

Design Review Report

A40 Llanddewi Velfrey to Penblewin,
Pembrokeshire

DCFW Ref: N144

Meeting of 15th June 2017



Review Status

Meeting date
Issue date
Scheme location
Scheme description
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Planning status

PUBLIC

15th June 2017
23rd June 2017
Pembrokeshire
Road
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 Agenda items. Any such declarations are recorded here and in DCFW's central records.

None declared.

Consultations to Date

A public consultation process was completed in 2006 to seek views on route options. A public information exhibition was held in April 2017 to show preliminary design development.

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. The proposed bypass scheme will traverse the upper north slopes of the ridge to avoid the village and to minimise impacts on two areas of woodland. A sequence of cuttings and embankments will be required across the ridge.

The proposed 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 WS2+1 standard with a third lane providing safe unambiguous overtaking opportunities in both directions. The scheme consists of: 2.5km bypass from Bethel Chapel to Ffynnon Wood; 2.5km improvements west of Ffynnon Wood; 1.4km extra overtaking eastbound; 1km extra overtaking westbound. So 5km in length.

Main Points

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

Positive environmental and landscape design process

The presenting team informed the panel that environmental and ecological surveys are in progress. The Commission expects to see these surveys, along with any relevant statutory consultation, informing a positive environmental design process. This will require close integration of the different disciplines within the design team and the ability of the environmental co-ordinator for the scheme to take control of the design process. Environmental design should be based on an overarching vision for the scheme and a set of principles based on the assessments, rather than just mitigation treatments in accordance with Design Manual for Roads and Bridges Volume 10 (DMRB).

Integrated landscape design

In a similar way, informed landscape design should be an integral part of the design and delivery processes. It is important that a landscape design strategy integrates with topography and carefully considers views of and from the new road. View studies should be accurately communicated. Views of the new road should not necessarily be considered a negative, but the proposal should be appropriate to the context and setting with good design quality.

A landscape design strategy should prompt early consideration of the following:

- Views (especially of the scheme from the north in the medium distance)
- Appropriate grading of cuttings and embankments, including consideration of which land we be returned to agricultural use
- Reflection of existing field patterns in landscape form and planting
- Appropriate approach to planting of embankments and cuttings
- Boundary treatments, including for safety at top of cuttings and around balancing ponds
- Ecological impacts, i.e. maintaining continuity across the scheme
- Treatment of the existing road
- Integration of drainage and associated balancing ponds, including their geometry within the landscape

Landscape/Environmental Masterplan design drawings would help to communicate the strategy and demonstrate consideration of the points outlined above.

Junctions and detail treatments

The next stages of the design process are likely to focus on details, such as junction design, materials, planting and lighting.

The choice of junction types, especially at either end of the scheme, should be clearly justified based on land-take, lighting requirements, safety, ecology and landscape setting. Based on early considerations, a staggered T-junction seems more appropriate than a roundabout for the village junction at the eastern end of the scheme.

Indicative detail landscape design drawings would usefully show how the landscape and environmental design strategies are resolved at a detailed level.

An integrated approach to detailed design should include consideration of:

- Material palette for bridge and hard landscape
- Details of appropriate boundary and edge treatments
- Example approach to planting embankments and cuttings
- Example landform to relate to existing field patterns and topography
- Lighting proposals (if required)
- Cross sections showing treatment of existing road, proposed road and landscape design in the wider landscape context
- Junction design
- Details of the integration of drainage and balancing ponds
- Example underpass design for footpaths etc.
- Potential treatment to exposed surfaces of cuttings (which will depend on what is revealed on site)

Bridge design

Design of the over-bridge will be important as it will be one of the most significant components of the scheme. Initial studies presented at the review are for a single span structure, in part to allow for future dualling of the road. However, this results in a very deep structure, and the likelihood of future changes (i.e. their policy basis) should be weighed up against other impacts. An intermediate support, possibly asymmetric, may result in a more efficient and elegant solution to a design which will clearly result in an asymmetric composition due to the sloped alignment of the overbridge. The Commission encourages the team to test different options in terms of structure and materials, and to consider further the context for the structure in respect of the existing 'family' of structures along the existing and recently improved sections of the A40.

A more efficient bridge structure could make a larger budget available for mitigation and improvements elsewhere in the scheme. The proposed approach must, therefore, be clearly justified and evidenced by studies and policy and could be usefully informed by the contribution of an appropriately experienced structures architect.

Positive vision for village and existing road

This scheme is an opportunity to exemplify the new Ways of Working and Goals advocated in the Well-being of Future Generations (Wales) Act. The Commission therefore encourages the team to work collaboratively with Pembrokeshire Council to achieve the best long-term value from the scheme. Allocated budgets and responsibilities for the de-trunking and associated changes to the existing A40 road should be clearly defined at an early stage. Welsh Government should fully consider its abilities to facilitate/enable improvements that may be delivered by others.

It is important that the de-trunked sections of the A40 are redesigned to be appropriate to their new scale of operation and use as a village access road. Leaving the existing road in its current condition is not likely to be a successful outcome. An assessment of the existing road, and whether its character is appropriate for its new use, is required.

Positive engagement with local communities, which is encouraged through the Act, can contribute to a positive vision and plan for Llanddewi Velfrey and the de-trunking of the

existing road. Shape My Town is an online toolkit for community-led planning and place-making developed by DCFW and Coombs Jones Architects which has been used to develop place studies and plans in a number of areas in Wales.

Community engagement alongside a good 'place study' would help to maximise the advantage of the scheme for local communities over and above the standards for road design.

The proposals for de-trunking of the existing road should design for perceived speed, rather than relying purely on speed limit signs. Narrowing roads and widening pavements, for example, indicates that drivers should go slower.

For all stretches where it is proposed that the existing road will run alongside the new, it will be useful to undertake a thorough assessment of appropriate uses and widths of the de-trunked road. This is likely to change along the length due to different access requirements and connections to existing routes and footpaths. For ecological and visual reasons and for the safety and comfort/enjoyment of cyclists and walkers it would be preferable to reduce the width of the existing road surface where possible. There may be instances where it would be better to overlap the old road with the new, and the pro and cons of this should be fully explored.

Measures for reducing severance

North-south connections across the proposed wider road will be important for walkers, cyclists, farm owners and local residents. Connections for ecology and watercourses are also important and an integrated approach is encouraged.

Further review

The Commission would welcome the opportunity to review this scheme again, following the planned period of public consultation in Autumn 2017 but with sufficient time for changes to be incorporated before Draft Orders are submitted in Spring 2018. At the next review we would like to see demonstration of:

- Positive environmental design informed by surveys and consultations
- Landscape design strategies drawn
- An iterative design process for the over-bridge, including proposed materials and detailed design
- A collaborative approach demonstrated to de-trunking and associated improvements in the local community
- Response to consultation with public and statutory consultees
- Measures taken to minimise effects of severance for people and ecosystems
- Drawings showing examples of detail design

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

Attendees

Agent/Client/Developer:	Emyr Davies, Welsh Government
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Design Review Panel:	
Chair	Ewan Jones
Lead Panellist	Simon Power Cora Kwiatkowski Jen Heal, Design Advisor, DCFW Amanda Spence, Design Advisor, DCFW Carole-Anne Davies, CE, DCFW
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