Access to Argyll and Bute (A83) Strategic Environmental Assessment & Preliminary Engineering Services Consultation on Possible Route Options in the Recommended Preferred Route Corridor

Jacobs AECOM



Yellow Possible Route Option (Predominantly Viaduct on North-East Slope)

The Yellow route option would involve the construction of a new single carriageway road, approximately 2.1km long, located between the existing A83 Trunk Road and the Old Military Road. It would have a similar average gradient as the existing A83 Trunk Road.

This would include a length of new road on a viaduct approximately 1.8km long from a point near the existing Croe Water bridge, to a point near the Rest and Be Thankful car park along the base of the west-facing slopes of Beinn Luibhean where the landslide/debris flow hazard is significant.

The viaduct would vary in height along its length, with a maximum pier height of approximately 37m and spans between the supporting piers of approximately 40m to 70m. The position of the viaduct and the piers would need to be situated to allow the existing A83 Trunk Road and the Old Military Road to remain open during its construction. It would also need to span the larger channels from the upper slope which could act as a

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pathway for any future significant landslides or debris flows. The viaduct piers would also require deflector structures to afford protection from any future landslides or debris flows in that area.

Advantages

- Affords protection of the trunk toad from up-slope landslide and debris flow hazard.
- Greater flexibility with respect to traffic management and workforce protection than the brown option due to its position further down the slope and offset from the A83.
- Due to the proposed viaduct, this route option has less potential for soil 'sealing' (preventing natural soil processes) than the other options.

Disadvantages

- Construction works would be within the zone of highest landslide/debris flow hazard susceptibility requiring careful construction planning and implementation.
- Construction on steep sections of hillside will present challenges for construction planning and implementation.
- Increased geotechnical and structural design requirements to ensure appropriate siting and protection of viaduct piers to mitigate up-slope landslide/debris flow hazard.
- Construction works in proximity to the Old Military Road in places, requiring careful consideration of traffic management.
- Design of the viaduct may need to consider resilience to inclement weather such as high winds.
- Due to the proposed viaduct, this option could result in significant landscape and visual effects, including effects on the setting of cultural heritage resources
- Future maintenance requirements for the viaduct and pier protection structures.