



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-

The M4 Motorway (West of Magor to East of Castleton) and the A48(M) Motorway (West of Castleton to St Mellons)(Variation of Various Schemes) 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) 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

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1. Author

- 1.1 I am Barry Jonathan Woodman. I am a Programme Director for Costain Limited and the Project Manager for the Costain, Vinci Joint Venture who would construct the proposed Scheme, should the Scheme proceed.

2. The Early Contractor Involvement Phase

- 2.1 In my opinion the Welsh Government's Early Contractor Involvement (ECI) process has ensured that buildability and construction issues have been appraised during the design development phase prior to the publication of draft Orders. In conjunction with our Designers, Environmental Consultants, sub-contractors and suppliers we have developed the most appropriate solutions to some complex problems, thereby optimising the land requirements for the Scheme. I am therefore confident that all construction activities have been adequately addressed in the engineering and environmental designs of the Scheme.
- 2.2 The requirement to mitigate the impacts on the Sites of Special Scientific Interest (SSSI) and Special Areas of Conservation (SAC) have been considered throughout the ECI phase. This has been progressed in concert with extensive discussions with Natural Resources Wales and additional environmental surveys and investigations.
- 2.3 A better understanding of the construction programme, methods, costs and Scheme risks has been achieved, together with early development of the required traffic management and environmental mitigation requirements.
- 2.4 Extensive consultation has been undertaken during this design development phase, the results of which have been used where appropriate to inform the Scheme design and other considerations. The majority of the engagement undertaken by the contractor and his team has been highly beneficial in the development of the proposed Scheme and would be continued, subject to a successful Public Inquiry outcome through the detailed design and construction phase.

- 2.5 We have identified temporary land and access requirements essential to enable the works to be constructed. These are included within the draft Compulsory Purchase Order (Document 2.2) and provide for necessary accommodation, welfare facilities and other construction related activities.
- 2.6 Relationships have been developed with individuals, businesses and groups that would continue to benefit the future Scheme development, design and construction phases. These groups include the local authorities and the statutory consultees and landowners along the route of the Scheme.
- 2.7 The ECI approach has ensured an integrated and balanced approach has been adopted to accommodate the required environmental mitigation within the design, construction methodology and programme.

3. Management Systems

- 3.1 The Costain Vinci Joint Venture would have in place a project management, health, safety, welfare and environmental management systems for the Scheme that in my opinion would represent best practice in the construction industry necessary for the efficient delivery of this Scheme meeting the commitments made in the Environmental Statement, Vol 3, Appendix 18.1 (Document 2.3.2). The management systems would meet the requirements of:
- a) BS EN ISO 9001 Quality Management System.
 - b) BS EN ISO 14001 Environmental Management System.
 - c) BS EN OHSAS 18001 Health and Safety Management System.
- 3.2 Scheme specific plans, procedures and details would be further developed and finalised prior to construction, to ensure a high quality product is delivered safely and in compliance with our environmental commitments given in the Environmental Statement, Vol 3, Appendix 18.1 (Document 2.3.2).

4. Construction Programme

- 4.1 An outline construction programme has been prepared for the Scheme. The programme has been developed to accommodate timely implementation of environmental mitigation measures, minimise land take, generally and specifically within the Gwent Levels SSSI's and minimise disruption to traffic and the general public, whilst allowing the construction works to be completed safely and efficiently.
- 4.2 The construction methodology and programme has been carefully considered to maximise the onsite haulage of the primary bulk earthworks thereby avoiding significant quantities of road haulage. Further detailed construction methodology and programme development would continue prior to construction and take due consideration of ongoing stakeholder discussions prior to construction as appropriate.
- 4.3 In my opinion the programme and construction methodology has been developed in sufficient detail to provide confidence that the Scheme can successfully be delivered in an efficient and timely manner with adequate recognition of the various environmental, engineering, resource and stakeholder constraints identified.

5. Construction Traffic

Access and the logistics for the movement of people and materials around the Scheme during construction have been considered. The site access would be constrained due to the proximity of the SSSI and residential areas such as Magor and Castleton. A running route, on the new motorway alignment, for earthworks plant movements throughout much of the Scheme length would be provided. This I consider significantly reduces the impact of construction traffic on the local road network. It would however still be necessary on a scheme of this scale to use the existing highway to transport incoming deliveries and carry out certain enabling works. An outline traffic management strategy has been developed to ease congestion, as shown in the Environmental Statement, Vol 3, Appendix 3.1: Buildability Report (Document 2.3.2).

Wherever practicable construction vehicles would be excluded from the local road network.

6. Road User Traffic

- 6.1 The effect of the construction works on the M4 and local roads has been considered and would be managed by a dedicated traffic management team who would plan and agree all traffic management works with the relevant Highways Authorities. Prior to commencing construction, a Scheme traffic management plan would be fully developed to alleviate disruption and congestion wherever possible. Outline traffic management proposals have been developed during the ECI phase in sufficient detail to give confidence that the works can be delivered while minimising the disruption to road users. For example, traffic management phasing proposals to maintain three lanes in each direction on the existing M4 throughout the Castleton and Magor junction remodelling works and building side road overbridges off line to minimise side closures during construction would be adopted (refer to the Environmental Statement, Vol 3, Appendix 3.1: Buildability Report, Document 2.3.2). Limited closures will occasionally be required to carry out exceptional items such as lifting bridge beams into place over existing carriageways adopted (refer to the Environmental Statement, Vol 3, Appendix 3.1: Buildability Report (Document 2.3.2). These instances are typically required for reasons such as workforce or public safety or technical practicalities of alternative construction methods.

7. Non-Motorised Users

- 7.1 Measures have been considered for Non-Motorised Users at all areas where construction would impact on the usual passage and availability of rights of way to ensure NMU access is maintained or suitable diversions routes are made available – Non-Motorised User Context Report – March 2016 (Document 6.2.18). Some construction activities such as the temporary diversion of the Newport / Cardiff Cycleway (proposed Route 88) would be

prioritised in the early stages of the programme to provide continuity for users and minimise severance.

8. Construction Disturbance

8.1 Despite mitigation measures identified in the Construction Environmental Management Plan it is likely that some disturbance would occur adjacent to the construction works. The adoption of, and adherence to, a robust Construction Environmental Management Plan (a copy of the Pre-Construction Environmental Management Plan is included in the Environmental Statement, Vol 3, Appendix 3.2, Document 2.3.2) with strict enforcement of the management procedures contained therein would ensure that the construction would be achieved with a high level of care for the environment, with the least possible inconvenience to the general public. Early and continued consultation and the adoption of best practice processes, construction methods and plant would underpin our approach

9. Disruption to Businesses/Residents

- 9.1 Where construction activities or the permanent works would impact directly on businesses and residents, regular liaison meetings with affected parties such as ABP would be continued throughout the construction phase. In particular, any change in access arrangements, either temporary or permanent, would be discussed and resolved in advance of the works being undertaken.
- 9.2 Proposed construction methods outlined in the Buildability Report (Environmental Statement, Vol 3, Appendix 3.1, Document 2.3.2) would be further developed prior to construction to ensure specific measures are built into the construction programme and methodology to ensure impacts on businesses are assessed and reduced as far as possible, with due consideration of discussions.

10. Environmental and Ecological Mitigation Measures

- 10.1 A clear understanding of the environmental risks and impacts arising from the proposed construction works has been developed by the construction team during the Scheme development to date in conjunction with Environmental Coordinator Peter Ireland and his team. The necessary mitigation requirements have been built into the Scheme through liaison between the Environmental Coordinator, Dr Peter Ireland and Statutory consultees and through the Environmental Impact Assessment process. The works would be constructed with proper care for the receiving and surrounding environment and its ecology in adherence with the Construction Environmental Management Plan contained in Vol 3, Appendix 3.2 of the Environmental Statement (Document 2.3.2) and the Register of Commitments found in the Environmental Statement, Volume 3, Appendix 18.1, (Document 2.3.2).
- 10.2 Dr Peter Ireland will provide details of all aspects of environmental mitigation within the Environmental Proof of Evidence (WG 1.7.1)

11. Public Liaison

- 11.1 Extensive liaison would be carried out in advance of works to ensure that as far as is reasonably practicable, local residents, businesses and the travelling public are informed in advance of the works. This approach would be led by a team of dedicated Public Liaison Officers deploying a range of media communication tools and personal contacts with stakeholders to ensure a high standard of communication is maintained throughout the construction phase. Effective communication routes and processes will be in place to ensure any complaints are quickly responded to and addressed expeditiously.

12 Summary

- 12.1 In my expert opinion the adoption of the ECI approach to the development of this Scheme has enabled the significant construction and environmental challenges of this Scheme to be considered in a level of detail sufficient that the risks can be mitigated and managed to deliver this scheme successfully should it proceed following the Public Local Inquiry.