THE M4 CORRIDOR AROUND NEWPORT

PUBLIC LOCAL INQUIRY

PROOF OF EVIDENCE

Chris Green

ASSOCIATED BRITISH PORTS

Newport Dock Land Based Operations

ABP | ASSOCIATED BRITISH PORTS

CONTENTS

APPENDICES

Glossary of terms (and paragraph number they relate to)

4.21 **Bunkering** – refuelling of a vessel.

4.3 **Common User** – assets (typically land) that are available to all port users, with no preference being given to a particular user.

4.31 **Surge storage area** – an area close to the quayside that enables cargo to be discharged from the ship at a more efficient rate than would otherwise be the case if the cargo had to be taken immediately to its final destination within the Port. Cargo placed in the surge storage area will subsequently be taken to its final destination.

4.31 **Shunt transport** – dedicated on-dock transport using vehicles that may not generally travel on public highways.

5.6 **Tramp basis** – a vessel that is operated without a schedule, going wherever required to deliver its cargoes.

5.6 **Liner basis** – a vessel that transits regular routes on fixed schedules.

5.13 **Charter Party** – an agreement between a ship owner and a trader for the hire and delivery of cargo.

5.22 **Quayside Apron** – the area of land immediately adjacent to the quay.

1 QUALIFICATIONS AND EXPERIENCE

1.1 My name is Chris Green. I have a BSC (Honours) in Marine Geography (2001) from Cardiff University. I am a Chartered Member of the Institute of Logistics and Transport.

1.2 I joined Associated British Ports ("ABP") in 2001 and since then have held the following positions with the Company. Graduate Management Trainee 2001 – 2002; Assistant Operations Manager, Grimsby and Immingham 2002 – 2006; Sales and Marketing Manager, South Wales 2006 – 2012; Assistant Port Manager, South Wales 2012 – 2015. I currently hold the role of Port Manager, Newport. I am also the Port Manager of Cardiff. Prior to joining ABP, I worked for a year in Portland Port as part of my degree sandwich placement. During my career I have worked across 9 different UK ports.

1.3 My role as Port Manager is primarily one of ensuring that the Port of Newport is operated in accordance with ABP's group strategy and in a safe, sustainable and efficient manner. This entails ensuring that all aspects of the operation of the Port are conducted in a way that ensures that the needs of our customers, port users, services suppliers and staff are met and that the various interactions between them are carefully coordinated and managed. This involves significant co-ordination between ABP departments and customers to ensure the varying and ever changing requirements are met and also planning current and future infrastructure utilisation and provision.

1.4 As Port Manager, I also perform the role of Head of Operations, where my team are responsible for the direct provision of services to customers including stevedoring (cargo loading/discharge) and receipt, handling and dispatch (RH&D) of cargo. It is the operations department that liaises with our customers and the Marine department in order to allocate the berthing locations of vessels calling at the Port's common user berths. The operations department is then also responsible for planning and providing the resources that are required to handle those vessels once they are moored alongside.

1.5 Matthew Kennerley, the ABP Regional Director, has explained in his evidence the various ABP strategies that are pertinent here. My responsibility is to ensure that those strategies are followed through for the Ports of Newport and Cardiff. I am assisted in doing that by a comprehensive team, consisting of approximately 87 staff

based in Newport, as well as a regional team of 50 based in Cardiff, which provides support across a variety of functions such as safety, finance, estates management, human resources, commercial and marine/pilotage.

1.6 I believe that the evidence that I have prepared and now provide for this Inquiry is factually correct, as so far as I am aware, as are the opinions that I have expressed.

2 PURPOSE AND STRUCTURE OF EVIDENCE

2.1 The purpose of my evidence is to explain why the proposed Welsh Government Scheme will have a seriously detrimental impact on the operational capabilities of the Port of Newport, both in terms of its current activities, as well as its future capabilities. This entails an in-depth explanation of how the Port works today, as well as our detailed plans for the future.

2.2 The Welsh Government asserted within its original Wider Economic Impact Assessment for the proposed scheme that *"… the impact of the M4 on Docks operations are likely to be slight"* (**paragraph 8.8.11, CD 2.3.8**) and stated within the Revised Wider Economic Impact Assessment that *"….the impact of the Scheme on Newport Docks is considered to be within acceptable limits"* (**paragraph 8.8.8, CD 2.4.11**). As my evidence will seek to demonstrate, these statements are inaccurate.

2.3 I will also explain how these serious detrimental impacts on the port are capable of being reduced, by rerouting the proposed route to ABP's Alterative Northern Route (ANR). I believe that whilst this route still presents serious detriment impacts to the port, if the need for the M4 is demonstrated, then ABP would accept the level of harm that the ANR would cause, providing that the impacts are mitigated by WG.

2.4 I will, in my evidence, largely restrict myself to the landside operations of the Port and the ship-to-shore interface – that is to say, the operations that take place on dry land, the complex decision-making process by which vessels are allocated to particular locations within the Port for loading and/or discharge, and the consequential shore-side operations. My colleague Rod Lewis, who is the Regional Marine Operations Manager for ABP's South Wales ports, covers the marine aspects of the Port in his evidence, although inevitably there is a degree of overlap.

2.5 Ports are complicated places, involving specialised infrastructure and complex working arrangements that can change from day-to-day. These have largely been

developed around the needs of our customers as well as the needs of the shipping community who, in turn, have to respond to natural tidal cycles, variations in weather conditions and other external factors such as the performance of the origin or destination port. Daily and strategic decision making is also influenced by the design and layout of the facilities and infrastructure, many of which were established during the initial construction of the port as well as those that were redeveloped as the port shifted from a largely coal export facility to a diversified general cargo port. I will attempt to simplify where possible, but some aspects of my evidence cannot easily be summarised without losing essential detail that is highly relevant to understanding the extent of the serious detriment the M4 proposal will cause to the Port of Newport.

3 THE PORT OF NEWPORT AND ITS SIGNIFICANCE TO THE UK AND WELSH ECONOMIES

3.1 The Port of Newport is a strategically important port within the Welsh and UK context. The purpose of this section of my evidence it to provide a background overview of the importance of the port to the economy, to introduce the principal features and capabilities of the port and to introduce briefly the key aspects of our recently published Port Master Plan.

The significance of the port

3.2 The Port of Newport is the most easterly port in South Wales and, uniquely, is ideally placed to service inland markets in three distinct directions – to the north, east and west. It also can accept the largest vessels of any of the South Wales general cargo ports, again giving it a distinct trading advantage over other ports in the region.

3.3 As a result of these two attributes, its hinterland is notably large, with significant volumes of cargo being delivered into the English Midlands, using the A449/M50 link, as well as servicing the South Wales and South West regional markets. As a result Newport is a significant port in UK terms and competes with other nationally strategic ports such as Liverpool and Bristol, to serve the all-important English Midlands market.

3.4 As is detailed in the evidence presented by Matthew Kennerley and David Crockett, the Port of Newport is a major UK port and is Wales' leading general cargo port. It handled 1.80 million tonnes of cargo in 2016. A recently commissioned report by

Arup (**CD 7.1.3**) concludes that the port contributes £186 million to the Welsh economy annually and supports around 2,750 local jobs directly through the Port's activities and indirectly through supply chains that span the steel, construction, agriculture, manufacturing and power generation sectors, as well as other specialist sectors and project cargoes.

3.5 From a Welsh national perspective, the significance of the Port of Newport is also recognised within various plans and policy documents. Philip Rowell of Adams Hendry details this significance in his evidence.

Description of the Port of Newport

3.6 The Port of Newport has developed significantly since it was first constructed and it continues to reinvent itself as the wider economy changes. I outline the current features of the port in the following paragraphs.

3.7 A plan of the Port of Newport is given at **Appendix 7 in ABP/2B**. I should point out that this plan is a little out-of-date, but as Matthew Kennerley mentions in his evidence with regard to the same plan, the business within the port estate and the need to accommodate tenant's needs, is continually changing. The Port of Newport has two active docks, the North and the South, that are operated as a whole. Entry to the South Dock is from the River Usk via the Port's entrance lock. The North Dock is accessed from the South Dock via what is known as Junction Cut. Quays within the two docks are supported by three mobile harbour cranes which are deployed around the Port, as required, as well as fixed quayside cranes. The Port provides a number of warehousing and open storage facilities for transiting cargoes.

3.8 The local economy has faced a number of challenges in the last few decades, including the cessation of steel production at Llanwern and the decline of coal fired power generation with the consequent loss of employment within the local community and the loss of some key tenants at the Port of Newport. Through continued investment and a flexible approach, however, ABP has attracted new customers from different sectors, ensuring that the Port of Newport continues to flourish. For example, the former Jamaica Producers warehousing facility which used to handle bananas and fresh produce from the Caribbean has been repurposed to house long steel products. Today, Newport is recognised as being of major importance to the local, Welsh and UK economies and is the UK's second largest conventional steel handling port.

3.9 The area of the Port of Newport, excluding tidal areas outside the enclosed dock system, covers approximately 619.6 acres (250.7 hectares) of land and water. The major land use allocations within the port today comprise operational port land, strategic development land banks and tenanted areas.

3.10 The land use is deliberately diverse and reflects the variety of tenants and trades that operate from the port. The land use plan (contained with the Port of Newport Master Plan 2015 – 2035, **ABP/12H**) illustrates that the port estate is well developed, but still has the critical commercial flexibility required to accommodate additional large-scale port-related development and sector growth.

3.11 The South Dock accommodates ships in excess of 40,000 DWT with a beam of 30.1 metres and a draft of 10.4 metres. With the exception of the Port of Port Talbot, which has a specialist deep water facility servicing Tata Steel (as well as a small dock), Newport has facilities capable of accommodating larger vessels than elsewhere in South Wales, including Cardiff, Swansea and Barry. Combined with its prime location this means that the Port of Newport services markets far beyond South Wales alone, making it a direct competitor with ports right across the UK, including Liverpool, Bristol, Tilbury and the Tees.

3.12 The South Dock currently comprises:

a) a steel terminal which consists of 31,000 square metres of storage facilities fitted with gantry cranes and direct rail access for handling steel coil under-cover. It is also equipped with open quayside storage and a state-of-the-art, real time stock control system. Newport is regarded as the market leader in import steel;

b) a coal and minerals quay which offers storage for more than 80,000 tonnes of cargo with direct rail access. It is equipped with specialist grabbing cranes and a dust suppression system, drainage interceptor and an environmental bund wall;

c) a sand terminal which brings in marine dredged aggregates;

d) a bulk and general cargo terminal with direct quayside access for a range of industries, supported by fertiliser blending and bagging facilities, more than 17,000 square metres of Trade Assurance Scheme for Combinable Crops (TASCC) approved storage, an 8,190 square metre steel warehouse fitted

with two rail-mounted cranes and open and covered storage for break bulk cargoes, such as forest products, steel and project cargoes;

e) a dedicated berthing, storage and distribution facility for cement cargoes;

f) a metal reprocessing terminal with direct rail access for imports and exports and a fridge recycling plant;

g) a recycled wood terminal;

h) 5,000 square metres of warehousing for long steel products; and

i) two berths with licences for specialist cargo types (in addition to their common user use).

3.13 In addition, the South Dock has a number of planned and prospective developments that will be taken forward in line with customer requirements, commercial need and market demand. These proposed developments are detailed in the Master Plan for the port, which is provided as **ABP/12H**.

3.14 The North Dock has facilities in place to handle cargoes in a range of sectors and currently accommodates ships up to approximately 8,000 DWT with a beam of up to 17.2 metres and a draft of 8.2 metres. The size of vessels that can currently enter the North Dock is restricted by the width of the Junction Cut, although there are plans to widen this. North Dock consists of approximately 1,000 metres of high-quality gravity quay wall and a small area of quayside made from staging that is currently not in use. The quayside in the North Dock is utilised for loading and unloading vessels with cargo stored both in adjacent terminals as well as throughout the whole of the port estate.

3.15 The North Dock is currently made up of:

a) a steel terminal with 7,000 square metres of storage facilities supported by a crawler crane and mobile harbour cranes to discharge cargo;

b) a number of specialist timber businesses which utilise berthing, storage and distribution facilities in North Dock, as well as running value-added processing operations from the port estate for their national operations;

c) a dry dock facility for the repair or maintenance of vessels up to around 8,000 tonnes; and

d) berth and discharge facilities to accommodate a range of bulk cargoes, including animal feed, fertiliser and aggregates, which utilise storage facilities around the port.

3.16 There are a number of strategic development plans for the North Dock and its surrounding area, many of which are scheduled for commencement within the next five years. These are vitally important for the Port of Newport's future growth. These development proposals are detailed in the Master Plan and I also deal with some of those pertinent to my evidence below.

The Port of Newport Master Plan

3.17 We recently published the adopted Master Plan for the Port of Newport (**ABP/12H**) after an extensive consultation exercise involving key stakeholders and the general public. This document contains significant information about the current port facilities as well as our future aspirations. In addition to the evidence of Matthew Kennerley, I outline the key aspects of the Master Plan in respect of my evidence in the following paragraphs.

3.18 The Master Plan states (para 1.8) that - "*ABP is committed to ensuring that Newport remains a world-class port and a gateway to international trade*". It continues (para 1.9) that "*This Master Plan, therefore, sets out ABP's requirements and intentions for the future of the Port of Newport in relation to its on-going development, trade demand forecasts, the environment, planning and the port's socio-economic impact for the wider South East Wales region, to ensure the port's prosperous and sustainable future."*

3.19 The Master Plan period is until 2035, and by 2035 ABP envisages that the port will have grown and developed to the extent that all current development land will have been developed to meet the needs of ABP and our current and future customers.

3.20 The potential impact of the M4 proposals are considered in paras 8.9 to 8.12 of the 2015 Master Plan – it states that *"If the bridge is constructed it will clearly have a seriously negative impact upon port operations and will prevent the port from reaching its full potential. This will be to the serious detriment of the port itself, but it will have long-lasting, irreparable consequences for the prosperity of the region and the growth of the Welsh economy*."

3.21 The Master Plan describes the port developments that are expected to be implemented in the short, medium and long-term. These schemes include the short-term plan to widen Junction Cut, so that the larger deep-sea vessels that visit the port can also access the common-user quayside facilities in the North Dock. In the medium term, up to 2025, we anticipate various additional developments at the port including the taking forward of site development plans on strategic sites around the port and the redevelopment of the steel terminal facilities and the dry dock, both in North Dock. In the longer term, up to 2035, the plan describes the intention to in-fill the disused northern section of North Dock to create additional land and a berth. All of these developments and others that are described in the plan will be significantly impacted by the proposed WG scheme. Many of these impacts will be to such an extent that these development schemes will no longer be viable and therefore will not be able to proceed. I will discuss these impacts further in subsequent sections of my proof.

4 THE PHYSICAL IMPACTS OF THE PROPOSED M4 ROUTE ON THE PORT OF NEWPORT

4.1 Within this section I review the various impacts that the proposed route will have on the Port of Newport. I begin by considering the physical impacts upon the port, followed by the commercial and operational impacts that the proposed route will have on individual areas of the port. Subsequently, in section 5, I will then refer to the operational impacts that the scheme will have across wider areas and operational activities of the port.

The physical impact of the M4 Route on the Port of Newport

4.2 The proposed route over the port and the overall impact of ABP land to be acquired under the Welsh Government Scheme is shown in **Appendix 1 in ABP/2B**. In the following paragraphs, I explain the physical design and associated impacts that the proposed scheme will have upon the port.

4.3 Considering the proposed route from east to west, the motorway will enter the Port in the vicinity of ABP's Central Workshops, crossing over Junction Cut (which is the narrowing between South and North Docks), thereafter crossing a mix of tenanted and common user facilities, before leaving the Port estate adjacent to the eastern bank of the River Ebbw. The proposed route also crosses a number of ABP internal

roads, railway lines and the routes of essential utilities. In addition, the proposal includes a junction to be located in the western area of the Port, together with a link road running northwards parallel to West Way Road, which would intersect with the A48 Southern Distributor Road. The junction and link road also passes through a mix of tenanted, common user and development areas. The term 'common user' is explained in the glossary of terms contained at the front of my evidence.

4.4 WG is seeking to compulsorily acquire an interest in the majority of land that will form the 'footprint' of the motorway. WG is also seeking to acquire an easement over the water areas in the vicinity of Junction Cut, as well as parts of the tenanted and common user storage areas immediately either side of Junction Cut. Moreover similar rights are being sought to traverse various internal roads within the Port estate – principally East Way Road, West Way Road and North Dock road that links between the two.

4.5 As currently promoted, WG intend to compulsorily acquire land and interests in land that form part of the Port estate, totalling approximately 89 acres, in order to construct the motorway. This land currently comprises tenanted areas, common user land, ABP operated land, internal roads, railways and the routes of essential utilities, and land for development. In total, about 20% of the Port's total estate is subject to the compulsory purchase order.

4.6 It should also be noted at this point that there have been proposals by the Welsh Government (and its predecessors) to construct a motorway through the Port since 1992. These longstanding plans that have come and gone, only to be reinstated on several occasions, have therefore, for many years, had an impact on the port and the associated investment and decision making decisions. Matthew Kennerley discusses the history of the proposed scheme and the subsequent impacts in detail in his evidence.

The commercial and operational impacts of the proposed scheme on individual areas of the port

4.7 In the paragraphs above, I have described the physical impact that the proposed M4 and the junction will have on the Port, in terms of land-take. The following paragraphs consider, from east to west along the proposed route, the commercial and operational impacts that the M4 proposal will have on individual locations within the Port, both today and in the future. I will then consider the impact of that the proposed junction

and link road will have. The Plan contained in **Appendix 2 in ABP/2B** includes indicative locations of all of the areas that I refer to in the following paragraphs.

4.8 Whilst I consider the serious impact that the scheme will, or is expected to, have on each site as currently promoted, I also consider potential mitigation measures that have been discussed with the WG for sites within ABP's operational control. Additionally, where I have been involved in joint discussions with customers and WG, I have noted potential mitigation measures that may be provided to them by WG.

East side of Junction Cut

4.9 ***Riverbank of the River Usk (Appendix 2, location 1).*** The proposed route first crosses onto the Port at the riverbank of the Usk. Some parts of the riverbank are in the ownership of a third party, Residual Lands Ltd and the exact boundary is not clearly defined. In this area are located a number of river users collectively known to ABP as the small boat owners and access to this area is only possible through the port estate or via a boat. Following the extinguishment of a public footpath to allow for the construction of the now AIC site adjacent to the Port entrance, the ongoing access for these users was regularised through the issuing of wayleave permits by ABP for each owner (and their associates). The small boat owners tend to have jetties and small buildings along the riverbank to facilitate their use of the river and to moor their boats.

4.10 The significant majority of each jetty or structure in the area of the proposed route is located on land outside of ABP's ownership. ABP estimate that between 3 and 5 wayleave agreements will be impacted directly by the scheme, if progressed, but others may also be impacted as they require access through the development area and indeed all 17 agreements that are in place provide the right to access though the proposed development area both along the road and along the riverbank, using approved parking and crossing points along the railway. The replication of alternative facilities adjacent to the port is likely to be challenging on access and environmental grounds and equivalent locations do not readily exist within the Newport area. Therefore the proposed scheme is likely to cause a detrimental impact a number of the small boat owners.

4.11 ***Railway (Appendix 2, location 2).*** The proposed scheme crosses the port's only railway route to the southern area of the port. In this location are 2 separate rail lines which gives the ability to provide a passing loop for freight trains using the port.

Traffic levels at on this eastern route tend to currently be the busiest on the port as this route serves the coal and steel terminal areas. When both trades are making use of the railway this can result in 4-8 trains in each direction transiting this area on a daily basis. In addition the practice is often to leave rail wagons for unloading or loading, with the shunt locomotive leaving the port to undertake other duties during this period, thus creating additional movements. It is essential that full operational access is maintained for the railway during the construction and operation of the proposed scheme as if this is inhibited it would have a significantly detrimental impact to both the port and local industry that relies on the infrastructure and use of the port. I note that this ongoing access has been orally confirmed by the Welsh Government but no formal agreements have been provided by WG as to how such use will be managed and maintained once the land with the railway on has been compulsory purchased by the scheme.

4.12 ***East Way Road (Appendix 2, location 3).*** The only road route to the southern area of the port estate is East Way Road. This road is therefore a busy route providing access to the various quaysides, warehouses and businesses that operate in this area of the port. In addition to normal road traffic and freight movements, this road is also used to move mobile harbour cranes and port plant and equipment between berths, working areas and the maintenance facilities. I will refer later in my evidence to the particular matter of the movement of mobile harbour cranes throughout the port estate. Ships' crew and port users also transit this area on foot and bicycle. It is imperative for the unimpeded operation of the port that access through this vital road corridor is maintained on a 24/7 basis. I again note that ongoing access, sometimes using diversionary routes, has been orally confirmed by the Welsh Government but no formal agreements have been provided as to how such use will be managed and maintained and controlled once the land has been compulsory purchased by the scheme.

4.13 ***ABP Central workshops (Appendix 2, location 4).*** The ABP engineering workshops are currently sited largely below the proposed route of the motorway. The facilities include several distinct activity areas: The Planning Office (248 sq m); an engineering messroom facility (200 sq m); various workshops and external storage/work areas (typically organised into areas for different trades) (6072 sq m); car and vehicle parking (1068 sq m) and the stores area (2086 sq m). The stores area (Appendix 2, location 51) also encompasses operational lifting gear storage and whilst not located within the area subject to the compulsory purchase order, its

adjacency to the workshops area is essential for the efficient operation of the maintenance function. The facility is staffed by 32 members of ABP staff, supervisors, managers and administrators. The location of the facility is such that it is broadly central to the main operational areas of the port and this is essential so that the department can quickly react to break-down situations and also lost time, due to excess travelling around the port, is minimised as far as is possible.

4.14 The facility supports all operations and activities at the port, from the maintenance, servicing, inspection and repair of the lock, cranes, plant and equipment through to the manufacture of bespoke replacement parts for unique port assets and the storage of spare and replacement components, consumables and specialist oils and fuel. Continuity in the provision of the facilities for the maintenance function is essential to the operation of the port. Discussions have been held with the Welsh Government regarding the temporary relocation of these facilities during the construction of the motorway bridge and then the provision of permanent facilities in proximity to the current location once the scheme is constructed. As yet, however, no formal resolution to this matter has been provided and indeed the identification of a suitable alternative site is particularly complex due to the extent of the land lost to the compulsory purchase. The time period to construct an alternative facility will also be lengthy and needs to have been completed well in advance of the commencement of construction of the scheme to ensure that the port can continue to operate. We have however not received any of the necessary assurances from WG that replacement facilities will be provided in advance of the commencement of development.

4.15 I must emphasise that any period of time, however small, that the port is without maintenance facilities will lead to a serious significant detriment as the Port would not be able to safely operate and we would not be able to deliver services to our customers.

4.16 ***Medical centre (Appendix 2, location 5).*** Located adjacent to the Central Workshops and sharing common car parking facilities, is the Medical Centre that provides occupational health services to ABP staff throughout the region. The facility includes consultation and testing rooms and an administration office. This site falls within the WG scheme area and therefore needs to be replicated prior to the commencement of the scheme so that occupational health provision can be maintained for our workforce. This matter has been raised with the Welsh Government but no alternative provision solution has yet been received to mitigate this detrimental impact.

4.17 ***Common user storage area (Appendix 2, location 52).*** Located between East Way Road and 3 Shed is a common user storage area of approximately 0.57 hectares. The site is paved with tarmac and over the past few years has been used for a number of purposes including: the storage or imported sawn timber; leased to a road surfacing company; the storage of waste wood prior to export; the storage of ABP's operational plant and equipment; a yard for the construction of the new mobile harbour crane and for maintenance of the mobile harbour crane fleet and for the storage of imported clay aggregate products. The flexibility that this site, and other similar sites, therefore provides is essential to the viable operation of a flexible and efficient port and is the only such area available to serve the berths in this area of the port. The site is also co-marketed with the adjacent 3 shed *(Appendix 2, location 50)*, that is not subject to the CPO, and so the loss of this area is likely to have not only a detrimental impact on the storage compound and uses but on the value and viability of that facility as well.

4.18 ***CJN Engineering (Appendix 2, location 7).*** Located to the rear of the ABP Central Workshops, CJN Engineering provide steel fabrication services. They operate from two leased areas totalling 0.22 hectares that comprises of workshops, paved external areas and parking, office and mess facilities. CJN provide services to ABP, other port users as well as to a diverse customer base outside of the port. It is likely that this tenant and the leased facilities will be lost as a result of the scheme, thereby creating a detrimental impact for our customer as well as for ABP in terms of a lost lessee and the associated services that we procure from them.

4.19 ***Headland Engineering compound (Appendix 2, location 8) and development areas (Appendix 2, location 6).*** Located to the north of the central workshops is a compound licenced to Headland Engineering who regularly provide civil engineering services to ABP on site. In addition there are several development sites that in the future would be likely to satisfy growth in the demand for engineering type activity (both ABP and tenanted). Both these areas would be lost during construction of the proposed scheme, causing detriment to both Headland and ABP with the loss of development opportunities and a lost lessee.

4.20 ***Car park area (Appendix 2, location 9).*** Next to East Way Road is a car parking area that is utilised by staff working at Bailey Industrial Engineering (a subsidiary of C.H. Bailey) *(Appendix 2, location 46)* and the small boat owners are also permitted to use this area as part of their wayleave agreement. Loss of such utility without nearby replacement will have a detrimental impact on the operation of Bailey

Industrial Engineering as well as placing a requirement on ABP to vary the Small Boat Owners' wayleave agreement and to identify a suitable alternative location within the locality, something which is difficult to envisage as to how it can be achieved due to the high level of compulsory acquisition in that area of the port.

4.21 ***Tug Berth (Appendix 2, location 10).*** The berths to the South East corner of North Dock and the adjacent quayside area are dedicated for use by the approved marine towage provider SMS Towage, who operate 3 tugs. This berth is their main facility in South Wales and is used to serve towage requirements at the Ports of Newport (where the majority of their activity is), Cardiff and Barry as well as for vessel movements on the River Usk. The landside area of this operation includes vehicle parking, storage for oils and equipment and associated activities. It is understood that this land and use of the berth will be lost during the construction of the proposed route and an alternative location will therefore need to be provided to meet this essential service provision requirement. All other berth areas within the port are used for cargo operations and so any alternative is likely to have detrimental impacts on other port activity. Once the proposed scheme is operational, it is also not yet clear if the tugs will be able to return to this area. If they are able to return, it is also not yet understood whether they will be subject to operational restrictions, such as for bunkering (taking on board fuel), that will be placed on the use of the berth and land area as a direct result of the WG scheme. If they can return to this location the noise levels may also be too high to enable to crew to sleep on board when they are not performing towage duties. The impact upon the tugs at the port is therefore likely to have a detrimental impact upon both their operation, on all of the customers that they serve and therefore the port as a whole.

4.22 ***Access route to Middle Quay (Appendix 2, location 11) and 3 Shed (Appendix 2, location 50).*** The warehouse located in the South Dock and adjacent to the berth known locally as Middle Quay, was originally built as a chilled storage facility for the importation of fresh fruit produce. More recently, following the transfer of the fruit trade to the south coast of England, the facility has been repurposed for storage of imported cargoes including the current use for steel as well as previous uses for forest products. It is adjacent and connected to 4 shed (Appendix 2, location 49) that is accessed via 3 shed as the only other access is via the leased recycled wood terminal. Combined, 3 and 4 shed comprise of approximately 5090 sqm of warehouse. Whilst the facility itself falls outside of the proposed CPO for the motorway, the land acquisition makes access to the terminal very difficult during

construction, especially when taking into account safe working and workplace transport matters, as much of the adjacent traffic circulation areas are to be compulsorily acquired. The CPO will also impact on the route that mobile harbour cranes use to access Middle Quay. This whole area of the port is therefore likely to be detrimentally impacted as a result of the development of the proposed scheme. Once the scheme is operational, whilst access to this area will revert to its current level of provision, it is however unclear whether there will be any operational restrictions placed on the terminal and adjacent berth as a result of its close proximity to the proposed route.

Junction Cut

4.23 The eastern and western areas of the port are separated by Junction Cut that is the sole route for vessels accessing North Dock. The proposed route passes over this important vessel route by way of a low bridge that will cause a number of detrimental impacts in relation to both general port operations and customer activities. Rod Lewis considers the detail and importance of this marine feature and the impacts of the proposed route upon it in his proof of evidence.

West Side of Junction Cut

4.24 ***Common user storage area (Appendix 2, location 12).*** The land immediately to the west of Junction Cut, including the land on Junction Cut itself as well as a concrete paved area to the east of the North Dock Road is operated on a common user basis. This typically means that cargo discharged from vessels working on the west side of North Dock utilises this area on a short term basis to facilitate expedient discharge of cargo before being moved to back-storage areas for onward distribution. Such cargoes include sawn timber and timber carcasing as well as bulk imports such as aggregate and bagged fertiliser that do not need to be moved directly to covered storage areas. In total the area of such common user storage in this locality extends to 0.4 hectares. In addition to providing storage, some of this area is also required to be clear during vessel discharge to facilitate vessel working and the associated plant and vehicle movements. This area will be lost as a result of the proposed route and will therefore require replication, although on the basis of the areas to be compulsory acquired, it is difficult to identify a suitable location in proximity to the quayside and therefore significant detriment will be caused to a number of operations. Once the proposed scheme is operational, subject to a safety and fire risk assessment, it may be possible to partially reinstate such a storage area around the structure of the

motorway, although the WG's risk assessment has, at the time of writing not been finalised. It is, therefore, impossible to consider if such future use will indeed be practical and flexible enough to meet the changing needs of port operations.

4.25 ***ABP plant compound (Appendix 2, location 13).*** To the south side of the common user storage area is located a secure plant compound that is utilised by ABP to store plant and equipment, such as fork lift trucks, required to discharge vessels in North Dock. In order to facilitate efficient discharge of vessels it is essential that the required plant and equipment can be stored in close proximity to where it will be required. There are, therefore, also similar compounds elsewhere on the port to service other working areas. This compound is fenced with security fencing and has a concrete surface. The area totals 0.07 hectares and will be lost as a result of the proposed route, and will therefore require replication, although on the basis of the areas to be compulsory acquired, it is difficult to identify a suitable, perhaps temporary, location in proximity to the working areas without causing further detriment to other operations. Once the proposed scheme is operational, subject to a safety and fire risk assessment by both WG and ABP, it may be possible to reinstate such a compound under the structure of the motorway, although the WG's risk assessment has unfortunately, at the time of writing, not been finalised.

4.26 ***Substation and former site office (Appendix 2, location 14).*** To the south side of the common user area is also located an ABP electricity substation and a 2 storey former office block. I consider services, including substations, later in my evidence. The former office has not been used for a number of years and would require extensive refurbishment to be put back into service. It is therefore not considered that the loss of this building would be an issue to the operation of the port, however the site footprint could be easily converted to provide additional common user storage in the future and this flexibility will constitute a serious loss as part of the proposed scheme.

4.27 ***North Dock Road (Appendix 2, location 15).*** Broadly parallel to the west side of the North Dock runs an internal dock road, with the westernmost edge forming the boundary to the International Timber facility. This section of the road is typically used by International Timber operations as well as for accessing the common user area and for servicing vessel activity in the North Dock. Under normal circumstances the gate to the south is closed to maintain security, but this route is opened when vessels are working in North Dock and also on occasions to move mobile harbour cranes (which I will consider later). Furthermore this route serves as a diversion on

occasions when West Way Road (Appendix 2, location 20) has to be closed. Part of this road will be temporarily lost during construction, thus resulting in detrimental impacts to the operation of the port. I understand from Welsh Government that their intention is to make alternative routes available during the works to enable vehicle access on this route, but as yet we have not been provided formal confirmation of this.

4.28 ***International Timber Terminal (Appendix 2, location 16).*** International Timber is a large customer of the port. In total they lease 9.19 hectares of buildings and open storage on a site to the west of North Dock. International Timber benefits from direct adjacency to the berths in North Dock and this access is essential to be able to operate efficiently and on a cost effective basis. As part of the commercial arrangements in place, ABP is responsible for the discharge of shipments of timber for International Timber and the placement of this cargo to individual storage locations within their leased area. The proposed Relief Road has a number of significant detrimental impacts, considered below, on the International Timber operation both during and post construction of the proposed route. In addition to my evidence, my colleague Rod Lewis, in his evidence, provides greater detail on the marine impacts to International Timber.

4.29 The principal impacts to International Timber are those associated with the loss of storage capacity as a result of the proposed scheme – calculated by International Timber to be some 56% of their total storage area, ABP's potential inability to discharge vessels due to the impact on the movement of mobile harbour cranes to the facility and the inability to access the adjacent North Dock berths, due to air draught restrictions, with a significant proportion of the vessels that they currently charter, as well as those they may look to charter in the future.

4.30 Whilst it may, on the face of it, be possible to discharge International Timber vessels in the South Dock, to overcome the access restrictions presented by the proposed scheme to vessels entering the North Dock, this is unlikely to be operationally and commercially viable due to a number of factors. Firstly there is a limited amount of potentially suitable common-user quayside facilities in the South Dock. Of the available common-user quaysides in South Dock, the majority are regularly utilised with shipments of steel and agribulks and additional demands are therefore likely to place significant additional pressure on the levels of availability, especially during peak shipping periods. Such a discharge, should a quayside be available, will also require a "surge" storage area adjacent to the quay, so that discharge can be undertaken expediently. There are however only limited such areas adjacent to

common-user quayside and these areas also currently serve the steel and agribulk trades. Once discharged, cargo would then need to be moved via road transport to the International Timber terminal. Whilst some of the timber could be moved directly during discharge, it would not be possible to directly move all of the cargo during discharge to International Timber as this would require a significant proliferation of staff, handling equipment and road transport to even get close to matching current discharge productivity rates.

4.31 Handling via a remote quayside in the South Dock will also result in each package of timber being handled several times – from the quay to surge area, surge area to shunt transport and shunt transport to the storage location. This is two additional handling operations than are currently experienced. This, therefore, will lead to increased risk of damage to the product. In addition, the time delay of several days in transporting the whole consignment after discharge to International Timber would also cause them business interruption as packs could not be sent for onward processing or distribution until they have been shifted to their site. This could result in a need to increase site stock inventory levels as a means of mitigation but of itself requiring a larger terminal storage area.

4.32 The consequence of these various detrimental impacts arising as a result of the proposed scheme on the International Timber facility is likely to be a significant increase in ABP's handling costs in the short term as cargo is handled at remote quaysides. In the medium to long term this is expected to impact on the competitiveness of the port's offering as these increased costs will need to be reflected in the handling charges and may well ultimately, therefore, result in a substantial or total loss of this trade to a port that can offer a more competitive arrangement.

4.33 ***Railway (Appendix 2, location 17).*** Bisecting part of the International Timber leased area are two rail lines that serve the Sims Metals scrap metal terminal. This configuration allows for the passing of trains and locomotives serving the terminal. In order to maintain various access routes, principally for International Timber, there are several rail crossings over the railway, each controlled by the use of lights. Ongoing rail access has been verbally confirmed by the Welsh Government but no formal agreements have been provided as to how this will be managed and maintained particularly during construction of the WG scheme, once the land with the railway on has been compulsory purchased by the scheme. The entry point to the port of this line (Appendix 2, Location 48) is also subject to an easement on the WG CPO plan.

It is again assumed that this easement will not impact on any rail access to the port, although this has not been discussed in any of the meetings held with WG.

4.34 ***Common user compound to east of West Way Road (Appendix 2, location 18).*** A site of circa 1.38 hectares of common user storage is located at the junction of Junction Cut Road and West Way Road. The site is paved, lit and fenced and has served a number of both short and long term storage needs at the port. These have included the storage of project cargoes, timber, bagged fertiliser during peak season and fridges awaiting processing at the adjacent Sims facility. The site provides a flexible storage space to meet the constantly changing requirements at the port and it offers the ability to quickly react to new commercial enquiries and storage requirements. This site will be detrimentally lost to the port as a result of the proposed scheme which will therefore impact on both the ability of existing port customers to meet peak demand as well as for ABP to meet new business development opportunities and spot cargo requests.

4.35 During construction of the WG scheme this area and the flexibility that it provides will be lost and there will be limited opportunities to replicate it elsewhere in proximity to the quaysides, due to the extent of the CPO land take even with additional development works. It is understood that following construction, parts of this site that are not occupied by piers supporting the motorway may be able to return to potentially restricted port operational use, albeit on terms not yet advised by WG. The allowable activities, cargoes, working areas and maintenance access requirements within this area post construction have also not been advised by the Welsh Government but it seems clear that the current level of flexibility will not be maintained. Any advised potential uses would also need to be subject to a detailed further assessment by ABP.

4.36 ***Sims Metals site (Appendix 2, location 19).*** A small part of the site adjacent to West Way Road, currently leased to Sims Metals for a metals reprocessing and export terminal, is required for the construction of the proposed scheme. This has the potential to detrimentally impede access and activity within this important cargo handling Terminal.

4.37 ***West Way Road (Appendix 2, location 20).*** West Way Road is the main road route to the western area of the port estate and North Side of South Dock. This road is a busy route providing access to the various quaysides, warehouses and businesses that operate in this area of the port. In addition to normal road traffic and internal

freight movements, this road is also used to move mobile harbour cranes and port plant and equipment between berths, working areas and the maintenance facilities. I will refer later in my evidence to the movement of mobile harbour cranes throughout the port estate. Ships' crew and port users also transit this area on foot and bicycle. It is imperative for the unimpeded operation of the port that access through this vital road corridor is maintained on a 24/7 basis throughout the construction and operational phases of the proposed scheme. I again note that this ongoing access, sometimes on diversionary routes, has been orally confirmed by the Welsh Government but no formal agreements have been provided by WG as to how such use will be managed and maintained and controlled once the land has been compulsory purchased by the scheme.

4.38 ***Tom Lewis Way (Appendix 2, Location 21).*** Tom Lewis Way is a key road on the estate that provides access to the port's lock as well as a number of tenanted and operational areas on the port estate. This is also the primary route to reach the bulk terminal weighbridges and it ensures that workplace transport matters are managed by providing an access route to this area without conflicting with vessel operations and associated traffic at the North Side of South Dock. It is understood that this road will be lost as a result of the proposed scheme with a replacement proposed that utilises current storage areas and land currently occupied by warehouse and terminal areas. I will discuss the detrimental impact of each of these aspects in the following paragraphs.

4.39 ***Origin Fertiliser Terminal (Appendix 2, location 22).*** Origin Fertilisers lease and operate a fertiliser terminal at the port comprising of 8904 sqm of warehousing and 1.48 hectares of open storage. The terminal has Hazardous Substance Consent, applied for by ABP, for the storage and handling of Ammonium Nitrate based products. During peak demand, in the past ABP also supported Origin with the allocation of additional adjacent common-user storage space to meet the increased storage requirements. As this demand has however grown to a nearly year round requirement, ABP and Origin are entering into a lease variation that will therefore also include the land immediately to the north of the leased area up to the boundary with Tom Lewis Way, comprising of an additional 0.57 hectares. Location 22 (Appendix 2) therefore also includes this area as it will shortly form part of the lease. Prior to this extension this site has been used for various common-user activities. ABP discharge vessels carrying Origin cargo, predominantly in bulk but also bagged form, to Origin-

provided transport. Vessels carrying cargo destined for Origin are regularly handled at the berths at both the north side of South Dock and the west side of North Dock.

4.40 The proposed route of the M4 results in the detrimental loss of open storage areas at the Origin Terminal and it also directly impacts on access to their warehouse canopy storage area. These areas are essential for the efficient operation of the terminal and must exist adjacent to the main bagging facility so as to minimise the distance over which bags need to be transported for storage. Due to the significant land take that the proposed scheme will have to the western area of the port, it is not possible to replace this lost storage area with other land that is in close proximity to the terminal area. This land take will, therefore, result in the facility no longer being viable to operate.

4.41 In addition to the detrimental loss of the bagged storage area, of equal or perhaps even greater detriment is the likely loss of the Hazardous Substance Consent for the site as a result of the scheme, as is recognised in the WG Hazardous Substances Report (**CD 2.4.14-11**). This consent is required by Origin in order to handle and store a number of their key commodities. Without such consent they would be unable to operate the facility and supply their product range to the market. It is, therefore, likely that as a result of the M4 development this trade will be detrimentally lost to the Port impacting not only on the customers operation, the direct jobs on the site and ABP's customer base but also to ABP's operational team who are employed to service this trade.

4.42 During a joint meeting with ABP, Welsh Government and Origin, held on 28 June 2016, future constraints, relating to loss of storage areas and the hazardous substance consent, at the site were discussed. At that meeting WG advised that they would consider a business case, prepared by Origin, to consider the relocation of the facility to another area of the port. It is however considered that such a move will take approximately 18 months, taking into account of design, planning, tendering and construction aspects as well as the seasonal peak of the fertiliser trade. The indication from WG is, however, that a commitment to fund construction work could not be given until the Orders are confirmed by WG following the outcome of the public inquiry. The anticipated timescale advised by WG between the confirmation of the orders and the site being required under the CPO is little more than 3 months. It is therefore likely that this will have a significant and detrimental impact on both Origin and ABP as such a short period will not provide sufficient time in order to successfully

relocate this trade at the port. The likely resulting detrimental impact is therefore in lost trade and the associated jobs that support it.

4.43 Even if Origin could be relocated elsewhere in the Port, the most likely location is to the south side of South Dock. In this event, it is also likely that part of the coal terminal at the port will also need to be significantly reconfigured so that it is able to regularly handle fertiliser products and this will result in the loss of other potential future growth.

4.44 Should the Origin operation be lost to the Port, the remaining warehouse facilities may be able to be allocated to an alternative activity, but it should be noted that due to the corrosive properties of fertiliser and the design of the facility this would likely require significant restructuring and cleansing in order to be suitable to consider other uses.

4.45 ***10 shed (Appendix 2, location 23).*** Located as part of a cluster of warehousing is 10 shed that runs parallel to 9 Shed, where Origin are located. 10 shed was originally constructed as a barn to house imported timber and it was then subsequently converted to store animal feed with the introduction of bulk retaining walls. Following the construction of further bulk storage (warehouses 9B, 9C and 11A) and an increase in the frequency of deep-sea steel imports to the port, thus requiring additional steel storage, the facility was further modified for the storage of steel with the construction of crane rails and the introduction of 2 “Goliath” internal cranes. Today the facility is predominantly operated as a steel coil warehouse in partnership with W.E. Dowds, but the facility has also recently housed other imported cargoes including telegraph poles and plywood, and the common user storage can be flexed to meet a range of needs as trade patterns fluctuate.

4.46 In order to accommodate a replacement route for Tom Lewis Way, the current proposal is to compulsorily acquire a portion of the northern end of 10 shed so that it can be demolished and the replacement road installed. It should be noted that immediately to the south of 10 shed is located the newly constructed 20 shed that is designed for agribulk storage - as this facility has only just opened, it is not yet shown on all plans or aerial photography. It is, therefore, not possible to replace the space lost at 10 shed by extending it to the south and any extension to the facility’s width would not able to be serviced by the internal “Goliath” cranes.

4.47 Reducing the size of 10 shed does not represent a viable solution in that the operation of 10 shed requires that it can accommodate a full deep-sea shipment of steel coil, which is discharged from vessels berthed at the north side of South Dock. Tonnages of steel in storage therefore tend to be significantly run down in advance of a planned import shipment in order that it can be accommodated within the facility. If space for a full cargo was not available, then the alternative to this would require a part discharge of the vessel at this location and then undertake a very costly move of the vessel to a second discharge berth to complete discharge.

4.48 In addition to the warehouse facility, steel vessels for 10 shed often carry cargoes of scaffold that are discharged and stored in the common user open storage areas around and to the North of 10 Shed (Appendix 2, location 24). The detrimental loss of the area of the warehouse and the adjacent common user storage areas potentially renders the remaining facility insufficient in terms of capacity and therefore no longer capable of viably accommodating the current trades.

4.49 It should also be noted that the demolition of part of 10 Shed to allow for the construction of the replacement road will entail the loss of the doorway in the northern gable, which is one of the primary vehicle loading points. Collecting lorries reverse into this door so that they can be loaded under the Goliath internal cranes. It is not easy to provide alternative side access to this facility in many areas due to the crane rails that run along the floor at the edge of the warehouse which, in some areas, are either raised or sunk relative to floor level, due to variations in the shed's floor level. Demolition of the northern part of the facility will, therefore, have to ensure that accessing vehicles can reverse safely into a newly constructed northern door without impacting on the safety of traffic flows on the newly constructed road. This is likely to require demolition of parts of the warehouse facility in areas not subject to the compulsory acquisition.

4.50 ***Common user area to the north of 10 shed (Appendix 2, location 24).*** To the north of 10 Shed is a paved area of open common user storage. This is paved with concrete and is approximately 0.95 hectares in area. This site will be detrimentally lost to the port as part of the compulsory purchase and its loss will therefore impact on both the ability of existing port customers to operate as well as for ABP to meet new business development opportunities and spot cargo requests. The storage area is in proximity to the quaysides in both the North and South docks and has been used for a range of short and long term storage requirements including for telegraph poles, packaged timber, scaffold and steel products, project cargoes and bulk cargoes. One

of the primary current uses is for the storage of scaffold tube that is shipped alongside steel coil that is stored in 10 shed.

4.51 ***Ma's Bar Café (Appendix 2, location 25).*** Located in a leased facility to the North of Tom Lewis way is the only general access café on the port estate. This facility therefore serves the wide number of customers on the port estate as well as visitors, contractors and lorry drivers and it provides an important welfare facility. Due to the security control at the port gate this facility does not tend to cater for people who have no other purpose to visit the port. The site comprises of a café facility and a vehicle parking area and will be completely lost as part of the compulsory acquisition. Alternative comparable and suitable sites are not readily available on the port estate without development or through the use of more valuable operational land.

4.52 ***JED Crushing and Screening (Appendix 2, location 26).*** Located to the north of Tom Lewis Way is a leased compound that provides a storage and maintenance area for JED Crushing and Screening. This company provides important value added services to ABP and a number of port customers, typically in relation to processing, screening, crushing and handling of bulk products that tend to occur in the western area of the port. This site is therefore in close proximity to the area where they provide the majority of their services. This is important as much of their equipment is difficult and costly to move over anything other than short distances. The site is completely lost as part of the compulsory acquisition. Alternative comparable and suitable sites are not currently available on the port estate in proximity to the western port area. As a consequence, it is anticipated that this customer and important service provider will be detrimentally lost from the port. This will result in significantly increased costs and deployment times in the future when value added services are required by ABP or other port users as the heavy equipment involved will have to be delivered to the port by specialist haulage on each occasion.

4.53 ***Laidlaw (Appendix 2, location 27).*** To the north of Tom Lewis Way is a haulage compound leased to Laidlaw who provide general haulage services. It is believed that much of their current customer base is located away from the port, but that the site works well for them as a strategic and secure location. The site is completely lost as part of the compulsory acquisition resulting in detriment to the customer as well as to ABP in relation to a lost lessee.

4.54 ***R Williams Transport (Appendix 2, location 28).*** To the north of Tom Lewis Way is a haulage compound leased to R Williams Transport who provides general haulage

services. It is believed that much of their current customer base is located away from the port, but that the site works well for them as a strategic and secure location. The site is completely lost as part of the compulsory acquisition resulting in detriment to the customer as well as to ABP in relation to a lost lessee.

4.55 ***Bridge Time (Appendix 2, location 29)*****.** To the north of Tom Lewis Way is a haulage compound leased to Bridge Time who provides general haulage services. It is understood that they provide transport services to a number of customers on and off of the port. The site works well for them as a strategic and secure location as well as being close to a number of their customers. The site is completely lost as part of the compulsory acquisition resulting in detriment to the customer, their other customers on the port, who may see increased haulage costs, as well as to ABP in relation to a lost lessee.

4.56 ***Ronnie Evans (Appendix 2, location 30).*** To the north of Tom Lewis Way is a haulage compound leased to Ronnie Evans who provides general haulage services. It is understood that they provide transport services to a number of customers on and off of the port. The site works well for them as a strategic and secure location as well as being close to a number of their customers. The site is completely lost as part of the compulsory acquisition resulting in detriment to the customer, and their other customers on the port, who may see increased haulage costs, as well as to ABP in relation to a lost lessee.

4.57 ***Part of development area south of Tom Lewis Way, including a biomass bulk drying and pelleting facility with an onsite energy centre (Appendix 2, location 31).*** To the south of the current Tom Lewis Way is located a 4.74 acre consented development site for the construction of a biomass bulk drying and pelleting facility, storage bays, offices, parking workshops, cargo conveyor and onsite energy centre. The planning consent for the site was granted in 2011 by the developer Vogen who have the necessary agreements in place with ABP, Western Power/National Grid and the developer is currently working with investors to reach financial close. Once constructed the site would utilise approximately 350kt of imported material and convert it into energy feedstocks to supply the biomass and co-firing energy supply chain. The site would create 35 full time jobs and in addition ABP anticipate recruiting additional staff to support this trade and the associated cargo handling activities.

4.58 The consented site will be lost as part of the compulsory acquisition. As a consequence, the development and the associated cargo volumes and job creation will also be lost to the port and the local economy. In addition, adjacent to the power station site, there is another development site that will also be detrimentally lost as a result of the proposed scheme.

4.59 Development sites such as these are important if the port is to continue to grow and develop and their loss will seriously constrain ABP's overall ability to deliver the ports' Master Plan objectives.

4.60 ***Scott Pallets (Appendix 2, location 32).*** Located to the north of Tom Lewis Way is a pallet manufacturer Scott Pallets, part of the Scott Group. The site comprises of a tarmac surfaced and security fenced area and is subject to a lease. The site is completely lost as part of the compulsory acquisition, resulting in detriment to the customer as well as to ABP in relation to a lost lessee.

4.61 ***Common user storage area (Appendix 2, location 33).*** Located to the north of Tom Lewis Way is a 1.87 hectare common user storage compound. The compound has a tarmac surface and security fence, with a gated entrance onto Tom Lewis Way. The compound has been used for a variety of uses including the storage of pallets, the lay down of project cargo, during the decommissioning of the nearby waste electrical plant and most recently for the storage of imported bulk materials. The redelivery of the bulk materials is served by the operations department, with stock management being co-ordinated by the nearby weighbridge and office. Materials, therefore, need to be stored in reasonable proximity to this facility to minimise delays and internal movements when cargo is collected. The site is completely lost as part of the compulsory acquisition and as this site provides vital storage for the importation of cargoes shipped to and from the port. It is likely that this detrimental loss will result in cargoes being lost to other ports in the UK as suitable alternative locations in the western area of the port are not currently available, especially when the additional loss of land to the CPO is taken into account.

4.62 ***Road Maintenance Serviced Ltd "RMS" site (Appendix 2, location 34).*** RMS are a road surface maintenance company who lease a yard of 0.94 hectares to the north of Tom Lewis Way. The yard is surfaced and fenced and is used for the importation of aggregate to the port. RMS import some of their required aggregate to the port, where vessels have typically been discharged in the North Dock to allow for cargo to be discharged to the common user quayside and then moved via lorry over several

days following vessel completion. The railhead facilities at the port are also of potential interest to RMS for the delivery by rail of raw materials required in their processing activities. The yard is also partially used for the parking of specialist vehicles. The site is completely lost as part of the compulsory acquisition, resulting in detriment to the customer as well as to ABP in relation to a lost lessee.

4.63 ***Asset International site (Appendix 2, location 35).*** Asset International are major suppliers of drainage and barrier products. They form part of the Infrastructure Products Group which is a division of Hill and Smith Holdings PLC. They lease a site of 2.52 hectares to the west of Tom Lewis Way. The site is surfaced and fenced and is predominantly used for the storage and servicing of motorway barriers. The majority of the site is lost as part of the compulsory acquisition, resulting in detriment to the customer as well as to ABP in relation to a lost lessee.

Motorway Junction/link road

4.64 ***Development area (Appendix 2, location 36).*** Located to the west of West Way Road is a development area comprising of 7.98 hectares. The site currently has an access road into it from West Way Road and is identified as a strategic development site in the recently published Port Master Plan. ABP anticipates that the site will be developed to meet growing requirements for operational land during the master plan period. Until 2012 much of the site was subject to an option agreement with Network Rail for the development of a "virtual quarry" site to supply stone ballast to the rail network. The site was therefore not marketed for a number of years. Upon expiry of the option the site has again started to be marketed, although this coincided with the recent global recession and then the publication of the draft CPO plans that have provided much uncertainty relating to the site for potential new users.

4.65 ABP has also reserved a rail development corridor through this site (and others) to enable a railway line to be constructed to serve the bulk terminal and proposed biomass power station as is described in the Master Plan (**ABP/12H**). The entire development site is subject to the compulsory purchase order for the link road and for construction compounds and therefore this important site, to support port development and growth, will be detrimentally lost during construction. Following the completion of proposed construction Welsh Government have orally advised that the construction compound land will be returned to ABP. There has, however, been no indication by WG as to the terms and conditions relating to this and any future

covenants that may be placed upon it and, therefore, of the longer term detrimental impact that the proposed route will cause.

4.66 ***Site licenced to Newport City Council (Appendix 2, location 37).*** Newport City Council hold a licence from ABP to facilitate access to monitoring stations associated with the operation of the landfill site. The licence covers an area of 6.17 hectares and in addition Newport City Council access some areas of the landfill site for maintenance via the port estate. The licenced site will be lost as part of the compulsory acquisition and access will not be possible via the port estate for works on the landfill site. This will have a detrimental impact on the operation of the landfill as well as upon ABP's through the loss of a licensee.

4.67 ***LDH Hire (Appendix 2, location 38).*** Located to the west of West Way Road is a fenced compound leased to LDH Hire who operate a plant sales and hire company from the site. Also located on the site are a number of offices, buildings and maintenance areas. A parcel of land to the rear of this site where some specialist equipment is operated is subject to the CPO for the proposed scheme and this will therefore potentially have a detrimental impact upon both the customer and ABP through the loss of a lessee unless site modifications can be undertaken as part of the scheme.

4.68 ***New Adventure Travel (Appendix 2, location 39).*** Located to the west of West Way Road is a fenced compound leased to New Adventure Travel who use the site to store and maintain buses and coaches. A parcel of land to the rear of the site, including a workshop building, is subject to the CPO for the proposed scheme. This will have a potentially detrimental impact upon both the customer and to ABP through the loss of a lessee.

4.69 ***Currently vacant compound (Appendix 2, location 40).*** Located to the west of West Way Road is a fenced compound that is currently vacant but is being marketed as a haulage yard, complete with a small maintenance building. A parcel of land to the rear of the site is subject to the CPO for the proposed scheme and it is not clear if this may also impact on the current site building. The loss of this parcel of land will have a detrimental impact on the overall marketability of the site and this could mean that it will be harder to secure a new tenant to the site.

4.70 ***Baldwins Crane Hire (Appendix 2, location 41).*** Located to the west of West Way Road is a fenced compound, complete with offices and maintenance facility that is

leased to Baldwins as a crane hire depot. Baldwins hire cranes for a number of customers in the region and also regularly provide crane solutions on the port for heavy project and engineering type lifts that are outside of the capabilities or access of the port's cranes. A parcel of land and part of the buildings to the rear of this site is subject to the CPO for the proposed scheme which will have a detrimental impact upon both the customer and ABP through the potential loss of a lessee. In addition, if the company is lost from the port then the benefit of being able to hire heavy crane solutions on the port estate would be lost. This would likely result in an increase in charges and loss of flexibility at the port for such operations in the future, as factors such as additional travelling time and potentially welfare facilities will need to be included into their charges. This facility, however, could be possibly be reconfigured to occupy part of the adjacent vacant site to retain this customer on the port.

4.71 ***NR Evans (Appendix 2, location 42).*** To the west of West Way Road is a haulage compound leased to NR Evans who provide general haulage services. The site works well for them as a strategic and secure location and they are keen to remain within the port where some of their customers are based. A relatively small parcel of land to the rear of the site is subject to the CPO for the proposed scheme and this could therefore have a detrimental impact to both the customer and to ABP through a reduced lease area or lost lessee.

4.72 ***A1 Skips (Appendix 2, location 43).*** Located to the rear of the NR Evans site, with an entrance off West Way Road is a skip hire and waste processing facility leased to A1 Skips, who provide waste services to ABP and other port customers. Their ability to quickly deploy skips on the port estate to meet vessel discharge requirements is an important factor in ABP using their services over non-port based alternatives. In addition to those port based requirements, A1 Skips also provide their services in the wider Newport area. The site is completely lost as part of the compulsory acquisition to the detrimental impact of both the customer, their customers on the port, including ABP (as a customer), and to ABP through the loss of a lessee.

4.73 ***Port Security Western Gatehouse (Appendix 2, location 44).*** The security entrance gatehouse on West Way Road is currently on land that is subject to the compulsory acquisition. It is understood that whilst access will be maintained via West Way Road, it will be necessary for the gate house to be moved further into the port estate to facilitate construction of the proposed link road. We have had very limited discussions as to the practical arrangements associated with such a move and aspects such as moving CCTV will need to be considered further, as will aspects

relating to the design to ensure that it complies with security regulations and requirements. Until such time as formal designs and agreements are in place for the movement of such a facility we remain concerned as to the practicalities of future safe operation in a new location without impacting on entrances to tenanted facilities.

Other customers and sites impacted by the proposed route

4.74 In addition to those customers that are directly impacted by the loss of land and facilities as a result of the CPO for the proposed route, there are other customers, sites and plans that are detrimentally impacted as a result of consequences and restrictions that the proposed scheme introduces. I outline and consider these in the following paragraphs.

4.75 ***WE Dowds, North Dock Steel Terminal (Appendix 2, location 45).*** Located to the east of North Dock is a steel terminal facility that is operated by WE Dowds. This facility provides one part of the wider steel handling facilities at the port. These warehouse facilities are located immediately adjacent to the common-user quayside areas and this enables steel cargoes to be quickly discharged from vessel directly into storage. Dowds typically use these facilities to handle some of their European trades that are shipped in consignments and vessels that typically are able to berth in North Dock. These vessels tend to be at the larger end of those that utilise the North Dock facilities and therefore the construction of the low bridge over Junction Cut as part of the proposed scheme is likely to have a significantly detrimental impact on their ability to discharge vessels in this area of the port. Rod Lewis, in his evidence, provides further analysis as to the vessel restriction that will be experienced by Dowds and other North Dock users as a result of the proposed scheme.

4.76 As such vessels will not be able to be discharged in North Dock, they will have to be handled at the quaysides and facilities in South Dock. As a consequence of this, it is likely that additional periods of congestion will be experienced at the common-user quaysides in the South Dock that could result in delays in handling vessels as they wait for a berth to become available. This will clearly result in additional costs to the customers and ships using the port that will have a detrimental impact upon the competitiveness of the port as a whole. In addition to this, as vessels will not be able to discharge into the North Dock steel terminal, Dowds, in order to still use this facility, will have to spend significant time and cost moving material from warehouses where material is discharged to these warehouses and this will have a detrimental impact on

their operation. I understand that W.E. Dowds have also submitted their own objection to the proposed scheme.

4.77 ***C. H. Bailey, North Dock Dry Dock Facility (Appendix 2, location 46).*** To the south east of North Dock is located a dry dock facility, currently leased to C. H. Bailey. Over the past few years this facility has not been operated at the port as C. H. Bailey have tended to focus their Newport operations on Bailey Industrial Engineering, a subsidiary company, also based on the site. The lease for this site expires in 2017 and it is therefore anticipated that the dry dock site will revert to ABP control. As outlined in the Master Plan, once back in our control, we intend to evaluate the future option for reinstating dry dock use at the port or alternatively converting the facility to an undercover steel handling terminal to support European steel imports and exports.

4.78 The proposed construction of the low bridge over Junction Cut as part of the scheme however will have a detrimental impact on the future viability of this site either for use as a dry dock or as an undercover steel terminal as there will be significant air draught restrictions for vessels being able to utilise it.

4.79 ***North Dock timber and forest product importers (Appendix 2, location 47).*** In addition to International Timber, the western area of the port also provides timber terminal facilities for several other importers of timber and forest products. Whilst these terminals do not receive shipments at the same frequency as International Timber, their vessels also tend to discharge at the common-user berths to the west of North Dock. These operations are likely to experience the same detrimental impacts that I have previously explained when considering International Timber and this will therefore also have a detrimental impact on ABP's operational team.

4.80 ***Marine Shipping.*** Marine Shipping are a stevedoring labour supply company based at a facility in North Dock. Whilst the proposed scheme does not impact on the facilities that Marine Shipping lease from ABP, they are likely to suffer detrimental impact to their business as a result of the WG scheme. It is anticipated that the WG scheme will result in a reduction of cargo being shipped and handled through the port. This will therefore have a significant impact on the demand for labour services that Marine Shipping supply to ABP and other port users during peak periods. This reduction in demand is therefore likely to seriously impact on the ongoing viability of the company as a whole.

4.81 In addition to the site impacts that I have reported, a number of other port customers and users will be impacted as a result of the loss of customers and facilities in other areas of the port. Thus a number of haulage operators will be lost from the port (for example, Laidlaw (location 27) and R Williams Transport (location 28)) as a result of the proposed scheme and these hauliers serve a number of the different trades on the port. This loss from the port could therefore have a detrimental impact upon a number of companies procuring haulage as costs may increase, whilst availability and competition will decrease. In the same way there will also be detrimental impacts on other port users and ABP as a result of the impact or loss to maintenance, value added service and waste providers. This could well have a knock-on effect on the attractiveness and competitiveness of the port as a whole.

4.82 The numerous detrimental impacts of the WG Scheme upon ABP will certainly make it far more difficult to deliver the plans and business growth detailed in the Port Master Plan. This includes the plans to widen Junction Cut, to redevelop the North Dock Steel Terminal and Dry Dock areas and to create a new berth and storage area in the northern part of North Dock. Similarly, customers of the port will also suffer difficulty in delivering their own future development plans.

4.83 This in turn will have a significant consequential impact on the contribution that the port makes to the Welsh and UK economy.

5 THE EFFECT ON THE PORT OF AREAS IMPACTED BY THE PROPOSED SCHEME

5.1 In the previous section I have discussed the physical, commercial and operational impacts to individual areas of the port. My objective in this section is to explain how various aspects of the port currently operate and the complex challenges that are associated with such operations. I then also discuss how the proposed scheme would detrimentally impact upon the way that the port currently operates.

5.2 The proposed route over the Port is shown in drawing **Appendix 1 in ABP/2B**. Superficially, this gives the appearance of splitting the port into two distinct sections – one to the north of the proposed M4 and one to the south. As will become apparent from my evidence, however, for certain key port operational considerations, the proposal will have the impact of actually splitting the Port into three isolated zones.

The berth planning process for ships calling at the port

5.3 The process involved in the planning of berth allocation for ships calling at the port is complex, with a number of ever-changing factors and key physical features that need to be considered to best determine the location that each vessel will berth at. I outline in the following paragraphs the main factors that currently have to be considered as part of this process before evaluating the additional complexities and detrimental impact that the proposed scheme will have on this process.

Berth classifications and useable areas of quayside

5.4 In total, the Port has a total length of dockside frontage of approximately 5380m, within the North and South Docks. By way of background, it is important to understand the different classifications of berth that we currently have within the port:

a) *Common-user*. These flexible quayside areas are typically able to be used for the importation of the majority of cargoes handled at the port. Such berths are used by ABP as well as by other licenced operators at the port, including WE Dowds. Such berths tend to have a quayside apron to the rear of the berth that can be readily configured and adapted to handle various cargoes. These berths are able to be served by the fleet of ABP Mobile Harbour Cranes and in addition quayside cranes, where they exist. In total there is 739m of common-user quayside in the North Dock and 894m in the South Dock.

b) *Leased Berth Facilities*. These facilities are typically leased to a particular customer at the port and are therefore used by the customer solely for the purposed of their operation. At Newport, berths in South Dock are leased to the sand (160m), scrap metal (220m) and cement terminals (120m) and in the North Dock the dry-dock facility is also subject to a lease (160m).

c) *Purposed quayside for a single cargo type.* Certain cargo operations, undertaken by ABP, are not operationally practical to take place at common-user berths, typically because of licences that need to be held in order to handle and store such cargo as well as because of the need to store the cargo immediately adjacent to the loading or discharge berth. Several areas of South Dock are therefore purposed for particular cargoes – The Coal Terminal (sections 5 and 6) comprises of 427m of quayside and the former East Lock is dedicated to the export of recycled woodchip (170m). These quaysides are therefore not typically able to handle other cargo types, although the coal

terminal is occasionally used for other energy related and aggregate cargoes when there is sufficient storage space available.

d) *Former and non-developed dockside areas*. Several areas of the port have former quayside structures located on them that are no longer suitable for the modern needs of the port. Often these structures were associated with the export of coal and following the demise of that industry have tended to become dilapidated. Some of these structures were created onto a battered slope that provides the edge to the dock rather than a solid quay wall. As a consequence, if the former structures were to be removed, there would still not be a useable quayside available. Such areas could not, therefore, be used for the berthing of vessels without significant investment being undertaken to repurpose them to modern needs, probably with the construction of new sheet piled or suspended quayside. In addition, some areas of the port have never been developed for the purpose of berthing vessels. In total there is 1660m of such dockside in South Dock and 720m in the North Dock.

5.5 On initial assessment it appears that there is a significant length of quayside available at the Port. Once the various classifications of quayside above are taken into account, the quayside that is available for the allocation of the majority of the vessel traffic calling at the port is, however, much diminished. For the purposes of the majority of vessel planning there is therefore a total of 894m of common user quayside in the South Dock and 739m in the North Dock. This is an important factor that has to be considered when planning vessel berths, especially during periods of peak shipping activity. In the following paragraphs I will further consider the complexities of vessel berth planning before concluding the overall impact that the proposed scheme will have on this and therefore the operation of the port.

The factors and considerations involved in vessel berth planning

5.6 A small team of operational planning staff are responsible for evaluating and planning all of the vessel and cargo movements within the port. Due to the nature of the port and its cargo flows, we have a very low level of control as to when vessels are scheduled to deliver cargo to or collect cargo from the port, on behalf of our customers. This is because the majority of the trade is performed on a “tramp” (or spot) basis, where customers are chartering vessels that are not operating on a regular liner basis. Where ports or terminals operate with liner type trades, they are typically able to deploy a higher level of control and plan arrivals and sailings to

minimise congestion of berths and vessels and optimise the use of resources. Such an operation is typical at ferry and container ports/terminals. Neither of these trades, however, occur at Newport.

5.7 Due to the nature of vessel arrivals, which have to transit the entrance lock around high water times and with deeper vessels having to arrive at the higher Spring tides, planning vessel berthing positions is a challenging activity and a number of different factors have to be taken into account.

5.8 These factors include the estimated arrival times of all the vessels expected over a tide that are bringing cargo destined for Newport, or arriving in ballast to load at the port, and also a calculation on the required time it will take to load or discharge the cargo. Both the vessel arrival times and cargo handling times can however be significantly impacted by the weather that may mean a vessel shelters on-route to Newport thus delaying its arrival, or a cargo cannot be loaded or unloaded as it can only be handled in dry weather or the cranes can only be operated below certain wind speed parameters.

5.9 Vessel length, beam and arrival or loaded draught has to be carefully taken into account in determining the vessel berth. Each berth has different maximum parameters of vessels that can be accommodated. In addition different configurations of vessels can be allocated to berths – for example the berthing on the north side of South Dock may only be able to have one maximum size vessel berthed on it but a combination of 3 smaller vessels could also use the same berths on a different day.

5.10 The determined berth of each vessel also has to be planned against the handling requirements, storage availability, cargo destination and requirements and crane, equipment and labour availability. Consideration also needs to be given to if the vessel needs to discharge at a common-user berth or one of the dedicated customer or cargo facilities and also in relation to other expected vessels/cargoes that are due at the port over the following tides.

5.11 Shipments of cargo to and from Newport can also have a very short notification period before the required services need to be in place. Often for larger ships we have an approximate arrival window several weeks in advance although this can advance or slip back significantly from original estimations during the voyage. For smaller shipments the notification period may be the day prior to arrival. We are also

not able in most circumstances to schedule or control the arrival of vessels for individual customers and commodities. This often means that vessels cluster together (particularly around spring tides) and therefore that sometimes means there is insufficient capacity at the berths whilst at other times there are no vessels working in the port.

5.12 On occasions, cargo handling productivity once a vessel is in port does not achieve the expected productivity and therefore this adds further complexity to the planning regime. Delays can be caused by a significant number of different factors including rain, wind speed, equipment breakdown, cargo damage (often during transit), cargo not meeting expected specification or handling characteristic, insufficient warehouse capacity, unavailability of subcontractors, vessel complications and breakdowns and lack of cargo availability (in the context of cargo export).

5.13 The complexities of initial planning and the additional variables during vessel working at times mean that the allocated berth for future planned vessels is often changed and updated on multiple occasions - often at little notice. Vessels currently working at the port may also have to be moved (either along the quayside or to another are of the port) to accommodate the needs of the other vessels. Such movements can incur significant additional cost including those for boat/rope men, pilotage and marine towage as well as potential costs to the vessel charterer as identified in the vessel charter party agreement. As a consequence, such moves are only made after careful evaluation of all the potential scenarios.

5.14 The result of the complex planning regime and the number of factors that change and update is that often initial planning decisions are changed and updated many times in advance of the actual service delivery.

The importance of berth allocation flexibility between the North and South Docks

5.15 The above context is vital to understand if the significant detrimental impact that the proposed route will have on the port and its operations is to be understood. In the next few paragraphs, I outline the importance that the flexibility of the berths in North and South Dock currently provide before explaining why the introduction of a low bridge across Junction Cut will have significant implications.

5.16 The common-user berths at the north side of South Dock are typically the most intensively utilised and therefore congested in the port. These berths, along with

those to the west of North Dock serve the western area of the port, including warehouses 8,9, 9A, 9B, 9C, 10, 11, 11A and 20 (as seen on the Port Plan at **Appendix 7 in ABP/2B**) and the common user storage areas around these facilities.

5.17 When deep-sea vessels are delivering cargo to, or loading from the western area of the port, the vessel parameters mean that they have to be berthed on the north side of South Dock and due to their nature and size of cargo consignment these ships can be in port for many days, whilst cargo stevedoring is undertaken. At the same time, as we have a low level of control over vessel arrivals, a number of smaller cargo shipments may also arrive that are also destined for the facilities in the western area of the port. Such vessels are therefore typically berthed and handled at the west of North Dock as these berths also readily serve this area of the port. If these vessels were not able to be berthed in this area, then the alternative is to utilise the much more distant berths elsewhere in the South Dock, or leave the vessel berthed on a layby (temporary non-working) berth or at anchor at sea until the working berth again becomes available. All of these alternatives involve additional cost and time.

5.18 One factor that does not currently have to be considered as part of the complex planning regime is vessel air draught. This is not a factor that any of the port's customers have to consider when agreeing vessel charters to deliver or collect their cargo. At present, the ultimate berth allocation for each vessel is not fixed until very close to arrival, and even then the vessel may have to be moved around the port during operations. If the motorway bridge is constructed as currently proposed, however, essentially almost all of the vessels that service Newport and can access North Dock, will in the future have to be chartered with a maximum air draught capable of transiting below the motorway bridge in order that this essential berthing flexibility can be maintained. Failure to do this could result in significant delays to vessels calling at the port, or vessels having to work at remote berths. Either of these options will result in unmanageable additional costs for shippers and port customers. My colleague Rod Lewis considers the additional challenges in vessel charter as a result of the air draught restriction as part of his evidence.

5.19 In reality it will simply not be financially or practically viable for port customers, who use the facilities in the western area of the port, to charter reduced air draught vessels, in case their shipment needs to be handled on occasions in the North Dock. The likely consequential detrimental impact of air draught restriction imposed by the development of the scheme is that periods of congestion at the port will increase and vessels will have to be handled at the limited number of suitable alternative common-

user berths in South Dock, which are already under pressure during peak periods and which are a significant distance from the cargo storage location. This increased peak pressure is also likely to result in vessels having to be delayed as they await a suitable berth.

5.20 The longer term impact of this is the inevitable loss of trade as the delays lead to a loss of reputation and increased costs therefore resulting in customers or trades leaving the port. To demonstrate this and the consequential impacts, I have outlined a possible scenario in the following paragraphs.

5.21 Ships carrying consignments of typically several thousand tonnes of fertiliser cargo regularly arrive at the port throughout the year, destined for one or both of the two fertiliser terminal facilities in the western area of the port operated by Origin and Mole Valley Forage Services. ABP is contracted to discharge the fertiliser from these ships into bulk haulage, using a grabbing crane and hopper. The lorries are then weighed on a weighbridge and move the cargo to the relevant terminal, tip their cargo and then return to the vessel for the next load. During a typical discharge there will be between 3 and 5 lorries undertaking the same operation to maintain a near constant vessel discharge. The round-trip distance from the normal discharge locations to the store, including the routing via a weighbridge and then returning to the ship is approximately 600m when working at the north side of South Dock and approximately 1,000m when working on the west side of North Dock.

5.22 As previously explained, the berths at the north side of South Dock are the busiest berths in the port. Therefore if a large ship discharging steel, for example, is berthed in this location we would typically berth and discharge the fertiliser vessel in North Dock. Currently the significant majority of short-sea fertiliser shipments discharged at the port are able to be berthed in both North and South Docks. It is not necessary for the fertiliser customers to give consideration to vessel air draught and to do so would likely increase cost and reduce availability of suitable vessels. Should the low bridge be constructed as proposed the customers would still typically expect their vessels to discharge on the north side of South Dock. They would, however, either have to charter potentially more costly vessels with a low air draught so that the shipment could also be handled in North Dock or failing that they would run the risk of the vessel having to discharge at the next available and suitable common-user berth. This may well be on the south side of South Dock at the coal terminal, as the berths closer to the warehouse are not typically suited to the handling of fertiliser cargo due

to the size of the quayside apron, other customer arrangements and the proximity to steel operations (fertiliser is highly corrosive to steel).

5.23 In this example, the round-trip distance that a vehicle carrying fertiliser would have to take, including the weighing of the cargo, is approximately 8,500m, an additional 7,500m than is normally travelled when operating in North Dock. On a modest 3,000t fertiliser import this could add approximately 700 miles of transport to the operation, in addition to the approximately 95 miles that would normally be required to work in North Dock. In order to serve a discharge in this location, significant modifications to the existing coal terminal would need to be put in place as the terminal is currently designed predominantly for coal handling and storage - There is an approximately 2.9m high, 500m long bulk retaining wall along the quay front that would impede vessel discharge as there is no room for vehicle movements on the water side of the wall. This wall would need to be removed and the existing quayside and drainage systems modified as the storage area in the coal terminal is currently at a higher level than that on the quayside the other side of the bulk wall.

5.24 In addition to the required quay modification and extra transport distance, it is likely that a significantly higher number of shunt vehicles will be required to ensure that discharge productivity can be maintained. As the route also passes over level crossings, during rail movements further delays will be experienced. These factors will lead to a significant increase in costs to the fertiliser customers and this cost increase is likely to significantly impact on their competiveness in the marketplace and ultimately their ability to continue to competitively trade from the port.

5.25 A significant increase in the distance cargo has to be shunted by road will not only increase the number of vehicles required and therefore the cost but also fuel used per tonne of cargo will significantly increase as will vehicle emissions. The increased distance will increase wear and tear on the vehicles and the increase number of vehicles will increase capital outlay and ongoing maintenance functions. The increased movements will also have an impact on the wear and maintenance of the port's roads and infrastructure.

5.26 The scenario outlined above is also virtually identical for a number of other customers at the port including those handling animal feed and aggregates. Development of the proposed low bridge will cause a significant number of seriously detrimental impacts for the operation of the port.

5.27 In addition, the extra costs associated with such cargo movements in the long term are likely to have a significant impact on the Port's future and ongoing competitiveness and our ability to offer viable services to a variety of cargoes and customers as these costs will have to be passed on to customers. Customers will also incur additional costs by reason, for example, of longer vessel turnaround times due to remote working.

5.28 In order to avoid these additional costs and challenges associated with handling a vessel at a more remote quayside, customers could elect to only charter vessels with an air draught within the parameters that could enter North Dock. This would also, however, be likely to cause an increase in costs through higher charter rates as the market of ships that they can pick from will be significantly reduced and they will not simply be able to select, as they do now, the nearest and cheapest available vessel for the voyage. By selecting lower air draught vessels, they are also likely to have to select vessels with a lower carrying capacity and that will impact on the maximum volume of cargo that they can carry on a particular voyage. This may result in additional shipments being required to move the same volume of cargo, further impacting on their costs per tonne. Rod Lewis explores this matter further in his evidence.

5.29 Ultimately the combined result of the impacts of the bridge, forcing customers to select low air draught vessels, is likely to lead to in a reduction in levels of trade at the Port, as cargo is likely to be lost to competitor operations that are not constrained, such as those in Bristol, the South West of England and Liverpool. This will also impact on the future ability to successfully market the Port to new customers.

Increasing vessel size of ships calling to Newport

5.30 In the next few paragraphs I outline the trend for larger vessels calling at the port and the modification to Junction Cut, as outlined in the Port Master Plan (**ABP/12H**), that we intend to undertake to support this trend. I will then indicate the detrimental impact that the proposed route will have on our plans to widen Junction Cut.

5.31 As my colleague Rod Lewis indicates in detail in his evidence, the port of Newport has seen a significant increase in the number of larger, deep-sea ships calling to discharge or load cargo. By their very nature this size of ship is currently not able to transit into the North Dock, due to the current beam restriction at Junction Cut. This therefore restricts the total number of berths that such vessels can be allocated to,

despite the fact that some of the cargo being carried could be destined for facilities that are located closer to these berths than those in the South Dock.

5.32 As previously discussed, deeper draught, deep-sea vessels typically have to transit the lock at Newport during the periods of higher spring tides and we therefore regularly see a clustering of such vessels. Smaller coaster size vessels typically can call at the port throughout the spring and neap tidal cycle and so, particularly during the clusters of larger vessels, smaller shipments are often berthed in the North Dock to serve the port's western terminal area.

5.33 In order to simplify this complex element of the berthing decision making process in the future, as outlined in our Master Plan, we intend to undertake a relatively simple widening operation at the Junction Cut which will enable the majority of deep-sea vessels visiting the Port to also be able to berth in the North Dock. This modification will significantly ease berthing pressure on areas of the port and will make berth planning much easier as there will be a significant increase in the total accessible common-user quayside length.

5.34 Matthew Kennerley, in his evidence, provides further explanation and details the scheduling of this modification. We anticipate this to be revolutionary for the port in terms of our future ability to meet the need to accommodate increasing numbers of deep-sea shipments at the port as well as in delivering growth and development opportunities. The WG scheme, with a low bridge over Junction Cut, will however mean that this investment will no longer be viable as the air draught restriction will prevent large vessels from using the widened cutting and therefore the benefit that it is able to achieve will be lost.

Crane operations

5.35 In the next paragraphs I detail the need to operate a flexible and modern fleet of cranes at the port to service our customers and the history of such provision. I then evaluate the detrimental impact that the WG scheme will have on our ability to operate the cranes in all areas of the port.

5.36 As I have previously introduced above, the Port of Newport owns and operates three Mobile Harbour Cranes (MHC) to service vessel loading and discharge at the port. These cranes are highly versatile pieces of equipment that are critical to the Port's operation. They can be deployed in virtually any part of the Port and can be moved easily and quickly around the dock in response to the requirements of ship

loading/unloading operations. The principal berth deployment and crane travel routes are a matter of common ground between ABP and WG – the situation is summarised in **Appendix 3 in ABP/2B**. These three MHCs supplement the Port's conventional rail-mounted quayside cranes, which are limited to parts of South Dock and do not offer the same level of capacity, functionality and flexibility. The MHCs can also be quickly adapted to deal with different cargo types, by using hook, grab (and potentially in the future, container attachments). In short, they are a highly efficient and flexible solution to the cranage needs of the Port. MHC's are also powered by diesel and therefore do not require extensive underground electricity distribution systems that the quayside cranes need.

5.37 The introduction of MHCs at Newport has led to a dramatic improvement in the operational efficiency of the Port. Prior to delivery of the first MHC in 1995, the Port operated 24 quayside cranes and handled 1.32m tonnes of cargo. With 11 fewer cranes, the Port has handled significantly higher cargo volumes – for example 1.85m tonnes in 2014. In 2016, a significant overhaul has been undertaken on the coal terminal cranes and this has enabled a further reduction of 2 cranes at that terminal. At the same time an additional crane reached the end of its life and has been removed from the north side of South Dock. We currently operate 10 cranes at the port – 14 fewer than just prior to the first MHC delivery, whilst handling higher cargo volume. The reduction in crane numbers has also unlocked equally as significant efficiency improvements, enabling the Port to remain competitive. For example in 1995 the Port employed 43 mechanical and electrical personnel – the equivalent figure today is 11 and a significant proportion of this reduction reflects the reduced crane maintenance requirements. Similarly the number of crane drivers has also been reduced as one MHC is able to outperform several of the older quayside cranes.

5.38 The fleet of MHCs currently comprises:

a) Two (no) LHM180 – dating from 2011 and 2015; and

b) One (no) LHM1120 – dating from 1992.

5.39 In addition to the MHCs, as mentioned above, the port currently operates seven rail mounted quayside cranes. These cranes are restricted to certain berths within the port and operate on crane rails that are built into the quay surface. They are therefore only able to travel along the berth (or part thereof) where they are located. These cranes are also powered by the port's electrical network where they are

connected using plug boxes that are distributed along the quayside. The quayside cranes are typically lower in lifting capacity than the MHC's and are less versatile. These cranes are also older than the MHC's.

5.40 In addition to the cranes owned and operated by ABP, Sims Metals operate their own ship-to-shore gantry crane within their terminal and WE Dowds have a crawler type crane. Dowds also hire ABP MHC's and quayside cranes to support their operations. Road going mobile cranes are also hired, typically from Baldwins (**Location 41 in Appendix 2 in ABP/2B**), from time to time to handle heavy project cargoes, although such cranes are not typically suitable for most cargo operations as they are not designed for fast rotation, cyclical work. Larger vessels, typically carrying break-bulk cargo such as steel and plywood are also often equipped with on-board 'ship's cranes' and these may be used, if the charter party allows, during these operations and subject to appropriate safety documentation being in place. Bulk cargoes (such as feed and fertiliser) however are always handled using shore cranes.

5.41 ABP constantly reviews and evaluates the provision of cranage at the port to ensure that current and future trade demands can be accommodated. The asset life-cycle of cranes is also evaluated and replacement equipment is planned as part of a 5-year budgeting process. ABP currently anticipates commencing the process for replacement of the LHM1120 in 2017 for delivery during 2018 and have budgeted accordingly for this, although this decision may have to be reviewed on the basis of the status of the proposed M4 at the time of procurement.

5.42 The MHCs are regularly used at a variety of locations throughout the Dock, with the principal areas of deployment being:

a) The eastern side of North Dock;

b) The western side of North Dock;

c) Middle Quay and East Lock;

d) The south side of South Dock; and

e) The north side of South Dock.

5.43 Vessels working in the port are typically served by gangs of stevedores. Depending on the size of vessel, cargo and availability of resources, vessels work with typically between one and three gangs with each gang working with a separate crane. Crane

allocation to a particular vessel can be all of one type (quayside crane, MHC or ship's cranes) or any combination thereof. It is also not unusual on large vessels to use a different combination of cranes at different times and this is often influenced by other activity within the port. All three of the MHCs can be used in all the areas of the Port, and their operation on a particular day could be all within one area (perhaps on two or three vessels) or spread across two or three of the principal areas of deployment already identified. MHC's are also moved during the day and therefore may work on two different vessels within two different operational areas on the same day.

5.44 In order to move MHC's around the port, between the different operational areas, the cranes are able to be travelled along the port's roads, travelling on rubber tyres. The port's roads have had to be strengthened to allow for the weight of the crane to travel over them. In order to travel a MHC, the crane pads are removed and transported separately and the out-riggers that hold the crane pads are retracted. This reduces the crane from an operational width of 11.3 m to a travel width of approximately 5.3 m. The cranes travel at approximately 5 kmph and other road traffic is managed for the short period of time during which crane movements take place.

5.45 In order to travel around the Port, the MHCs must also be placed into travel mode – this entails raising the crane's boom into an almost upright position to reduce to a minimum the possibility of the crane become unstable whilst moving. In travel mode, the crane's height is 48.8m. The WG scheme therefore significantly impacts upon the ability to move between the different areas of the port and effectively splits it into 3 crane operational areas as MHC's will not readily be able to pass between each of the areas as they do now. This is shown diagrammatically in the drawing at **paragraph 1.6 of CD 7.2.10**, marked as zones A, B and C respectively.

5.46 The route that the MHCs must follow to move around the dock, crosses under the WG scheme at three primary locations – being East Way Road, West Way Road and Junction Cut Road (to the west of Junction Cut in the vicinity of the International Timber operation). We have previously been advised by WG that the proposed height of the route at these points is 26.98m, 20.09m and 12.13m respectively, although these may have recently been insignificantly increased during recent further design work by WG. There are also a couple of secondary crane travel routes including a route immediately adjacent to the east of Junction Cut, which passes very close to a working berth and the Engineering workshop and another via Tom Lewis Way. These routes are equally constrained in terms of height and in the case of Tom Lewis Way, also by the relocation of the road.

5.47 In a typical year, there are around 70 MHC movements that cross the proposed route of the M4 resulting in a situation whereby the cranes could no longer leave the area of the port that they are located in.

5.48 It should be noted that the Port's MHC 1120 (purchased 1992) is of a design that allows for the tower of the crane to be lowered and then travelled. This original design feature was to enable this model of crane to pass under dock structures such as conveyor routes. It is therefore theoretically possible to pass this crane under the proposed route and between the separate areas. It however requires significant preparation work to do so, which effectively prevents the regular movement of this crane under the proposed M4. It is also anticipated that this crane will be beyond its viable operational life and will have been replaced by the time the WG scheme, if approved, has been constructed. The crane manufacturer has confirmed that the wider industry no longer demands the ability for a MHC to be travelled in this way and therefore this functionality has been removed from current models and they do not anticipate this being included in designs moving forward due to the costs and complexities of including it in the design.

5.49 New crane purchases, due to their procurement value and the status of ABP as a statutory undertaker are subject to European procurement legislation and are advertised via the European Journal. Whilst ABP currently operate Liebherr Cranes at Newport, it is possible that future procurement could be with an alternative supplier. It should however be noted that as far as ABP are aware, the same operational issues are presented by cranes from different suppliers.

5.50 At the request of Welsh Government, we approached Liebherr, the manufacturer of the Port's MHCs, in order to obtain its assistance in determining the impact of WG's proposed M4 relief road on the operation of the MHCs, given that the proposed scheme, will introduce a height restriction crossing the entirety of the Port, including over the routes that the MHC's travel when moving between operational quayside areas. This report is at **CD 7.2.9**. In addition, ABP provided a written analysis of the Liebherr report from the port perspective to WG (**CD 7.2.10**).

5.51 The Liebherr report indicates that it is possible to modify the software of two LHM 180 MHCs to allow travel with the boom in a lowered position so that they could fit under the proposed route bridge to the east of Junction Cut. It would, however, take up to around three to four hours to move the crane (depending on whether in hook or grab mode) under the proposed route due to the need to stop the crane, lighten it (by

removing weight from the end of the boom to reduce instability), refit the crane stability pads, lower the jib, move it at slow speed under the M4 and then raise the jib, remove the crane pads and reinstate the equipment previously removed to lighten the crane. Even with the modification, it would not be possible to move the cranes under the proposed route to the west side of the port, due to the lower height of the road.

5.52 Four further factors also influence the ability to undertake this operation at the crossing points to the east of Junction Cut, where there would potentially be sufficient height to travel in the special travel mode:

a) It is unlikely that sufficient space exists immediately either side of the route at this location to the East of Junction Cut, to create the areas required to manoeuvre the ancillary equipment (fork lifts etc.) to remove / reattach those parts of the crane to lighten it as well as to fit the crane pads, which are removed for travel around the port.

b) The road where the proposed movement operation under the WG scheme needs to take place is a busy port road for which 24/7 access is required and, indeed, is the main access route to the southern area of the port. A complete road closure will be required at this location when the crane is being readied to move under the M4 and during the actual manoeuvre under the M4. Such a closure will cause significant impacts to port operations, customers and emergency access and is therefore not practical. Whilst it may be theoretically possible to develop an alternative general traffic route as part of the bridge development, any such route will have to transit operational areas of the Port (creating a fundamental safety incompatibility between port operations and general traffic using the same area), and will have a number of tight bends (which may cause swept-path issues for large vehicles).

c) Any surface that the cranes need to be moved on in the special travel mode also needs to comply with strict criteria to ensure the safety of the crane. Liebherr therefore stipulate that there must be no more than 1% lateral gradient and no more than 2% longitudinal gradient over the section of surface where such movements are planned. This is far more stringent than the equivalent gradients that the crane can manage in normal travel mode and it will therefore require a special re-profiled surface to be installed (and subsequently maintained) over the length of road beneath and either side of

the motorway, to also take into account the distance required to lower the jib before reaching the proposed route.

d) The travelling of these cranes in the modified travel mode will only be able to take place in wind speeds (including gusts) of below 14 m/s. This compares to a wind speed limit of 20m/s for travelling Liebherr Cranes in standard travel mode. This, adds to the uncertainty of being able to move cranes around the Port to meet ABP's operational requirements as it will not be safe to permit crane travel when gusty wind conditions are forecast – to do otherwise could cause significant damage to the crane and is unsafe for the crane operators. ABP tends to plan crane movements a day in advance and they are often immediately moved between zones on completion of a vessel in order to be ready to start the next vessel. Cranes are also moved at very short notice in the event of a breakdown, or to provide additional support if an operation is, for whatever reason, not taking place as efficiently as planned. Actual wind speed data over a 795 day period, as included in the Liebherr report (**CD 7.2.9**), shows that on 36% of days gusts over 14 m/s have been recorded. Based on the data it is also evident that it is very difficult to have the tolerable wind conditions for such a move between October and March. During the same period, there were 9 days when the average wind speed for the 24 hr period was greater than 14 m/s. There was however no day where the average wind speed was above 20 m/s which is the limit for travel in standard travel mode.

5.53 The implication of the additional crane travel restrictions imposed by the M4 is that vessel crane requirements (planned or unplanned) will not be met, leading to significant cost increase, customer relationship issues and long-term reputational damage. It is not commercially or operationally viable for the port to have to rely on cranes being moved in the modified travel mode under the eastern part of the proposed route, apart from on the odd, well planned and non-time sensitive occasion.

5.54 In summary, therefore, the Port's two most recent LHM180 cranes, as well as the third which will have been replaced before the proposed route is in place, will, theoretically at best, only be able to access two of the three port areas that the road creates and then only after extensive modification to the crane and port infrastructure. For each manoeuvre under the proposed M4 there will also be significant impacts on the wider operation of the Port and customer/emergency access due to road closures and restrictions imposed on crane movements due to wind conditions will no longer

allow the flexible deployment of the cranes as is required to meet shipping and our customers' requirements. The movement operation is also likely to put the cranes at greater risk of damage due to the nature of the crane lowering and moving procedure. Furthermore, a crane located at the north side of South Dock will never be able to access the other areas of the port (and vice versa). In reality, however, given the extent of the process required for each manoeuvre under the proposed route each of the three zones created by the imposition of the motorway at such a low height will become isolated in terms of crane provision. The cranes will effectively become marooned in their given areas. This conclusion has been orally accepted by representatives of the M4CAN team who also agree that the potential manoeuvre under the motorway to the East of the port, whilst being potentially achievable on paper is not a realistic operation to be considered as part of the ongoing deployment of cranes at the port.

5.55 This clearly presents a considerable concern to the ongoing operation of the port – for the simple reason that an inability to service the basic needs of our customers (in terms of ship discharge and loading) will impede ABP's ability to properly and efficiently service its existing customers and will have the effect of driving business away from the Port.

5.56 The most obvious solution is to route the M4 motorway bridge away from the Port, such that the Port is not split into three distinct areas. The proposed route could also be built at a greater height so that cranes can pass under at all crossing points in standard travel mode – a height of around 50m would however be required. In this eventuality, consideration would also have to be given to future crane requirements and designs that may operate at higher travel heights.

5.57 The alternative solution would be to equip all the three distinct areas, created by the WG scheme, with their own cranes, such that each area has a full complement of three mobile harbour cranes, able to deal with the crane demands placed upon that particular area. To give the same amount of flexibility as exists today, that would entail the need for a further six MHCs, imposing additional and ongoing costs.

5.58 This, in turn, would lead to a worrying need to proliferate spares, consumables, routine maintenance activities, maintenance facilities, maintenance personnel, and create end-of-life replacement issues, all of which would require careful consideration and costing if this solution were to be pursued. All of these aspects have been significantly reduced in scale since the introduction of MHC's to the port.

5.59 ABP is not aware of any equipment on the market that will provide the overall flexibility, versatility and cost effectiveness of the Port's MHCs (which, of course, also explains their extensive use elsewhere at other UK and continental ports) whilst also being able to travel under the proposed route.

Safety Impacts of the Proposed WG Scheme

5.60 In the following paragraphs I consider the detrimental impacts that the construction and operation of the proposed scheme will have on the safe operation of the port.

5.61 ABP are obligated under the Transport Act 1981 and the Health and Safety at Work Act 1974 to operate the Port of Newport and the services that we provide in a safe manner. Advice is also provided in relation to the safe operation through the HSE's Safety in Ports Approved Code of Practice 2015 (ACOP).

5.62 During the development of the proposed scheme there is likely to be a significant number of interactions between the developer and ABP/other port operations. In order to effectively manage safety, it is therefore likely that certain activities will have to be modified, relocated, curtailed or ceased on safety grounds. Potential examples of this include the current location of fuel oil storage and bunkering activities, the procedures in the event of unexploded ordinance being identified during scrap handling or dredging activities and the locating of new trades in proximity to the development areas.

5.63 In order to manage and mitigate additional safety issues during construction, it is likely that a daily safety meeting will need to be held so that port operations can be reviewed and managed from a safety perspective in relation to the development activities that are taking place. This meeting will add to the current workloads and could lead to detrimental impacts to other areas of the business as a result. It is, therefore, likely that ABP will need to employ additional resources to manage the daily interactions and this will in turn have an impact on the cost base of the operation of the port.

5.64 This situation will of course also continue into perpetuity once the scheme is operational. In these circumstances ABP's safety assessment of activities will need to take into account the presence of the motorway and this may significantly impact upon the ability undertake certain activities and support certain trades in the future. An example of this is the potential to store imported forest products adjacent, and as suggested by WG in potential mitigation, under the proposed route. In this

circumstance, whilst WG may permit such a use, ABP's detailed assessment, along with our policies and procedures, may restrict such activity.

Potential impacts to cargo handling of the proposed scheme

5.65 In the following paragraphs I consider other operational aspects of the port and the detrimental impacts that the proposed scheme will have on these.

Cargo handling licences

5.66 Earlier in my evidence, I refer to the impacts of the proposed scheme on Origin Fertilisers operations. One of the significant impacts facing their operation is the loss of the ability to handle grades of fertiliser that require Hazardous Substance Consent, including ammonium nitrate fertilisers.

5.67 ABP's future ability to also achieve further hazardous substance consent and other licences required for handling of cargoes at the port is likely to be significantly impacted by the development of the proposed scheme and this will therefore have a detrimental commercial impact as we will not be able to undertake business development in such commodities without additional restriction in the future.

5.68 Similarly, the port's ability to handle class 1 hazardous cargo will also be significantly impacted by the proposed route. Currently the port has one of the largest licences for the handling of Class 1 cargo in the UK. This licence is issued by the Health and Safety Executive (HSE) who have advised Welsh Government and ABP of the modifications that will be required to the licence upon construction of the motorway. Currently the maximum quantity of class 1.1 cargo that can be handled at the port is 110 tonnes and this level is required by several customers who undertake shipments. The HSE have advised that the maximum level of licence as a result of the motorway will be 12 tonnes. This enforced significant reduction on our level of licence will result in the port no longer being able to provide the required level of licence needed for those customers that have traditionally used the port. Furthermore this will impact on our ability to offer such facilities to other customers in the future and due to the nature of the users of this licence it may also impact upon Ministry of Defence (MOD) contingency plans. Whilst such trade is not always frequent at the port, it is commercially very important to the port as a whole.

Handling of dusty cargoes

5.69 By their very nature, a number of the cargoes that are handled at the port generate dust during their handling. ABP has invested in a number of pieces of equipment to minimise such dust from being generated during handling operations and employ standard industry practice during such activities. The grabs and hoppers that we utilise are designed to minimise emissions during handling and regular cleansing takes place during operations. However dry cargoes, such as animal feed and aggregate, do still create a degree of dust emissions during handling. Where such emissions occur, ABP uses a "DustBoss" water cannon to produce a fine water curtain to reduce and mitigate the impact of the emissions – this use is shown in the photograph at **Appendix 4 in ABP/2B**. In the case of a cargo that can withstand moisture, such as aggregate, this water curtain can be put onto the cargo and directly surround the grab/hopper interface. Where cargoes cannot be allowed to get wet, such as is the case for animal feed, the water curtain has to be set up down-wind of the cargo handling area, so that dust emissions are controlled and do not travel and impact on other operations. Particularly on days with high winds, this water curtain (which is formed with a fine mist) can therefore be carried away by the wind.

5.70 In the event of a future bulk cargo discharging near to the motorway and in moderate winds there is a risk that the water curtain used to mitigate the dust emissions could travel over the route of the motorway causing an obvious safety implication to those road users. Cargo operations cannot simply be halted during moderate wind levels as this would have a significant impact on our customers and the competitiveness of the port. I am, therefore, concerned that any future restrictions placed upon the port when handling dusty cargoes that require the use of a water curtain may be impacted. Similarly if the use of a water curtain is restricted then, rather than water travelling over the route of the motorway, the dust from cargoes could instead cause a hazard both to the motorway and to other port operations and personnel. Any restrictions that are placed on the port will clearly have an impact on current and future trades and on the ultimate competitiveness and future business development potential.

Fire

5.71 During the winter of 2015/16, a tenant of the port that exports recycled wood encountered a fire within their stored cargo, as was reported through various media channels. Due to the nature of the cargo and the fire, the cargo burnt for a number of weeks during which time smoke and fumes were created. If the proposed WG

scheme was in place when this fire occurred, it is likely that the emitted smoke could have had an impact on the safe operation of the motorway and it is reasonably likely that the motorway would have had to be closed on safety grounds for periods during the incident. Similarly fires have also previously been reported at the scrap metal terminal that could have presented a similar potential impact to an adjacent operational motorway.

5.72 Fires have also been experienced elsewhere in the UK, including a recent fire at the site of European Metal Recycling (EMR) in Brentford on 2nd January 2017 that caused smoke to pass over the nearby A4 and cause severe traffic problems on the M4.

5.73 ABP is therefore concerned that future cargo and development constraints may be placed over the wider port estate to further reduce the risk of such incidents occurring. In the case of waste woodchip handling, for example, this cargo is subject to an environmental permit granted by Natural Resources Wales and recognised handling techniques are employed to minimise the risk of fire. The handling of waste related cargoes is identified as an area for growth in our Master Plan, but should any site specific (rather than industry wide) restrictions be placed upon a licence at Newport as a result of the WG scheme it is likely that the trade will be lost to alternative facilities without similar operating restrictions thus having a significant impact on the future trading ability of the port.

The security impacts of the proposed scheme on the Port of Newport

5.74 In the following paragraphs I explore the security implications that the WG scheme will have on the operation and activity at the Port of Newport.

5.75 The Port Security Authority (PSA) for South East Wales has submitted evidence to this inquiry. The PSA is responsible for meeting the statutory obligations under the Port Security Regulations 2009, at the Port of Newport (including Newport Dock and River Usk), Cardiff and Barry, and which ABP is an advisor to. The PSA's concerns relate to the ability to comply with the relevant regulations during and after construction of the WG scheme. In addition to the position of the PSA, ABP also have significant concerns regarding the security impacts upon the operation of the port during construction and operation.

5.76 We have been advised by the promoters that during construction of the WG scheme a significant number of construction personnel will require access to the port estate to construct the proposed route. Initially, I understand, this access will be via the port

security entrances, but once the Docks Way Link road has been constructed, the majority of access will use this route. However once access into the wider port estate has been achieved, there will need to be a number of interactions between the motorway construction areas and the remainder of the port. This will be facilitated by crossing points across port roads and storage areas. Each of these interactions will require careful security management by ABP to ensure that the wider security at the Port and compliance with port security legislation is not breached. This will result in a significant increase in the cost of security provision at the port. This matter has been discussed with M4CAN representatives but as yet, confirmation that these costs will be met by the proposed scheme has not been formally confirmed. Such costs will not be able to be met by the port without seeking to increase costs to other port users and in the event that the scheme does not meet the additional security costs, it is likely that the port will be placed at a competitive disadvantage.

5.77 It should also be noted that the Department for Transport has the necessary powers, through the Port Facility and Security Regulations 2004, to direct ABP to increase security levels at Newport Docks, for example, in response to a terrorist threat. In these circumstances, motorway construction activity at the port will likely have to be stopped so that the necessary measures associated with a heightened security level can be achieved. Once operational, it is my understanding that a heightened port security level could also require the section of the M4 transiting the Port to be closed. Such an event would cause significant and potentially protracted disruption to the wider region. The M4CAN team appears not to have considered this issue until it was highlighted by ABP in the summer of 2016, after the publication of the draft Highways Orders.

5.78 Similarly, ABP has significant security concerns that once operational, the motorway section through the port may make Port security control much more challenging, especially in the context that the route could be used to access the port either directly, or through individuals operating an attack from the bridge onto the port below. I do not believe that matters relating to security have been considered sufficiently during the design of the scheme and I am therefore concerned about the ongoing impacts and costs that the proposed route, if constructed, will have on the port.

Access to the Port and use of port infrastructure

5.79 In the following paragraph I consider the implications that construction and subsequent operation of the proposed scheme will have in relation to access requirements by the Welsh Government contractors.

5.80 M4CAN has provided ABP with an assessment of the total number of light and heavy construction vehicles that will require access to the port during the development phase. It is anticipated that these traffic levels will be able to be managed through the existing entry points to the port, although some additional delays to all traffic at peak arrival and departure times will likely be incurred that will have impacts to all port users. It has therefore been agreed with M4CAN that the Port's West Gate will be the preferred entry route for construction traffic. Although relatively minor compared to the other aspects, ABP is concerned as to the additional wear and tear that this traffic will cause of port infrastructure. This increase in use will potentially shorten the expected life of the road surfaces and therefore may bring forward expensive programmes of road reconstruction and surfacing. Once operational, such access, albeit at a reduced level, will need to continue for maintenance purposes. Without ongoing contribution towards road maintenance on the principal access roads within the port by Welsh Government, ABP's potential cost burden will increase.

The impact on services as a result of the proposed scheme

5.81 In the following paragraphs I consider the detrimental impacts that the construction and operation of the proposed route will have on the various services that are available at the port.

Power Distribution

5.82 ABP owns and operates the majority of electrical distribution infrastructure at the port and are therefore responsible for the supply of power to both ABP operations and tenants. This infrastructure includes a High Voltage ring main and various substations. Incoming electricity from the Western Power distribution network is supplemented by embedded generation on the port by way of 2 wind turbines and a roof mounted solar array. ABP is very concerned at the impacts that the WG scheme will have on the supply and distribution of power around the port.

5.83 There is an ABP substation located to the west of Junction Cut that is essential to the supply of power to operations in that locality. This feature has been discussed with

M4CAN who are considering how this is dealt with during construction and they have indicated in discussions that they hope to be able to keep it in situ. Confirmation of this or detail of alternative arrangements has however yet to be provided and therefore ABP remain concerned as to the impacts this will have to the wider ring main distribution network.

5.84 Much of the Port's ring main is also formed of the older style paper insulated, lead covered (PILC) Cable and typically during and following construction work in proximity to the cable network faults occur. Such faults result in the interruption of supply to operations and our customers and can lead to significant business interruption and cost to both. ABP has, therefore, recommended to M4CAN that sections of cable in proximity to the new road construction are replaced prior to full works commencing to minimise the chance of such faults. This has yet to be accepted and ABP as a consequence remains significantly concerned as to the ongoing risk of failure of the network during construction works.

5.85 As the proposed route will also sever the port into several areas that will need to be connected with services such as electricity, ABP are concerned with regard to the future ability to maintain and install new facilities in land that will have been lost to the port as part of the CPO. This includes the land beneath the motorway route where access to services may be particularly complex. It is not clear how such access will be arranged and as to the specific permissions and agreements that will need to be put in place to allow for maintenance, such as exposing a cable – something that often needs to take place at very short notice so that supplies can be reinstated.

Telecommunications and water

5.86 Telecommunication and water services around the port are supplied by third parties including Welsh Water and Openreach. In addition, ABP operates a number of fibre connections to facilities around the port to enable IT access. In the same way as for the power network, ABP is concerned that service interruptions and maintenance access is not impeded by the construction of the WG scheme as such impacts would be detrimental to port users and ABP.

5.87 ABP has also recommended to M4CAN that in the sections of the WG scheme that will be of solid or infilled construction then service ducts/routes are installed during construction so as not to further impede future port development. At the time of writing, this is still a matter open for further discussion and consideration by M4CAN.

5.88 As well as those services that are distributed by cable and pipe through the ground, ABP and some customers rely on above ground connections that require line-of-sight microwave connections for the transmission of data and security camera feeds. Such use is known to cross the route of the WG scheme in several locations thereby severing connectivity and this will have a severely detrimental impact on the provision of real-time data, often to remote operational areas, that is in particular required during the handling of steel cargoes. Any impact to these networks or the future ability to quickly install these relatively low cost communications solutions will have a negative impact on port operations and most likely result in the additional cost and time of delivery of installing hardwired solutions.

Future use of areas under the proposed route for cargo storage

5.89 In the following paragraphs I consider the future ability to use areas beneath the WG scheme once operational for port and cargo related activity.

5.90 During various meetings with M4CAN, it has been indicated that following construction some cargoes will be able to be stored below the motorway. Whilst this is potentially not unwelcomed, in that it aims to mitigate some of the land lost to the scheme, it is not yet clear as to the restrictions in terms of cargo and M4 access that will be required. A list of cargoes has been provided by ABP to M4CAN so that they can undertake a fire risk assessment in order to start to evaluate storage restrictions, but to date, only a generic feedback has been provided. Due to the constantly changing needs for cargo storage a quick and robust agreement procedure will need to be put in place for future cargoes so that the port can operate without this additional constraint as new cargoes are introduced.

5.91 Until such restrictions are advised to us in full, and then ABP undertake an additional assessment, it is difficult to fully assess the impact that this will have, but any alterations or restrictions over the current storage methods and densities will likely create additional costs and challenges over the current situation. For example, if timber has to be stored at a reduced height to the current stocking arrangements then a potentially significant increase in storage area will be required to operate at the same stockholding level. This could then create further inefficiencies in the operation and higher operational costs. Where local authority rating assessments for customers are based on the footprint that they operate within, this could also see an unwelcome increase in their cost of operation.

5.92 It is also not yet clear as to the access requirements that will be required under the WG scheme in order to maintain the structure and therefore what impact this will have on the ability to store cargo beneath the route. Once cargo is discharged from a visiting vessel it may be stored for a period of weeks or months. Moving cargo once in a storage area is a costly exercise in terms of labour and equipment and is therefore avoided as much as is possible. Each time a cargo is moved or handled the likelihood of causing damage or degradation also increases. The ability to move and reposition a cargo also, of course, reliant upon alternative storage locations also being available. It is unlikely that such areas will be practical for use by the majority of cargoes handled at the port if storage can only be approved on the basis that the areas must be cleared on short notice from WG.

5.93 In practice the benefit and usefulness of being able to use these areas for cargo storage is unlikely to be the significant benefit that it is currently being suggested by the promoters.

The impacts to railway operations as a result of the proposed scheme

5.94 We have been orally advised by WG that rail movements at the port will not be constrained during the construction phase and that therefore no impacts are assumed on the operation of the current rail network. I however consider future implications of this in the following paragraph.

5.95 ABP has maintained a rail development route for a number of years, and indeed part of this development site was held under option to Network Rail for a number of years, as previously explained. The development of the new rail infrastructure to the western area of the port is included in the Port's Master Plan and we have been advised by the Welsh Government that a reserved route for future rail development, broadly along the currently planned route, will be able to be maintained under the proposed motorway. Such development can however not be brought forward until the completion of construction of the proposed motorway as the majority of the land required for the route is subject to the CPO and will be used for various construction activities. Unfortunately, therefore, this business development opportunity that will clearly benefit the port is likely to be pushed back in time to the detriment of port operations.

The impact on coastal shipping of the proposed scheme

5.96 ABP is a keen supporter of coastwise shipping and regularly works with customers and shippers to further exploit opportunities for coastwise shipping to reduce the need to move material within the UK by road and rail. We currently undertake various marketing activities to encourage the modal shift of such material onto vessels. In the following paragraphs I consider the implications of the proposed scheme on coastal shipping.

5.97 The port currently handles coastal shipments including scrap metal, project cargoes and bulks such as rock salt and aggregates. It is likely that future growth of such cargo (especially bulk and recycled material) will be encouraged to utilise facilities in the western area of the port and therefore will be handled at the berths both on the north side of South Dock as well as the west side of North Dock. Cargo will then likely be stored and handled at the various common user storage areas which tend to be in more abundance within the western port area. In addition, new facilities could be constructed within the currently available development areas in this part of the port. Most of these current and prospective storage areas will, however, be lost to the WG Scheme.

5.98 The loss of storage and development areas, coupled with air draught restrictions, leading to increased berth congestion are likely to result in the port being significantly less attractive and competitive to new coastal shipping opportunities. This is especially the case with coastal movements because as the costs for handling and transport within the port increase, the competitiveness of the port decreases versus competing road and rail options.

The impact of the scheme on the ports' customs authorisation

5.99 In order to handle cargo produced outside of the European Union the port holds a customs authorisation that allows for the temporary deferment of the payment duty for cargo that is stored in transit at the port. I consider the impact of the proposed scheme on this authorisation in the following paragraphs.

5.100 The authorised deferment of customs duty allows for a maximum duty-free period of 90 days from arrival of the cargo, on the proviso that no processing or redelivery of the cargo is undertaken. The current port approval includes a number of storage areas that are within the proposed CPO for the WG scheme. A number of modifications will therefore have to be made to the current customs authorisation plan

should the CPO go ahead and if alternative facilities are constructed, such as for Origin Fertiliser, then these areas will have to be added to the approval prior to being able to accept non-EU origin cargo.

5.101 Furthermore it is not yet clear as to the position that can be achieved in relation to customs authorisation for cargo storage areas that will lie beneath the elevated sections of the motorway, should the WG scheme take place. We have asked customs for an initial opinion on this matter, but if the obtaining of such a licence on land that we do not fully control and under a motorway is not possible then this will further impact on the viability and usefulness of this land for the storage of cargo.

6 PROPOSED MITIGATION MEASURES TO REDUCE THE IMPACT OF THE PROPOSED SCHEME ON THE PORT

6.1 In sections 4 and 5 of my evidence I considered the implications that the WG scheme will have upon the port during the development and operational phases. At several stages in this evidence, I have indicated that potential mitigation measures have been discussed with the Welsh Government or that they may be available. The following section therefore collectively considers these discussions, none of which have been concluded at the time of writing.

6.2 A number of meetings have been held with the Welsh Government to discuss various impacts upon the port, using a topic-based approach. ABP has also joined several discussions between port users and WG. During these meetings, a number of suggestions have therefore been made by WG by way of mitigation measures, including for example the relocation of ABP's central workshops (**Location 4, Appendix 2 in ABP/2B**) and the Medical Centre (**Location 5, Appendix 2 in ABP/2B**), as well as the potential storage of cargo under the motorway once operational. I have tended to refer in my evidence to such mitigation measures having been orally advised as they have not been formally documented and agreed.

6.3 If delivered in the way discussed, a number of these measures will serve to slightly mitigate the overall impact that the motorway will have on the port and its operations. However at the time of writing there is significant work that still needs to be undertaken by WG, ABP and port customers before such mitigations and the related constraints and controls are able to be confirmed, the true benefits actually assessed

and the details agreed formally. It is therefore difficult to be certain that such matters will actually be provided by M4CAN.

6.4 The WG approach to the majority of these issues is that appropriate business plans should be prepared to evaluate the individual impact and to detail the options and costs associated with a suitable mitigation measure, such as with the construction of an alternative facility. Once a business plan is submitted, this is evaluated and where applicable financial commitment will be provided by the WG to undertake further investigations, such as ground and ecological survey work and engineering design. This commitment does not however extend to, for example, construction of a new facility to replace one that will be lost or the ordering of new cranes, in advance of the enactment of the CPO. This being the case, and on the basis of the understood timescale, we are likely to have little more than 3 months' notice should the scheme be approved to commit to a significant number of mitigation measures and the current land and facilities being compulsorily acquired to enable the start of the construction phase of the proposed motorway bridge.

6.5 This is wholly inadequate in that the required replacement facilities will take many more months to construct than the timescale that will be available. For example a replacement warehouse facility for Origin Fertilisers is likely to take approximately eighteen months to fully construct, develop services provision, make necessary modifications to the required portside infrastructure and equip with the bagging and blending equipment and this is on the basis that all tender arrangements and hazardous substance consent have already been put in place. It also relies on the ability to identify a suitable site that can successfully be granted hazardous substance consent. Equally it will not be possible to relocate the Port's Central Workshops to alternative facilities in the short timescale that is indicated. Without a fully operational maintenance facility at the port that has uninterrupted 24/7 access, the port will not be able to operate safely and efficiently. This also applies to the replication of the other facilities at the port and lead times for new cranes are currently understood to be 8 months for a LHM 180 although this can quickly increase depending on sales levels.

6.6 This is a totally unacceptable way to deal with the required mitigation measures, and will undoubtedly result in a number of detrimental impacts and substantive loss of trade and customers from the port, a number of whom could perhaps be persuaded to be retained if mitigation measure were developed in advance of the CPO being enacted.

6.7 Other matters, such as the undertaking of fire risk assessments to evaluate the restrictions on cargo being handled and stored under the operational motorway have also commenced following the topic based meetings with WG representatives. Substantive feedback has however not been provided at the time of preparation of my evidence. It should also be noted that notwithstanding a risk assessment process adopted by WG to determine which cargoes can be stored under and near the route once operational, ABP will also have to undertake an assessment to identify whether we meet both our statutory obligations as well as meeting our internal risk policy procedures. ABP's assessment, therefore, may place additional restrictions on use of areas over and above those indicated by the Welsh Government in their assessment.

6.8 In summary, the approach adopted by the M4CAN team to dealing with the very real problems that the WG scheme presents to the Port has, at best, been reactive and lacking in substance. As at the time of writing almost all issues remain unresolved, with a substantial amount of effort required from the M4CAN team to address satisfactorily the issues identified by ABP.

6.9 As the evidence that I have presented in sections 4, 5 and 6 clearly demonstrated, the land that is subject to the CPO for the development of the proposed WG scheme and the design, in particular relating to the development of the low bridge across Junction Cut and key port roads presents a significant number of materially detrimental impacts on the port and to a number of port users and customers. Whilst there are a number of potential mitigation measures that have been indicated, but not confirmed, to reduce the levels of some of the detrimental impacts, these are not sufficient to prevent serious detriment to the port and there are also significant timing issues associated with these mitigation measures.

7 ABP'S ALTERNATIVE ROUTES

7.1 Matthew Kennerley has explained how ABP's Alternative Northern Routes, ANR1 and ANR2, will have less of an impact on the Port, in comparison to the WG Scheme. Whilst in practical operational terms these two alternative routes will clearly still cause serious detriment to the Port, the extent of the detriment will inevitably be reduced. In this section I describe the physical characteristics of ANR1 and ANR2. In addition, I evaluate the commercial and operational impacts that these schemes have on areas of the port in **Appendix 6 in ABP/2B**.

7.2 Both our alternative route proposals, ANR1 and ANR2, are identical in design as they cross the port as shown in **Appendix 5 in ABP/2B**. This route is located as far north as possible within the port estate, so as to mitigate the impacts upon shipping activity using North Dock. The land that is most likely required to construct and then operate either of these proposals is also shown in **Appendix 5 in ABP/2B**. There is also an option that could potentially be applied to both ANR1 and ANR2, which looks to a material lowering of the height, and hence cost, of the River Usk crossing. The potential for a lower level Usk crossing is however unlikely to change the impacts on the Port.

7.3 Considering the alternative proposal from east to west as it crosses the estate, the route enters the port in the vicinity of the boundary between AIC Steel (in administration) and the River Usk. Thereafter it crosses, at a high level, a mix of tenanted and common user facilities, a third party freehold site located within the port estate and part of the disused water area of North Dock before leaving the port at the boundary with the Dock's Way Landfill Site. The proposed ANR also crosses a number of ABP internal roads, railway lines and the routes of utilities. Significantly, the junction proposal that is included in ABP's option ANR2 does not increase the required CPO of land from the port estate.

7.4 As with the proposed scheme, it is anticipated that in addition to the land required permanently for the scheme, some additional land will be required during construction although this element will be slightly reduced in comparison to the WG scheme because the junction link road will not be required to be constructed upon the estate.

7.5 In **Appendix 6 in ABP/2B**, I consider the physical impact of the proposed alternative routes on the port estate in terms of land take, from east to west along the alternative route, as well as the commercial and operational impacts that it will have on the port today and into the future.

Conclusion on the detrimental impact of the ABP alternative route proposals

7.6 In my view, any motorway bridge that crosses the operational areas of the Dock at the height currently being promoted will have a seriously detrimental impact on the Dock's operations. Inevitably, therefore, ABP's alternative route proposals ANR1 and ANR2 will also still have a significant detrimental impact on parts of the port estate with a consequential impact on a number of key customers and operations.

7.7 In terms of terrestrial impacts, the alternatives will create a split port with regard to crane operations, until a partial infill of North Dock is undertaken as planned in the Master Plan. The alternative routes will also still have a seriously detrimental impact on matters such as port security and safety.

7.8 That said, however, in the vast majority of instances the detrimental impacts on the Port as a result of ABP's alternative route will be no worse and in many cases significantly less than the same impacts as a result of the WG scheme.

7.9 In addition, adoption of the alternative route will also, hopefully, mean that the Hazardous Substance Consent for Origin Fertilisers can remain in-situ, with the consequence that a complex and time-sensitive relocation, if even feasible, will not be required.

7.10 Furthermore, ABP's alternative route also does not require such a significant land take on the port (7% of the useable port estate) in comparison with the WG proposed scheme (20% of the useable port estate). That means that common user storage areas and the future development plans outlined in the Master Plan will be significantly less impacted and important facilities such as the engineering workshop area will not be impacted nor need to be relocated.

7.11 Clearly, our alternative proposals will not impact detrimentally on current and future shipping activities as it will not create air draught restrictions to the various users of the facilities in North Dock. The alternative proposals will also allow the intended widening of Junction Cut to enable larger ships to be handled at the berths in North Dock, thus allowing the long term development of facilities and therefore significant increase to the positive economic impact that the port provides. As Rod Lewis has indicated in his evidence, we will almost certainly not widen Junction Cut if the bridge is constructed as currently proposed in view of the restriction that would be imposed in the context of the height of vessels.

7.12 In the light of the above, I would urge that full consideration is given to our alternative proposal, assuming that there is a demonstration of need for the principle of the WG scheme.

8 OVERALL CONCLUSIONS

8.1 Having given consideration to all of the impacts that the proposed WG scheme will have on the current and future operation of the Port of Newport, for the reasons set out on my evidence, I conclude that the WG proposal will have a seriously detrimental impact on Wales' principal general cargo handling port and it will cause significant and irreparable economic impact to the port, a number of customers and the wider economy.

8.2 As the evidence of Matthew Kennerley, Rod Lewis, Philip Rowell, David Crockett and myself clearly demonstrates, the Port of Newport is a critical infrastructure asset of significant economic importance to the Welsh and UK economy and the currently proposed WG route will cause a significant, lasting and serious detriment to the vital facilities and operations at the port.

8.3 The loss of land required to construct and operate the scheme, both permanent and, subject to formal agreement, on a temporary basis will result in a loss of current tenants, cargo storage areas, maintenance facilities and warehouse accommodation.

8.4 These aspects will impact significantly on the port as a whole, the ability to provide a competitive service, employment levels across the port estate and ultimately it will significantly reduce the positive economic impact that the port has on the local, regional and Welsh economy. It is also likely, because of the nature of our customers, commodities and end destinations that lost trades will relocate to ports in England such as Bristol and Liverpool rather than to other ports within Wales due to proximity to the end market and lack of other comparable port facilities elsewhere in Wales.

8.5 Furthermore, as Rod Lewis explains in detail, the low bridge across Junction Cut will significantly reduce the ability of customers to ship cargo to the North Dock and will also all but remove the vital flexibility that the North Dock provides to the operation of the port as a whole. For vessels that are displaced as a result of this to elsewhere in the port, ABP and our customers will be faced with significant increased handling costs as well as impacts on handling productivity and resulting berth congestion. These factors will again have a significant detrimental impact on the cost of port operations and ultimately on the competitiveness of the port.

8.6 The low bridge will also result in the port being split into three zones that will prevent the flexible deployment of mobile harbour crane assets around the port, and whilst this could be mitigated by an increase in the number of cranes at the port, this will

require a worrying increase in maintenance requirements as well as in the cost of replacement when they become life expired.

8.7 The WG scheme will also detrimentally impede our ability to supply services to our operations and those of port customers. It will also have an impact on safety, customs authorisation arrangements, security provision, coastal shipping and cargo handling licences and techniques. It will also impact our tenants in that, for example, an important factor within the port such as the current hazardous substance consent will be lost, thereby preventing them from trading with their customers.

8.8 The future ability of the port to grow and adapt to market changes and business opportunities will also be significantly detrimentally impacted by the loss of vital development land, higher costs of operation, and through other restrictions imposed by the motorway cutting through the port. Furthermore many of the schemes included in the Port's Master Plan, such as the widening of Junction Cut and the redevelopment of the North Dock Steel Terminal, will not be able to proceed as they will be prevented by the existence of the motorway bridge or would no longer be viable as result of, for example, the imposed height restriction at Junction Cut.

8.9 Where WG have presented potential mitigation measures to ABP and our customers, these are unlikely to mitigate the levels of detriment as mitigation works will not be funded in advance of the scheme being given the go-ahead. This will result in significant commercial uncertainty and customers may have to consider alternative options elsewhere, rather than risk a period of not being able to operate whilst facilities are relocated. Similarly the port is not able to safely and effectively function without maintenance facilities.

8.10 In summary, as I have demonstrated, the M4 proposals currently before this inquiry will collectively, and in many cases individually, cause extremely serious detriment to the Port of Newport, Wales's premier general cargo port. In their current form I consider that the M4 proposals demonstrably fail the section 16 test to be applied by the Secretary of State because of the impact the road will have on the port, in terms of land-take, blight, damage to business, imposition of operational constraints on port and shipping operations and the inability to find alternative land.

8.11 ABP has also presented alternative route proposals to the inquiry. Whilst these route proposals are still challenging and create a number of detrimental impacts for the port, that together combine to form serious detriment, I believe that they will create a less

damaging and serious detrimental impact on the port estate than the very serious detrimental impact that would be caused by WG currently promoted scheme, assuming of course, that the inquiry considers that there is a demonstrable need for the principle of the Relief Road.