

Design Review Report

A40 Llanddewi Velfrey to Penblewin

DCFW Ref: N144

Meeting of 8th November 2018



Review Status

Meeting date
Issue date
Scheme location
Scheme description
Scheme reference number
Planning status

PUBLIC

8th November 2018
22nd November 2018
Pembrokeshire
Road infrastructure
N144
Pre-application

Declarations of Interest

Panel members, observers and other relevant parties are required to declare ***in advance*** any interests they may have in relation to the Design Review and meeting Agenda items. Any such declarations are recorded here and in DCFW's central records.

Consultations to Date

The scheme was previously reviewed by the Commission in June 2017.

The Proposals

The existing A40 runs through Llanddewi Velfrey, in part splitting the community. Provision for non-motorised users is limited to intermittent substandard footways. The landscape is formed of gently rolling countryside with wide shallow valleys divided by low ridges. At Llanddewi Velfrey the existing A40 follows the crest of a ridge with relatively steep slopes falling to the north. A sequence of cuttings and embankments will be required across the ridge at the eastern end of the proposed scheme.

The proposed highway improvements will divert the trunk road to the north of the village. This allows all local access onto the trunk road to be rerouted to strategic junctions. The new carriageway will be to a Wide Single (WS) 2+1 standard with a third lane providing safe unambiguous overtaking opportunities in both directions.

Main Points

We understand that colleagues from the Welsh Government were unable to attend this review due to training requirements. Given the stage the project has reached it is disappointing that they could not benefit from the whole discussion.

The following points summarise key issues from the review and should be considered to inform any further work ahead of Draft Orders being submitted:

Design vision

At the previous review the Design Commission suggested the design team identify and communicate their design vision. It is disappointing that such a vision was not able to be articulated at this review and was missing from the materials provided. Whilst a number of design concepts were set out during the discussion, the design vision is not clear in the material presented. Part of the design narrative and rationale should explore

the vision for the scheme, the objectives that arise from the vision, above and beyond the minimum described, and how they are met/achieved through the detailed design.

Setting the standard

The Commission understands that this proposal is likely to set the standard for future improvements along the route. The A40 is an important road and given this context, further design work must be undertaken to ensure that this proposal is of the highest possible design quality and meets all obligations on Welsh Government, including the Wellbeing of Future Generations Act and Active Travel Act legislation.

The expectation and commitment to more than the minimum design standard must be explicit in all the material to ensure that the delivered scheme, and in fact subsequent schemes, provide the greatest value from the substantial public investment. The current proposals do not convince us that this will be the case.

Scheme specific objectives

Eight specific objectives were agreed as part of the Welsh Transport Planning Appraisal (WelTAG) Review Group. The objectives are as follows;

O1 To enhance network resilience and improve accessibility along the east-west transport corridor to key employment, community and tourism destinations.

O2 To improve prosperity and provide better access to the county town of Haverfordwest, the Haven Enterprise Zone and the West Wales ports at Fishguard, Milford Haven and Pembroke Dock.

O3 To reduce community severance and provide health and amenity benefits.

O4 To reduce the number and severity of collisions.

O5 To promote active travel by cycling, horse riding and walking to provide opportunities for healthy lifestyles.

O6 To deliver a scheme that promotes social inclusion and integrates with the local transport network to better connect local communities to key transport hubs.

O7 Deliver a project that is sustainable in a globally responsible Wales, taking steps to reduce or offset waste and carbon.

O8 Give due consideration to the impact of transport on the environment and provide enhancement when practicable.

The panel were not sufficiently convinced that all of these objectives were yet being achieved by the proposals. The design process should be used systematically to clearly demonstrate that each of the design objectives has been achieved and how.

If the design team believe that all of these objectives are being met, then this must be better communicated in the presented material to the public, stakeholders and throughout the consenting process.

User experience

Given the public investment in the scheme, the value of the road to users of all modes should be explored and presented in the material. This would help to demonstrate that the objectives are being met and that the design adds value beyond minimum

compliance. This individual user experience should be presented at human scale to ensure comprehensive understanding of the scheme from different perspectives.

Connectivity across the highway

A number of underpasses are proposed under the road to connect the communities at either side. The panel are satisfied that the location of these crossings has been well considered, however further work needs to be done to ensure they are attractive, comfortable and safe for those crossing. This will require them to be spacious, well-lit, with pleasant landings, open approaches at either side, opportunities for views and clear legibility. In order to achieve the objectives, designs for these crossings will need to go beyond 'minimum' requirements and the Design Commission urges the design team to further explore and present the detail of these crossings and the user experience. Current proposals are inadequate.

Pedestrians

The Design Commission would encourage the design team to further explore each of the pedestrian routes so that best route and experience for pedestrians is achieved. A number of the project objectives relate to this aspect. There are number of concerns over the current proposals. For example the approach to the East Llanddewi Velfrey junction roundabout is down the cut slope which would be a scree or rock cutting of an indeterminate angle and finish. Generally it is unclear how the paths would be surfaced and if existing adjacent vegetation would be cut back and managed to create more open routes.

Cyclists

Whilst the Design Commission understands the approach to selecting cycle route surface materials which suit a rural context, the design team should assess the existing users and the potential for future use. It may be that another material, such as a bound surface or tarmac, would be better suited to 'promote active travel...' (see Objective 5). In addition, an aspirational approach for long term value in the scheme, should be taken, rather than achieving minimum design standards. Ideally the cycle routes should be segregated from pedestrian routes. Currently responses to active travel achieve only minimum standards.

Equestrian movement

It was noted during the discussion that equestrian crossing culverts were referred to as achieving the minimum height requirements. As noted above for pedestrians and cyclists, the user experience should be examined in detail and a more ambitious approach taken, drawing on best practice. Currently responses to equestrian users achieve only minimum standards.

Earthworks

Whilst it was noted that the proposed earthwork slopes are slightly less than the generally accepted minimum of 1:2 at 1:2.5, it is unclear if they are being used across the whole scheme in a unified manner. The Design Commission would urge that further detailed consideration is given to each of the earthwork slopes along the scheme and that the proposals relate to the adjacent landform where possible. During the discussion it was further noted that in some areas the tops of slopes would be 'rolled out'. However this not shown on the drawings and appropriate graphics and drawing techniques should be used to clearly explain and communicate slope angle and variety, supported with sections.

The design team confirmed that rock cuttings are required at the East Llanddewi Velfrey junction. The Commission understands that the project team do not have sufficient information on ground conditions at this stage, and that the final design solution can only be determined on site during the construction works to some extent. The project team should however indicate to the best of their ability, the likely slope and finish, and where appropriate, illustrate the potential appearance with precedent examples from nearby locations.

The Commission appreciates the challenges in acquiring land beyond that which can be established by the application of minimum design standards. Nevertheless it would support an approach to acquiring land beyond the minimum where there is clearly set out justifiable requirement which achieves a better design response and greater public benefit in the long term.

Sustainability strategy

Little detail of a sustainability strategy was presented which led to a number of concerns detailed below. In order to satisfy the objectives, details of the sustainability strategy should be detailed in the inquiry.

Insufficient water management information led the panel to question whether drainage ditches will be sufficient in managing the water associated with the scheme.

Further exploration and justification should be given for the species selection within the landscape strategy. This justification should consider the resilience of the species selected in light of both climate change and potential for disease.

Proposed bridge

The proposal includes one bridge which will take lessons in simplicity from other bridges along this route. Although the concept for this bridge is clear, a structures architect should be engaged to refine the bridge design and add value over and above an engineered solution. Given that this will be the only significant structure along this part of the route, further consideration should be given to ensuring it is of the highest design quality.

Points of detail

East Llanddewi Velfrey junction, tree avenue – this may be compromised by the functional requirements of visibility splays to road signs. Further consideration should be given to juxtaposition between a formal avenue of trees and the informal rock cutting/scree slopes.

Headlight glare – the proposed hedge east of the Penblewin roundabout is unlikely to provide a screen for headlight glare until it becomes established. The project team should consider integrated proposals, such as a hedgebank, which are effectively immediately, and to avoid late ill considered design solutions such as inappropriate fencing.

Planting on embankment slopes – planting on the north slope seems to be abstract in pattern resulting in small odd shaped 'fields'. There is an opportunity to consider these slopes in 3D so that they better relate to the slope and adjacent field pattern.

Communication of the scheme

The design team verbally communicated design strategies which were not evident in the presented drawings. The design team must better communicate these strategies through more accessible drawings. These could take the form of concept and strategy diagrams, site sections, and detailed drawings of specific elements.

Communication of the design rationale, narrative and consequent proposals in a format easily understood by the public will be imperative for the consultation and inquiry. Construction drawings are not accessible to all and do not immediately translate the design concepts.

Next steps

The Commission would welcome further opportunity to review the scheme with the aim of strengthening the design approach and quality through constructive dialogue. Following the Standing Orders exhibition, the design team is encouraged to bring the scheme for a further design review, in light of any comments received during the exhibition.

All the Commission's Design Review reports related to this scheme will be made available during the inquiry and the Commission may choose to comment further on the final proposals.

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A Welsh language copy of this report is available upon request.

Attendees

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Design Review Panel:	
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