

Elgin STAG Study  
Part 1 Appraisal Report  
July 2006

**Halcrow Group Limited**

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## Elgin STAG Study Part 1 Appraisal

### Contents Amendment Record

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# 1 Background

## 1.1 Introduction

1.1.1 In February 2006, The Moray Council appointed Halcrow Group Limited to provide Professional Transportation Services. As part of this framework, Halcrow Group Limited is tasked with the development of a micro-simulation highway model of Elgin (VISSIM transport model) and a multi modal study for the West of Elgin using the Scottish Transport Appraisal Guidance (STAG) methodology. The overall aim of the Elgin STAG Study is to arrive at a transport solution or set of transport solutions to solve the transport problems, issues and constraints facing West of Elgin. This remit was subsequently widened so that the study would cover the whole of Elgin.<sup>1</sup>

1.1.2 This report sets out the details of the STAG Pre-appraisal process and STAG Part One appraisal and provides a recommendation of the options to be taken forward for more detailed analysis in the STAG Part Two appraisal. This introductory chapter provides a brief summary of the background to the study. The second chapter outlines the transport problems, issues and constraints in the Elgin area. Chapter Three records the Objective Setting process and Chapter Four sets out the Option Generation and Sifting Process. Chapter 5 introduces the STAG Part One appraisal and will subsequently provide a recommendation of options to be taken forward to the more detailed Part Two appraisal.

## 1.2 Background

1.2.1 Elgin is the principal administrative and commercial centre of Moray with a population of almost 21,000. Buckie, Forres, Keith and Lossiemouth provide Moray's secondary centres with populations in the 4000 – 9000 range. Most people (almost 60%) live in the five main towns of Moray but the overall population density is low at 38 persons per square kilometre (compared to 66 in Scotland). It is clear that transport plays an important part in development within the rural context of Moray - it provides the means by which local communities/settlements can access the opportunities and necessities which can enhance their livelihoods. Elgin has a catchment population of close to 100,000 - transport in Moray connects people from the rural communities/settlements with

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<sup>1</sup> At a STAG pre-appraisal workshop of 22 March 2006, stakeholders questioned why the whole of Elgin was not being considered within the study brief. After general discussion, there was group consensus that the study should proceed and consider the whole of Elgin.

markets, education and employment opportunities, and health and welfare facilities. Moray's peripheral location along with its rural character means that the movement of goods and people is a key consideration.

1.2.2 It is recognised that transport is the single most important concern of people living in rural areas and that transport can act as a major barrier to social inclusion in rural areas. The diversity of rural transport needs is considerable, and this is a key challenge for the provision of transport infrastructure in Moray. An efficient transport network which provides links within Moray and connects it to external markets is essential for long term economic and social prosperity. It needs efficient road and rail links both out of Moray, and internally, focussed on Elgin where most business and social facilities are concentrated.

1.2.3 The present trunk road network in Moray consists of the A96 to Inverness and Aberdeen (linking to the A9 and A90 respectively) and the A95 from Keith to Aviemore. The A941 is a Strategic Local Road in Moray, from Lossiemouth/Elgin to the A95 trunk road at Craigellachie, linking the Elgin area to the A9 and the south.

1.2.4 However, the growth in general traffic in recent years has added pressure to the A96 and A941 which pass through Elgin. Increased vehicular traffic flows in and around Elgin have added pressure to the existing transport network and it is perceived that road safety is an important issue for both drivers and pedestrians over much of the road network. It is anticipated that further growth in vehicular traffic, over the next ten to twenty years, will add to pressure on the road network in/around Elgin. Similarly, additional trips associated with existing and approved development will add further pressure and create additional issues for traffic management, junctions and links in/around Elgin.

1.2.5 Public transport is important to the residents of Moray and vital to those without access to a car (approximately 25% of Moray households, 28% of Elgin households). While sustainable transport options are encouraged, there remains high dependency on the private car.

### 1.3 **Moray Development Plan**

1.3.1 The Moray Development Plan sets out the planning and development framework for the Moray Council area. This plan consists of two key documents, the Moray Structure Plan and the Moray Local Plan.



1.3.2 The current Moray Structure Plan was approved by Scottish Ministers in 1999, and the Moray Local Plan adopted by The Moray Council in 2000. However, the Development Plan is currently under a period of review with a Finalised Moray Structure Plan having been submitted to the Scottish Executive, and Local Plan currently in a period of consultation. This will then provide the development framework to 2025.

#### 1.4 **Moray Structure Plan**

1.4.1 The Moray Structure Plan, finalised and formally submitted to the Scottish Executive, provides the strategic context over the next 15 to 20 years for the Moray Local Plan. The key elements of the Structure Plan are provided by highlighted statements in the form of strategy, recommendations, proposals and policies. Strategies are broad statements of overall direction and provide the context for policies which address matters of planning control. Proposals are statements of the Council's own intentions and recommendations are requests to other agencies and organisations to play a role in the Plan.

1.4.2 The main strategic priority of the Structure Plan is to:

- Focus development on existing settlements;
- Promote Elgin as the primary centre and the second tier towns as the main development areas;
- Promote the development of new settlements; and
- Promote development out with settlements.

1.4.3 As stated above, development in Elgin is seen as key to the economic success of the region, the Structure Plan states that “Elgin is the main commercial and administrative centre within Moray. In order to attract new development and potential inward investment it will be necessary to harness the advantages that Elgin can give to the area. Any alternative to this approach is likely to be ineffective since development will not be diverted to areas of weaker demand”.

## 1.5 **Moray Local Plan**

1.5.1 The aim of the Moray Local Plan is to interpret the strategic direction given by the Moray Structure Plan into detailed policies for the determination of planning applications. As well as setting out the policies by which the Council takes decisions on planning applications, the Local Plan contains proposals by which it promotes development, relating to the use of land, and premises. The Local Plan is more specific about the Council's objectives by stating the Development Plan aims for each Town or Village.

1.5.2 In terms of Elgin the main aims of the local plan are as follows:

- To identify sites for 950 new houses;
- To identify longer term housing areas;
- To identify land for general industrial/commercial uses;
- To identify land for a Business Park;
- To prepare a strategy to advance the case of a bypass and to monitor progress;
- To promote economic activity and monitor town centre vitality;
- To enhance the appearance of the town from the A96 and the approach from the east;
- To protect the high quality green spaces in the town; and
- To exercise the precautionary principle on land liable to flood until completion of Flood Alleviation Schemes for Elgin.

- 1.5.3 Following a report to and meeting of the Environmental Services Committee on 9<sup>th</sup> November 2005, it was recommended that, “the Committee approves delegation to the Director of Environmental Services to prepare a ‘Brief’ to carry out a full and proper STAG report without any pre-conditions for the transport network options in Elgin West”.
- 1.5.4 The development of the VISSIM transport model (micro-simulation model) of Elgin<sup>2</sup>, to be completed in tandem with the STAG study, will upgrade and replace the existing Elgin SATURN model (1997).
- 1.6 **Scottish Transport Appraisal Guidance**
- 1.6.1 In summary, the purpose of the Scottish Transport Appraisal Guidance (STAG) is to recommend a process that will enable decision makers to find a value for money transport solution to an identified transport problem. The Scottish Executive’s guidance sets out in detail the process to be followed when carrying out a transport planning exercise, from the earliest stages of planning, through appraisal and implementation to ex-post evaluation. There are certain recurring themes in the Guidance:
- **Objective-led** – all activities and decisions should arise from the established aims of the planning organisation with respect to transport and associated policy areas;
  - **Open-minded** – the Guidance suggests working up transport proposals on the basis of defined objectives supported by a thorough understanding of the problems and opportunities in the area, rather than seeking to fit an existing proposal retrospectively to planning objectives;
  - **Pragmatic** – work done should reflect the relative need for accuracy, the scale and expected impacts of proposals and their costs;
  - **Auditable** – it must be possible to see clearly how planners have moved from objectives to their final conclusion;

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2 VISSIM (German for Traffic in Towns) Models are used to define and test optimal traffic/transport options and generally assess the microscopic road network. VISSIM is a multipurpose simulator and will be able to represent vehicles and their movement thus reflecting local traffic conditions.

- **Inclusive** – effective involvement of stakeholders is not presented as a chore but as a crucial input to arriving at a final proposal which meets expectations and which can be delivered.

## 1.7

### Study Approach

#### 1.7.1

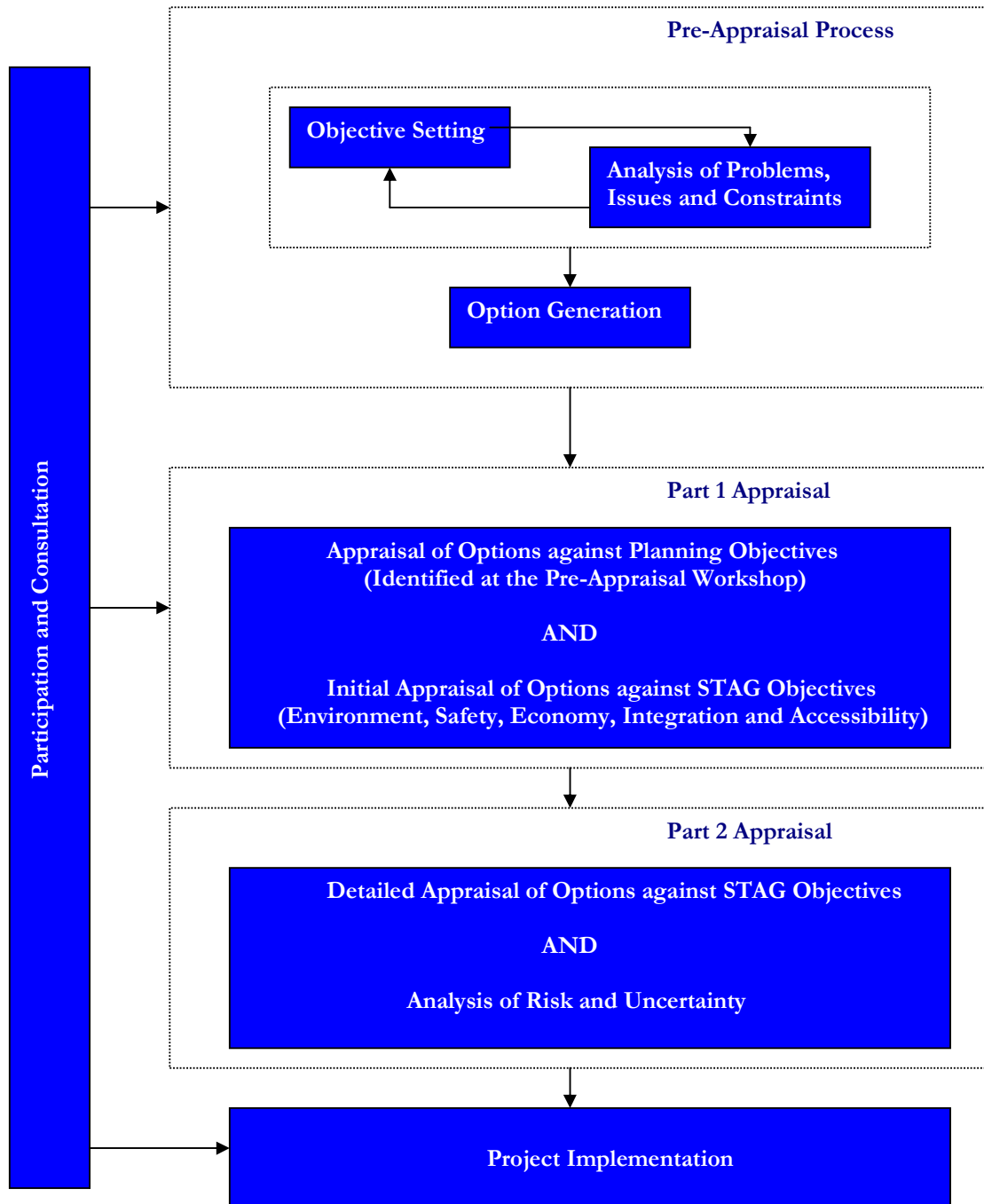
The STAG led appraisal process, which is the adopted study approach for the Elgin STAG study, is summarised below:

- Analysis of Problems, Issues and Constraints;
- Objective Setting;
- Option Generation, Sifting and Development;
- STAG Part 1 Appraisal;
- STAG Part 2 Appraisal;
- Conclusions and Recommendations.

#### 1.7.2

The Elgin STAG Study process is shown in Figure 1 in the STAG flowchart:

Figure 1 Scottish Transport Appraisal Guidance  
Planning and Appraisal Process



## 2

## Problems, Issues and Constraints

### 2.1

#### Introduction

#### 2.1.1

The methodology for the study is based upon the STAG approach. This requires that a clear set of objectives for the study are established, along with indicators against which any solutions can be monitored. A range of options are then generated and appraised against the objectives to determine their viability. In order to generate a clear view of the range of problems, issues and constraints, a pre-appraisal workshop was set up with a broad spectrum of local representatives of organisations.

#### 2.1.2

The workshop began with Halcrow setting out the need for, and importance attached to, the problem identification and objective setting element of the STAG appraisal process. It was explained that STAG is essentially a tool used to help arrive at a preferred transport solution to an identified transport problem and the meeting provided an opportunity to agree the current transport problems in and around the Elgin area. This allowed the workshop attendees to arrive at a set of objectives against which the options should be assessed and appraised. This workshop and the views of invitees would play a key role in informing the appraisal process.

### 2.2

#### Identification of Problems, Issues and Constraints

#### 2.2.1

The workshop participants were asked to identify what they perceived to be the underlying problems relating to the existing transport network in Elgin. A summary of the general responses are presented below (including responses submitted in writing):

- Elgin's transport network is struggling to cope with the increased demand for travel over recent years;
- It seems that journey times in and around Elgin have increased by 50% over a 10 year period;
- Demand during the peak period has spread over the same 10 year period;
- High levels of traffic flows and subsequent delays are observed all day Saturday;

- The volume of traffic on the A96 and A941 inhibit access onto these key routes and the circulation of traffic in and around Elgin;
- There has been an increase in development and intensity of land use in and around Elgin which has resulted in added traffic volumes;
- Public transport is infrequent and expensive – for both local and inter-city journeys;
- A considerable number of short private car journeys are made in Elgin;
- There has been an increase in HGV traffic in, around and through Elgin;
- There have been adverse impacts to traffic flows as a result of increased traffic volumes on local distributor roads – this has resulted in the use of “rat runs” with traffic at excessive speed;
- The reliance on the A96 means that a major accident or incident on this key route in Elgin would cause significant disruption and severance, particularly for the emergency services;
- Pedestrian crossings are clustered in some areas of Elgin (causing delays for traffic) and there is a lack of pedestrian crossing points in other parts (insufficient for pedestrians);
- Parking provision and location has resulted in on street parking in areas of Elgin which inhibits traffic flow by narrowing road width;
- Insufficient parking opportunities and poor bus services at Dr Grays Hospital.

### 2.2.2

The areas identified where particular perceived issues and problems have been observed are listed below:

#### A96 Eastbound from West Road

- Delays caused by queuing traffic at junction with Wittet Drive – right hand turn into and from Wittet Drive;
- Access into and out of Dr Grays Hospital;

- Generally high volume of traffic is making access onto and off A96 difficult from both Morriston Road and Sherriffmill Road;
- High traffic volume from A96 (West Road) through High Street and Alexandra Road;
- Traffic flow is inhibited as traffic builds up as vehicles have difficulty passing cyclists and buses – queues/delays can be worse than normal as a result;
- Perceived safety is poor as there are an increased volume of HGV traffic using the A96 coming into and through Elgin;
- Perceived safety is poor for pedestrians and cyclists;
- Sustainable travel inhibited by HGV and general traffic volumes.

#### A96 – East Road

- Lack of crossings towards the East Road section of the A96;
- The nature of access into and out of the bus station can inhibit traffic flows.

#### A941

- High proportion of traffic from the South attempting to access A941;
- Sustainable travel inhibited by HGV and traffic volume – perceived safety is poor;
- Delays can occur on Main Street, New Elgin Road and Hay Street as the A941 meets the A96.

#### Development Impacts

- Additional development near Elgin High School will add to future traffic volumes – this could impact on the Wards Road intersection – issue of railway crossing capacity;



- It is perceived that potential problems could arise for access to the site of the proposed redeveloped school;
- Links from New Elgin to Elgin – it is perceived that there is poor and limited access across the railway line;
- There has been a change in the local economy and underlying development of retail parks – changes in retail behaviour and land use;
- Impacts of commercial development at Edgar Road.

#### Parking

- Lack of car parking at Dr Grays hospital;
- The location and capacity of car parking resulting in significant on-street parking which causes delays for traffic flows and nuisance for residents – areas of significance include area between Station Road and Town Centre.

#### Junctions

- New Elgin Road/Main Street/Edgar Road/Linkwood Road (Roundabout)
- Alexandra Road/Bishopmill Brae (Roundabout)
- Moray Street/Hay Street (Priority)
- Wards Road/Station Road/Hay Street (Priority)
- Alexandra Road/Blackfriars' Road (Roundabout)
- New Food Store Access/Station Road (Priority)
- Boroughbriggs Road/North Street (Priority)
- Lossiemouth Road/Lesmurdie Road (Priority)
- Lossiemouth Road/Morrison Road (Priority)

- Maisondieu Road/South College Street/East Road (Roundabout)
- Maisondieu Road/New Elgin Road/Station Road/Moss Street (Roundabout)

### 2.2.3

The key themes identified and used to summarise the aforementioned perceived problems, issues and constraints include:

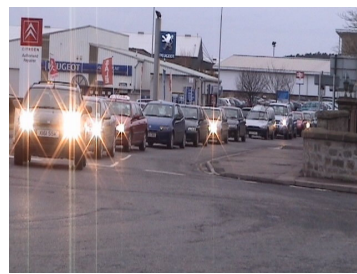
- Junctions on A96 and A941
- Parking – provision, location and control
- Safety – pedestrians and cyclists
- Traffic Flows
- Public Transport
- Development – commercial, residential, leisure and education

### 2.2.4

The following images show some examples of the traffic conditions in Elgin identified during the analysis of transport problems, issues and constraints:



**A941**



**A941 Station Road**



**Wittet Drive – A96**



**A96 Roundabout Maisondieu Road**



**Bilbohall**



**Bilbohall**



**A941 New Elgin Road**



**A941**



**The Wards**



**The Wards Rail Crossing**



**A941 Lossiemouth Road**



**Linkwood Road**



**New Elgin Road**



**New Elgin Road**



**Pluscarden Road**



**Pluscarden Road**

### 2.2.5

At this stage in the study, data of existing traffic flows has been collated and will be assessed using the Elgin micro-simulation transport model (VISSIM transport model), in order to provide evidence of the existing and potential future problems, issues and constraints facing Elgin. This analysis will continue to feed into the STAG appraisal process.

## 3 Objective Setting

### 3.1 Introduction

3.1.1 The second stage of the STAG pre-appraisal process involves ‘Objective Setting’. Having established a comprehensive list of perceived problems, issues and constraints and the key themes for the area of Elgin, it was agreed that the key themes would be used to determine a key planning objective for the study along with a set of sub-objectives for the study. This is a key element of the study process as it is against these objectives that the options will be appraised.

### 3.2 Key Planning Objective

3.2.1 The key planning objective<sup>3</sup> was proposed in the following terms:

**To provide a quicker, safer and more reliable transport system in and around Elgin while accommodating future development.**

3.2.2 In addition to this key planning objective, the Group also agreed the sub objectives of the study, these were:

- To reduce average junction delay times by x% on the A96 and A941 for traffic egressing and accessing key junctions from the base year scenario;
- To minimise delay and disruption to all mode users caused by the conflict of modes on key routes in and around Elgin;
- To improve safety for all road users in and around Elgin;
- To improve the management of parking in Elgin;
- To encourage modal shift from private car to public transport, cycling and walking;
- To mitigate the risks of adverse environmental impacts caused by motorised vehicular traffic in and around Elgin;
- To ensure integration of land use and transport.

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<sup>3</sup> In the STAG study context, “Planning objectives” are those which relate specifically to the transport planning exercise being carried out and should be developed specifically for the exercise.

3.2.3 The foregoing represents the consensus of the workshop group. However, it was agreed by the participants that these could be slightly amended and refined as the appraisal process progresses. Some sharpening of the descriptions may be required to make the objectives more specific and measurable. In particular, the development of the transport model for Elgin will help inform this process and ensure realistic and achievable objectives are set.

### 3.3 **The Moray Local Transport Strategy**

3.3.1 The Moray Local Transport Strategy has been developed within the context of sustainable development and this encompasses economic, social and environmental considerations. It is clear that successful economic development depends upon efficient transport networks both within the Moray boundaries and linking it to the rest of the UK and Europe. In particular, business needs to be able to minimise any adverse impact rising from Moray's peripherality.

3.3.2 The Moray Local Transport Strategy has been developed to recognise and support linkages to other strategic initiatives.

#### **Key Objective 1: to improve accessibility to jobs, services and facilities within Moray by:**

- a. Maintaining and improving the existing road network.
- b. Improving road, rail, air and sea links to the rest of Scotland, the UK and Europe.
- c. Realising the potential for public transport, cycling and walking.
- d. Improving the linkages between different modes of transport.
- e. Improving the transport infrastructure related to recreation and tourism.

#### **Key Objective 2: to promote sustainability and safety by:**

- a. Reducing the need to travel generally.
- b. Using land use planning to reduce travel needs.
- c. Reducing pollution where necessary to meet Government requirements.
- d. Seeking to continually improve safety.
- e. Counteracting the additional costs and disbenefits of rurality.

3.3.3 The Moray Local Transport Strategy was published in 2001. This latest version of the Moray Local Transport Strategy is currently undergoing review by The Moray Council so that it can be updated as part of an ongoing process.

### 3.4 **Regional Objectives for Transport**

3.4.1 Highlands and Islands Strategic Transport Partnership (HITRANS) have a vision for a regional transport system which:

- Provides cost effective access to all regional transport services in pursuit of social inclusion;
- Enables the optimum growth of the regional economy through a network which secures the efficient import and export of products: facilitates internal and external business travel; and encourages growth in tourism;
- Is safe to use and operate;
- Is sustainable and has the minimum practical impact on the environment.

3.4.2 To achieve the above noted goals, HITRANS has set the following objectives:

- To reduce costs to the users of the transport network and reduce costs in the movement of goods;
- To improve journey times by ensuring further investment is made in better infrastructure - particularly roads, public transport vehicles and vessels, and the rail network;
- To improve integration in the public transport system to increase choice, reduce delays and waiting periods, and make public transport more attractive. Increase the choice of destinations provided by public transport particularly for movements to centres outside the Region;
- To improve the frequency and flexibility of public transport, particularly for rural areas, with external links to outside the region and to develop the region's air service network as a key priority.



### 3.5

#### Government Objectives

#### 3.5.1

The Transport White Paper of June 2004, “Scotland’s Transport Future”, sets out the Scottish Executive objectives for transport:

“Our overall aim is to promote economic growth, social inclusion, health and protection of our environment through a safe, integrated, effective and efficient transport system”.

The Scottish Executive objectives are to:

- Promote economic growth by building, enhancing, managing and maintaining transport services, infrastructure and networks to maximise their efficiency;
- Promote social inclusion by connecting remote and disadvantaged communities and increasing the accessibility of the transport network;
- Protect our environment and improve health by building and investing in public transport and other types of efficient and sustainable transport which minimise emissions and consumption of resources and energy;
- Improve safety of journeys by reducing accidents and enhancing the personal safety of pedestrians, drivers, passengers and staff;
- Improve integration by making journey planning and ticketing easier and working to ensure smooth connection between different forms of transport.

#### 3.5.2

More broadly, under the criteria of a STAG assessment, the scheme must also support these Government objectives for transport, and Government STAG criteria, namely:

- **Environment** (maximising the quality of the built and natural environment for enjoyment by all);
- **Safety** (reducing the risk and incidence of accidents and improving the security of all transport users);
- **Economy** (saving people’s and business’s time and money and facilitating desired economic development);



- **Integration** (fitting the transport network together and ensuring a rational relationship between transport and land-use and wider policy);
- **Accessibility** (providing everyone (not just users but also non-users) with the means to travel to opportunities of all kinds).

## 4 Option Generation and Sifting

### 4.1 Introduction

4.1.1 The process of option generation, sifting and development was carried out with the aim of addressing the problems identified in the pre-appraisal process. Having established the transport problems to be solved together with the issues and opportunities to be addressed, the key planning objective and sub-objectives, the workshop attendees were invited to suggest possible solutions that could be introduced to solve the problems and issues identified in the first part of the pre-appraisal process. It was vital to develop options that reflected the full range available and that sought to meet the study's defined key planning objective.

### 4.2 Option Generation

4.2.1 The potential options generated were summarised as follows (not in any order of priority):

- Integrated ticketing for public transport;
- Integrated public transport timetable;
- Car share schemes;
- Traffic management options for Elgin;
- Junction improvements for A96 route through Elgin;
- Improved information flow for travellers including PR and Marketing of travel options;
- Improved signage and warnings;
- Cycle network improvements;
- Loading restrictions;
- Free bus travel (within and to Elgin);
- Improved bus services to Dr Grays hospital;
- Bus priority measures;
- Extension of Edgar Road to Morriston Road junction;
- New railway line crossings – “New Elgin – Elgin Link”;
- Improvements for Wards Road;
- One way system/loop around Elgin;
- Elgin Bypass;
- Pay & Display Parking Controls;
- Options to improve North College Street – College Street;
- Options to divert traffic from West of Elgin around North Elgin – (e.g. use of Morriston Road);

- Opportunities to identify HGV specific routes;
- Park and Ride;
- Parking Strategy;
- Increase provision of car parking – West/South/Central Elgin;
- Encourage the adoption of flexible working hours.

### 4.3

#### 4.3.1

#### Option Sifting

STAG advocates that where a full set of potential proposals is unmanageably large, a transparent mechanism must be used to narrow the choice down to a selection that can be more thoroughly analysed. Due to the wide spectrum of possible transport intervention options identified in the aforementioned long list of options it has been appropriate to categorise these into **“Key Themes”** rather than sift these down to a shortlist of options recommended for STAG Part 1 appraisal. The aim of this part of the appraisal process is to focus resources in the planning and appraisal process, to avoid poor fit with the key planning objective and sub-objectives and poor performance of the options’ in alleviating the problems, issues and constraints detailed in this part of the pre-appraisal process.

#### 4.3.2

It is recommended, for the purpose of the Part 1 appraisal process, that the aforementioned long list of options are categorised into the following “Key Themes” for Part 1 appraisal (the options identified at the pre-appraisal workshop are listed under each category – as explained in Chapter 6, at this stage, it should be noted that there may be further options to be considered during Part 2 as those outlined for each key theme are set out as examples):

#### Public Transport

- Integrated ticketing for public transport;
- Integrated public transport timetable;
- Free bus travel (within and to Elgin);
- Improved bus services to Dr Grays hospital;
- Bus priority measures.

#### Traffic Management

- Traffic management options for Elgin;
- Improved signage and warnings;
- Loading restrictions;
- One way system/loop around Elgin;
- Divert traffic from West of Elgin around North Elgin – e.g. use of Morriston Road;
- Opportunities to identify HGV specific routes; and

- Cycle network improvements.

#### **Link and Junction Improvements**

- Junction improvements for A96 and A941 routes through Elgin;
- Extension to Edgar Road to Morriston Road Junction;
- New railway line crossings – “New Elgin – Elgin Link”;
- Improvements for Wards Road;
- Options to improve North College Street – College Street; and
- Elgin bypass.

#### **Travel Planning and Information**

- Improved information flow for travellers including PR and marketing of travel options;
- Car share schemes;
- Encourage the adoption of flexible working hours;

#### **Parking**

- Park and Ride;
- Parking Strategy;
- Pay and display parking controls;
- Increase provision of car parking – West/South/Central Elgin.

## 5 STAG Part One Appraisal

### 5.1 Introduction

5.1.1 This section of the report sets out the details of the STAG Part One analysis and provides a recommendation of the options to be taken forward for more detailed analysis in the STAG Part Two appraisal.

5.1.2 The purpose of the Part One appraisal is to sift the options down to a manageable number and those that “pass” the Part One appraisal are taken forward and subjected to more detailed appraisal in Part Two, which will be undertaken subsequent to this analysis.

5.1.3 The Part One appraisal concentrates on three main areas:

- The proposal’s likely impact against the planning objectives (as opposed to the Government’s five objectives);
- An initial check of the proposal’s fit with relevant established transport, land-use planning and other policies;
- An investigation of the proposal’s implementability in terms of its feasibility, affordability and likely public acceptability.

5.1.4 In addition to appraisal against these three main areas, broad consideration of the impacts of the proposals against the Government’s five transport objectives relating to economy, accessibility, integration, safety and environment. A more detailed appraisal against these five objectives is undertaken in relation to options which proceed to the Part Two appraisal.

5.1.5 The results from the Part One appraisal are summarised using Appraisal Summary Tables (ASTs). The completed Part One ASTs can be found as an appendix to the main report (Appendix A).

5.1.6 The “Key Themes” to be considered in STAG Part One as part of the Elgin STAG study are outlined below:

### **Public Transport**

- Integrated ticketing for public transport;
- Integrated public transport timetable;
- Free bus travel (within and to Elgin);
- Improved bus services to Dr Grays hospital; and
- Bus priority measures.

### **Traffic Management**

- Traffic management options for Elgin;
- Improved signage and warnings;
- Loading restrictions;
- One way system/loop around Elgin;
- Divert traffic from West of Elgin around North Elgin – (e.g. use of Morriston Road);
- Opportunities to identify HGV specific routes; and
- Cycle network improvements.

### **Link and Junction Improvements**

- Junction improvements for A96 and A941 route through Elgin;
- Extension to Edgar Road to Morriston Road Junction;
- New railway line crossings – “New Elgin – Elgin Link”;
- Improvements for Wards Road;
- Options to improve North College Street – College Street; and
- Elgin bypass.

### **Travel Planning and Information**

- Improved information flow for travellers including PR and marketing of travel options;
- Car share schemes;
- Encourage the adoption of flexible working hours.

### **Parking**

- Park and Ride;
- Parking Strategy;
- Pay and display parking controls;
- Increase provision of car parking – West/South/Central Elgin.

## **5.2**

### **5.2.1**

### **Performance of “Key Themes” against Planning Objectives**

The key planning objective was proposed in the following terms:

**To provide a quicker, safer and more reliable transport system in and around Elgin while accommodating future development.**

### 5.2.2

#### Sub-Objectives

1. To reduce average junction delay times by x% on the A96 and A941 for traffic egressing and accessing key junctions from the base year scenario;
2. To minimise delay and disruption to all mode users caused by the conflict of modes on key routes in and around Elgin;
3. To improve safety for all road users in and around Elgin;
4. To improve the management of parking in Elgin;
5. To encourage modal shift from private car to public transport, cycling and walking;
6. To mitigate the risks of adverse environmental impacts caused by motorised vehicular traffic in and around Elgin;
7. To ensure integration of land use and transport.

### 5.3

#### 5.3.1

#### Public Transport

The proposal's likely impact against the planning objectives:

#### Key Planning Objective

The provision of enhanced public transport services on its own is unlikely to achieve a significant mode shift from private car. The transport issues/problems facing Elgin would not be alleviated unless a sufficiently frequent, fast, reliable public transport service or number of services could be introduced across Moray to serve all habitants who wish to access Elgin for work, education and commercial services.

This “Key Theme” fails this key planning objective in the context of the Elgin STAG study pre-appraisal process.

#### Sub-Objectives

1. This key theme fails this planning objective.
2. This key theme fails this planning objective.

3. This key theme fails this planning objective.
4. This key theme fails this planning objective.
5. This key theme meets this planning objective.
6. This key theme could meet this planning objective.
7. This key theme fails this planning objective.

### **Integrated ticketing and Integrated Public Transport Timetable**

5.3.2

It is unlikely that the current level of public transport provision would be suitable for extensive provision of an integrated ticketing or integrated timetabling strategy. The public transport mode choices available, rural nature of the study area and public transport demand limit the opportunities to incorporate this as an option to be taken forward as part of the STAG process.

It is recognised that integrated ticketing and integrated public transport timetable initiatives have the greatest impact in urban/metropolitan areas where there are multiple public transport opportunities to the traveller and evidence that natural trip chaining takes place. In the context of Elgin in Moray, it is unlikely that public transport modes by type, frequency and route could accommodate such initiatives without significant cost to the operators/investment from the public sector.

### **Free bus travel (within and to Elgin)**

5.3.3

Zero-fare public transport trials are relatively rare. Some of these schemes have been limited to short journeys within central business districts in urban areas. Their principal effect is to attract people who would otherwise walk or cycle. There is no convincing evidence that free travel diverts journeys from cars to public transport.

### **Improved bus services to Dr Grays hospital**

5.3.4

The effect of service intervals can be measured in a number of ways: total vehicle kilometres or hours, frequency, headway/service level, wait time and schedule delay. The dominant indicator is the number of vehicle kilometres operated. This has an inverse but generally inexact relationship with service headways.

### **Secondary Recommendation**

It is recommended that bus services to Dr Grays hospital are analysed and opportunities to improve such services are examined. It is not proposed to take



this further within the context of this STAG study but it is recommended that The Moray Council should continue consultation with Moray Community Partners as statutory consultees in designing the Regional Transport Strategy and access to such important health facilities should continue to be considered within the context of the Local Transport Strategy.

#### **Bus priority measures**

5.3.5

Designed to reduce bus journey times and make services more reliable by isolating buses from general traffic congestion. Would achieve few benefits, because of difficulties in circumventing physical obstacles where priority measures are most needed. Rural areas exhibit the lowest frequency of local bus use – 12% once a week or more, 14% less than once a week/more than twice a year and 74% once or twice a year or less.

With respect to bus priority measures, it is anticipated that there is insufficient frequency of service/bus capacity to justify this as an option for further consideration. There is also limited opportunity for physical expansion of road space for this measure due to the constrained nature of the existing road infrastructure in/around Elgin.

5.4

#### **Traffic Management**

5.4.1

The proposal's likely impact against the planning objectives:

#### **Key Planning Objective**

It is likely that this “Key Theme” has a very important role in meeting this objective. In the context of the Elgin STAG Study pre-appraisal process, it is clear that further investigation of traffic management options is required to provide a quicker, safer and more reliable transport system in and around Elgin while accommodating future development.

#### **Sub-Objectives**

1. This key theme meets this planning objective.
2. This key theme meets this planning objective.
3. This key theme meets this planning objective.
4. This key theme meets this planning objective.

5. This key theme could meet this planning objective.
6. This key theme could meet this planning objective.
7. This key theme could meet this planning objective.

#### 5.4.2

It should be noted that it is proposed to reject the following options listed under this key theme due to the context of the Elgin STAG study:

- Cycle network improvements;
- Signage and warnings;
- Loading restrictions.

It is recommended that these options are considered out with the context of the Elgin STAG study due to the nature of the issues, problems and constraints identified in the pre-appraisal process.

#### 5.5

##### **Link and Junction Improvements**

The proposal's likely impact against the planning objectives:

##### **Key Planning Objective**

It is likely that this “Key Theme” has a very important role in meeting this objective. In the context of the Elgin STAG Study pre-appraisal process, it is clear that further investigation of link/junction improvement options is required to provide a quicker, safer and more reliable transport system in and around Elgin while accommodating future development.

##### **Sub-Objectives**

1. This key theme meets this planning objective.
2. This key theme meets this planning objective.
3. This key theme meets this planning objective.
4. This key theme fails to meet this planning objective.
5. This key theme could meet this planning objective.
6. This key theme could meet this planning objective.

7. This key theme could meet this planning objective.

## 5.6

### **Travel Planning and Information**

The proposal's likely impact against the planning objectives:

#### **Key Planning Objective**

The provision of enhanced travel planning and information options are unlikely to achieve a significant mode shift from private car. The transport issues/problems facing Elgin would not be alleviated and this key theme would be unable to ensure that a quicker, safer and more reliable transport system in and around Elgin could be provided (while accommodating future development).

#### **Sub-Objectives**

1. This key theme fails this planning objective.
2. This key theme fails this planning objective.
3. This key theme could meet this planning objective.
4. This key theme fails to meet this planning objective.
5. This key theme could meet this planning objective.
6. This key theme could meet this planning objective.
7. This key theme fails to meet this planning objective.

### 5.6.1

#### **Improved information flow including PR and marketing of travel options**

Some basic level of information about public transport services is necessary for those who use or plan to use them. In practice, regular travellers rarely make use of formal information systems, and many occasional travellers rely on informal sources such as advice from family or friends.

Most recent research has been on the effect of real time public transport information systems, with digital displays at bus stops or Underground stations displaying the predicted arrival times of relevant buses or trains. While this has been an encouraging development in urban areas, it is likely to have a limited impact within the rural context – an assessment of costs and benefits would not

necessarily show this as an optimal solution to encourage mode shift in the rural transport environment.

This type of initiative would generally be undertaken in conjunction with other quality and price initiatives, rather than in isolation. In some cases, efforts have been largely focussed on conventional forms of communication, such as printed timetables, adverts in vehicles and a limited amount of poster and newspaper/other media advertising. Apart from household distribution of timetables, little effort may have been made to communicate directly with non-users.

#### **Car share schemes**

- 5.6.2 It is unlikely that car share schemes would meet the diversity of needs in Moray and for those residents making journeys to Elgin. The geographic nature of the study area predicates that such a scheme would not offer significant benefits to transport users. However, it is recognised that such behaviour will often take place in discretionary form.

#### **Encourage the adoption of flexible working hours**

- 5.6.3 This type of initiative has merit in large urban areas where a large number of travellers can take advantage of flexible working hours. However, a large number of people would need to be exposed to this to have the effect of spreading the am/pm peak periods. It is anticipated that this option would have limited impact in the context of Elgin STAG study.

- 5.6.4 Similarly, these options are not rejected at this stage due to their inability to offer marginal benefits to the transport users of Elgin/Moray but are rejected as options which insufficiently alleviate the issues, problems and constraints identified in Chapter Two while meeting the Key Planning objective and sub-objectives outlined in Chapter Three.

### **5.7**

#### **Parking**

The proposal's likely impact against the planning objectives:

#### **Key Planning Objective**

The parking policies/strategies categorised under this key theme are unlikely to achieve a significant mode shift from private car. The transport issues/problems facing Elgin would not be alleviated and this key theme would be unable to ensure that a quicker, safer and more reliable transport system in and around Elgin could be provided (while accommodating future development).

### **Sub-Objectives**

1. This key theme fails this planning objective.
2. This key theme fails this planning objective.
3. This key theme fails this planning objective.
4. This key theme could meet this planning objective.
5. This key theme could meet this planning objective.
6. This key theme could meet this planning objective.
7. This key theme fails to meet this planning objective.

### **Parking Strategy**

5.7.1

There are a number of ways in which parking policy could be used as a traffic demand management tool. These include limiting the number of available spaces, increasing the prices paid for parking and changing the mix of short and long term parking spaces available. However, parking policies are not always effective traffic demand management tools. Strict enforcement is required as the tendency for evasion is high. Improved public transport services would be required to work in conjunction with such traffic demand management tools using parking policies.

### **Park and Ride**

5.7.2

The most common aims of bus-based park-and-ride schemes are to stimulate economic activity in urban centres, to make better use of valuable land in town centres, to make better use than parking of valuable land in town centres, and to reduce congestion, noise and pollution. There is little evidence of reduction in traffic or demand for town centre parking as a result of P&R schemes.

P&R fares and charges need to be pitched at a level which will be attractive compared with the alternatives of driving to town centres and parking there, or

travelling to competing urban areas. The relationship between costs and benefits of P&R scheme depends strongly on local circumstances and varies from place to place. P&R may not, on its own, contribute much to the success of local transport policies, but it can be valuable in combination with other measures like traffic restraint and bus priority.

### **Secondary Recommendation**

5.7.3 It is strongly recommended that a 'Parking Strategy' is considered as a study in its own right so as to undertake a full assessment of the formal and informal parking in and around Elgin. As a significant trip destination in Moray, Elgin could benefit from a full assessment of the future strategy for parking in Elgin. The implementation of loading restrictions could also be assessed as part of this future work.

## **5.8 Performance of “Key Themes” against Government STAG Criteria**

5.8.1 The “Key Themes” have been appraised at a very high level for their performance against the Government STAG criteria within the context of the Elgin STAG Study. This section reflects the anticipated impacts the key themes could have on alleviating the problems, issues and constraints identified during the pre-appraisal process.

5.8.2 Performance of the key themes is assessed using a seven point scale noted below:

- Major Beneficial
- Moderate Beneficial
- Minor Beneficial
- Neutral
- Minor Adverse
- Moderate Adverse
- Major Adverse

## **5.9 Public Transport**

5.9.1 The proposal's likely impact against the Government objectives:

Environment	- Neutral
Safety	- Neutral
Economy	- Neutral
Integration	- Neutral/Minor Beneficial
Accessibility and Social Inclusion	- Neutral/Minor Beneficial

## **5.10 Traffic Management**

5.10.1 The proposal's likely impact against the Government objectives:

Environment	- Minor/Moderate Beneficial
Safety	- Minor/Moderate Beneficial
Economy	- Moderate/Major Beneficial
Integration	- Moderate Beneficial
Accessibility and Social Inclusion	- Minor/Moderate Beneficial

## **5.11 Link and Junction Improvements**

5.11.1 The proposal's likely impact against the Government objectives:

Environment	- Minor/Moderate Beneficial
Safety	- Minor/Moderate Beneficial
Economy	- Moderate/Major Beneficial
Integration	- Moderate Beneficial
Accessibility and Social Inclusion	- Minor/Moderate Beneficial

## **5.12 Travel Planning and Information**

5.12.1 The proposal's likely impact against the Government objectives:

Environment	- Neutral
Safety	- Neutral
Economy	- Neutral
Integration	- Neutral/Minor Beneficial
Accessibility and Social Inclusion	- Neutral/Minor Beneficial

## **5.13 Parking**

5.13.1 The proposal's likely impact against the Government objectives:

Environment	- Neutral
Safety	- Neutral/Minor Beneficial
Economy	- Neutral/Minor Beneficial
Integration	- Neutral/Minor Beneficial
Accessibility and Social Inclusion	- Neutral/Minor Beneficial

## **5.14 Summary of Performance against Government STAG Criteria**

5.14.1 The initial broad assessment of anticipated impacts of the key themes reveals that "Junction and Link Improvement" and "Traffic Management" options would have the greatest benefits in terms of the Government's overarching appraisal criteria.

Although performance at this stage has been measured by a qualitative assessment on a seven point scale, it is clear that the results are consistent with the performance of key themes against the planning objectives.



## 6

## Conclusions and Recommendations

### 6.1

#### Introduction

#### 6.1.1

This section summarises the main findings within the STAG Part 1 appraisal process of each “Key Theme” subjected to STAG Part 1 appraisal. It should be noted that up until this point, this report has presented a record and summary of the pre-appraisal process and Part One appraisal. This section also includes recommendations of what is to be taken forward to the STAG Part 2 appraisal for more detailed analysis.

### 6.2

#### Public Transport

#### 6.2.1

Public transport has a clear role to play in managing future traffic problems in Elgin and it is recommended that The Moray Council continue to monitor public transport provision and engage with public transport operators to maximise the potential public transport usage in the area. However, it is recommended that this option is not taken forward as part of this Elgin STAG study as this option alone would not provide the most effective solution/set of solutions to meet the key planning objective/sub-objectives while alleviating the problems, issues and constraints facing Elgin.

#### Secondary Recommendation

#### 6.2.2

It is recommended that bus services to Dr Grays hospital are analysed and opportunities to improve such services are examined. The Moray Council should continue consultation with Moray Community Partners as statutory consultees in designing the Regional Transport Strategy and access to such important health facilities should continue to be considered within the context of the Local Transport Strategy.

### **6.3 Travel Planning and Information**

6.3.1 It is recommended that The Moray Council continue to pursue positive travel planning and information initiatives for the residents of Moray but, as with the previous “key theme”, it is not recommended that this be taken forward for detailed appraisal during the STAG Part 2 Study. It is anticipated that this option alone would not provide the most effective solution/set of solutions to meet the key planning objective/sub-objectives while alleviating the problems, issues and constraints facing Elgin.

### **6.4 Parking**

6.4.1 There are a number of ways to help alleviate traffic problems in Elgin which parking policy could be used as a traffic demand management tool. These include limiting the number of available spaces, increasing the prices paid for parking and changing the mix of short and long term parking spaces available. However, this option is regarded as being able to make a less effective contribution to the overall traffic problems in Elgin.

#### **Secondary Recommendation**

6.4.2 It is strongly recommended that a ‘Parking Strategy’ is considered as a study in its own right so as to undertake a full assessment of the formal and informal parking in and around Elgin. The implementation of loading restrictions could also be assessed as part of this future work. It is anticipated that this broad theme should be analysed in detail in this separate study.

### **6.5 Recommendations for STAG Part 2 Appraisal**

6.5.1 The following options are identified for further consideration in the Part 2 appraisal process:

#### **6.5.2 Traffic Management options for Elgin which could include options such as:**

- One way system/loop around Elgin;
- Divert traffic from West of Elgin around North Elgin – (e.g. use of Morriston Road);
- Opportunities to identify HGV specific routes.

- 6.5.3 The options listed under the Traffic Management key theme, represent families/groupings which can now be taken forward to analyse specific interventions on the transport network. It should be noted that a number of specific interventions will be assessed under each family/grouping heading. The list above is not considered as being exhaustive at this stage.
- 6.5.4 **Link/Junction Improvements for Elgin which could include options such as:**
- Junction improvements on the A96
  - Junction improvements on the A941
  - A96 to Edgar Road options
  - Elgin Bypass
- 6.5.5 The options listed under the Link/Junction Improvements key theme, represent families/groupings which can now be taken forward to analyse specific interventions on the transport network. It should be noted that a number of additional specific interventions could be assessed under each family/grouping heading, and further options may be considered as part of the STAG Part 2 appraisal if they are deemed to make an effective contribution to solving Elgin's traffic problems.
- 6.5.6 The aforementioned clearly defined options for appraisal would be subject to a STAG Part 2 appraisal with detailed analysis of impacts against the Government's five objectives for transport. (Environment, Safety, Economy, Integration and, Accessibility and Social Inclusion). The approach outlined in the preceding sections of Chapter 6 is recommended as the best way to progress with the options recommended from the STAG Part 1 analysis.