Adroddiad Adolygu Dylunio: 20 July 2007
Design Review Report:

DyddiadCyfarfod/Cyflwyno’r Deunydd: 11 July 2007
Meeting Date / Material Submitted:

Lleoliad/Location: Porthmadog / Tremadog

Disgrifiad o’r Cynllun
Scheme Description: Trunk road bypass

Cleient/Asiant: WAG Transport Wales
Client/Agent: [Tim Dorken, Chris Tollitt]

Project Team: Halcrow [Julie Hunt, David Smith
Brian Stephenson]
White Young Green
[Cathie Holland]

Awdurdod Cynllunio:
Planning Authority: Gwynedd CC

Statws Cynllunio:
Planning Status: Draft Orders expected Nov 07

Y Panel Adolygu Dylunio/
Design Review Panel:
Alan Francis (cadeirydd/chair) Ed Colgan
Cindy Harris (swyddog/officer) Lyn Owen
Charlie Deng (swyddog/officer) Ben Sibert
Carole-Anne Davies, CEO Mark Hallett

Lead Panellist: Ben Sibert

Sylwedyddion/Observers: Steve Malone, A + DS
Proposals for this new road began in 1993 with a public consultation exercise. In October 2002 the Porthmadog Transportation Study was commissioned by the Welsh Assembly Government, which recommended the provision of a relief road. Since May 2005, preliminary design work and an environmental impact assessment have been progressed and Draft Orders are expected to be published in November 2007. The design team are very aware of the great sensitivity of this site, historically, culturally and environmentally.

The proposal is for a new 5.3 kilometre single carriageway road, including three roundabouts and eight structures. The large number of environmental and engineering constraints include: managing flood levels; crossing existing roads, rail lines and watercourses; and considering bat flight paths. The flooding issue is addressed by elevating the road for most of its length on an embankment, and using sustainable drainage measures such as swales and wetlands.

Across Traeth Mawr the road follows the existing transport corridor of the main railway line, which was found to be the original crossing route, pre-dating Madog. The road runs to the north of the railway line, with a raised bank on its southern side to screen vehicles and lights, and protect views from the Cob towards Snowdonia.

The easternmost section from Minffordd to the Glaslyn viaduct, is mostly in cuttings. Constraints on this section include bat roosting sites, an existing farmhouse, a 400 kV overhead pylon, the Ffestiniog railway, and a listed hospital. A retaining wall at the base of the cutting with rock slopes above will avoid the need for stabilisation. A relaxation of the DMRB standards [for example in the width of the hard strips] has been agreed where safety is not compromised.

Issues which remain to be resolved include techniques for noise mitigation and the design of the Aberglaslyn bridge. The development of the scheme so far has been endorsed by CCW, and discussions have taken place with Gwynedd CC and Snowdonia National Park.

The Panel was convinced by the necessity for the bypass and strongly supported the ecological mitigation measures employed, in the form of landscaping, ‘slacker’ embankments, sustainable drainage, and traditionally designed rail overbridges. We were informed that the scheme had originally been opposed by local traders, but now 87% are in favour.
The applicants reported that there are even requests to extend the bypass to Penmorfa and Penrhyndeudraeth.

The Panel thought that the proposed route of the road next to the railway was logical and protected the all-important view from the Cob. We were informed that the whole area to the west of the Afon Glaslyn up to Tremadog was a [once in 100 years] flood plain and, though currently protected by the Cob, this meant that any future development in this area was extremely unlikely. The Environment Agency has been consulted and the proposed works will improve drainage especially around Glanyrafon.

The Panel questioned the number of proposed junctions between Porthmadog and Tremadog. We were told that the T junction linking to the existing road had been left in at the request of the bus companies and that pedestrian and cycle links between the two settlements remain. Nevertheless the new road would appear to sever the two communities somewhat, and we were disappointed that the existing road had not been continued as a local link to the roundabout at Bodawen Lodge, a length of some 300m, thus negating the need for the T junction and avoiding the need for local traffic to travel along the new trunk road.

The Panel requested details of the source of extra fill materials necessary to create the embankments. It was confirmed that there is a net requirement for fill and that quarry waste material would be sought, ideally from the Minffordd quarry which is the nearest source, but otherwise from Blaenau. Although the team is unable to specify the source to the contractor, it is assumed that the nearest source will be chosen for reasons of economy as well as sustainability.

The Panel supported the proposed relaxation in DMRB standards where necessary for environmental mitigation and where safety is not compromised. It was confirmed that lighting will be minimised and restricted to roundabouts and junctions to avoid light pollution.

With regard to the Aberglaslyn bridge, the Panel understood and supported the reasons for the preferred design solution of a low key, unobtrusive structure which will only be seen from a distance. Although we would have been interested to see a beautifully designed solution as an architectural statement, the consensus of the Panel was for a solution which followed the road strategy of shielding and screening, with minimal interference to the views of Snowdonia.

The Panel was informed that delivery would be via a Design and Build contract with Halcrow retained to administer the contract. The appointed contractors will be required to commit to the desired quality, and design features such as the 4:1 embankment slopes will be stated in the contract and specification. The environmental statement will be part of the
contractual commitment. More prescriptive design guidance will be agreed with the D&B team.

We discussed the main bridge parapets, which are shown as one metre high metal sheets to encourage birds to fly over them. The Panel suggested that metal mesh might be more visually pleasing but accepted that this could cause problems with noise transmission. The short length of the bridge in the context of the long length of embankments with open views was considered to be of little consequence for the road user.

The retaining walls in the cuttings were also discussed and the Panel agreed that these may reduce the extent of the cut and minimise loss of vegetation for bats. However, the Panel encouraged the team to investigate softer means of achieving the cut whilst maintaining minimal impact. The degree of slope attainable will depend on ground conditions found during excavation, and soil nailing may be possible in place of the walls currently shown.

Crynodeb/Summary

The Panel supports the principle of and justification for this new relief road, and is very encouraged by the environmental mitigation measures being adopted. We think this proposal is a very good response to the sensitive site and the exacting brief. We would make the following minor recommendations:

- We would like to see the appointment of a design champion or equivalent, to oversee the implementation of the D&B contract with a brief to maintain the desired quality, particularly with regard to detailing and interfaces.
- We recommend that as much detailed and prescriptive guidance as possible be included in the environmental statement.
- We would like the team to look again at the need for the proposed T junction between Porthmadog and Tremadog, with a view to extending the existing road as a local link to the roundabout.
- We suggest a softer treatment for the cuttings, possibly using soil nailing techniques.
- We commend the attention and priority given to environmental protection, sustainable drainage and recycled waste materials in the design development.
- We support the preferred low-key design solution for the main bridge.

Diwedd/End
NB A Welsh language copy of this report is available upon request.