

# M4 J34 TO A48 (FIVE MILE LANE) INCLUDING THE PENDOYLAN CORRIDOR OR ALTERNATIVE

WelTAG Stage One: Strategic Outline Case

30th November 2017

18:00 Civic Offices, Barry

Incorporating

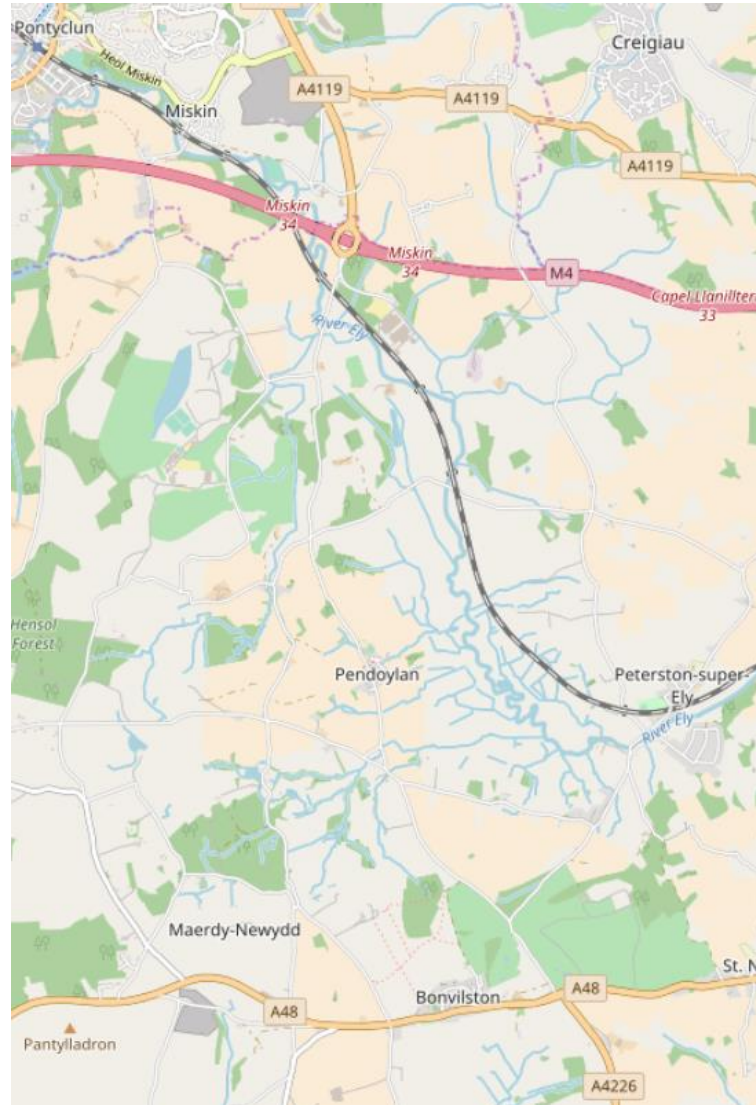
**EC HARRIS**  
BUILT ASSET  
CONSULTANCY

Hyder 

# Study Brief

- Commissioned to **develop and appraise potential options for improving the strategic transport network encompassing corridors from the M4 Junction 34 to the A48 (Five Mile Lane) including the Pendoylan Corridor (or alternative) to access Cardiff Airport.**
- Considering the area from the M4 J34 to the A48 east and west of the Sycamore Cross junction – by all modes of travel – and strategic impacts on the M4 J33-35 and A48/ A4232
- Undertaken in accordance with the Welsh Government’s latest version of the **Welsh Transport Planning and Appraisal Guidance** (WeITAG) (draft version, June 2016) to arrive at a strategic outline case for further consideration of options
- Schemes need to come through this process to be put forward for Welsh Government funding

# Study Area



# Consultation

## Stakeholder

- **Thursday 7<sup>th</sup> September 2017** (Docks Office, Barry)
- Key employers, public organisations, transport providers and local authority
- Discussed and identified problems, opportunities and constraints, set objectives and identified and discussed potential transport options.

## Community Councillors/ Stakeholders

- **Tuesday 19<sup>th</sup> September 2017** (Pendoylan Memorial Hall)
- Opportunity for community councillors to provide feedback on identified options, opportunities, and constraints, as well as consideration and suggestions for the objectives and potential transport options.

# Consultation

## Public

- **Thursday 21st September 2017** (Pendoylan Memorial Hall)
- Public opportunity to provide feedback on identified options, opportunities, and constraints, as well as consideration and suggestions for the objectives and potential transport options.

# Public Consultation Feedback

- A wide range of people and organisations attended both events (approx. 40 at workshops and 140 at public event)
- Received 41 feedback forms, with many being very detailed responses
- Workshop and public sessions were engaged with fully and constructive discussion took place

# Problems, Opportunities & Constraints

## Identification of Problems

- P01** Poor highway infrastructure between M4 Junction 34 and the A48 leading to poor access for local communities and businesses.
- P02** Poor sustainable access to Cardiff Airport and strategic destinations.
- P03** High use of the private car for local and regional trips (e.g. journeys to work).
- P04** Existing congestion issues at M4 Junction 34 and on the A48 which are likely to worsen with the committed developments in the area.
- P05** Poor infrastructure and local connectivity by walking and cycling.
- P06** Environmental issues associated with high use of the car, including adverse greenhouse emissions and noise pollution.
- P07** Accessibility for HGVs.
- P08** Adverse road safety conditions along existing routes non-compliant to current DMRB highway standards.

# Problems, Opportunities & Constraints

## Identification of Opportunities

- O1** Improved connections to link the airport to strategic opportunity areas (SOAs) e.g. Llantrisant and other regional centres.
- O2** National significance of Cardiff Airport.
- O3** Growth of Cardiff Airport and investment in St. Athan Enterprise Zone infrastructure
- O4** Five Mile Lane upgrade will significantly improve access between the A48 and Cardiff Airport.
- O5** Potential to create connections between M4 Junction 34 and A48 to continue Five Mile Lane route.
- O6** Northernmost 500m section of route near M4 Junction 34 of good standard with existing bridges over River Ely (SSSI) and mainline railway.
- O7** Proposed improvement at Bonvilston end of route, connecting to Sycamore Cross.
- O8** Potential for park and ride and bus and cycle connections.



# Problems, Opportunities & Constraints

## Identification of **Constraints**

- C01** High quality study area environment
- C02** Policy context (which is also an opportunity)
- C03** Potential need for third party land to deliver improvements
- C04** Funding availability
- C05** Location of existing services and facilities within study area

# Transport Objectives

## Objective 1

- Enhance connectivity to Cardiff Airport and strategic employment sites in the region.

## Objective 2

- Increase transport options for strategic access and access to and from local communities.

## Objective 3

- Improve network resilience and road safety on the M4, A48 and A4232 corridors and other connecting roads.

## Objective 4

- Protect and enhance the historic, built and natural environment including the landscape and settlement character of the study area.

## Objective 5

- Minimise impacts on communities and support social inclusion and health and well-being.

# Developing & Appraising Options

## OPTIONS IDENTIFIED

- 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 & Ride near to M4 Junction 34
- G** Parkway Railway Station including Park & Ride facility and Bus Integration located near to M4 Junction 34

# Initial Recommendation of options to be taken forward to WelTAG Stage 2

Option B: a highway route east of Pendoylan

Option C: a highway route west of Pendoylan

Option G: parkway station with park and ride facility and bus integration near to M4 Junction 34

## Option B: a highway route east of Pendoylan

- 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.
- 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.
- inclusive of junction improvements to improve highway capacity, specifically improvements to M4 Junction 34 and A48 Sycamore Cross junction to establish enhanced route journey time and connectivity improvements.

# Option B: a highway route east of Pendoylan

## Main Impacts

- The option would represent a significant highway infrastructure improvement between M4 Junction 34 and A48 with significant potential for improved vehicle journey time and reliability.
- There is opportunity to provide integral bus infrastructure, as well as walking and cycling infrastructure encompassing connectivity to existing routes.
- Adverse impact on the natural and built environment through construction of a new by-pass (predominantly on an existing green site).

## Option C: a highway route west of Pendoylan

- 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.
- 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.
- inclusive of junction improvements to improve highway capacity, specifically improvements to M4 Junction 34 and A48 Sycamore Cross junction to establish enhanced route journey time and connectivity improvements.

# Option C: a highway route west of Pendoylan

## Main Impacts

- The option would represent a significant highway infrastructure improvement between M4 Junction 34 and A48 with significant potential for improved vehicle journey time and reliability.
- There is opportunity to provide integral bus infrastructure, as well as walking and cycling infrastructure encompassing connectivity to existing routes.
- Adverse impact on the natural and built environment through construction of a new by-pass (predominantly on an existing green site).



# Option G: parkway station with park and ride facility and bus integration near to M4 Junction 34

- a new parkway railway station near to M4 Junction 34 including a park and ride facility and bus integration, with frequent rail services 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.
- This option 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 rely on existing highway network infrastructure for connectivity from the south.

# Option G: parkway station with park and ride facility and bus integration near to M4 Junction 34

## Main Impacts

- Potential to make travel by non-car means an attractive option, reducing dependency on the private car. Potential for regional benefits from the A4119/ Rhondda Valley area, as well as from the A48 corridor in the Vale of Glamorgan.
- Potential to positively support improved sustainable accessibility to and from Cardiff Airport as well as other strategic destinations that are regional and outside of Wales
- Removal of car trips anticipated to help mitigate adverse environmental issues associated with high use of the car, including adverse greenhouse emissions and noise pollution. |

# Next Steps

- Stage 2 study to further consider recommended options
- Requires additional evidence and consultation to support decision making

**Any Questions**