

The Vale of Glamorgan Council

Cabinet Meeting: 20 November, 2017

Report of the Cabinet Member for Neighbourhood Services and Transport

M4, Junction 34 to A48 WelTAG Stage 1 Transport Study

Purpose of the Report

1. To present the Stage 1 Report (Appendices [A](#) and [B](#)) that has been produced using Welsh Transport Appraisal Guidance (WelTAG) by Arcadis Consulting UK Limited on Improving Strategic Transport links between M4, Junction 34 to A48 and Five Mile Lane.

Recommendations

1. That Cabinet endorses the contents of this report and accompanying Strategic Outline Case Report ([Appendix A](#)) and Impacts Assessment Report ([Appendix B](#)).
2. That consideration is given to progressing a Stage 2 Welsh Transport Appraisal Guidance (WelTAG) Report for M4, Junction 34 to A48 for the Stage 1 short listed options of: Do-Minimum, a highway route east of Pendoylan, a highway route west of Pendoylan and a parkway station with park and ride facility and bus integration near to M4, Junction 34.
3. That the Stage 2 Welsh Transport Appraisal Guidance (WelTAG) Report, once completed, is presented to Cabinet for consideration in Spring 2018.
4. That this matter is referred to the Scrutiny Committee (Environment and Regeneration) and the Focus Group for consideration prior to a final decision being taken by Cabinet on recommendations 1-3 above.

Reasons for the Recommendations

1. To seek Cabinet approval in principle of the Stage 1 Arcadis Consulting UK Limited Report on the M4, Junction 34 to A48 Study.
2. To agree in principle to progressing the M4, Junction 34 to A48 Transport Study to the next stage using the relevant Welsh Government transport guidance.
3. To seek Cabinet's views on the Stage 2 report, once completed.
4. To ensure that the views of the relevant Scrutiny Committee and the Focus Group are considered prior to a final decision on the Stage 1 report being taken by Cabinet.

Background

2. Arcadis Consulting UK Limited was commissioned by the Council in July 2017 to develop and appraise potential options for improving the strategic transport route from M4, Junction 34 to A48 including considering options for a park & ride site at Junction 34. [Appendix A](#) provides a Strategic Outline Case Report which includes a map of the Study area. The appraisal of options was in accordance with Welsh Government's latest June 2016 version of the Welsh Transport Appraisal Guidance (WeITAG). All transport schemes in Wales need to come through the WeITAG process to be put forward for Welsh Government funding and accepted schemes for transport funding need to demonstrate value for money.
3. WeITAG Stage 1 should report on the issue of concern, explore its context and present a list of possible solutions. Further the Stage 1 Report needs to decide whether there are any possible solutions within the transport sector that are worth pursuing and to select a short list of options for more detailed consideration at Stage 2. Further information on WeITAG can be found here: https://consultations.gov.wales/sites/default/files/consultation_doc_files/161208-weltag-consultation-en.pdf
4. The highway network through and near to the Pendoylan corridor between M4 Junction 34 and the A48 is extensively poor and constrains strategic connectivity including accessibility to and from Cardiff Airport, other key services and strategic employment sites in the Vale of Glamorgan. In addition the poor access effects adjacent authorities, as well as local/ regional communities. The network at this location comprises narrow lanes with limited passing opportunities, restricted speed as a result of adverse route alignments, and is predominantly non-compliant to current Design Manual for Roads and Bridges (DMRB) standards.
5. The Study was required to identify options to improve the strategic transport network to assist in realising the economic potential that has been identified in the Cardiff City Deal Capital Region Competitive Growth Cardiff Capital Region Growth and Competitiveness Commission Report 2016 which can be found here: http://cardiffcapitalregioncitydeal.wales/report/growth & comp_com_process_web.pdf
6. Sustainable transport options are restricted at this location with no immediate access to local and regional rail services or robust provision for cycling, and although local bus services do operate through Pendoylan, there are no direct connections to Cardiff Airport or to strategic employment areas to the south. Therefore there is a high reliance on car travel to access regional facilities (including Cardiff Airport) and employment sites with limited public transport options. Traffic congestion and resilience issues are evident throughout the region particularly affecting the M4 corridor and the A48/ A4232 at Culverhouse Cross during peak commuting hours. There is high car dependency within the local area with 92% of those living within the study area and 76% of those living throughout South East Wales using the car to travel to and from work. As a result of congestion, and when there are incidents on the M4, the Pendoylan corridor also functions as a 'rat-run'. It is proposed to upgrade 'Five Mile Lane' (due to commence in 2018) from the A48 to the A4226 north west of Barry. This could have the effect of altering trip patterns on the road network including through Pendoylan. In addition, the resilience of the strategic network throughout this area is anticipated to deteriorate in the medium to long term with committed development planned for the region.

7. There are subsequently opportunities to introduce and establish an enhanced and sustainable transport network by improving strategic connectivity southwards from M4 Junction 34 to the A48 and beyond.
8. The Study represents an exciting opportunity to improve the quality of connections by all transport modes between the M4, Junction 34, Barry, the Airport and the St Athan Enterprise Zone and surrounding areas, including the neighbouring Local Authorities and further afield.

Relevant Issues and Options

9. The WelTAG Stage 1 Report has been prepared for the Council by Consultants Arcadis Consulting UK Limited to Improve Strategic Transport links from M4, Junction 34 to A48 and Five Mile Lane. The Report consists of two documents namely an Impacts Assessment Report ([Appendix B](#)) and a Strategic Outline Case Report ([Appendix A](#)).
10. The Impacts Assessment Document provides an overview of the study area including information on its location, demographics, employment, environment and land use characteristics. It also examines access to employment by looking at worker characteristics including the transport mode, destination and distance travelled for work purposes. Further access to Services and Recreation is examined by this Document as well as walking and cycling, rail and bus and highway network provision. Both existing and future proposals and priorities are listed and the work considers the land use commitments as contained in the Adopted Vale of Glamorgan Local Development Plan (2017).
11. Consultation sessions were held to assist with the preparation of the Report. The first was a Stakeholder consultation session held on Thursday 7th September 2017 at the Dock Office in Barry, with a further stakeholder session held on Tuesday 19th September held at Pendoylan Memorial Hall. At these events key organisations, transport providers, local authority representatives and the Community Council were present. The events discussed and identified transport problems, opportunities and constraints as well as considering objectives for the Study. The third was a Public consultation session held on Thursday 21st September 2017 again at the Pendoylan Memorial Hall. At this session the public had the opportunity to provide feedback on identified options, opportunities and constraints as well as making suggestions of their own on potential transport solutions.
12. The public consultation event was well attended (approx. 140 people) and there were 33 feedback forms returned. The transport problems identified from the Report include:
 - Poor highway infrastructure between M4 Junction 34 and the A48 leading to poor access for local communities and businesses.
 - Poor sustainable access to Cardiff Airport and strategic destinations.
 - High use of the private car for local and regional trips (e.g. journeys to work).
 - Existing congestion issues at M4 Junction 34 and on the A48 which are likely to worsen with the committed developments in the area.
 - Environmental issues associated with high use of the car, including adverse greenhouse emissions and noise pollution.
 - High local traffic flows lead to congestion, capacity issues at junctions, environmental impacts including air quality, noise pollution and unreliable journey times.

- Accessibility for HGVs.
 - Adverse road safety conditions along existing routes non-compliant to current DMRB highway standards.
13. There are subsequently opportunities to introduce and establish an enhanced and sustainable transport network by improving strategic connectivity southwards from M4 Junction 34 to the A48 and beyond to achieve the following key objectives:
- Enhance connectivity to Cardiff Airport and strategic employment sites in the region.
 - Increase transport options for strategic access and access to and from local communities.
 - Improve network resilience and road safety on the M4, A48 and A4232 corridors and other connecting roads.
 - Protect and enhance the historic, built and natural environment including the landscape and settlement character of the study area.
 - Minimise impacts on communities and support social inclusion and health and well-being.
14. The constraints for transport identified in the Report included:
- The land use policy context which can also be seen as an opportunity.
 - Potential need for third party land to deliver transport improvements.
 - Route uncertainty at this stage making it difficult to fully understand the engineering constraints and potential costs.
 - Environmental considerations including the potential for protected species along the proposed route.
 - Funding availability to deliver improvements.
 - Bus service journey times and reliability between M4 Junction 34 and the A48 would be dependent on the improvements of the highway links otherwise it is reliant on the existing road network and constrained by existing limitations throughout the Pendoylan corridor (i.e. narrow lanes and non-compliance with current design standards). The availability of suitable capacity on the South Wales Main Line to accommodate additional rail services, and impact on existing stations and services (e.g. Pontyclun).
 - Bus integration provision would benefit from promotion and marketing of services, such as utilising the full potential of social media to maximise patronage and attract new passengers.
 - Subject to further analysis and as part of a viable financial business case, the ability to deliver a competitive fare price structure could be essential in achieving suitable patronage, in competition from other forms of transport and the availability of Cardiff Airport car parking, for example.
15. The Strategic Outline Case Document sets out the strategic case for change and assesses each of the intervention options to examine how they meet the objectives together with the identification of key risks, adverse impacts constraints and dependencies. The appraisal of the extent each option meets the objectives is described using the WeITAG seven-point assessment scale. The assessment scale includes measures relating to social, environmental, economic and the financial and

commercial case for change. Whilst the objectives for the intervention were derived from general and transport-specific objectives as set by the Welsh Government, Section 4 of the Impacts Assessment Report in [Appendix B](#) sets out how stakeholders have informed the development of the objectives and how the proposed objectives positively contribute to Welsh Government policy.

16. As a result of the evidence summarised above seven options were assessed as follows:
 - A - Do-minimum
 - B - Highway Route Option 1 – East of Pendoylan connecting between M4 Junction 34 and the A48 at Sycamore Cross (Offline)
 - C - Highway Route Option 2 – West of Pendoylan connecting between M4 Junction 34 and the A48 at Sycamore Cross (Part Online/ Part Offline)
 - D - Highway Route Option 3 – West of Pendoylan connecting between Clawdd-Coch and the A48 via Redway Road (Part Online/ Part Offline)
 - E - Highway Route Option 4 – East of Welsh St. Donats connecting between M4 Junction 34 and the A48 junction circa 3km west of Sycamore Junction (Offline)
 - F - Bus Park and Ride near to M4 Junction 34
 - G - Parkway Railway Station including Park & Ride facility and Bus Integration located near to M4 Junction 34
17. The options appraisal to assess this long list of options included considering how the option tackles the identified problems how the option meets the objectives, assessment of risk, consideration of any adverse impacts, constraints and any dependencies. The options proposed to be taken forward in the Report are below.
18. **Option A:** Do Minimum assumes continued delivery of transport enhancements via the Local Transport Plan and utilising existing sources of funding, but assumes no step change in the level of funding or delivery of any major transport enhancements within the study area (assumes current levels of investment).
19. **Option B:** Highway Route Option 1 – East of Pendoylan connecting between M4 Junction 34 and the A48 at Sycamore Cross (Offline) assumes for the purposes of this outline appraisal that Highway Route Option 1 would encompass moderate online improvements at the beginning and end of the existing Pendoylan route between M4 Junction 34 to the A48 (Sycamore Cross). The remainder of the route between these two junctions would be offline and bypass Pendoylan to the east of the village. At this stage of the assessment it is assumed that the route would be a single carriageway with the potential to provide integral public transport and segregated cycle route infrastructure, as well as provision for suitable crossing opportunities to retain any connectivity for existing public rights of way.
20. **Option C:** Highway Route Option 2 – West of Pendoylan connecting between M4 Junction 34 and the A48 at Sycamore Cross (Part Online/ Part Offline) assumes that the scheme would encompass a part improvement of the existing online route between M4 Junction 34 to the A48 (Sycamore Cross) together with new offline sections including a by-pass to the west of Pendoylan village and east of Clawdd-Coch. The option would establish a Design Manual for Roads and Bridges (DMRB) compliant route. At this stage of the assessment it is assumed that the route would be a single carriageway with the potential to provide integral public transport and

segregated cycle route infrastructure, as well as provision for suitable crossing opportunities to retain any connectivity for existing public rights of way.

21. **Option G:** Parkway Railway Station including Park & Ride facility and Bus Integration located near to M4 Junction 34 assumes that a new railway station at this location would provide frequent rail service east towards Cardiff and west towards Swansea, with a large park and ride facility allowing for robust integration for passengers. It is anticipated that any such facility would provide an integrated bus service between the railway station and Cardiff Airport, as well as other regional employment centres. Specific deliverables would be subject to feasibility assessment but would be anticipated to encompass free and secure car parking, ticket office, waiting areas including café and toilet facilities, covered cycle parking facilities, as well as support staff situated on-site.
22. Option G has been considered in isolation in terms of the impact assessment to differentiate the impacts from the highways options. However, it is recognised that it would only be a viable option if there are highway improvements between M4 Junction 34 and the A48. A new parkway rail station would therefore be reliant upon existing highway network infrastructure for connectivity from the south. Highway Route Option 2 – West of Pendoylan connecting between M4 Junction 34 and the A48 at Sycamore Cross (Part Online/ Part Offline) assumes that Option C would encompass a part improvement of the existing online route between M4 Junction 34 to the A48 (Sycamore Cross) together with new offline sections including a by-pass to the west of Pendoylan village and east of Clawdd-Coch. The option would establish a DMRB compliant route. At this stage of the assessment it is assumed that the route would be a single carriageway with the potential to provide integral public transport and segregated cycle route infrastructure, as well as provision for suitable crossing opportunities to retain any connectivity for existing public rights of way.
23. A focus group including stakeholders will meet on 27th November 2017 to review the Report and options being recommended, to ensure that any options being taken forward are supported and deliverable by using the group's knowledge and expertise in their field. The recommendations of this Focus Group will be fed back to Cabinet at the same time as it receives the views of Scrutiny Committee before a final decision is taken on the options to be progressed.

Resource Implications (Financial and Employment)

24. The total cost of undertaking both WelTAG Stage 1 & 2 studies is £60,000 which is funded by Welsh Government and included payments to the consultants, officer time and venue hire for the consultation. The WelTAG Stage 2 study will be delivered before the end of the financial year 2017/18.

Sustainability and Climate Change Implications

25. Passenger transport provision assists in sustainability and helps to reduce car use for the journey to and from establishments and helps to reduce traffic congestion, particularly at schools and social services venues. By-Passes can offer environmental improvements to households living alongside busy traffic routes.

Legal Implications (to Include Human Rights Implications)

26. There are no legal implications associated with this Report.

Crime and Disorder Implications

27. Improvements to transportation networks can assist with providing a safe environment for users to travel to and from their home for employment, and leisure activities.

Equal Opportunities Implications (to include Welsh Language issues)

28. The provision of a well organised transport network helps to increase mobility and accessibility.

Corporate/Service Objectives

29. The provision of a reliable, efficient and value for money transport network is recognised by the Visible Service and Transport Plan (2017). The relevant Wellbeing Outcome is An Environmentally Responsible and Prosperous Vale with the relevant Wellbeing Objective being to promote regeneration, economic growth and employment.

Policy Framework and Budget

30. This is a matter for Executive decision by Cabinet.

Consultation (including Ward Member Consultation)

31. The Ward Members in Pendoylan, Peterston-Super-Ely, St Nicholas, Bonvilston, Rhoose and west Barry have been consulted on this Report.

Relevant Scrutiny Committee

32. Environment and Regeneration

Background Papers

None.

Contact Officer

Clare Cameron Principal Transport & Road Safety Officer

Officers Consulted

Legal - Committee Reports
Accountant - Environment and Housing Services
Head of Regulatory Services
Policy Officer (Procurement)
Head of Regeneration and Planning
Operational Manager Highways and Engineering
Principal Road Safety and Transport Officer
Passenger Transport Manager
Major Project Manager
Operational Manager Development Management
Operational Manager, Property

Responsible Officer:

Miles Punter - Director of Environment and Housing Services