



Adran yr Economi a'r Seilwaith
Department for Economy and Infrastructure

Llywodraeth Cymru
Welsh Government

The M4 Motorway (Junction 23 (East of Magor) to West of Junction 29 (Castleton) and Connecting Roads) and The M48 Motorway (Junction 23 (East of Magor) Connecting Road) Scheme 201-

The M4 Motorway (Junction 23 (East of Magor) to West of Junction 29 (Castleton) and Connecting Roads) and The M48 Motorway (Junction 23 (East of Magor) Connecting Road) (Amendment) Scheme 201-

The London to Fishguard Trunk Road (East of Magor to Castleton) Order 201-

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The M4 Motorway (Junction 23 (East of Magor) to West of Junction 29 (Castleton) and Connecting Roads) and the M48 Motorway (Junction 23 (East of Magor) Connecting Road) and The London to Fishguard Trunk Road (east of Magor to Castleton) (Side Roads) Order 201-

The Welsh Ministers (The M4 Motorway (Junction 23 (East of Magor) to West of Junction 29 (Castleton) and Connecting Roads) and the M48 Motorway (Junction 23 (East of Magor) Connecting Road) and the London to Fishguard Trunk Road (East of Magor to Castleton)) Compulsory Purchase Order 201-

The M4 Motorway (Junction 23 (East Of Magor) to West of Junction 29 (Castleton) and Connecting Roads) and The M48 Motorway (Junction 23 (East Of Magor) Connecting Road) (Supplementary) Scheme 201-

The Welsh Ministers (The M4 Motorway (Junction 23 (East Of Magor) to West of Junction 29 (Castleton) and Connecting Roads) and The M48 Motorway (Junction 23 (East Of Magor) Connecting Road) and The London to Fishguard Trunk Road (East of Magor to Castleton)) Supplementary Compulsory Purchase Order 201-

Summary Proof of Evidence

Matthew Jones BEng (Hons), CEng, MICE

Welsh Government, Chief Witness

Document Reference: WG 1.1.2

Personal Statement

1. I am Matthew Richard Jones. I am a Chartered Civil Engineer with 14 years' experience on major infrastructure projects in Wales. Since 2013 I have been responsible for managing strategic consideration of a solution to the problems associated with the M4 around Newport and subsequently managing the preparation and publication of the draft Orders, the Environmental Statement and associated reporting for the M4 Corridor around Newport Project.

Scope of Evidence

2. My evidence provides an overview of the Scheme and its development, also setting out the Welsh Government's reasons for proposing that the published draft Orders should be made (subject to various suggested Modifications).

Background

3. With the involvement of stakeholders over many years, more than 100 options to address the problems associated with the M4 around Newport have been assessed and consulted upon. These have included demand management, alternative modes of transport and new or improved sections of road on various routes north, south and through Newport.
4. In 2014 the Strategic Environmental Assessment, as well as habitats regulations, health and equalities impact assessments, informed the Welsh Ministers' decision to adopt a strategic Plan for a new section of motorway south of Newport alongside complementary measures. That decision was subject to a Judicial Review in 2015 and was ruled to be rational and lawful.

Project Development between March 2015 and March 2016

5. In March 2015, Costain/Vinci Joint Venture were appointed to develop the proposals up to and through the statutory process and, dependent on the outcome of that process, to potentially design and build the Scheme. Engineering, technical and environmental support has been provided to the contractor by Arup-Atkins Joint Venture and RPS respectively. The activities of the Project team shall be explained primarily in the construction evidence of Mr Barry Woodman, engineering design by Mr Ben Sibert and

environment by Dr Peter Ireland, drawing upon other members of the team where necessary.

6. The Project has been developed through engagement, integration and collaboration with a wide range of stakeholders including Natural Resources Wales, Newport, Monmouthshire and Cardiff councils, Cadw, individual landowners, Sustrans, local access groups, local business forums, individual businesses, local schools, Statutory Undertakers including ABP and Newport Harbour Commissioners, the Design Commission for Wales, environmental charities, local residents and the public.
7. In March 2016 the draft Orders for the Scheme were published, alongside the Environmental Statement, Statement to Inform an Appropriate Assessment (SIAA), and associated reporting comprising a Stage 3 Scheme Assessment Report, Sustainable Development Report, Economic Assessment Report, Wider Economic Impact Assessment Report, Non-Motorised Users Context Report, Traffic Forecasting Report, and Local Model Validation Report.
8. Any person or organisation then had the opportunity to object, support, or suggest alternatives to the Scheme or comment on the Environmental Statement.

Draft Orders and Environmental Information

9. Draft Orders set out the necessary rights and land needed for Welsh Government to implement the Scheme, including reclassifying the existing M4. The Environmental Statement identifies the main environmental effects of the Scheme and describes the proposed measures to avoid, remedy or reduce effects and provide environmental enhancement where practicable.
10. Both the draft Orders and Environmental Statement have been supplemented and modified where necessary following changes arising through involvement of stakeholders.

11. Following consideration of responses, in June 2016 Welsh Government gave notice of its intention, at that time, to hold a Public Local Inquiry commencing on 1 November 2016.

Traffic Growth Forecasts

12. In July 2016 the Department for Transport updated their growth forecasts and the Project Transport Model was subsequently revisited. This showed a slight reduction in the level of expected future traffic growth when compared to the previous forecasts, albeit there would still be growth. This matter will be dealt with in the evidence of Mr Bryan Whittaker (WG 1.2.1).
13. Environmental matters such as air quality, carbon and noise were reviewed in light of the latest traffic data and it was considered that the changes did not significantly affect the overall conclusions of the Environmental Statement. A second Environmental Statement supplement (Document 2.4.14) was published on 14 December 2016 to take into account the latest traffic modelling results and some other matters. This will be explained by Dr Peter Ireland (WG 1.7.1).
14. On 14 December 2016 it was announced that the Public Local Inquiry would commence on 28 February 2017 and updated reporting was published including a Revised Traffic Forecasting Report, Revised Economic Assessment Report, Revised Wider Economics Impact Assessment and a second Environmental Statement Supplement. A Pre Inquiry meeting was scheduled for 27 January 2017.

The Need for the Scheme

15. The M4 is a route of strategic importance and is critical to the Welsh economy. The existing M4 between Magor and Castleton does not meet modern motorway design standards and a greater volume of traffic uses it than it was originally designed for.
16. Congestion, with frequent incidents, is a daily occurrence here, with flows exceeding 80% of capacity. The restricted capacity of the Brynglas Tunnels forms a regular bottleneck on the motorway at peak times. As well as the

motorway, this has serious consequences for the local highway network, with associated economic, social and environmental impacts. Noise impacts are described in more detail in the evidence of Mr Phil Evans (WG 1.14.1) and air quality in the evidence by Dr Michael Bull (WG 1.12.1). Future traffic growth will worsen these problems. Existing and predicted traffic conditions as well as collision data are described in more detail in the Traffic Evidence of Mr Bryan Whittaker (WG 1.2.1).

17. Economic appraisal (Document 2.3.7) has indicated that the economic benefits of the Scheme exceed the costs, such that the Scheme represents value for money. The core scenario is based on the central (or most likely) traffic growth forecasts and assumes that the tolls on the Severn Crossings are half their current level. Under this scenario, the Scheme has an initial benefit to cost ratio (Initial BCR) of 1.62, considering only the direct economic benefits of the Scheme. If Wider, indirect, economic benefits are included, the BCR is 2.23. Economic issues are described in more detail in the evidence by Mr Stephen Bussell (WG 1.3.1) and aspects relating to the port by Mr Andrew Meaney (WG 1.4.1).
18. On 20 September 2016 the First Minister of Wales set out the Welsh Government's five year plan, to '*deliver more and better jobs through a stronger, fairer economy, improve and reform public services, and build a united, connected and sustainable Wales*'. The First Minister stated that the five year plan aims to create a Wales which is '*prosperous and secure, healthy and active, ambitious and learning, united and connected*.' In combination with the Cardiff Capital Region Metro, the Project has been identified as a key component of the Welsh Government's five year plan for a long-term, integrated and sustainable transport network for Wales.
19. The relevant policy context for the Scheme in relation to transport is set out in Chapter 4 of the Environmental Statement (Document 2.3.2) and reflected on in the Statement of Case (Document 2.4.6). Further review of the Scheme in the wider context of policy and legislation is within the evidence of Mr John Davies MBE (WG 1.23.1).

Public Transport and the Metro

20. In light of our most recent progress with the Metro, a December 2016 Updated Public Transport Overview Report freshly considered the potential impacts of public transport investment on the need for the Scheme (Document 2.4.19). The results reiterate that public transport measures, including those of the Metro, could not sufficiently address the problems on the M4 around Newport, only reducing traffic flows on the M4 by less than 4%.

Objectives of the Scheme

21. The Welsh Government has looked in detail at what travel related problems exist on the M4 around Newport, and involved the public and other stakeholders to identify 17 problems, relating to capacity, resilience, safety and sustainable development issues and develop 3 aims and 15 objectives for a solution.
22. The history of the identification, consultation, review and assessment of the Scheme against the problems, aims and objectives is set out within the July 2014 Welsh Transport Planning and Appraisal Guidance (WelTAG) appraisals for the Scheme (Documents 4.4.12 and 4.5.5), its Plan and previous development work. This work showed that the Scheme would best address the identified problems and achieve the objectives.
23. The judgements made in the July 2014 WelTAG appraisals remain true in light of subsequent design development and the Scheme performs strongly in meeting the identified objectives.

Contractor Tendering

24. Through use of an Early Contractor Involvement (ECI) contract to prepare draft Orders, the Environmental Statement and associated reporting, the Welsh Government steered the development of the Scheme in accordance with its relevant duties and responsibilities. The Welsh Government prioritised quality in its assessment, strengthening the importance for tenderers to carefully consider questions posed on the River Usk and other

protected sites, earthworks, contamination land, carbon and other key challenges.

Description of the Proposed Scheme

25. The new section of 3 lane motorway would be approximately 23 kilometres (km) in length between connections to the existing motorway at Magor (Junction 23a) and Castleton (Junction 29) with intermediate junction at Glan Llyn and Docks Way. The route would pass to the south of Newport with approximately half passing through the Gwent Levels Sites of Special Scientific Interest. It would cross the River Usk Special Area of Conservation on a cable stay bridge.
26. The existing M4 between Magor and Castleton would be reclassified as a trunk road, still operated and maintained by Welsh Government. The A48(M) between Castleton and St. Mellons would change in the same way. 'A' road classification would; allow additional classes of vehicle (such as learner drivers) to use the roads, be much more befitting to the existing M4's alignment as well as the number and proximity of junctions it has, be more akin to how the road was originally planned to operate and would allow the reopening of Junction 25 at Caerleon.
27. New or diverted lengths of highway, public rights of way and private means of access would be provided to replace those affected by the Scheme. This would require new, improved or extended overbridges and underbridges. Five new public bridleways and one new public footpath would be created. Ms Julia Tindale will explain further in her evidence (WG 1.10.1).
28. The Scheme Assessment Report (SAR) (Document 2.3.6) further summarises the proposals and likely impacts in non-technical language, whilst Mr Ben Sibert (WG 1.5.1) provides a more detailed design description in his evidence.

Cost and Budgets

29. The cost estimate for the Scheme was published with the draft Orders in March 2016, based upon Quarter 4 2015 prices excluding VAT and inflation. A breakdown of the £1,093m cost estimate has been published in the Revised Economic Appraisal Report (Document 4.6.5) which also identified £22m for Key Stage 4 Costs (preparation of draft Orders, ES etc) and £16.2m for reclassification works to the existing M4 and A48(M). The Project budget includes a total risk allowance of £141m.
30. Funding for the delivery of the Project has been explicitly identified and provision set aside within the Welsh Government's published capital plans for the next four years. Allocations are not made beyond a 4 year period but suitable forecasts are in place to enable assurance to be given that the full funding requirements associated with the Project are available within a reasonable timescale should the decision be taken to proceed.

Environmental Matters

31. The assessment of environmental impacts and effects of the Scheme, including consideration of the construction phase, are reported in detail in an Environmental Statement together with details of mitigation measures.
32. The development of appropriate mitigation measures has been an integral part of Project development and the subject of regular meetings and dialogue with representatives of Natural Resources Wales, Cadw, the relevant Local Authorities, and other stakeholders.
33. Particular consideration has been given to potential impacts on the Gwent Levels Sites of Special Scientific Interest (SSSIs), the River Usk Special Area of Conservation (SAC) and the Severn Estuary SAC, Special Protection Area (SPA) and Ramsar site. This recognises duties including Section 28G of the Wildlife and Countryside Act, the Natural Environment and Rural Communities (NERC) Act and the Habitats Regulations.
34. Further details on the environmental engagement as well as the process of assessing the effects on the different topics of the environment, the proposals for suitable mitigation and the overall conclusion of the effects of

the Scheme will be described in more detail by Dr Peter Ireland (WG 1.7.1) who will in turn refer to specialist inputs of:

- a. Dr Michael Bull on air quality.
- b. Mr Phil Evans on noise and vibration.
- c. Mr Mick Rawlings on cultural heritage effects.
- d. Mr Nick Rowson on landscape and visual effects.
- e. Dr Keith Jones on nature and conservation effects.
- f. Mr Jonathan Davies on dormouse and water vole.
- g. Mr Richard Green on bats.
- h. Mr Simon Zisman on ornithology.
- i. Mr Andy Clifton on contaminated land.
- j. Ms Julia Tindale on land use, community and recreation effect.
- k. Mr Richard Graham on water quality.
- l. Mr Mike Vaughan on fluvial and pluvial flooding.
- m. Dr Paul Canning on tidal flooding.
- n. Mr John Davies MBE on the planning policy context of Section 28G of the Wildlife and Countryside Act 1981 and Technical Advice Note (TAN) 15 regarding Flood Risk.

Carbon

35. Carbon emissions, as a result of both construction and the future operation of the highway network with and without the Project in place, have been carefully considered in the context of relevant policy and legislative requirements.
36. Modelling indicates that the total annual user carbon emissions on the south Wales highway network would reduce, albeit by less than 1% in 2022, as a result of the Scheme. Despite increased levels of traffic on the network at that time, the reduction of stop-start traffic conditions as well as reduced journey lengths on the new section of motorway would make those trips more efficient. It is therefore considered that the Scheme does not run contrary to the legislative and wider context of Welsh Government policy to reduce carbon.

37. The carbon methodology shall be discussed further in the evidence Mr Tim Chapman (WG 1.13.1) relying on the traffic evidence of Mr Bryan Whittaker (WG 1.2.1). Measures to minimise construction carbon will be detailed by Mr Barry Woodman (WG 1.6.1). Further consideration of policies relevant to carbon will be detailed by Mr John Davies MBE (WG 1.23.1).

Sustainable Development

38. The Welsh Government has applied a Sustainable Development approach throughout developing a solution to the problems associated with the M4 around Newport. Early strategic work considered all social, environmental and environmental factors and involved stakeholders to identify aims and objectives. A long term approach has been taken to considering the transport and wider needs of future generations. Option assessment considered preventative packages of measures seeking to reduce demand on the network before identifying the need for a new section of road. The Scheme has been designed in collaboration with public transport enhancements including electrification of the mainline railway and Metro, enhancing access to existing and potential public transport measures. The new section of motorway and reclassification of the existing M4, in combination with Metro is a hugely important part of the Welsh Governments vision for an efficient, integrated transport system for Wales.
39. The evidence of Mr John Davies will consider the application of the Sustainable Development principle during development of the Project and also alignment with the recently published Welsh Government objectives under the Wellbeing Act.

Construction

40. Subject to satisfactory completion of the statutory procedures, the Early Contractor Involvement (ECI) team would proceed to detail design and construction of the Scheme. Construction could commence in Summer 2018 and would be expected to take approximately forty two months.
41. The early appointment of an ECI team has contributed to iterative improvement of the design, environmental mitigation strategies and

construction methodology. The construction scenario presented in the Buildability Report (Appendix 3.1 to the Environmental Statement) provides an example of the level of detail that has been achieved. The ECI team bring robust experience in all construction and technical fields and experience of large scale projects.

42. Further details on the construction aspects of the Scheme are described in more detail by Mr Barry Woodman (WG 1.6.1).

Land Acquisition and Compensation

43. The Welsh Government considers that there is a compelling case for the Scheme in the public interest that necessitates temporary and permanent acquisition of land and rights.
44. The land-take and rights to be acquired as shown in the draft Compulsory Purchase Order are the minimum necessary to construct, mitigate, operate and maintain the proposed scheme. Mr Ben Sibert (WG 1.5.1) and Mr Barry Woodman (WG 1.6.1) will respectively identify why certain land is required permanently and temporarily during the construction period. Dr Peter Ireland (WG 1.7.1) will explain why land is required for essential environmental mitigation.
45. The development of the proposals has sought to minimise the area of land required from environmentally protected areas. SSSI mitigation land would be provided as part of the Scheme mitigation measures to offset the loss of grazing marsh. This would facilitate ecological conservation and also provide a degree of enhancement.
46. Exchange land would be provided for small areas of common land and allotments that would be required.
47. Twelve residential buildings would require demolition as a result of the Scheme, five of which are already in Welsh Government ownership, including one Grade II listed building namely Woodland House (known locally as 'the Vicarage') in Magor, in respect of which an application for

Listed Building Consent has been made and is being considered jointly at the Public Local Inquiry.

48. In advance of, and during, the statutory process the Welsh Government and our representatives have engaged with businesses with a view to understanding and, where necessary and appropriate, mitigating potential impacts of the Scheme on their operations. These include ABP and their tenants, Roadchef, Marshalls, Birdport, AIC, Parc Golf Club, Air Products, TATA and numerous farmers.
49. Particular aspects of entitlement to and quantum of compensation are not for consideration at the Public Local Inquiry. These matters would be dealt with if the Welsh Ministers, after considering the Inspectors' Report, decide to make the Orders, and serve Notices to Treat and Enter onto land. Compensation would then be negotiated by the Valuation Office Agency.

Newport Docks

50. The Scheme would pass over Newport Docks, which are owned and operated by Associated British Ports (ABP). The proposed viaduct would allow access beneath it for land and water based port operations. A new junction would be provided in the vicinity of the docks, linking to the A48 Newport Southern Distributor Road.
51. Design, including that of the route, viaduct and junction are described in the evidence of Mr Ben Sibert (WG 1.5.1) and the construction methodology for the works are described by Mr Barry Woodman (WG 1.6.1). The impacts on shipping are described by Mr Jonathan Vine (WG 1.22.1) and the impacts of the Scheme on port economics by Mr Andrew Meaney (WG 1.4.1).
52. The Welsh Government has gained a good understanding of the workings of the Port of Newport. Following assessments by shipping experts, the facts appear to be that the majority of current shipping will be able to continue to use North Dock and there is capacity within South Dock to take almost all shipping that may be impacted upon the vast majority of the time. Furthermore on those few occasions that a vessel journey would be

restricted by the new bridge, alternative ships with a lower air draft are available for charter. This matter is explained further by Mr Jonathan Vine (WG 1.22.1). Landside, Welsh Government has engaged with ABP and it is evident that, with mitigation in the form of further cranes, ABP will be able to reorganise to maintain port operations.

53. The Welsh Government considers that there is no serious detriment to the port undertaking arising from the Scheme. As responsibility for ports is not devolved, the UK Government Secretary of State for Transport (SoST) would need to be satisfied of no serious detriment before issuing a certificate confirming as such under Section 16 of the Acquisition of Land Act 1991. In June 2016 the SoST confirmed to the Welsh Ministers that the appointed Inspectors were also to report to him on this matter.

Other Statutory Undertakers

54. The Welsh Government considers that appropriate engagement is taking place with the utility companies, and other Statutory Undertakers (SUs) having similar equipment, to put in place formal agreements for dealing with the potential impact of the Scheme on their apparatus.

Magor Services

55. Further consideration is being given to provision of an additional eastbound offslip from the new section of motorway in the vicinity of the Services. This would improve access to the Services for users travelling eastbound on the new section of motorway. Should the decision be taken to promote this measure, supplementary draft Orders and an Environmental Statement Supplement would be published to inform the Inquiry.

Support and Objections

56. Publication of draft Orders provided the opportunity for any person or organisation to object, support, or suggest alternatives to the Scheme. 192 unique correspondence letters or emails have been received that clearly express support for the Scheme; 331 unique objections to the Scheme have been received, of which 68 have been classed as from statutory objectors and 6,012 objections have been registered through campaigns.

57. Organisational supporters include officers of Newport City Council, officers and members of Monmouthshire County Council, members of Rhondda Cynon Taf County Borough Council, CBI, South Wales Chamber of Commerce, the Institute of Directors Wales, the Institution of Civil Engineers Wales, Newport Civic Society, Tata Steel, Wales & West Utilities, the Road Haulage Association, Port of Milford Haven.
58. Organisational objectors include Natural Resources Wales, land owners including ABP, owners and operators of Magor Services, Friends of the Earth Cymru, RSPB, Gwent Wildlife Trust, the Woodland Trust, other environmental non-governmental organisations, Network Rail, Newport Harbour Commissioners, Marshalls, Parc Golf Club and other businesses, utilities bodies, Rogiet Community Council, Magor with Undy Community Council and other community groups.
59. Campaign objections received initially totalled around 6,554. 112 have been identified as duplicates and 430 have been identified as either registered without the email owners consent or registered using incorrect or non-existent email addresses.
60. 32 objections have since been withdrawn by the respective consultees or were incorrectly classified as an objection.
61. The Welsh Government has taken into account all objections and has provided a notification of receipt, and later a full reply to their points raised in a Welsh Government signed letter.
62. Copies of letters of support and objections have been made available to the Inspectors and will be available for all to view as part of the Inquiry Library.

Suggested Alternatives

63. As part of the current statutory process, suggested alternatives can be put forward by any individual or organisation to the Welsh Government and Inspectors to consider.

64. A further detailed level of assessment was undertaken of the 'Blue Route' suggested alternative (Document 6.2.35). This was published on 14 December 2016 to inform stakeholders in advance of consideration of suggested alternatives through the Inquiry process.
65. A summary brochure is published around the start of the Inquiry, allowing a period for potentially affected parties to support or counter-object to suggested alternatives. Responses will inform consideration by the Welsh Government and the Inspectors.
66. It is not the role of the Inspectors to make a recommendation in favour of a suggested alternative. However, the Inspectors will need to consider whether they appear to be worth further investigation.

Conclusions

67. In conclusion, for many years, traffic congestion has been a common occurrence for those using the existing M4 around Newport and living in the area. The need for a solution to the identified transport related problems on the M4 around Newport is clear.
68. The Scheme is considered by Welsh Government to be the long term, sustainable solution to the serious problems experienced on the M4 around Newport. In collaboration with our proposals for a South Wales Metro, it forms a vital part of our vision for an efficient and integrated transport network for Wales.