be required for construction for some interventions within the package so productive farming land may be lost, and the bypasses may result in a loss of passing trade within the bypassed towns.

7. Appraisal Summary

7.1 Overview

7.1.1 The A96 Corridor Review has been undertaken following Scottish Transport Appraisal Guidance (STAG) principles. STAG is an objective-led approach to transport appraisal and is used when Scottish Government funding, support or approval is required for a change to the transport system. The transport appraisal has considered all transport modes including active travel modes, public transport (bus and rail) as well as road-based transport.

7.1.2 Undertaking a transport appraisal following STAG is a staged process, the first stage of which is the Case for Change. The A96 Corridor Review Case for Change was published in December 2022 and presents details of the problems and opportunities identified for the transport corridor, the development of the TPOs, and the generation, sifting and development of options.

7.1.3 The next stage of the process involved the multi-criteria appraisal of the options against the TPOs, the five STAG criteria and the accompanying sub-criteria, established policy objectives and deliverability criteria including feasibility, affordability and public acceptability.

7.1.4 The appraisal comprised two stages, the first being the Preliminary Appraisal that was a qualitative assessment of the options against the TPOs, STAG criteria, established policy objectives and deliverability criteria. Options that were considered to have a positive contribution in meeting the TPOs and STAG criteria, as well as aligning with established policies and strategies identified in the bespoke PAF tool and having no major identifiable issues in delivery, were retained to progress to the Detailed Appraisal stage.

7.1.5 The Detailed Appraisal built on the Preliminary Appraisal through more detailed quantitative outputs from a number of analytical tools including transport models and a bespoke public transport accessibility tool. The same assessment criteria as previously used in the Preliminary Appraisal was applied to the Detailed Appraisal.

7.1.6 This report presents the outcomes from the Preliminary and Detailed Appraisal stages of the options identified for the A96 Corridor Review.

7.2 Preliminary Appraisal

7.2.1 The A96 Corridor Review initially assessed 15 individual options as part of the Preliminary Appraisal stage. This included a range of options covering active travel, bus, rail and road-based transport modes.

7.2.2 Early in the Preliminary Appraisal process it was identified that the Active Hubs option would clearly align with, and sit within, STPR2 Recommendation 22 Framework for

Delivery of Mobility Hubs. It was considered that STPR2 would be the most appropriate mechanism by which to progress this option at a national level.

7.2.3 The majority of the options performed positively across multiple TPOs and the STAG criteria and would also have positive contributions to the SIAs. In general, the active travel and public transport options would contribute positively across multiple criteria and appraisal metrics. These options are intended to promote a shift away from private vehicles to more sustainable forms of transport, with the resultant benefits including improved air quality, lower vehicle emissions, increased accessibility to key services and improved safety for transport users. The active travel options in particular would have moderate to major positive contributions against multiple TPOs, STAG criteria and SIAs.

7.2.4 The development of the A96 Electric Corridor also performs well against selected criteria. The provision of alternative fuel infrastructure and facilities along the transport corridor, including for both hydrogen and EV technologies, would help reduce the impacts of road-based transport on the environment.

7.2.5 Options requiring new transport infrastructure, such as rail improvements, bypasses and targeted road safety improvements, would potentially impact on the Environment STAG criterion, particularly visual amenity, cultural heritage and biodiversity.

7.2.6 The provision of bypasses would, however, act as a key enabler for sustainable transport options to be implemented within communities and increase placemaking opportunities, and were therefore retained to progress to the Detailed Appraisal stage.

7.2.7 Of the 14 options assessed in the Preliminary Appraisal, 13 were retained to progress to Detailed Appraisal. As noted previously, the option for A96 Full Dualling has been assessed as part of the Detailed Appraisal.

7.2.8 The option for Improved Parking Provision at Railway Stations was not taken forward to the Detailed Appraisal stage as its performance against the TPOs, STAG criteria and SIAs was considered marginal. It was considered to have the potential to encourage increased car use to access rail stations, and therefore would have negative impact against a number of the TPOs and the Equality and Accessibility STAG criterion.

7.3 Detailed Appraisal

7.3.1 For the Detailed Appraisal, a series of multimodal 'packages' were developed from the options that progressed from the Preliminary Appraisal. An 'area based' approach to combine options together was adopted to develop multimodal packages to suit the varying needs along the transport corridor.

7.3.2 A fifth package was developed as the detailed appraisal progressed. This package comprised all of the options that progressed from the Preliminary Appraisal to create an 'all in' package across the corridor.

7.3.3 As a result, five packages were initially considered in the Detailed Appraisal stage. These were appraised along with the A96 Full Dualling option, progressed as the Scottish Government's current plan, and having already been the subject of the appraisal undertaken in 2014 that established the Inverness to Aberdeen Corridor Study A96 Dualling Inverness to Aberdeen Strategic Business Case.

7.3.4 Whilst the A96 Full Dualling would result in significant negative environmental impacts, it is anticipated to provide the greatest benefits for safety and resilience, whilst also improving journey times and journey time reliability that would benefit the local and wider economy. The consistent provision of overtaking opportunities would provide a safer route and the route alignment would bypass towns along the existing road, removing conflict between longer distance and local traffic. It would also provide a level of resilience in the case of closures, benefitting HGVs and the movement of goods to develop the local economy and provide opportunities for business growth.

7.3.5 The five packages each demonstrate positive contributions to the majority of the A96 Corridor Review TPOs, STAG criteria and SIAs. Each package would provide localised benefits to the area types targeted along the A96 corridor (whether this be a town, settlement or rural area) and also contain corridor-wide interventions that would provide a level of benefit throughout the wider region.

7.3.6 Package 1 would deliver moderate benefits in terms of contributing to the Scottish Government's net zero targets (TPO1), improving accessibility to public transport (TPO2), enhancing communities as places to support health, wellbeing and the environment (TPO3), and providing a safe, reliable and resilient transport system (TPO5). The removal of longer distance trips within the towns would provide a safer network and facilitate the delivery of active travel and public transport improvements in towns. The package would also have moderate positive impacts in terms of equality and child rights and wellbeing.

7.3.7 Package 2 benefits are not as substantial as the package does not include bypasses, and Active Communities would only be introduced in smaller settlements along the A96 with lower populations, thus limiting the potential benefits on the wider network and area. As such, nearly all benefits under Package 2 are anticipated to be minor but the inclusion of Targeted Road Safety Interventions results in a moderate benefit for

providing a safe, reliable and resilient transport system (TPO5). Benefits to accessibility would be felt locally in the settlements considered, along with measures to improve local air quality and reduce emissions.

7.3.8 Package 3 covering the rural areas captures smaller areas of population, as these are often underserved in regards of transport provision and infrastructure due to their rural nature, with smaller scale benefits as a result. Benefits for providing a safe, reliable and resilient transport system (TPO5) are anticipated to be moderate, predominantly due to the impacts of Targeted Road Safety Interventions, and the package would improve the accessibility towards key services, such as employment and hospitals, in larger towns and cities.

7.3.9 Package 4 mainly focuses on longer-distance movements between settlements along the A96, with a key intervention being a fully connected high quality active travel route between Inverness and Aberdeen travelling through settlements along the A96 corridor, and delivery of rail freight terminals to encourage more sustainable movement of goods. Moderate benefits are anticipated for contributing to the Scottish Government's net zero targets (TPO1), enhancing communities as places to support health, wellbeing and the environment (TPO3), and providing a safer and more resilient transport system (TPO5).

7.3.10 Package 5 combines all options within a single package. This package is expected to deliver a major benefit for contributing to the Scottish Government's net zero targets (TPO1) whilst also having moderate positive impacts on improving accessibility to public transport (TPO2), enhancing communities as places to support health, wellbeing and the environment (TPO3), contributing to sustainable inclusive growth (TPO4), and providing a safe, reliable and resilient transport system (TPO5). Both settlements and more rural areas along the length of the A96 corridor are anticipated to see benefits with improvements to active travel provision and public transport connectivity, interchange and reliability. The package would also seek to benefit movements between settlements along the A96, with key interventions being a fully connected, high quality active travel route and the delivery of rail freight terminals to encourage more sustainable movement of goods.

7.3.11 Overall, the packages aim to increase sustainable travel choices and improve safety. Each package has a range of relevant active travel and public transport options that would aim to reduce the reliance on private car for travel, particularly in rural areas and in smaller towns lacking key services such as hospitals, education facilities or extensive employment opportunities.

7.3.12 Safety improvements would be evident through road safety improvements or as a result of mode shift away from private car reducing traffic along the A96 corridor, or a combination of both.

7.3.13 The negative impacts of each package and the Full Dualling option are expected to primarily relate to the STAG Environment and Climate Change criteria. The physical infrastructure required for some options within each package is anticipated to

negatively impact environmental considerations such as biodiversity and habitats, landscape, water drainage and flooding, and geology and soils. In terms of climate change, the GHG emissions resulting from construction are expected to outweigh any reductions in road user GHG emissions in all packages and Full Dualling. However, a mode shift away from private car to more sustainable modes would help reduce road user GHG emissions particularly in the packages that do not include bypasses. Local air quality would also be improved through the bypassing of towns, as these would reduce impacts in settlements with the greatest population along the current A96 corridor.

7.3.14 As the option for Full Dualling would increase road capacity and allow for increased travel speeds this is anticipated to encourage more vehicles to travel on the network. Although it would be expected to reduce delay and congestion, the net impact on the environment and climate change is anticipated to be negative. The option is however expected to reduce driver frustration through the provision of consistent overtaking opportunities and provide significant safety benefits. Although Full Dualling would result in the largest increase in vehicle kilometres travelled, dual carriageway roads have lower accident rates compared with single carriageway roads.

7.3.15 Similarly, the provision of bypasses would also increase vehicle kilometres travelled although to a lesser degree than the option to fully dual the A96. However, bypassing key towns in combination with the active travel and public transport options would enable an increase in sustainable and active transport travel choices and placemaking within the bypassed towns. This would reduce reliance on travel by private car particularly for short trips within towns, partially offsetting the negative impacts effects of bypasses. Overall, the introduction of bypasses in conjunction with the active travel improvements would have a much lower impact on GHG emissions and environmental impacts than the Full Dualling option.

7.4 Refined Package Detailed Appraisal

7.4.1 Additional analysis has been undertaken to disaggregate the benefits of each package and identify the contribution that individual options would make to the overall performance of each package. The intention of this was to identify those options that provided the greatest contribution to the total benefits of the packages, and what proportion of the total estimated cost they would represent.

7.4.2 The assessment allowed the better performing options included in the Detailed Appraisal packages to be identified. These interventions were then combined to form an additional package, referred to as the Refined Package. This package was developed to maximise the level of potential benefits by combining the best performing options, whilst optimising investment within the corridor and delivering value for money.

7.4.3 The Refined Package performs well against the appraisal criteria and addresses the key problems and opportunities in the A96 corridor. The package of options targets investment to maximise the benefits within the corridor, with the range of options

across all transport modes allowing an inclusive multimodal corridor approach to be considered.

7.4.4 The inclusion of Active Communities within the Refined Package at settlements throughout the A96 corridor would encourage modal shift for shorter everyday journeys, resulting in reduced emissions in each locality, and enhanced safety.

7.4.5 The Refined Package includes bypasses of Elgin and Keith, reducing traffic volumes and supporting modal shift within these towns. The bypasses would help to maximise the benefits associated with the Active Communities option at these locations, aiming to further reduce reliance on cars for trips within settlements through the provision of active travel infrastructure. The bypasses would also enhance journey time reliability for longer distance trips, removing conflicts with local movements within the towns, thus reducing real and perceived safety concerns.

7.4.6 The inclusion of Targeted Road Safety Improvements would help to reduce accidents at locations where the propensity for accidents to occur is greater, improving both real and perceived safety of the route. This would also improve the overall reliability of the route by reducing the level of disruption to road users and the local communities as a result of incidents. The types of measures associated with road safety improvements could also allow for additional overtaking opportunities, which should help contribute towards a reduction in driver frustration along the corridor.

7.4.7 Public transport benefits would be realised through the inclusion of the rail linespeed and capacity improvements, which would be complemented by the inclusion of DRT and MaaS and improved passenger interchange facilities. These options would increase the attractiveness of the public transport within the corridor, which would in turn encourage a shift to more sustainable modes of travel, resulting in a reduction in transport related emissions. DRT and MaaS would also have benefits in their own right, improving accessibility within the corridor for those without access to a car, and vulnerable groups such as children and the elderly. The inclusion of the A96 Electric Corridor would also facilitate decarbonisation of transport within the corridor and help reduce transport related emissions.

7.4.8 Overall, the Refined Package aims to increase sustainable travel choices and improve safety. It has a range of relevant active travel and public transport options that would aim to reduce reliance on the private car across the A96 corridor, both within communities and between them, particularly for access to key services such as hospitals, education facilities or extensive employment opportunities.

7.4.9 The Refined Package would deliver moderate benefits in terms of meeting the A96 Corridor Review TPOs for contributing to Scottish Government's net zero targets (TPO1), enhancing communities as places to support health, wellbeing and the environment (TPO3) and providing a safe, reliable and resilient transport system (TPO5), as well as the STAG Health, Safety and Wellbeing, Economy and Equality and Accessibility criteria. The package would also have moderate positive impacts in terms of Equality and Child Rights and Wellbeing.

7.4.10 Nevertheless, the provision of bypasses and the potential increase in vehicle kilometres along with the new infrastructure requirements would negatively impact the environment. As the Refined Package only includes bypasses of Elgin and Keith, minor negative impacts are anticipated for the STAG Environment and Climate Change criteria.

7.4.11 The Refined Package would provide a higher range of monetised benefits overall than the other packages that were developed, except Package 5 which has a slightly higher range of benefits in the 'Without Policy' scenario but at a higher cost. The majority of the TEE benefits for the Refined Package are derived from the rail improvements and the Elgin and Keith bypasses.

7.4.12 Overall the Refined Package performs well against all of the TPOs, STAG criteria and SIA criteria, whilst optimising investment within the corridor and delivering value for money.

7.5 Next Steps

7.5.1 Following publication of this draft Transport Appraisal Report, a consultation process will be undertaken to gather feedback from stakeholders and the public on the outcomes of the A96 Corridor Review. The consultation process will involve seeking the views of statutory consultees, wider stakeholders and the public on the assessment and findings set out in the Strategic Business Case - Summary of Main Report (Draft) (https://www.transport.gov.scot/publication/strategic-business-case-summary-of-main-report-draft-a96-corridor-review/) and this draft Transport Appraisal Report.

7.5.2 The feedback received during the public consultation will assist the Scottish Ministers in making a final decision on the outcomes of the A96 Corridor Review.

Appendices

Appendix A. Approach to Scenario Planning

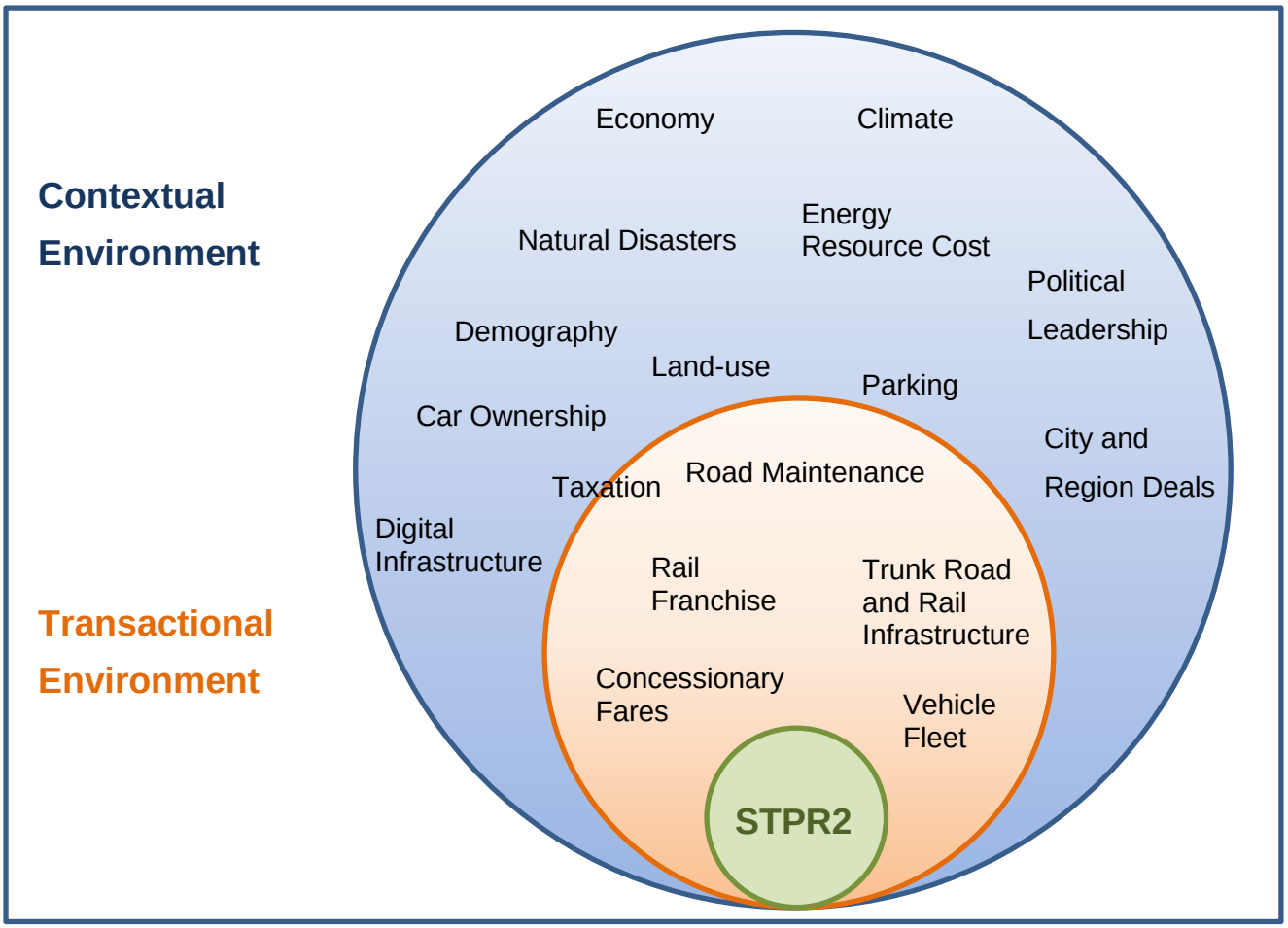
Contents

Purpose

The purpose of this paper is to share information with local authorities, RTPs and other interested parties, on the approach to Scenario Planning being undertaken in STPR2.

Introduction

1. The purpose of Scenario Planning is to ensure that anything which cannot be influenced is considered in the appraisal of that which is planned. The terminology is that which cannot be influenced is the '**Contextual Environment'** and that which is to be done is the **'Transactional Environment'**. This is illustrated below for drivers of transport demand [note that not all these drivers will be used].



2. **The Scenarios used in STPR2 will only include the factors which sit in the Contextual Environment**. The factors in the Transactional Environment are NOT in scope as these *may* become part of the intervention i.e. they are potentially in-scope for Transport Scotland to influence. The exception to this is 'committed interventions' (e.g. A9 dualling) which are included in all scenarios.

3. The scenarios developed need to be **coherent**, **credible** and **challenging**. Coherent and credible is to be believable and relatable by decision makers and the public. Challenging is to ensure the appraisal of the interventions is rigorous, particularly in terms of taking account of uncertainty by considering a range of significantly different alternative futures.

4. The number of Scenarios needs to be practical. Whilst eight scenarios were developed for NTS2, those scenarios did not have any spatial differentiation within Scotland. To apply spatial differentiation to those scenarios (e.g. rural / urban / central belt / NE / SE / NW / SW) would create an impractical number of them. Lessons learnt from the NTS2 work also shows that many of the different drivers could be condensed down to two key parameters of; **how many trips are being made and the cost of travel**.

5. Scenarios can inform whether and / or when an intervention is needed; to keep the number practical, the scenarios for STPR2 focus on whether it is needed. In practice this means that the differences between scenarios will concentrate on factors such as the form and location of development and employment rather than on the how quickly or slowly change occurs.

6. Transport is a derived demand which leads to strong feedback loops between the various factors. Feedback between the STPR2 interventions and the Transactional Environment is relatively straightforward to deal with and will be captured in the appraisal process anyway. More challenging is when the feedback loops cross into the Contextual Environment such as when transport affects spatial accessibility as this feeds back through into land-use planning policy, demography and the economy. In other words: "*Society shapes Transport but Transport shapes Society*." Thus, the outcomes shown in the scenarios do not necessarily constitute a desired outcome. They are illustrations of what could happen under a given set of circumstances. The purpose of the STPR2 interventions is to help transform undesirable outcomes in the scenarios into desirable outcomes which support the NTS2 vision, priorities and outcomes.

7. In summary, the objective for the scenarios for STPR2 is to: ***Create a number of coherent, credible and challenging futures that explore the level of trip making resulting from changes in the contextual environment with a focus on creating significant spatial variation.***

Proposed Scenarios

8. Taking into consideration the factors described above, a number of scenarios were planned to be developed comprising variants of spatial demographic / economic growth and policy ambitions. In the end, only two scenarios were developed as the policy ambition for a 20% reduction in car kilometres by 2030 dwarfed the effects of everything else.

9. Model Years: The base year is 2018. The forecast model years will be 2019, 2025, 2030, 2035, 2040 and 2045.

10. The following sections explain the key choices made in the proposed scenarios.

Spatial and Demographic Growth Factors

Economy and Employment

11. Both scenarios have the same overall economic growth over the period to 2050; this is a combination of long-term projections by Oxford Economics bought in 2019, the Scottish Fiscal Commission forecasts and more recently the OBR post-COVID estimates. Higher or lower growth will have little impact on whether an intervention is a 'good idea' but will impact only on when it would be needed or what the benefits are over the appraisal period. It also doesn't provide any variation to the spatial distribution of growth.

Demography [Population and Households]

12. Only one population and household projection has been adopted [NRS 2018]. Similar to the overall economy issue, the change in both the population and the number of households will predominantly affect when a major transport intervention is needed rather than whether it is needed.

13. However, at a more local level, the most significant influence on higher or lower population in the future is due to migration which can change the structure of the population (e.g. if inward migration are economically active people and outward migration are retirees). In turn this will have impacts on the structure of households and in turn on the housing stock needed.

14. Using only one population and household projection, cognisance of different population structures may need to be considered separately in the appraisal for interventions particularly in regards to non-modelled impacts.

Land-use

15. Local Planning Policy is provided by the 34 Planning Authorities with NPF4 as part of the statutory development plan and will contain policies that don't need repeated across all LDPs. In previous modelling, development has only been permitted to take place in those locations where development is allocated. If an area 'runs out' of land for a particular type of land-use then no further build-out of that land-use occurs beyond agreed rates of windfall. Further employment can occur though through intensification of use of existing land.

16. With increased working from home, it is expected that without redevelopment to other purposes the volumes of vacant office and retail space will rise even without additional allocations. Redevelopment of these spaces for residential use, taking cognisance of the higher development costs compared to greenfield sites, will be permitted to take place in the model.

City and Region Deals

17. City and Region Deals are 'policy' interventions designed to deliver outcomes. They comprise a variety of interventions including transport. Whilst there may not be a perfect alignment of the different Scottish Economy and Employment scenarios and the different city and region deals, in terms of scenarios with different magnitudes of employment and development, it's considered that these are effectively captured within the proposed scenarios, as are other economic policies and investment types.

Development

18. 2020-21 will reflect what is known or estimated about reduced completion of housing and other floorspace during the pandemic, but will assume that the construction industry can resume normal levels of activity afterwards (i.e. that there is no lasting loss of capacity in the industry).

Implications of increases in remote working

19. From 2021 onwards, household preferences will be adjusted to reflect the growing demand for space for working at home. The change will be concentrated on households whose occupations are more suitable for remote working, and on those age ranges which are less likely to have suitable space already (so households in the "older couple" category, who are likely to be "empty nesters", are less likely to need additional space for working at home than, say, families with children). The value that households put on accessibility to work will also be reduced. There will be a parallel reduction in the requirement for floorspace per worker in sectors where remote working becomes more significant. Different levels of change will be made for the Transport Behaviour scenarios. Note that all of these changes will have consequences and resulting feedback effects, e.g. higher demand for housing from some household types will (to some extent) affect what is affordable for other household types.

Planning policy

20. Planning policy inputs (quantities of development permissible, by type, zone and year) from the APPI18 exercise used, but with the additional possibility after 2030 that vacant office or retail floorspace may be converted or redeveloped for housing. This will allow for reuse of (say) office floorspace in cases where growth in business services slows down.

Transport Behaviour Scenarios

21. The two transport behaviour scenarios are broadly capturing 'without policy ambition' (high) and 'with policy ambition' (low) levels of motorised traffic demand. The high traffic demand scenario is similar to a traditional 'Do Minimum' forecast. The low traffic demand scenario reflects the some current policy ambitions of the Scottish Government. This provides a much broader context with which to appraise STPR2 interventions.

22. The transport behaviour scenarios comprise what are considered to be the major drivers of high road traffic demand.

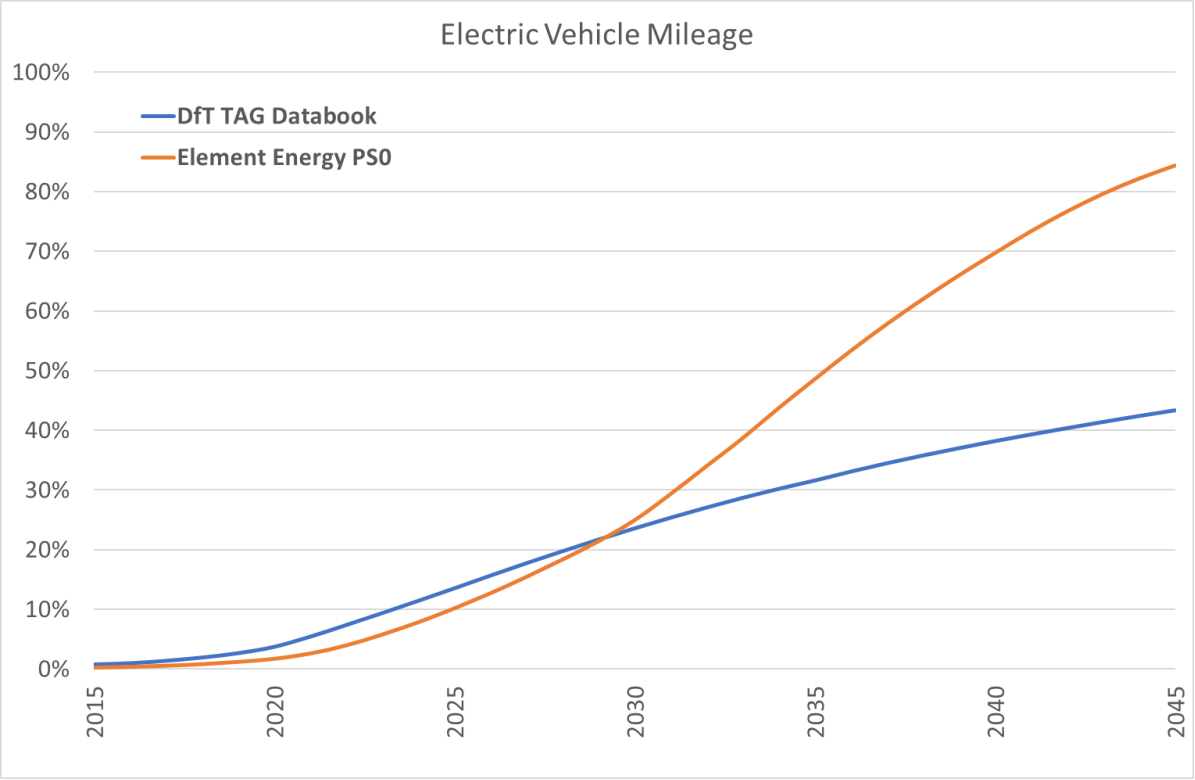
High Motorised Traffic / Emission demand (H)

23. This creates a Scenario based on choosing drivers in the contextual environment which lead to higher motorised traffic demand.

Vehicle Fleet

24. In previous forecasts, the vehicle fleet profile has followed that published in the DfT's Transport Appraisal Guidance Unit A1.3. It is understood that the DfT acknowledge the current fleet profile in there is not up to date.

25. Transport Scotland have previously commissioned Element Energy to undertake modelling of the Scottish vehicle stock. A number of Policy Scenarios are available. Policy Scenario 0 (PS0) will be used as the forecast of Electric Vehicle Mileage in the absence of interventions (i.e. this does not include the ambition to phase out the need for new petrol and diesel cars by 2030). PS0 shows that by 2020 uptake of EVs has been slower than originally forecast by DfT but then grows more strongly.



Fuel / Energy Costs

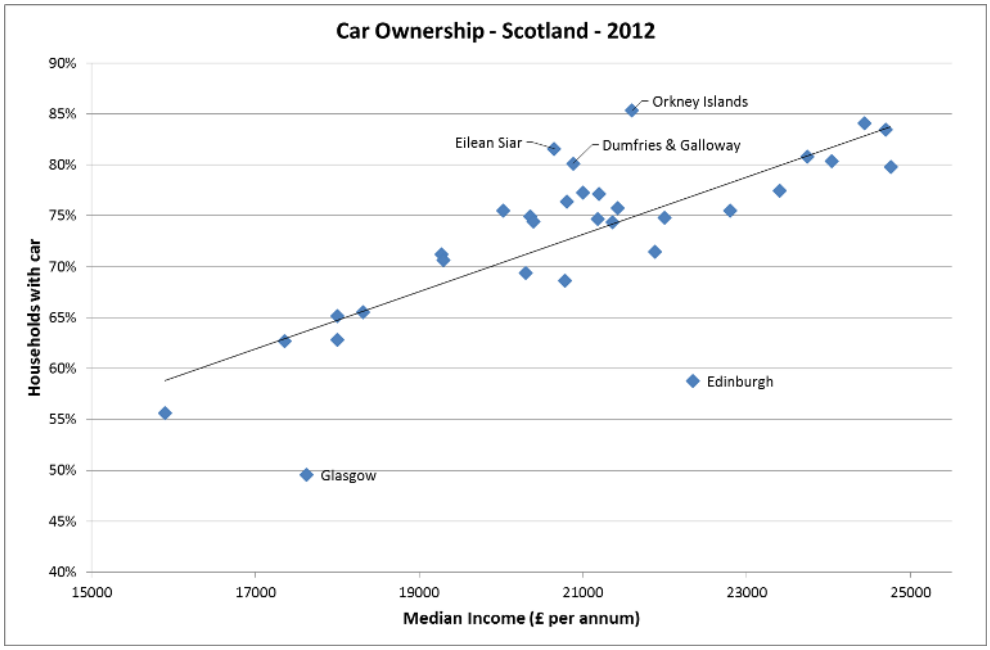
26. In previous forecasts, vehicle efficiencies and fuel costs have followed that published in the DfT's TAG A1.3. Key energy costs assumptions are that there is no duty on Electricity and 5% VAT compared to 20% VAT on fossil fuels and fuel duty between 50 and 65 p/litre (2010 prices). These costs will continue to be used in this scenario.

27. All other things being equal this combined with the increasing uptake of EVs generates significant traffic growth (average marginal cost for cars falls from 5.4 p/km in 2020 to under 3 p/km in 2050). Using similar costs, the DfT Road Traffic Forecasts 2018 had over 50% growth in vehicle miles for their scenario with high shift to EVs.

Parking Supply, Cost and Car Ownership

28. In previous forecasts non-residential parking supply has been assumed to be market-driven; i.e. if there is a demand for parking then supply will be provided. Where there are Parking Costs these have been assumed to rise in line with RPI.

29. A lack of residential parking supply can affect car ownership. This is potentially an issue in Glasgow and Edinburgh where the number of households with a car is substantially below that expected based on the median income in these local authorities.



30. In the High scenario, future car ownership will only be constrained in city centres (not the whole city) where there are existing parking constraints.

Post COVID19 Working Behaviours and Trip Rates

31. COVID19 has demonstrated that up to 40% of the working population are able to work from home. Post-COVID19 some people / employers will choose to continue to work from home, others will return to working in an office full-time and others will blend their working week between home and office. It will be assumed post-COVID19 that 15% of commute journeys will be no longer be undertaken; this will be allocated to different professions as appropriate. As the economy grows in different ways (see earlier) the overall proportion of people working from home will vary over time.

32. Related to employment are business trips. Some of these are now likely to take place digitally compared to pre-COVID19. It will be assumed post-COVID19 that 33% of business journeys will be no longer be undertaken.

33. For other journey purposes other than commute and business travel, trip rates will be kept constant over time. Whilst there is likely to be a rise in online retail for example, it's considered that any decrease in trips to shop will be partially offset by increased delivery trips. Historically there is also some evidence that when one type of trip purpose declines, others are substituted [NTS0403].

Trip Timing

34. With more ability to work flexibly, those who are commuting to work could take advantage of travelling when congestion is less on the roads or fares are lower on the train. The current models do not include a 'time of day' choice. As there is currently no evidence on a post-COVID19 time of day change, no changes will be made to trip timing.

Transport Technology and Disruptors

35. The most significant Disruptor Technology leading to high traffic demand is the potential of Connected Autonomous Vehicles (CAVs) particularly if they are used in the same way as private cars are currently (i.e. no significant increase in sharing). A 40% uptake of CAVs in 2050 has been assumed as optimistic with the first CAVs appearing in the mid 2020s. [loosely based on analysis by Deloitte]. The main impact of CAVs is to enable people who are currently unable to drive to become the equivalent of 'car drivers'. By 2050, particularly with the availability of 'shared user' CAVs makes all adults 'car available'. The trip rate for retired people will be set to the same as for 'working age unemployed'.

Low Motorised Traffic / Emission demand (L)

36. This creates a Scenario in line with various desired policy outcomes and outputs.

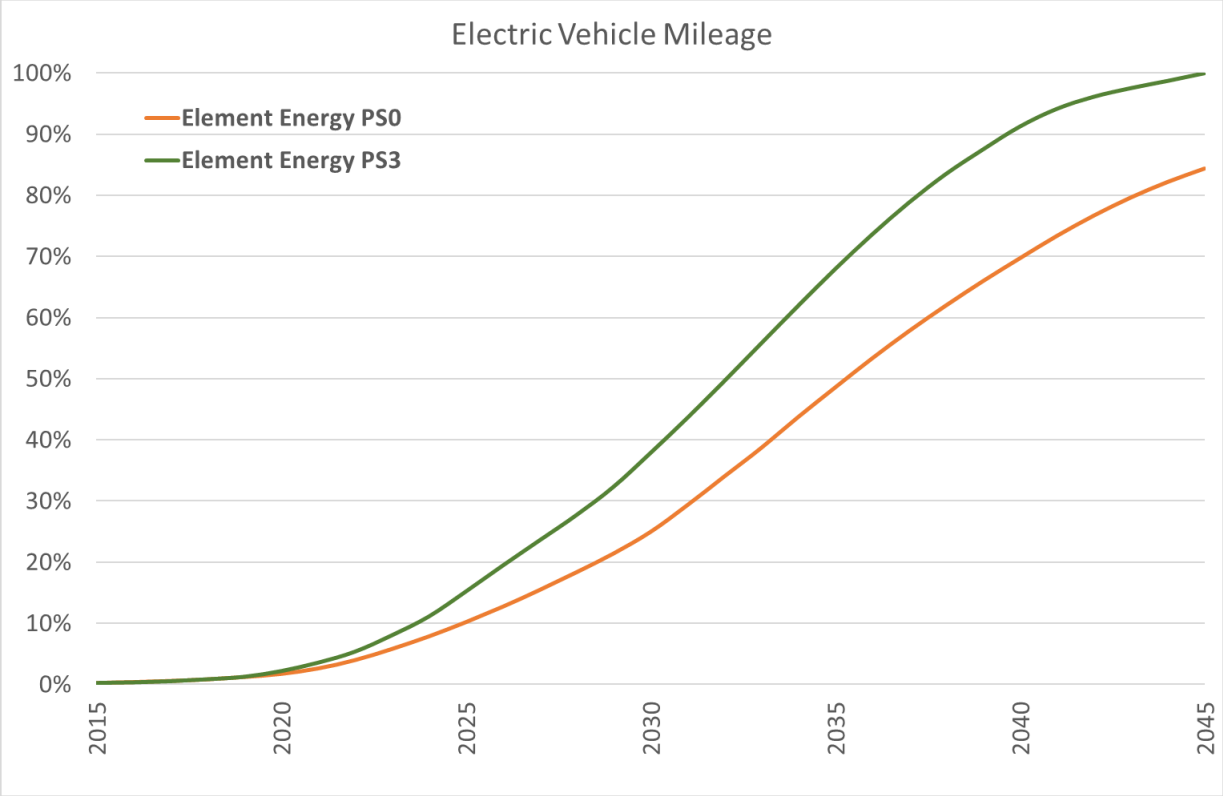
Future Policies: Ambitions, Targets, Outcomes or Outputs

37. These go by a variety of names but are all quantified visions of the future such as

- 20% reduction in car.km. by 2030
- Phase out the need for new petrol and diesel cars and vans by 2030
- Net zero carbon emissions by 2045

Vehicle Fleet

38. Using previously commissioned Element Energy to undertake modelling of the Scottish vehicle stock Policy Scenario 3 (PS3) will be used as the forecast of Electric Vehicle Mileage (this does include the ambition to phase out the need for new petrol and diesel cars by 2030).



Parking Supply, Cost and Car Ownership

39. No change to parking supply or cost compared to the High Traffic scenario.

40. Future car ownership will only be constrained in all cities (i.e. the whole city) to numbers in 2020.

Post COVID19 Working Behaviours and Trip Rates

41. It will be assumed post-COVID19 that 25% of commute journeys will be no longer be undertaken; this will be allocated to different professions as appropriate. As the economy grows in different ways (see earlier) the overall proportion of people working from home will vary over time.

42. It will be assumed post-COVID19 that 66% of business journeys will be no longer be undertaken.

43. For other journey purposes other than commute and business, trip rates will follow the trend of decline in trips rates observed over the last decade.

Trip Timing

44. No changes will be made to trip timing compared to the High Traffic scenario.

Transport Technology and Disruptors

45. The most significant Disruptor Technology leading to high traffic demand is the potential of Connected Autonomous Vehicles (CAVs) particularly if they are used in the same way as private cars are currently (i.e. no significant increase in sharing). This scenario will assume that CAVs do not make it to market before 2050.

Fuel / Energy Costs

46. Achieving the 20% reduction in car mileage by 2030 is likely to be achieved through a programme of different interventions. Each of these interventions will require a business case and depending on the scale to which they are implemented will contribute towards the reduction by different amounts. Ultimately though, the reduction can only be achieved through reducing the number of trips [see 'Post COVID19 Working Behaviours and Trip Rates above] and reducing the distance driven. The distance driven by private car is proportionate to the generalised cost of driving. The generalised cost of driving comprises the time taken to make a journey, the cost of fuel, vehicle operating costs, car parking costs and 'tolls' (although no tolls currently apply). Thus, the generalised cost of car driving will be increased such that the 20% reduction in car mileage is achieved by 2030. After 2030, the generalised cost of driving will increase with inflation.

Committed Interventions

47. If an intervention is considered 'committed' it will included in all the scenarios. In addition to the 'committed' interventions in the last version of TMfS, the following major interventions are now included.

48. A9 and A96 Dualling will be considered as committed including:

- A9/A96 Inshes to Smithton Link Road
- A9/A82 Longman Roundabout grade separation

49. Additional Rail commitments include:

- East Linton and Reston stations
- Levenmouth Rail
- Winchburgh

Appendix B. Policy Appraisal Framework Tool Outcomes

Contents

Tables

1. Introduction

1.1 This appendix details the assessment approach and findings of the A96 Corridor Review Policy Appraisal.

1.2 Background

1.2.1 STAG states that the relevant national policies and objectives identified during Objective Setting in the Case for Change should also be considered during Preliminary Options Appraisal. A clear conflict between an option and, for example, established land-use planning policy or transport targets in the area is likely to jeopardise its potential for funding, support, approval and implementation. A positive contribution towards the achievement of other relevant objectives would be to an option's credit.

1.2.2 The contribution of options towards meeting established Scottish Government policy objectives are demonstrated using the outputs of the Policy Assessment Framework (PAF) Tool. The PAF Tool is used to qualitatively assess how each option performs against current Scottish Government transport policy objectives detailed in the PAF spreadsheet. However, the PAF tool available on the Transport Scotland website has not been updated to reflect the current policy context.

1.3 Approach to assessment

1.3.1 For the purposes of the A96 Corridor Review, and in line with the approach taken for the Second Strategic Transport Projects Review (STPR2), a bespoke PAF tool was developed which reflected relevant national, strategic and local scale policy requirements. A set of appraisal objective criteria were derived from a comprehensive policy review and these objective criteria were then aligned to each to the five STAG criteria. The documents used in the generation of objectives are presented in Table 1.1.

Table 1.1: Documents used in objective criteria generation

National Documents	Strategic Documents	Local Documents
National Performance Framework	HITRANS – Regional Transport Strategy 2018	Highland Wide Local Development Plan (2012)
Scotland's National Strategy for Economic Transformation: Delivering Economic Prosperity (2022)	NESTRANS – Regional Transport Strategy for the North-East of Scotland (2021)	Inner Moray Firth Local Development Plan (2015)
Infrastructure Investment Plan (2021)	Aberdeen City and Shire Strategic Development Plan (2020)	Cairngorms National Park Local Development Plan (2021)
National Transport Strategy 2 (2020)		Moray Local Development Plan (2020)
National Planning Framework 3 / Scottish Planning Policy (2014)		Aberdeen Local Development Plan (2017)
National Planning Framework 4 (2023)		Aberdeenshire Local Development Plan (2017)
A Fairer, Greener Scotland: Programme for Government 2021-22 (2021)		The Highland Council Local Transport Strategy 2011-2014 (2010)
Update to the Climate Change Plan 2018-2032: Securing a Green Recovery on a Path to Net Zero (2020)		Moray Local Transport Strategy (2011)
Climate Ready Scotland: Second Scottish Climate Change Adaptation Programme 2019-2024 (2019)		Aberdeenshire Council Local Transport Strategy (2016-2021)
		Inverness and Highland City Region Deal Annual Report 2020/21 (2021)
		Aberdeen City Region Deal (2016)

1.3.2 The PAF Tool themes and criteria questions which relate to the policy objectives identified are as follows:

- Environment
  - To what extent does the option or package improve air quality?

  - To what extent does the option or package safeguard and enhance the natural and cultural environment?
  - To what extent does the option or package safeguard and enhance blue networks and waterbodies?
  - To what extent does the option or package support the creation and maintenance of attractive and high quality places (with reference to the six qualities of successful places in National Planning Framework 4 (NPF4))?
- Climate Change
  - To what extent does the option or package contribute to the 20% reduction in car kilometres?
  - To what extent does the option or package help meet the net zero by 2045 target?
  - To what extent does the option or package help adapt the transport network to direct and indirect risks associated with climate change projections for Scotland?
  - To what extent does the option or package promote and support the best use of clean fuels/technologies decarbonising travel?
- Health, Safety and Wellbeing
  - To what extent does the option or package promote safe and secure travel for all users?
  - To what extent does the option or package support healthy travel choices as part of a multimodal journey?
  - To what extent does the option or package support the creation of healthy and liveable places?
  - To what extent does the option or package enhance provision of non-motorised transport and promote active travel as part of a 20-minute neighbourhood?
  - To what extent does the option or package support sustainable access to critical services i.e. education, healthcare?
- Economic
  - To what extent does the option or package support the creation of a resilient and reliable transport network?
  - To what extent does the option or package support future growth areas and national developments identified in land use planning?
  - To what extent does the option or package provide a transport system which enables businesses to be competitive locally and within the rest of the UK?
  - To what extent will the option or package support and enhance rural economy?

- Equality
  - To what extent does the option or package provide sustainable transport connections to and from more disadvantaged communities?
  - To what extent does the option or package provide sustainable, affordable transport access to education and employment opportunities?
  - To what extent does the option or package provide fair and equal transport access to healthcare services?
  - To what extent does the option or package support a 'just' transition to net zero?

1.3.3 At both preliminary and detailed appraisal stages, options (or packages) were assessed within the Policy Appraisal with each option given a high-level score to determine whether they were consistent with the criteria for each policy objective. It was considered that at this strategic level both 'With Policy' and 'Without Policy' transport behaviour scenarios would have similar outcomes, and therefore only one score was provided against each objective. For further information regarding the transport behaviour scenarios, please refer to Appendix A of the Strategic Business Case – Transport Appraisal Report.

1.3.4 The following assessment approach was adopted:

- **Consistent** – this 'score' was attributed to each of the objectives if it was decided that the option is consistent with the objective or has general compliance with it.
- **Inconsistent** – this 'score' was attributed to each of the objectives if it was decided that the option is inconsistent with the objective.
- **Neutral** – where further detail or research is required to accurately determine the impact of an option or where the option is to have no significant positive or negative impact in relation to the objectives, the neutral 'score' was given.
- **Inconclusive (at this stage)** – whilst carrying out the option appraisal it was identified that a 'score' which acknowledged that some of the options may cause both positive and negative impacts needed to be reflected.

1.4 Assumptions and Limitations

1.4.1 It should be noted that the policy appraisal of both the preliminary options and detailed packages was initially undertaken in advance of the formal adoption of the NPF4 and thus within the context of National Planning Framework 3 (NPF3) and Scottish Planning Policy 2014. The draft version of NPF4 was used in the first instance to develop the objective criteria, however a secondary review of the objective criteria and the findings was undertaken following its adoption in February 2023. It is considered that the key aims and outcomes of NPF4 as adopted are accurately reflected in the Policy Objective Criteria.

1.4.2 At this current stage in the process, design and details relating to location, materials, construction etc. are not finalised due to the strategic nature of the options and packages being appraised. No recommendations have been made and therefore this appraisal does not identify any preferred options or packages at this point. The scorings which were given are based on the current situation and make no assumptions with regards to future design development and mitigation, which can improve the consistency of an option in relation to the policy objective criteria.

1.4.3 While the STAG appraisal has considered the impacts across both the 'With Policy' and ''Without Policy' transport behaviour scenarios (see Appendix A of the Strategic Business Case – Transport Appraisal Report for full details) it was considered for the purposes of this appraisal and due to the strategic nature of the options that the potential conflicts would be same for both scenarios and as such only one score is provided.

1.5 Consideration of A96 Full Dualling

1.5.1 As the Scottish Government's current plan is to fully dual the A96 route between Inverness and Aberdeen, it was considered appropriate that it progressed to the Detailed Appraisal stage, as it has already been the subject of the appraisal undertaken in 2014 that established the Inverness to Aberdeen Corridor Study A96 Dualling Inverness to Aberdeen Strategic Business Case.

1.5.2 The option for A96 Full Dualling has been appraised as part of the Detailed Appraisal to assess its performance against current appraisal criteria including the TPOs developed for the A96 Corridor Review, the current STAG criteria and the relevant SIAs. The outcomes of the Detailed Appraisal for A96 Full Dualling are presented in Chapter 6 of the Strategic Business Case – Transport Appraisal Report.

1.5.3 It should be noted that the A96 Dualling Inverness to Nairn (including Nairn Bypass) scheme has been excluded from the scope of the A96 Corridor Review as it already has ministerial consent. In the context of the A96 Corridor Review, the A96 Full Dualling therefore comprises the section of the route from Hardmuir (to the East of Nairn) through to the junction with the Aberdeen Western Peripheral Route (AWPR) at Craibstone.

1.5.4 In relation to the policy appraisal, the A96 Full Dualling (from Hardmuir to Craibstone) has been considered against the identified policy objectives alongside the packages which progressed to Detailed Appraisal. No policy appraisal was undertaken for A96 Full Dualling at the Preliminary Appraisal stage.

1.6 Consideration of Active Hubs

1.6.1 Early in the Preliminary Appraisal process it was identified that the Active Hubs option would clearly align with and sit within STPR2 recommendation 22 (Framework for Delivery of Mobility Hubs). It was determined that STPR2 would be the most appropriate mechanism by which to progress this option at a national level. As such, the appraisal of Active Hubs was not completed within the A96 Corridor Review and the option has not been considered as part of the policy appraisal.

2. Preliminary Appraisal

2.1 Introduction

2.1.1 This section summarises the policy assessment element of the Preliminary Appraisal for the A96 Corridor Review. Although 16 options were taken forward from the Initial Option Sifting as part of the Case for Change as summarised in section 1, only 14 were assessed fully at the Preliminary Appraisal Stage, with Active Hubs dropping out and A96 Full Dualling only being assessed at the Detailed Options Appraisal stage. Section 3 of the A96 Corridor Review Strategic Business Case – Transport Appraisal Report explains the approach to the Preliminary Options Appraisal assessment.

2.2 Summary of Findings

2.2.1 The policy objectives were grouped under the five STAG themes. All the options appraised were generally consistent with at least some of the five objective themes.

2.2.2 Under the **Environmental** appraisal theme, where an option required significant new infrastructure or the development of land such as the bypass options and the Linespeed, Passenger and Freight Capacity Improvements on the Aberdeen to Inverness Rail Line, there is a potential inconsistency with policy objectives. Some key concerns raised being the safeguarding of natural environment assets and the blue network/waterbodies; although as explained in Section 1.4 above there is no information available at this time on potential design measures or mitigation. Some of the options, including bypasses, are anticipated to improve local air quality by removing car and freight through trips from towns, however their overall impact on air quality is uncertain as they may encourage an increase in vehicle kilometres overall, thus increasing emissions produced.

2.2.3 Where sustainable modal shift is facilitated to public transport or active travel, these options are considered generally consistent with objectives relating to improving air quality and contributing towards the creation and maintenance of high-quality places which are attractive, connected and sustainable. However, given the lack of design detail commensurate with this early stage of option appraisal, it is not appropriate to make comment on whether any construction of any of the options would be inconsistent with objectives related to protecting and enhancing the natural environment and potentially blue networks and waterbodies.

2.2.4 Under the **Climate Change** appraisal theme, the four bypass options along with targeted road safety interventions all have the potential to increase vehicle trips and kilometres travelled, which is inconsistent with key climate change policy objectives to reduce vehicle kilometres by 20% by 2030 and achieve net zero emissions by 2045. Bypasses score better against objectives related to adaptation due to the assumption that new infrastructure would be designed to minimise the predicted effects of climate change.

2.2.5 Options supporting modal shift to more sustainable options including active travel options, rail enhancement options and the A96 Electric Corridor are more generally consistent with the climate change objectives. However, not all options supporting mode shift would help adapt the transport network to the risks associated with climate change. Those options that modify existing or introduce new infrastructure would be designed to withstand the predicted impacts of climate change but may still be vulnerable to extreme weather, as is the case for the existing transport networks. Also, only few options including the A96 Electric Corridor and potentially Improved Parking Provision at Railway Stations and Linespeed, Passenger and Freight Capacity Improvements on the Aberdeen to Inverness Rail Line, would consider promoting and supporting clean fuels/technologies to decarbonise travel.

2.2.6 Under the **Health Safety and Wellbeing** appraisal theme most of the options have either a general consistency or neutral relationship with the Health, Safety and Wellbeing objectives. Bypasses would remove through trips from towns, supporting safety objectives. This may encourage healthy travel choices and liveable places if accompanied by other active travel improvements, although as they make driving over longer distances between settlements more attractive, it would not encourage sustainable access to critical services within local communities. Similarly, despite improving road safety on the A96 Trunk Road, Targeted Road Safety Improvements could encourage more people to drive which may provide limited contribution towards improving health outcomes.

2.2.7 Active travel options particularly have a high level of consistency with the Health, Safety and Wellbeing appraisal theme as they support healthy travel choices and the creation of liveable places, whilst also enhancing provision of non-motorised transport and provide sustainable access to critical services.

2.2.8 Under the **Economic** appraisal theme most of the options were considered to either be consistent or have a neutral relationship with the economic related policy objectives. The majority of options support the resilience and reliability of the transport network and enhance the competitiveness of business locally and across the wider country, either by providing new or improved connections for freight and commuting traffic by road or rail or encouraging a modal shift to increase travel options. Bypass options could make it more desirable to use local amenities by sustainable modes where traffic is removed from the centre of communities.

2.2.9 However, some options are not considered to be fully consistent with the objective to support and enhance the rural economy. For example, the Linespeed, Passenger and Freight Capacity Improvements on the Aberdeen to Inverness Rail Line may encourage more business and travel in areas where there are already rail stations, most commonly found in larger more urbanised settlements along the A96 Corridor. Also, bypasses could reduce the amount of passing trade in towns by encouraging through trips to divert away from town centres and may lead to the loss of productive agricultural land, both of which may result in some negative impacts on the local economy.

2.2.10 Under the **Equality** appraisal theme rail freight options were not considered to contribute towards policy objectives for improving equal transport accessibility for all communities. The development of the A96 Electric Corridor was also considered potentially inconsistent with objectives of supporting affordable access to and from disadvantaged communities and education, healthcare and employment opportunities as it only benefits those with the ability to afford an alternatively fuelled vehicle. The benefits from Linespeed, Passenger and Freight Capacity Improvements on the Aberdeen to Inverness Rail Line similarly may not contribute as positively to improving equal transport accessibility for all communities as rail travel is less affordable for some users, particularly those from disadvantaged communities.

2.2.11 Options that promote active travel and bus as alternatives to use of a car are consistent with providing sustainable, affordable and fair transport access to a range of services including education, employment and healthcare facilities. Investment in Demand Responsive Transport (DRT) and Mobility as a Service (MaaS) is also generally consistent and would assist in creating connections from more disadvantaged communities.

2.2.12 Bypasses have a more neutral relationship with the **Equality** appraisal theme. Although these options focus on and provide most benefits to those with access to a car, there is some consistency with the objective under the Economic appraisal theme to provide fair and equal access to healthcare services as journey times would potentially be quicker and/or more reliable. It is currently uncertain whether bypasses would support an enhanced bus network as this is dependent on alignment and operator decisions on service routing, but there is the potential for greater consistency with the Equality appraisal theme if benefits for buses are delivered.

2.3 Options to Progress to Detailed Appraisal

2.3.1 Following the Preliminary Appraisal, options that were being progressed to Detailed Appraisal were packaged together. Although each package has been appraised separately, selected individual options have been included in more than one package. The options that have been considered under each package are shown in Table 2.1.

Table 2.1: Detailed appraisal packages

Option	Package 1	Package 2	Package 3	Package 4	Package 5	Refined Package
Active Communities	✓	✓		✓	✓	✓
Active Connections			✓	✓	✓	
Bus Priority Measures and Park and Ride	✓	✓	✓		✓	
Improved Public Transport Passenger Interchange Facilities	✓	✓		✓	✓	✓
Investment in DRT and MaaS	✓	✓	✓		✓	✓
Introduction of Rail Freight Terminals				✓	✓	
Linespeed, Passenger and Freight Capacity Improvements on the Aberdeen to Inverness Railway Line	✓	✓	✓	✓	✓	✓
Targeted Road Safety Improvements		✓	✓	✓	✓	✓
Elgin Bypass	✓				✓	✓
Keith Bypass	✓				✓	✓
Inverurie Bypass	✓				✓	
Forres Bypass	✓				✓	
A96 Electric Corridor	✓	✓	✓	✓	✓	✓

2.3.2 As noted previously, A96 Full Dualling has also been appraised as part of the Detailed Appraisal to assess its performance against current appraisal criteria.

2.3.3 The policy appraisal of the packages assessed as part of the Detailed Appraisal are summarised in Section 3 below.

3. Detailed Appraisal

3.1 Approach

3.1.1 The same process of using STAG themes to group the policy objectives used for the Preliminary Appraisal was again used for the Detailed Appraisal of packages.

3.2 Package 1

3.2.1 Under the **Environment** appraisal theme, it is concluded that whilst some through traffic will be removed from the settlements as a result of the bypasses, allowing for improved active travel and access to sustainable transport, a predicted reduction in congestion as a result of the bypasses may increase the total number of private vehicle journeys. Construction of some interventions, particularly rail improvements and the four bypasses, has the potential to have adverse impacts upon the environment including landscape quality and natural heritage.

3.2.2 Under the **Climate Change** appraisal theme, it is considered that policy objectives for a 20% reduction in car kilometres by 2030 and reaching net zero targets by 2045 would be challenging to achieve due to an overall increase in the number of road users. Although the package would encourage a mode shift to sustainable modes of travel in bypassed towns and provide investment in the decarbonisation of travel through the A96 Electric Corridor, which are consistent with Climate Change policy, overall contribution to the relevant policies are limited by the predicted traffic increases as a result of the bypasses of Forres, Elgin, Keith and Inverurie. Whilst the new infrastructure should be designed to withstand predicted impacts of climate change it is likely to remain subject to damage from extreme weather, as is the case for the existing transport networks. It is considered that this package would be partially consistent with the climate change policy objectives.

3.2.3 Under the **Health, Safety and Wellbeing** appraisal theme, it has been concluded that the inclusion of bypasses would generally be consistent with policy objectives. Removing large numbers of through traffic from settlements could improve actual and the perceived feelings of safety as well as encourage more people to take up active travel for shorter everyday journeys within the settlements, supporting the idea of a 20-minute neighbourhood.

3.2.4 Under the **Economic** appraisal theme, the introduction of bypasses would improve the reliability of the trunk road network and reduce journey times and anticipated to strengthen the reliability of supply chains both locally and regionally. Agricultural land may be required for construction so consideration for the potential loss of productive farming land and reduced passing trade would need to be a consideration.

3.2.5 Under the **Equality** appraisal theme, it is considered that the reduction of through traffic within the bypassed towns could support improvements to active travel provisions as well as potentially improving the reliability of public transport due to reduced congestion within settlements. The package also provides improvements in active travel network coverage within bypassed settlements and public transport improvements to the bus and rail network, as well as interchange facilities that along with the introduction of DRT and MaaS would help vulnerable users access critical services such as healthcare, employment and education, ensuring Package 1 is consistent with the Equality appraisal theme.

3.3 Package 2

3.3.1 Under the **Environmental** appraisal theme, it is considered that the package is partially consistent with policy objectives. Including active travel provisions in settlements as well as alternative refuelling infrastructure and the possible modal shift to bus, rail and car-free public spaces makes a positive contribution towards policy objectives. However, the extent of the physical works associated with construction of the package could introduce environmental impacts, for example impacts on biodiversity and species.

3.3.2 Under the **Climate Change** appraisal theme, this package is considered to be consistent with policy objectives, with limited impact. The package has the potential to create a modal shift away from private car through improvements to active travel in the settlements considered and rail improvements, though positive impacts may be limited by the scale of the package, and so it is only somewhat consistent with a key Climate Change policy target of 20% reduction in car kilometres by 2030. Investment in the decarbonisation of travel through the A96 Electric Corridor is also consistent with Climate Change policy. Whilst any new infrastructure should be designed to withstand predicted impacts of climate change it is likely to remain subject to damage from extreme weather, as is the case for the existing transport networks.

3.3.3 Under the appraisal theme of **Health, Safety and Wellbeing**, this package is concluded as being generally consistent with policy objectives. The inclusion of active travel improvements and place making measures could improve actual and perceived feelings of safety as well as encourage more people to take up active travel for shorter everyday journeys within the settlements, supporting the concept of a 20-minute neighbourhood and improving health outcomes.

3.3.4 Under the appraisal theme of **Economic,** this package is considered as being consistent across all objectives. Public transport interventions included in the package would support faster and more reliable journeys as well as the reliability and resilience benefits to freight and other road users by reducing the impact of accidents on the wider network. This package would also be expected to improve the reliability and resilience for freight, supporting businesses and other road users.

3.3.5 Under the appraisal theme of **Equality**, the package has been concluded as being mostly consistent across the policy objectives. Whilst it is expected to provide improved public transport cost, accessibility of facilities and ticketing would need further clarification. Education, employment and health facilities would be more accessible through improved public transport connections, particularly rail, and along with DRT and MaaS would support vulnerable groups. Improvements to active travel infrastructure and public transport interchanges would enhance sustainable connections in areas often underserved by commercial transport.

3.4 Package 3

3.4.1 Under the appraisal theme of **Environment**, this package is considered as being partially consistent. Whilst this option would promote lower or no emission vehicles and possible modal shift to sustainable transport methods including bus, rail, walking and cycling, the physical works associated with the package, depending on scale, design and location have the potential to have adverse effects on the environment and would need to be assessed further.

3.4.2 Under the appraisal theme of **Climate Change** this package is considered to be largely consistent with policy objectives. Investment in public transport improvements and the provision of active travel routes between towns may encourage a small mode shift, supporting Climate Change objectives. Investment in the decarbonisation of travel through the A96 Electric Corridor is also consistent with Climate Change policy. However, these interventions are not likely to have a significant impact on a key policy target of achieving a 20% reduction in car kilometres by 2030. Whilst any new infrastructure should be designed to withstand predicted impacts of climate change it is likely to remain subject to damage from extreme weather, as is the case for the existing transport networks.

3.4.3 Under the appraisal theme of **Health, Safety and Wellbeing** the package is considered to be generally consistent with policy objectives, although with limited impact. Targeted road safety improvements and traffic-free active travel routes between towns would reduce the perceived and actual safety risks associated with the current A96 Trunk Road, whilst public transport accessibility to critical services would also be enhanced. However, Package 3 has no active travel provision within communities so would not support the 20-minute neighbourhood concept or encourage healthy travel choices as part of multimodal trips, as it relates to the rural stretches of the corridor only.

3.4.4 Under the **Economic** appraisal theme, this package is concluded as being consistent. The package would support faster and more reliable public transport journeys, enhance rail capacity for movement of people and goods, and improve the reliability of the A96 Trunk Road by reducing the impact of accidents.

3.4.5 Under the appraisal theme of **Equality** this package is concluded as being consistent with policy objectives. Education, employment and health facilities would be more accessible through improved public transport connections, particularly rail, and along with DRT and MaaS would support vulnerable groups. The package would also increase the active travel network coverage from rural communities towards key services, providing sustainable and affordable transport options.

3.5 Package 4

3.5.1 Under the appraisal theme of **Environment** this package is considered as being partially consistent with policy objectives. Whilst this option would promote lower or no emission vehicles and a possible modal shift to sustainable transport methods including bus, rail, walking and cycling. The physical works associated with the package, depending on scale, design and location may adversely affect the environment and would need to be subject to further assessment during design development.

3.5.2 Under the appraisal theme of **Climate Change** this package is considered to be consistent but with limited impact. Reduced congestion may increase traffic flows and minimal reduction in car kilometres. However, the introduction of the A96 Electric Corridor may promote the use of clean fuel technologies and investment in active travel and rail infrastructure should induce a modal shift away from car. This would support Climate Change policy objectives, but the extent of shift is unlikely to have a significant impact on the target of 20% reduction in car kilometres and meeting net zero by 2045. However, there is the potential that this package will encourage a mode shift to bus, rail and interchanges which would support an overall reduction in car km. Whilst any new infrastructure should be designed to withstand predicted impacts of climate change it is likely to remain subject to damage from extreme weather, as is the case for the existing transport networks.

3.5.3 Under the **Health, Safety and Wellbeing** appraisal theme this package is concluded as being consistent with policy objectives. Both perceived and real safety concerns on the A96 Trunk Road through targeted road safety improvements and the inclusion of pedestrian and cycling infrastructure in the form of long-distance active travel routes and local place improvements support the package's consistency with Health, Safety and Wellbeing policy.

3.5.4 Under the **Economic** appraisal theme this package was determined as being consistent with policy objectives. The package would support faster and more reliable rail journeys and enhance the rail capacity for movement of people and goods, whilst also improving the reliability of the A96 Trunk Road by reducing the impact of accidents. The inclusion of public transport interventions, targeted road safety improvements and a shift towards more sustainable transport modes including freight rail supports the enhancement of travel for both people and goods.

3.5.5 Under the **Equality** appraisal theme this package was determined as being mostly consistent. The increase in active travel network coverage would provide sustainable and affordable transport options. It would also improve the reliability of the rail network for access to healthcare services, employment and education. However, as the only public transport interventions in this package relate to rail improvements, and does not include bus or DRT based interventions, the consistency with the Equality theme would be subject to the cost, ticketing and accessibility of the rail network.

3.6 Package 5

3.6.1 Under the appraisal theme of **Environment**, this package is considered as having limited consistency with policy objectives. Whilst this package would promote lower or no emission vehicles and possible modal shift to sustainable transport methods including bus, rail, walking and cycling, the physical works associated with the package, depending on scale, design and location have the potential to have adverse effects on the environment. It is concluded that whilst some through traffic will be removed from the settlements as a result of the bypasses, allowing for improved active travel and access to sustainable transport, a predicted reduction in congestion as a result of the bypasses may increase the number of private vehicle journeys. Construction of the bypasses has the potential to have adverse impacts upon the environment including landscape quality and natural heritage.

3.6.2 Under the **Climate Change** appraisal theme, it is considered that policy objectives for a 20% reduction in car kilometres by 2030 and reaching net zero targets by 2045 would be challenging to achieve due to an overall increased number of road users. Although the package would encourage a mode shift to sustainable modes of travel in bypassed towns and provide investment in the decarbonisation of travel through the A96 Electric Corridor, which are consistent with Climate Change policy, overall contribution to the relevant policies are limited by the predicted traffic increases as a result of the bypasses of Forres, Elgin, Keith and Inverurie. Whilst the new infrastructure should be designed to withstand predicted impacts of climate change it is not preventable and likely to remain subject to damage from extreme weather, as is the case for the existing transport networks. It is considered that this package would be partially consistent with the climate change policy objectives.

3.6.3 Under the **Health, Safety and Wellbeing** appraisal theme, it has been concluded that the package is generally consistent with policy objectives. Removing large numbers of through traffic from settlements could improve actual and perceived feelings of safety as well as encourage more people to take up active travel for shorter everyday journeys within the settlements, supporting the idea of a 20-minute neighbourhood. The inclusion of active travel improvements and place making measures could improve actual and perceived feelings of safety as well as encourage more people to take up active travel for shorter everyday journeys within the settlements, supporting the concept of a 20-minute neighbourhood and improving health outcomes.

3.6.4 Under the **Economic** appraisal theme, this package is concluded as being consistent. Public transport and targeted road safety improvements along with a potential modal shift to more sustainable transport modes from interventions such as rail freight terminals would benefit journey time reliability for both people and goods. However, agricultural land may be required for construction for some interventions within the package so productive farming land may be lost, and the bypasses may result in a loss of passing trade.

3.6.5 Under the appraisal theme of **Equality** this package is concluded as being consistent. Access to key services and transport inclusivity would be improved for vulnerable groups through public transport improvements to bus, rail and interchanges, supported by DRT and MaaS. Enhanced active travel network coverage for journeys between and within settlements could help a range of community groups to access employment, education, healthcare and leisure facilities. However, the uncertainty of new routes for active travel and public transport would need to be addressed to improve accessibility of disadvantaged communities.

3.7 Refined Package

3.7.1 Under the appraisal theme of **Environment**, this package is considered as being partially consistent with policy objectives. Whilst this option would promote lower or no emission vehicles and possible modal shift to sustainable transport methods including bus, rail, walking and cycling, the physical works associated with construction of the package, particularly for the rail improvements and the two bypasses, depending on scale, design and location have the potential to have adverse effects on the environment and will require further assessment as design development is progressed.

3.7.2 The inclusion of bypasses within this option has the potential to improve the air quality within the bypassed settlements of Elgin and Keith as there would likely be a reduction in the traffic passing through the two settlements. There would also be the opportunity to increase the active travel opportunities within these settlements which could have a further positive effect on air quality. However, a predicted reduction in congestion as a result of the bypasses may increase the number of private vehicle journeys. Construction of the bypasses has the potential to have adverse impacts upon the environment including landscape quality and natural heritage.

3.7.3 Under the **Climate Change** appraisal theme, this package focuses on reducing the reliance on private car through the provision of interventions to encourage a mode shift to sustainable transport. Investment in the decarbonisation of travel through the A96 Electric Corridor is also consistent with Climate Change policy. However, the Refined Package is only partially consistent with policy objectives. Whilst it is anticipated that the package will positively support modal shift and a transition to clean and alternative fuel technologies, overall the contribution towards key Climate Change policy targets of a 20% reduction in car kilometres by 2030 and reaching net zero targets by 2045 may be limited by the inclusion of bypasses of Elgin and Keith. Whilst the new infrastructure should be designed to withstand predicted impacts of climate change it is likely to remain subject to damage from extreme weather, as is the case for the existing transport networks.

3.7.4 Under the **Health, Safety and Wellbeing** appraisal theme, it has been concluded that the option would be mostly consistent with policy objectives. Removing large numbers of through traffic from settlements through the introduction of bypasses at Keith and Elgin could improve actual and perceived feelings of safety as well as encourage more people to take up active travel for shorter everyday journeys within the settlements, supporting the idea of a 20-minute neighbourhood. The inclusion of active travel improvements and place making measures could improve actual and perceived feelings of safety as well as encourage more people to take up active travel for shorter everyday journeys within the settlements, supporting the concept of a 20-minute neighbourhood and improving health outcomes.

3.7.5 Under the **Economic** appraisal theme, this package is concluded as being mostly consistent. Rail capacity enhancements and targeted road safety improvements would enhance journey time reliability for both people and goods. The two bypasses are also anticipated to strengthen the reliability of local and regional supply chains. However, agricultural land may be required for construction for some interventions within the package so productive farming land may be lost, and the bypasses may result in a loss of passing trade.

3.7.6 Under the appraisal theme of **Equality** this package is concluded as being consistent with policy objectives. improved access and transport inclusivity for vulnerable groups through improvements to the rail network and public transport interchanges, supported by DRT and MaaS, along with enhanced active travel network coverage in settlements would enable better access to locations of employment, education, healthcare and leisure facilities. Nevertheless, further consideration of routes for active travel and public transport and the accessibility of disadvantaged communities will be required.

3.8 A96 Full Dualling

3.8.1 Under the appraisal theme of **Environment**, there would be general inconsistency with policy objectives for the A96 Full Dualling. Dualling would be expected to result in an increased number of vehicles using the transport network, as well as potentially significant negative impacts on the environment due to the scale of works such as impacts on, for example biodiversity and species, landscape quality and natural heritage. Although dualling may result in reduced traffic through settlements to improve local urban environments, the scale of the infrastructure involved has the potential to harm the quality of rural spaces.

3.8.2 Under the appraisal theme of **Climate Change,** A96 Full Dualling is considered as being generally inconsistent with policy objectives. A96 Full Dualling would encourage the continued use of vehicles for private and freight use and would not support the target of 20% reduction in car kilometres and meeting net zero by 2045. This option does not promote a shift towards alternative modes of transport and would likely increase the number of road users due to easier access and reliability of the road network.

3.8.3 A96 Full Dualling is considered to have partial consistency with the appraisal theme of **Health, Safety and Wellbeing**. Full dualling would likely improve the overall safe operation of the network through provision of safer overtaking options and provides the opportunity to remove traffic and congestion from the bypassed towns. This in turn would provide a positive impact on health and wellbeing. However, it is likely to reinforce the use of private vehicles for journeys and fails to provide attractive alternatives to benefit health outcomes and general wellbeing.

3.8.4 It is concluded that A96 Full Dualling is largely consistent with the appraisal theme of **Economy**. It would provide reliability and resilience benefits to freight and other road users, supporting the transport of goods and providing additional capacity for the output of food and drink largely associated with the economy of this area of Scotland. However, there is also some inconsistency as agricultural land may be lost to allow construction of the dualled trunk road with a consequent impact on local rural economies, and there is potentially a reduction in passing trade for towns bypassed by the new dualled A96 Trunk Road.

3.8.5 Under the appraisal theme of **Equality**, it is considered that full dualling would be inconsistent. A96 Full Dualling will primarily benefit those who have access to private vehicles to travel. Any impact upon the reliability or frequency of public transport remains uncertain and dependant on both the alignment of the potential dual carriageway and operator decisions with regards to service routing.

3.9 Assessment Tables

3.9.1 The following tables present the findings of the Policy Appraisal of the individual options assessed at the Preliminary Appraisal stage, the packages and A96 Full Dualling assessed at the Detailed Appraisal stage.

Table 3.1: Active Communities Appraisal Outcomes.

Theme	Policy Objective Criteria	Compatibility Score	Summary
Environment	*To what extent does the option or package improve air quality?*	Consistent	Would support modal shift to active travel from private car usage and reduce subsequent emissions.
Environment	*To what extent does the option or package safeguard and enhance the natural and cultural environment?*	Neutral	It is anticipated that active travel routes are likely to be accommodated predominately within the existing transport infrastructure which would minimise impacts on the natural and cultural environment.
Environment	*To what extent does the option or package safeguard and enhance blue networks and waterbodies?*	Neutral	Although the scale of the required infrastructure has the potential for adverse impacts upon blue networks and waterbodies, it is a requirement of the design process to ensure there is no negative impact on water quality and flooding.
Environment	*To what extent does the option or package support the creation and maintenance of attractive and high quality places (with consideration of the six qualities of NPF4)?*	Consistent	The option would encourage modal shift to less polluting travel alternatives for the betterment of quality of place.
Climate Change	*To what extent does the option or package contribute to the 20% reduction in car km?*	Consistent	New active travel within communities would potentially increase the number of everyday journeys made by active travel if it is made more convenient than private car use.

Climate Change	*To what extent does the option or package help meet the net zero by 2045 target?*	Consistent	Improved active travel networks would likely have a positive impact for creating a mode shift for shorter distance trips which would contribute to net zero targets.
Climate Change	*To what extent does the option or package help adapt the transport network to direct and indirect risks associated with climate change for Scotland?*	Inconclusive (at this stage)	Adaptation to the effects of climate change would be considered as part of the works to repurpose existing transport infrastructure (i.e. better surfacing and drainage of cycle paths where roadspace is reallocated). However, it is likely to remain subject to damage from extreme weather, as is the case for the existing transport networks.
Climate Change	*To what extent does the option or package promote and support the best use of clean fuels/technologies decarbonising travel?*	Neutral	Minimal impact.
Health, Safety and Wellbeing	*To what extent does the option or package promote safe and secure travel for all users?*	Consistent	Dedicated active travel routes may encourage and improve safety for active travel users. A reduced volume of cars would improve the safety of those choosing to walk, wheel or cycle.
Health, Safety and Wellbeing	*To what extent does the option or package support healthy travel choices as part of a multimodal journey?*	Consistent	Active travel routes would encourage more people within local communities to take up these modes to improve healthy travel choices.
Health, Safety and Wellbeing	*To what extent does the option or package support the creation of healthy and liveable places?*	Consistent	The option would encourage a greater uptake of active travel modes, supporting overall health and wellbeing as well as potentially reducing emissions due to less private car usage.

Health, Safety and Wellbeing	*To what extent does the option or package enhance provision of non-motorised transport and active travel as part of a 20-minute neighbourhood?*	Consistent	Improved active travel connections within communities would encourage more journeys to be made by these modes, reducing the number of journeys made by private car.
Health, Safety and Wellbeing	*To what extent does the option or package support sustainable access to critical services i.e. education, healthcare?*	Consistent	Improved transport connections for active modes within the community towards key services such as education and healthcare facilities.
Economic	*To what extent does the option or package support the creation of a resilient and reliable transport network?*	Consistent	Access to active travel would encourage more people to take up these modes, reducing the volume of private cars which would subsequently alleviate congestion and pollution to create a more reliable transport network.
Economic	*To what extent does the option or package support future growth areas and national developments identified in land use planning?*	Consistent	Would provide improved walking, cycling and wheeling provision, which is designated as a National Development in NPF4 (where the development is of a 'Major' scale). It is unlikely all improvements in this option would be of a scale significant enough to be designated as national, but cumulatively this option would contribute towards the provision of an improved active travel network in settlements.
Economic	*To what extent does the option or package provide a transport system which enables businesses to be competitive locally and within the rest of the UK?*	Neutral	Does not improve freight connections but may provide an increase in the number of people commuting by active travel in communities where interventions are introduced.

Economic	*To what extent will the option or package support and enhance rural economy?*	Neutral	Minimal direct impact for rural communities other than for trips within the community where connections are improved within remote communities. Would not improve connectivity to other spaces and places to enhance local economies.
Equality	*To what extent does the option or package provide sustainable transport connections to and from more disadvantaged communities?*	Inconclusive (at this stage)	Benefits would only be realised if interventions are focused in disadvantaged areas, with uncertainty at this stage around locations for specific interventions.
Equality	*To what extent does the option or package provide sustainable, affordable transport access to education and employment opportunities?*	Consistent	Providing active travel networks within communities would likely improve access to education and employment opportunities on a local scale. The option could also facilitate sustainable access for longer distance journeys connecting to public transport as part of multi-modal trips.
Equality	*To what extent does the option or package provide fair and equal transport access to healthcare services?*	Consistent	Providing active travel networks within communities would likely improve fair and equal access to healthcare services on a local scale as is it supports low cost modes available to most people in some form. The option could also facilitate fair access for longer distance journeys connecting to public transport as part of multi-modal trips.
Equality	*To what extent does the option or package support a 'just' transition to net zero?*	Consistent	Active travel modes are a sustainable alternative to private car usage for shorter trips that would contribute to the transition to net zero.

Table 3.2: Active Connections Appraisal Outcomes.

Theme	Policy Objective Criteria	Compatibility Score	Summary
Environment	*To what extent does the option or package improve air quality?*	Consistent	Improved access to active travel routes/networks may encourage a modal shift to less polluting modes.
Environment	*To what extent does the option or package safeguard and enhance the natural and cultural environment?*	Inconclusive (at this stage)	A new long distance active travel connection may provide a more sustainable way for people to enjoy the natural and cultural environment. Potential for negative impacts due to the construction of new offline cycle routes green spaces.
Environment	*To what extent does the option or package safeguard and enhance blue networks and waterbodies?*	Neutral	Although the scale of the required infrastructure has the potential for adverse impacts upon blue networks and waterbodies, it is a requirement of the design process to ensure there is no negative impact on water quality and flooding.
Environment	*To what extent does the option or package support the creation and maintenance of attractive and high quality places (with consideration of the six qualities of NPF4)?*	Consistent	Improved access to active travel routes/networks may encourage modal shift to less polluting alternatives for trips between communities.

Climate Change	*To what extent does the option or package contribute to the 20% reduction in car km?*	Consistent	Improved active travel routes/networks between communities would encourage the use of active modes and reduce the number of journeys made by private car.
Climate Change	*To what extent does the option or package help meet the net zero by 2045 target?*	Consistent	Longer distance active travel connections would encourage more people to make journeys by active modes, reducing the number of journeys made by private car and associated carbon emissions.
Climate Change	*To what extent does the option or package help adapt the transport network to direct and indirect risks associated with climate change for Scotland?*	Inconclusive (at this stage)	Adaptation to the effects of climate change would be considered as part of the works to deliver the new infrastructure (i.e. permeable surfacing and drainage of cycle paths) so the active connections could still be utilised even at times of extreme weather events. However, it is likely to remain subject to damage from extreme weather, as is the case for the existing transport networks.
Climate Change	*To what extent does the option or package promote and support the best use of clean fuels/technologies decarbonising travel?*	Neutral	Minimal impact.
Health, Safety and Wellbeing	*To what extent does the option or package promote safe and secure travel for all users?*	Consistent	Providing more segregated and traffic free routes, including at junctions, would increase opportunities for safe crossings in rural areas, reducing the negative perceptions of safety.

Health, Safety and Wellbeing	*To what extent does the option or package support healthy travel choices as part of a multimodal journey?*	Consistent	Active travel routes would encourage more people within local communities to take up active modes such as walking, wheeling or cycling which would help to improve healthy travel choices.
Health, Safety and Wellbeing	*To what extent does the option or package support the creation of healthy and liveable places?*	Consistent	The option would encourage a greater uptake of active travel modes, supporting overall health and wellbeing as well as potentially reducing emissions due to less private car usage.
Health, Safety and Wellbeing	*To what extent does the option or package enhance provision of non-motorised transport and active travel as part of a 20-minute neighbourhood?*	Neutral	The option would directly enhance the provision of non-motorised transport through the implementation of longer distance active travel networks, but this is not likely to benefit the creation of 20-minute neighbourhoods.
Health, Safety and Wellbeing	*To what extent does the option or package support sustainable access to critical services i.e. education, healthcare?*	Consistent	Improved connections for active modes between communities could enhance access for those using these modes for travel towards key services such as education and healthcare facilities.
Economic	*To what extent does the option or package support the creation of a resilient and reliable transport network?*	Consistent	Active connections would offer alternative travel options for those travelling between communities, enhancing resilience in case of incidents on the road/rail network. The option may also reduce the volume of private cars which could subsequently alleviate congestion and pollution to create a more reliable transport network.
Economic	*To what extent does the option or package support future growth areas and national*	Consistent	The option would provide improved walking, cycling and wheeling provision, which is designated as a National

	developments identified in land use planning?		Development in NPF4 (where the development is of a 'Major' scale). It is unlikely all improvements in this option would be of a scale significant enough to be designated as national, but cumulatively this option would contribute towards the provision of an improved active travel network between settlements.
Economic	*To what extent does the option or package provide a transport system which enables businesses to be competitive locally and within the rest of the UK?*	Neutral	Minimal direct impact.
Economic	*To what extent will the option or package support and enhance rural economy?*	Neutral	Minimal direct impact for rural communities although the option could increase the opportunities for people to access rural communities for employment and broaden the potential workforce for local businesses who operate in rural areas.
Equality	*To what extent does the option or package provide sustainable transport connections to and from more disadvantaged communities?*	Inconclusive (at this stage)	The option provides facilities to support low-cost travel options for travel between communities along the corridor. Benefits would only be realised if interventions connect disadvantaged areas and communities, with uncertainty at this stage around the specific route of the intervention.
Equality	*To what extent does the option or package provide sustainable, affordable transport access to education and employment opportunities?*	Consistent	Providing longer distance active travel connections would improve the opportunities for people to use sustainable and affordable modes to access to education and employment opportunities.

Equality	*To what extent does the option or package provide fair and equal transport access to healthcare services?*	Consistent	Better longer distance active travel connections provided by this option would improve fair and equal access to healthcare facilities as is it supports low cost modes available to most people in some form
Equality	*To what extent does the option or package support a 'just' transition to net zero?*	Neutral	Minimal impact.

Table 3.3: Improved Public Transport Passenger Interchange Facilities Appraisal Outcomes.

Theme	Policy Objective Criteria	Compatibility Score	Summary
Environment	*To what extent does the option or package improve air quality?*	Consistent	Could encourage a modal shift to more sustainable public transport modes.
Environment	*To what extent does the option or package safeguard and enhance the natural and cultural environment?*	Inconclusive (at this stage)	New facilities and enhancements to existing have the potential for negative environmental effects during construction. This would be dependent on the nature and location of the proposals and sensitivity of the environment.
Environment	*To what extent does the option or package safeguard and enhance blue networks and waterbodies?*	Neutral	Although the scale of the required infrastructure has the potential for adverse impacts upon blue networks and waterbodies, it is a requirement of the design process to ensure there is no negative impact on water quality and flooding.
Environment	*To what extent does the option or package support the creation and maintenance of attractive and high quality places (with consideration of the six qualities of NPF4)?*	Consistent	The improvement of existing facilities and any creation of new facilities that include aspects such as retail could have wider community benefits and help achieve a 20-minute neighbourhood.
Climate Change	*To what extent does the option or package contribute to the 20% reduction in car km?*	Neutral	Improved passenger facilities may result in some modal shift away from car but the likely impact on reducing car kilometres is anticipated to be minor unless combined with other options.

Climate Change	*To what extent does the option or package help meet the net zero by 2045 target?*	Consistent	Improving the efficiency and attractiveness of public transport trips may result in reduced car journeys which would help to meet the net zero target.
Climate Change	*To what extent does the option or package help adapt the transport network to direct and indirect risks associated with climate change for Scotland?*	Neutral	Minimal impact.
Climate Change	*To what extent does the option or package promote and support the best use of clean fuels/technologies decarbonising travel?*	Neutral	Minimal direct impact, although Potential for decarbonisation of rail network but not specifically mentioned in relation to this option.
Health, Safety and Wellbeing	*To what extent does the option or package promote safe and secure travel for all users?*	Consistent	Improved passenger facilities could increase perceived and actual safety and security, through for example improved lighting and CCTV coverage, passenger assistance and better accessibility for those with reduced mobility, impaired vision or hearing, or those who are neurodiverse.
Health, Safety and Wellbeing	*To what extent does the option or package support healthy travel choices as part of a multimodal journey?*	Consistent	Provides improved access to public transport and/or active travel that may encourage multimodal travel with people choosing to combine modes to undertake a journey.

Health, Safety and Wellbeing	*To what extent does the option or package support the creation of healthy and liveable places?*	Consistent	Where facilities are associated with improved placemaking and urban realm, these could enhance communities as places.
Health, Safety and Wellbeing	*To what extent does the option or package enhance provision of non-motorised transport and active travel as part of a 20-minute neighbourhood?*	Neutral	Minimal impact.
Health, Safety and Wellbeing	*To what extent does the option or package support sustainable access to critical services i.e. education, healthcare?*	Inconclusive (at this stage)	The option would provide better integration of modes to improve multimodal journey accessibility. However, new routes would not be provided and therefore access to critical services is dependent upon the existing sustainable access to critical services.
Economic	*To what extent does the option or package support the creation of a resilient and reliable transport network?*	Consistent	Increasing the attractiveness of public transport as an alternative to car travel increases resilience. Increasing modal transfer away from car would also reduce congestion to slightly improve reliability.
Economic	*To what extent does the option or package support future growth areas and national developments identified in land use planning?*	Neutral	Minimal impact.

Economic	*To what extent does the option or package provide a transport system which enables businesses to be competitive locally and within the rest of the UK?*	Neutral	The option does not directly provide better freight connections but may provide better access to employment hubs for individuals where interventions are introduced.
Economic	*To what extent will the option or package support and enhance rural economy?*	Neutral	This option would not provide new connections for goods to be bought and sold to enhance rural economies.
Equality	*To what extent does the option or package provide sustainable transport connections to and from more disadvantaged communities?*	Inconclusive (at this stage)	The option would make not impact services directly and public transport routes, and therefore disadvantaged communities with limited current access would remain without this access. However, there is the potential to introduce or enhance facilities in disadvantaged communities to provide sustainable connections.
Equality	*To what extent does the option or package provide sustainable, affordable transport access to education and employment opportunities?*	Inconclusive (at this stage)	Improved passenger facilities would encourage a mode shift to public transport modes for travel to education and employment opportunities. However, there would be no change to actual routes, and therefore disadvantaged communities with limited access would not benefit from the option
Equality	*To what extent does the option or package provide fair and equal transport access to healthcare services?*	Inconclusive (at this stage)	The option would not provide any new transport access to healthcare services. However, it may become a more attractive travel option if an integrated ticketing system is introduced/improved wider connectivity. The option would also

			provide accessibility improvements at interchange points to improve equality for those with impairments.
Equality	*To what extent does the option or package support a 'just' transition to net zero?*	Neutral	Minimal impact.

Table 3.4: Bus priority measures and Park and Ride Appraisal Outcomes.

Theme	Policy Objective Criteria	Compatibility Score	Summary
Environment	*To what extent does the option or package improve air quality?*	Consistent	Improving bus times would likely encourage a larger uptake in bus journeys which may reduce private car use and related emissions.
Environment	*To what extent does the option or package safeguard and enhance the natural and cultural environment?*	Inconsistent	Potential negative impacts if construction of new infrastructure is required. This could impact watercourses and land requirements where park and ride sites would be delivered, and potential localised environmental impacts on biodiversity.
Environment	*To what extent does the option or package safeguard and enhance blue networks and waterbodies?*	Neutral	Although the scale of the required infrastructure has the potential for adverse impacts upon blue networks and waterbodies, it is a requirement of the design process to ensure there is no negative impact on water quality and flooding.

Environment	*To what extent does the option or package support the creation and maintenance of attractive and high quality places (with consideration of the six qualities of NPF4)?*	Consistent	Improved bus priority may encourage a modal shift to less polluting alternatives to cars, which may in turn reduce congestion in residential and mixed use areas.
Climate Change	*To what extent does the option or package contribute to the 20% reduction in car km?*	Consistent	The option would encourage more trips to be made by bus rather than private car leading to a reduction in car kilometres travelled.
Climate Change	*To what extent does the option or package help meet the net zero by 2045 target?*	Consistent	The option would encourage more trips to be made by bus rather than private car leading to a decrease in greenhouse gas emissions and thus positively contributing to the net zero emissions target.
Climate Change	*To what extent does the option or package help adapt the transport network to direct and indirect risks associated with climate change for Scotland?*	Inconclusive (at this stage)	Adaptation to the effects of climate change would be considered as part of the works to deliver the new infrastructure (i.e. permeable surfacing and drainage of any new road infrastructure) so the priority lanes or any potential park and ride sites could still be utilised even at times of extreme weather events. However, it is likely to remain subject to damage from extreme weather, as is the case for the existing transport networks.
Climate Change	*To what extent does the option or package promote and support the best use of clean fuels/technologies decarbonising travel?*	Neutral	Minimal direct impact.

Health, Safety and Wellbeing	*To what extent does the option or package promote safe and secure travel for all users?*	Neutral	There may be a slight improvement on the number of road traffic accidents if car use was reduced but the impact is expected to be minimal.
Health, Safety and Wellbeing	*To what extent does the option or package support healthy travel choices as part of a multimodal journey?*	Consistent	The option would promote bus travel as an alternative to car trips, and likely to involve users walking, wheeling or cycling to and from stops as part of a multimodal journey. Encouraging a mode shift away from car would contribute to healthier travel choices through reduced transport related emissions.
Health, Safety and Wellbeing	*To what extent does the option or package support the creation of healthy and liveable places?*	Consistent	Encouraging travel by bus through a reliable service could support active travel, combined journeys to access bus stops at origin and final destination.
Health, Safety and Wellbeing	*To what extent does the option or package enhance provision of non-motorised transport and active travel as part of a 20-minute neighbourhood?*	Neutral	Encouraging travel by bus through a reliable service could support active travel as part of an overall journey to access bus stops at the origin and final destination but any impact is likely to be minimal.
Health, Safety and Wellbeing	*To what extent does the option or package support sustainable access to critical services i.e. education, healthcare?*	Consistent	The option would encourage a mode shift away from car to a more sustainable mode and increase travel choices for access to critical services. .
Economic	*To what extent does the option or package support the creation of a resilient and reliable transport network?*	Consistent	Improved and/or introduction of new dedicated bus lanes would enhance the provision of a reliable alternative to

			private car while offering enhanced resilience for buses as well.
Economic	*To what extent does the option or package support future growth areas and national developments identified in land use planning?*	Consistent	Improvements for the bus network would support future growth areas along the A96 corridor.
Economic	*To what extent does the option or package provide a transport system which enables businesses to be competitive locally and within the rest of the UK?*	Neutral	Does not improve freight connections directly but may encourage a minor shift for commuters to use public transport for commuting journeys.
Economic	*To what extent will the option or package support and enhance rural economy?*	Neutral	Minimal direct impact for the local economies within rural communities.
Equality	*To what extent does the option or package provide sustainable transport connections to and from more disadvantaged communities?*	Inconclusive (at this stage)	The option would improve low cost travel options that is more accessible for disadvantaged communities. However, on account of uncertainty around the specific locations of interventions this may not support connections to and from more disadvantaged communities.
Equality	*To what extent does the option or package provide sustainable, affordable transport access to education and employment opportunities?*	Consistent	Improvements to the reliability of bus services would provide enhanced affordable transport access to education and employment opportunities by a more sustainable mode than private car.

Equality	*To what extent does the option or package provide fair and equal transport access to healthcare services?*	Consistent	The option would provide and enhance efficient and affordable bus services as a transport option which can accommodate all users.
Equality	*To what extent does the option or package support a 'just' transition to net zero?*	Consistent	Reliable bus services would provide a more attractive alternative to private car use or for those without access to a car.

Table 3.5: Investment in Demand Responsive Transport and Mobility as a Service Appraisal Outcomes.

Theme	Policy Objective Criteria	Compatibility Score	Summary
Environment	*To what extent does the option or package improve air quality?*	Consistent	There may be a reduction in transport related emissions as a result of encouraging a modal shift to more sustainable transport modes.
Environment	*To what extent does the option or package safeguard and enhance the natural and cultural environment?*	Neutral	No new infrastructure required to be constructed so this is likely to have a no impact on the natural or cultural environment.
Environment	*To what extent does the option or package safeguard and enhance blue networks and waterbodies?*	Neutral	No new infrastructure required to be constructed so this is likely to have no impact on blue networks and waterbodies.
Environment	*To what extent does the option or package support the creation and maintenance of attractive and high quality places (with consideration of the six qualities of NPF4)?*	Consistent	The option is likely to encourage a modal shift to more sustainable public transport options, particularly buses, instead of private car.
Climate Change	*To what extent does the option or package contribute to the 20% reduction in car km?*	Consistent	The interventions as part of this option would increase the attractiveness of public transport, which may encourage a shift away from private car that reduced the car kilometres travelled.

Climate Change	*To what extent does the option or package help meet the net zero by 2045 target?*	Neutral	Potential reduction of private car use but the impact on reaching net zero targets any impact is likely to be very minor.
Climate Change	*To what extent does the option or package help adapt the transport network to direct and indirect risks associated with climate change for Scotland?*	Consistent	Option has the ability to adapt and provide alternative travel options in response to incidents, including those brought about by climate change.
Climate Change	*To what extent does the option or package promote and support the best use of clean fuels/technologies decarbonising travel?*	Neutral	Minimal impact.
Health, Safety and Wellbeing	*To what extent does the option or package promote safe and secure travel for all users?*	Consistent	Improved confidence and security for those using the services, including for those who may currently live far from their nearest public transport stop.
Health, Safety and Wellbeing	*To what extent does the option or package support healthy travel choices as part of a multimodal journey?*	Consistent	Could provide an alternative transport option that includes an aspect of active travel to increase healthy travel choices as part of a multimodal journey.
Health, Safety and Wellbeing	*To what extent does the option or package support the creation of healthy and liveable places?*	Neutral	May encourage very minor increases in active travel for the origin and destination aspects of the journey but overall impact likely to be minimal.
Health, Safety and Wellbeing	*To what extent does the option or package enhance provision of non-motorised transport*	Neutral	Minimal impact.

	and active travel as part of a 20-minute neighbourhood?		
Health, Safety and Wellbeing	*To what extent does the option or package support sustainable access to critical services i.e. education, healthcare?*	Consistent	The option would deliver better access to healthcare and wellbeing infrastructure for those currently underserved by traditional public transport modes.
Economic	*To what extent does the option or package support the creation of a resilient and reliable transport network?*	Consistent	Locations which have limited public transport coverage could see significant benefits from improved connectivity with greater reliability of services and resilience to incidents on the network.
Economic	*To what extent does the option or package support future growth areas and national developments identified in land use planning?*	Neutral	Minimal impact.
Economic	*To what extent does the option or package provide a transport system which enables businesses to be competitive locally and within the rest of the UK?*	Consistent	Could increase access to employment opportunities, education and other services to those without access currently, with subsequent benefits for the economy.
Economic	*To what extent will the option or package support and enhance rural economy?*	Consistent	Potential to have a positive wider economic impact in increased employment for those from rural areas that are underserved by traditional public transport services.
Equality	*To what extent does the option or package provide sustainable transport connections to and from more disadvantaged communities?*	Consistent	Potential for improved accessibility and social inclusion for those who rely upon public transport. Upgrading and improving these services would support disadvantaged

			communities where access to DRT and MaaS is provided.
Equality	*To what extent does the option or package provide sustainable, affordable transport access to education and employment opportunities?*	Inconclusive (at this stage)	Providing transport links that did not previously exist would have a positive impact on affordability for those eligible for free travel. Possible impact on affordability for users depending on fare charges.
Equality	*To what extent does the option or package provide fair and equal transport access to healthcare services?*	Consistent	Providing flexible transport links in underserved locations that did not previously exist would have a positive impact on providing fair and equal access to healthcare services.
Equality	*To what extent does the option or package support a 'just' transition to net zero?*	Neutral	Minimal impact.

Table 3.6: Introduction of Rail Freight Terminals Appraisal Outcomes.

Theme	Policy Objective Criteria	Compatibility Score	Summary
Environment	*To what extent does the option or package improve air quality?*	Consistent	Could lead to a modal shift for freight towards more sustainable modes e.g. rail rather than road.
Environment	*To what extent does the option or package safeguard and enhance the natural and cultural environment?*	Inconsistent	It would likely require greenfield land-take to construct; however, the significance of this impact would be dependent on location and design.
Environment	*To what extent does the option or package safeguard and enhance blue networks and waterbodies?*	Neutral	Although the scale of the required infrastructure has the potential for adverse impacts upon blue networks and waterbodies, it is a requirement of the design process to ensure there is no negative impact on water quality and flooding.
Environment	*To what extent does the option or package support the creation and maintenance of attractive and high quality places (with consideration of the six qualities of NPF4)?*	Consistent	A reduction in the number of freight vehicles within settlements would support the creation of high quality places.
Climate Change	*To what extent does the option or package contribute to the 20% reduction in car km?*	Neutral	May increase the amount of freight transported via rail, removing some HGVs from the road network but this is unlikely to reduce the number of private cars.

Climate Change	*To what extent does the option or package help meet the net zero by 2045 target?*	Neutral	If freight is instead transported via rail then this could reduce the emissions associated with HGVs and positively impact on the net zero targets, but the impact is likely to be minimal. The level of benefits would also depend on the decarbonisation of the rail network.
Climate Change	*To what extent does the option or package help adapt the transport network to direct and indirect risks associated with climate change for Scotland?*	Neutral	Minimal impact.
Climate Change	*To what extent does the option or package promote and support the best use of clean fuels/technologies decarbonising travel?*	Neutral	Potential for decarbonisation of the rail network but this is not linked directly to this option.
Health, Safety and Wellbeing	*To what extent does the option or package promote safe and secure travel for all users?*	Consistent	Reducing the overall kilometres travelled by goods vehicles could improve overall safety performance of the road network due to reduced frequencies of collisions and subsequent casualties.
Health, Safety and Wellbeing	*To what extent does the option or package support healthy travel choices as part of a multimodal journey?*	Neutral	Minimal impact.
Health, Safety and Wellbeing	*To what extent does the option or package support the creation of healthy and liveable places?*	Inconclusive (at this stage)	No provision for non-motorised transport links or facilities but a reduction in HGVs in communities could allow for a healthier environment and more liveable place, though this is

			dependent on location as there may be localised increases in good vehicles to access the freight terminal.
Health, Safety and Wellbeing	*To what extent does the option or package enhance provision of non-motorised transport and active travel as part of a 20-minute neighbourhood?*	Neutral	Minimal impact.
Health, Safety and Wellbeing	*To what extent does the option or package support sustainable access to critical services i.e. education, healthcare?*	Neutral	Minimal impact.
Economic	*To what extent does the option or package support the creation of a resilient and reliable transport network?*	Neutral	It has the potential to remove some larger freight vehicles from the roads but this needs to be set in advance to be added to the rail timetable. It would not provide any reliable alternative to the public for daily journeys.
Economic	*To what extent does the option or package support future growth areas and national developments identified in land use planning?*	Consistent	Improved freight connections by rail would support future development in the region.
Economic	*To what extent does the option or package provide a transport system which enables businesses to be competitive locally and within the rest of the UK?*	Consistent	Better freight connections via rail would support and improve businesses to be competitive locally and within the rest of the UK given the likely longer length of journeys to be undertaken.

Economic	*To what extent will the option or package support and enhance rural economy?*	Neutral	Unlikely for any user-groups outside of business and enterprise are likely to benefit from this option due to the commercial facing nature of the option.
Equality	*To what extent does the option or package provide sustainable transport connections to and from more disadvantaged communities?*	Neutral	Minimal impact. This option would not provide transport connections to and from disadvantaged communities as it would be servicing freight instead.
Equality	*To what extent does the option or package provide sustainable, affordable transport access to education and employment opportunities?*	Neutral	Minimal impact. This option would not provide transport provision for people.
Equality	*To what extent does the option or package provide fair and equal transport access to healthcare services?*	Neutral	Minimal impact. This option would not provide transport provision for people.
Equality	*To what extent does the option or package support a 'just' transition to net zero?*	Neutral	Minimal impact. This option would not provide transport provision for people.

Table 3.7: Linespeed, Passenger and Freight Capacity Improvements on the Aberdeen to Inverness Rail Line Appraisal Outcomes.

Theme	Policy Objective Criteria	Compatibility Score	Summary
Environment	*To what extent does the option or package improve air quality?*	Consistent	Increasing the capacity on the rail line would allow more people and freight to travel by train, reducing noise and improving air pollution.
Environment	*To what extent does the option or package safeguard and enhance the natural and cultural environment?*	Inconsistent	The creation of a new freight terminal and dualling of existing lengths of track may potentially have negative environmental effects during construction and operation.
Environment	*To what extent does the option or package safeguard and enhance blue networks and waterbodies?*	Neutral	Although the scale of the required infrastructure has the potential for adverse impacts upon blue networks and waterbodies, it is a requirement of the design process to ensure there is no negative impact on water quality and flooding.
Environment	*To what extent does the option or package support the creation and maintenance of attractive and high quality places (with consideration of the six qualities of NPF4)?*	Inconclusive (at this stage)	The option may induce a mode shift that would reduce the number of cars travelling through settlements, improving the urban realm. However, there would likely be some level of disruption to the environment in more rural locations.
Climate Change	*To what extent does the option or package contribute to the 20% reduction in car km?*	Consistent	Increased capacity on the rail line would mean more people could travel via train and thus positively contribute to the reduction of private car kilometres travelled.

Climate Change	*To what extent does the option or package help meet the net zero by 2045 target?*	Consistent	Increasing the capacity of the rail line would encourage more people and goods to travel by train, reducing vehicular emissions which therefore would help to meet net zero targets.
Climate Change	*To what extent does the option or package help adapt the transport network to direct and indirect risks associated with climate change for Scotland?*	Inconclusive (at this stage)	The option is potentially vulnerable to the effects of climate change impacting existing railway and drainage systems. However, construction would consider climate impacts as new infrastructure would be designed in such a way to minimise the potential effects of climate change and reduce the vulnerability of the rail network at specific locations.
Climate Change	*To what extent does the option or package promote and support the best use of clean fuels/technologies decarbonising travel?*	Neutral	Potential for decarbonisation of the rail network but this is not linked directly to this option.
Health, Safety and Wellbeing	*To what extent does the option or package promote safe and secure travel for all users?*	Neutral	The option would promote a modal shift away from car which may result in a slight reduction in road traffic accidents due to reduced car reliance and use but the impact is expected to be minimal.
Health, Safety and Wellbeing	*To what extent does the option or package support healthy travel choices as part of a multimodal journey?*	Consistent	The option would promote rail as an alternative to car trips, and likely to involve users walking, wheeling or cycling to and from stations as part of a multimodal journey. Encouraging a mode shift away from car would contribute to healthier travel choices through reduced transport related emissions.

Health, Safety and Wellbeing	*To what extent does the option or package support the creation of healthy and liveable places?*	Neutral	Minimal direct impact but a mode shift away from car may have minor benefits in improving air quality and creating liveable places.
Health, Safety and Wellbeing	*To what extent does the option or package enhance provision of non-motorised transport and active travel as part of a 20-minute neighbourhood?*	Neutral	Minimal impact.
Health, Safety and Wellbeing	*To what extent does the option or package support sustainable access to critical services i.e. education, healthcare?*	Consistent	Would improve access to critical services in urban areas served by a rail station, including Inverness, Aberdeen and Elgin.
Economic	*To what extent does the option or package support the creation of a resilient and reliable transport network?*	Consistent	A reduction in the reliance on private cars would reduce congestion, and the dualling of tracks would provide greater reliability and resilience for rail services.
Economic	*To what extent does the option or package support future growth areas and national developments identified in land use planning?*	Consistent	Option is in support of the aim for an improved rail network.
Economic	*To what extent does the option or package provide a transport system which enables businesses to be competitive locally and within the rest of the UK?*	Consistent	Better freight connections via trains would support businesses to be competitive locally and within the rest of the UK. Likely to assist in bolstering the local economies of settlements in the corridor served by a rail station.

Economic	*To what extent will the option or package support and enhance rural economy?*	Consistent	The option would improve sustainable access to employment opportunities for residents, including those in rural communities, and increase the labour catchment for businesses.
Equality	*To what extent does the option or package provide sustainable transport connections to and from more disadvantaged communities?*	Neutral	The option is unlikely to impact on ticketing and prices and communities without access to a rail station would be unlikely to see any noticeable accessibility improvements.
Equality	*To what extent does the option or package provide sustainable, affordable transport access to education and employment opportunities?*	Neutral	Improved rail line capacity would likely provide a more reliable service but would also depend on ticketing and prices which tend to be higher for rail than other public transport modes.
Equality	*To what extent does the option or package provide fair and equal transport access to healthcare services?*	Consistent	The option would improve journey times that would improve access to healthcare services, albeit predominantly affecting communities where there is an existing rail station.
Equality	*To what extent does the option or package support a 'just' transition to net zero?*	Inconclusive (at this stage)	Reliable public transport options would provide an alternative to private car use. However, it is expected that rail fares may be unaffordable for those on lower incomes.

Table 3.8: Improved Parking Provision at Railway Stations Appraisal Outcomes.

Theme	Policy Objective Criteria	Compatibility Score	Summary
Environment	*To what extent does the option or package improve air quality?*	Inconclusive (at this stage)	The option could result in positive effects for air quality if it creates a modal shift towards rail and reduces the use of private vehicles. However, there is the potential that there would be an increase in car use for shorter trips including travelling to the station.
Environment	*To what extent does the option or package safeguard and enhance the natural and cultural environment?*	Inconclusive (at this stage)	Slight negative impact due to construction of new car parking areas, although it is likely that no significant environmental designations would be affected by this option.
Environment	*To what extent does the option or package safeguard and enhance blue networks and waterbodies?*	Neutral	Although the scale of the required infrastructure has the potential for adverse impacts upon blue networks and waterbodies, it is a requirement of the design process to ensure there is no negative impact on water quality and flooding.
Environment	*To what extent does the option or package support the creation and maintenance of attractive and high quality places (with consideration of the six qualities of NPF4)?*	Inconclusive (at this stage)	If the option reduces the number or distance of private car journeys, it may contribute to improved quality of places with less traffic. However, there may also be increased localised noise and air pollution in areas around the railway station.

Climate Change	*To what extent does the option or package contribute to the 20% reduction in car km?*	Inconclusive (at this stage)	The option could reduce the car kilometres made by private vehicles as people would have greater opportunities to make longer distance trains by train. However, there is the potential that there would be an increase in car use for shorter trips including travelling to the station.
Climate Change	*To what extent does the option or package help meet the net zero by 2045 target?*	Inconclusive (at this stage)	Improving the attractiveness of rail travel by increasing parking provision may reduce the number of longer distance car journeys which would help to meet net zero targets. If provision of parking facilities for electric vehicles (EVs)/Ultra Low Emission Vehicles (ULEVs) was also increased, this may aid the contribution to net zero targets. However, shorter distance trips using cars for travel to the railway station may increase, which would not contribute to meeting net zero targets.
Climate Change	*To what extent does the option or package help adapt the transport network to direct and indirect risks associated with climate change for Scotland?*	Neutral	Minimal impact.
Climate Change	*To what extent does the option or package promote and support the best use of clean fuels/technologies decarbonising travel?*	Inconclusive (at this stage)	If provision of EV/ULEV parking facilities was increased as part of the option, this would aid the transition to net zero. However, the design of increased parking facilities is currently uncertain and continued reliance upon cars that have not been

			decarbonised would not support the promotion of best use of clean fuels/decarbonising travel.
Health, Safety and Wellbeing	*To what extent does the option or package promote safe and secure travel for all users?*	Neutral	Minimal impact.
Health, Safety and Wellbeing	*To what extent does the option or package support healthy travel choices as part of a multimodal journey?*	Neutral	The option would have minimal impact on active travel or encouraging healthy travel choices.
Health, Safety and Wellbeing	*To what extent does the option or package support the creation of healthy and liveable places?*	Neutral	There may be some minor negative impacts if shorter distance trips increase towards rail station parking, but any impact is likely to be minimal.
Health, Safety and Wellbeing	*To what extent does the option or package enhance provision of non-motorised transport and active travel as part of a 20-minute neighbourhood?*	Neutral	Minimal impact.
Health, Safety and Wellbeing	*To what extent does the option or package support sustainable access to critical services i.e. education, healthcare?*	Inconclusive (at this stage)	Impact on sustainable access to critical services is dependent on the potential mode shift for longer trips to access critical services which is uncertain at this stage.
Economic	*To what extent does the option or package support the creation of a resilient and reliable transport network?*	Consistent	Increasing the availability of station parking would likely result in increased demand on the rail network. Increased parking provision would provide an alternative mode of transport in case of incidents on the road network, enhancing resilience.

Economic	*To what extent does the option or package support future growth areas and national developments identified in land use planning?*	Neutral	Minimal impact.
Economic	*To what extent does the option or package provide a transport system which enables businesses to be competitive locally and within the rest of the UK?*	Neutral	Minimal impact.
Economic	*To what extent will the option or package support and enhance rural economy?*	Neutral	Minimal impact though may increase trips to rural communities that have a rail station.
Equality	*To what extent does the option or package provide sustainable transport connections to and from more disadvantaged communities?*	Inconsistent	This option would not provide new or improved transport connections to and/or from disadvantaged communities.
Equality	*To what extent does the option or package provide sustainable, affordable transport access to education and employment opportunities?*	Neutral	Minimal impact - the affordability of ticketing would need to be considered as well as possible parking charges. It is unlikely that this option would provide any access to education or employment that is not already existing.
Equality	*To what extent does the option or package provide fair and equal transport access to healthcare services?*	Inconsistent	The option predominantly impacts those who have access to a private car. There would be no significant impact for protected groups who do not have access to a car.

Equality	*To what extent does the option or package support a 'just' transition to net zero?*	Neutral	Minimal impact.

Table 3.9: Targeted Road Safety Improvements Appraisal Outcomes.

Theme	Policy Objective Criteria	Compatibility Score	Summary
Environment	*To what extent does the option or package improve air quality?*	Inconsistent	Likely to increase private vehicle use and therefore has the potential to also increase emissions. Targeted improvements would relate to the existing transport network so there would be no means to improve air quality in settlements by removing traffic.
Environment	*To what extent does the option or package safeguard and enhance the natural and cultural environment?*	Inconclusive (at this stage)	Targeted road safety improvements are likely to occur on existing stretches of trunk road and therefore may not cause any additional negative impacts on the surrounding environment, but some schemes may require land take from surrounding areas that would impact on the natural environment.
Environment	*To what extent does the option or package safeguard and enhance blue networks and waterbodies?*	Neutral	Although the scale of the required infrastructure has the potential for adverse impacts upon blue networks and waterbodies, it is a requirement of the design process to ensure there is no negative impact on water quality and flooding.
Environment	*To what extent does the option or package support the creation and maintenance of*	Inconclusive (at this stage)	Targeted road safety improvements would improve users' sense of safety and could positively contribute to high quality placemaking depending on the location of interventions. Any

	attractive and high quality places (with consideration of the six qualities of NPF4)?		increase in car usage may negatively impact upon air quality and noise.
Climate Change	*To what extent does the option or package contribute to the 20% reduction in car km?*	Inconsistent	Improved road conditions and any increase in capacity through overtaking opportunities or partial-dualling may encourage further use of private cars.
Climate Change	*To what extent does the option or package help meet the net zero by 2045 target?*	Inconsistent	Should the option encourage more vehicle trips over sustainable modes, then it would not contribute to net zero targets in the long term. However, the impact would depend on the nature and location of the improvements.
Climate Change	*To what extent does the option or package help adapt the transport network to direct and indirect risks associated with climate change for Scotland?*	Inconclusive (at this stage)	Adaptation to the effects of climate change, such as extreme weather events, could be considered as part of the works to deliver the safety improvements (i.e. high-grip road surfacing and enhanced drainage systems to clear water). However, it is likely to remain subject to damage from extreme weather, as is the case for the existing transport networks.
Climate Change	*To what extent does the option or package promote and support the best use of clean fuels/technologies decarbonising travel?*	Neutral	Minimal impact, although an improved road network would facilitate the growth of EV/ULEVs in the future.
Health, Safety and Wellbeing	*To what extent does the option or package promote safe and secure travel for all users?*	Consistent	Likely to have a significantly positive impact as the range of safety improvements considered, such as the increased overtaking opportunities or junction improvements, would reduce driver frustration and provide safer conditions for all road users.

Health, Safety and Wellbeing	*To what extent does the option or package support healthy travel choices as part of a multimodal journey?*	Inconclusive (at this stage)	Some improvements may be targeted at reducing conflict between active modes and vehicles. If there was a notable safety improvement for non-motorised transport at locations, this could support healthy travel choices.
Health, Safety and Wellbeing	*To what extent does the option or package support the creation of healthy and liveable places?*	Consistent	The option would be intended to provide safer driving conditions for public and private transport by all modes, supporting the creation of healthy and liveable places. This is likely to offset any potential increase in traffic.
Health, Safety and Wellbeing	*To what extent does the option or package enhance provision of non-motorised transport and active travel as part of a 20-minute neighbourhood?*	Inconclusive (at this stage)	The impact of road safety improvements depends upon location, type of intervention and the modes affected.
Health, Safety and Wellbeing	*To what extent does the option or package support sustainable access to critical services i.e. education, healthcare?*	Inconclusive (at this stage)	Improved road safety measures would predominantly benefit those travelling by car using the trunk road network but there may be some consideration of more sustainable modes of transport at specific locations, though this is yet to be determined.
Economic	*To what extent does the option or package support the creation of a resilient and reliable transport network?*	Consistent	Improved road safety would positively contribute to supporting the creation of a resilient and reliable transport network due to reduced risk of road closures because of accidents and potentially increased capacity should overtaking opportunities be increased.

Economic	*To what extent does the option or package support future growth areas and national developments identified in land use planning?*	Consistent	Targeted road safety measures would improve the quality of development in future growth areas through a more reliable and safer trunk road network.
Economic	*To what extent does the option or package provide a transport system which enables businesses to be competitive locally and within the rest of the UK?*	Consistent	Improved road safety along the A96 corridor would reduce incidents to improve the reliability and resilience for road freight that may allow businesses to be more competitive.
Economic	*To what extent will the option or package support and enhance rural economy?*	Consistent	Proposed road safety improvements are predicted to contribute towards reduced journey times and improved journey time reliability for businesses that may enhance rural economies.
Equality	*To what extent does the option or package provide sustainable transport connections to and from more disadvantaged communities?*	Neutral	Minimal impact.
Equality	*To what extent does the option or package provide sustainable, affordable transport access to education and employment opportunities?*	Inconclusive (at this stage)	A minor positive impact on sustainable and affordable transport access to education and employment may be anticipated through enhanced reliability and resilience of infrastructure but would mostly benefit private car use and the impact is dependent on location of interventions and whether benefits are experienced by active modes or public transport.

Equality	*To what extent does the option or package provide fair and equal transport access to healthcare services?*	Inconclusive (at this stage)	Improved journey times to access healthcare services but would mostly benefit private car users. Any impact on fair and equal transport access would be dependent on location of interventions and whether benefits are experienced by active modes or public transport
Equality	*To what extent does the option or package support a 'just' transition to net zero?*	Neutral	Minimal impact on the transition to net zero with most benefits being experienced by cars and road based transport modes.

Table 3.10: Elgin Bypass Appraisal Outcomes.

Theme	Policy Objective Criteria	Compatibility Score	Summary
Environment	*To what extent does the option or package improve air quality?*	Inconclusive (at this stage)	The option may worsen air quality due to anticipated increases in overall traffic demand but may improve the localised air quality along the A96 within Elgin itself by removing through trips.
Environment	*To what extent does the option or package safeguard and enhance the natural and cultural environment?*	Inconsistent	It would likely require greenfield land take to construct the bypass; however, the significance of the impact would be dependent on the location and design.
Environment	*To what extent does the option or package safeguard and enhance blue networks and waterbodies?*	Neutral	Although the scale of the required infrastructure has the potential for adverse impacts upon blue networks and waterbodies, it is a requirement of the design process to ensure there is no negative impact on water quality and flooding.
Environment	*To what extent does the option or package support the creation and maintenance of attractive and high quality places (with consideration of the six qualities of NPF4)?*	Consistent	Removal or at least a significant reduction in the number of vehicles travelling through Elgin would support the creation of high quality places, with improved residential amenity and less severance of communities.
Climate Change	*To what extent does the option or package contribute to the 20% reduction in car km?*	Inconsistent	A bypass may increase the overall use of private vehicles by reducing congestion and improving journey times.

Climate Change	*To what extent does the option or package help meet the net zero by 2045 target?*	Inconsistent	The option may increase the overall use of private vehicles which would not contribute towards the net zero targets.
Climate Change	*To what extent does the option or package help adapt the transport network to direct and indirect risks associated with climate change for Scotland?*	Inconclusive (at this stage)	New infrastructure would be designed in such a way to minimise the potential effects of climate change and the option could provide alternative routing options for vehicles in response to, for example, extreme weather events. However, it is likely to remain subject to damage from extreme weather, as is the case for the existing transport networks.
Climate Change	*To what extent does the option or package promote and support the best use of clean fuels/technologies decarbonising travel?*	Neutral	Minimal impact, although an improved road network would facilitate the growth of EV/ULEVs in the future.
Health, Safety and Wellbeing	*To what extent does the option or package promote safe and secure travel for all users?*	Consistent	Removing traffic from the settlement via a bypass would reduce conflicts and increase pedestrian and cyclist confidence when using shared road spaces.
Health, Safety and Wellbeing	*To what extent does the option or package support healthy travel choices as part of a multimodal journey?*	Inconclusive (at this stage)	Likely to see continued use and reliance upon vehicles. However, removing through traffic from the town centre would be complimentary to the incorporation of active travel within the settlement for shorter everyday trips.
Health, Safety and Wellbeing	*To what extent does the option or package support the creation of healthy and liveable places?*	Inconclusive (at this stage)	Removing through traffic from Elgin may encourage more people to take up active travel in and around the settlement.

			However, this could also result in a reduction in passing trade through settlements, impacting upon liveability.
Health, Safety and Wellbeing	*To what extent does the option or package enhance provision of non-motorised transport and active travel as part of a 20-minute neighbourhood?*	Neutral	No direct enhancement of non-motorised transport but there is potential that fewer vehicles in the settlement may encourage increased trips by active travel.
Health, Safety and Wellbeing	*To what extent does the option or package support sustainable access to critical services i.e. education, healthcare?*	Neutral	Minimal impact on sustainable transport modes directly. However, any reduction in traffic within the settlement may encourage more active travel trips and there may be benefits to bus services if congestion was significantly reduced.
Economic	*To what extent does the option or package support the creation of a resilient and reliable transport network?*	Consistent	Reduction of congestion in Elgin and increased road capacity for through trips in case of incidents either on the bypass or on the existing A96 through the settlement.
Economic	*To what extent does the option or package support future growth areas and national developments identified in land use planning?*	Consistent	New bypasses would provide better accessibility for through traffic which in turn could support the growth of key industries in the North East of Scotland, including accessibility between key ports/blue economy and opportunities for large scale green energy infrastructure facilities.
Economic	*To what extent does the option or package provide a transport system which enables businesses to be competitive locally and within the rest of the UK?*	Consistent	Reduced conflict between local and longer-distance traffic would improve journey times for transporting goods, enabling businesses to remain competitive locally and further afield.

Economic	*To what extent will the option or package support and enhance rural economy?*	Inconclusive (at this stage)	The option would support local businesses for transporting of goods, with improved efficiency. However, there is a possible loss of productive agricultural land from construction and a reduction in passing trade.
Equality	*To what extent does the option or package provide sustainable transport connections to and from more disadvantaged communities?*	Neutral	Minimal impact.
Equality	*To what extent does the option or package provide sustainable, affordable transport access to education and employment opportunities?*	Inconclusive (at this stage)	A bypass could enhance the opportunities for rural and local communities to access key services. However, due to the cost and unsustainability of private cars this may not be accessible for all unless the bypass supports an enhanced bus network for example.
Equality	*To what extent does the option or package provide fair and equal transport access to healthcare services?*	Inconclusive (at this stage)	A bypass could enhance the opportunities for rural and local communities to access key services. However, due to the cost and inequalities for those without access to a private car, this may not be accessible for all unless the bypass supports an enhanced bus network for example.
Equality	*To what extent does the option or package support a 'just' transition to net zero?*	Neutral	Minimal impact on the transition to net zero.

Table 3.11: Keith Bypass Appraisal Outcomes.

Theme	Policy Objective Criteria	Compatibility Score	Summary
Environment	*To what extent does the option or package improve air quality?*	Inconclusive (at this stage)	The option may worsen air quality due to anticipated increases in overall traffic demand but may improve the localised air quality along the A96 within Keith itself by removing through trips.
Environment	*To what extent does the option or package safeguard and enhance the natural and cultural environment?*	Inconsistent	It would likely require greenfield land take to construct the bypass; however, the significance of the impact would be dependent on the location and design.
Environment	*To what extent does the option or package safeguard and enhance blue networks and waterbodies?*	Neutral	Although the scale of the required infrastructure has the potential for adverse impacts upon blue networks and waterbodies, it is a requirement of the design process to ensure there is no negative impact on water quality and flooding.
Environment	*To what extent does the option or package support the creation and maintenance of attractive and high quality places (with consideration of the six qualities of NPF4)?*	Consistent	Removal or at least a significant reduction in the number of vehicles travelling through Keith would support the creation of high quality places, with improved residential amenity and less severance of communities.
Climate Change	*To what extent does the option or package contribute to the 20% reduction in car km?*	Inconsistent	A bypass may increase the overall use of private vehicles by reducing congestion and improving journey times.

Climate Change	*To what extent does the option or package help meet the net zero by 2045 target?*	Inconsistent	The option may increase the overall use of private vehicles which would not contribute towards the net zero targets.
Climate Change	*To what extent does the option or package help adapt the transport network to direct and indirect risks associated with climate change for Scotland?*	Inconclusive (at this stage)	New infrastructure would be designed in such a way to minimise the potential effects of climate change and the option could provide alternative routing options for vehicles in response to, for example, extreme weather events. However, it is likely to remain subject to damage from extreme weather, as is the case for the existing transport networks.
Climate Change	*To what extent does the option or package promote and support the best use of clean fuels/technologies decarbonising travel?*	Neutral	Minimal impact, although an improved road network would facilitate the growth of EV/ULEVs in the future.
Health, Safety and Wellbeing	*To what extent does the option or package promote safe and secure travel for all users?*	Consistent	Removing traffic from the settlement via a bypass would reduce conflicts and increase pedestrian and cyclist confidence when using shared road spaces.
Health, Safety and Wellbeing	*To what extent does the option or package support healthy travel choices as part of a multimodal journey?*	Inconclusive (at this stage)	Likely to see continued use and reliance upon vehicles. However, removing through traffic from the town centre would be complimentary to the incorporation of active travel within the settlement for shorter everyday trips.
Health, Safety and Wellbeing	*To what extent does the option or package support the creation of healthy and liveable places?*	Inconclusive (at this stage)	Removing through traffic from Keith may encourage more people to take up active travel in and around the settlement.

			However, this could also result in a reduction in passing trade through settlements, impacting upon liveability.
Health, Safety and Wellbeing	*To what extent does the option or package enhance provision of non-motorised transport and active travel as part of a 20-minute neighbourhood?*	Neutral	No direct enhancement of non-motorised transport but there is potential that fewer vehicles in the settlement may encourage increased trips by active travel.
Health, Safety and Wellbeing	*To what extent does the option or package support sustainable access to critical services i.e. education, healthcare?*	Neutral	Minimal impact on sustainable transport modes directly. However, any reduction in traffic within the settlement may encourage more active travel trips and there may be benefits to bus services if congestion was significantly reduced.
Economic	*To what extent does the option or package support the creation of a resilient and reliable transport network?*	Consistent	Reduction of congestion in Keith and increased road capacity for through trips in case of incidents either on the bypass or on the existing A96 through the settlement.
Economic	*To what extent does the option or package support future growth areas and national developments identified in land use planning?*	Consistent	New bypasses would provide better accessibility for through traffic which in turn could support the growth of key industries in the North East of Scotland, including accessibility between key ports/blue economy and opportunities for large scale green energy infrastructure facilities.
Economic	*To what extent does the option or package provide a transport system which enables businesses to be competitive locally and within the rest of the UK?*	Consistent	Reduced conflict between local and longer-distance traffic would improve journey times for transporting goods, enabling businesses to remain competitive locally and further afield.

Economic	*To what extent will the option or package support and enhance rural economy?*	Inconclusive (at this stage)	The option would support local businesses for transporting of goods, with improved efficiency. However, there is a possible loss of productive agricultural land and a reduction in passing trade.
Equality	*To what extent does the option or package provide sustainable transport connections to and from more disadvantaged communities?*	Neutral	Minimal impact.
Equality	*To what extent does the option or package provide sustainable, affordable transport access to education and employment opportunities?*	Inconclusive (at this stage)	A bypass could enhance the opportunities for rural and local communities to access key services. However, due to the cost and unsustainability of private cars this may not be accessible for all unless the bypass supports an enhanced bus network for example.
Equality	*To what extent does the option or package provide fair and equal transport access to healthcare services?*	Inconclusive (at this stage)	A bypass could enhance the opportunities for rural and local communities to access key services. However, due to the cost and inequalities for those without access to a private car this may not be accessible for all unless the bypass supports an enhanced bus network for example.
Equality	*To what extent does the option or package support a 'just' transition to net zero?*	Neutral	Minimal impact on the transition to net zero.

Table 3.12: Inverurie Bypass Appraisal Outcomes.

Theme	Policy Objective Criteria	Compatibility Score	Summary
Environment	*To what extent does the option or package improve air quality?*	Inconclusive (at this stage)	The option may worsen air quality due to anticipated increases in overall traffic demand but may improve the localised air quality along the A96 within Inverurie itself by removing through trips.
Environment	*To what extent does the option or package safeguard and enhance the natural and cultural environment?*	Inconsistent	It would likely require greenfield land take to construct the bypass; however, the significance of the impact would be dependent on the location and design.
Environment	*To what extent does the option or package safeguard and enhance blue networks and waterbodies?*	Neutral	Although the scale of the required infrastructure has the potential for adverse impacts upon blue networks and waterbodies, it is a requirement of the design process to ensure there is no negative impact on water quality and flooding.
Environment	*To what extent does the option or package support the creation and maintenance of attractive and high quality places (with consideration of the six qualities of NPF4)?*	Consistent	Removal or at least a significant reduction in the number of vehicles travelling through Inverurie would support the creation of high quality places, with improved residential amenity and less severance of communities.
Climate Change	*To what extent does the option or package contribute to the 20% reduction in car km?*	Inconsistent	A bypass may increase the overall use of private vehicles by reducing congestion and improving journey times.

Climate Change	*To what extent does the option or package help meet the net zero by 2045 target?*	Inconsistent	The option may increase the overall use of private vehicles which would not contribute towards the net zero targets.
Climate Change	*To what extent does the option or package help adapt the transport network to direct and indirect risks associated with climate change for Scotland?*	Inconclusive (at this stage)	New infrastructure would be designed in such a way to minimise the potential effects of climate change and the option could provide alternative routing options for vehicles in response to, for example, extreme weather events. However, it is likely to remain subject to damage from extreme weather, as is the case for the existing transport networks.
Climate Change	*To what extent does the option or package promote and support the best use of clean fuels/technologies decarbonising travel?*	Neutral	Minimal impact, although an improved road network would facilitate the growth of EV/ULEVs in the future.
Health, Safety and Wellbeing	*To what extent does the option or package promote safe and secure travel for all users?*	Consistent	Removing traffic from the settlement via a bypass would reduce conflicts and increase pedestrian and cyclist confidence when using shared road spaces.
Health, Safety and Wellbeing	*To what extent does the option or package support healthy travel choices as part of a multimodal journey?*	Inconclusive (at this stage)	Likely to see continued use and reliance upon vehicles. However, removing through traffic from the town centre would be complimentary to the incorporation of active travel within the settlement for shorter everyday trips.
Health, Safety and Wellbeing	*To what extent does the option or package support the creation of healthy and liveable places?*	Inconclusive (at this stage)	Removing through traffic from Inverurie may encourage more people to take up active travel in and around the settlement.

			However, this could also result in a reduction in passing trade through settlements, impacting upon liveability.
Health, Safety and Wellbeing	*To what extent does the option or package enhance provision of non-motorised transport and active travel as part of a 20-minute neighbourhood?*	Neutral	No direct enhancement of non-motorised transport but there is potential that fewer vehicles in the settlement may encourage increased trips by active travel.
Health, Safety and Wellbeing	*To what extent does the option or package support sustainable access to critical services i.e. education, healthcare?*	Neutral	Minimal impact on sustainable transport modes directly. However, any reduction in traffic within the settlement may encourage more active travel trips and there may be benefits to bus services if congestion was significantly reduced.
Economic	*To what extent does the option or package support the creation of a resilient and reliable transport network?*	Consistent	Reduction of congestion in Inverurie and increased road capacity for through trips in case of incidents either on the bypass or on the existing A96 through the settlement.
Economic	*To what extent does the option or package support future growth areas and national developments identified in land use planning?*	Consistent	New bypasses would provide better accessibility for through traffic which in turn could support the growth of key industries in the North East of Scotland, including accessibility between key ports/blue economy and opportunities for large scale green energy infrastructure facilities.
Economic	*To what extent does the option or package provide a transport system which enables businesses to be competitive locally and within the rest of the UK?*	Consistent	Reduced conflict between local and longer-distance traffic would improve journey times for transporting goods, enabling businesses to remain competitive locally and further afield.

Economic	*To what extent will the option or package support and enhance rural economy?*	Inconclusive (at this stage)	The option would support local businesses for transporting of goods, with improved efficiency. However, there is a possible loss of productive agricultural land and a reduction in passing trade.
Equality	*To what extent does the option or package provide sustainable transport connections to and from more disadvantaged communities?*	Neutral	Minimal impact.
Equality	*To what extent does the option or package provide sustainable, affordable transport access to education and employment opportunities?*	Inconclusive (at this stage)	A bypass could enhance the opportunities for rural and local communities to access key services. However, due to the cost and unsustainability of private cars this may not be accessible for all unless the bypass supports an enhanced bus network for example.
Equality	*To what extent does the option or package provide fair and equal transport access to healthcare services?*	Inconclusive (at this stage)	A bypass could enhance the opportunities for rural and local communities to access key services. However, due to the cost and inequalities for those without access to a private car this may not be accessible for all unless the bypass supports an enhanced bus network for example.
Equality	*To what extent does the option or package support a 'just' transition to net zero?*	Neutral	Minimal impact on the transition to net zero.

Table 3.13: Forres Bypass Appraisal Outcomes.

Theme	Policy Objective Criteria	Compatibility Score	Summary
Environment	*To what extent does the option or package improve air quality?*	Inconclusive (at this stage)	The option may worsen air quality due to anticipated increases in overall traffic demand but may improve the localised air quality along the A96 within Forres itself by removing through trips.
Environment	*To what extent does the option or package safeguard and enhance the natural and cultural environment?*	Inconsistent	It would likely require greenfield land take to construct the bypass; however, the significance of the impact would be dependent on the location and design.
Environment	*To what extent does the option or package safeguard and enhance blue networks and waterbodies?*	Neutral	Although the scale of the required infrastructure has the potential for adverse impacts upon blue networks and waterbodies, it is a requirement of the design process to ensure there is no negative impact on water quality and flooding.
Environment	*To what extent does the option or package support the creation and maintenance of attractive and high quality places (with consideration of the six qualities of NPF4)?*	Consistent	Removal or at least a significant reduction in the number of vehicles travelling through Forres would support the creation of high quality places, with improved residential amenity and less severance of communities.
Climate Change	*To what extent does the option or package contribute to the 20% reduction in car km?*	Inconsistent	A bypass may increase the overall use of private vehicles by reducing congestion and improving journey times.

Climate Change	*To what extent does the option or package help meet the net zero by 2045 target?*	Inconsistent	The option may increase the overall use of private vehicles which would not contribute towards the net zero targets.
Climate Change	*To what extent does the option or package help adapt the transport network to direct and indirect risks associated with climate change for Scotland?*	Inconclusive (at this stage)	New infrastructure would be designed in such a way to minimise the potential effects of climate change and the option could provide alternative routing options for vehicles in response to, for example, extreme weather events. However, it is likely to remain subject to damage from extreme weather, as is the case for the existing transport networks.
Climate Change	*To what extent does the option or package promote and support the best use of clean fuels/technologies decarbonising travel?*	Neutral	Minimal impact, although an improved road network would facilitate the growth of EV/ULEVs in the future.
Health, Safety and Wellbeing	*To what extent does the option or package promote safe and secure travel for all users?*	Consistent	Removing traffic from the settlement via a bypass would reduce conflicts and increase pedestrian and cyclist confidence when using shared road spaces.
Health, Safety and Wellbeing	*To what extent does the option or package support healthy travel choices as part of a multimodal journey?*	Inconclusive (at this stage)	Likely to see continued use and reliance upon vehicles. However, removing through traffic from the town centre would be complimentary to the incorporation of active travel within the settlement for shorter everyday trips.

Health, Safety and Wellbeing	*To what extent does the option or package support the creation of healthy and liveable places?*	Inconclusive (at this stage)	Removing through traffic from Forres may encourage more people to take up active travel in and around the settlement. However, this could also result in a reduction in passing trade through settlements, impacting upon liveability.
Health, Safety and Wellbeing	*To what extent does the option or package enhance provision of non-motorised transport and active travel as part of a 20-minute neighbourhood?*	Neutral	No direct enhancement of non-motorised transport but there is potential that fewer vehicles in the settlement may encourage increased trips by active travel.
Health, Safety and Wellbeing	*To what extent does the option or package support sustainable access to critical services i.e. education, healthcare?*	Neutral	Minimal impact on sustainable transport modes directly. However, any reduction in traffic within the settlement may encourage more active travel trips and there may be benefits to bus services if congestion was significantly reduced.
Economic	*To what extent does the option or package support the creation of a resilient and reliable transport network?*	Consistent	Reduction of congestion in Forres and increased road capacity for through trips in case of incidents either on the bypass or on the existing A96 through the settlement.
Economic	*To what extent does the option or package support future growth areas and national developments identified in land use planning?*	Consistent	New bypasses would provide better accessibility for through traffic which in turn could support the growth of key industries in the North East of Scotland, including accessibility between key ports/blue economy and opportunities for large scale green energy infrastructure facilities.

Economic	*To what extent does the option or package provide a transport system which enables businesses to be competitive locally and within the rest of the UK?*	Consistent	Reduced conflict between local and longer-distance traffic would improve journey times for transporting goods, enabling businesses to remain competitive locally and further afield.
Economic	*To what extent will the option or package support and enhance rural economy?*	Inconclusive (at this stage)	The option would support local businesses for transporting of goods, with improved efficiency. However, there is a possible loss of productive agricultural land and a reduction in passing trade.
Equality	*To what extent does the option or package provide sustainable transport connections to and from more disadvantaged communities?*	Neutral	Minimal impact.
Equality	*To what extent does the option or package provide sustainable, affordable transport access to education and employment opportunities?*	Inconclusive (at this stage)	A bypass could enhance the opportunities for rural and local communities to access key services. However, due to the cost and unsustainability of private cars this may not be accessible for all unless the bypass supports an enhanced bus network.
Equality	*To what extent does the option or package provide fair and equal transport access to healthcare services?*	Inconclusive (at this stage)	A bypass could enhance the opportunities for rural and local communities to access key services. However, due to the cost and inequalities for those without access to a private car this may not be accessible for all unless the bypass supports an enhanced bus network for example.

Equality	*To what extent does the option or package support a 'just' transition to net zero?*	Neutral	Minimal impact on the transition to net zero.

Table 3.14: Development of A96 Electric Corridor Appraisal Outcomes.

Theme	Policy Objective Criteria	Compatibility Score	Summary
Environment	*To what extent does the option or package improve air quality?*	Consistent	The option supports and facilitates the transition to zero emission vehicles.
Environment	*To what extent does the option or package safeguard and enhance the natural and cultural environment?*	Inconsistent	Construction is likely to produce minor to moderate negative environmental impacts and would require the excavation and removal of soils. The extent of these impacts would depend upon final construction and location decisions.
Environment	*To what extent does the option or package safeguard and enhance blue networks and waterbodies?*	Neutral	Although the scale of the required infrastructure has the potential for adverse impacts upon blue networks and waterbodies, it is a requirement of the design process to ensure there is no negative impact on water quality and flooding.
Environment	*To what extent does the option or package support the creation and maintenance of attractive and high quality places (with consideration of the six qualities of NPF4)?*	Inconclusive (at this stage)	The option may result in more localised vehicle trips which would increase tyre noise but have less engine noise. The option would promote a shift to less polluting alternatives to internal combustion engine vehicles, increasing access to renewables.

Climate Change	*To what extent does the option or package contribute to the 20% reduction in car km?*	Inconclusive (at this stage)	The option could increase alternative fuelled car vehicle kilometres; however, this is dependent on measures to be implemented to meet the policy commitment.
Climate Change	*To what extent does the option or package help meet the net zero by 2045 target?*	Consistent	Increasing capacity for alternative fuels would likely increase the attractiveness and reliability of using low/zero emission vehicles.
Climate Change	*To what extent does the option or package help adapt the transport network to direct and indirect risks associated with climate change for Scotland?*	Neutral	Minimal impact.
Climate Change	*To what extent does the option or package promote and support the best use of clean fuels/technologies decarbonising travel?*	Consistent	Supports the expansion of access to clean fuel technologies for private and commercial vehicles.
Health, Safety and Wellbeing	*To what extent does the option or package promote safe and secure travel for all users?*	Inconclusive (at this stage)	Although not certain, the option could increase alternative fuelled car vehicle kilometres. In this situation, there may be an increase in accidents. There is also the potential that as EVs tend to be heavier, the severity of accidents may be more severe.

Health, Safety and Wellbeing	*To what extent does the option or package support healthy travel choices as part of a multimodal journey?*	Neutral	Minimal impact.
Health, Safety and Wellbeing	*To what extent does the option or package support the creation of healthy and liveable places?*	Inconclusive (at this stage)	The option is unlikely to have an impact on addressing safety concerns as it still promotes vehicle usage. However, it would support a reduction in emissions with subsequent improvements for local air quality.
Health, Safety and Wellbeing	*To what extent does the option or package enhance provision of non-motorised transport and active travel as part of a 20-minute neighbourhood?*	Neutral	Minimal impact on non-motorised transport modes.
Health, Safety and Wellbeing	*To what extent does the option or package support sustainable access to critical services i.e. education, healthcare?*	Neutral	The option supports and facilitates the transition to zero emission vehicles. However, this may be offset by a potential rise in alternative fuelled car vehicle kilometres so impacts are judged to be neutral at this stage.
Economic	*To what extent does the option or package support the creation of a resilient and reliable transport network?*	Consistent	It may increase the number of private cars on the road but would also provide the necessary refuelling infrastructure to enable these vehicles, such as EVs, to travel more widely in the region, thus improving the reliability of the transport network.
Economic	*To what extent does the option or package support future growth areas*	Consistent	The option supports the provision of decarbonised travel for residents, visitors and businesses which aligns with

	and national developments identified in land use planning?		improved connectivity between national development/growth areas.
Economic	*To what extent does the option or package provide a transport system which enables businesses to be competitive locally and within the rest of the UK?*	Consistent	Enhanced alternative refuelling facilities would Likely allow low emission vehicles to travel more seamlessly throughout the region. And encourage a greater uptake of sustainable freight vehicles.
Economic	*To what extent will the option or package support and enhance rural economy?*	Consistent	It is anticipated that the option would focus on implementing facilities within the communities along the route. Therefore, it would encourage people to visit communities whilst they refuel/recharge, which may have benefits to local rural economies.
Equality	*To what extent does the option or package provide sustainable transport connections to and from more disadvantaged communities?*	Inconsistent	Unlikely to have any benefits for those who do not have access to a private vehicle and given the cost of owning and running some alternative fuelled vehicles, it may increase transport poverty in disadvantaged communities.
Equality	*To what extent does the option or package provide sustainable, affordable transport access to education and employment opportunities?*	Inconclusive (at this stage)	Unlikely to have any benefits for those who do not have access to a private vehicle. Currently, given the relatively high cost of purchasing alternative fuelled vehicles, this is not likely to be affordable for lower income households.
Equality	*To what extent does the option or package provide fair and equal*	Neutral	The option supports and facilitates the transition to zero emission vehicles. However, this may be offset by a potential

	transport access to healthcare services?		rise in alternative fuelled car vehicle kilometres and the option is unlikely to have any benefits for those who do not have access to a private vehicle.
Equality	*To what extent does the option or package support a 'just' transition to net zero?*	Inconclusive (at this stage)	This option would encourage the use of zero emission vehicles as a more sustainable alternative to internal combustion engine vehicles. However, given the relatively high cost of purchasing alternative fuelled vehicles, this is not likely to be affordable for lower income households which may be prohibitive to a 'just' transition to net zero.

Table 3.15: Package 1 Appraisal Outcomes.

Theme	Policy Objective Criteria	Compatibility Score	Summary
Environment	*To what extent does the option or package improve air quality?*	Inconclusive (at this stage)	The inclusion of bypasses within this package has the potential to improve the air quality within the bypassed settlements of Elgin and Keith, and to a lesser extent Forres and Inverurie, as there would likely be a reduction in traffic on the existing A96 trunk road as it passes through these settlements. There would also be an opportunity to increase active travel opportunities within settlements through Active Communities which could have a further positive effect on air quality. The introduction of bypasses may, however, increase reliance on private vehicles due to reduced congestion and greater road capacity potentially impacting upon the air quality elsewhere on the wider A96 corridor itself. Promotion of lower and zero emission vehicles by including alternative refuelling infrastructure should help to reduce overall vehicle emissions and improve overall air quality.

Environment	*To what extent does the option or package safeguard and enhance the natural and cultural environment?*	Inconclusive (at this stage)	The physical works associated with this package include four bypasses, improved public transport passenger interchange facilities and rail linespeed, passenger and freight capacity improvements, all of which have the potential to have negative effects during the construction phase. The extent of impact would depend on scale, design and location. Creation of large scale alternative refuelling infrastructure may require land take and result in a net loss of green space. However, there could also be environmental benefits associated with improved active travel connections within settlements and placemaking enhancements, which would have a positive impact on sustainable access to natural and cultural places.
Environment	*To what extent does the option or package safeguard and enhance blue networks and waterbodies?*	Neutral	Although the scale of the required infrastructure has the potential for adverse impacts upon blue networks and waterbodies, it is a requirement of the design process to ensure there is no negative impact on water quality and flooding. Consideration would be needed as to the alignment of the bypasses in terms of water crossings and bridge design.
Environment	*To what extent does the option or package support the creation and maintenance of attractive and high*	Consistent	A reduction of traffic through settlements could result in better air quality and the opportunity to implement placemaking schemes. A modal shift to sustainable transport including bus, rail, walking, wheeling and cycling

	quality places (with consideration of the six qualities of NPF4)?		would positively contribute to the creation of high quality places.
Climate Change	*To what extent does the option or package contribute to the 20% reduction in car km?*	Inconclusive (at this stage)	This package focuses on reducing the reliance on private car through the provision of interventions to encourage a mode shift to sustainable transport. However, it is anticipated that there would be a continued reliance and use of cars due to the inclusion of the four bypasses that may result in an overall increase in car kilometres.
Climate Change	*To what extent does the option or package help meet the net zero by 2045 target?*	Inconclusive (at this stage)	The four bypasses included in the package may result in the A96 being a more attractive route for private vehicles to use and may lead to increased carbon emissions. Investment in sustainable transport modes, including active communities, bus priority, passenger interchange facilities, and rail linespeed, passenger and freight capacity may encourage a modal shift away from private car use that contributes to a decrease in associated carbon emissions.
Climate Change	*To what extent does the option or package help adapt the transport network to direct and indirect risks associated with climate change for Scotland?*	Inconclusive (at this stage)	If subject to the latest climate change assessment standard this should result in any new infrastructure being adapted to the predicted future impacts of climate change. However, paved surfaces of interventions included in the package such as bypasses, active travel infrastructure and bus priority measures may incur surface damage or be impacted by

			surface water flooding during heavy rainfall, as is the case for the existing transport networks. The location of new infrastructure, in particular bypasses, would need to consider existing flood risk and the impacts of increasing flood risk elsewhere.
Climate Change	*To what extent does the option or package promote and support the best use of clean fuels/technologies decarbonising travel?*	Consistent	The A96 Electric Corridor option for alternative refuelling infrastructure would support and promote clean fuel technologies.
Health, Safety and Wellbeing	*To what extent does the option or package promote safe and secure travel for all users?*	Consistent	Removing through trips made by vehicles in bypassed settlements and enabling the introduction of active travel infrastructure could reduce the number and severity of road traffic accidents. This would in turn support the promotion of safe and secure travel for all. It is expected that personal security is likely to improve through an increase in the number of people walking, wheeling in and around the key communities along the A96 corridor as there would be an increase in natural surveillance.
Health, Safety and Wellbeing	*To what extent does the option or package support healthy travel choices as part of a multimodal journey?*	Consistent	The package is likely to support healthy travel choices due to active travel improvements in settlements, supplemented by the reduction in traffic associated with the bypasses.

			The package would promote bus and rail travel as an alternative to car trips, and likely to involve users walking, wheeling or cycling to and from stops or stations as part of a multimodal journey. Encouraging a mode shift away from car would contribute to healthier travel choices through reduced transport related emissions.
Health, Safety and Wellbeing	*To what extent does the option or package support the creation of healthy and liveable places?*	Inconclusive (at this stage)	Creating 'Active Communities', where more space would be provided for people rather than traffic, draws upon the '20-minute neighbourhood' concept. This option would help to create safer routes to key services such as education and encourage more inclusive environments for people walking, wheeling and cycling. Bypasses would remove through traffic from the existing A96 in settlements, which would allow for improved air quality and a healthier environment, though may impact on liveability if there was a reduction in passing trade.
Health, Safety and Wellbeing	*To what extent does the option or package enhance provision of non-motorised transport and active travel as part of a 20-minute neighbourhood?*	Consistent	Introduction of Active Communities would support and provide space for people rather than traffic and the '20-minute neighbourhood'. This option would help to create safer routes to key services such as education and encourage more inclusive environments for people walking, wheeling and cycling. The removal of through trips in bypassed towns would supplement the benefits brought about by Active Communities.

Health, Safety and Wellbeing	*To what extent does the option or package support sustainable access to critical services i.e. education, healthcare?*	Consistent	The package could see a modal shift to sustainable transport including bus, rail, walking, wheeling and cycling. Increasing the opportunities to travel by these modes would create opportunities for communities to access key services such as education, employment opportunities and healthcare. This would reduce transport poverty for disadvantaged and vulnerable users and improve mobility and inclusion. DRT services included in this package do not follow a fixed route. The services provide flexibility, allowing for wider network coverage which could provide an alternative mode of transport when accessing healthcare services.
Economic	*To what extent does the option or package support the creation of a resilient and reliable transport network?*	Consistent	It is anticipated that this package would reduce delays to business journeys and improve the reliability of the trunk road network through the inclusion of bypasses. Improved reliability and resilience benefits to freight and other users are predicted as a result of reducing the impact of accidents on the trunk road network. Further benefits would be anticipated through the rail improvements as part of this package, with capacity enhancements increasing the reliability and resilience for train journeys. Provision of bus priority measures should reduce both journey times and journey time variability, providing a more reliable service which would instil confidence in users.

Economic	*To what extent does the option or package support future growth areas and national developments identified in land use planning?*	Consistent	Bypasses could support sustainable inclusive growth by improving the connectivity between businesses and the labour market and improving the efficiency of the movement of goods along the corridor. Improving access through well designed active travel and public transport infrastructure can improve economic performance of local settlements due to increased footfall. NPF4 developments are not specific to the corridor but relate to a wider area for maximising the economic potential of blue infrastructure in the North Sea and Moray coast and renewable energy and transmission. The package improvements would support improved passenger and freight travel along the corridor which would support delivery of the NPF4 spatial strategy.
Economic	*To what extent does the option or package provide a transport system which enables businesses to be competitive locally and within the rest of the UK?*	Consistent	This package is likely to provide opportunities to widen the labour market, providing greater access to key centres of employment, education and training, particularly for those who can drive or via the rail network. Bypasses could support sustainable inclusive growth by improving the connectivity between businesses and the labour market and improving the efficiency of the movement of goods along the corridor due to the likely associated reliability improvements on the trunk road network.

Economic	*To what extent will the option or package support and enhance rural economy?*	Inconclusive (at this stage)	The package would support local businesses transporting goods, improving efficiencies by reducing incidents on the road network and increasing the capacity of the rail line. It would also improve the accessibility to and from rural areas to employment opportunities through interventions such as DRT and MaaS. However, construction of some interventions, notably the bypasses, may result in a loss of productive agricultural land and would also likely result in a reduction in passing trade.
Equality	*To what extent does the option or package provide sustainable transport connections to and from more disadvantaged communities?*	Inconclusive	The inclusion of DRT and MaaS would be expected to result in an improvement to the public transport network, which could lead to improved inclusivity through increased accessibility, including for those from disadvantaged communities who may have a lack of traditional public transport services. Improving the quality of passenger interchange facilities would also improve the travel experience for those without access to a car, which can be those from lower income households. However, at this stage there is uncertainty as to whether there would be a defined improvement in the accessibility of disadvantaged communities until new routes for active travel and the location of public transport improvements are selected.

Equality	*To what extent does the option or package provide sustainable, affordable transport access to education and employment opportunities?*	Consistent	The interventions included in this package targeted at active travel modes and public transport improvements are likely to provide opportunities to widen the labour market, providing greater access to key centres of employment, education and training by sustainable modes. There is unlikely to be any major impact on the affordability of travel, with public transport ticketing and fares not likely to change. However, active travel improvements in settlements, supplemented by the bypasses, could have notable benefits for sustainable and affordable access to employment opportunities and education.
Equality	*To what extent does the option or package provide fair and equal transport access to healthcare services?*	Consistent	The DRT and MaaS, rail linespeed, passenger and freight capacity improvements and active communities interventions are expected to enhance inclusiveness by improving fair and equal sustainable travel options to access healthcare services.
Equality	*To what extent does the option or package support a 'just' transition to net zero?*	Consistent	The interventions included in this package targeted at active travel modes and public transport improvements are likely to encourage a sustainable mode shift that contributes towards a 'just' transition to net zero. Active communities would promote low cost travel within settlements to replace shorter trips currently made by motorised modes. Bus priority measures and rail improvements would also offer alternative options to a car to enhance accessibility to key services and employment opportunities.

Table 3.16: Package 2 Appraisal Outcomes.

Theme	Policy Objective Criteria	Compatibility Score	Summary
Environment	*To what extent does the option or package improve air quality?*	Consistent	The package aims to promote vehicles with lower or no emissions through the inclusion of alternative refuelling infrastructure and facilities should help reduce vehicle emissions and improve overall air quality. Active travel interventions within settlements to promote walking and cycling, as well as public transport improvements, should also contribute to reducing vehicle movement and subsequently lower emissions. Targeted improvements for road safety would not in isolation be likely to improve air quality, but overall the package is anticipated to be broadly consistent with this objective.
Environment	*To what extent does the option or package safeguard and enhance the natural and cultural environment?*	Inconclusive (at this stage)	The physical works associated with implementing this package include increasing active travel opportunities within settlements, improving public transport interchanges, and rail linespeed, passenger and freight capacity improvements, all of which have the potential to have negative effects on environmental features during the construction phase. The extent of impact would depend on scale, design and location. Creation of large-scale alternative refuelling infrastructure may also require land take and result in a net loss of green space.

			However, there could also be environmental benefits associated with improved active travel connections within settlements and placemaking enhancements, which would have a positive impact on sustainable access to and enjoyment of natural and cultural places.
Environment	*To what extent does the option or package safeguard and enhance blue networks and waterbodies?*	Neutral	Although the scale of the required infrastructure has the potential for adverse impacts upon blue networks and waterbodies, it is a requirement of the design process to ensure there is no negative impact on water quality and flooding.
Environment	*To what extent does the option or package support the creation and maintenance of attractive and high quality places (with consideration of the six qualities of NPF4)?*	Consistent	The interventions included in the package could encourage a modal shift to sustainable transport including bus, rail, walking, wheeling and cycling. The increased opportunities to travel by these modes would be beneficial for creating high quality places with public spaces not being dominated by cars.
Climate Change	*To what extent does the option or package contribute to the 20% reduction in car km?*	Consistent	Improvements for active travel are not expected to make a significant contribution towards reduction in car kilometres. However, there is also potential for a mode shift towards public transport due to improvements to bus, rail and interchanges which would positively contribute to a reduction in car kilometres.
Climate Change	*To what extent does the option or package help meet the net zero by 2045 target?*	Consistent	Investment in sustainable transport modes, including active communities, bus priority, passenger interchange facilities, and rail linespeed, passenger and freight capacity may

			encourage a modal shift away from private car use that contributes to a decrease in associated carbon emissions.
Climate Change	*To what extent does the option or package help adapt the transport network to direct and indirect risks associated with climate change for Scotland?*	Inconclusive (at this stage)	If subject to the latest climate change assessment standard this should result in any new infrastructure being adapted to the predicted future impacts of climate change. However, paved surfaces for active travel infrastructure, road safety improvements and potential bus priority measures might incur surface damage or be impacted by surface water flooding during heavy rainfall, as is the case for the existing transport networks. The location of new infrastructure would need to consider existing flood risk and the impacts of increasing flood risk elsewhere.
Climate Change	*To what extent does the option or package promote and support the best use of clean fuels/technologies decarbonising travel?*	Consistent	The A96 Electric Corridor option for alternative refuelling infrastructure would support and promote clean fuel technologies.
Health, Safety and Wellbeing	*To what extent does the option or package promote safe and secure travel for all users?*	Consistent	Targeted road safety improvements are proposed for locations identified as having a higher rate of incidents. This would improve perceptions of safety risk and reduce accident frequencies and severity in line with national reduction targets. Reducing overall vehicle trips with increased amounts of active travel and public transport use within settlements

			would also positively contribute to fewer accidents on the network. Public transport interchange improvements may also improve personal security and make a safer network for travellers.
Health, Safety and Wellbeing	*To what extent does the option or package support healthy travel choices as part of a multimodal journey?*	Consistent	The package is likely to support healthy travel choices due to active travel improvements in selected settlements. The package would promote bus and rail travel as an alternative to car trips, and likely to involve users walking, wheeling or cycling to and from stops or stations as part of a multimodal journey. Encouraging a mode shift away from car would contribute to healthier travel choices through reduced transport related emissions.
Health, Safety and Wellbeing	*To what extent does the option or package support the creation of healthy and liveable places?*	Consistent	Targeted safety improvements would help with perceived safety, reduce accident frequency and severity contributing to the positive creation of liveable places. The package would provide infrastructure for active travel within communities for shorter everyday trips. This would improve amenity in communities as centres become more about people and sense of place rather than the connection of roads. Improved public realm would allow for the gathering and socialisation of people. This in turn would likely influence

			more people to utilise public spaces for healthy lifestyle habits (running, walking, cycling etc).
Health, Safety and Wellbeing	*To what extent does the option or package enhance provision of non-motorised transport and active travel as part of a 20-minute neighbourhood?*	Consistent	Introduction of Active Communities would support and provide space for people rather than traffic and the '20-minute neighbourhood'. This option would help to create safer routes to key services such as education and encourage more inclusive environments for people walking, wheeling and cycling.
Health, Safety and Wellbeing	*To what extent does the option or package support sustainable access to critical services i.e. education, healthcare?*	Consistent	The package could see a modal shift to sustainable transport including bus, rail, walking, wheeling and cycling. Increasing the opportunities to travel by these modes would create opportunities for communities to access key services such as education, employment opportunities and healthcare. This would reduce transport poverty for disadvantaged and vulnerable users and improve mobility and inclusion. DRT services included in this package do not follow a fixed route. The services provide flexibility, allowing for wider network coverage which could provide an alternative mode of transport when accessing healthcare services.
Economic	*To what extent does the option or package support the creation of a resilient and reliable transport network?*	Consistent	Improved reliability and resilience benefits to freight and other users are predicted as a result of reducing the impact of accidents on the trunk road network brought about through bypasses and targeted road safety measures.

			Further benefits would be anticipated through the rail improvements as part of this package, with capacity enhancements increasing the reliability and resilience for train journeys. Provision of bus priority measures should reduce both journey times and journey time variability, providing a more reliable service which would instil confidence in users.
Economic	*To what extent does the option or package support future growth areas and national developments identified in land use planning?*	Consistent	Improving access through well designed active travel and public transport infrastructure can improve economic performance of local settlements due to increased footfall. NPF4 developments are not specific to the corridor but relate to a wider area for maximising the economic potential of blue infrastructure in the North Sea and Moray coast and renewable energy and transmission. The package improvements would support improved passenger and freight travel along the corridor which would support delivery of the NPF4 spatial strategy.
Economic	*To what extent does the option or package provide a transport system which enables businesses to be competitive locally and within the rest of the UK?*	Consistent	This package would provide some reliability and resilience benefits to freight and other road users by reducing the impact of accidents on the network and enhancing rail capacity. This would allow businesses to improve their efficiencies in the movement of goods to be more competitive.

Economic	*To what extent will the option or package support and enhance rural economy?*	Consistent	This package could provide an opportunity for enhancing sustainable economic growth across the corridor, including in various settlements which are in a relatively rural area. Improved access to employment opportunities would be provided through interventions such as DRT and MaaS, and more efficient transport of goods would be facilitated by reducing incidents on the road network and enhancing the rail capacity would support rural economies.
Equality	*To what extent does the option or package provide sustainable transport connections to and from more disadvantaged communities?*	Inconclusive (at this stage)	The inclusion of DRT and MaaS would be expected to result in an improvement to the public transport network, which could lead to improved inclusivity through increased accessibility, including for those from disadvantaged communities who may have a lack of traditional public transport services. Improving the quality of passenger interchange facilities would also improve the travel experience for those without access to a car, which can be those from lower income households. However, at this stage there is uncertainty as to whether there would be a defined improvement in the accessibility of disadvantaged communities until new routes for active travel and the location of public transport improvements are selected.
Equality	*To what extent does the option or package provide sustainable, affordable transport access to education and employment opportunities?*	Consistent	The interventions included in this package targeted at active travel modes and public transport improvements are likely to provide opportunities to widen the labour market, providing greater access to key centres of employment, education and

			training by sustainable modes. There is unlikely to be any major impact on the affordability of travel, with public transport ticketing and fares not likely to change. However, active travel improvements in settlements could have notable benefits for sustainable and affordable access to employment opportunities and education.
Equality	*To what extent does the option or package provide fair and equal transport access to healthcare services?*	Consistent	The DRT and MaaS, rail linespeed, passenger and freight capacity improvements and active communities options are expected to enhance inclusiveness by improving fair and equal sustainable travel options to access healthcare services.
Equality	*To what extent does the option or package support a 'just' transition to net zero?*	Consistent	The interventions included in this package targeted at active travel modes and public transport improvements are likely to encourage a sustainable mode shift that contributes towards a 'just' transition to net zero. Active communities would promote low cost travel within settlements to replace shorter trips currently made by motorised modes. Bus priority measures and rail improvements would also offer alternative options to a car to enhance accessibility to key services and employment opportunities.

Table 3.17: Package 3 Appraisal Outcomes.

Theme	Policy Objective Criteria	Compatibility Score	Summary
Environment	*To what extent does the option or package improve air quality?*	Consistent	The package aims to promote vehicles with lower or no emissions through the inclusion of alternative refuelling infrastructure and facilities should help reduce vehicle emissions and improve overall air quality. The inclusion of continuous vehicle-free connections between settlements to promote walking and wheeling may also reduce vehicles travelling around and between settlements to the betterment of overall air quality. The package also includes public transport improvements to encourage a mode shift which again may reduce the number of vehicles on the roads and further improve air quality.
Environment	*To what extent does the option or package safeguard and enhance the natural and cultural environment?*	Inconclusive (at this stage)	The physical works associated with this package include long distance active travel connections, improving public transport interchanges, and rail linespeed, passenger and freight capacity improvements, all of which have the potential to have negative effects during the construction phase. The extent of impacts would depend on scale, design and location. Creation of large-scale alternative refuelling infrastructure may also require land take and result in a net loss of green space.

			However, there could also be environmental benefits associated with improved active travel connections between settlements, which would have a positive impact on sustainable access to natural and cultural places.
Environment	*To what extent does the option or package safeguard and enhance blue networks and waterbodies?*	Neutral	Although the scale of the required infrastructure has the potential for adverse impacts upon blue networks and waterbodies, it is a requirement of the design process to ensure there is no negative impact on water quality and flooding.
Environment	*To what extent does the option or package support the creation and maintenance of attractive and high quality places (with consideration of the six qualities of NPF4)?*	Inconclusive (at this stage)	The interventions included in the package could encourage a modal shift to sustainable transport methods including bus, rail, walking and cycling. The increased opportunities to travel by these modes would be beneficial for creating high quality places with public spaces not being dominated by cars. However, the extent of this may be limited as this package does not include active communities improvements.
Climate Change	*To what extent does the option or package contribute to the 20% reduction in car km?*	Consistent	Minor decrease in vehicle kilometres expected as a result of this package. This package focuses on long distance active connection expected to have limited impact on increased walking. A modal shift to public transport through improvement to bus, rail and interchanges may assist in reducing car kilometres but the extent of this is unclear. Improvements for active travel are not expected to make a significant contribution towards reduction in car kilometres.

			However, there is also potential for a mode shift towards public transport due to improvements to bus and rail which would positively contribute to a reduction in car kilometres.
Climate Change	*To what extent does the option or package help meet the net zero by 2045 target?*	Consistent	Investment in sustainable transport modes, including active connections, bus priority, and rail linespeed, passenger and freight capacity may encourage a modal shift away from private car use that contributes to a decrease in associated carbon emissions.
Climate Change	*To what extent does the option or package help adapt the transport network to direct and indirect risks associated with climate change for Scotland?*	Inconclusive (at this stage)	If subject to the latest climate change assessment standard this should result in any new infrastructure being adapted to the predicted future impacts of climate change. However, paved surfaces for active travel infrastructure, road safety improvements and potential bus priority measures might incur surface damage or be impacted by surface water flooding during heavy rainfall, as is the case for the existing transport networks. The location of new infrastructure would need to consider existing flood risk and the impacts of increasing flood risk elsewhere.
Climate Change	*To what extent does the option or package promote and support the best use of clean fuels/technologies decarbonising travel?*	Consistent	The A96 Electric Corridor option for alternative refuelling infrastructure would support and promote clean fuel technologies.

Health, Safety and Wellbeing	*To what extent does the option or package promote safe and secure travel for all users?*	Consistent	Targeted road safety improvements are proposed for locations identified as having a higher rate of incidents. This would improve perceptions of safety risk and reduce accident frequencies and severity in line with national reduction targets. Reducing vehicle trips with greater active travel trips and public transport use would contribute to fewer accidents on the network.
Health, Safety and Wellbeing	*To what extent does the option or package support healthy travel choices as part of a multimodal journey?*	Inconclusive (at this stage)	This package does not directly include provisions for creating active communities or improvements to transport interchanges with more limited support for multi-modal journeys which incorporate active travel. There may be some benefits from Active Connections in allowing people access larger settlements for onward travel by train or bus.
Health, Safety and Wellbeing	*To what extent does the option or package support the creation of healthy and liveable places?*	Neutral	Targeted safety improvements would help with perceived safety, reduce accident frequency and severity contributing to the positive creation of liveable places. Improved active travel provision supports the promotion of healthy travel choices. However, this package does not include provisions for creating active communities so is unlikely to have a significant impact on local active travel journeys.

Health, Safety and Wellbeing	*To what extent does the option or package enhance provision of non-motorised transport and active travel as part of a 20-minute neighbourhood?*	Neutral	Although the package would provide a segregated active travel routes between communities, this is not likely to benefit the creation of 20-minute neighbourhoods.
Health, Safety and Wellbeing	*To what extent does the option or package support sustainable access to critical services i.e. education, healthcare?*	Consistent	The package could see a modal shift to sustainable transport including bus, rail, walking, wheeling and cycling. Increasing the opportunities to travel by these modes would create opportunities for communities to access key services such as education, employment opportunities and healthcare. This would reduce transport poverty for disadvantaged and vulnerable users and improve mobility and inclusion. DRT services included in this package do not follow a fixed route. The services provide flexibility, allowing for wider network coverage which could provide an alternative mode of transport when accessing healthcare services.
Economic	*To what extent does the option or package support the creation of a resilient and reliable transport network?*	Consistent	Improved reliability and resilience benefits to freight and other users are predicted as a result of reducing the impact of accidents on the trunk road network brought about through bypasses and targeted road safety measures. Further benefits would be anticipated through the rail improvements as part of this package, with capacity

			enhancements increasing the reliability and resilience for train journeys. Provision of bus priority measures should reduce both journey times and journey time variability, providing a more reliable service which would instil confidence in users.
Economic	*To what extent does the option or package support future growth areas and national developments identified in land use planning?*	Consistent	Improving access through well designed active travel and public transport infrastructure can improve economic performance of local settlements due to increased footfall. NPF4 developments are not specific to the corridor but relate to a wider area for maximising the economic potential of blue infrastructure in the North Sea and Moray coast and renewable energy and transmission. The package improvements would support improved passenger and freight travel along the corridor which would support delivery of the NPF4 spatial strategy.
Economic	*To what extent does the option or package provide a transport system which enables businesses to be competitive locally and within the rest of the UK?*	Consistent	This package would provide some reliability and resilience benefits to freight and other road users by reducing the impact of accidents on the network and enhancing rail capacity. This would allow businesses to improve their efficiencies in the movement of goods to be more competitive.
Economic	*To what extent will the option or package support and enhance rural economy?*	Consistent	This package could provide an opportunity for enhancing sustainable economic growth across the corridor, including in various settlements which are in a relatively rural area.

			Improved access to employment opportunities would be provided through interventions such as DRT and MaaS, and more efficient transport of goods would be facilitated by reducing incidents on the road network and enhancing the rail capacity would support rural economies.
Equality	*To what extent does the option or package provide sustainable transport connections to and from more disadvantaged communities?*	Inconclusive (at this stage)	Interventions within this package would improve the active travel network coverage between local communities along the corridor which may connect disadvantaged communities to larger towns. The inclusion of DRT and MaaS would be expected to result in an improvement to the public transport network, which could lead to improved inclusivity through increased accessibility, including for those from disadvantaged communities who may have a lack of traditional public transport services. However, at this stage there is uncertainty as to whether there would be a defined improvement in the accessibility of disadvantaged communities until new routes for active travel and the location of public transport improvements are selected.
Equality	*To what extent does the option or package provide sustainable, affordable transport access to education and employment opportunities?*	Consistent	Public transport improvements which form part of this package, such as bus priority measures, could result in improved public transport network coverage, providing better comparative access to locations with employment opportunities and education.

			There is unlikely to be any major impact on the affordability of travel, with public transport ticketing and fares not likely to change. However, active travel improvements between settlements could have some benefits for sustainable and affordable access to employment opportunities and education.
Equality	*To what extent does the option or package provide fair and equal transport access to healthcare services?*	Consistent	The DRT and MaaS, rail linespeed, passenger and freight capacity improvements and active connections options are expected to enhance inclusiveness by improving fair and equal sustainable travel options to access healthcare services.
Equality	*To what extent does the option or package support a 'just' transition to net zero?*	Consistent	The interventions included in this package targeted at active travel modes and public transport improvements are likely to encourage a sustainable mode shift that contributes towards a 'just' transition to net zero. Active connections would promote low cost travel between settlements to replace trips currently made by motorised modes. Bus priority measures and rail improvements would also offer alternative options to a car to enhance accessibility to key services and employment opportunities.

Table 3.18: Package 4 Appraisal Outcomes.

Theme	Policy Objective Criteria	Compatibility Score	Summary
Environment	*To what extent does the option or package improve air quality?*	Consistent	This package aims to promote vehicles with lower or no emissions by including alternative refuelling infrastructure and facilities which should help to reduce vehicle emissions and in turn improving overall air quality. The inclusion of continuous vehicle-free connections between settlements to promote walking and wheeling may also reduce vehicles travelling around and between settlements to the betterment of air quality within the settlement. The package also includes public transport improvements to encourage a mode shift which again may reduce the number of vehicles on the roads and further improve air quality.
Environment	*To what extent does the option or package safeguard and enhance the natural and cultural environment?*	Inconclusive (at this stage)	The physical works associated with this package include long distance active travel connections, improving public transport interchanges, and rail linespeed, passenger and freight capacity improvements, all of which have the potential to have negative effects during the construction phase. The extent of impacts would depend on scale, design and location. Creation of large-scale alternative refuelling infrastructure may require land take and result in a net loss of green space. However, there could also be environmental benefits associated with improved active travel connections and

			placemaking enhancements, which would have a positive impact on sustainable access to natural and cultural places.
Environment	*To what extent does the option or package safeguard and enhance blue networks and waterbodies?*	Neutral	Although the scale of the required infrastructure has the potential for adverse impacts upon blue networks and waterbodies, it is a requirement of the design process to ensure there is no negative impact on water quality and flooding.
Environment	*To what extent does the option or package support the creation and maintenance of attractive and high quality places (with consideration of the six qualities of NPF4)?*	Consistent	The interventions included in the package could encourage a modal shift to sustainable transport methods including bus, rail, walking and cycling. The increased opportunities to travel by these modes would be beneficial for creating high quality places with public spaces not being dominated by cars.
Climate Change	*To what extent does the option or package contribute to the 20% reduction in car km?*	Consistent	Improvements for active travel are not expected to make a significant contribution towards reduction in car kilometres. However, there is also potential for a mode shift towards public transport due to improvements to rail and interchanges which would positively contribute to a reduction in car kilometres.
Climate Change	*To what extent does the option or package help meet the net zero by 2045 target?*	Consistent	Investment in sustainable transport modes, including active communities, passenger interchange facilities, and rail linespeed, passenger and freight capacity may encourage a

			modal shift away from private car use that contributes to a decrease in associated carbon emissions.
Climate Change	*To what extent does the option or package help adapt the transport network to direct and indirect risks associated with climate change for Scotland?*	Inconclusive (at this stage)	If subject to the latest climate change assessment standard this should result in any new infrastructure being adapted to the predicted future impacts of climate change. However, paved surfaces for active travel infrastructure and road safety improvements might incur surface damage or be impacted by surface water flooding during heavy rainfall, as is the case for the existing transport networks. The location of new infrastructure would need to consider existing flood risk and the impacts of increasing flood risk elsewhere.
Climate Change	*To what extent does the option or package promote and support the best use of clean fuels/technologies decarbonising travel?*	Consistent	The A96 Electric Corridor option for alternative refuelling infrastructure would support and promote clean fuel technologies.
Health, Safety and Wellbeing	*To what extent does the option or package promote safe and secure travel for all users?*	Consistent	Targeted road safety improvements are proposed for locations identified as having a higher rate of incidents. This would improve perceptions of safety risk and reduce accident frequencies and severity in line with national reduction targets. Reducing overall vehicle trips with increased amounts of active travel and public transport use would also positively contribute to fewer accidents on the network.

			Public transport interchange improvements may also improve personal security and make a safer network for travellers.
Health, Safety and Wellbeing	*To what extent does the option or package support healthy travel choices as part of a multimodal journey?*	Consistent	The package is likely to support healthy travel choices due to active travel improvements between and within settlements. Improved pedestrian and cycling infrastructure including segregated long-distance active travel routes, and the provision of local place improvements through active communities would support healthy travel choices in accessing public transport stops and stations for onwards travel as part of a multimodal journey. The package would promote rail travel as an alternative to car trips, and likely to involve users walking, wheeling or cycling to and from stations as part of a multimodal journey. Encouraging a mode shift away from car would contribute to healthier travel choices through reduced transport related emissions.
Health, Safety and Wellbeing	*To what extent does the option or package support the creation of healthy and liveable places?*	Consistent	Targeted safety improvements would help with perceived safety, reduce accident frequency and severity contributing to the positive creation of liveable places. Creating 'Active Communities', where more space would be provided for people rather than traffic, draws upon the '20-minute neighbourhood' concept. This option would help to create safer routes to key services such as education and encourage more inclusive environments for people walking, wheeling and cycling.

Health, Safety and Wellbeing	*To what extent does the option or package enhance provision of non-motorised transport and active travel as part of a 20-minute neighbourhood?*	Consistent	The provision of more segregated and traffic-free active travel routes between communities would provide active travel provision across junctions and increase opportunities for safe crossings in rural places. Alongside this, the introduction of Active Communities would support and provide space for people rather than traffic and the '20-minute neighbourhood'. This option would help to create safer routes to key services such as education and encourage more inclusive environments for people walking, wheeling and cycling.
Health, Safety and Wellbeing	*To what extent does the option or package support sustainable access to critical services i.e. education, healthcare?*	Consistent	More reliable and quicker bus and rail options can help to improve connectivity to key services such as employment, education, healthcare and shopping. This would reduce transport poverty for disadvantaged and vulnerable users and improve mobility and inclusion.
Economic	*To what extent does the option or package support the creation of a resilient and reliable transport network?*	Consistent	Improved reliability and resilience benefits to freight and other users are predicted as a result of reducing the impact of accidents on the trunk road network brought about through bypasses and targeted road safety measures. Further benefits would be anticipated through the rail improvements as part of this package, with capacity enhancements increasing the reliability and resilience for train journeys.

Economic	*To what extent does the option or package support future growth areas and national developments identified in land use planning?*	Consistent	Improving access through well designed active travel and public transport infrastructure can improve economic performance of local settlements due to increased footfall. NPF4 developments are not specific to the corridor but relate to a wider area for maximising the economic potential of blue infrastructure in the North Sea and Moray coast and renewable energy and transmission. The package improvements would support improved passenger and freight travel along the corridor which would support delivery of the NPF4 spatial strategy.
Economic	*To what extent does the option or package provide a transport system which enables businesses to be competitive locally and within the rest of the UK?*	Consistent	This package would provide some reliability and resilience benefits to freight and other road users by reducing the impact of accidents on the network and enhancing rail capacity. This would allow businesses to improve their efficiencies in the movement of goods to be more competitive.
Economic	*To what extent will the option or package support and enhance rural economy?*	Consistent	This package could provide an opportunity for enhancing sustainable economic growth across the corridor, including in various settlements which are in a relatively rural area. More efficient transport of goods would be facilitated by reducing incidents on the road network and enhancing the rail capacity would support rural economies.
Equality	*To what extent does the option or package provide sustainable transport*	Inconclusive (at this stage)	Interventions within this package would improve the active travel network coverage between local communities along the

	connections to and from more disadvantaged communities?		corridor which may connect disadvantaged communities to larger towns. Improving the quality of passenger interchange facilities would also improve the travel experience for those without access to a car, which can be those from lower income households. Although this package is less focused on short everyday journeys and does not include DRT or MaaS, it is noted that improvements to alternative sustainable transport modes are suggested in the package could improve access to and from disadvantaged communities. However, at this stage there is uncertainty as to whether there would be a defined improvement in the accessibility of disadvantaged communities until new routes for active travel and the location of public transport improvements are selected.
Equality	*To what extent does the option or package provide sustainable, affordable transport access to education and employment opportunities?*	Consistent	The interventions included in this package targeted at active travel modes and public transport improvements are likely to provide opportunities to widen the labour market, providing greater access to key centres of employment, education and training by sustainable modes. There is unlikely to be any major impact on the affordability of travel, with public transport ticketing and fares not likely to change. However, active travel improvements in and between settlements could have some benefits for sustainable and affordable access to employment opportunities and education.
Equality	*To what extent does the option or package provide fair and equal*	Consistent	The rail linespeed, passenger and freight capacity improvements along with the active communities and active

	transport access to healthcare services?		connections interventions are expected to enhance inclusiveness by improving fair and equal sustainable travel options to access healthcare services.
Equality	*To what extent does the option or package support a 'just' transition to net zero?*	Consistent	The interventions included in this package targeted at active travel modes and public transport improvements are likely to encourage a sustainable mode shift that contributes towards a 'just' transition to net zero. Active communities and active connections would promote low cost travel within and between settlements to replace trips currently made by motorised modes. Rail improvements would also offer alternative options to a car to enhance accessibility to key services and employment opportunities.

Table 3.19: Package 5 Appraisal Outcomes.

Theme	Policy Objective Criteria	Compatibility Score	Summary
Environment	*To what extent does the option or package improve air quality?*	Inconclusive (at this stage)	The inclusion of high quality active travel connections between settlements on the A96 corridor would combine to form a continuous and largely traffic-free route between Aberdeen and Inverness, which could have a positive impact on air quality. The inclusion of bypasses within this package has the potential to improve the air quality within the bypassed settlements of Elgin and Keith, and to a lesser extent Forres and Inverurie, as there would likely be a reduction in traffic on the existing A96 trunk road as it passes through these settlements. There would also be an opportunity to increase active travel opportunities within settlements through Active Communities which could have a further positive effect on air quality by reducing the number of journeys taken by polluting vehicles. The introduction of bypasses may, however, increase reliance on private vehicles due to reduced congestion and greater road capacity potentially impacting upon the air quality elsewhere on the wider A96 corridor itself. Promotion of lower and zero emission vehicles by including alternative refuelling infrastructure should help to reduce overall vehicle emissions and improve overall air quality.

Environment	*To what extent does the option or package safeguard and enhance the natural and cultural environment?*	Inconclusive (at this stage)	The physical works associated with this package include four bypasses improved public transport passenger interchange facilities and rail linespeed, passenger and freight capacity improvements, all of which have the potential to have negative effects during the construction phase. The extent of impact would depend on scale, design and location. Creation of large scale alternative refuelling infrastructure may require land take and result in a net loss of green space. However, there could also be environmental benefits associated with improved active travel connections within settlements and placemaking enhancements, which would have a positive impact on sustainable access to natural and cultural places.
Environment	*To what extent does the option or package safeguard and enhance blue networks and waterbodies?*	Neutral	Although the scale of the required infrastructure has the potential for adverse impacts upon blue networks and waterbodies, it is a requirement of the design process to ensure there is no negative impact on water quality and flooding.
Environment	*To what extent does the option or package support the creation and maintenance of attractive and high quality places (with consideration of the six qualities of NPF4)?*	Consistent	A reduction of traffic through settlements could result in better air quality and the opportunity to implement placemaking schemes. A modal shift towards sustainable transport methods including bus, rail, walking and cycling would positively contribute to the creation of high quality places.

			Bypasses may result in an increase in the use of private vehicles due to a reduction in congestion. However, improvements to public transport infrastructure could help to reduce the use of private vehicles throughout the wider network.
Climate Change	*To what extent does the option or package contribute to the 20% reduction in car km?*	Inconclusive (at this stage)	This package focuses on reducing the reliance on private car through the provision of interventions to encourage a mode shift to sustainable transport. However, it is anticipated that there would be a continued reliance and use of cars due to the inclusion of the four bypasses that may result in an overall increase in car kilometres.
Climate Change	*To what extent does the option or package help meet the net zero by 2045 target?*	Inconclusive (at this stage)	Road safety improvements and the four bypasses included in the package may result in the A96 being a more attractive route for private vehicles to use and may lead to increased carbon emissions. Investment in sustainable transport modes, including active communities, bus priority, passenger interchange facilities, and rail linespeed, passenger and freight capacity may encourage a modal shift away from private car use that contributes to a decrease in associated carbon emissions.
Climate Change	*To what extent does the option or package help adapt the transport network to direct and indirect risks associated with climate change for Scotland?*	Inconclusive (at this stage)	If subject to the latest climate change assessment standard this should result in any new infrastructure being adapted to the predicted future impacts of climate change. However, paved surfaces created as part of the four bypasses, active travel infrastructure, road safety improvements and bus

			priority measures included in this package might incur surface damage or be impacted by surface water flooding during period of heavy rainfall, as is the case for the existing transport networks. The location of new infrastructure, in particular bypasses, would need to consider existing flood risk and the impacts of increasing flood risk elsewhere.
Climate Change	*To what extent does the option or package promote and support the best use of clean fuels/technologies decarbonising travel?*	Consistent	The A96 Electric Corridor option for alternative refuelling infrastructure would support and promote clean fuel technologies.
Health, Safety and Wellbeing	*To what extent does the option or package promote safe and secure travel for all users?*	Consistent	Removing through trips made by vehicles in bypassed settlements and enabling the introduction of active travel infrastructure could reduce the number and severity of road traffic accidents. This would in turn support the promotion of safe and secure travel for all. Active connections and targeted road safety improvements would also reduce the accident risk for multiple modes by reducing conflicts or improving infrastructure at specific locations. It is expected that personal security is likely to improve through an increase in the number of people walking, wheeling in and around the key communities along the A96 corridor as there would be an increase in natural surveillance.

Health, Safety and Wellbeing	*To what extent does the option or package support healthy travel choices as part of a multimodal journey?*	Consistent	The package is likely to support healthy travel choices due to active travel improvements in settlements, supplemented by the reduction in traffic associated with the bypasses. The package would promote bus and rail travel as an alternative to car trips, and likely to involve users walking, wheeling or cycling to and from stops or stations as part of a multimodal journey. Encouraging a mode shift away from car would contribute to healthier travel choices through reduced transport related emissions.
Health, Safety and Wellbeing	*To what extent does the option or package support the creation of healthy and liveable places?*	Inconclusive (at this stage)	Targeted safety improvements would help with perceived safety, reduce accident frequency and severity contributing to the positive creation of liveable places. Creating 'Active Communities', where more space would be provided for people rather than traffic, draws upon the '20-minute neighbourhood' concept. This option would help to create safer routes to key services such as education and encourage more inclusive environments for people walking, wheeling and cycling. Bypasses would remove through traffic from the existing A96 in settlements, which would allow for improved air quality and a healthier environment, though may impact on liveability if there was a reduction in passing trade.

Health, Safety and Wellbeing	*To what extent does the option or package enhance provision of non-motorised transport and active travel as part of a 20-minute neighbourhood?*	Consistent	Creating 'Active Communities', where more space would be provided for people rather than traffic draws upon the '20-minute neighbourhood' concept. This option would help to create safer routes to key services such as education and encourage more inclusive environments for people walking, wheeling and cycling. The removal of through trips in bypassed towns would supplement the benefits brought about by Active Communities. Providing high quality active travel routes between settlements along the A96 corridor also forms part of this package and would encourage people use non-motorised transport for longer journeys.
Health, Safety and Wellbeing	*To what extent does the option or package support sustainable access to critical services i.e. education, healthcare?*	Consistent	The package could see a modal shift to sustainable transport including bus, rail, walking, wheeling and cycling. Increasing the opportunities to travel by these modes would create opportunities for communities to access key services such as education, employment opportunities and healthcare. This would reduce transport poverty for disadvantaged and vulnerable users and improve mobility and inclusion. DRT services included in this package do not follow a fixed route. The services provide flexibility, allowing for wider network coverage which could provide an alternative mode of transport when accessing healthcare services.
Economic	*To what extent does the option or package support the creation of a resilient and reliable transport network?*	Consistent	It is anticipated that this package would reduce delays to business journeys and improve the reliability of the trunk road network through the inclusion of bypasses.

			Improved reliability and resilience benefits to freight and other users are predicted as a result of reducing the impact of accidents on the trunk road network brought about through bypasses and targeted road safety measures. Further benefits would be anticipated through the rail improvements as part of this package, with capacity enhancements increasing the reliability and resilience for train journeys. Provision of bus priority measures should reduce both journey times and journey time variability, providing a more reliable service which would instil confidence in users.
Economic	*To what extent does the option or package support future growth areas and national developments identified in land use planning?*	Consistent	Bypasses could support sustainable inclusive growth by improving the connectivity between businesses and the labour market and improving the efficiency of the movement of goods along the corridor. Improving access through well designed active travel and public transport infrastructure can improve economic performance of local settlements due to increased footfall. NPF4 developments are not specific to the corridor but relate to a wider area for maximising the economic potential of blue infrastructure in the North Sea and Moray coast and renewable energy and transmission. The package improvements would support improved passenger and freight travel along the corridor which would support delivery of the NPF4 spatial strategy.

Economic	*To what extent does the option or package provide a transport system which enables businesses to be competitive locally and within the rest of the UK?*	Consistent	This package is likely to provide opportunities to widen the labour market, providing greater access to key centres of employment, education and training, particularly for those who can drive or via the rail network. Bypasses could support sustainable inclusive growth by improving the connectivity between businesses and the labour market and improving the efficiency of the movement of goods along the corridor due to the likely associated reliability improvements on the trunk road network.
Economic	*To what extent will the option or package support and enhance rural economy?*	Inconclusive (at this stage)	The package would support local businesses transporting goods, improving efficiencies by reducing incidents on the road network and increasing the capacity of the rail line. It would also improve the accessibility to and from rural areas to employment opportunities through interventions such as DRT and MaaS. However, construction of some interventions, notably the bypasses, may result in a loss of productive agricultural land and would also likely result in a reduction in passing trade.
Equality	*To what extent does the option or package provide sustainable transport connections to and from more disadvantaged communities?*	Inconclusive (at this stage)	The inclusion of DRT and MaaS would be expected to result in an improvement to the public transport network, which could lead to improved inclusivity through increased accessibility, including for those from disadvantaged communities who may have a lack of traditional public transport services. Improving the quality of passenger interchange facilities would also improve the travel experience for those without

			access to a car, which can be those from lower income households. However, at this stage there is uncertainty as to whether there would be a defined improvement in the accessibility of disadvantaged communities until new routes for active travel and the location of public transport improvements are selected.
Equality	*To what extent does the option or package provide sustainable, affordable transport access to education and employment opportunities?*	Consistent	The interventions included in this package targeted at active travel modes and public transport improvements are likely to provide opportunities to widen the labour market, providing greater access to key centres of employment, education and training by sustainable modes. There is unlikely to be any major impact on the affordability of travel, with public transport ticketing and fares not likely to change. However, active travel improvements in settlements, supplemented by the bypasses, could have notable benefits for sustainable and affordable access to employment opportunities and education.
Equality	*To what extent does the option or package provide fair and equal transport access to healthcare services?*	Consistent	The DRT and MaaS, rail linespeed, passenger and freight capacity improvements and active communities interventions are expected to enhance inclusiveness by improving fair and equal sustainable travel options to access healthcare services.
Equality	*To what extent does the option or package support a 'just' transition to net zero?*	Consistent	The interventions included in this package targeted at active travel modes and public transport improvements are likely to encourage a sustainable mode shift that contributes towards a 'just' transition to net zero. Active communities and active connections would promote low cost travel within and

			between settlements to replace trips currently made by motorised modes. Bus priority measures and rail improvements would also offer alternative options to a car to enhance accessibility to key services and employment opportunities.

Table 3.20: Refined Package Appraisal Outcomes.

Theme	Policy Objective Criteria	Compatibility Score	Summary
Environment	*To what extent does the option or package improve air quality?*	Inconclusive (at this stage)	The inclusion of bypasses within this package has the potential to improve the air quality within the bypassed settlements of Elgin and Keith as there would likely be a reduction in. There would also be the opportunity to increase the active travel opportunities within settlements through Active Communities which could have a further positive effect on air quality by reducing the number of journeys taken by polluting vehicles. The introduction of the bypasses may, however, increase reliance on private vehicles due to reduced congestion and greater road capacity potentially impacting upon the air quality elsewhere on the wider A96 corridor itself. Promotion of lower and zero emission vehicles by including alternative refuelling infrastructure should help to reduce overall vehicle emissions and improve overall air quality.
Environment	*To what extent does the option or package safeguard and enhance the natural and cultural environment?*	Inconclusive (at this stage)	The physical works associated with this package include two bypasses, improved public transport passenger interchange facilities and rail linespeed, passenger and freight capacity improvements, all of which have the potential to have negative effects during the construction phase. The extent of impact would depend on scale, design and location.

			Creation of large scale alternative refuelling infrastructure may also require land take and result in a net loss of green space. However, there could also be environmental benefits associated with improved active travel connections within settlements and placemaking enhancements, which would have a positive impact on sustainable access to natural and cultural places.
Environment	*To what extent does the option or package safeguard and enhance blue networks and waterbodies?*	Neutral	Although the scale of the required infrastructure has the potential for adverse impacts upon blue networks and waterbodies, it is a requirement of the design process to ensure there is no negative impact on water quality and flooding.
Environment	*To what extent does the option or package support the creation and maintenance of attractive and high quality places (with consideration of the six qualities of NPF4)?*	Consistent	A reduction of traffic through settlements could result in better air quality and the opportunity to implement placemaking schemes. A modal shift towards walking, wheeling and cycling would be supported by the removal of cars and would positively contribute to the creation of high quality places. Bypasses at Elgin and Keith may result in an increase in the use of private vehicles due to a reduction in congestion. However, improvements to public transport infrastructure could help to reduce the use of private vehicles throughout the wider network.

Climate Change	*To what extent does the option or package contribute to the 20% reduction in car km?*	Inconclusive (at this stage)	This package focuses on reducing the reliance on private car through the provision of interventions to encourage a mode shift to sustainable transport. However, it is anticipated that there would be a continued reliance and use of cars due to the inclusion of bypasses at Elgin and Keith settlements that may result in an overall increase in car kilometres.
Climate Change	*To what extent does the option or package help meet the net zero by 2045 target?*	Inconclusive (at this stage)	Road safety improvements and bypasses at Elgin and Keith included in the package may result in the A96 being a more attractive route for private vehicles to use and may lead to increased carbon emissions. Investment in sustainable transport modes, including active communities, passenger interchange facilities, and rail linespeed, passenger and freight capacity may encourage a modal shift away from private car use that contributes to a decrease in associated carbon emissions.
Climate Change	*To what extent does the option or package help adapt the transport network to direct and indirect risks associated with climate change for Scotland?*	Inconclusive (at this stage)	If subject to the latest climate change assessment standard this should result in any new infrastructure being adapted to the predicted future impacts of climate change. However, paved surfaces created as part of the bypasses, active travel infrastructure and road safety improvements included in this package might incur surface damage or be impacted by surface water flooding during period of heavy rainfall, as is the case for the existing transport networks.

			The location of new infrastructure, in particular bypasses, would need to consider existing flood risk and the impacts of increasing flood risk elsewhere.
Climate Change	*To what extent does the option or package promote and support the best use of clean fuels/technologies decarbonising travel?*	Consistent	The A96 Electric Corridor option for alternative refuelling infrastructure would support and promote clean fuel technologies.
Health, Safety and Wellbeing	*To what extent does the option or package promote safe and secure travel for all users?*	Consistent	Removing through trips made by vehicles in the bypassed settlements of Elgin and Keith, and enabling the introduction of active travel infrastructure could reduce the number and severity of road traffic accidents. This would in turn support the promotion of safe and secure travel for all. Targeted road safety improvements are proposed for locations identified as having a higher rate of incidents. This would improve perceptions of safety risk and reduce accident frequencies and severity in line with national reduction targets. It is expected that personal security is likely to improve through an increase in the number of people walking, wheeling in and around the key communities along the A96 corridor as there would be an increase in natural surveillance.
Health, Safety and Wellbeing	*To what extent does the option or package support healthy travel choices as part of a multimodal journey?*	Consistent	The package is likely to support healthy travel choices due to active travel improvements in settlements, supplemented by

			the reduction in traffic associated with the bypasses at Elgin and Keith specifically. The package would promote rail travel as an alternative to car trips, and likely to involve users walking, wheeling or cycling to and from stations as part of a multimodal journey. Encouraging a mode shift away from car would contribute to healthier travel choices through reduced transport related emissions.
Health, Safety and Wellbeing	*To what extent does the option or package support the creation of healthy and liveable places?*	Inconclusive (at this stage)	Targeted safety improvements would help with perceived safety, reduce accident frequency and severity contributing to the positive creation of liveable places. Creating 'Active Communities', where more space would be provided for people rather than traffic, draws upon the '20-minute neighbourhood' concept. This option would help to create safer routes to key services such as education and encourage more inclusive environments for people walking, wheeling and cycling. Bypasses would remove through traffic from the existing A96 in Elgin and Keith, which would allow for improved air quality and a healthier environment, though may impact on liveability if there was a reduction in passing trade.
Health, Safety and Wellbeing	*To what extent does the option or package enhance provision of non-motorised*	Consistent	Creating 'Active Communities', where more space would be provided for people rather than traffic, draws upon the '20-minute neighbourhood' concept. This option would help to create safer routes to key services such as education and

	transport and active travel as part of a 20-minute neighbourhood?		encourage more inclusive environments for people walking, wheeling and cycling. The removal of through trips in bypassed towns would supplement the benefits brought about by Active Communities.
Health, Safety and Wellbeing	*To what extent does the option or package support sustainable access to critical services i.e. education, healthcare?*	Consistent	The package could see a modal shift to sustainable transport including bus, rail, walking, wheeling and cycling. Increasing the opportunities to travel by these modes would create opportunities for communities to access key services such as education, employment opportunities and healthcare. This would reduce transport poverty for disadvantaged and vulnerable users and improve mobility and inclusion. DRT services included in this package do not follow a fixed route. The services provide flexibility, allowing for wider network coverage which could provide an alternative mode of transport when accessing healthcare services.
Economic	*To what extent does the option or package support the creation of a resilient and reliable transport network?*	Consistent	It is anticipated that this package would reduce delays to business journeys and improve the reliability of the trunk road network through the inclusion of bypasses. Improved reliability and resilience benefits to freight and other users are predicted as a result of reducing the impact of accidents on the trunk road network brought about through bypasses and targeted road safety measures. Further benefits would be anticipated through the rail improvements as part of this package, with capacity

			enhancements increasing the reliability and resilience for train journeys.
Economic	*To what extent does the option or package support future growth areas and national developments identified in land use planning?*	Consistent	Bypasses could support sustainable inclusive growth by improving the connectivity between businesses and the labour market and improving the efficiency of the movement of goods along the corridor. Improving access through well designed active travel and public transport infrastructure can improve economic performance of local settlements due to increased footfall. NPF4 developments are not specific to the corridor but relate to a wider area for maximising the economic potential of blue infrastructure in the North Sea and Moray coast and renewable energy and transmission. The package improvements would support improved passenger and freight travel along the corridor which would support delivery of the NPF4 spatial strategy.
Economic	*To what extent does the option or package provide a transport system which enables businesses to be competitive locally and within the rest of the UK?*	Consistent	This package is likely to provide opportunities to widen the labour market, providing greater access to key centres of employment, education and training, particularly for those who can drive or via the rail network. Bypasses could support sustainable inclusive growth by improving the connectivity between businesses and the labour market and improving the efficiency of the movement of goods along the corridor due to the likely associated reliability improvements on the trunk road network.

Economic	*To what extent will the option or package support and enhance rural economy?*	Inconclusive (at this stage)	The package would support local businesses transporting goods, improving efficiencies by reducing incidents on the road network and increasing the capacity of the rail line. It would also improve the accessibility to and from rural areas to employment opportunities through interventions such as DRT and MaaS. However, construction of some interventions, notably the bypasses, may result in a loss of productive agricultural land and would also likely result in a reduction in passing trade.
Equality	*To what extent does the option or package provide sustainable transport connections to and from more disadvantaged communities?*	Inconclusive (at this stage)	The inclusion of DRT and MaaS would be expected to result in an improvement to the public transport network, which could lead to improved inclusivity through increased accessibility, including for those from disadvantaged communities who may have a lack of traditional public transport services. Improving the quality of passenger interchange facilities would also improve the travel experience for those without access to a car, which can be those from lower income households. However, at this stage there is uncertainty as to whether there would be a defined improvement in the accessibility of disadvantaged communities until new routes for active travel and the location of public transport improvements are selected.

Equality	*To what extent does the option or package provide sustainable, affordable transport access to education and employment opportunities?*	Consistent	The interventions included in this package targeted at active travel modes and public transport improvements are likely to provide opportunities to widen the labour market, providing greater access to key centres of employment, education and training by sustainable modes. There is unlikely to be any major impact on the affordability of travel, with public transport ticketing and fares not likely to change. However, active travel improvements in settlements, supplemented by the bypasses at Elgin and Keith, could have notable benefits for sustainable and affordable access to employment opportunities and education.
Equality	*To what extent does the option or package provide fair and equal transport access to healthcare services?*	Consistent	The DRT and MaaS, rail linespeed, passenger and freight capacity improvements and active communities interventions are expected to enhance inclusiveness by improving fair and equal sustainable travel options to access healthcare services.
Equality	*To what extent does the option or package support a 'just' transition to net zero?*	Consistent	The interventions included in this package targeted at active travel modes and public transport improvements are likely to encourage a sustainable mode shift that contributes towards a 'just' transition to net zero. Active communities would promote low cost travel within settlements to replace shorter trips currently made by motorised modes. Rail improvements would also offer alternative options to a car to enhance accessibility to key services and employment opportunities.

Table 3.21: A96 Full Dualling Outcomes.

Theme	Policy Objective Criteria	Compatibility Score	Summary
Environment	*To what extent does the option or package improve air quality?*	Inconclusive (at this stage)	Dualling could lead to an increase in vehicles using the route and may therefore lead to increased air pollution along the route. Reducing through traffic in Forres, Elgin, Keith, and Inverurie along with other settlements along the existing A96 trunk road may result in local improvements to air quality within these settlements.
Environment	*To what extent does the option or package safeguard and enhance the natural and cultural environment?*	Inconsistent	Depending on the route and alignment of the A96 dualling, there could be significant negative effects on the environment due to the scale of works which may not be able to be fully mitigated.
Environment	*To what extent does the option or package safeguard and enhance blue networks and waterbodies?*	Neutral	Although the scale of the required infrastructure has the potential for adverse impacts upon blue networks and waterbodies, it is a requirement of the design process to ensure there is no negative impact on water quality and flooding.
Environment	*To what extent does the option or package support the creation and maintenance of attractive and high quality places (with consideration of the six qualities of NPF4)?*	Inconclusive (at this stage)	There could be a modal shift to sustainable transport including bus, rail, walking wheeling and cycling where traffic volumes are significantly reduced in settlements, and the option therefore has the potential to improve quality of urban places.

			However, the potential scale of infrastructure would harm the quality of rural spaces due to construction works and severance of land through procurement for development.
Climate Change	*To what extent does the option or package contribute to the 20% reduction in car km?*	Inconsistent	Dualling is likely to see continued use of vehicles for private and freight use along the A96, with the potential for greater vehicle numbers which does support the reduction in car kilometres.
Climate Change	*To what extent does the option or package help meet the net zero by 2045 target?*	Inconsistent	Continued use of vehicles for private and freight use would not positively contribute to the net zero targets. Any benefits would be dependent on the move to zero/low emission vehicles and not a direct result of the option.
Climate Change	*To what extent does the option or package help adapt the transport network to direct and indirect risks associated with climate change for Scotland?*	Inconclusive (at this stage)	If subject to the latest climate change assessment standard this should result in a design and build adapted to the predicted future impacts of climate change. However, any new paved surfaces laid as part of this option might incur surface damage or be impacted by surface water flooding during period of heavy rainfall, as is the case for the existing transport networks. Dualling would adapt the existing trunk road network by upgrading the existing A96, increasing capacity and removing it from towns.

Climate Change	*To what extent does the option or package promote and support the best use of clean fuels/technologies decarbonising travel?*	Inconclusive (at this stage)	Although it is anticipated that full dualling would have some degree of support for the transition to zero emission vehicles, it is not likely to have a direct impact and is therefore inconclusive.
Health, Safety and Wellbeing	*To what extent does the option or package promote safe and secure travel for all users?*	Consistent	Dualling the carriageway along the A96 would support safer operation of the network. Allowing for consistent, safe overtaking opportunities would likely result in reduced accident rates and severity. Dualling of the A96 would likely benefit those using private vehicles most, although active travel users would also be likely to benefit from the infrastructure included as part of the option and better crossing provision built in to any design.
Health, Safety and Wellbeing	*To what extent does the option or package support healthy travel choices as part of a multimodal journey?*	Inconclusive (at this stage)	Dualling is assumed to include adjacent long distance active travel infrastructure. This may increase the use of active travel between the villages and towns along the route. However, the option may also reinforce the use of private vehicles, particularly for longer journeys.
Health, Safety and Wellbeing	*To what extent does the option or package support the creation of healthy and liveable places?*	Inconclusive (at this stage)	Dualling is assumed to include adjacent long distance active travel infrastructure. This may increase the use of active travel between the villages and towns along the route. The removal of through trips may allow for the reallocation of road space and prioritisation of active modes which could have economic benefits and provide better spaces for people

			to live, work and shop. However, there is also the possibility that reducing through traffic may negatively impact communities as a result of a reduction in passing trade. The option may also reinforce the use of private vehicles, particularly for longer journeys, which is inconsistent with positive health outcomes.
Health, Safety and Wellbeing	*To what extent does the option or package enhance provision of non-motorised transport and active travel as part of a 20-minute neighbourhood?*	Inconclusive (at this stage)	A new dual carriageway with bypasses of existing towns would provide congestion relief within local settlements by removing through trips, which in turn may make short distance journeys by active travel more attractive. However, no active travel improvements within settlements are proposed as part of this option. The option may also reinforce the use of private vehicles, including for local journeys due to there being less traffic and associated congestion within settlements.
Health, Safety and Wellbeing	*To what extent does the option or package support sustainable access to critical services i.e. education, healthcare?*	Inconclusive (at this stage)	Dualling is assumed to include adjacent long distance active travel infrastructure. This may increase the use of active travel between the villages and towns along the route. The removal of through trips may allow for the reallocation of road space and prioritisation of active modes in settlements. However, no active travel improvements within settlements are proposed as part of this option and therefore, the option may encourage more local journeys to be made by car where congestion is relieved.

Economic	*To what extent does the option or package support the creation of a resilient and reliable transport network?*	Consistent	Dualling would provide reliability and resilience benefits to freight and other road users by increasing capacity, reducing the impact of accidents and improving confidence in the trunk road network.
Economic	*To what extent does the option or package support future growth areas and national developments identified in land use planning?*	Consistent	Bypasses created by dualling could support sustainable inclusive growth by improving the connectivity between businesses and the labour market and improving the efficiency of the movement of people and goods along the corridor. NPF4 developments are not specific to the corridor but relate to a wider area for maximising the economic potential of blue infrastructure in the North Sea and Moray coast and renewable energy and transmission. The improvements brought about by dualling would support improved passenger and freight travel along the corridor which would support delivery of the NPF4 spatial strategy.
Economic	*To what extent does the option or package provide a transport system which enables businesses to be competitive locally and within the rest of the UK?*	Consistent	Dualling would likely strengthen the reliability of supply chains locally, regionally and nationally. It would provide additional capacity for road based trips, which is currently the favoured mode of transport for Scotland's food and drink output largely associated with this area of Scotland.
Economic	*To what extent will the option or package support and enhance rural economy?*	Inconclusive (at this stage)	The option would support local businesses for transporting of goods, with improved efficiency and quicker and more reliable journey times. However, there would be a likely loss

			of productive agricultural land and a reduction in passing trade.
Equality	*To what extent does the option or package provide sustainable transport connections to and from more disadvantaged communities?*	Inconsistent	This option would not be likely to benefit those who do not have access to private vehicles for travel. Benefits to those in disadvantaged communities without access to a car are limited and would be dependent on take up of the adjacent active travel route built as part of dualling, or there being significant improvements to bus services.
Equality	*To what extent does the option or package provide sustainable, affordable transport access to education and employment opportunities?*	Inconsistent	Limited positive impact upon the reliability, frequency or affordability of sustainable transport modes along the corridor. Full dualling is likely to encourage more car trips which is not sustainable and is not necessarily considered affordable.
Equality	*To what extent does the option or package provide fair and equal transport access to healthcare services?*	Inconsistent	Full dualling would primarily benefit those wishing to access healthcare services who have access to a private car. There may be some minor improvements for the accessibility to healthcare services by bus, but this is dependent on operator decisions for service routing. The adjacent active travel route may have some impact in providing fair and equal access to healthcare services, but this is not likely to be significant and again dependent on the route of the dual carriageway.
Equality	*To what extent does the option or package support a 'just' transition to net zero?*	Inconsistent	This option is likely to mainly benefit those with access to a car. Although it is anticipated that full dualling would have some degree of support for the transition to zero emission vehicles, it is not likely to have a direct impact and so does

			not provide a 'just' transition to net zero alone. Emissions may decrease in settlements bypassed by dualling but this option does little to support the transition to net zero overall.

Appendix C. Preliminary Appraisal Summary Tables

The Preliminary Appraisal Summary Tables can be accessed via the following link:

Transport Appraisal Report (Draft) Appendix C: Preliminary Appraisal Summary Tables

Appendix D. Detailed Appraisal Summary Tables

The Detailed Appraisal Summary Tables can be accessed via the following link:

Transport Appraisal Report (Draft) Appendix D: Detailed Appraisal Summary Tables


ELGIN
FORRES
NAIRN
A96
INVERNESS
A96
KEITH
HUNTLY
INVERURIE
A96
ABERDEEN