

21st A83 Taskforce Meeting – 03 March 2022

Medium and Long Term Solution Project Update

– Presented by Jacobs Aecom

Slide 2

Scheme Update – Medium Term Solution

Initial design development and assessment has been undertaken on various potential Medium Term Scheme options identified by the project team, having sifted out options described at the September Taskforce meeting. Further suggestions have also been considered.

Suggested MTS Option: Single Lane Forestry Track Upgrade on its own, or in a loop with the Old Military Road

- Convoy working due to safety concerns around the operation of the route, steep gradients and the presence of hazards such as steepness of the hillside and dense trees. Longer length of convoy working required compared to the existing OMR arrangement.
- No geohazard mitigation high likelihood of closure should a landslide or debris flow occur in the vicinity of the route.
- Operation on its own, with a two way convoy over its length, introduces longer combined wait and journey times compared to the existing OMR arrangement. Could be up to approximately 49 minutes wait and journey time in both directions.
- Eastbound combined wait and journey times with the Single Lane Forestry Track option operating in a loop could be up to approximately 25 minutes.
- Westbound combined wait and journey times with the Single Lane Forestry Track option operating in a loop could be up to approximately 32 minutes, same as existing OMR times .
- To bring the forestry track up to a safe standard for use as a single lane public road would cost approximately £21M to £28M. We estimate that this option could be open to traffic by Autumn

Slide 3

Scheme Update – Medium Term Solution

Suggested MTS Option: Two-way Road in Proximity to Existing Forestry Track

- Generally follows the Long Term Solution (LTS) Green Route option on the south western slopes of Glen Croe.
- Consists of a 7.3m wide, two-way, single carriageway with 2.5m wide verges with significant lengths of deep cutting.

- Would not require a convoy operation and would operate under 30mph free flow conditions.
- No specific geohazard mitigation measures have been provided in the design or costed at this stage.
- Geohazard mitigation likely to be required once more data is available.
- Journey times for this option would be broadly similar to the existing A83, taking approximately 5 to 8 minutes, a saving of up to approximately 27 minutes compared to the existing OMR arrangement.
- We estimate the cost for this option to be in the region of £85M to £113M. Significant works would be required and construction timescale would be approximately 2 to 2½ years.
- We estimate this could be open to traffic around Autumn 2026.

Slide 4

Scheme Update – Medium Term Solution

Suggested MTS Option: Old Military Road Interventions

- Extending the current length of two-way working by up to approximately 1,300m.
- Providing additional edge protection.
- Curve widening at specific locations.
- Improved culverts.
- Realignment of the southern A83 Trunk Road/Old Military Road junction.
- Geohazard mitigation measures including barriers, bunds and catch fences.
- Shorter length of convoy means this option would achieve a wait and journey time of up to approximately 22 minutes, saving up to approximately 10 minutes compared to the existing OMR arrangement.
- We estimate the cost for this option to be between £24M to £32M.
- We estimate this could be open to traffic around summer 2024.

Slide 5

Scheme Update – Medium Term Solution

Summary

Existing Old Military Road

- Up to 32 minutes approximate wait and journey time.

Forestry Track Option

- Up to 49 minutes approximate wait and journey time.
- £21m to £28m Estimated Cost
- Opens to Traffic Autumn 2025

Forestry Track Option with Old Military Road in a Loop

- Up to 25 minutes approximate wait and journey time Eastbound
- Up to 32 minutes approximate wait and journey time Westbound
- £21m to £28m Estimated Cost

- Opens to Traffic Autumn 2025

New Two-Way Road

- 5-8 minutes approximate wait and journey time
- £85m to £113m Estimated Cost
- Opens to Traffic Autumn 2026

Old Military Road Interventions

- Up to 22 minutes approximate wait and journey time
- £24m to £32m Estimated Cost
- Opens to Traffic Summer 2024

Slide 6

Scheme Update – Long Term Solution

Preliminary work has been undertaken on five broad route options:

- Green;
- Yellow;
- Brown;
- Purple; and
- Pink.

Work has progressed to test their feasibility before undertaking any detail design or scheme assessment work.

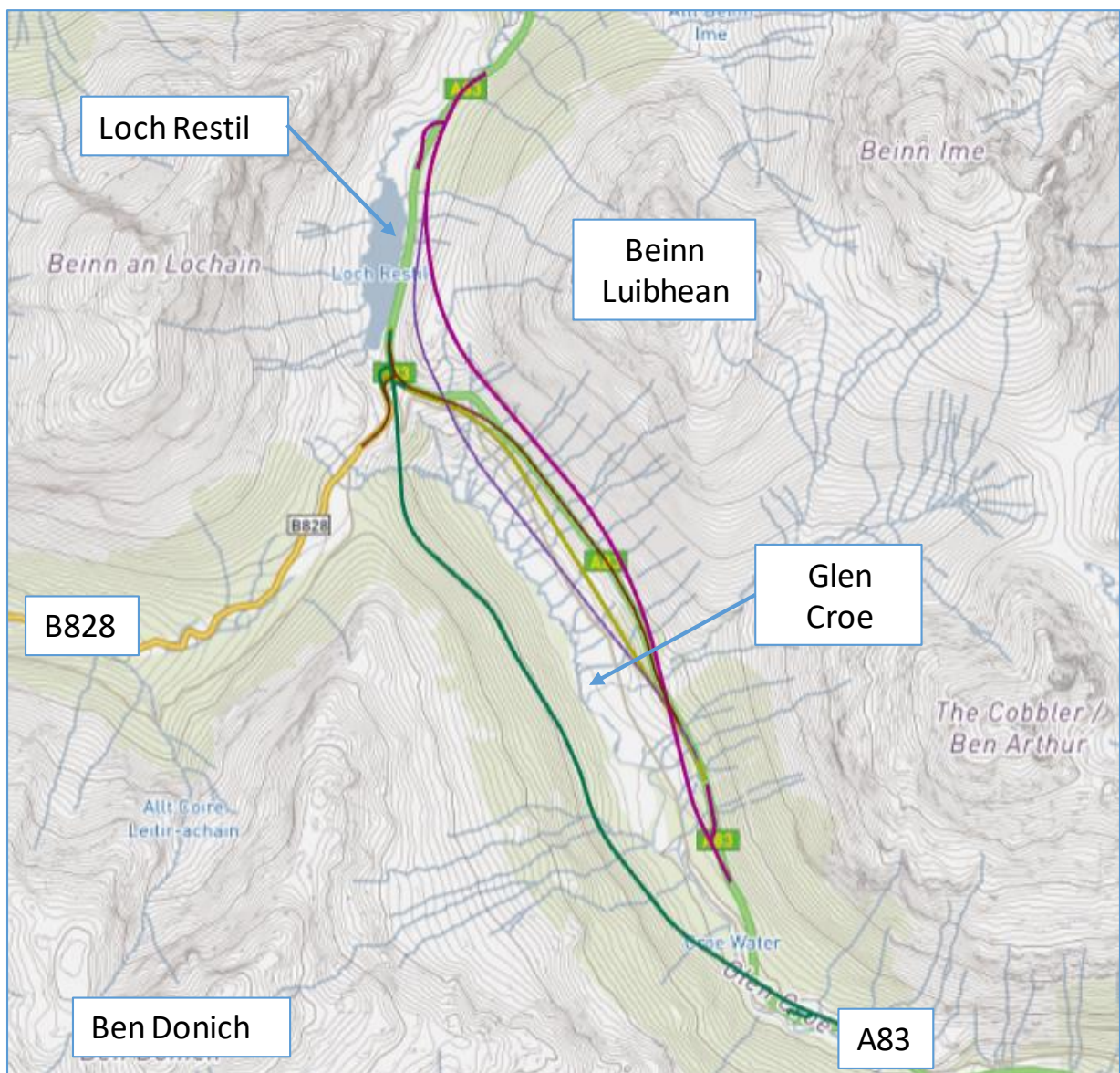


Image showing A83 corridor passing through Glen Croe indicating the five route options.

Slide 7

Scheme Update – Long Term Solution

Emerging benefits and dis-benefits of these long term solution options are:

Green Option Benefits

- Minimal third party land required.
- Minimal impact to existing A83 or OMR operation.
- Bypasses highest landslide hazard susceptibility on Beinn Luibhean.

Green Option Dis-benefits

- B828 junction may encroach on SSSI.
- Early geohazard work has identified a potential relict landslide feature and landslide/debris flow risk across the western slope.
- Consultations indicate that existing forestry is to be felled, potentially impacting slope stability.
- Significant maintenance programme expected for debris flow shelters, viaducts or other geohazard mitigation.

Yellow Option Benefits

- Bridges the zone of highest hillside instability on the eastern side of the glen.
- Bridges over the many watercourses on the eastern slope.

Yellow Option Dis-benefits

- B828 junction may encroach on SSSI.
- Potential for landslides to delay construction works.
- Construction traffic will likely use OMR, if required as a result of a landslide then potential to cause delays to construction programme or convoy becoming operational
- Significant maintenance programme and cost for viaduct and pier protection structures.
- Significant third party land required.

Slide 8

Scheme Update – Long Term Solution

Emerging benefits and dis-benefits of these long term solution options are:

Brown Option Benefits

- Debris flow shelter would provide protection through the zone of highest hillside instability on the eastern side of the glen.
- Minimal third party land required.

Brown Option Dis-benefits

- B828 junction may encroach on SSSI.
- Significant impact and disruption to the A83 operation during construction.
- Future management of existing watercourses particularly challenging.

- Significant maintenance programme and cost for viaduct, pier protection structures and debris flow shelter.

Purple Option Benefits

- Minimal impact to the A83 operation.
- Central position potentially reduces landslide susceptibility.

Purple Option Dis-benefits

- B828 junction may encroach on SSSI.
- Night time closures of tunnel likely for inspections and maintenance and 24-hour monitoring required increasing operational costs.
- Significant third party land required.
- Construction traffic will likely use OMR, if required as a result of a landslide then potential to cause delays to construction programme or convoy becoming operational.
- Significant maintenance programme and cost for viaduct and pier protection structures.
- Tunnel does not pass through area of high landslide susceptibility resulting in high cost for limited geohazard mitigation benefit

Slide 9

Scheme Update – Long Term Solution

Emerging benefits and dis-benefits of these long term solution options are:

Pink Option Benefits

- Minimal third party land required.
- Minimal impact to the A83 and OMR operation.
- Bypasses the zone of highest landside susceptibility on Beinn Luibhean.
- Potential for less impact on surface level natural assets.
- Maintenance costs expected to be relatively consistent.

Pink Option Dis-benefits

- B828 junction may encroach on SSSI.
- Night time closures of tunnel likely for inspections and maintenance and 24-hour monitoring required increasing operational costs.
- Significant surplus of cut volume likely which will need to be removed from site.

Updated Plan and Profile drawings for the Long Term Solution option have been prepared and are being published on the Access to Argyll and Bute (A83) Storymap.

Slide 10

Scheme Update – In Combination Options

A number of 'in combination' options have been identified and assessed to establish if such a strategy could result in a quicker and more efficient delivery of a resilient alternative to the A83.

'In combination' Option Example:

- **Phase 1** - Construct the full length of the Offline MTS option, which generally overlaps part of the LTS green route option.
- **Phase 2** - Construct the LTS green route option upgrade. Remove parts of the Offline MTS option no longer required.
- Benefits and Dis-benefits for the 'In combination' options have been identified from the assessment work undertaken to date.
- While this approach would allow the commencement of a long-term solution sooner and allow for costs to be split over two phases, the assessment work to date indicates that overall construction timescales would be longer and costs would be higher.

Slide 11

Scheme Update – Norwegian Public Roads Administration Consultation

Norway are known for the numerous tunnels that are present within their road network.

To investigate whether or not Norway build tunnels quicker and better than us and for us to possibly learn some lessons we met with the Norwegian Public Roads Authority on 13 January 2022.

We discussed their option appraisal process, statutory process, programme, budget as well as their standards for tunnels and method of construction

Key points to note:

- The process in Norway is very similar to the process that we follow.
- Their options appraisal process can take years and that construction timescales vary from tunnel to tunnel.
- Their project timescales are generally very similar to that in Scotland.
- Looking at our project they estimated construction of a tunnel at the Rest and Be Thankful would take approximately 3 or 4 years, dependant on ground conditions.
- They confirmed that a project duration of 7 to 10 years in total seemed very reasonable.

Slide 12

Next Steps

- First stage (SPD) for procurement competition for next Consultancy Services Commission now complete.
- Preliminary Ground Investigation has commenced and is due to extend through to April 2022.
- Ground Investigation reporting and monitoring to follow site works.
- Further seasonal environmental surveys to take place
- Firm proposals for Medium Term Solution Scheme planned for Autumn 2022
- Design work for long term solution will continue.