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Welsh Government

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**Trafnidiaeth  
Transport**

**M4 Junction 28 Improvements**

**Commission for Early Contractor Involvement  
Contract  
Candidate Information Document**

**February 2014**

## **M4 Junction 28 Improvements**

### **Commission for Early Contractor Involvement Contract Candidate Information Document**

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**Please note: Appendices are separate attachments**

## **1.0 Introduction**

This document sets out preliminary details of the scheme to enable organisations wishing to be invited to tender to prepare a pre-qualification statement. Of particular relevance to the selection of tenderers will be the experience of the team members in successfully completed recent similar schemes. Particular interest will be taken of experience on similar Target Cost/ECI contracts, on-line and off-line improvement works, and schemes in sensitive areas, experience of preparing and implementing Environmental Management Systems and local Experience.

## **2.0 Scheme History**

Junction 28 is a key interchange on both the local and strategic highway networks. It provides access to West Newport, a major employment area, the M4 motorway and Newport Southern Distributor Road (SDR) from the western valleys.

Bassaleg Roundabout to the north is linked to Junction 28 via the A476 Forge Road. To the east, Pont Ebbw Roundabout is linked to Junction 28 via the SDR. Junction 28 and Pont Ebbw Roundabouts are part-time signal controlled, triggered by traffic flow and queuing thresholds, such that the junctions are signalised during the AM and PM peak periods but operate as roundabout during – off peak periods.

## **3.0 Brief Details of Scheme**

Option Appraisal utilizing WelTAG has been undertaken by consultants, resulting in the preferred option to construct an elongated signalised gyratory to the south of the M4 with a dedicated through link for eastbound traffic from the M4 and A48 towards the A48 SDR.

Given the close proximity and interaction between Junction 28 and Bassaleg and Pont Ebbw roundabouts, schemes have also been identified to maximise capacity at these neighbouring junctions. The aim of this is to improve the operation of the highway network surrounding Junction 28 in order to maximise the potential capacity of the junction.

The proposals for the Pont Ebbw Roundabout largely retain the existing gyratory, while adding an additional link between the two A48 arms to form a throughabout. All junctions on the gyratory would be signal controlled.

For the Bassaleg Roundabout, the proposal involves extending the existing circulatory carriageway and introducing traffic signal control in conjunction with an additional link to form a through about between the A467 southern and A467 northern arms.

The improvement to Junction 28 retains the M4 underbridges but requires the demolition of the M4 westbound on-slip underbridge over the A48 eastbound. The additional purchase of land should not be necessary outside the existing highway boundary but will require the relocation of the Transmission Station for motorway communications.

## **4.0 Contract**

The Welsh Government (WG) on behalf of the Welsh Ministers now seeks to appoint a contractor to design and construct the Scheme under an Early Contractor Involvement (ECI) form of contract. The conditions of the contract will be the NEC Engineering and Construction Contract Combined PSC Option C/E, and ECC Option C - Target Cost Contract with Activity Schedule. It will be a Design and Build Contract. Tenders submitted will be assessed according to the criteria which will be stated in the Tender document. The contract will be defined in terms of Key Stage Approval process.

Key Stage 3 relates to the development phase and will include:

- The development of the design and the preparation of the target cost.
- Value management and value engineering of the scheme.
- Preparation of an Environmental Statement.
- Preparation of the draft Orders and appropriate publicity material.

Key Stage 4 relates to the statutory processes and primarily involves preparation work and attendance at a Public Local Inquiry. It may also include some detail design work if required by the Employer.

Key Stage 6 is subject to the satisfactory completion of the statutory procedures and will involve:

- The detail design or the completion of the detail design;
- The construction of the works.

Key Stage 7 covers the subsequent environmental management of the improved section for up to 5 years.

There is no Key Stage 5 in an ECI contract.

It is envisaged that the teams will have experience of construction, design, environmental and statutory procedures.

## **5.0 Programme**

It is anticipated that the WG will invite contractors to tender for the improvement in April 2014 with a tender period of 12 weeks. It is expected that the contract will be awarded in August 2014. Draft Orders are to be published December 2015 and if necessary a Public Inquiry is to be held in June 2016.

Subject to the satisfactory completion of the statutory procedures construction is programmed to commence in Autumn 2016 for a period of twelve months, with a 5-year aftercare/maintenance period, commencing from the date of the scheme opening.

## **6.0 Traffic Conditions**

During peak periods, the approaches to Junction 28 are heavily congested. This is exacerbated by queuing and delays at Bassaleg and Pont Ebbw Roundabouts. Given the close proximity and interaction between these

junctions and Junction 28, the operation and performance of all three junctions are linked.

Traffic management to facilitate construction and construction sequencing are therefore exceptionally important to minimise the impact on the travelling public.

Whilst records suggest that the collisions that have taken place at these junctions are typical of what could be expected at congested roundabout, any junction remodelling schemes should seek to reduce road casualties in accordance with the Wales Road Safety Strategy.

## **7.0 Side Roads and Public Rights of Way**

Minor revisions to Side Roads and Public Rights of Way will need to be accommodated in statutory processes

## **8.0 Environmental Issues**

*The environmental impact of the designed scheme will need to be assessed and it should be anticipated that such assessment will be required to support statutory processes.*

*Investigations are underway to identify any specific environmental issues.*

## **9.0 Environmental Management System**

The contract will include the requirement for the contractor to set up and implement an Environmental Management System. The objective of the system will be to protect the environment by ensuring that the environmental impact of the works is minimised and all necessary environmental mitigation measures implemented at the appropriate time. An Environmental Co-ordinator is to be appointed who will be responsible for all environmental aspects of the work including overseeing and auditing the Environmental Management System.

The Environmental Management System is a critical element of the scheme construction and high emphasis will be placed at the tenderers proposals for the system and their experience of operating similar systems.

## **10.0 Statutory Undertakers' Apparatus**

A number of statutory undertakers' apparatus are known to be present in the area. The location of these are currently being determined. The contractor will be responsible for agreeing the design and execution of utilities diversions and the costs of such works.

## **11.0 Traffic Management**

The scheme includes an extended gyratory to the south requiring the demolition of the M4 westbound on-slip under bridge over the A48. A

dedicated through link for eastbound traffic from M4 and A48 at Cleppa Park to A48 SDR towards Newport. A dedicated link from A467 Forge Road to M4 eastbound. All junctions on the gyratory are traffic controlled.

Efficient traffic management and phasing of works to minimise disruption to all road users and maintain safety will be key concern of the Employer and the tenderers will be expected to demonstrate their experience and expertise in this area.

## **12.0 Public Relations**

The establishment and maintenance of an effective system of public relations with both statutory and non-statutory groups, and the public throughout both the pre-construction and construction period are considered to be an integral and essential element to the success of delivery.

## **13.0 Welsh Government Policies**

The Contractor should be aware of Welsh Government Policies, initiatives and guidance which may be relevant to the Scheme.

## **16.0 Shortlisting Criteria**

A short list will be drawn up for invitation to bid for this commission. The short listing criteria will be solely based on the expressions of interest submitted. The technical ability of bidders to undertake this commission will be considered

Technical evaluation criteria will be:

- An ability to meet the requirements of the works and services required
- Relevant experience of similar works and service provision
- Availability of suitable resources
- Key Performance Indicators
- Procedures to ensure quality of works and service provision

## Candidate Selection Criteria

Quality Question	Quality Aspects	Weighting (A)%	Mark Awarded (B)	Weighted Marks (A x B)
C1	Educational & Professional Qualifications, Experience and Suitability of Staff	20		
C2	Resources	15		
C3	Staff / Specialists/ Advisors/ Available	25		
C4	Evidence of Works & Services	15		
C5	Longevity of Business	5		
C10	Technical References	20		
	TOTAL	100		
D2	Quality Requirements	Y/N		

<b>E2</b>	<b>Implementation of H&amp;S Policy</b>	<b>Y/N</b>		
<b>F2</b>	<b>Environmental Management Systems</b>	<b>Y/N</b>		
<b>F3</b>	<b>Life-cycle Impacts</b>	<b>Y/N</b>		
<b>F4</b>	<b>Social and Economic Impacts</b>	<b>Y/N</b>		
<b>F5</b>	<b>Lean Management</b>	<b>Y/N</b>		

## 16 Scoring Guidance

Approach	Score
An inadequate response, which suggests that the candidate has not undertaken services of a similar nature and/or requested information or supplementary documentation, has not been provided or is inadequate.	0-15%
There is some evidence that the candidate has undertaken a limited amount of services of a similar nature. Requested information and supplementary documentation has been provided and is sufficient.	16-40%
The candidate has demonstrated an ability to undertake services of a similar nature to satisfactory levels of performance. Information and supplementary documentation provided is satisfactory.	41-60%
There is clear evidence that the candidate undertakes services of a similar nature on a regular basis. The evidence also demonstrates that this has been done in an efficient and systematic manner. Information and requested supplementary documentation provided is of a high calibre.	61-90%
There is much clear evidence that the candidate undertakes services of a similar nature on a frequent basis. The evidence also demonstrates that this has been done in an efficient and systematic manner frequently exceeding contract requirements. Information and requested supplementary documentation provided is of excellent calibre.	91-100%

The assessors shall use the criteria and ranges listed above as a guide to marking.