

# DEVELOPMENT OF HIGHWAY OPTIONS

Highway options have been developed by considering the constraints and seeking to design a high standard route which has the least impact on existing communities and the environment.

## Common Design Features

- Single carriageway of national speed limit standard (60mph), with segregated walking and cycling route alongside the carriageway connecting from south of Junction 34 to the A48 at Sycamore Cross.
- Maintains existing connectivity for existing traffic and Public Rights of Way.
- The northern and southern sections would involve improvements to the existing road.
- The options include for new or revised junctions providing access to the existing communities and properties.
- Potential changes are proposed to the Sycamore Cross junction to remove the stagger.
- Options considered to allow access to Peterston-super-Ely and Gwern-y-Steeple.

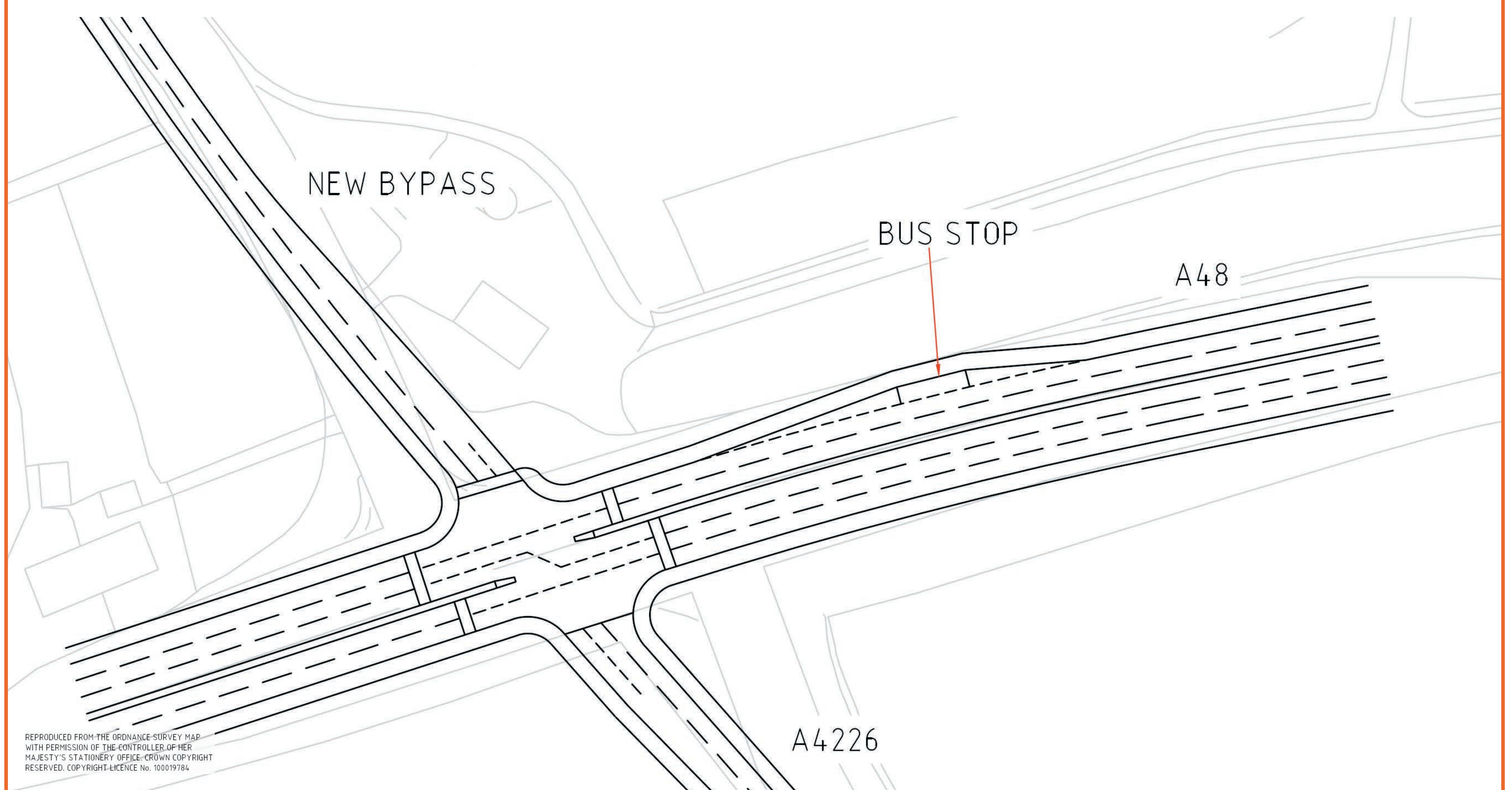


## Access and Junctions

Junction arrangements are common to both options:

- Access is required from the existing road through Pendoylan onto the new alignment, with junctions needing to be considered at the northern and southern ends.
- A revised junction would be needed to provide access to Hensol.
- Due to residents' concerns in Gwern-y-Steeple and Peterston-super-Ely with the issues of rat-running being exacerbated, it is possible that the existing access onto the Pendoylan route in the south could be closed off, with traffic gaining access from the existing Pendoylan route and the lane to Gwern-y-Steeple further north. The alternative would be either a roundabout junction at the southern end (which might encourage through traffic through Peterston-super-Ely) or a staggered junction (not ideal in terms of highway safety).
- A possible new signalised junction could be provided at Sycamore Cross without the staggered arrangement, which would involve taking some land on the south west side of Five Mile Lane.

## Potential Sycamore Cross Junction Layout



## Option Costs and Funding

Costs have been estimated for each of the highway options. These costs include technical studies and development costs, design and construction, as well as allowances for statutory undertakers' costs, fees, land compensation, accommodation of access arrangements, risk and optimism bias.



It is assumed that funding for a new road link would need to be met by the Welsh Government with delivery by the Vale of Glamorgan Council. There are no certainties with respect to funding sources for the highway options at present. However, a connection from the M4 Junction 34 to the A48 is named in the National Transport Finance Plan as updated in December 2017.

# Improving Strategic Transport Encompassing Corridors for the M4 Junction 34 to A48 Including the Pendoylan Corridor

## WelTAG Stage Two: Outline Business Case

