

1 INTRODUCTION

1.1 BACKGROUND TO THIS REPORT

Hutchison Ports (UK) Limited (HPUK) is promoting a scheme to reconfigure part of the southern end of the Port of Felixstowe to provide additional deepwater terminal capacity for containers. The scheme is referred to as the Felixstowe South Reconfiguration and would result in a total quay length of 1 350 m of deep water, an increase in quay length of 910 m. It is expected to add an eventual annual throughput of 1.56 million ⁽¹⁾ TEUs (twenty foot equivalent units) ⁽²⁾, bringing the total capacity of the port to 5.56 million TEUs. The location of the scheme within the East of England is shown in *Figure 1.1*.

HPUK is submitting a full planning application for the scheme, including construction of the quay and land reclamation, and a New North Rail Terminal (NNRT). The application also includes various improvements relating to public access at the Landguard peninsula. This report presents the results of a Transport Assessment (TA) for the scheme, and is submitted in support of the application. The TA has been prepared by Environmental Resources Management (ERM), supported by HSL, with the aim of assisting Suffolk Coastal District Council, in its role as planning authority, in arriving at a decision.

The TA also supports other applications made by HPUK for the Felixstowe South Reconfiguration.

A Scoping Report has previously been prepared for the TA (in April 2003), in line with best practice. The purpose of that report was principally to establish the scope and methodology for the TA and describe the data to be collected. The scope has subsequently been refined and amended through discussions with the Highways Agency (and their consultants, FaberMaunsell) and Suffolk County Council.

1.2 THE PROPOSED DEVELOPMENT

1.2.1 Overview

The area of the scheme encompasses the currently operational Landguard Terminal, which was constructed in the 1960s, the existing Ro-Ro facilities (which have now been vacated) and the Dock Basin area. These are all situated at the southern end of the Port of Felixstowe. It is proposed to

(1) for the purposes of this assessment, and in order to provide a robust assessment, this figure has been rounded up to 1.60 million

(2) whereas in the UK it is normal to use metric equivalents in considering container traffic, many measurements are normally given in imperial, as in this report, particularly relating to dimensions of containers

reconfigure this area, to allow for the following new facilities (as further detailed in the application):

- a new quay face of 1 350 m (an increase of 910 m);
- a container transfer area linked to existing rail facilities;
- a container handling and stacking facility;
- a new in gate within port land;
- workshops, offices and warehousing; and
- HGV holding area and car parking facilities.

In addition to the above, the following alterations are proposed in respect of Landguard Fort, in order to provide access for the public (see *Figure 1.2*):

- improvement of View Point Road;
- relocation and enlargement of the View Point car park;
- improved pedestrian facilities;
- additional car parking spaces to the north east of the Fort;
- secure parking for 10 cycles;
- a coach stop, turnround and layover area; and
- visibility improvements at the A154 Carr Road/View Point Road junction.

In discussions with Suffolk County Council and Suffolk Coastal District Council, it was confirmed that no off-site assessment of these proposed new facilities is required.

The proposed facilities are described in more detail in *Section 5* of this report.

1.2.2 Road and Rail Access

Access is available to both the trunk road and national rail networks. Road access is to be gained via Dock Road, which is largely internal to the Port of Felixstowe; this gives access to the trunk road network at the A14 (T)/A154 (Dock Gate 1) roundabout.

The rail network already serves the Port of Felixstowe, via a branch line from Ipswich and Westerfield. This links in to the Great Eastern Mainline (GEML) and allows the port to serve markets throughout the UK via London and the West Coast Mainline (WCML).

Accessibility to the proposed reconfiguration is described in more detail in *Section 4*.

1.2.3 Construction Phasing

For this TA, it has been assumed that construction of the scheme will commence with demolition in April 2004. The construction period itself will run over three principal phases (Phases 1a, 1b and 2), allowing existing operations to continue while the reconfiguration takes place. This will last until August 2007.

More detailed information on construction phasing is given in *Section 5*.

1.2.4 *Operation of the Scheme*

On the above basis, the first phase of the scheme would be expected to be operational in 2006. At this point it is estimated that additional demand due to the reconfiguration would be around 0.36 million TEUs ⁽¹⁾. Eventual predicted demand due to Felixstowe South in 2023 (the TA assessment year) is taken to be 1.60 million TEUs (rounded from 1.56 million TEUs).

Detailed descriptions of predicted capacity and demand, plus expected road and rail movements, are given in *Section 5*.

To summarise the handling of freight at the development, each imported container will be off-loaded from a ship, placed directly onto an internal movement vehicle (IMV), transported to a designated stacking location and lifted onto the stack by a rubber tyred gantry (RTG). Outside hauliers will later collect the containers from the stack, with the transfer once more being made by a RTG. For the export of containers, the process works in reverse.

Twenty four percent of container volume is expected to be transshipped. These containers will not exit the port by road or rail, but will remain temporarily within the port. Some will be transferred directly between ships, while others will be discharged from vessels and moved to a stack for reloading onto other vessels.

Of those containers which will be imported/exported (after exclusion of transshipment), it is cautiously expected that up to 26% will be moved by rail. More details of the predicted modal split are presented in *Section 5*, together with a discussion of proposed rail terminal facilities.

1.2.5 *Parking*

The development will result in the employment of 621 additional staff. There will be four shifts in operation, with up to around 155 employees working on each shift. Shifts will change at 0700 and 1900. The shift pattern is such that employees each have four working days, followed by four rest days.

A Travel Plan is proposed for the development, which promotes a number of measures to support non-car travel. The Travel Plan sets the target of 75% of employees driving to work by car. Therefore, it may be expected that some 117 employees will drive to work on each shift.

Sufficient parking will be provided to accommodate cars parked by all employees finishing their shift and those starting their shift (ie 234 spaces). This will be provided in part by the current car parks available at the port.

(1) information provided by Ocean Shipping Consultants

These car parks also provide spaces for disabled workers and visitors; HPUK will seek to provide additional spaces for disabled drivers as the need arises.

Provision is made for cycle parking. Sufficient areas are provided for HGV parking in locations where they may have to wait before loading or unloading.

1.3

THE TRANSPORT ASSESSMENT

The TA has been carried out principally for the operational phase of the development; however, the potential impact of the scheme on the highway network during the construction phase is also addressed. The assessment covers the whole of the masterplan area, taking into account potential effects on the wider transport networks, as appropriate.

The assessment takes into account the views of Suffolk Coastal District Council, Suffolk County Council, the Highways Agency, the Strategic Rail Authority (SRA) and Network Rail (formerly Railtrack). Where appropriate, the views of the freight operating companies (FOCs) have also been considered.

The work has been carried out in accordance with PPG13 ⁽¹⁾ and Circular 04/2001 ⁽²⁾. Where applicable, reference has been made to proposed guidelines on TA procedures ⁽³⁾ and published guidelines prepared for developments in Scotland ⁽⁴⁾, as well as guidance published by others, such as the former Institute of Environmental Assessment ⁽⁵⁾ (now the Institute of Environmental Management and Assessment, IEMA). It also embraces the principles laid down in guidance issued by the Institution of Highways and Transportation with respect to road traffic impacts ⁽⁶⁾, so that proper cognisance is taken of these issues.

A more detailed description of the methodology used for the TA is given in *Section 2*.

1.4

STRUCTURE OF THE REPORT

Following this introductory section, the remainder of the report is structured as follows:

(1) **Planning Policy Guidance Note 13: Transport**, issued in March 2001.

(2) DTLR Circular 04/2001 - Control of Development Affecting Trunk Roads and Agreements with Developers under section 278 of the Highways Act 1980.

(3) at the time of writing, these were unpublished

(4) Scottish Executive (2002) Guide to Transport Assessment for Development Proposals in Scotland, Final Report, April.

(5) Institute of Environmental Assessment (1993) **Guidelines for the Environmental Assessment of Road Traffic**, Guidance Note No. 1, IEA.

(6) Institution of Highways and Transportation (1994) **Traffic Impact Assessment Guidelines**, IHT.

- *Section 2* gives a description of the methodology that has been adopted to undertake the assessment, including sources of information and methods of consultation;
- *Section 3* sets out the relevant national, regional and local transport policies and describes the ways in which the proposed scheme accords with these;
- *Section 4* describes current, and future baseline, accessibility in the vicinity of the development and provides details of the existing transport networks and current travel characteristics;
- *Section 5* summarises the traffic which is expected to be generated by the development, during both the construction and subsequent operational phases on the road and rail networks;
- *Section 6* provides a description of the impacts of the scheme, with respect to both the road and rail networks, and describes the measures which have been proposed by HPUK to mitigate any adverse effects and to influence travel patterns at the port; and
- *Section 7* contains the conclusions of the study.

The following maps and illustrations are provided in the main report (in addition to the masterplan at the end of this section):

- *Figure 1.1* – Location of the Port of Felixstowe and the Trunk Road Network;
- *Figure 1.2* – Access Alterations to Landguard Fort;
- *Figure 4.1* – Rail Network;
- *Figure 5.1* – Generated Construction Traffic; and
- *Figure 5.2* – Access Arrangements for Construction Traffic.

A completed Transport Assessment Form is given in *Annex A*. In addition, two comprehensive, stand-alone annexes are provided, as follows:

- *Annex B* comprises an appraisal of the landside transport impacts of the scheme according to the principles of the Government’s New Approach to Appraisal (NATA). A description of NATA is given in *Section 2*.
- *Annex C* is a detailed assessment of the impacts of the proposed scheme on the highway network. This has been prepared by HSL and includes impacts on all road users plus mitigation measures that have been proposed and agreed by HPUK. Additional maps and figures are provided within this annex. The annex is provided as a separate volume.

In addition, a separate non-technical summary of the TA has been prepared. A version of the summary is also bound into the front of this report.

2.1 SCOPE OF THE ASSESSMENT

2.1.1 *The Requirements for a TA*

The revised version of PPG13 was issued by the former Department of Transport, Local Government and the Regions (DTLR) in March 2001. It states that:

“where developments will have significant transport implications, Transport Assessments should be prepared and submitted alongside the relevant planning application”.

A definition has been proposed for a TA as being:

“a review of all potential transport impacts of a proposed development, with a plan to minimise any adverse consequences”⁽¹⁾.

Although, at the time of writing, no formal guidance was available on TA procedures, the key focus, based on the requirements of PPG13, is to ensure that a realistic and reasonable choice of access is available for new developments. This is primarily enabled by selecting the right location, design and layout - principles that HPUK has adopted throughout the process of scheme development.

The key differences between TA and what might be termed “conventional” traffic impact assessments (which relate principally to highway impacts) are:

- greater emphasis is given in a TA to alternative modes, with an increased stress on public transport, walking and cycling;
- a NATA⁽²⁾ appraisal is incorporated into the assessment, rather than focusing individually on, for example, traffic impacts and safety issues; and
- Travel Plans and financial incentives are given greater emphasis as mitigation measures, rather than relying on just increasing road capacity or improving safety features.

(1) Stokes G (2001) **Transport Assessments for New Developments**, at Transport Assessment for Development Proposals, 22 November, PTRC.

(2) The New Approach to Appraisal (NATA) was introduced in the White Paper on Transport, issued in July 1998. NATA includes methods for the identification and assessment of problems, the identification of options and the assessment of those options. A separate NATA appraisal is also being undertaken by HPUK for all aspects of the development, not just transport issues, in line with anticipated new ports appraisal requirements, as described in: Department of Transport, Local Government and the Regions (2001) **A Project Appraisal Framework for Ports**, December.

In summary, a TA needs to provide local planning authority officers with sufficient information to be able to consider the transport aspects of the planning application. This has been the primary aim of the work undertaken.

2.1.2 *The TA Process*

Overview

In the absence of published guidance (which, in any case, is unlikely to be statutory), this TA has, as far as practicable, followed the procedures which are expected to be recommended. In essence, TA involves the following:

- assessment of accessibility and travel characteristics;
- consideration of measures to influence travel; and
- assessment of impacts.

The way in which these requirements have been dealt with in the TA for the Felixstowe South Reconfiguration is summarised below.

Assessment of Travel Characteristics

One of the main tenets underlying this aspect of the new TA procedures is that developments should be located on suitable sites – this is the principle that HPUK has adopted throughout its planning of the Felixstowe South Reconfiguration.

This part of the work covers such issues as:

- freight access to the trunk road and rail networks;
- potential catchments for users of the development; and
- existing road and public transport usage in the area.

Influencing Travel Patterns

Given the focus of this development on the movement of freight, HPUK has deployed various initiatives to ensure that containers are moved in a way that is both efficient and avoids adverse effects on the environment. To this end, a major component of the development is the New North Rail Terminal (NNRT).

The Government encourages carriage by rail or water wherever possible. In general the larger and more freight intensive a development proposal, the more important the location will be and the more scope for modes other than road.

There are various other measures, which can influence both sustainable distribution and travel patterns and which are examined in the TA. These include:

- characteristics of the surrounding area;
- the likely timing of lorry movements;
- measures to promote efficiency (eg good quality delivery logistics); and
- the scope for carriage of construction materials by modes other than road.

The way in which these issues have been considered in the context of the Felixstowe South Reconfiguration is described principally in *Section 6*.

Transport Impacts

This is arguably the key part of the assessment, as it is the part of the TA which determines the acceptability of the proposals. Current TA best practice means that, in addition to providing a robust assessment of road traffic and rail impacts, the results should be presented under three of the five NATA criteria (as described in *Section 2.3*, below):

- accessibility (which should also include integration);
- safety; and
- environment.

Impacts have been considered in this TA with respect to both road traffic impacts and those specific impacts arising from increased use of the rail network. These are set in the context of national, regional and local transport policies appropriate to the Felixstowe South Reconfiguration.

A full Environmental Impact Assessment (EIA) has been carried out for the scheme, covering, amongst other things, the environmental impacts of changes in traffic due to the development.

Travel Plan

Travel Plans have an important role to play in reducing the level of vehicular traffic to either new developments or existing sites. The preparation of Travel Plans is being increasingly sought as part of planning consent for new developments.

Although the TA and any Travel Plan that is developed should be closely related, they are necessarily separate documents since the purpose of each is different. This TA report is submitted in support of the planning application, while the Travel Plan will be an evolving document, comprising at this stage only heads of terms and key initiatives. The issues covered in the TA are intended to informally provide the framework for the preparation of a successful Travel Plan.

Construction Impacts

As noted above, the potential impact on the highway network of the construction phase has been considered as part of this TA. The assessment

considers the period during which the generation of construction HGVs is expected to be greatest, which is assumed to occur during 2006 to 2007.

2.2 SOURCES OF INFORMATION

2.2.1 Surveys

Traffic surveys were conducted between 0630 and 0930 and between 1600 and 1930, to cover the AM and PM peak hours, on the stated dates at the following locations:

- A14(T)/A154 Walton Avenue roundabout (4 March 2003);
- A14(T)/A154 Candlet Road roundabout (4 March 2003);
- A14 (T)/Kirton Road intersection (14 May 2003);
- A14(T)/A12/A1156 intersection to the east of Ipswich (4 March 2003); and
- A14(T)/A12(T)/A1214 Copdock intersection to the south of Ipswich (14 May 2003).

These junctions were identified for modelling in consultation with the Highways Agency and Suffolk County Council. Turning movements were recorded continuously for the above mentioned times with vehicles broken down into classifications. In addition, automatic traffic counters (ATCs) were positioned at various locations on the A14(T) to provide continuous 7-day hourly traffic flows and speeds.

The raw data have been analysed to determine peak hour flows in total vehicles and HGVs. Traffic survey data have also been obtained from the Highways Agency's permanent survey site at Trimley Heath on the A14(T). These data were used to assess seasonal variation in flows on the A14(T).

2.2.2 Published Reports

A wide range of published information has been consulted throughout the TA process. Documents to which reference has been made include (but are not necessarily limited to) the following:

- EC White Paper on European transport policy, 2001;
- EU Green Paper on Ports Infrastructure, 1997;
- UK Transport White Paper, 1998;
- *Transport 2010: The 10 Year Plan*;
- *Modern Ports: A UK Policy*;
- the SRA's *Freight Strategy*, 2001;
- the SRA's *Strategic Plan*, 2002 and 2003;
- the SRA's *Appraisal Criteria*, 2003;

- the SRA's *Freight Progress Report 1*, 2003;
- the SRA's *Capacity Utilisation Policy*, 2003;
- *Everyone's Railway: The Wider Case for Rail*, 2003
- existing and emerging Regional Planning Guidance;
- SEAPLAG's ⁽¹⁾ *Regional Ports Strategy*, 2002;
- SEAPLAG's *Ports Demand Forecasting Report*, 2002;
- reports from Government multi-modal studies in the region;
- Suffolk Local Transport Plan, 2001-2006;
- Suffolk Coastal Local Plan, 2001; and
- the Highways Agency's *A14 Route Management Strategy*, 2001.

These documents, and their applicability to the Felixstowe South Reconfiguration, are described in detail in *Section 3* of this report. Various internet sources have also been used, and links are provided in this report as appropriate.

2.2.3 *Additional Material*

A wide range of other material has been used in this assessment. This includes:

- the masterplan developed for the scheme by HPUK and accompanying the planning application;
- other scheme information provided by HPUK and its consultants;
- accident records for the A14(T), provided by Suffolk County Council;
- details of current and potential rail improvements, obtained from the SRA; and
- information on other committed developments in the area.

2.2.4 *Consultation*

Regular meetings have been held with Suffolk County Council and the Highways Agency (the two highway authorities), the SRA and Network Rail. There have also been conversations with Suffolk Coastal District Council (the local planning authority). In addition, informal discussions have taken place with the key FOCs - Freightliner, GB Railfreight and EWS.

All of these bodies have been most helpful with respect to the provision of information.

(1) South East and Anglian Ports Local Authority Group

Government objectives for transport are set out in the Transport White Paper. These form the basis for NATA, and are as follows:

- **environment** - to protect the built and natural environment;
- **safety** - to improve safety;
- **economy** - to support sustainable economic activity and get good value for money;
- **accessibility** - to improve access to facilities for those without a car and to reduce severance; and
- **integration** - to ensure that all decisions are taken in the context of the Government's integrated transport policy.

NATA methodology was developed partly for use in the programme of multi-modal studies developed to assess different transport strategies throughout the UK. The methods are reported in a two-volume guidance manual ⁽¹⁾, referred to as GOMMMS, issued by the former Department of Environment, Transport and the Regions (DETR) in March 2000.

Central to the appraisal process is the Appraisal Summary Table (AST). This records the degree to which the five objectives, and their component sub-objectives, for transport would be met and provides a summary of the impacts of an option, including whether the impact in each category is generally beneficial or adverse and how large it is.

Under the likely new TA guidelines (and forming part of the Scottish TA guidelines ⁽²⁾), four of the objectives are to be assessed (with integration essentially forming part of the accessibility objective), to exclude economy. The aspects to be assessed are listed in *Table 2.1*. It is important to note that the purpose of the NATA appraisal described in this report is not to assess the whole Felixstowe South Reconfiguration, only the generated traffic.

(1) DETR (2000) *Guidance on the Methodology for Multi-modal Studies*, March.

(2) Scottish Executive (2002) *op. cit.*

Table 2.1 *Transport Assessment NATA Requirements*

| Objective | Sub-objective |
|------------------|--------------------------------|
| Environment | Noise |
| | Local Air Quality |
| | Greenhouse Gases |
| | Landscape |
| | Townscape |
| | Heritage of Historic Resources |
| | Biodiversity |
| | Water Environment |
| | Physical Fitness |
| | Journey Ambience |
| Safety | Security |
| | Accidents |
| Accessibility | Option Values |
| | Severance |
| | Access to the Transport System |
| Integration | Transport Interchange |
| | Land use Policy |
| | Other Government Policy |

2.4 *ROAD TRAFFIC IMPACTS*

A detailed assessment has been undertaken of the potential impacts of traffic generated by the proposed Felixstowe South Reconfiguration on the surrounding highway network. The methodology for this and the resulting analyses are described in *Annex C*.

The methods applied have been confirmed through consultation and meetings with the Highways Agency and their consultants and Suffolk County Council. This has included issues such as the assessment periods, types of traffic to be examined and the use of appropriate growth factors.

Information has been gathered from a wide variety of sources to enable a detailed picture to be built up of the volumes of different categories of traffic generated by the proposed development as well as by other committed developments in the surrounding area.

2.5 *RAIL IMPACTS*

Given the primary function of the proposed development as part of an existing container port, and the Government’s aspirations for the carriage of freight by rail (described in *Section 3.3*, below), the issue of rail movement associated with the scheme assumes great importance. The potential areas of concern relate partly to the ability of the rail network to accommodate additional trains generated by the development. However, an additional factor to be considered is the extent to which levels of road-borne freight

(principally on the A14) are themselves influenced by the amount of container traffic which is sent by rail (or other modes).

With this in mind the TA has included the following analysis with respect to the rail network and its predicted usage:

- the existing network and its main characteristics have been described (see *Section 4.3*);
- an appraisal has been undertaken of committed and other likely future improvements to the rail network and the implications these will have for the Felixstowe South Reconfiguration and elsewhere;
- a profile is provided of the expected movement of container traffic by rail at the Felixstowe South Reconfiguration up to the year 2023 (when demand will be effectively at capacity, as described in *Section 5.2*); and
- the calculated levels of rail traffic are applied to the future rail network to demonstrate the extent to which the network is likely to be able to accommodate future movements by rail to and from UK inland terminals.

2.6 *OTHER MODES*

Throughout the assessment consideration has been given to modes other than private car and HGV. A sustainability audit of the site has been undertaken and various means of promoting sustainable travel have been investigated, including the use of bus and cycling facilities. This is described in *Annex C*.

The off-site impacts of the proposed development with respect to pedestrian and cycle movements have also been investigated.

Alternative modes have also been considered during the construction phase of the development, in particular the use of rail and shipping to import and export construction materials and equipment.

2.7 *ENVIRONMENTAL IMPACTS*

The environmental impacts of development proposals are generally outside the remit of a TA, as they should be examined through the EIA process. In the case of the proposed Felixstowe South Reconfiguration, potential environmental impacts arising from traffic generated by the scheme will be associated principally with changes in noise and air quality from HGVs and other road traffic, as well as from diesel trains.

Whilst the NATA appraisal described above incorporates environmental issues into the AST, further more detailed work on the environmental impacts

of changes in traffic has been undertaken by Posford Haskoning and others, and reported in the ES for the scheme.

2.8

RISK ASSESSMENT

Offloading of large containers from ships, and subsequent transport by road and rail, is a relatively low risk process in cases where containers may contain hazardous substances.

A risk assessment for activities within the port has been undertaken and reported in the ES for the Felixstowe South Reconfiguration. For the purposes of this TA, the risk of hazardous release on the transport network has been considered.

3 *RELEVANT TRANSPORT POLICIES*

3.1 *INTRODUCTION*

Transport policy for the area is guided by a range of policies at the national, regional and local level. In some cases, this is also informed by policy set by the European Commission (EC). The way in which the proposed Felixstowe South Reconfiguration accords with transport policy is described in this section.

Particular emphasis has been placed on describing policies regarding the movement of freight, and the role which rail can play in this.

3.2 *EUROPEAN TRANSPORT POLICY*

3.2.1 *White Paper on European Transport Policy*

The White Paper, *European transport policy for 2010: time to decide* ⁽¹⁾, proposes an Action Plan aimed at bringing about substantial improvements in the quality and efficiency of transport in Europe. It serves as the EC's transport programme for the present decade and, amongst other things, outlines proposals to shift the balance between modes of transport through actions such as transport pricing.

Amongst some 60 recommendations is a policy to encourage the linking-up of the different modes of transport and promote rail, maritime and inland waterway transport. Although rail transport is promoted as the key strategic sector on which the success of the efforts to shift the balance between modes will depend, the White Paper also promotes the use of short sea shipping and the development of motorways of the sea.

Amongst the initiatives proposed in the White Paper is a programme to promote intermodality (known as the Marco Polo programme). One of the objectives for this is to support measures which will lead to substantial shifts from road to other modes.

The White Paper acknowledges that, whilst it will not be possible to establish a complete rail network reserved for freight, investment must encourage the gradual development of Trans-European corridors for priority or even exclusive use for freight trains. It further acknowledges that rail access to ports provides an essential link in multi-modal corridors giving priority to freight.

(1) Commission of the European Communities (2001) White Paper, *European transport policy for 2010: time to decide*, COM (2001), 370 final, Brussels, 12-9-01.

3.2.2 *European Union Green Paper on Ports Infrastructure*

The Green Paper of December 1997 ⁽¹⁾ is concerned with, amongst other things, the efficiency of ports and maritime infrastructure and their integration into the multi-modal Trans-European network.

The Paper notes the importance of ports as crucial connecting points, transferring goods and passengers between maritime and land-based modes. It highlights the fact that improved port efficiency will contribute to the integration of modes in a single system, on condition that there is interoperability and interconnection between systems.

3.3 *NATIONAL TRANSPORT POLICY*

3.3.1 *The Transport White Paper*

The White Paper, *A New Deal for Transport: Better for Everyone*, issued in July 1998, aims to create a better, more integrated transport system to tackle the problems of congestion and pollution. It commits to various targets and monitoring and sets out in detail the measures needed to secure change.

The Paper notes the importance of ports as a link in the supply chain and sets four key policies:

- to promote UK and regional competitiveness by encouraging reliable and efficient distribution and access to markets;
- to enhance environmental and operational performance by encouraging the provision of multi-modal access to markets;
- to make the best use of existing infrastructure, in preference to expansion wherever practicable; and
- to promote best environmental standards in the design and operation of ports, including where new development is justified.

It goes on to note that the SRA will be responsible for reviewing the scope for improving rail access to major ports and cites the work already started as part of the proposed Felixstowe to Nuneaton (F2N) rail scheme.

The White Paper strongly supports the objectives of the EC's Green Paper on ports and maritime infrastructure with respect to the integration of ports into the Trans-European network.

(1) Sea Ports and Maritime Infrastructure, European Commission Green Paper, COM (97) 678, 1997.

3.3.2

Transport 2010: The 10 Year Plan

The 10 Year Plan was published in July 2000 and picks up on a number of the themes described in the Transport White Paper. Put simply, its stated aim is to transform the UK's transport infrastructure over the next 10 years.

One of the Plan's objectives is to increase the use of the railway by freight with the aim of increasing rail freight's share of the market to 10% by 2010. This represents an increase of 80% in the total amount of freight carried by rail, or in other words a reduction of around 1 billion annual lorry trips. Gauge and capacity enhancements on F2N is highlighted as one of the projects that it is expected will be implemented during the life of the Plan.

A progress report on the 10 Year Plan was issued by the Department for Transport (DfT) in December 2002 ⁽¹⁾. This describes the work that has been achieved in the 18 months since April 2001. Amongst other things, the report notes the progress that has been made with respect to gauge clearance works for F2N.

3.3.3

Modern Ports: A UK Policy

Government policy for the UK's ports is guided by *Modern Ports: A UK Policy*, issued in November 2000. The aims of the ports policy are reiterated in the document, as being to promote:

- UK and regional competitiveness;
- high nationally agreed standards; and
- the best environmental practice.

The policy notes that pressure for expansion is greatest at container and Ro-Ro ⁽²⁾ ports.

It is noted that many shipping companies use UK ports for transshipping goods en route to or from other ports, which increases the range of markets available to UK customers and brings competitive benefits to industry. The document highlights Felixstowe as a port where over 30% of containers handled have been in transshipment, thus reducing the amount of goods that have to be moved inland.

The policy recognises that port expansion will inevitably generate inland traffic and it is a stated objective to improve access by forms of transport other than road vehicles. It is also recognised that it is in a port's interest to minimise congestion and delays on the surrounding road network so as not to detrimentally affect their customers' businesses.

(1) Department for Transport (2002) **Delivering Better Transport: Progress Report**, December, DfT Publications.

(2) roll on-roll off traffic

Three factors are highlighted as being essential for customers using roads to connect with ports. These are:

- good access to port facilities;
- clear connections from the port to the main road network; and
- good access through the network to and from their businesses and markets.

Growing ports are advised in the policy to work with local authorities to ensure sufficient capacity and traffic flows.

The importance of port freight to the railways is also noted, and the policy describes the factors important for customers using rail services. Essentially these are the same as for road users, viz:

- good access to port facilities;
- clear connections to the main network; and
- means of avoiding congestion and bottlenecks on the network.

The policy document stresses the Government's aim for more freight to be moved by rail and notes that not only are ports successfully moving in this direction but that rail freight operators are keen to win more rail business. The ability of the rail network to meet growing demand is highlighted as a challenge. A programme of priority freight routes linked with the deep-sea ports is described.

3.3.4 *SRA Policy Documents*

Freight Strategy, May 2001

The principal aim of the Freight Strategy developed by the SRA is to deliver the 80% growth in rail freight described in the Government's 10 Year Transport Plan. A number of principles are espoused in the strategy, including the following:

- that freight growth is essential, and not an optional extra;
- that the SRA's role in this context can be summarised as how they can help freight grow; and
- that the SRA needs to be proactive in the face of obstacles to growth.

The strategy highlights various constraints to securing rail freight traffic, amongst them the increasing use of 9'6" (or "S45") units, which require greater height clearance in tunnels, for example (see *Section 4.4.4*, below, for a more detailed description). The SRA, in its strategy, recognises that it must also address other important issues, including:

- the provision of new trunk route capacity;
- specific network connections; and
- the ability to respond to structural changes to freight markets, such as new port developments.

In considering enhancements for the trunk routes, the SRA's stated aim in the strategy is to provide W12 gauge, which allows all 9'6" units to be carried, thereby accommodating all deep-sea port traffic. It also notes that the network should eventually be capable of carrying trains up to a total of 775 m in length.

The strategy makes explicit reference to the capacity and gauge enhancement proposed for F2N. This is described as a Phase 1 project, which refers to schemes that are well developed and can be delivered within two to five years and which address some of the most immediate constraints for freight traffic. The scheme is designed to provide additional capacity for freight growth as well as relieving capacity on existing lines. The strategy describes the following work which is required to be undertaken:

- increasing line capacity, including some signalling and track modification;
- provision for continuous 24-hour operation; and
- gauge clearance to W12 gauge.

In general, the strategy notes that the SRA will plan ahead for the rail network (within value for money and affordability criteria) to serve new port capacity wherever this is ultimately provided.

Strategic Plan, January 2002

The Strategic Plan was published eight months after the Freight Strategy. It sets out a series of projects and timescales to deliver the targets set out in the Government's 10 Year Transport Plan and, not surprisingly, takes forward many of the themes of the Freight Strategy.

The plan makes specific reference to schemes designed to provide a national network of freight routes offering access to heavier, wider and higher freight trains throughout the day. It notes that the programme for F2N is being designed to allow works to be accelerated so that the heavier and wider loads can use it at the earliest available opportunity. The plan notes that design work has begun, together with smaller scale enhancements for early delivery. The programme for the scheme shows completion as being at 2010, with implementation starting in 2003.

Strategic Plan, January 2003

A revised version of the Strategic Plan was published in January 2003. It notes that freight tonne/km by rail have increased by 7.1% in the preceding year. It

also notes that the 80% growth target for rail freight, as well as general freight support, have been carried forward into the new plan.

The plan describes how the first phase of the F2N upgrade (regauging of the alternative route through London) will be implemented during 2003/4. It also highlights the fact that, in addition to Freightliner, EWS now operates out of Felixstowe. In addition, it notes that the ongoing upgrade of the West Coast Mainline (WCML) delivers the capacity for 60-70% more freight traffic.

It stresses the need to link key container ports to the WCML to make use of the capacity that is available. It notes the present priority being given to the London route from Felixstowe and Harwich and that the cross-country route (to Nuneaton) is still under development. It also notes that F2N will be upgraded for 650 m long trains, and not 775 m as described in the SRA's Freight Strategy.

At the time of writing, a revised Strategic Plan is due to be published in January 2004.

Appraisal Criteria: a Guide to the Appraisal of Support for Passenger and Freight Rail Services, April 2003

This guide describes the SRA's appraisal methodology for any changes to passenger rail or freight services supported by the SRA. It is based on the principles of NATA, as described in *Section 2.3*.

Freight Progress Report 1, May 2003

This report sets out the achievements in the first 18 months of the 10 Year Plan with respect to rail freight. It highlights key policy initiatives (such as the Company Neutral Revenue Support Scheme, described in *Section 6.5.2*, below), as well as advances in scheme development. These include the F2N gauge enhancement via London.

The report notes that rail freight is at its highest level since 1980. It highlights containers from deep-sea ports as one of the key Government sector targets. Increased capacity on trunk routes is noted as a priority to sustain rail freight growth.

The Port of Felixstowe is cited as an example of increased choice for FOCs, and the report describes how the SRA will continue to seek ways to establish rail connections to ports.

Specific reference is made to F2N, highlighting the fact that the project now includes gauge clearance on the route west of Nuneaton towards Birmingham. Although only gauge clearance via the London route is progressing at the time of writing, development work on gauge enhancement for the cross-country route via Peterborough is noted as being "close to reference design stage".

With respect to capacity for freight trains, the report notes that a Capacity Utilisation Policy (see below) is being developed for the network.

Capacity Utilisation Policy, June 2003

This policy document was developed with the principal aim of getting the best use out of existing rail network capacity. Amongst other things, it is designed to cater for significant freight growth on the network.

The report acknowledges that *“freight train operators typically hold significantly more paths than they use in practice”*, and that *“increased path take-up creates a potential opportunity for freight growth”*. It notes that analysis will be carried out on all routes, as part of Route Utilisation Strategies (RUS), in order to produce a train path specification. This has already been undertaken for WCML, but is not due to be completed for the Greater Anglia region - which includes Felixstowe and the Great Eastern Mainline (GEML) - until Spring 2005.

As part of the RUS for Greater Anglia, an assessment will be made of specific changes, such as planned developments at ports, in order to review, for example, the need to renew infrastructure. The report notes that, as part of the implementation plan:

“Each RUS is likely to comprise a list of service pattern changes which the SRA will seek to effect.....If infrastructure enhancements are needed and can be afforded, the SRA will seek to agree arrangements for their delivery with Network Rail.”

Everyone’s Railway: The Wider Case for Rail, September 2003

This document describes the contribution that the railway makes to Britain and covers both the passenger and freight networks.

With respect to freight, it notes the rapid increase in deep-sea and other maritime container trade and cites the fact that several ports are proposing increases in terminal capacity. It goes on to state:

“Rail will need to be capable of carrying the larger size of containers.....Solutions will be required if the railway network loading gauge is not to constrain growth. Positive steps are being taken. By October 2004 there will be a fully cleared route for the bigger containers from the ports of Felixstowe, Harwich and Tilbury via London to the West Coast Main Line.”

3.4 REGIONAL POLICY

3.4.1 Existing Regional Planning Guidance

The current, relevant Regional Planning Guidance (RPG) for the proposed Felixstowe South Reconfiguration is RPG6, Regional Guidance for East Anglia (November 2000). The RPG states at paragraph 2.9 that:

“Felixstowe, together with nearby Harwich in Essex, is a port of global significance and there are a number of smaller but important ports – Great Yarmouth, Ipswich, Lowestoft, Kings Lynn and Wisbech.”

The existing Regional Guidance for the South East (RPG9) also has some relevant comments. It states at paragraph 9.21 that the Government’s ports policy document will develop a strategy following on from the Transport White Paper, but it is noted that *“the reliable and efficient distribution of goods depends in part upon a vigorous ports industry”*. Policy T7 states that:

“The sustainable development of sea ports and port facilities (including road and rail access), should be supported for international deep sea, short sea and coastal shipping”.

3.4.2 Consultation on Options Leading to RPG14 for the East of England

In November 2002 the East of England Local Government Conference (EELGC) issued a consultation document for RPG14. This is the first step towards a 20 year strategy for the region covering, amongst other things, transport and the environment. This RPG will eventually replace both RPG6 and RPG9.

EELGC have a stated target of doubling rail freight by 2010, and quadrupling it by 2020 ⁽¹⁾.

The consultation RPG notes (at paragraph 2.10) that the East of England’s ports *“play a significant role in the movement of people and freight between the UK and the rest of the world”*. Amongst its objectives is the aim:

“to ensure that infrastructure programmes....will meet current deficiencies and development requirements; and that the responsible agencies commit the resources needed to implement these programmes” (paragraph 3.6).

It notes also (at paragraph 7.30) that:

“particular focus may be needed on the ‘Haven Gateway’ [and that] the Haven Ports are an emerging economic driver for this part of the region”.

On the specific issue of freight, the consultation RPG states that:

“policies will be designed to promote a fully integrated freight distribution system which makes the most efficient and effective use of road and encourages the carriage of freight by rail and water (paragraph 10.57).

Paragraph 10.64 of the document goes on to state that:

(1) Rail Freight Meeting – Haven Ports, 6 November 2002.

“policy will be developed to support the sustainable development of seaports and ports facilities for international, deep sea and coastal shipping”.

The timing for the RPG is that a draft will be published for consultation in early 2004. After a public examination, the final RPG14 is expected to be issued in mid 2005.

3.4.3 *South East and Anglia Ports Strategy, July 2002*

The Regional Ports Strategy was undertaken for the South East and Anglian Ports Local Authority Group (SEAPLAG) to provide strategic planning and transport guidance for the sustainable development of ports and related infrastructure in the East of England, the South East and London ⁽¹⁾. The aim is to include this guidance in Regional Planning Guidance, Regional Transport Strategies and the Mayor’s Spatial Development and Transport Strategies for London. The strategy provides a 15 to 30 year framework for investment and planning.

The strategy highlights as critical the availability of reliable and efficient landside transport networks. It notes that the potential role of rail at some ports is under exploited.

3.4.4 *SEAPLAG Ports Demand Forecasting Report, 2002*

This report analyses recent trends in usage of ports in the region and develops forecasts of future port usage for 2011 and 2016, for both freight and passenger traffic. It is based on a strategic level study and, as such, does not purport to provide a detailed analysis of demand at each individual port.

On the subject of inland traffic movements, the report notes that:

“The SRA aim is to focus most investment on those lines with a strong potential for rail freight growth, rather than dissipate it more thinly across access to the whole port system. That is why these investments are closely tied to three of the main container ports since these have the greatest potential for increases in rail traffic. The investments are to ensure that these growth opportunities are not lost because of rail capacity restrictions.” (p 49)

3.4.5 *Our Environment, Our Future: the Regional Environment Strategy for the East of England, July 2003*

This report was produced by a joint working group representing the East of England Regional Assembly and the East of England Environment Forum. It forms part of an overall Integrated Strategy for the region.

One of its strategic aims is to *“reduce the need to travel and achieve a switch to more sustainable modes of transport”* (SA2). It recognises the importance of

(1) The findings of this report were subsequently criticised by the British Ports Association (BPA) and the UK Major Ports Group Ltd (UKMPG) for, amongst other things, lack of consultation with the ports industry.

major ports , such as Felixstowe, and recommends that “major improvements..... be made to the rail network, especially east-west links” (p 35).

3.4.6 *Multi-modal Studies*

Overview

Multi-modal studies have been undertaken by regional Government Offices throughout the UK to determine priorities for major transport investment within particular study areas or route corridors. Three such studies potentially have a bearing on the proposed Bathside Bay development, as described below.

The methods for undertaking the studies are defined in GOMMMS ⁽¹⁾ , and are based on the principles of NATA. Some 35 of these studies have been undertaken across the country.

Cambridge to Huntingdon

The Cambridge to Huntingdon Multi-modal Study (CHUMMS) was commissioned principally to address transport problems on the corridor between Cambridge and Huntingdon, concentrating on the A14. However, it was recognised that the area of influence included the axis between the east coast ports and the M1 and M6 motorways.

The study reported its findings in August 2001. Its principal recommendations include the following:

- provision of a guided bus system on the disused Cambridge to St Ives railway corridor;
- widening part of the A14 to dual-3 lane and improvements where necessary, on its existing line between the junction for Horningsea/Fen Ditton and an appropriate point to the east of Fenstanton, which would include the Cambridge Northern Bypass;
- construction of a new dual 3-lane carriageway to the south of Godmanchester, Huntingdon and Brampton to rejoin the A14 to the west of the A1;
- improvements to the junctions of the A14 with the B1049 (Histon) and the A10 (Milton) as part of the proposals for widening of the Cambridge Northern Bypass;
- construction of parallel roads alongside the widened section of the A14 between the point where it begins (East of Fenstanton) and the Girton Interchange (Junction 14 of the M11);

(1) DETR (2000) op. cit.

- the provision of extra links and slip roads at M11 Junctions 13 and 14 to enable more movements to take place at those junctions - these changes would enable the large number of existing accesses off the A14 to be reduced and would lower the amount of traffic passing through some villages; and
- consideration be given to an Eastern Bypass of Huntingdon.

The Final Report notes that the F2N route will be enhanced for freight, with the result that significantly more containers will be able to access the Haven Ports: this is seen as a vital contribution to the 10 Year Transport Plan's target for an 80% increase in rail freight volumes. The study declares support for the F2N proposals and calculates that lorries on the A14 could be reduced by some 4% as a result ⁽¹⁾.

On 1 April 2003 the Transport Secretary, Alistair Darling, approved a £490 m project to improve road safety and reduce congestion on the A14 between Cambridge and Huntingdon, in response to CHUMMS. The project to build a dual three-lane carriageway will involve widening parts of the A14, and providing a new route from Fenstanton to Ellington in Cambridgeshire, including a southern bypass of Huntingdon.

London to Ipswich

The London to Ipswich Multi-modal Study (LOIS) commenced in September 2000 and reported its findings at the end of 2002. The study area for LOIS is roughly bounded by the M11/A11, the A14 and the sea, with the core study area focused on the A12 from the M25 to Ipswich, the A120 between Colchester and Harwich and the GEML.

The study's four main objectives were as follows:

- to create opportunities for modal shift from the car;
- to improve the management of freight;
- to protect and enhance the built and natural environment; and
- to facilitate economic growth and regeneration.

The recommendations of the study include the following:

- dualling of the A120 between Hare Green and Harwich;
- dualling of the A120 between Braintree and the A12;
- widening the A12 to six lanes between the M25 and A120 (Ardleigh junction); and

(1) The Rail Freight Group (the representative body of the rail freight industry), in its comments on the CHUMMS Final Report, has expressed concern about the lack of encouragement given in the study to cause modal shift of freight from road to rail in the A14 corridor.

- further widening of the A12 north of the A120 (Colchester to the Copdock roundabout).

The study also recommends road user charging along the A12 after 2011, in line with a number of other multi-modal studies.

On 9 July 2003 the Transport Secretary announced that further development work was required on the following projects:

- A12/M25 Brook Street interchange;
- A12 widening (M25 to Chelmsford);
- A120 Braintree to Marks Tey dualling; and
- A12 Chelmsford to A120 Ardleigh interchange.

London to South Midlands

The London to South Midlands Multi-modal Study (LSMMMS) covers a very large study area from the M25 in the south, to an area just south of Rugby and Peterborough. It focuses on three major north-south corridors: the M1/WCML/Midland Mainline; the A1/East Coast Mainline (ECML); and the M11/West Anglia Mainline. Two further key corridors considered in the study are the A14 (west of Huntingdon and east of Cambridge) and the A421/A428 corridor, which also includes the proposed East-West Rail scheme.

Work on LSMMMS concluded in January 2003 and, at the time of writing, its recommendations are with the Government Office for the East of England for its consideration. Amongst the study's key recommendations are:

- a programme of motorway and trunk road widening including M1 Junctions 6a to 13, M11 Junctions 8 to 14 and A14 from M1 to east of Cambridge;
- a series of key bypasses;
- expansion of rail services on existing north-south lines, to facilitate both passenger and freight movement;
- providing new rail services between Bedford and Northampton, and between Oxford, Milton Keynes, Bedford and Cambridge; and
- additional measures to reduce over-reliance on the car and encourage use of public transport, including better bus/rail integration and new parkway stations.

On 9 July 2003 the Transport Secretary approved the following schemes:

- Dunstable Northern Bypass (A5 to M11 link);
- M1 Junctions 6a to 10;

- M1 Junctions 10 to 13; and
- A421 Bedford to M1 Junction 13.

The Transport Secretary also announced that further development work was required for a number of schemes, including the A14 Kettering Bypass widening.

3.5 *LOCAL TRANSPORT POLICY*

3.5.1 *Overview*

Relevant local transport policies are outlined below. The Suffolk Coastal Local Plan 2001 is the statutory development plan for the area. County-wide transport policies are outlined in the Suffolk County Council Local Transport Plan (LTP) 2001-2006.

3.5.2 *Suffolk Coastal Local Plan Strategy and Policy, February 2001.*

Roads

Neither Suffolk County Council, as highways authority, nor the Highways Agency currently have any major proposals for improving the road network within the Felixstowe Peninsula (Suffolk Coastal Local Plan (SCLP) 11.29).

Any new road should not be located in open countryside, especially in the Area of Outstanding Natural Beauty (AONB) (Policy AP172) (SCLP 11.31).

Policy AP172

Felixstowe: Felixstowe Port – Protection of the AONB

In order to safeguard the landscape of the Orwell Estuary in general, and the AONB in particular, the District Council will oppose any third port access route and any development, other than that which may be permitted to complement the provisions of the Felixstowe Dock and Railway Act, 1998 and its associated legal agreements, on open countryside to the west of the dock spur rail link defined as an area whose character is to be protected, and as an AONB on the Proposals Map.

Driver Facilities

It may be necessary to provide an area for lorry parking and associated driver facilities. This is a direct consequence of the number of container lorries to/from the port. Ideally a site would be adjacent to or within the port (SCLP 11.33). This is a requirement in Policy AP176.

Policy AP176

Felixstowe: Clickett Hill

Unless adequate facilities can be provided elsewhere in accordance with other policies contained in the Local Plan, development at this site should take place

in accordance with a master plan and shall also include provision for the development of lorry parking and associated facilities commensurate with the needs of the Port. The location of this provision within the development shall depend on the scale of the proposal and its impact on landscape and residential amenity

Policy AP79

Lorry Facilities

Proposals for roadside facilities for lorries and their drivers, including lorry parks, will not be permitted in the countryside, nor on sites likely to have an adverse impact on residential amenity or the environment.

Cyclists

At a neighbourhood level, major developments offer a significant opportunity to provide new cycle routes. It is proposed that within relevant developments developers will be expected to include appropriate measures for cyclists. It is proposed that cycle parking should be provided at all places of employment.

Policy AP82

Provision for cyclists

All major developments (1 ha or more) will be required to incorporate safe and convenient provision for cyclists and to make this an integral part of the design and layout of the development. In addition, all appropriate development will be required to include facilities for cycle parking.

Pedestrians

Safe and attractive pedestrian links should be provided throughout the development site and to adjacent routes and facilities (Policy AP83, Provision for Pedestrians)

Railways

The Ipswich to Felixstowe line has a station at Trimley St Mary. The Felixstowe branch line must provide a passenger service to tourists and residents, as well as serving freight traffic, with a sustainable mode of transport. Public transport between the station and Felixstowe is essential (SCLP 5.29).

Policy AP84

Rail Services

The District Council will seek to protect the sites of existing and potential rail freight terminals from developments that would hinder or preclude their use as such, unless it is satisfied that the site, or part thereof, is surplus to requirements, offers no other uses related to sustainable transport, and a planning benefit would be gained through permitting an alternative use.

Bus Service

The District Council will encourage the retention or improvement of bus services. The need for bus routes and stops will be taken into account when considering new developments proposals.

Policy AP85

Bus services

On major developments where justified, the Council will expect a development “package” to cater for bus services, for example, through provision of stops, shelters, lay-bys and/or in the form of contributions towards the creation or enhancement of bus services.

Felixstowe Port

The Felixstowe Dock and Railways Act 1988 stipulates that the company could develop land for the construction of quays and related port developments, requiring prior approval from the Secretaries of State for the Environment and Transport for any development on land and mudflats designated as AONB / Site of Special Scientific Interest (SSSI) (SCLP 11.58).

Dock related development on Trimley Marsh and any associated works such as building bunds, landscaping and work on the nature reserve must occur concurrently with the quay development (SCLP 11.60).

No further developments will be allowed on Trimley Marshes (SCLP 11.61).

Policy AP173 stipulates that commercial development on any significant scale will need to be considered on a comprehensive basis, in the context of adjacent development and access to the primary route network.

3.5.3 Suffolk County Council Local Transport Plan

Freight

The Suffolk County Council LTP details the opportunity that exists at Felixstowe to transfer freight from road to rail. This would be encouraged (Suffolk County Council LTP 12.1.2).

A county-wide Lorry Route Network has been identified and will be guided by the Lorry Management Plan. This will:

- encourage heavy vehicles onto the most appropriate road by use of judicious traffic management measures;
- identify strategic zones; and
- provide local access lorry routes.

It is considered that these measures will achieve the following aims:

- increase road safety;
- minimise the impact on roads;
- influence highways and bridge maintenance;
- discourage unnecessary movements in environmentally sensitive areas;
- identify high accident rate locations; and
- discourage overnight parking in unsuitable locations.

Road Safety

The 1997 to 1999 accidents rates have been identified on A class rural roads in Suffolk and are shown in Table 7.1 of the LTP. The table lists 33 sections of road in Suffolk in order of the accident rate. The A14 from Copdock to Dock Gate 1, at Felixstowe Port, is number 31 with an accident rate of 2.62 accidents per 100 km. The accident injuries consisted of two fatal, eight serious and 47 slight.

The other road that may be affected by the development is the A154. This has been identified in the Local Safety Scheme Programme. Six accidents have occurred on the A154 at the Dock Gate 2 roundabout between 1995 and 1998. A total of £25,000 will be spent on safety features for this section of road.

The strategies to be employed to enhance safety include:

- Offering road safety education, training and publicity.
- Priority sites for accident investigation. A list is produced annually to identify the locations with the worst accident records.
- Local Safety Schemes. Sites are selected from the priority list, as a result of recent studies, or from public concern. £940,000 will be spent on 26 Local Safety Schemes within Suffolk during the financial year 2000/2001. Improvement can take many forms, such as speed cameras, resurfacing and Safety to School projects. The schemes are mainly aimed at reducing casualties amongst vulnerable road users such as pedestrians and cyclists.

Public Transport

PT2 Bus Services: Small Towns

In towns in the population range 10,000 to 30,000 the county council will develop and seek to ensure Minimum Level Service.

Suffolk County Council envisages a bus service from Ipswich to Felixstowe with a frequency of 30/60 minutes in the next five years, and every 15/30 minutes in five to 10 years time.

PT4 Passenger Rail Services

The County Council will seek to improve the frequency and quality of passenger train services to meet the needs of Suffolk residents and visitors, and the improvement of track, signalling and stations necessary to achieve this.

The Council envisages a rail service from Ipswich to Felixstowe with a frequency of 30/60 minutes in the next five years, and 15/30 minutes in five to 10 years time.

No reference is specifically made to Felixstowe Port in the LTP with regard to public transport.

3.6

CONCLUSIONS

It is clear that efficient and reliable accessibility to new container ports is crucial. The Transport White Paper of 1998 highlights the importance of ports in the supply chain and notes in particular the need to make full use of existing infrastructure. Both the White Paper and the Government's subsequent 10 Year Transport Plan stress the need to improve rail access to major ports and highlight the development work being done by the SRA in respect of links to the Haven Ports.

In this context, the Felixstowe South Reconfiguration enjoys a number of strategic location benefits:

- it is situated within the existing Port of Felixstowe, a nationally and internationally important multi-purpose freight port, strategically located in the south east of the UK;
- it has direct access onto the A14(T), part of both the national trunk road network and the European Union's Trans-European Transport Network; and
- it links directly into the national rail network, providing access to markets throughout the UK via a number of routes.

Government policy for ports is guided by *Modern Ports: A UK Policy*. This recognises that port expansion will inevitably generate inland traffic. Three factors are highlighted as being essential for port customers, with respect to both road and rail facilities:

- good access to port facilities;
- clear connections to the road and rail networks; and
- good access to markets, avoiding congestion and bottlenecks.

The proposed Felixstowe South Reconfiguration is in a unique position as an expanded container facility to take advantage of the advantages offered by its

location in Harwich Haven. In addition, HPUK has been careful to make the most of the siting of the development and the way in which it links into the national and local transport networks.

The SRA has a clear remit to promote the use of railways and secure the development of the network. In its Freight Strategy of 2001, the SRA promotes the provision of new trunk route capacity and recognises the need to respond to new port developments by planning ahead for the rail network. It makes specific reference to routes into and out of Harwich and Felixstowe. This is also reflected in the SRA's first Freight Progress Report of May 2003.

The SRA's Strategic Plan was issued in 2002, and revised in 2003. This focuses on the need to link key container ports to the WCML. The stated policy of the SRA is to deliver an 80% growth in the use of rail freight by 2010/2011. The SRA's initiatives to achieve this include upgrading key routes to and from the UK's major ports, including the Haven Ports.

There are various initiatives to improve the road infrastructure linking the Haven Ports to the rest of the national trunk road network. The Highways Agency's Route Management Strategy for the A14(T) includes a number of high priority actions. The London to South Midlands and Cambridge to Huntingdon Multi-modal Studies also recommended a series of upgrades for the A14(T).

Local policies recognise the importance of further development at the Port of Felixstowe and seek to improve the adjacent transport infrastructure.

4 BASELINE TRANSPORT CONDITIONS

4.1 INTRODUCTION

This section of the report is concerned with existing, and future baseline, travel characteristics associated with the proposed development. It deals primarily with accessibility to the development site by different modes, describing the existing situation as well as outlining any transport developments which are expected to take place in tandem with the proposed scheme.

Brief reference is also made herein to measures that are being developed to promote a choice of access to the site, although this subject is covered comprehensively in *Section 6*, under the heading of "Mitigation", and also in *Annex C*.

4.2 THE HIGHWAY NETWORK

4.2.1 *Role of the Highway Authorities*

The Highways Agency was created in 1994. It is the executive agency responsible on behalf of the Secretary of State for Transport for the management, maintenance and improvement of the trunk road (designated "T") and motorway network. The Agency's key objective is to make better use of the existing network through various measures, including active traffic management and network control measures.

Under Section 1 of the Highways Act 1980, Suffolk County Council is the highway authority for all highways in the county except trunk roads and motorways.

4.2.2 *The Existing Network*

The main road to be potentially affected by road vehicles associated with the development is the A14(T) (see *Figure 1.1*). The A14(T) is a dual carriageway trunk road that runs from the M6/M1 junction in the West Midlands, to Felixstowe in the east.

The A14(T) carries up to around 25,000 vehicles per day on the section between Felixstowe and the junction of the A12(T) to the south east of Ipswich and up to around 42,000 vehicles per day on the section between the A12(T) junction to the south east of Ipswich and the A12(T) junction to the south west of Ipswich ⁽¹⁾. A large proportion of these vehicles comprise HGVs and other vehicles travelling to and from the port.

(1) Highways Agency (2001) **A14 Route Management Strategy**, February.

The A14(T) therefore performs an important national function for the movement of freight and passenger traffic travelling between the Port of Felixstowe and the national road network. It provides for the movement of abnormally heavy, wide and high vehicles to and from Felixstowe and is also the main route between Felixstowe and other towns in the region.

Access to Landguard Fort is gained via View Point Road (as shown in *Figure 1.2*). This is a single carriageway with limited provision for pedestrians. It forms part of the national cycle network and is not an adopted highway.

4.2.3 *Baseline Traffic Flows*

Typical baseline flows on indicative sections of the A14(T) are shown in *Table 4.1*.

Table 4.1 *Baseline PM Peak Traffic Flows (2-way) on the A14(T)*

| RoadSection | AM Peak | % HGVs | PM Peak | % HGVs |
|---|----------------|---------------|----------------|---------------|
| A14(T) Port of Felixstowe Road between Trinity Avenue and the Candlet Road Junction | 1003 | 28 | 1437 | 28 |
| A14(T) Port of Felixstowe Road between the Candlet Road and the Kirton Road Junction | 1111 | 26 | 2380 | 18 |
| A14(T) Port of Felixstowe Road between the A14(T) / A12 / A1156 junction and the A14 / A1189 junction | 1504 | 28 | 3125 | 20 |
| A14(T) between the A14(T) / A1189 Junction and the Orwell Bridge | 1800 | 25 | 3510 | 17 |
| A14(T) between the A14(T) / A137 Junction and the A14(T) / A12 / A1214 Junction | 1437 | 28 | 3300 | 18 |

It can be seen from the table that HGV content along the A14(T) varies between about 18% and 28% of the overall flow.

4.2.4 *Proposed Road Improvements*

The Highways Agency is preparing measures to reduce traffic speeds at the A14(T)/A154 Candlet Road roundabout, as discussed in *Section 4.2.5*, below.

4.2.5 *Accident Data*

Accident records have been obtained for the A14(T) and relevant local roads within the study area. These are discussed below.

At the A14(T)/A154 Walton Avenue roundabout, four slight accidents and one serious accident occurring during the 5-year period from 1 July 1998 to 30 June 2003. There are no common factors between the accidents. Road safety at this location gives rise to no particular cause for concern.

At the merge and diverge facilities at the A14(T)/A154 Trinity Avenue junction, three personal injury accidents occurred. None involved HGVs. Road safety at this locations gives rise to no particular cause for concern.

At the A14(T)/A154 Candlet Road roundabout, 19 personal injury accidents (including one fatality) occurred during the 5-year study period. Of these 11 involved HGVs overturning, one involved a collision between a jack-knifing HGV and a car and seven involved cars only. The HGV overturning incidents occurred at the rate of two per year (other than in 2001, when three occurred) throughout the period. The accident rate at this junction is more than twice as high as is predicted by the accident prediction model in the Design Manual for Roads and Bridges ⁽¹⁾. Currently the roundabout and its approaches have the following measures to address this situation:

- yellow bar markings on approaching carriageways; and
- warning signs and advisory speed limit at the roundabout.

The Highways Agency is preparing additional measures to reduce vehicle speeds at this junction, currently expected to include reinforcement of the yellow bar markings, the introduction of speed-actuated warning signs on the A14(W) approach and the removal of the left-turn filter lane from the A14(S) to A14(W).

Further details are given in *Annex C*.

4.2.6 *Sensitive Receptors*

Receptors ⁽²⁾ in the vicinity of the road network serving the Port of Felixstowe are varied. Residential areas lie alongside both the A154 and parts of the A14(T). Along the A14(T) between Nacton and Felixstowe, there are close to 2,000 residential properties within 300 m of the road⁽³⁾. Peewit Caravan Park is located near to Dock Gate 1 roundabout, and commercial and industrial properties can be found alongside the A154 and A14(T). Dock Gate 2 is remote from residential areas.

4.3 *THE RAIL NETWORK*

4.3.1 *Role of the Rail Authorities*

The SRA was established under Section 201 of the Transport Act 2000 and became fully operational on 1 February 2001. Section 205 of the Act provides that the purposes of the SRA are to:

(1) Highways Agency **Design Manual for Roads and Bridges** Volume 13, Section 1 Part 2 Chapter 5

(2) in the context of this report, a receptor is taken to be mean residents, or others, who are likely to be sensitive to significant changes in traffic

(3) Highways Agency (2001) *op. cit.*

- promote the use of the railway network for the carriage of passengers and goods;
- secure the development of the railway network; and
- contribute to the development of an integrated system of transport passengers and goods.

Under the Transport Act, the SRA has powers to enter into agreements or other arrangements for the purpose of securing the provision, improvement or development by others of any railway services or railway assets.

Operations and maintenance of the rail network are ultimately the responsibility of Network Rail. Network Rail acquired Railtrack plc in October 2002. Network Rail is responsible for maintaining the track, signals, tunnels, bridges, viaducts, level crossings and stations comprised in the national rail network. For network enhancement purposes, Network Rail essentially has the role of contractor and (to some extent) advisor to the SRA.

4.3.2 *Overview of Existing Network*

The rail network already serves the Port of Felixstowe, via the Trimley branch line and its extension to the South Rail Terminal, which joins the larger Ipswich-Felixstowe line at Trimley (see *Figure 4.1*). The Ipswich-Felixstowe line links to the GEML and allows the port to serve markets throughout the UK via London and the WCML.

The Suffolk LTP describes how recent improvements to the Felixstowe branch line have increased the capacity of freight movements. Recent re-signalling, together with the installation of a passing loop, have increased freight capacity on the line as far as Ipswich to at least 32 movements each way per day, still allowing for an hourly passenger service. At present there are up to around 20 two-way freight movements a day.

From Ipswich, the GEML heads generally west towards London, where it links into the North London Line (NLL), and north through Suffolk and Norfolk to Norwich. At Stowmarket, a cross-country route heads off through Bury St Edmunds, Newmarket, Ely, Peterborough and Leicester, towards Nuneaton, where it joins the West Coast Mainline (WCML).

Section 4.4, below, describes in more detail the principal components of the rail network between Port of Felixstowe and the main inland terminals.

4.3.3 *Sensitive Receptors*

Receptors adjacent to the rail network which accesses the Port of Felixstowe will be potentially vulnerable to noise and air quality impacts. As such, these receptors are described in detail in the ES for the scheme. Residential

receptors include properties adjacent to the South Rail Terminal spur (such as Runnacles Way) and housing to the south of Trimley St Mary.

4.4 INLAND FREIGHT DISTRIBUTION

4.4.1 Introduction

It is important for a TA to be able to address any freight and distribution aspects of a new development. Whilst this would be a key issue for any major development (with respect to deliveries, servicing etc), it is particularly so in the case of a new or expanded container port, relying as it does on significant movements of freight into and out of the development.

Government objectives for freight are outlined in the previous section of this report. These acknowledge that good access by road and rail is essential for customers using ports. In recognition of this, gauge clearance works are currently underway on the London alternative to F2N, in order to allow for freight growth and for larger containers to be moved between the Haven Ports and WCML (which is already cleared). The gauge on the London route out of the Haven Ports (see *Section 4.4.5*, below) will be upgraded by the end of 2004 – this will enable movement of 9'6" boxes on standard wagons from both Felixstowe and the proposed Bathside Bay development.

Overall, Government wishes to encourage a significant increase in the amount of freight moved by rail by 2010. As noted in *Section 3*, these objectives are supported by both regional and local policy.

4.4.2 Freight Movement by Road at the Port of Felixstowe

The Port of Felixstowe is the UK's largest container port. At present, some 1.68 million TEUs per year are moved to and from the port by road. This represents around 81.5% of the total inland traffic (once transshipment has been removed).

4.4.3 Rail Freight Movements at the Port of Felixstowe

Rail connections at the port are good and markets can be accessed throughout the UK via a number of routes on the national network (as described below).

The booked freight trains that currently arrive at and leave the port via the two existing rail terminals (north and south) are set out in *Tables 4.2 to 4.5*, below.

Table 4.2 *Train Arrivals at North Terminal*

| Time | Head Code | Operator | Origin (no. of wagons) |
|-------------|------------------|----------------------|-------------------------------|
| 0125 | 4L79 | Freightliner (FL) | Cleveland (17)/Doncaster (8) |
| 0220 | 6L79 | GB Railfreight (GBR) | Hams Hall (20) |
| 0407 | 4L60 | FL | Liverpool (22) |
| 0649 | 4L82 | FL | Manchester (24) |
| 0738 | 4L58 | FL | Birmingham (19) |
| 1026 | 4L56 | FL | Cardiff (17) |
| 1115 | 4Y79 | FL | Tilbury (20) |
| 1426 | 4L89 | FL | Coatbridge (19) |
| 1629 | 4R82 | FL | Manchester (8) |
| 2023 | 4L75 | FL | Manchester (12)/Seaforth (4) |
| 2030 | 6L72 | GBR | Selby (20) |
| 2335 | 4L92 | FL | Ditton (22) |

Table 4.3 *Train Departures from North Terminal*

| Time | Head Code | Operator | Destination (no. of wagons) |
|-------------|------------------|-----------------|------------------------------------|
| 0140 | 6M73 | GBR | Selby (20) |
| 0205 | 4E58 | FL | Leeds (18) |
| 0348 | 4M45 | FL | Ditton (21) |
| 0445 | 6E78 | GBR | Hams Hall (20) |
| 0815 | 4R90 | FL | Tilbury (19) |
| 1147 | 4M87 | FL | Manchester (24) |
| 1343 | 4M93 | FL | Birmingham (20) |
| 1547 | 4S88 | FL | Cleveland (4)/Coatbridge (19) |
| 1905 | 4E60 | FL | Leeds (24) |
| 2100 | 4M53 | FL | Manchester (24) |
| 2204 | 4M42 | FL | Liverpool (22) |

Table 4.4 *Train Arrivals at South Terminal*

| Time | Head Code | Operator | Origin (no. of wagons) |
|-------------|------------------|--------------------------------|-------------------------------|
| 0004 | 4L90 | FL | Birmingham (20) |
| 0313 | 4L71 | FL | Ditton (24) |
| 0726 | 4L69 | FL | Birmingham (20) |
| 0928 | 4L83 | FL | Leeds (24) |
| 1530 | 4R78 | FL | Manchester (14)/B Dock (4) |
| 1630 | 4R81 | English Welsh & Scottish (EWS) | Widnes (17) |
| 1745 | 4L85 | FL | Leeds (19) |
| 2032 | 4R08 | FL | path not used frequently |
| 2330 | 6E45 | EWS | Wakefield (17) |

Table 4.5 Train Departures from South Terminal

| Time | Head Code | Operator | Destination (no. of wagons) |
|-------------|------------------|-----------------|---|
| 0315 | 6L55 | EWS | Wakefield (17) |
| 0357 | 4M86 | FL | Birmingham (20) |
| 0833 | 4M81 | FL | Manchester (11)/B Dock (4)/ Seaforth (4) |
| 1436 | 4V30 | FL | Cardiff (18) |
| 1635 | 4E50 | FL | Doncaster (12)/Cleveland (8) |
| 1747 | 4M92 | FL | Birmingham (20) |
| 2127 | 4M73 | FL | Ditton (20) |
| 2150 | 4Z23 | EWS | Widnes (17) |

4.4.4 Securing Rail Freight Growth

Overview

As noted elsewhere in this report, it is the expectation of both HPUK and the SRA that a significant level of future container traffic at the Port of Felixstowe will be taken on the rail network, in line with current practice at the port and elsewhere in the UK.

There are two potential constraints to securing significant levels of additional rail freight traffic: gauge clearance and line capacity. These factors are recognised throughout the rail and ports industries and are discussed below.

Gauge Constraints

The UK loading gauge cannot currently accept all deep-sea containers on standard height wagons. At present, the majority of containers in use in the UK are 8'6" in height. However, increasingly 9'6" (sometimes referred to as "S45") units are being carried. These require greater height clearance in tunnels, and sometimes increased width, and much of the rail network is not equipped to deal with them.

Some 58% of all containers processed at the port are 40 foot in length (ie 2 TEUs) ⁽¹⁾, a figure which is growing, and of these, just over 40% were 9'6" boxes. This latter percentage is also estimated to increase over the coming years, and it has been estimated that in approximately eight years' time nearly all 40' boxes will be 9'6" ⁽²⁾.

To obtain the extra height required for 9'6" boxes, it is necessary to either increase the available height above the track, for example by raising bridges or lowering track, or to use special low floor wagons. These are in short supply and are also relatively expensive to build and maintain. Furthermore, the amount of train length needed to carry larger containers increases significantly over that required for smaller boxes.

(1) HPUK, personnel communication

(2) based on the fact that the life of a container is eight years and virtually all new 40 foot containers are 9'6"

The gauge which allows 9'6" boxes, 2 500 mm wide, on standard flat wagons is termed "W10". W12 allows the same height, but wider (up to 2 600 mm). The SRA strategy gives priority to port traffic and effectively, therefore, clearance to up to W12. Any new or completely rebuilt structures as part of the strategy will also allow for W18 ("piggyback") gauge ⁽¹⁾ .

For indicative purposes only, *Table 4.6* illustrates the maximum height and width of container that can be carried on a standard wagon with a deck height of 1 000 mm above rail level.

Table 4.6 *Simplified Guide to Loading Gauge Categorisation*

| Category | Max. height | Max. width |
|----------|-------------|------------|
| W6 | >8'0" | 2 500 mm |
| W7 | 8'0" | 2 500 mm |
| W8 | 8'6" | 2 500 mm |
| W9 | 8'6" | 2 500 mm |
| W10 | 9'6" | 2 500 mm |
| W12 | 9'6" | 2 600 mm |

Providing for 9'6" deep-sea containers is acknowledged to be vitally important. Conversations with FOCs have demonstrated that the ability for the rail network to accommodate 9'6" containers is a key issue with respect to rail movements to and from the Haven Ports. Similarly, the Rail Freight Group ⁽²⁾ have stated:

"The highest priority must be given to the Felixstowe Nuneaton gauge enhancements to enable 9ft 6 boxes on this route. The increase in this size of container use in the UK is driven purely from external sources and there is a real danger that container traffic of this type will be lost to rail if these gauge enhancements are not carried out promptly." ⁽³⁾

The accommodation of larger freight vehicles and 9'6" containers upon the network is critical to the SRA's Freight Strategy for meeting the growth aspirations of the rail freight industry. The SRA's stated policy is to provide gauge cleared routes between major ports and points of consumption. As noted, in considering enhancements for the trunk routes, the aim is to provide W12 gauge, which allows 9'6" units to be carried, thereby accommodating all deep-sea port traffic, and not just the smaller containers.

The main network has four routeings from Felixstowe (as shown on *Figure 4.1*):

- the GEML and the ECML to Yorkshire and the North East;

(1) SRA, personal communication

(2) in its response to: East of England Local Government Conference (2001) **Regional Transport Strategy Programming and Scoping Document**, June.

(3) see: www.rfg.org.uk

- the cross-country route to the Midlands;
- Cardiff via the GEML, North London Line (NLL) and the Great Western Mainline (GWML); and
- the NLL and WCML to the North West and North.

Table 4.7, below, shows the present loading gauge on F2N and elsewhere.

Table 4.7 Loading Gauges on Selected Routes

| Route/section | Gauge |
|----------------------------|--------------|
| Felixstowe-Nuneaton | |
| Felixstowe-Ipswich | W8 |
| Ipswich-Ely | W8 |
| Ely-Peterborough | W9 |
| Peterborough-Nuneaton | W7 |
| ECML | |
| Peterborough-Edinburgh | W9 |
| GEML/NLL-WCML | |
| Ipswich-Stratford | W8 |
| Stratford-Willesden (NLL) | W9 |
| Stratford-Willesden (T&H) | W8 |
| WCML | |
| Willesden-Nuneaton | W10 |
| Nuneaton-Stafford | W10 |
| Stafford-Weaver Junction | W10 |
| Weaver Junction-Glasgow | W10 |

As indicated, at present the WCML is the only line already cleared for 9'6" containers. This line has the capacity for 60% to 70% more freight traffic ⁽¹⁾. The SRA notes that, in order to make full use of this capacity, key container ports need to be linked to this route. In its Strategic Plan it states that:

"A gauge-cleared connection to Felixstowe and Harwich can be made via the Great Eastern Main Line from Ipswich to London or the cross country (Fens) route via Ely and Peterborough. Both have gauge constraints. A scheme to clear the London route is being given top priority among the freight gauge projects and is expected to start in 2003. Further schemes are under development to increase gauge on the cross-country route and to provide more capacity overall, but these will take longer."

Capacity Constraints

The measurement of spare capacity on the rail network is a complex issue and depends on a number of factors, including the time of day and the needs of

(1) SRA (2003) **The Strategic Plan 2003**

other passenger and freight customers. It is generally dictated by the availability of paths on the rail network.

One of the aims of the SRA's 2002 Strategic Plan was that all key routes on the rail network should eventually be capable of carrying trains up to a total of 775 m in length ⁽¹⁾. This has since been amended to 650 m ⁽²⁾. The 650 m length can accommodate a Freightliner train of 30 standard wagons (capacity up to 30 x 40' and 30 x 20' containers ie 90 TEUs in total). A typical maximum freight train at present is 24 wagons. Some of these are not fully utilised because low loaders can only take one 40' container, meaning that around one third of each wagon is unused.

4.4.5 *Proposed F2N Improvements*

Gauge Enhancements

Network Rail has been commissioned by the SRA to deliver the railway enhancements necessary to accommodate larger freight containers and increased volumes of traffic between the Haven Ports and the WCML.

The proposed programme of loading gauge enhancements is the first stage of improvements. It will entail works such as increasing the bore/height of tunnels, replacing bridges etc. To provide continuous route availability to the new freight traffic, the alternative London route is being cleared first for the increased gauge. This is the route from Ipswich on the GEML and NLL, which joins the WCML at Willesden (as shown in *Figure 4.1*). At the time of writing, work had commenced on the ground (early 2003), to be completed during 2004.

Development work for gauge clearance on the cross-country route has been ongoing, although it is temporarily on hold. This work is designed, however, to be capable of implementation at short notice. It is expected that clearance in itself would provide up to around six new paths over and above what may currently be available on this route (current estimates put this at a minimum of two spare paths per day). Transport and Works Act 1992 powers would not be required and it is understood that works could in principle be completed by 2007/8 ⁽³⁾.

The result of this is that, from 2004, all trains leaving Felixstowe which use the London route (currently around 800 containers a day are moved by Freightliner along the GEML ⁽⁴⁾) would be able to travel north carrying 9'6" boxes on conventional wagons. From 2008, all trains from Felixstowe via either London or the cross-country route, would be able to carry 9'6" boxes. At the same time, an extra six or so paths would be made available.

(1) the only route presently to 775 m standard is Cheriton to Wembley

(2) SRA (2003) op. cit.

(3) SRA, personal communication

(4) Essex County Council (undated) **Essex Sustainable Distribution Strategy: Consultation Draft**.

The benefits of the ongoing and proposed gauge enhancements are, therefore, clear: they bring extra capacity, whilst at the same time freeing up the diversionary London route. Proposed capacity enhancements (described below) would bring significant further advantages.

Capacity Improvements

In addition to the ongoing gauge clearance work, development work has been undertaken in respect of capacity enhancements to the cross-country route between the Haven Ports and the WCML. As part of this work, a number of bridges on this route have recently been rebuilt to W12 standard. This work remains a priority for the SRA, as outlined in their 2003 Strategic Plan.

Route utilisation studies are currently being undertaken by the SRA with respect to the amount of freight capacity that is presently available on the wider network, including the GEML, the NLL and the route between Ipswich and Nuneaton. This work is due to report during late 2003. A three-stage approach is being adopted by the SRA, taking into account the proposed Bathside Bay development at Harwich International Port and forecast growth at Felixstowe, as well as other potential developments:

- identify existing unused capacity;
- assess the level of additional capacity that can be created through, for example, making changes to the present timetable; and
- identify what extra capacity is needed and how to achieve it through infrastructure enhancements, using a “step change” approach ie assessing the benefits gained for each item of cost incurred, for example providing a new loop or flyover.

Most of the works which are likely to be required would fall within Network Rail’s permitted development powers. Some TWA powers would be required for the anticipated 26 additional paths that could be made available. With no TWA requirements, it is likely that around 13 extra paths could be achieved. This is in addition to the six or so paths which could be gained from the proposed F2N gauge clearance (and any existing paths that are available).

These improvements would turn F2N into a true “primary freight route”, producing a step change in capacity that would bring major benefits over a substantial part of the freight network. It would also offer a solution to the movement of freight which does not require the use of London routes.

Including the six extra trains gained from gauge clearance, the works would create a minimum of 19 extra freight paths per day in each direction between Felixstowe/Harwich and Nuneaton, and a maximum of 32 paths. These would be good end-to-end paths, providing excellent links with the WCML as well as ECML at Peterborough and the Midland Mainline (MML) at Leicester.

Including the gauge enhancements, the principal benefits of F2N would include the following:

- the ability for the network to carry 9'6" boxes economically;
- a large increase in the number of paths available to cater for Bathside Bay as well as Felixstowe traffic, allowing for freight growth;
- more productive use of paths (through longer trains);
- the creation of a diversionary route for Harwich Haven traffic via Peterborough and Leicester, which would normally be routed via London; and
- the provision of faster, more predictable journey times and continuous 24-hour operation.

It is anticipated that the works would provide capacity for 650 m trains to access the network, with no passing loops.

Overall, these conditions would provide an improved operating environment for both existing freight companies and newcomers to the market, bringing an expected increase in rail freight share and opening up markets into new areas (see *Section 6* for further description of market innovations). Indeed, one of the FOCs spoken to during the preparation of this report expressed the opinion that an increase in pathways on the wider network (that might be due, say, to the opening of the F2N route) would provide the sort of operational flexibility required to boost confidence in the network and provide further services.

At the time of writing, it is understood that, of all the schemes of this nature currently proposed by the SRA, F2N is the nearest scheme to completion in terms of its development. As noted, gauge enhancement work is already underway on the alternative London route. For the capacity works, the SRA expects Network Rail to take the work to "Level 4" costing, as set by Network Rail's "Project Accountability" matrix ⁽¹⁾, during 2004.

The SRA has expressed the view that rail traffic generated by forecast growth at Felixstowe and the proposed Bathside Bay development could all be accommodated with the F2N gauge and capacity enhancements in place ⁽²⁾.

(1) This has been adopted as best practice across Railtrack for all projects and is recognised externally as part of the standard method of defining the process of development of Railtrack projects. The matrix contains outline descriptions of main activities and sets out key criteria for their achievement at each of six levels from inception, through feasibility to detailed design. Level 4 is the fifth level and relates to the refinement of single option and the binding commitment by the sponsor to Level 5 (the final level – pre-contract design/development). Completion of Level 4 is a major milestone in a project's development.

(2) SRA, personal communication

In principle, there is the potential for all the proposed F2N capacity works (including gauge clearance) to be completed by around 2010/2011.

4.5 PUBLIC TRANSPORT PROVISION

4.5.1 Passenger Rail

The rail network serves the town of Felixstowe via a branch line from Ipswich and Westerfield. The line provides hourly passenger services and links in to the GEML.

4.5.2 Buses

There is a bus service connecting the port with Felixstowe town, the Trimleys, Ipswich and beyond. The bus stops within the port and at stops close to the port with safe walkways from these points to the port.

4.6 PROVISION FOR CYCLISTS

Access to the Port of Felixstowe for cyclists and pedestrians is currently poor in relation to the highway network. The Suffolk Coastal & Heaths Path, a public footpath, runs along the bank of the River Orwell and provides access to the port area generally. The path also forms part of the Sustrans⁽¹⁾ cycle network. View Point Road is also part of the national network.

(1) the sustainable transport charity, which works on projects to encourage people to walk, cycle and use public transport in order to reduce motor traffic and its adverse effects

5.1 CONSTRUCTION PHASE TRAFFIC

5.1.1 Construction Phasing

Construction of the proposed Felixstowe South Reconfiguration has been assumed to commence with demolition of some existing facilities in April 2004. The construction period itself will run over three principal phases, allowing existing operations to continue while the reconfiguration takes place.

In this TA, the timing of the various phases is assumed to be approximately as follows:

- Phase 1 landside demolition will begin in April 2004, to include tank farms, warehouses, ro-ro buildings, sheds etc. This would run through to February 2005. Whilst concrete and brickwork is expected to be re-used on site, all steelwork, sheeting and timber will be removed from site by lorry. Marine demolition (including the oil jetty, dock piers and various ro-ro facilities) would also take place during this time.
- Phases 1a and 1b of construction would commence soon after demolition begins and will last for about 18 months. During this time there would be movement onto the site of various items such as piles, concrete, quay furniture, rebar and paving blocks.
- Phase 2 of construction follows Phases 1a and 1b more or less immediately. Similar items will be delivered to site during this period.
- Whilst the second phase of construction is going on, Phase 2 of demolition would commence (in around February 2006), lasting for up to around five months.
- The New North Rail Terminal (NNRT) would be constructed from January 2007 to April 2008. During this time there will be movements onto site of various items such as aggregates, track ballast and rails.

HGVs would be generated at various times throughout the above phases, as shown in *Figure 5.1*, below.

5.1.2 Proposed Access Arrangements

The main construction access is expected to be via Dock Gate 1 (see *Figure 5.2*) at the junction of the A14(T) with the A154 Walton Avenue. This is the existing entrance to Landguard Terminal and would be the principal access to the completed scheme. Construction traffic associated with the NNRT will access the site via Dock Gate 2, as also shown in *Figure 5.2*. The majority of

construction HGVs will, therefore, access the site via an existing junction on the A14(T). A requirement would be included in the construction contracts, in the form of a Traffic Management Plan, that all main construction traffic access to and from the site must be via the prescribed routeing.

In addition to this, there will be a requirement for construction vehicles associated with the improvements proposed at Landguard Fort to access that part of the site and it is proposed that this construction traffic will access the Landguard Fort site through the port via Dock Gate 1.

5.1.3

Assumptions Made

In undertaking the assessment of construction traffic impacts, the following assumptions have been made:

- on-site working hours will generally be 0700 to 1900 Monday to Friday ⁽¹⁾ and 0800 to 1300 on Saturday (although very little construction activity is expected to take place on Saturdays);
- construction workers will generally travel to the site between 0600 and 0700 and leave the site between 1900 and 2000 ⁽²⁾, with the exception of a small number who may arrive and depart in small vans during the course of the working day;
- there will be adequate parking on-site for all construction workers and HGVs, as appropriate;
- staff accommodation, offices and welfare facilities will be provided on-site;
- temporary access roads will be installed on site;
- a works compound for the storage of materials and equipment will be established;
- supervisors will all arrive by car, and HPUK proposes to promote the use of minibuses and/or coaches for other employees as appropriate;
- delivery and disposal vehicle arrivals and departures will be evenly distributed throughout the working day;
- where practicable, construction equipment and material will be moved by sea;
- HPUK will also promote the use of rail, wherever possible, for the movement of construction equipment and materials; and

(1) although some activities may require 24-hour working and some others may have shorter hours

(2) shorter hours for some activities will result in a staggered leaving time

- there will be no movement of abnormal loads by road.

5.1.4

HGV Traffic

The maximum estimated numbers of HGV delivery/disposal movements are based on calculations prepared by Posford Haskoning ⁽¹⁾. *Figure 5.1* sets out the assumed total period of demolition and construction when HGVs will be generated (April 2004 to June 2007).

The way in which the various phases of demolition and construction overlap is shown in *Figure 5.1*, based on the above assumptions.

From *Figure 5.1*, the following can be ascertained:

- HGVs would be generated during four principal phases, coinciding with periods of peak construction/demolition. Between these periods there are expected to be no significant movements of HGVs to or from the site.
- From April 2004 to March 2005, daily HGV movements would attain levels of around 90 to 106 per day for a period of some three months (June to August 2004). At other times during this period the level would be between around 30 to 70 HGV movements a day.
- Between June and December 2005 there would be upwards of 140 HGV movements a day, rising to 290 a day between August and October, and peaking at 540 for a week during November.
- From February to December 2006 there would be a peak of 220 to 254 HGVs a day for a four month period (April to July). During the remainder of this period there will be no more than around 40 HGVs a day.
- Between January and June 2007 there would be up to 239 HGV movements a day, tailing off to around 160 for the last month.
- Between July 2007 and July 2008 there would be up to 52 HGV movements per day associated with the NNRT.

5.1.5

Personnel Traffic

The number of construction workers on-site during the different phases has been based on estimates made by Posford Haskoning. Up to a total of 225 staff, including an estimated 35 supervisors would be employed on-site during peak construction. Throughout the remainder of the construction period there would be less than this number on site.

As indicated in the assumptions, it is expected as a worst case that managerial staff will travel by car to and from the site each day. HPUK intends to

(1) in their role as engineering advisors to HPUK

promote the use of minibuses for a proportion of workers. The catchment area for employment is difficult to predict, with sub-contractors from various locations in the UK likely to be employed. Some of these contractors are likely to find local accommodation for the duration of the works and it is expected that some 10% of workers may be locally based.

For the purposes of assessment, three scenarios have been considered (including a worst case of all workers travelling by car) for travel by the workforce. This is to allow for the fact that the actual mode of travel has not yet been determined. This will be developed by HPUK and their contractors as part of the construction Traffic Management Plan. The scenarios assessed are as follows:

- *Scenario A* – all workers travel by car at 1.3 occupancy;
- *Scenario B* – supervisors and 50% of the remaining staff travel by car, with the remainder travelling by 15-seater minibus; and
- *Scenario C* – supervisors travel by car with all remaining staff travelling by minibus.

The levels of generated car traffic associated with each of these scenarios is as follows:

- For each of the scenarios, all supervisors travelling by private car at an occupancy of 1.3 gives rise to 27 cars in and 27 cars out.
- Scenario A – 190 workers travelling by car at an occupancy of 1.3 gives rise to 146 cars in and 146 cars out, in addition to the 27 supervisors' car movements.
- Scenario B – 50% of 190 workers travelling by car gives rise to 73 cars in/out. 50% of workers travelling by minibus gives rise to a further seven movements in and seven movements out, in addition to the 27 supervisors' car movements.
- Scenario C – if 100% of non-supervisory staff travel by minibus, there would be 13 movements in and out, in addition to the 27 supervisors' car movements.

This shows that, during peak construction, if all construction staff travel to and from the site by private car, there would be a maximum of 173 car movements inbound between 0600 and 0700, with a corresponding number outbound between 1900 and 2000. If 50% of non-supervisory staff travel by mini-bus, the total number of one-way movements would reduce to 107; with full take up of mini-buses, there would be 40 movements.

It should be noted that these movements are all expected to take place outside the normal morning and evening peak hours experienced on the road network.

5.1.6 Combined HGV/Personnel Traffic

The HGV construction flows are expected to be relatively consistent on an hour by hour basis throughout the day, as previously described. However, at the start and end of each working day, there would be additional traffic comprising the construction workers' cars and/or minibuses, as follows:

| | |
|-----------|---|
| 0600-0700 | construction workers' vehicles inbound |
| 0700-0800 | mini-buses outbound |
| | construction HGVs two-way |
| 0800-1800 | construction HGVs two-way |
| 1800-1900 | construction HGVs two-way |
| | mini-buses inbound |
| 1900-2000 | construction workers' vehicles outbound |

As can be seen from *Figure 5.1*, apart from a three-week period towards the latter end of Phase 1 of construction, peak daily HGV flows are around 290 movements. Based on these figures, the resultant daily flows during the most intense construction activity would be as shown in *Table 5.1*.

Table 5.1 Combined Construction HGV and Personnel Traffic

| Time | Movement | Scenario A | Scenario B | Scenario C |
|-----------|--|------------|------------|------------|
| 0600-0700 | Construction workers (inbound) | 173 | 107 | 40 |
| 0700-0800 | Minibuses outbound and HGVs (two-way flow) | 24 | 31 | 37 |
| 0800-1800 | HGVs (two-way flow) | 24 | 24 | 24 |
| 1800-1900 | HGVs and minibuses inbound (two-way flow) | 24 | 31 | 37 |
| 1900-2000 | Construction workers (outbound) | 173 | 107 | 40 |

It can be seen that, as a worst case, there will be 173 car movements, outside of the peaks, at the beginning and end of each weekday (with some of the leavers likely to be staggered), with some 24 HGV movements per hour in between these times. The numbers of HGV movements will be lower than this for the majority of the construction period, often considerably so. With mitigation, the staff movements in and out could reduce to 40 vehicles.

5.2 FORECAST DEMAND AT FELIXSTOWE SOUTH RECONFIGURATION

The development of demand at the Felixstowe South Reconfiguration will be determined by:

- the pace of capacity additions (ie available handling capacity);
- the development of the overall balance of supply and demand in the UK major port market; and
- the relative competitive position of Felixstowe South versus competing terminals.

In the view of Ocean Shipping Consultants (OSC), who advise HPUK, it is estimated that the capacity available at Felixstowe (with Felixstowe South), together with likely demand, will develop as set out in *Table 5.2*.

Table 5.2 *Predicted Capacity and Demand at Felixstowe (million TEUs)*

| Year | Predicted Capacity | Predicted Demand |
|-------------|---------------------------|-------------------------|
| 2007 | 4.53 | 3.69 |
| 2008 | 5.49 | 4.19 |
| 2009 | 5.55 | 4.13 |
| 2010 | 5.60 | 4.33 |
| 2011 | 5.60 | 4.38 |
| 2012 | 5.60 | 4.05 |
| 2013 | 5.60 | 4.18 |
| 2014 | 5.60 | 4.13 |
| 2015 | 5.60 | 4.32 |
| 2016 | 5.60 | 4.50 |
| 2017 | 5.60 | 4.69 |
| 2018 | 5.60 | 4.89 |
| 2019 | 5.60 | 5.10 |
| 2020 | 5.60 | 5.32 |
| 2021 | 5.60 | 5.54 |
| 2022 | 5.60 | 5.60 |
| 2023 | 5.60 | 5.60 |

Source: Ocean Shipping Consultants

The pace of take-up of capacity will depend on the factors outlined above, and has been calculated by OSC based upon assumptions with regard to the development of alternative capacity in other UK ports.

For the purposes of this assessment, the estimation of traffic generation is dependent on the levels of hinterland traffic (ie after exclusion of transshipment), as forecast by OSC. A cautious view has been taken of the role of transshipment at Felixstowe, placing it at 24% of all containers handled. This is lower than has been the case at Felixstowe in recent years, and means that some 76% of forecast Felixstowe demand is robustly predicted to leave, or arrive at, the terminal by land, as a reasonable worst case.

5.3 *OPERATIONAL TRAFFIC*

5.3.1 *Freight Modal Split*

As noted above, demand at Felixstowe South is expected to build up over a number of years from its anticipated opening in 2007.

In the absence of any constraints on the movement of containers by rail, OSC has estimated the market share of rail to grow to a figure of around 26% in 2023. It is understood from conversations with the SRA that they would expect this forecast rail share for Felixstowe South eventually to be exceeded. Based on these figures, the volumes of container traffic estimated to be moved by both road and rail (assuming a 24% transshipment level) are as given in Table 5.3.

Table 5.3 Forecast Movements at Felixstowe by Road and Rail (million TEUs)

| Year | Hinterland Traffic | Moved by Rail (% share) | Moved by Road |
|------|--------------------|-------------------------|---------------|
| 2007 | 2.80 | 0.518 (18.5) | 2.284 |
| 2008 | 3.18 | 0.589 (18.5) | 2.595 |
| 2009 | 3.14 | 0.596 (19.0) | 2.542 |
| 2010 | 3.29 | 0.642 (19.5) | 2.652 |
| 2011 | 3.33 | 0.666 (20.0) | 2.666 |
| 2012 | 3.08 | 0.631 (20.5) | 2.446 |
| 2013 | 3.17 | 0.667 (21.0) | 2.508 |
| 2014 | 3.14 | 0.674 (21.5) | 2.462 |
| 2015 | 3.28 | 0.722 (22.0) | 2.559 |
| 2016 | 3.42 | 0.770 (22.5) | 2.652 |
| 2017 | 3.57 | 0.820 (23.0) | 2.746 |
| 2018 | 3.72 | 0.873 (23.5) | 2.842 |
| 2019 | 3.88 | 0.931 (24.0) | 2.947 |
| 2020 | 4.04 | 0.991 (24.5) | 3.053 |
| 2021 | 4.21 | 1.053 (25.0) | 3.158 |
| 2022 | 4.26 | 1.085 (25.5) | 3.171 |
| 2023 | 4.26 | 1.107 (26.0) | 3.149 |

Source: Ocean Shipping Consultants

5.3.2 Road Traffic

Generated HGVs

Predicted demand due to the Felixstowe South Reconfiguration in 2023 (the TA assessment year) is 1.56 million TEUs (rounded, for the purposes of a robust assessment, to 1.6 million TEUs). Assuming 24% transshipment, this implies (for the purposes of assessment) total inland movements of 1.22 million TEUs. Unconstrained rail share in 2023 is forecast to be 26.0% (based on OSC's modelling and in line with SRA expectations), giving total movements by road of 0.899 million TEUs.

The current proportion of 40 foot boxes at Felixstowe is estimated at around 58% ⁽¹⁾. For the purposes of calculation, it is assumed that this will stay constant in the future. In reality, as described, it is expected that there would be a greater proportion of 40 foot containers in the mix in the future, implying a smaller number of road journeys. The assessment is in this respect, therefore, a robust one.

(1) source: HPUK

This proportion enables the total number of boxes to be derived from the total TEUs (by applying a factor of 0.633). Thus, 0.99 million TEUs implies 569 067 boxes annually.

Data have been supplied by HPUK, describing different types of HGV trip in and out of the Port of Felixstowe. October 2002 has been taken to be a typical month (with respect only to the relative proportions of different types of HGV trip, which do not appear to differ significantly between months), as set out in *Table 5.4*.

Table 5.4 *HGV Trips in/out of Port of Felixstowe (October 2002)*

| Type of trip | No. of HGVs | % of total |
|------------------------|-------------|------------|
| Empty in/1 box out | 14 097 | 24% |
| 1 box in/empty out | 21 565 | 37% |
| Empty in/2 boxes out | 1 233 | 2% |
| 2 boxes in/empty out | 1 466 | 3% |
| 1 box in/1 box out | 17 635 | 30% |
| 1 box in/2 boxes out | 846 | 1% |
| 2 boxes in/1 box out | 734 | 1% |
| 2 boxes in/2 boxes out | 284 | 0% |
| Others | 173 | 0% |
| TOTAL | 58 033 | 100% |

Source: Hutchison Ports (UK) Limited

The table shows that there are some 58 033 HGVs generated in a single month. This translates to 116 066 movements (ie one-way journeys). For that same month there are 82 206 boxes moved ⁽¹⁾. This implies a factor of 1.41 movements per box (regardless of size).

It is assumed that boxes are moved by road on 250 weekdays a year, with some additional movement on Saturdays. Movements on a Saturday are about a third of weekday movements, implying an additional 15 days worth of movements, or a total of 265 equivalent days a year.

Therefore, in 2023 it is expected that there will be some 802 384 HGVs a year (569 067 boxes multiplied by 1.41) and 3 028 HGV movements a day (802 384 divided by 265), giving 1 514 daily trips.

The resulting numbers of HGV trips are as set out in *Table 5.5*.

Table 5.5 *Forecast Felixstowe South Reconfiguration HGV Movements (based on eventual 26% rail share)*

| Year | TEU (m) | Boxes | HGV movements/year | HGV movements/day | HGV trips/day |
|------|---------|---------|--------------------|-------------------|---------------|
| 2007 | 0.227 | 143 691 | 202 654 | 765 | 383 |
| 2008 | 0.496 | 313 968 | 442 695 | 1 671 | 836 |
| 2023 | 0.899 | 569 067 | 802 384 | 3 028 | 1 514 |

Source: ERM/Ocean Shipping Consultants

(1) HPUK data

Other Road Traffic

In addition to HGVs carrying containers, further traffic associated with other elements of the development will be generated, including employee traffic and visitors. This is described in detail in *Annex C*.

Visitors to Landguard are there for the Fort and other facilities. The changes proposed in the planning application include no changes to these facilities, which will therefore be equally attractive to visitors in future as they are at present. There will be no intensification of travel to and from the site as a result of the proposed changes.

Sensitivity Test for HGVs Based on a Lower Forecast Rail Share

As a result of discussions with the Highways Agency, and their consultants, and Suffolk County Council, a decision was made to test a situation in 2023 whereby only 17% all inland traffic would be moved by rail. The rationale for this was the need to understand the implications of a potential future situation, in which limited rail capacity was available for freight trips. Using the methodology outlined above, daily HGV trips have been forecast based on a 17% inland rail share. OCS's forecasts of demand, with and without the Felixstowe South Reconfiguration, have been used.

A total of 904 133 HGVs a year is derived from these calculations. This implies a figure of 3 412 HGVs per day, or 1 706 HGV trips a day.

5.3.3

Rail Traffic

Generated Freight Rail Trips

Based on the forecast modal demand figures set out above, annual and daily freight rail journeys have been estimated for the Felixstowe South Reconfiguration (shown in *Table 5.6*).

As described previously, the current proportion of 40' boxes at Felixstowe is around 58 per cent. Elsewhere in this report, it has been noted that for the purposes of a robust calculation this is assumed to stay constant in the future. (In reality, the numbers of 40' boxes are set to increase, reducing the total number of boxes overall for a given level of TEUs.) For the purposes of forecasting rail movements, a mix of containers of 1 TEU: 1 FEU ⁽¹⁾ has been used, providing an even more robust case. Thus the total TEUs forecast to be carried by rail is deflated by 66.7%.

Daily forecast train movements are set out in *Table 5.7* for the following years:

- 2007 – year in which Phase 1 starts;
- 2008 – year full scheme starts; and
- 2023 – 15 years after full scheme opening ie TA junction modelling year.

(1) forty foot equivalent unit

The figures given in the table are based on 250 days a year operation, using either 30-wagon or 24-wagon trains. Although the SRA's current stated aim ⁽¹⁾ is for 650 m trains (30 wagons) on all key routes, caution has been applied in basing the calculations additionally on 24 wagons. Similarly, despite industry's eventual expectations for a seven day a week freight railway, it has been considered prudent to opt for 250 days a year for calculation purposes.

Table 5.6 *Forecast Felixstowe South Reconfiguration Freight Rail Movements (based on an eventual 26% rail share)*

| Year | TEU (m) | Boxes (m) | 30-wagon trains/yr | Trains/ day | Trains/ day(e-w) | 24-wagon trains/yr | Trains/ day | Trains/ day (e-w) |
|------|---------|-----------|-----------------------|----------------|---------------------|-----------------------|----------------|----------------------|
| 2007 | 0.051 | 0.034 | 567 | 3 | 2 | 708 | 3 | 2 |
| 2008 | 0.113 | 0.075 | 1250 | 5 | 3 | 1563 | 7 | 4 |
| 2023 | 0.317 | 0.211 | 3517 | 14 | 7 | 4396 | 18 | 9 |

Source: ERM/Ocean Shipping Consultants

It should be noted that decisions on the method of inland travel generally lie with the individual shipping lines rather than with their customers or indeed the port authorities and owners, who can influence but not control the volume of rail traffic. Whilst port authorities and owners are responsible for the provision of rail facilities within their boundaries, they must inevitably do so without knowing in advance what use will be made of them.

Sensitivity Test for Freight Rail Based on a Lower Forecast Rail Share

As described in Section 5.3.2, further calculations of generated traffic have been carried out based on a potential 17% rail share of all inland traffic. This has been done with respect to freight rail trips, assuming a constant 17% modal share for the years 2007, 2008 and 2023, as set out in Table 5.7.

Table 5.7 *Forecast Felixstowe South Reconfiguration Freight Rail Movements (based on a constant 17% rail share)*

| Year | TEU (m) | Boxes (m) | 30-wagon trains/yr | Trains/ day | Trains/ day(e-w) | 24-wagon trains/yr | Trains/ day | Trains/ day (e-w) |
|------|---------|-----------|-----------------------|----------------|---------------------|-----------------------|----------------|----------------------|
| 2007 | 0.047 | 0.031 | 517 | 2 | 1 | 646 | 3 | 2 |
| 2008 | 0.103 | 0.069 | 1150 | 5 | 3 | 1438 | 6 | 3 |
| 2023 | 0.207 | 0.138 | 2300 | 9 | 5 | 2875 | 12 | 6 |

Source: ERM/Ocean Shipping Consultants

It can be seen from the table that a 17% modal share to rail in 2023 would result in only six 24-wagon trains each way per day.

(1) SRA (2003) op. cit.

6.1 *PREDICTED ROAD TRAFFIC IMPACTS*

6.1.1 *Construction Traffic*

Overview

As described in *Section 5.1*, construction traffic will enter the Felixstowe South Reconfiguration site principally from the A14(T). Most of the construction personnel traffic and site-related HGVs will travel along the A14(T) from the A12(T), with a small proportion of the workforce likely to be derived locally.

Criteria for Assessing Impacts

Changes in traffic flow, albeit temporary in duration, will occur as a result of the construction activities associated with the development. In determining the significance of potential construction traffic impacts, therefore, particular weight has been attached to the duration of impact and to the measures which HPUK will be promoting to mitigate any temporary impacts which might arise.

The following types of construction traffic impact have been considered during the study (some of which have been considered in detail only as part of the ES):

- *Conflicts with cyclists and pedestrians.* For the purposes of this assessment, it is assumed that changes in traffic flow of less than 30% are unlikely to have significant impacts on pedestrian and cycle movements ⁽¹⁾.
- *Traffic-related air quality and noise.* Detailed work has been undertaken for the Felixstowe South Reconfiguration in respect of both these impacts, and this is reported separately in the ES.
- *Effects on existing road traffic.* As noted, construction impacts would be temporary in nature. However, where appropriate, the impact in relation to existing flows has been determined. For long term operational impacts, a criterion of a 5% increase is often accepted as triggering more detailed studies.

Significance of Construction Traffic

Baseline traffic flows factored to 2005 have been used in the assessment.

(1) Crompton DH (1981) *Pedestrian Delay, Annoyance and Risk*, Imperial College London.

As indicated in *Section 5.1*, during the most intensive construction periods, there will be the following increases in traffic movements on the surrounding road network:

- before and after the peaks, there will be between 40 and 173 private vehicles for workers, principally along the A14(T);
- during normal peak hours, there will be 24 HGV movements on the A14(T) , together with a possible maximum of 13 returning minibuses; and
- during the rest of the working day, there will be a total of 24 HGVs on the A14(T).

Using the baseline flows given in *Section 4.2*, growthed to 2005, the changes in PM peak hour flows are given in *Table 6.1*.

Table 6.1 *Forecast Felixstowe South Reconfiguration Construction Traffic*

| Road section | Generated traffic (total vehicles) | AM base flow | AM % change | PM base flow | PM % change |
|---|------------------------------------|--------------|-------------|--------------|-------------|
| A14(T) Port of Felixstowe Road between Trinity Avenue and the Candlet Road Junction | 24 | 1201 | 2 | 1702 | 1 |
| A14(T) Port of Felixstowe Road between the Candlet Road and the Kirton Road Junction | 24 | 1332 | 2 | 2837 | 1 |
| A14(T) Port of Felixstowe Road between the A14(T) / A12 / A1156 junction and the A14 / A1189 junction | 24 | 1801 | 1 | 3720 | 1 |
| A14(T) between the A14(T) / A1189 Junction and the Orwell Bridge | 24 | 2160 | 1 | 4187 | 1 |
| A14(T) between the A14(T) / A137 Junction and the A14(T) / A12 / A1214 Junction | 24 | 1721 | 1 | 3933 | 1 |

Overall, therefore, the additional construction vehicles will represent an increase of up to around 2%. It is unlikely that this volume of traffic would have a material impact on the trunk road network (increases are less than 5%), and in any case these additional flows will last for the period of peak construction activity only. At all other times, construction traffic levels will be lower. In terms of the total number of vehicles, therefore, the overall impact is expected to be small.

Although this assessment has focused on the significance of construction traffic on the network in the immediate vicinity of the Felixstowe South Reconfiguration site, traffic will also travel through the wider network. The potential origins/destinations of construction workers' trips and HGV

construction traffic are not known at this stage. However, given the relatively small increases in flows and the fact that the site is immediately adjacent to the trunk network, once away from the A14(T), the construction traffic will dissipate very quickly and any impact on the wider network will be minimal.

Mitigation measures that have been proposed and agreed by HPUK for the construction phase are described in *Section 6.4*.

6.1.2 *Operational Traffic*

Base Case Assessment

A detailed assessment of operational traffic impacts is presented in full in *Annex C*. There are six locations on the highway network that have been tested, in agreement with the Highways Agency and Suffolk County Council. In summary, the key results of the assessment are as follows:

- A14(T)/A154 Walton Avenue roundabout. The proposed development would have a material impact on traffic flows at this junction (ie greater than a 5% increase). However, modelling indicates that no modification of the junction would be required for the 2023 with-development case.
- A14(T)/A154 Trinity Avenue merge /diverge facilities. Assessment indicates that the proposed development would give rise to no cause to change the nature of the merge and diverge facilities.
- A14(T)/A154 Candlet Road junction. This junction would be modified to alleviate the existing accident problems at the junction, improve conditions for vehicles (particularly HGVs) and provide sufficient additional capacity at the junction such that it would operate in the 2023 assessment year without detriment to road users with the proposed development in place.
- A14(T)/Kirton Road junction. The maximum development traffic impact at this junction is estimated to be 3.2% (on the A14(T) mainline at the underpass during the PM peak) which is not considered to be significant. It is estimated that there would be no peak hour impact at the roundabout and that the roundabout would perform satisfactorily.
- A14(T)/A12/A1156 junction. The maximum development traffic impact at this junction is estimated to be 2.5% (on the A14(T) mainline at the underpass during the PM peak). This increase is not considered to be significant. The maximum increase at the roundabout is estimated to be 0.5%, which is not considered significant. The junction is expected to operate satisfactorily.
- A14(T)/A12(T)/A1214 Copdock junction. The maximum development traffic impact here is estimated to be 3.0% (on the A14(T) mainline at the underpass during the PM peak) which is not considered to be significant.

The maximum impact on the A14(T) is estimated to be 0.7% (in the PM peak) which is not considered to be significant. The maximum impact on the roundabout is 1.1%, which, again, is not considered to be significant. The junction would perform satisfactorily.

Highway link capacities have also been assessed for the A14(T) between Dock Gate 1 and the A14(T)/A154 Candlet Road junction. The findings are summarised in *Table 6.2*.

Table 6.2 *A14(T) Trunk Road: Link Capacity Assessment: 2023 With Development*

| Link | Period | Direction | Ratio of Flow to Capacity |
|--------------------------------|---------|-----------|---------------------------|
| Dock Gate 1 to Trinity Avenue | AM Peak | Eastbound | 28.4% |
| | | Westbound | 15.5% |
| | PM Peak | Eastbound | 23.6% |
| | | Westbound | 30.3% |
| Trinity Avenue to Candlet Road | AM Peak | Eastbound | 78.6% |
| | | Westbound | 43.5% |
| | PM Peak | Eastbound | 58.3% |
| | | Westbound | 87.6% |

Traffic flows with the proposed development in place would therefore remain within the link capacity of the highway network in the 2023 assessment year.

Subject to the adoption of the measures detailed in *Annex C*, the development would have no detrimental impact on highway conditions.

Sensitivity Test

As a sensitivity test, the case has also been considered in which a road share of 83% is assumed. This represents a higher proportion of freight handled by the port to travel by road than is considered likely. However, even in the sensitivity test case the percentage traffic impact of the proposed development is considerably less than 5% at all locations to the west of the A14(T)/A154 Candlet Road junction. The numerical difference in with-development flows on the A14(T) to the south of the A14(T)/A154 Candlet Road junction in the 2023 assessment year is only slightly different in the sensitivity test case compared with the design case, as indicated in *Table 6.3*.

Table 6.3 *Estimated With-development Flows, Year 2023, A14(T) South of A154 Candlet Road*

| Period | Flows (vph, 2-way) | | |
|---------|--------------------|-----------------------|------------|
| | Design Case | Sensitivity Test Case | Difference |
| AM Peak | 4041 | 4060 | 0.47% |
| PM Peak | 4366 | 4396 | 0.69% |

The difference in assessment flows estimated to arise as a result of the use of the sensitivity test case is less than 0.7% in both the AM and PM peak hours. This small variation is within day to day traffic variations and gives rise to no need for further traffic assessment.

6.2 *PREDICTED RAIL IMPACTS*

6.2.1 *Construction Phase*

The precise methods of construction will be the responsibility of the chosen contractor. It may be possible for a proportion of materials and equipment (see *Section 6.4*, below) to be moved in and out of the proposed development by rail, as has been the case at some recent major UK developments. It is not considered that the use of rail for this purpose would have any significant adverse impacts, provided principally that all materials were adequately secured and covered. Such a policy would accord with the principles of PPG13.

6.2.2 *Operational Phase*

Base Case Assessment

Based on current forecasts, by 2009 (following scheme completion) there could be expected to be around three to four trains a day each way generated by the Felixstowe South Reconfiguration. Gauge clearance on the London route out of the Haven ports will have been completed by this time. This would allow for freight growth and for larger containers to be moved between the Felixstowe and the West Coast Main Line (which is already cleared).

It is also possible that the F2N gauge clearance will have been completed by this time. It is estimated that this will provide an additional six train paths.

By 2023, there will be up to an anticipated total of nine additional trains from Felixstowe, based on a robust assessment. It is expected that a proportion of these additional movements could be accommodated by the present spare capacity in the system.

Such a modal distribution of freight would be not only in keeping with PPG13, but also accord with the aims of the Transport White Paper, the 10 Year Transport Plan, *Modern Ports: A UK Policy* and the SRA's Freight Strategy.

Sensitivity Test

Analysis based on a lower overall rail share (which, for the purposes of assessment, has been set at 17% of inland traffic), shows that five or six trains per day would be generated by the proposed development. Given the likelihood of a certain amount of spare capacity being available on the network, coupled with the completion of the gauge works on the London route out of the Haven ports, this level of traffic would be unlikely to give rise to pathing problems.

Network Capacity Issues

As noted, the planning application for the proposed Felixstowe South Reconfiguration will include a New North Rail Terminal (NNRT), to be constructed on reclaimed land at the Trinity Terminal. NNRT will have an operational length of 700 m and will increase rail capacity initially by 313 000 TEUs and ultimately by 616 000 TEUs when fully equipped. The NNRT is expected to be operational in 2008 and will remove any internal constraints to an increase in rail traffic.

With respect to the external network, the current gauge clearance works on the London route from Felixstowe to the West Coast Mainline (WCML), which are due for completion in 2004 (and which includes the Felixstowe branch line), will enable greater loading efficiency on trains since capacity on wagons will not be constrained by the use of low loaders. This allows fewer trains than at present for the same volume of goods to be carried and is, therefore, consistent with the eventual 26% rail share forecast by HPUK.

For these reasons, HPUK has confidence in its estimate of a 74% share of container traffic to be carried by road. Notwithstanding this, HPUK is currently examining the question of the distribution of containers from the Haven location to the more distant parts of the UK. As noted, a rail market share of 26% has been targeted. However, achievement of this is dependent in part upon factors that are outside the direct control of the company and rely on national rail investment and capacity development.

This issue is discussed further below.

Other Impacts

Air quality and noise impacts due to changes in freight trains on the Felixstowe to Ipswich line are described in detail in the ES for the Felixstowe South Reconfiguration, and addressed in summary form in the NATA appraisal given in *Annex B* to this report and summarised below in *Section 6.4*.

6.3

RISK OF HAZARDOUS CHEMICAL RELEASE

The transport of dangerous goods is well regulated in the UK, for example through the Carriage of Dangerous Goods by Road Regulations 1996 (referred

to as “the Regulations”) and there are specific rules that must be adhered to. For example, each hazardous material present can only be transported if there is the relevant Chemcard and UN Number. Such regulations serve to reduce the risk of hazardous releases should an accident occur involving transfer and transport of a container. Furthermore, the Regulations serve to ensure that accidents are minimised within a container itself. An example of this is regarding the compatibility of materials, where oxidising substances must not be carried in vehicles with readily flammable materials.

The amount of hazardous substance stored in each container would be in relatively small amounts (set down in the Regulations) and its mode of containment would be suitable to the nature of the material. The majority of materials stored would be solids and liquids at atmospheric conditions. Hence, any leaks would only be at a very small rate and the consequences would be minimal to the surroundings. If pressure liquefied gases were transported, these would be stored in suitable small-scale cylinders (set down in the Regulations), which are designed to retain mechanical integrity upon expected impacts. Even if a leak from such a vessel occurred, the release rate would be small. Any release from the large container would disperse to safe levels within a short distance (in the order of a few metres) and would have minimal consequences.

Perhaps the most dangerous consequence would be a fire in a large container, particularly if there were a number of hazardous materials within the container that may become involved in the fire. Thick smoke would likely be produced. In most cases the smoke would disperse above ground level, but at high wind speeds the smoke may disperse at ground level. However, the likelihood of a fire in a large container is remote and there is lack of historical evidence that such fires have occurred involving large containers containing hazardous materials. If such a fire did occur, persons would move to less dangerous locations.

Thus, qualitatively, it is judged that the risk to people who may be adjacent to large containers would be minimal. The risk to people (residents etc) who are outside of the container port boundary would be extremely low from the transport of hazardous materials in large containers, when compared to other risks to which they may be subjected.

Possibly, the highest risk is if a container is opened by an employee at the container port following a spill within the container. Although the consequences (effect distance) of the spill would be minimal, the near-field effects may be considerable, particularly if the employee enters the container, which would effectively become a confined space. (There are requirements within the Regulations on the decontamination of containers following a spill of liquid within.)

As described in *Section 2.3*, a NATA appraisal has been undertaken for the development. This is in line with the emerging new TA guidelines and also the Scottish TA guidelines (which have relevance through their interpretation of the principles set out in PPG13).

The results of the appraisal, together with the Appraisal Summary Table (AST), are given in *Annex B*. The key issues are as follows:

- *Environment*. No significant adverse impacts are expected from generated traffic.
- *Safety*. The development can be expected to have a neutral effect on the safety objective.
- *Accessibility*. Option values will improve. Severance is unlikely to worsen. Access to the transport system may improve marginally.
- *Integration*. Overall, the development integrates well with key policies at the national, regional and local level.

Construction Traffic

Mitigation

During the assessment, measures have been identified in order to mitigate potential impacts of construction traffic. These have been discussed with, and agreed by, HPUK.

It should be noted that impacts from construction traffic are, by their nature, temporary and once a particular phase of construction has been completed any impacts associated with vehicles will disappear.

A Traffic Management Plan will be prepared by HPUK in conjunction with Suffolk County Council, as highway authority, to reduce the impact of construction traffic on the highway network. As part of this work, a number of general and specific traffic mitigation measures will be implemented as a matter of best practice to ameliorate the effects of construction activities, as follows:

- suitable measures will be taken to prevent the deposit of mud and dirt on the public highway (using wheel washes) and to prevent the propagation of dust and fly-away material (through the use of sheeting);

- routes for construction vehicles will be agreed in advance and drivers informed of particular sensitivities - routes where sensitive receptors are close to the road will be avoided wherever possible;
- if any abnormal loads are required, these will follow prescribed routes on the trunk road network only and be scheduled in advance to minimise possible disruption;
- consideration will be given to the use of minibuses to transport as many site workers as possible, reducing the use of private cars; and
- materials and equipment will be delivered, and waste taken away, by sea or rail as far as is practicable.

Residual Impacts

No significant construction traffic impacts are predicted as a result of site workers, nor from HGVs accessing the site via the A14(T). Measures as described above will be implemented through the construction Traffic Management Plan, in agreement with Suffolk County Council. It is expected, therefore, that the process can be effectively managed with minimal adverse effects.

6.5.2 *Operational Traffic*

General Measures being Promoted by HPUK

HPUK is committed to reducing the impact of moving containers inland by road. To this end, it has over the years promoted the use of rail at its ports (in line with Government policy) and sought to reduce the number of containers moved by road. The inclusion of a new rail terminal in the proposals for Felixstowe South Reconfiguration is further evidence of this commitment.

The vehicle booking system proposed by HPUK at the Felixstowe South Reconfiguration will reduce the “peaking” factor for HGVs.

In addition, HPUK has regular and ongoing discussions with the SRA, Network Rail and the FOCs to take forward ideas for increasing the rail share at its ports. Such talks will continue prior to, and following, commissioning of the Felixstowe South Reconfiguration, if constructed.

Feeder Strategies

As indicated above, HPUK is actively evaluating the viability and desirability of serving some parts of the north of the UK by means of additional transshipment at the Haven ports. Preliminary analysis indicates that this is a viable concept versus land transport within the UK (in some sectors) and that Felixstowe is competitive both in comparison with other UK ports and also with regard to major continental transshipment ports.

These considerations confirm that it will be extremely unlikely that the 74% total for road traffic will be exceeded, with the balance comprising rail and/or short sea shipping movements. HPUK have extensive experience in other world markets and are uniquely well placed to develop such a strategy.

It should be noted that, because the Port of Felixstowe is already a major transport hub, there is a strong prospect of increased short sea shipping being taken up. This possibility would not necessarily apply to container port developments in other locations.

Actions being Undertaken in the Rail Freight Industry

Based on information available at the time of writing, there are numerous examples of industry responding to the opportunities being made available by HPUK. For example, Maersk Sealand, using a new service provided by Freightliner Ltd, last year became the first shipping line to achieve 100 000 containers moved annually by rail through the Port of Felixstowe ⁽¹⁾. This has allowed the company to switch a further 16 000 containers a year from road to rail, principally between the port and the Widnes freight terminal.

Similarly, GB Railfreight ordered 50 new wagons in 2002 from Marcroft for use from 2003, replacing wagons hired from EWS, for use at Felixstowe. In late 2002, GB Railfreight was contracted by Medite to run a second container train service from Felixstowe to Selby and Doncaster, and from Felixstowe to Hams Hall near Birmingham. This was helped by a SRA track access grant, and has increased the proportion of Medite freight by rail 24% to 26.5%. Medite plan to take 65 000 boxes a year off the road, contributing to Felixstowe's own targets.

From November 2002 EWS started operation of daily 10-wagon trains in and out of Felixstowe for hi-cube containers, on low platform wagons.

During the period 1995 to 2002 there was approximately a 46% growth in rail freight volumes across the UK. The efforts of the SRA, the port operators, the FOCs and others have all contributed to this happening. Further measures will continue to be investigated by HPUK to reduce overall inland traffic and maximise the use of rail.

Throughout this report, a clear distinction has been made between impacts arising on the highway network and those that may occur on the rail network. The volume of generated traffic on the road network is dependent in part on the levels of traffic which will be attracted to the railway.

As well as the initiatives being developed by HPUK, as described above, the investments in routeing which are being pursued by the SRA and others, and which are described in *Section 3* and elsewhere in this report, will provide faster, more predictable journey times. This will be better for both existing

(1) The Industrial Pioneer, October-November 2002, Bert Reynolds, Birmingham.

freight companies and newcomers to the market, since rail as a mode option can be sold and marketed better.

Residual Rail Impacts

Any major port development in the South East is likely to impact on the rail network if it is to contribute to the Government's targets for increased rail freight. The Felixstowe South Reconfiguration scheme is no different in this respect.

It does, however, enjoy a number of distinct benefits with respect to location and rail accessibility. First, it links directly in to the national rail network, giving access via the West Coast Mainline to various terminals throughout the UK. Part of this network is currently being improved through a programme of gauge clearance. Further improvements (including F2N gauge and capacity works) have been in development and retain priority status within the SRA.

With such improvements in place, all rail traffic forecast to be generated by the development could be accommodated on the railway. Even without these works, a significant proportion of generated rail freight could be moved.

Taking into account the possibility of increasing transshipment at the port (which would effectively reduce the forecast rail share, whilst keeping the road share the same), it is unlikely that any significant residual rail impacts would arise.

Specific Highway Impact Measures

As noted in *Section 6.1.2*, no measures are necessary west of the A14(T)/A154 Candlet Road roundabout. The measures for the A14(T)/A154 Candlet Road roundabout consist of the following modifications (as described in *Annex C*):

- Vehicles may enter the roundabout at excessive speed from the A14(T) west and the A14(T) south approaches. Modifications to these entries to the roundabout to provide entry path curvature in accordance with the mandatory national design guidance are therefore proposed.
- A "ghost separation" island is proposed in order to separate traffic travelling from the A14(T) west to the A14(T) south from traffic travelling to the A154 Candlet Road.
- A uniform radius is proposed on the circulatory carriageway, in place of the current irregular radius, near the Candlet Road exit from the junction.
- The left filter between the A14(T) south and the A14(T) west arms of the junctions is proposed to be removed in order to reduce the speed of vehicles making the manoeuvre. Three traffic lanes, separated by ghost islands, are proposed at this entry to the roundabout and all will be subject to the normal roundabout priority rule.

- Forward visibility to the give way line on the A14(T) south entry to the junction is proposed to be improved.
- In order to seek to address poor forward visibility to the give way line on the A154 Candlet Road entry to the junction, additional warning signs are proposed.
- The exits from the roundabout to the A14(T) west and A14(T) south will be flared, and the exit to the A154 Candlet Road will be modified to provide an appropriate exit radius.
- The number of entry lanes on each approach will be increased to three (in conjunction with the improved entry path curvature discussed above) in order to provide sufficient capacity for the junction to operate in the with-development assessment case without detriment to traffic.

The modifications will address safety issues and provide sufficient additional capacity for “nil detriment”.

Travel Plan

A Travel Plan has been developed in draft for the proposed development (see *Annex C* for details). This includes the following measures:

- an employee bus service;
- a car-sharing scheme;
- under-cover parking for motor cycles; and
- the appointment of a site travel co-ordinator.

Measures put in place as part of the Travel Plan are expected to reduce the levels of employee traffic.

It is proposed that performance and targets be reviewed on an annual basis.

Measures being promoted by HPUK to reduce overall inland traffic and maximise the use of rail will further reduce impacts on the highway.

7 CONCLUSIONS

7.1 OVERVIEW

This section of the main report sets out the conclusions from the TA and provides a summary of the main impacts of the scheme. It identifies the key mitigation measures that will be applied and identifies any significant residual impacts that may persist after mitigation.

On a wider level, the proposed Felixstowe South Reconfiguration is in a unique position as an expanded container facility to take advantage of the benefits offered by its location within Harwich Haven. HPUK has given a great deal of consideration to both the siting of the reconfiguration and the way in which it links into the national and local transport networks.

The scheme enjoys a number of strategic location benefits:

- it is situated within the existing Port of Felixstowe, the UK's largest container port, strategically located in the south east of the UK;
- it has direct access onto the A14(T), part of both the national trunk road network and the European Union's Trans-European Transport Network; and
- it links directly into the national rail network, providing access to markets throughout the UK via a number of routes.

In this respect, the development is in accordance with European, national and regional transport policy.

7.2 CONSTRUCTION TRAFFIC

As with any major transport infrastructure scheme, the development will inevitably cause a degree of temporary traffic disruption during construction. Overall, construction vehicles will represent an increase of up to around 2% on the A14(T).

It is unlikely that this volume of traffic would have a material impact on the trunk road network. HPUK will develop a construction Traffic Management Plan to minimise, and where possible remove, any effects that may arise.

7.3 OPERATIONAL TRAFFIC

7.3.1 Rail Traffic

It is expected that the rail network will enable a reasonable proportion of the forecast Felixstowe South container traffic to be moved by train. This is estimated to eventually reach 26% of the total inland traffic. Based on current forecasts, by 2009 (following scheme completion) there is expected to be around three to four trains a day each way generated by the Felixstowe South Reconfiguration. Gauge clearance on the London route out of the Haven ports will have been completed by this time. This will allow for freight growth and for larger containers to be moved between the Felixstowe and the West Coast Main Line (which is already cleared).

The numbers of trains generated may rise to about nine per day by 2003. Although it is possible that these sorts of numbers could be accommodated on the rail network, there is some uncertainty about the future of planned infrastructure upgrades (such as F2N). If need be, good prospects exist for introduction of increased transshipment at the port, which would effectively “cap” the rail share, ensuring that no residual rail impacts would arise.

7.3.2 Road Traffic

The assessment has shown that the remainder of the generated container traffic can be accommodated on the highway network, using the A14(T) and then dispersing onto the wider trunk road network via the A12(T). One junction on the A14(T) will require some modification to enable it to perform satisfactorily. With these measures in place, there will be no detrimental impact on the highway.

A sensitivity test was undertaken, which assessed a lower rail share (17%, as opposed to 26%). The analysis shows that there would be no significant change in impacts with these figures.

7.4 RESIDUAL IMPACTS

Measures being promoted by HPUK will further serve to reduce traffic overall and maximise the rail share. In addition, the development of a Travel Plan for the scheme will assist in reducing employee car traffic.

In conclusion, therefore, no residual transport impacts are expected from the Felixstowe South Reconfiguration, and the scheme is in accordance with Government policy.

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