

A83 Medium Term Strategy  
Options Assessment  
Option Fact Sheet

Option Name	Long Term Scheme (LTS) – Conversion of the Medium Term Solution (MTS) Offline 2 Way Road (reduced cross-section) to LTS with Debris Flow Shelter
Brief Description	<p>This option considers a scenario where the MTS, as described as Option 3, is completed first in an initial construction stage.</p> <p>At a later date, the previously constructed cross-section along the western slopes of the glen would be widened to accommodate a full S2 carriageway cross-section for the LTS, with geohazard mitigation in the form of a debris flow shelter also constructed in this second stage of construction.</p> <p>In the second construction stage, the eastern and western tie-in points would also be upgraded to include the two new viaducts, lengths of approach road and the new junction layout with the B828 Glen Mhor local road, as outlined in the LTS Option 5 description. The MTS tie-ins constructed in the first construction stage would therefore be removed as they are no longer required.</p> <p>Two additional new lengths of carriageway including roadworks, earthworks and protection from geohazards in the form of a debris flow shelter will need to be constructed where there is no overlap between the MTS and LTS, approximately 250m at the eastern end of the central overlapping section and approximately 300m at the western end of the central overlapping section. Otherwise the description of this option is similar to '<i>Option 5: Long Term Scheme (LTS) – Debris Flow Shelter</i>'.</p>
Option Pros	<p>The key positive elements of this option are listed below:</p> <ul style="list-style-type: none"> <li>• This option allows for the MTS to form part of a phased approach to the completion of the LTS.</li> <li>• This option would involve lower cost initially, delaying the longer construction times and higher expenditure associated with the LTS at the east and west ends which include viaducts and the central section which includes debris flow shelter.</li> <li>• This option would delay impact on third party land associated with the LTS until the second construction stage.</li> </ul>
Option Cons	<p>The key negative elements of this option are listed below:</p> <ul style="list-style-type: none"> <li>• Upon completion of the eastern and western tie ins for the LTS there would be a length of redundant road created in the MTS phase that would need to be removed and disposed of unless it can be reused and also land either reinstated, if possible, or appropriate landscaping treatments provided.</li> <li>• The current MTS design positions the carriageway to minimise the earthworks, construction duration and cost of the MTS. This is unlikely to be the optimal location for the LTS which will require repositioning the carriageway further west into the hillside to accommodate the debris flow shelter efficiently. Adopting a more optimal position for the MTS carriageway in Option 3 for conversion to the LTS would require more certainty regarding the LTS scheme design, potentially delaying MTS implementation. It would also increase the complexity of the earthworks, construction duration and cost of the MTS.</li> <li>• Dependent on construction methodology used, construction of the debris flow shelter may require closure of the route as a whole for a period of time with the OMR being used as the diversion route. Other construction activities may require single lane traffic through sections of</li> </ul>

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	<p>the route under traffic management.</p> <ul style="list-style-type: none"> <li>• Construction of the interface between the MTS and LTS may require closure of the route as a whole for a period of time.</li> <li>• This option requires cutting into the hillside through a potential relict landslide feature which could reactivate previously failed material.</li> <li>• Provision of a debris flow shelter which facilitates appropriate management of existing watercourses and debris flows as they cross the route will require complex design and construction.</li> <li>• Significant maintenance programme for upkeep of debris flow shelter is anticipated.</li> <li>• The need for third party land cannot be ruled out, such as at the connections to the A83 Trunk Road at the east end and B828 Glen Mhor local road at the west end.</li> </ul>
Time to Implementation	An outline programme should be developed as part of DMRB Stage 2, should the Green Option be selected as the preferred route.
Outline Construction Programme	The MTS option would take approximately 24-30 months to construct. The conversion to LTS Option 5 would take approximately 38-44 months.
Scheme Costs	We would expect costs to be higher for a phased approach in comparison to constructing the LTS Green Option due to multiple site mobilisation / demobilisations and also work to remove redundant elements of the MTS during the LTS phase. Costs for the LTS Green option will be prepared as part of the DMRB Stage 2 report.
Caveats Identified	<p>The caveats associated with the above data at this stage are identified as following:</p> <ul style="list-style-type: none"> <li>• There is limited available information on the underlying ground conditions and the general slope conditions along the western side of Glen Croe. Accordingly, the geotechnical solutions and geohazard mitigation proposed have been based on various assumptions and is subject to change pending further data collection, assessment and design development. This may have significant bearing on the estimated cost generated.</li> <li>• Rock slope stabilisation measures have not been proposed at this stage but may be required. Such measures are likely to be of relatively low cost when compared with other elements associated with construction of this option and are therefore assumed to be covered within optimism bias allowances within the estimated cost.</li> <li>• The overall cost will depend on the timing of the conversion from the MTS to LTS with construction inflation increasing the cost of the conversion the longer the MTS remains in place.</li> </ul>