The Highland Council
Comhairle na Gàidhealtachd

West Highland and Islands Local Development Plan Transport Background Paper

Plana Leasachaidh Ionadail na Gàidhealtachd an Iar agus nan Eilean Pàipear Cùl-fhiosrachaidh Còmhdhalach

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1. Introduction

1.1. This paper has been prepared as a background paper in support of the preparation of the Main Issues Report for the West Highland and Islands Local Development Plan. It highlights transport issues within the Plan area that are particularly pertinent to land use planning policy decisions.

1.2. In keeping with the purpose of a Main Issues Report, this paper sets out a brief, strategic overview of transport issues relating to potential transport improvements in the plan area. Some of the projects covered by this report have already been subject to feasibility, assessment and consultation testing, and have a capital programme commitment against them.

1.3. **Others are more embryonic and it is these projects in particular that the Main Issues Report seeks comment on.** The Main Issues Report can be read at www.highland.gov.uk/whildp and during the consultation comments can be submitted at http://consult.highland.gov.uk. Section 3.3 of the Main Issues Report deals with transport issues.

2. Active Travel

2.1. A series of Active Travel Audits have been carried out through funding from HITRANS. An Active Travel Audit has been completed for Fort William.

2.2. Wherever possible, walking and cycling trips to schools are encouraged and supported. The Council delivers Safer Routes to Schools enhancements, through bids from schools, for Cycling Walking and Safer Streets funding managed by the Road Safety Team.

2.3. The focus of active travel initiatives will be around local journeys, typically a one-way trip of less than 5 miles.

2.4. Transport Scotland and Sustrans have recently completed substantial improvements on the National Cycle Network Route NCN 78 (Caledonia Way). There are outstanding constraints and improvement works that still need to be brought forward including the North Ballachulish to Corran section. The Council will work with Transport Scotland and Sustrans to seek improvements, especially in the urban sections of the route. Developer contributions may also be sought towards active travel improvements where a development proposal is likely to have an impact on the transport network.

3. Fort William – Potential Trunk Road Network Interventions

3.1. Vehicle journey times across and through the wider Fort William urban area during the summer late afternoon and early evening peak hours are markedly longer then those experienced by drivers making these journeys at other times. Many regard this congestion and delay as unacceptable because of its perceived adverse impact on local trade, tourism and emergency vehicle response times. For many vehicle journeys there is no alternative other than to use either or both of the A82 and A830 trunk roads. This lack of a reasonable alternative route means that any partial or full trunk road closure or restriction whether for roadworks or accident reasons, will magnify the seasonal peak hour congestion issue.

3.2. The trunk road network is the responsibility of Scottish Government. A brief history of its involvement follows. In 1995, The Scottish Office published the Statutory Instruments for the A82 Trunk Road (An Aird) (Trunking) and The A830 Trunk Road (Fort William Transport Centre to the Kennels) Order. The Order put into place the mechanism for effectively realigning both trunk roads and de-trunking of certain sections within the Fort William urban area. The new trunk road was not built and the existing trunk road between the Fort William Transport Centre and the Inverlochy Castle Farm access continues to operate as the A82 trunk road.

3.3. The outcome of the Government's Strategic Transport Projects Review (STPR) published in 2008 identifies strategic transport investment priorities over the period to 2032. The most notable packages for the area defined in the STPR summary leaflet as 'West and Highlands' include:

Project 3: A82 Targeted Road Improvements. General upgrade of the route, would include measures such as widening at selected locations between Tarbet and Inverarnan and between Corran Ferry and Fort William.

Project 4: Road Safety Improvements in North and West Scotland. A82 and A830 safer overtaking opportunities, hard strips for farm traffic, realignments and junction improvements.

3.4. The West Highland and Islands Local Plan was adopted in September 2010, and the current version was "continued in force" alongside the Highland-wide Local Development Plan in April 2012.

3.5. The mapping for the 2012 Local Plan (see Figure 1 below) shows several "proposed roads" that are referred to in the table of Deficiencies/Developer Requirements on page 58 of the Local Plan document:

Blar Mor to Caol Link Road: Design and construction of distributor (including railway bridge) linking Caol/Lochyside to Blar Mor District Centre. Landowners/developers expected to contribute.

A82/A830 Realignments: STPR has not supported these specific schemes. New development will be expected to ensure no net detriment to trunk road access/network and the local network.

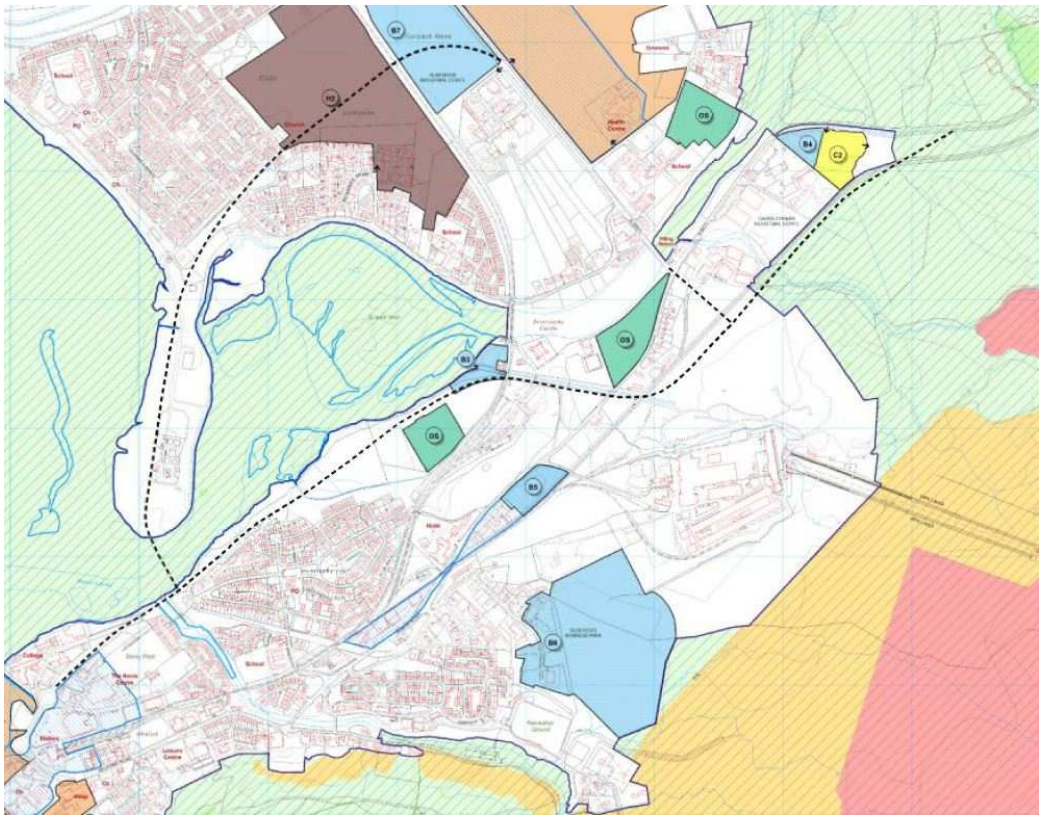

Figure 1: Partial Extract of Fort William Inset Map from West Highland & Islands Local Plan

3.6. More recently Transport Scotland has carried out a review of traffic conditions on the A82 within the Fort William area. A series of summer-time traffic surveys have been used to prepare a traffic model. This work has highlighted a number of problem locations on the A82 trunk road. The traffic model was used for evaluation of a number of options for dealing with specific locations.

3.7. It is noted from historic traffic data that the traffic levels on the urban section of the A82 in Fort William have remained relatively flat since 2006.

3.8. Arising from this modelling work there is now a commitment to implement a modified junction layout at the A82 North Road / Earl of Inverness Road junction. These works are expected to be completed by the end of March

2016. This will change the junction to a mini-roundabout and is projected to reduce journey times.

3.9. The other location identified as a potential network improvement is the A82 Belford Road junction to the town centre, near to the Belford Hospital. Modelling indicates that a new signal controlled junction would reduce the impact of the existing U-turning traffic (northbound traffic is currently obliged to use the existing roundabout) from the town centre on the overall network performance. Transport Scotland believes that this will also reduce overall journey times but has yet to commit funding to its design and construction.

3.10. The summer model indicates that with these two network changes in combination would deliver a dramatic improvement to the journey time of any trip including the urban section of the A82 in Fort William.

3.11. The two main components of this scheme are described below and have been re-evaluated to inform the preparation of the new Local Development Plan.

A82 and A830 Realignments

3.12. There is no commitment from the Scottish Government as Trunk Road Authority to progress the design or construction or even to support the preservation of the A82 and A830 road lines currently indicated in the Local Plan (see black pecked lines on Figure 1 above). Without this commitment or an alternative funding arrangement, retaining a safeguarding line for either route in the West Highland and Islands Local Development Plan will be open to challenge. Any landowner or developer whose development potential is stymied by either safeguard would have a legitimate case to challenge this restriction on their interests through the Plan's Examination process and/or the courts.

3.13. However, as explained above, Transport Scotland have committed to progressing/considering junction improvements on the A82 which can be delivered within the scope of the existing public road network albeit the Belford Road/Town Centre junction enhancement is not currently funded. These schemes will lead to a significant improvement in journey times across Fort William.

3.14. The A82 "bypass" realignment originally proposed does not open up any allocated or proposed development land and indeed may even stymie potential. It is suggested for public comment therefore that this safeguard is not continued through to the emerging West Highland and Islands Local Development Plan.

Caol Link Road (Linking A82 to A830)

3.15. A Caol Link Road could reduce congestion, improve journey times and offer an alternative emergency access route across and through the wider Fort William urban area. It could also open up and/or increase the development capacity and therefore value of land allocated for development at Caol / Lochyside.

3.16. However, the route has a number of significant, physical, engineering, environmental, ownership and funding challenges.

3.17. The route requires a bridge over and embankments on approach to the Fort William to Mallaig railway line plus the bridging of the River Lochy close to its widest point. The route crosses land most of which is either subject to flood risk and/or of poor ground conditions. The route corridor is already encroached by existing and permitted development notably at Caol by housing (see Figure 2 below) and at the Caol spit by the principal sewage works. Only short sections of the route are within roads authority control, the balance is in private ownership often with an overlapping of layer of crofting interests.

Figure 2: Extent of Existing Development Close to Safeguarded Line for Caol Link Road

3.18. A Caol Link Road would be likely to lever a limited amount of developer contributions. The housing allocation at Caol Lochyside has been subject to developer interest and could deliver around 300 houses. The land north of the Blar Mor Industrial Estate has a permission for business and industrial development. Both of these proposals could reasonably secure the land for the Caol Link Road and possibly secure additional financial contributions towards its construction. However, these contributions would have to be proportionate to the additional burden placed on the road network by these

developments. These amounts would be a very small contribution to the cost estimates for the total scheme outlined below.

3.19. It would be unreasonable to expect any additional developer contributions due to the potential impact on the viability of development, and the possibility of discouraging any development from taking place. An average of only 30 houses a year have been built in the Fort William area over the period 2000 to 2014 inclusive. A large proportion of this has been either affordable housing built with public subsidy or single private houses. Site preparation costs need to paid up-front and are high because of the need to remove peat and import a buildable fill before construction can begin. Accordingly, it will be impracticable to fund any significant part of the scheme through developer contributions. As a comparator, the Inverness West Link will lever a maximum of £5M in developer contributions towards a total cost of around £43M and this road scheme opens up much greater development potential in a settlement with a much more buoyant property market.

3.20. This preliminary assessment identifies a number of other factors that present risks for the delivery of the road.

3.21. There is also an issue in terms of the implications of the River Lochy and Caol Flood Protection Scheme, in the vicinity of the property Tigh A Chladaich where an embankment is proposed. The embankment will be constructed generally 2.7 metres above the existing ground level with a 1.0 metre wide berm on top and side slopes of 1:2.5. The embankment will generally be 14.5 metres wide at the base. This means the level of the potential new road would likely be in the region of 4.2 metres above the existing ground level in order to cross above the flood embankment. The consequences of this height constraint would mean the following:

- the gradient of the approach to the elevated road would likely require larger land take for an embankment for the approach;
- connections with the existing road network may be reduced and more complicated;
- potentially these works would have a significant adverse visual impact.

Indicative Costs of Caol Link Road

3.22. Connecting the A830 at Blar Mor with the A82 roundabout at An Aird requires a distributor (and connecting roads/junctions) road including a River Lochy Bridge Crossing and a Fort William to Mallaig Rail Bridge Crossing. Estimating the cost of such a link can be done using standard cost per km or cost per m^2 figures. However, determining a precise cost requires assumptions to be

made on key variables and further feasibility work to be undertaken. This further feasibility work has not been undertaken to date and therefore the costs stated below have been expressed as a range.

3.23. This range is considerable because of the uncertainty over key variables. For example, all significant capital projects include an “Optimism Bias” which is a largely subjective estimate of the risks likely to affect the scheme and its costs. Similarly, without the benefit of ground conditions investigations (bore holes / trial pits) different assumptions can be made about the costs of site preparation prior to construction of the link. Other variables include matters such land acquisition costs which again can vary enormously in terms of amount and timescale. For example, the Caol section may involve the use of compulsory purchase powers to acquire several small sections of private ground. Use of these powers is usually a lengthy and expensive process. The allowance for flood risk is another variable – i.e. whether and to what degree the land along the Caol spit will need to be raised and/or protected.

3.24. The following standard cost assumptions have been used to determine a “minimum” cost for the scheme:

- Single carriageway distributor sections - £1.5M per km
- Local road connections/roundabout sections - £2M per km
- River bridge section - £3,500 per m2
- Rail bridge section - £5,000 per m2
- Design and Supervision – 15% addition
- Land – a guesstimate - £1.5M (low assumption)
- Utilities – a guesstimate - £0.5M (low assumption)

3.25. These standard assumptions and guesstimates for land and utilities costs translate into a minimum construction cost of £28.8M to which an “Optimism Bias” must be added. Applying a 20-40% “Optimism Bias” additional cost gives a total project budget of £35-£40M.

3.26. As stated in paragraphs 3.22 and 3.23 above, given the number and the lack of evidence to narrow key variables, it would be prudent, at present, to increase the “Optimisation Bias” percentage. Indeed, it is more reasonable to assume from local knowledge and the feasibility work from previous, adjoining developments that the ground conditions at Blar Mor and Lochyside will be poor and expensive to prepare for road construction. Similarly, it is more reasonable to assume that flood protection will probably be required for the road along the Caol spit and that acquisition of private garden and other ground at Caol will be contested through a lengthy and expensive compulsory purchase process.

3.27. If these contingencies are allowed for then an Optimisation Bias of 20-75% would be more appropriate. If this is applied then this gives a total project budget of £35-£50M.

3.28. Further, more formal, transport appraisal and assessment work is required to examine the implications for journey time, probable economic advantages and possible other benefits. This would determine the benefit cost ratio of the scheme and, therefore, the likelihood of it attracting public funding.

3.29. However, given the likely costs relative to benefits, it would be prudent to also consider other transport interventions that may achieve the same objective of reducing peak hour and other congestion such as:

- improving and encouraging a shift to other forms of travel (walking, cycling and public transport);
- moving or adding new "destination" developments to/on less congested parts of the network (e.g. moving the hospital from the Belford to Blar Mor;
- considering whether smaller, more practicable, vehicular connections and junction improvements may go part way to reducing journey times (e.g. connecting Caol/Lochyside direct to Blar Mor with a road link across the Mallaig railway line, implementing Transport Scotland's modelled solution for the Belford A82 junction and/or re-opening the An Aird/Inverlochy bridge to emergency vehicles.

The Plan's Main Issues Report seeks debate and written comment on all these possible transport interventions.

4. Corran Narrows: Fixed Link with Renewable Energy

4.1. There has been a long standing local desire to provide a better, ideally fixed link, connection to Ardnamurchan and Morvern from Corran. Existing journey times to and from this area are long and/or unreliable and the alternative routes are very circuitous. A fixed link would provide a year round, reliable and faster connection for emergency vehicles, businesses, visitors and local residents. The Highland Council meeting on March 2015 approved that a longer term option for a fixed crossing be investigated by officers. Below is an initial option review of this potential transport intervention.

Crossing

4.2. Given the higher costs and implications of local ground conditions no option for a tunnel has been investigated at this initial stage.

4.3. As part of the examination into options for a fixed crossing reference has been made to the Stromeferry Options Appraisal Scottish Transport Appraisal Guidance (STAG) documents.

4.4. An important aspect for consideration is the continued operation of the ferry service during any construction. On this basis the likely route of a prospective multi span bridge connecting the A82 (T) to the A861 would be to the south of the existing ferry crossing.

4.5. The overall distance between the two roads is in the region of 800 metres. Early consideration indicates a total of 12 spans with a mid-channel span suitable for navigation. Navigation requirements would need to be investigated further if a fixed link option is taken forward.

Renewable Energy

4.6. To increase the benefits that may derive from a fixed link, the opportunities for renewable energy generation have been investigated. Through the Transport Appraisal work carried out as part of the Stromeferry bypass scheme three tidal technologies were considered.

4.7. Tidal Barrage - Construction of a barrage or dam across the narrows with generators. This would be significant civil engineering infrastructure, with associated costs, and creates significant risk to the environment. At Stromeferry this option was discounted.

4.8. Tidal Stream Devices - Devices would be located in the tidal stream of the narrows. They would operate like a wind turbine. Economic feasibility is limited by the tidal flow rates. In the case of Stromeferry it was concluded that the Tidal Stream option would not produce sufficient generation to payback the capital and annual operation and maintenance within the lifetime of the equipment.

4.9. Tidal Fence - This option would narrow the width of the channel thereby increasing the flow and presenting potential greater generation opportunities. This technology is in its infancy and subject to higher levels of risk. For the Stromeferry Options Appraisal the recommendation was that further studies would be necessary to assist with consideration of this option.

4.10. In summary, the consideration of renewable energy to offset costs of the fixed link indicate that there are substantial delivery and maintenance costs. The

payback benefit is subject to a range of variables which mean the payback period could be at the limit of the operating life of the renewable energy equipment. In conclusion, there is no evidence that renewable energy options would in fact offset the costs for the fixed link.

Fixed Link Indicative Costs

4.11. The Council's Project Design Unit has assisted in producing initial cost estimations for a new multi-span fixed link:

- 500 metre multi-span structure with an overall width of 10 metres;
- 300 metres of new road construction;
- New roundabout at the A82(T) junction.

4.12. Based on the above the overall costs are in the range of between £22M to £30M.

4.13. The Stromeferry Options Appraisal identified the best benefit-to-cost (BCR) ratio for the options of 0.54. The BCR for a new fixed link at the Corran Narrows would likely be at a similar level (less than 1.0). Typically if schemes are to attract public funding and to be defensible if they are challenged they should have a BCR of greater than 1.0. Central government often asks for a BCR of 2.0 or greater.

5. Portree Link Road

5.1. Portree's expansion is constrained by poor vehicular connectivity across its northern flank. The objective of improving this connectivity has been a long standing aim of the Council and other stakeholders. The vast majority of the road link between the A87 and Staffin Road has already been constructed and its completion will realise many benefits. Bus, refuse, gritter and mobile library vehicle routing will be shorter and more efficient, and congestion within the village centre and at the key harbour junction will be reduced. Completion of the route will also maximise the public and private investment in the completed sections of the scheme to date. Moreover, the road will open up significant housing and employment land.

5.2. The Council's capital programme contains a £550,000 commitment for the Portree Link Road which equates to around 50% of its estimated cost.

5.3. The accompanying Main Issues Report suggests the safeguarding of the land required for the road, endorsement of development potential next to its route,

and the formalisation of the Council's intention to seek developer contributions towards its completion.

6. Other Transport Interventions Within The Highland Council's Capital Programme

6.1. The Council's capital programme identifies a number of relevant infrastructure projects for the West Highland and Islands Local Development Plan area. These are highlighted in the table below.

6.2. The Stromeferry Bypass STAG has identified the costs for a number of different options. The preferred option has a poor benefit to cost ratio (BCR) based on the traditional methodology of evaluating the value of major road infrastructure schemes. Efforts are being made to lobby the Scottish Government for assistance with this project.

6.3. Budget pressures are likely to have an impact on the interventions that will be brought forward during the period of the next WH&ILDP.

Project Name
Roads
A890 Strathcarron to Balnacra
A890 Balnacra to Lair
A832 Slattadale to Kerryside
A890 Kishorn - Lochcarron - Strathcarron
A884 Carnoch - Lochaline
Portree Link
Lochaber schemes (design and land acquisition)
Bridges
A896 Chada
C1094 Glen Etive
A855 Leasgary
A861 Lochailort
B849 Structures
A884 Bridges
Future Years
A862 Grudie Bridge
A832 Moy Bridge, Contin
B863 Kinlochleven Viaduct
Stromferry Bypass

7. Skye Aerodrome and Air Services

7.1. The Council is working with HITRANS and Highlands & Islands Enterprise to present a case for air services to be operated out of Skye (Ashaig) Aerodrome.

7.2. Further studies are ongoing to refresh the original study and to expand on the potential socio/economic benefits of air services between Skye to Glasgow and other islands. Dialogue with the Civil Aviation Authority has been very productive and further technical aspects are being investigated.

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