DEVELOPMENT OF A REGIONAL TRANSPORT STRATEGY FOR THE HIGHLANDS AND ISLANDS

Network option development and assessment

Report

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Prepared for:

HITRANS

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1. STRATEGIC NETWORK TRANSPORT FUNCTIONS

1.1 At the Partnership meeting on the 7th July it was agreed that the transport network hierarchy for the Strategy must be consistent with the settlement hierarchies in the Structure Plans. Therefore, Regional Centres, together with National Gateways, have been used to define the most strategically important links to, from and within the HITRANS area.

1.2 Regional Centres fulfil a wide range of functions and provide a range of services to support surrounding hinterlands. They are commonly the administrative centre of the local authority area in which they are located and tend to be the focus for development and growth. Most Regional centres function as gateways for onward travel from their hinterland to other regional centres and ultimately national gateways. This is particularly the case in the larger island communities. An exception is the island communities in the west of the region which are connected to the mainland by ferry services operating to and from ports outside the Regional Centre. These port gateways have therefore been included in the top level of the region's network hierarchy.

1.3 National Gateways are settlements with direct onward transport connections to the rest of the UK and beyond. National Gateways provide a full compliment of functions such as employment, health, education, cultural, leisure and retail. Inverness, Aberdeen, Edinburgh and Glasgow have been identified as National Gateways for the Highlands and Islands region.

1.4 As a first step towards identifying the Strategy interventions on the 'strategic network', the functionality of each component link has been assessed and it is this process which is reported in this Section of this report. This has been done by scoring each link based upon the number of Regional Centres which it connects to National Gateways. For example, the A82 road corridor provides a connection between Glasgow and six Regional Centres (Fort William, Portree, Stornoway, Oban, Lochgilphead, Campbeltown as well as other direct Western Isles connections).

1.5 Table 1.1 overleaf shows the functionality score for each link on the 'strategic network'; a ticked cell indicating that that Regional Centre is connected to a National Gateway by that link. The final column in the table shows the calculated function score, which is the total number of regional centres that are connected to national gateways by that link.

TABLE 1.1 NETWORK FUNCTIONS

Link ID	Network link	Fort William	Portree	Stornoway	Oban	Lochgilphead	Dunoon	Rothesay	Campbeltown	Dingwall / Invergordan	Elgin	Thurso / Wick	Kirkwall	Argyll & Bute island connections	Western Isles island connections	Function Score
1	A82 Corridor (Road)	✓	✓	✓	✓	✓			✓						✓	7
2	Fort William & Oban Rail Lines	✓			✓										✓	3
3	Oban A85 connections to A82 for Glasgow				✓										✓	2
4	Western Isles Sea Crossings & A87 connections to A82 for Glasgow		✓												✓	2
5	Kyle Rail Line		✓												[1]	1
6	A83 and Argyll & Bute Sea Crossings to A82 for Glasgow					✓			✓					✓		3
7	A9 Inverness to Edinburgh Corridor (Road)	✓	✓	✓						✓	✓	✓	✓			7
8	Highland Main Line		✓	✓						✓	✓	✓	✓			6
9	A9 north (Road)									✓		✓	✓			3
10	Far North Line									✓		✓	✓			3
11	Orkney A965, Pentland Firth Crossing and A99 to A9 for Inverness												✓			1

[1] Journey can be made from Stornoway, but not competitive with other means of transport.

Link ID	Network link	Fort William	Portree	Stornoway	Oban	Lochgilphead	Dunoon	Rothesay	Campbeltown	Dingwall / Invergordan	Elgin	Thurso / Wick	Kirkwall	Argyll & Bute island connections	Western Isles island connections	Function Score
12	Moray A941 and A95 to A9 for Edinburgh										✓					1
13	Stornoway Sea Crossings and A835 to Inverness			✓												1
14	A86 Glen Spean to A9	✓	✓												✓	3
15	A96 Corridor (Road)			✓						✓	✓	✓	✓			5
16	Inverness-Aberdeen Rail Line (A96)			✓						✓	✓	✓	✓			5
17	A90 for Moray (and Orkney via Aberdeen) connections to Edinburgh										✓					1
18	Inverness airport and flights	✓	✓							✓	✓	✓				5
19	Stornoway airport and flights			✓												1
20	Benbecula airport and flights														✓	1
21	Barra airport and flights														✓	1
22	Tiree airport and flights													✓		1
23	Campbeltown airport and flights								✓							1
24	Islay airport and flights													✓		1
25	Wick airport and flights											✓				1
26	Kirkwall airport and flights												✓			1
27	External flights from Aberdeen,			✓					✓			✓	✓	✓	✓	6

Link ID	Network link	Fort William	Portree	Stornoway	Oban	Lochgilphead	Dunoon	Rothesay	Campbeltown	Dingwall / Invergordan	Elgin	Thurso / Wick	Kirkwall	Argyll & Bute island connections	Western Isles island connections	Function Score
	Edinburgh and Glasgow															
28	Clyde ferries						✓	✓								2
29	Clyde onward connections by road and rail						✓	✓								2
30	Kirkwall – Aberdeen ferry												✓			1
31	Overnight London Sleeper Services	✓	✓		✓					✓	✓					5

1.6 The Strategy Guidance [2] and the requirements of the Transport (Scotland) Act 2005, call on the Partnership to consider the ***"need for efficient transport links between heavily populated places"*** and ***"make provision for meeting the needs of all inhabited places including those which the RTP consider different from the remainder of the region by reason of their remoteness or the sparsity of their populations".***

1.7 The method described above for scoring the function of the network links allows the Partnership to satisfy both of these provisions: the Regional Centres represent the *"heavily populated"* areas, whilst considering the links between them and the National Gateways ensures proper consideration of the efficiency of these links, through an assessment of their adequacy (described in Section 2 of this note). The unique nature of the HITRANS region means that there is significant diversity in the position, size and nature of the Regional Centres. The volume of travel on each link is important, especially as too much traffic can adversely impact upon the operation/availability of the link. For this reason, the impact of volumes is considered in the assessment of adequacy of each of the links in the network (see Section 2 of this note).

[2] Scottish Executive, Edinburgh 2006. *Scotland's Transport Future: Guidance on Regional Transport Strategies*, March 2006.

2. STRATEGIC TRANSPORT NETWORK – ADEQUACY ASSESSMENT

2.1 The second step in identifying strategy interventions is to assess the current adequacy of each of the links in the 'strategic network' to perform its functions. A number of adequacy tests have been applied which have emerged through consultation with stakeholders and the Partnership and Permanent Advisors. The adequacy tests vary depending on the mode of transport in question (road, rail, air and sea). The adequacy tests are described in Table 2.1.

TABLE 2.1 DEFINITION AND EXAMPLES OF ADEQUACY TESTS

Adequacy test	Definition of adequacy test	Example application
ROAD TESTS		
Alignment / topography	Is the alignment of the road (single or dual carriage way) poor? Is the road winding? Are there a large number of junctions intersecting the road?	A99 section from Wick to A9 is winding and slow.
Limited overtaking opportunities	The opportunity to overtake vehicles, including the available width of the carriageway.	Limited overtaking opportunities and prevalence of convoying on the A82.
Pinch points on route	Are there a prevalence of pinch points and bottlenecks on route, including single track sections?	Pinch points on the A85 from Oban to the A82.
Demand / journey time constraints	Is congestion prevalent along the route or in key isolated localities? Do traffic volumes exceed the capacity of the link?	Capacity constraints between Inverness and Inverness Airport access road.
Poor accident / safety record	Does the link have a history of a accident black spots or a poor safety record?	A99 section from Wick to A9 high accident rate.
Structures in need of repair / replacement	Are there structures, such as bridges, on the link which are in need of replacement or repair?	
Environment risks	Is link threatened by environmental risks, such as climate change, coastal erosion, landslip, rock falls and flooding?	A83 threatened by landslip.
Availability of alternative route	In case of accident for example, is an alternative route available?	No alternative route for Ullapool to Inverness, and route prone to poor conditions / closure in winter months.
Bus / coach connection adequacy	Is the link adequate in respect to passenger transport, particularly in respect to bus infrastructure on the route.	Poor bus stop and waiting facilities on routes.
RAIL TESTS		
Alignment / topography	Does the route have high number of crossings? Do gradients have detrimental effect on speed? Is the route winding?.	Inverness and Aberdeen rail line has single track throughout except for a section of double line between Huntley and Insch
Pinch points on route	Are there bottlenecks on the route that restricts the flow of traffic?	Strathcarron-Kyle: forty-five minute section restricts the line capacity to one train per hour

Adequacy test	Definition of adequacy test	Example application
		between these points.
Passenger timetable frequency / days' business	Are departure and arrival times suitable for day trips to national gateways.	Fort William and Oban rail lines have limited day returns to Glasgow, with only two return services on winter Sundays from Fort William.
Passenger facilities	Is the quality of passenger facilities adequate / good? (includes rolling stock and station facilities)	Some units and stations used provide a poor passenger environment.
Integration	Does the rail link integrate well with bus, ferry, coach and other rail services? Including timetabling and P&R.	On the Fort William and Oban Rail Lines, there is poor integration between bus and rail timetabling, such that departures often compete rather than compliment.
Freight issues	Is freight potential constrained, for example as a result of weight restrictions? Are there conflicts between the desire for improved passenger and improved freight facilities?	On the Highland Mainline there is potential conflict between passenger service enhancements and the securing of freight paths.
AIR NETWORK TEST		
Daily link to national gateway	If there is a daily flight service to at least one national gateway?	For the more remote airports there are limited services, notable at weekends.
Days' business at gateway and vice versa	Are departure and arrival times suitable to conduct a day's business trip at the national gateway?	For Wick, it is not possible to do a days' business in the Central Belt.
Destinations served	Is the number of destinations served from the airport suitable / adequate?	The Glasgow connection from Inverness airport has been withdrawn.
Integration and connectivity	Are air services integrated well with bus, ferry, coach and rail services (as applicable)?	There is a high dependence on car to access Inverness airport.
Airport infrastructure	Are land-based facilities adequate / appropriate? Including the length of runway and passenger facilities.	At Kirkwall airport the runway is too short.
Freight issues	Do issues pertaining to air freight exist?	
SEA NETWORK TEST		
Daily link to national gateway	If there is a daily service to at least one national gateway?	Not daily service throughout the year for Coll, Tiree and Collonsay.
Frequency / timetabling	Are the frequency and timings of departures and arrivals optimal? Are the departure times suitable to conduct a day's business trip at the national gateway and regional centres.	The Harris and North Uist services share the same vessel, restricting the maximum number of return sailings to either island to two per day in summer, with a lower frequency actually provided on most days.

Adequacy test	Definition of adequacy test	Example application
Transport integration and connectivity	Are sea services integrated well with other means of transport?	Integration with bus/coach at Uig.
Land-based facilities	Do land-based facilities / infrastructure restrict the operation of the ferry service?	
Port infrastructure	Do harbour facilities / conditions restrict the operation of the port?	No break water at Uig.
Freight issues	Do issues pertaining to sea freight exist?	Conflict between desirable crossing times for freight versus passenger requirements.

2.2 Tables 2.2 to 2.5 show the adequacy test scoring for all the links (for road, rail, air and sea transport respectively). A crossed cell indicates that for that particular link is considered **inadequate** in respect to that adequacy test. For example, the A82 road corridor fails the "pinch points" adequacy test, as there are number of pinch points on the route, including the five canal crossings. The A82 road corridor also fails the adequacy tests for alignment / topography, limited overtaking opportunities, accidents / safety, alternative route availability and bus / coach transport. A **percentage adequacy** is calculated and shown in the final column of each table calculated simply on the proportion of tests which were not failed (e.g. three crosses = 67% adequate).

2.3 Clearly this process is somewhat subjective. However, the scores have been compiled from the consultation and input of the Permanent Advisors and Partnership. Detail on each of the routes is provided in a document to accompany this note.

TABLE 2.2 ADEQUACY TESTS FOR ROAD LINKS IN THE NETWORK

	Network link	Alignment / topography	Limited overtaking opportunities	Pinch points	Demand / journey time constraints	Accidents / safety	Structural problems	Environment risks	Alternative route available	Passenger transport	Percentage adequate (%)
1	**A82** Corridor (Road)	×	×	×		×		×	×	×	22%
3	Oban **A85** connections to A82 for Glasgow	×	×	×		×			×		44%
4	Western Isles Sea Crossings & **A87** connections to A82 for Glasgow	×		×				×	×		56%
6	**A83** and Argyll & Bute Sea Crossings to A82 for Glasgow	×	×	×		×		×	×		33%
7	**A9** Inverness to Edinburgh Corridor (Road)		×		×	×			×		44%
9	**A9 north** (Road)	×	×	×					×	×	44%
11	Orkney **A965**, Pentland Firth Crossing and **A99** to A9 for Inverness	×				×					78%
12	Moray **A941** and **A95** to A9 for Edinburgh	×	×	×		×	×	×		×	22%
13	Stornoway Sea Crossings and **A835** to Inverness	×				×		×	×		56%
14	**A86** Glen Spean to A9	×	×	×		×					56%
15	**A96** Corridor (Road)		×	×	×	×	×		×	×	22%
17	**A90** for Moray (and Orkney via Aberdeen) connections to Edinburgh		×	×	×						67%
29	Clyde onward connections by road and rail			×	×						78%

TABLE 2.3 ADEQUACY TESTS FOR RAIL LINKS IN THE NETWORK

	Network link	Alignment / topography	Pinch points	Passenger timetable frequency	Passenger facilities	Integration (with ferry / bus / coach)	Freight issues	Percentage adequate (%)
2	Fort William & Oban rail lines (A82)	×		×		×	×	33%
5	Kyle rail line		×	×			×	50%
8	Highland Main Line	×	×		×		×	33%
10	Far north line	×	×	×			×	33%
16	Inverness-Aberdeen rail line (A96)	×	×	×		×		17%
29	Clyde onward connections by road and rail				×	×		67%
31	Overnight London Sleeper Services	×			×			67%

TABLE 2.4 ADEQUACY TESTS FOR AIR LINKS IN THE NETWORK

	Network link	Daily link	Days' business	Destinations	Integration	Airport infrastrucure	Freight issues	Percentage adequate (%)
18	Inverness airport and flights			×	×	×		50%
19	Stornoway airport and flights		×					83%
20	Benbecula airport and flights	×	×					67%
21	Barra airport and flights	×	×		×	×		33%
22	Tiree airport and flights	×	×					67%
23	Campbeltown airport and flights	×						83%
24	Islay airport and flights	×						83%
25	Wick airport and flights	×	×					67%
26	Kirkwall airport and flights					×		83%
27	External flights from Aberdeen, Edinburgh and Glasgow				×			83%

TABLE 2.5 ADEQUACY TESTS FOR SEA LINKS IN THE NETWORK

	Network link	Daily link / Sunday service	Frequency / timetabling	Transport interchange	Land based facilities	Port infrastructure	Freight issues	Percentage adequate (%)
4	Western Isles Sea Crossings & A87 connections to A82 for Glasgow	×	×			×		50%
6	A83 and Argyll & Bute Sea Crossings to A82 for Glasgow	×	×	×		×		33%
11	Orkney A965, Pentland Firth Crossing and A99 to A9 for Inverness		×	×				67%
13	Stornoway Sea Crossings and A835 to Inverness	×	×				×	50%
28	Clyde ferries		×					83%
30	Kirkwall – Aberdeen ferry			×		×		67%

3. STRATEGIC NETWORK – FUTURE DEMAND ON THE NETWORK

3.1 The Transport (Scotland) Act 2005 requires the RTP and RTS to have regard to future needs, including those caused by demographic and land-use changes. The third stage of the strategy development process described below is intended to ensure that future changes are taken into account in the generation and appraisal of strategy interventions. This assessment has been undertaken through consultation with relevant stakeholders in each of the constituent local authorities and through reference to Structure and Local Plans.

3.2 Table 3.1 below identifies those links on the 'strategic network' which are likely to be affected by future development over the lifetime of the RTS by summarising land-use changes, indicating whether housing and / or employment-based development is expected in the link hinterlands. The table also shows any risks and unknowns, such as other transport schemes in other Partnership areas that may have an impact upon the pursuance of the HITRANS RTS.

3.3 A subjective assessment has been made for each link as to the magnitude of the land-use / risk impact based upon the nature and scale of the land use changes (and relative to the link in question). The assessment uses a simple low, medium, high or very high system. Where changes have been identified, the adequacy score of each link is adjusted depending on the magnitude of change; for a 'low' change, the score is reduced by 5%, for 'medium' 10%, 'high' 15% and 'very high' 20%. For example, the A96 road corridor will see significant development over the course of the RTS period and has been allocated a "very high" land use and risk assessment. The link's original adequacy score of 22% has thus been reduced by 20% to 18% to reflect the risk/strain that ensuing development will place upon this link in the network.

TABLE 3.1 FUTURE DEMANDS ON THE NETWORK

ID	Network link	Land-use changes		Risks & impacts of other schemes	Land-use & risk assessment	Adjusted adequacy score
		housing	employment			
1	A82 Corridor (Road)	✓	✓		High	19%
2	Fort William & Oban Rail Lines	✓			Low	32%
3	Oban A85 connections to A82 for Glasgow	✓	✓	Some development is dependent upon provision of Oban Development Road	High	38%
4	Western Isles Sea Crossings & A87 connections to A82 for Glasgow	✓	✓		Medium	48%
5	Kyle Rail Line	✓	✓		Medium	45%
6	A83 and Argyll & Bute Sea Crossings to A82 for Glasgow	✓	✓	Coastal and geological risk to A83	Medium	30%

ID	Network link	Land-use changes		Risks & impacts of other schemes	Land-use & risk assessment	Adjusted adequacy score
		housing	employment			
7	A9 Inverness to Edinburgh Corridor (Road)	✓	✓		Medium	40%
8	Highland Main Line	✓	✓	Availability of rail paths into central Scotland	Medium	30%
9	A9 north (Road)	✓	✓		Low	42%
10	Far North Line	✓	✓	Continuing growth in tourist users	Low	32%
12	Moray A941 and A95 to A9 for Edinburgh	✓	✓		High	19%
15	A96 Corridor (Road)	✓	✓	Effect of Aberdeen Western Peripheral Route Development of Aberdeen Cross Rail Economic development constraints	Very high	18%
16	Inverness-Aberdeen Rail Line (A96)	✓	✓	Effect of Aberdeen Western Peripheral Route Development of Aberdeen Cross Rail	High	14%
17	A90 for Moray (and Orkney via Aberdeen) connections to Edinburgh	✓	✓	Aberdeen Western Peripheral Route Development of Aberdeen Cross Rail	Medium	60%
18	Inverness airport and flights	✓	✓	Loss of slots at London airports	High	43%
27	External flights from Aberdeen, Edinburgh and Glasgow			High speed rail and loss of slots at London airports Airport Masterplans	low	79%

3.4 A number of links in the 'strategic network' are not expected to be significantly affected by future development over the lifetime of the RTS. The adequacy presented in Tables 2.2-2.5 therefore stands for these links, which are:

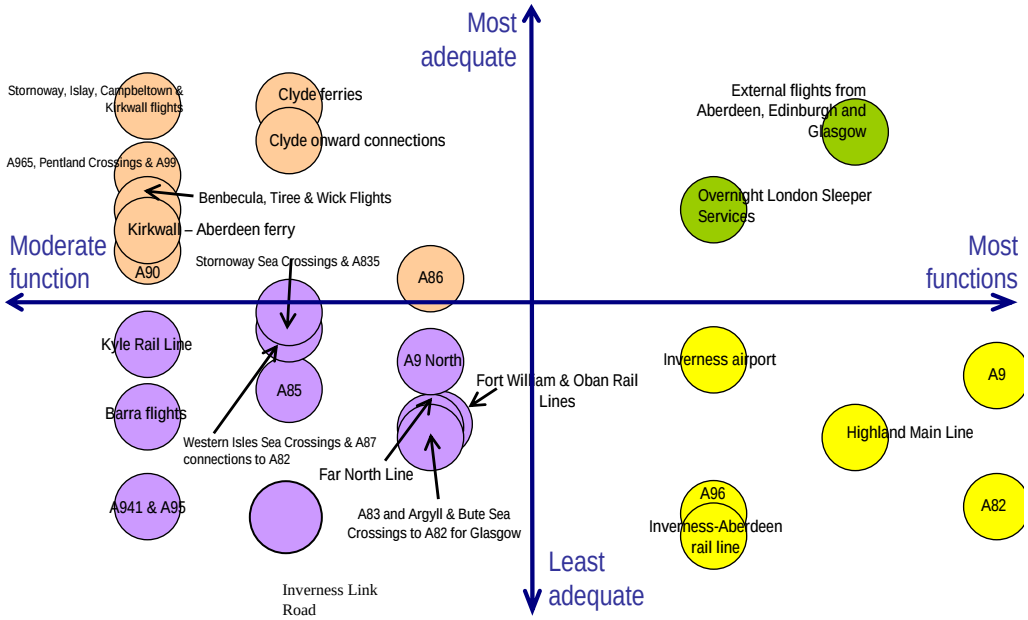
- (11) Orkney A965, Pentland Firth Crossing and A99 to A9 for Inverness.
- (13) Stornoway Sea Crossings and A835 to Inverness.
- (14) A86 Glen Spean to A9.
- (19) Stornoway airport and flights.
- (20) Benbecula airport and flights.
- (21) Barra airport and flights.
- (22) Tiree airport and flights.
- (23) Campbeltown airport and flights.
- (24) Islay airport and flights,
- (25) Wick airport and flights.
- (26) Kirkwall airport and flights.
- (28) Clyde ferries.

- (29) Clyde onward connections by road and rail.
- (30) Kirkwall-Aberdeen ferry.
- (31) Overnight London Sleeper Service.

4. STRATEGIC NETWORK – FUNCTION AND ADEQUACY EVALUATION

4.1 Using the function and adjusted adequacy scores for each link, it is possible to begin to identify which links are priorities for intervention (those with low adequacy and high function). The scatter diagram below presents the scores plotted against one another. The x-axis depicts the function score, those to the right of the x-axis have most functions and those to the left of the axis the least functions. The y-axis depicts the adequacy score, with those towards the bottom of the chart having the least adequacy and those to the top of the chart having the greatest adequacy.

FIGURE 4-1 STRATEGIC NETWORK FUNCTION AND ADEQUACY SCATTER CHART



4.2 The scatter diagram shows, for example, that the A82 (road) corridor has a high function but a low adequacy score and hence the link is shown in the bottom right of the scatter chart. The A85 has a moderate function score and a low adequacy score and hence are shown in the bottom left hand quadrant of the chart. The external flights from Aberdeen, Edinburgh and Glasgow have a high function score and high adequacy score and are therefore shown in the top right quadrant.

4.3 In addition to those links shown in the chart, a number of links fall within the top left hand (shaded grey) quadrant, that is, links which serve fewest functions and which are most adequate. The 13 links in the network that fall within this quadrant are too many to show on the chart. These links are as follows:

- Kirkwall flights.
- Overnight London Sleeper Services.
- Islay flights.
- Campbeltown flights.
- Stornoway flights.

- A90 for Moray (and Orkney via Aberdeen) connections to Edinburgh.
- Orkney A965, Pentland Firth Crossing and A99 to A9 for Inverness
- Kirkwall – Aberdeen ferry.
- Wick flights.
- A86 Glen Spean to A9.
- Tiree flights.
- Clyde ferries, and road and rail connections to Glasgow.
- Benbecula flights.

4.4 For these links potential options will not be considered at this time. The Strategy will require that these links are closely monitored in the future, to ensure that their adequacy does / has not fallen. The guidance on Regional Transport Strategies recommends that the Strategy is reviewed, revised and refreshed every four years in line with local governmental electoral cycles. This will allow an ongoing process to assess adequacy as the region develops.

4.5 The guidance states that the RTS should cover a 10 to 15 year period, and be revised and refreshed every four years in line with the local government electoral cycle. The RTS should also be accompanied by an **Investment Plan,** covering the first 5-10 years of the strategy, setting out a programme of capital investment required for the successful implementation of the Strategy. In terms of delivery, this first statutory Strategy must focus on the initial 10 year period to 2016, which fits with the forthcoming ***Strategic Transport Projects Review,*** that will look at the 2008-2016 period.

4.6 Adequacy is the key issue for the Partnership. The scatter diagram above highlights those links in the network that will require some action or intervention by the Partnership in this first 10 year period. Thus, those links in the network that will taken forward to the next stage of the process – **optioneering** – are:

- **Links which have most functions and are least adequate:**
  - A82 Corridor (Road).
  - Highland Main Line.
  - A9 Inverness to Edinburgh (Road).
  - Inverness airport and flights.
  - Inverness-Aberdeen rail line.
  - A96 Corridor (Road).
- **Links which have moderate functions and are least adequate:**
  - A83 and Argyll & Bute Sea Crossings to A82 for Glasgow
  - Fort William & Oban Rail lines.
  - Far North Line.
  - A9 north (Road).
  - Oban A85 connections to A82 for Glasgow.
  - Kyle Rail Line.
  - Western Isles Sea Crossings & A87 connections to A82 for Glasgow.
  - Stornoway Sea Crossings and A835 to Inverness.

  - Barra airport and flights.
- Moray A941 and A95 to A9 for Edinburgh.

4.7 Whilst addressing these top priorities, the Partnership should also undertake research into those issues where there is currently a relatively poor evidence base. This will enable the Partnership to be in an informed position for refinement of the Strategy and for future Investment and Delivery Plans. In addition, the links in the network that do not appear in this list will be continuously monitored to reveal changes in function or adequacy. All links in the strategic network have both a degree of functionality and also a degree of inadequacy. As time passes within the lifetime of the Strategy, it is intended that all inadequacies within the network are addressed. However, at this time it is important that the Strategy focuses on those links that have been shown to be in most need of attention.

5. STRATEGIC NETWORK – LINK OPTIONEERING

5.1 This stage of the strategy development process involves identifying interventions for overcoming inadequacies on the priority links identified to allow them to fully perform their intended function. At this stage, aspirations for each link have been identified in order to ensure that the emerging options are consistent with the issues / inadequacies that pertain to that particular link in the network. Table 5.1 presents the aspirations for each of the links in the network (as listed on the previous page). A tick in any particular cell in the table indicates that for that particular link in the network that the corresponding aspiration is desirable in order to overcome the inadequacies that have been identified in that link.

TABLE 5.1 LINK ASPIRATIONS

	Journey reliability	Reduced journey time	Journey frequency	Journey consistency	Daily link available	Days business / commute	Safety	Other
Most functions and least adequate								
A82 Corridor (Road)	✓	✓		✓			✓	
Highland Main Line		✓	✓					✓
A9 Inverness to Edinburgh (Road)	✓	✓						
A96 Corridor (Road)	✓	✓		✓			✓	
Inverness-Aberdeen rail line (A96)		✓	✓	✓		✓		
Inverness airport and flights						✓		✓
Moderate functions and least adequate								
A83 and Argyll & Bute Sea Crossings to A82 for Glasgow	✓	✓		✓	✓	✓	✓	
Far North Line		✓	✓					
Fort William & Oban Rail lines (A82)		✓	✓					
A9 north (Road)	✓	✓						
Oban A85 connections to A82 for Glasgow	✓	✓					✓	
Western Isles Sea Crossings & A87 connections to A82 for Glasgow		✓			✓	✓		
Stornoway Sea Crossings and A835 to Inverness		✓			✓		✓	✓
Kyle Rail line						✓		✓
Moray A941 and A95 to A9 for Edinburgh	✓	✓		✓			✓	
Barra flights			✓	✓		✓		✓

5.2 The types of interventions considered have been grouped into three categories which reflect the existing evidence base in the region and beyond, and the need to make best use of existing and future resources. The intervention categories are:

- **Network development interventions:** interventions to make best use of, or enhance, the transport network, including roads and the rail network.
- **Service interventions:** interventions to enhance the passenger transport provision across the region, including the bus, coach, rail, ferry and air network. Such interventions are intended to enhance service connectivity, and, where the car exists as an alternative means of transport, to make passenger transport options more attractive.
- **Demand management interventions:** interventions in this category are intended to change travel choices. Measures in this category might ration use of the transport network in favour of walking, cycling and public transport, and will promote these alternatives through information / marketing on the available travel alternatives, together with measures to help individuals, business and organisations to plan travel using these alternatives.

5.3 The key below shows how these three types of intervention are represented in the subsequent tables. In addition to the three intervention types, yellow shading indicates that the intervention or option is outside the HITRANS region.

Intervention key:	
Network development interventions	Network development interventions outside HITRANS region
Service interventions	Service interventions
Demand management interventions	Demand management interventions

5.4 Links are shown along the top of the two tables, and corresponding list of interventions for each link below. The options that are presented below are those that were discussed at the Partnership meeting on the 4th August 2006.

TABLE 5.2 LINKS WITH MOST FUNCTIONS AND LEAST ADEQUATE - OPTIONEERING

interventions	1 A82 Corridor (Road)	8 Highland Main Line	7 A9 Inverness to Edinburgh (Road)	15 A96 Corridor (Road)	16 Inverness-Aberdeen rail line (A96)	18 Inverness airport and flights
1	Western bypass at Crainlarich and Pulpit Rock tunnel	Journey time and frequency improvements (hrly departure)	Additional overtaking opportunities between Inverness and Perth	Demand management in settlements on route (Nairn, Forres, Elgin, Fochabers, Keith, Huntly)	Dalcross station	Surface Access Strategy to deliver better integration
2	Ballachulish to Fort William route enhancements	Provide paths for a daily freight service	Dual carriageway options between Inverness and Perth. (Variants of this option include schemes to provide dual carriageway sections; and/or wide 2+1; and full dualling of route)	Overtaking facilities on links on route (at: Inverurie to Huntly, Huntly to Keith, Keith to Fochabers, Fochabers to Elgin, Elgin to Forres, Forres to Nairn)	Commuter services Elgin-Inverness	Support further direct regional and international connections
3	Tarbet to Ballachulish strategy (road improvement Tarbet to Inverarnan and route enhancement Tyndrum to Ballachulish)	Edinburgh Airport Rail Link	Removal of bottlenecks outside region	Bus priority on route and bus service enhancements	Journey time improvements and hourly Inverness-Aberdeen	Direct flight to Glasgow secured
4	Pinch points/junction improvements Fort William to Inverness		Passenger transport RTI on route	Dual-carriageway Inverness to airport	Secure freight paths	Secure current connections to London
5	Canal crossing measures			Provision of roadspace for passenger transport/cycling through settlements	Freight gauge enhancement Inverness to Elgin	Terminal building and runway extension
6	Modern 2-track standard Inverness-Glasgow			Passenger transport RTI on route	Station improvements at Forres	
7	A82 to A9/A96 Inverness link road			Interchanges for Community Transport & Public Transport		
8	Passenger transport RTI on route			Inverness P&R facilities and services		
9	Interchanges for Community Transport & Public Transport			Dual carriageway options on A96. (Variants of this option would include providing dual carriageway sections through		

interventions	1 A82 Corridor (Road)	8 Highland Main Line	7 A9 Inverness to Edinburgh (Road)	15 A96 Corridor (Road)	16 Inverness-Aberdeen rail line (A96)	18 Inverness airport and flights
				to full dual carriageway of route)		
10				Fochabers bypass		
11				Elgin bypass		
12				Other bypass options on route		

TABLE 5.3 LINKS WITH MODERATE FUNCTIONS AND LEAST ADEQUATE - OPTIONEERING

interventions	6 A83 and Argyll & Bute Sea Crossings to A82 for Glasgow	10 Far North Line	2 Fort William & Oban Rail lines (A82)	9 A9 north (Road)	3 Oban A85 connections to Glasgow (A82)	4 Western Isles Sea Crossings & A87 connections to A82 for Glasgow	13 Stornoway Sea Crossings and A835 to Inverness	5 Kyle Rail line	12 Moray A941 and A95 to A9 for Edinburgh	21 Barra flights
1	Daily service to Coll, Tiree and Collonsay	Additional return journeys to Caithness (to 4 trains per day)	Additional return journeys and journey time enhancement to Fort William/Oban	Route Action Plan to provide climbing lanes	A85 enhancement (removal of pinch points and strengthening)	Breakwater at Uig	Enhance Garve to Contin stretch of A835	Commuter service to Inverness	Elgin to Criagellachie A941 road improvement to modern 2-track standard	7 days per week flights and increased capacity
2	Enable days' business on Tiree	New station at Conon Bridge	Upgrade Oban line to Class 66 operation (freight)	Bypass settlements on route	Oban Development Road	Skye air service to the Central Belt, including airstrip/terminal development	7 days per week sailing	Heavier rolling stock access	A95 Road improvement to modern 2-track standard	Surface Access Strategy to provide better integration with air services
3	Remove pinch points (South of Tarbert & Inveraray to Lochgilphead Rd)	Journey time improvements	Enhanced timetable integration and management	Berriedale Braes crossing	Demand management measures in Oban	Tarbert/Lochmaddy: increase service frequency and duration of days' operation	Increase frequency and reliability of sailing	Lineside loading for freight		Fixed landing strip
4	Modern 2-track standard Campbeltown to A82	New rail route over the Dornoch Firth		Passenger transport RTI on route		Lochboisdale/Castlebay: daily service with mid-pm Oban arrival		Increase line capacity and speeds		
5	Ferry service to Ireland	Improve line capacity		Passenger interchanges for Commuity Transport & Public Transport		Enhance section between Portree and Broadford		Additional return journeys to Kyle (to 4 trains per day)		
6	Additional sailings Islay to Kennacraig (extending hours of			Provision of roadspace for passenger		Improve stretch at Glen Garry				

interventions	6 A83 and Argyll & Bute Sea Crossings to A82 for Glasgow	10 Far North Line	2 Fort William & Oban Rail lines (A82)	9 A9 north (Road)	3 Oban A85 connections to Glasgow (A82)	4 Western Isles Sea Crossings & A87 connections to A82 for Glasgow	13 Stornoway Sea Crossings and A835 to Inverness	5 Kyle Rail line	12 Moray A941 and A95 to A9 for Edinburgh	21 Barra flights
	operation)			transport/cycling to north of Inverness						
7	Timetable enhancement Mull to Oban (timetable consistency/hourly service)			Inverness P&R facilities and services		Remove Torgoyle Bridge pinch point				
8						Enhanced integration with bus / coach at Uig				

6. STRATEGIC NETWORK – OPTION TESTING STEP 1 AGAINST THE STRATEGY OBJECTIVES

6.1 The next stage of the process, and the first **sift** in the prioritisation process, is to test each of the interventions identified against the objectives of the RTS in order to weed-out those which do not achieve the necessary outcomes. This is a requirement of the STAG process and has been advised by the Scottish Executive in their supplementary guidance on prioritisation for the Regional Transport Strategies.

6.2 Appraisal against the strategy objectives has been undertaken using a three point scale, as follows:

Green. The option will have an unambiguously positive impact on the objective
Amber. The option will have a positive impact, but this will be lesser and scale, and / or may have potentially mixed / distribution of impacts
Red. The option will have an adverse effect on the objective. This is a warning for the option refinement to consider.

6.3 In the assessment against the **Environment** objective - *manage the impacts of transport on the Region's natural and built heritage assets* – a fourth score has been used which indicates if this option includes interaction with one of the following protected areas, that have been identified in the scoping of the Strategic Environmental Assessment:

- Sight of Special Scientific Interest.
- Nature Park.
- Special Area of Conservation.
- Special Protection Area.
- Wetland Area.
- Historic Gardens and Design Landscapes.

Options that would come into contact with such an area are flagged thus.

6.4 The **economy** objective has been identified as the first and foremost priority of the partnership. For this reason, the following methodology has been employed to sift out options at this stage that should not be developed further.

6.5 There are four sifting tests for each of the options:

i. If the **economy** objective scores green, then the option survives to Step 2.

ii. If the **economy** objective scores amber, then option is considered for packaging with other surviving options **and/or** consider if the option compliments/conflicts with other surviving options for this network link.

iii. If **economy** objective is amber or neutral, and **participation** objective scores green, then option is considered under relevant horizontal strategy theme.

iv. If **economy** objective scores red (or both economy and accessibility are red, amber or neural), then option is dropped.

6.6 Tables 6.1 and 6.2 below present the appraisal of each of the interventions against

the RTS objectives, and the outcome of the sequential four-stage test described above. Table 6.1 deals with the **links with most functions and which are least adequate** and Table 6.2 refers to the **links with moderate functions and which are least adequate.** The allocation of colours to the options for each of the links is as discussed at the Partnership meeting of August 4th 2006.

TABLE 6.1 LINKS WITH MOST FUNCTIONS AND WHICH ARE LEAST ADEQUATE - STEP 1

	Enable the Region to compete and support growth	Enable people to participate in everyday life	Improve the health of the Region's people	Improve safety and security	Manage the impacts of transport on the Region's natural and built heritage assets	OUTCOME OF ASSESSMENT AGAINST STRATEGY OBJECTIVES
A82 Corridor (Road)						
Western bypass at Crainlarich and Pulpit Rock tunnel						Progress to Step 2
Ballachulish to Fort William route enhancements						Progress to Step 2
Tarbet to Ballachulish strategy (road improvement Tarbet to Inverarnan and route enhancement Tyndrum to Ballachulish)						Progress to Step 2
Pinch points/junction improvements Fort William to Inverness						Progress to Step 2
Canal crossing measures						Progress to Step 2
Modern 2-track standard Inverness-Glasgow						Progress to Step 2
A82 to A9/A96 Inverness link road						Progress to Step 2
Passenger transport RTI on route						Progression through horizontal theme
Interchanges for Community Transport & Public Transport						Progression through horizontal theme
Highland Main Line						
Journey time and frequency improvements (hrly departure)						Progress to Step 2
Provide paths for a daily freight service						Progress to Step 2
Edinburgh Airport Rail Link						Package with Journey time and frequency improvements (hrly departure)
A9 Inverness to Edinburgh (Road)						
Additional overtaking opportunities between Inverness and Perth						Progress to Step 2
Dual carriageway options between Inverness and Perth. (Variants of this option include schemes to provide dual carriageway						Progress to Step 2

	Enable the Region to compete and support growth	Enable people to participate in everyday life	Improve the health of the Region's people	Improve safety and security	Manage the impacts of transport on the Region's natural and built heritage assets	OUTCOME OF ASSESSMENT AGAINST STRATEGY OBJECTIVES
sections; and/or wide 2+1; and full dualling of route)						
Removal of bottlenecks outside region						Progress to Step 2
Passenger transport RTI on route						Progress through horizontal theme
Inverness airport and flights						
Surface Access Strategy to deliver better integration						Progress to Step 2
Support further direct regional and international connections						Progress to Step 2
Direct flight to Glasgow secured						Progress to Step 2
Terminal building and runway extension						Progress to Step 2
Secure current connections to London						Progress to Step 2
Inverness-Aberdeen rail line						
Dalcross station						Progress to Step 2
Commuter services Elgin-Inverness						Progress to Step 2
Journey time improvements and hourly Inverness-Aberdeen						Progress to Step 2
Station improvements at Forres						Progress through horizontal theme
Secure freight paths						Consider complimentarity /
Freight gauge enhancement Inverness to Elgin						Consider complimentarity /
A96 Corridor (Road)						
Demand management in settlements on route						Package with provision of road space
Overtaking facilities on links on route						Progress to Step 2

	Enable the Region to compete and support growth	Enable people to participate in everyday life	Improve the health of the Region's people	Improve safety and security	Manage the impacts of transport on the Region's natural and built heritage assets	OUTCOME OF ASSESSMENT AGAINST STRATEGY OBJECTIVES
Bus priority on route and bus service enhancements						Package with demand management
Dual carriageway Inverness to the airport						Progress to Step 2
Provision of roadspace for passenger transport/cycling through settlements						Package with demand management/bus priority
Inverness P&R facilities and services						Package with dual carriageway Inverness to airport and provision of road space to airport
Interchanges for Community Transport & Public Transport						Progress through horizontal theme
Passenger transport RTI on route						Progress through horizontal theme
Dual carriageway options						Progress to Step 2
Fochabers bypass						Progress to Step 2
Elgin bypass						Progress to Step 2
Other bypass options						Progress to Step 2

TABLE 6.2 LINKS WITH MODERATE FUNCTIONS AND WHICH ARE LEAST ADEQUATE - STEP 1

	Enable the Region to compete and support growth	Enable people to participate in everyday life	Improve the health of the Region's people	Improve safety and security	Manage the impacts of transport on the Region's natural and built heritage assets	OUTCOME OF ASSESSMENT AGAINST STRATEGY OBJECTIVES
A83 and Argyll & Bute Sea Crossings to A82 for Glasgow						
Daily service to Coll, Tiree and Collonsay						Progress through horizontal theme
Enable days' business on Tiree						Progress through horizontal theme
Remove pinch points (South of Tarbert & Inveraray to Lochgilphead Rd)						Progress to Step 2
Modern 2-track standard Campbeltown to A82						Progress to Step 2
Ferry service to Ireland						Progress through horizontal theme
Additional sailings Islay to Kennacraig (extending hours of operation)						Progress through horizontal theme
Timetable enhancement Mull to Oban (timetable consistency/hourly service)						Progress through horizontal theme
Far North Line						
Additional return journeys to Caithness (to 4 trains per day)						Progress through horizontal theme
New station at Conon Bridge						Progress to Step 2
Journey time improvements						Progress to Step 2
New railway route over Dornoch Firth						Progress to Step 2
Improve line capacity						Progress through horizontal theme
Fort William & Oban Rail lines (A82)						

	Enable the Region to compete and support growth	Enable people to participate in everyday life	Improve the health of the Region's people	Improve safety and security	Manage the impacts of transport on the Region's natural and built heritage assets	OUTCOME OF ASSESSMENT AGAINST STRATEGY OBJECTIVES
Additional return journeys and journey time enhancement to Fort William/Oban						Progress through horizontal theme
Upgrade Oban line to Class 66 operation (freight)						Progress to Step 2
Enhanced timetable integration and management						Progress through horizontal theme
A9 north (Road)						
Route Action Plan to provide climbing lanes						Progress to Step 2
Bypass settlements on route						Progress to Step 2
Berriedale Braes crossing						Progress to Step 2
Passenger transport RTI on route						Progress through horizontal theme
Passenger interchanges for Community Transport & Public Transport						Progress through horizontal theme
Provision of roadspace for passenger transport/cycling to north of Inverness						Package with Inverness P&R
Inverness P&R facilities and services						Progress through horizontal theme
Oban A85 connections to A82 for Glasgow						
A85 enhancement (removal of pinch points and strengthening)						Progress to Step 2
Oban Development Road						Progress to Step 2
Demand management measures in Oban						Package with Oban Development Road
Western Isles Sea Crossings & A87 connections to A82 for Glasgow						

	Enable the Region to compete and support growth	Enable people to participate in everyday life	Improve the health of the Region's people	Improve safety and security	Manage the impacts of transport on the Region's natural and built heritage assets	OUTCOME OF ASSESSMENT AGAINST STRATEGY OBJECTIVES
Breakwater at Uig						Progress through horizontal theme
Skye air service to the Central Belt, including airstrip/terminal development						Progress to Step 2
Tarbert/Lochmaddy: increase service frequency and duration of days' operation						These options progress through horizontal theme on ports, ferries & waterways
Lochboisdale/Castlebay: daily service with mid-pm Oban arrival						
Enhance section between Portree and Broadford						Does not progress
Improve stretch at Glen Garry						Does not progress
Remove Torgoyle Bridge pinch point						Does not progress
Enhanced integration with bus / coach at Uig						Progress through horizontal theme
Stornoway Sea Crossings and A835 to Inverness						
Enhance Garve to Contin stretch of A835						Progress to Step 2
7 days per week sailing						Progress through horizontal theme
Increase frequency and reliability of sailing						Progress through horizontal theme
Kyle Rail line						
Commuter service to Inverness						Progress to Step 2
Heavier rolling stock access						Progress to Step 2
Lineside loading for freight						Progress to Step 2

	Enable the Region to compete and support growth	Enable people to participate in everyday life	Improve the health of the Region's people	Improve safety and security	Manage the impacts of transport on the Region's natural and built heritage assets	OUTCOME OF ASSESSMENT AGAINST STRATEGY OBJECTIVES
Increase line capacity and speeds						Progress to Step 2
Additional return journeys to Kyle (to 4 trains per day)						Progress through horizontal theme
Moray A941 and A95 to A9 for Edinburgh						
Elgin to Criagellachie A941 road improvement to modern 2-track standard						Progress to Step 2
A95 Road improvement to modern 2-track standard						Progress to Step 2
Barra flights and airport						
Fixed landing strip on Barra						Progress to Step 2
7 days per week flights and increased capacity						Progress through horizontal theme
Surface Access Strategy to deliver better integration						Package with fixed landing strip

6.7 The outcome of this exercise is that the following options that have been dropped / refined / packaged:

- **A82 Corridor (Road):**
  - Passenger transport RTI on route – progression through horizontal theme.
  - Interchanges for Community Transport & Public Transport – progression through horizontal theme.
- **Highland Main Line:**
  - Edinburgh Airport Rail Link - package with Journey time and frequency improvements (hrly departure).
- **A9 Inverness to Edinburgh (Road):**
  - Passenger transport RTI on route - progress through horizontal theme.
- **A96 Corridor (Road):**
  - Bypass settlements on route - package with demand management/bus priority in settlements on route.
  - Inverness P&R facilities and services - package.
  - Interchanges for Community Transport & Public Transport - progress through horizontal theme.
  - Passenger transport RTI on route - progress through horizontal theme.
- **Inverness-Aberdeen rail line:**
  - Station improvements at Forres station – progress through horizontal theme.
  - Freight gauge enhancement Inverness-Elgin – progress through horizontal theme.
- **A83 and Argyll & Bute Sea Crossings to A82 for Glasgow:**
  - Daily service to Coll, Tiree and Collonsay – progress through horizontal theme.
  - Enable days' business on Tiree – progress through horizontal theme.
  - Ferry service to Ireland – progress through horizontal theme.
  - Additional sailings Islay to Kennacraig (extending hours of operation) – progress through horizontal theme.
  - Timetable enhancement Mull to Oban (timetable consistency / hourly service) – progress through horizontal theme.
- **Far North Line:**
  - Improve line capacity – consideration under horizontal theme.
- **Fort William & Oban Rail lines (A82):**
  - Additional return journey and journey time enhancement to Fort William / Oban – progress through horizontal theme.
  - Enhanced timetable integration and management - progress through horizontal theme.
- **A9 north (Road):**
  - Passenger transport RTI on route - progress through horizontal theme.
  - Passenger interchanges for Community Transport & Public Transport – progress through horizontal theme.
  - Package provision of roadspace for passenger transport / cycling with P&R – progress through horizontal theme.
- **Oban A85 connections to Glasgow (A82):**

- Demand management measures in Oban - package with Oban Development Road.

- **Western Isles and Skye connections to Glasgow (A82):**
  - Breakwater at Uig – progress through horizontal theme – progress through horizontal theme.
  - Tarbert / Lochmaddy: increase service frequency and duration of days' operation – progress through horizontal theme.
  - Lochboisdale / Castlebay: daily service with mid-afternoon Oban arrival – progress through horizontal theme.
  - Enhance section between Portree and Broadford - does not progress.
  - Improve stretch at Glen Garry - does not progress.
  - Remove Torgoyle Bridge pinch point - does not progress.
  - Enhanced integration with bus / coach at Uig - progress through horizontal theme.
- **Stornoway Sea Crossings and A835 to Inverness:**
  - 7 days per week sailing – progress through horizontal theme.
  - Increase frequency and reliability of sailing – progress through horizontal theme.
- **Kyle Rail line:**
  - Additional return journeys to Kyle (to 4 trains per day) - progress through horizontal theme.
- **Barra airport and flights:**
  - 7 days per week flights – progress through horizontal
  - Surface Access Strategy – package with fixed landing strip.

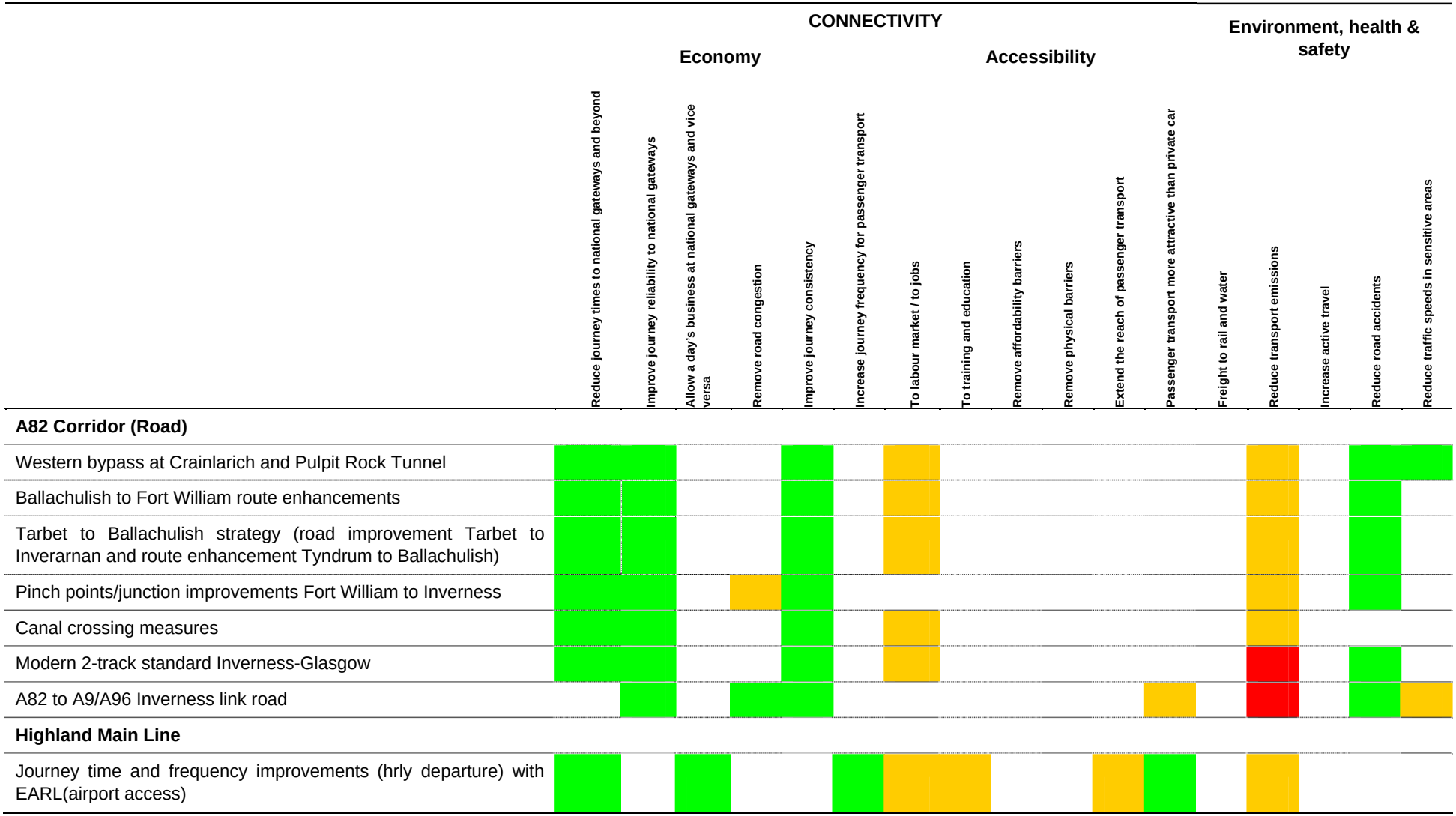
7. STRATEGIC NETWORK – OPTIONS TESTING STEP 2

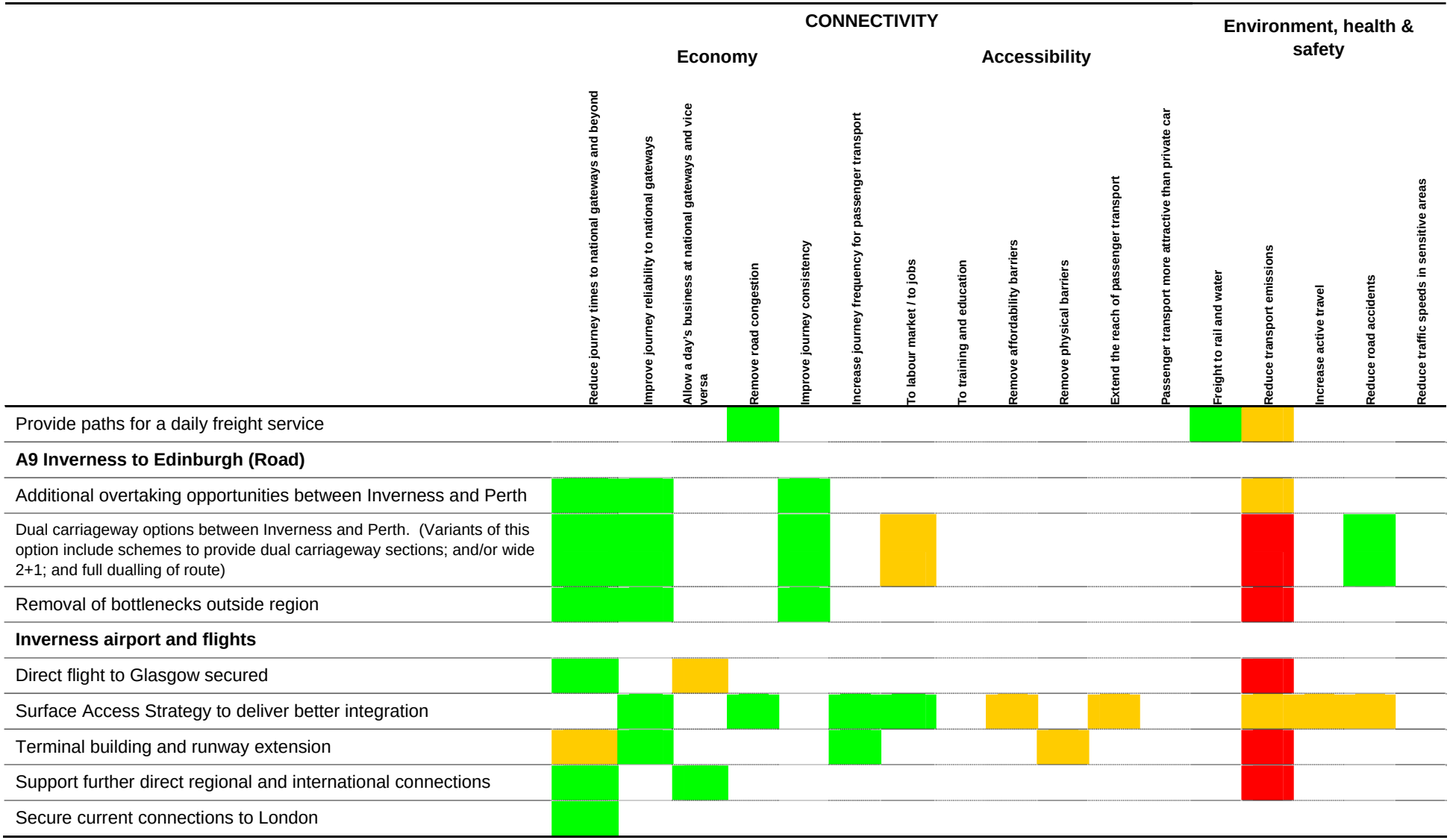
7.1 The second step in the option prioritisation process is the testing of the remaining interventions against their contribution to **Connectivity** *and* then to test them against the national objectives of improving the Environment, Health and Safety. A similar process to that described for STEP 1 has been employed, whereby each of the objectives has been given a score on a three point scale as follow:

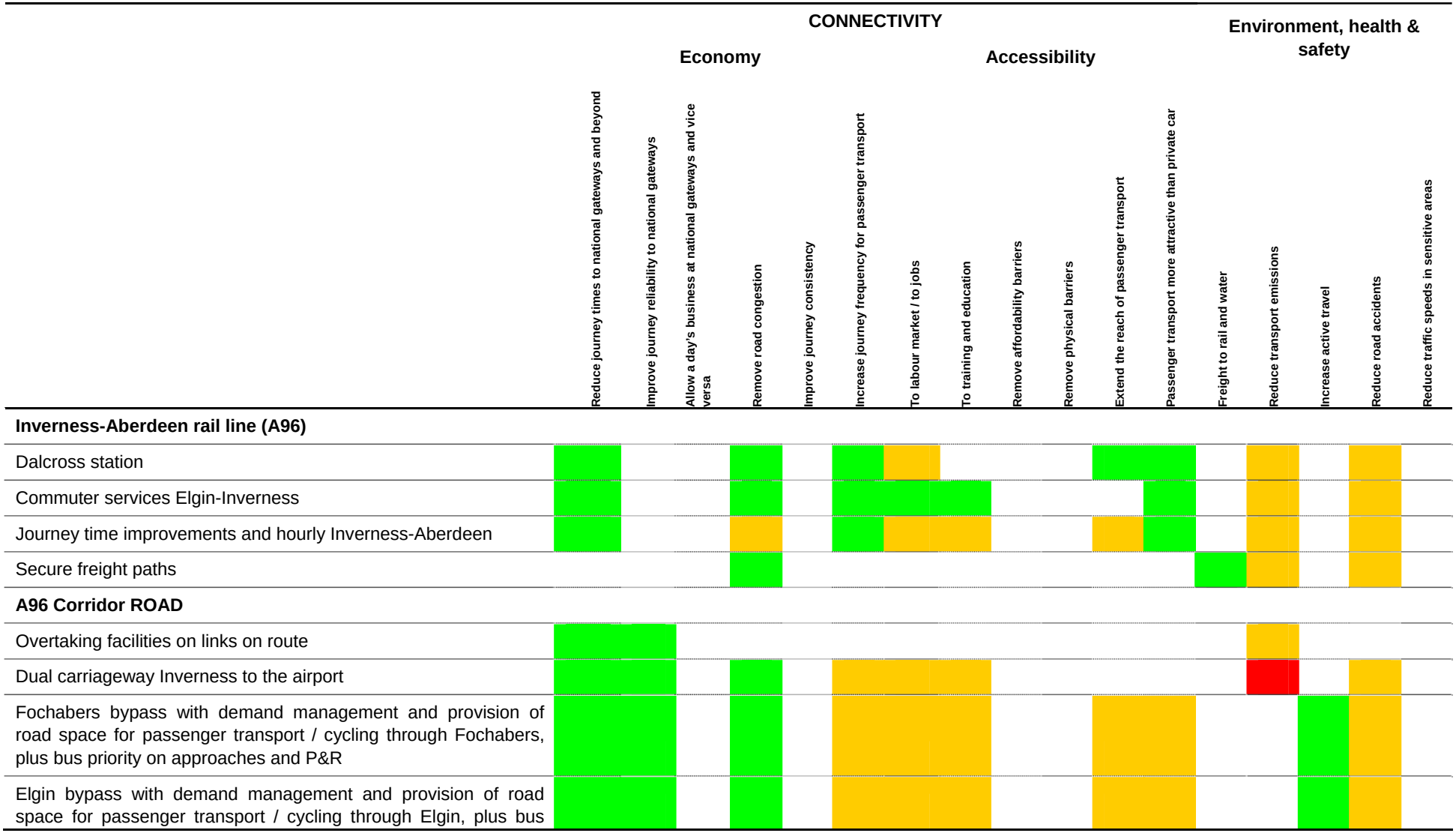
Green. The option will have an unambiguously positive impact on the objective
Amber. The option will have a positive impact, but this will be lesser and scale, and / or may have potentially mixed / distribution of impacts
Red. The option will have an adverse effect on the objective. This is a warning for the option refinement to consider.

7.2 Table 7.1 below presents the assessment of each of the options against the connectivity, and Environment, Health and Safety tests. These tests have been adapted from the Scottish Executive supplementary guidance on prioritisation for the Regional Transport Strategies, in order to be fitting for the unique problems and constraints that exist in the HITRANS region. A good fit against these tests would ensure that the Strategy objectives are delivered.

TABLE 7.1 LINKS WITH MOST FUNCTIONS AND WHICH ARE LEAST ADEQUATE - STEP 2




CONNECTIVITY
Economy
Accessibility
Environment, health & safety
Reduce journey times to national gateways and beyond
Improve journey reliability to national gateways
Allow a day's business at national gateways and vice versa
Remove road congestion
Improve journey consistency
Increase journey frequency for passenger transport
To labour market / to jobs
To training and education
Remove affordability barriers
Remove physical barriers
Extend the reach of passenger transport
Passenger transport more attractive than private car
Freight to rail and water
Reduce transport emissions
Increase active travel
Reduce road accidents
Reduce traffic speeds in sensitive areas
Provide paths for a daily freight service
A9 Inverness to Edinburgh (Road)
Additional overtaking opportunities between Inverness and Perth
Dual carriageway options between Inverness and Perth. (Variants of this option include schemes to provide dual carriageway sections; and/or wide 2+1; and full dualling of route)
Removal of bottlenecks outside region
Inverness airport and flights
Direct flight to Glasgow secured
Surface Access Strategy to deliver better integration
Terminal building and runway extension
Support further direct regional and international connections
Secure current connections to London


CONNECTIVITY
Economy
Accessibility
Environment, health & safety
Reduce journey times to national gateways and beyond
Improve journey reliability to national gateways
Allow a day's business at national gateways and vice versa
Remove road congestion
Improve journey consistency
Increase journey frequency for passenger transport
To labour market / to jobs
To training and education
Remove affordability barriers
Remove physical barriers
Extend the reach of passenger transport
Passenger transport more attractive than private car
Freight to rail and water
Reduce transport emissions
Increase active travel
Reduce road accidents
Reduce traffic speeds in sensitive areas
Inverness-Aberdeen rail line (A96)
Dalcross station
Commuter services Elgin-Inverness
Journey time improvements and hourly Inverness-Aberdeen
Secure freight paths
A96 Corridor ROAD
Overtaking facilities on links on route
Dual carriageway Inverness to the airport
Fochabers bypass with demand management and provision of road space for passenger transport / cycling through Fochabers, plus bus priority on approaches and P&R
Elgin bypass with demand management and provision of road space for passenger transport / cycling through Elgin, plus bus

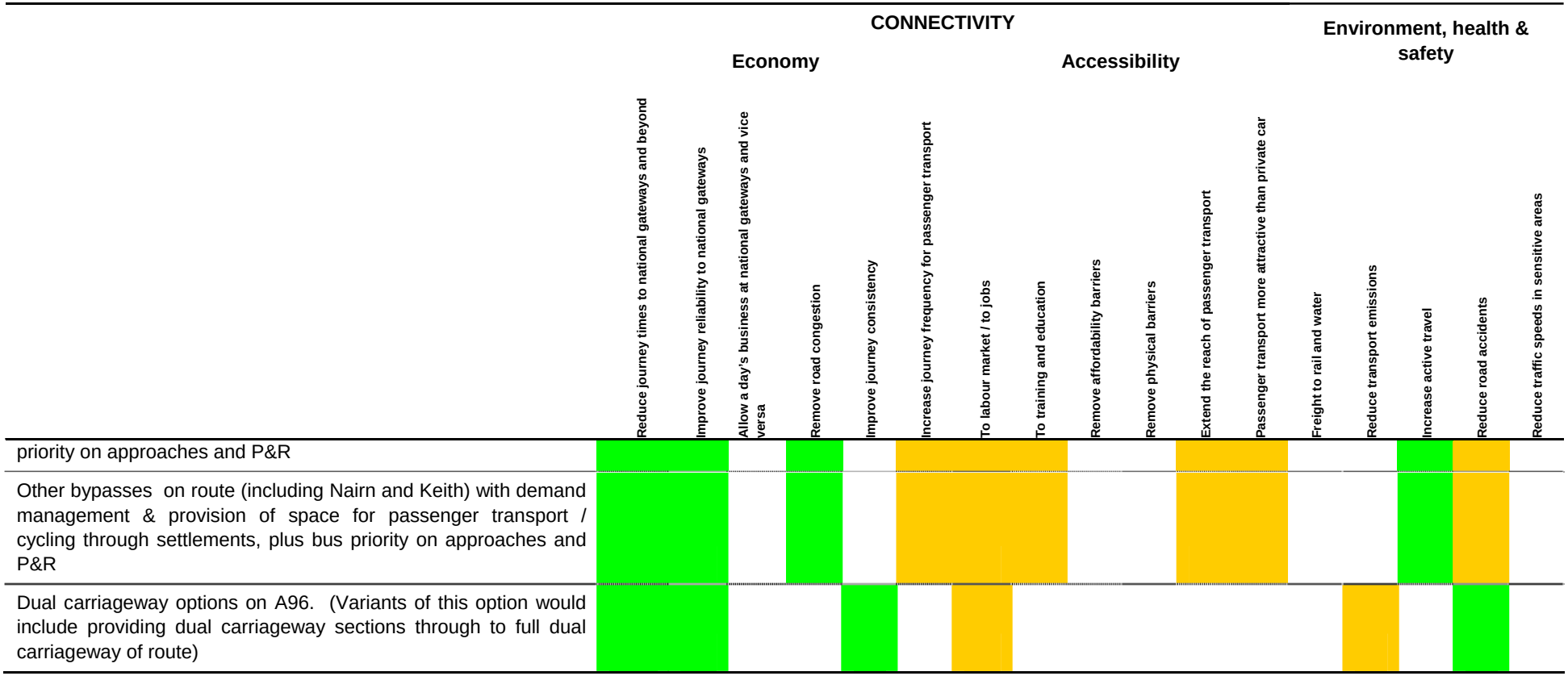
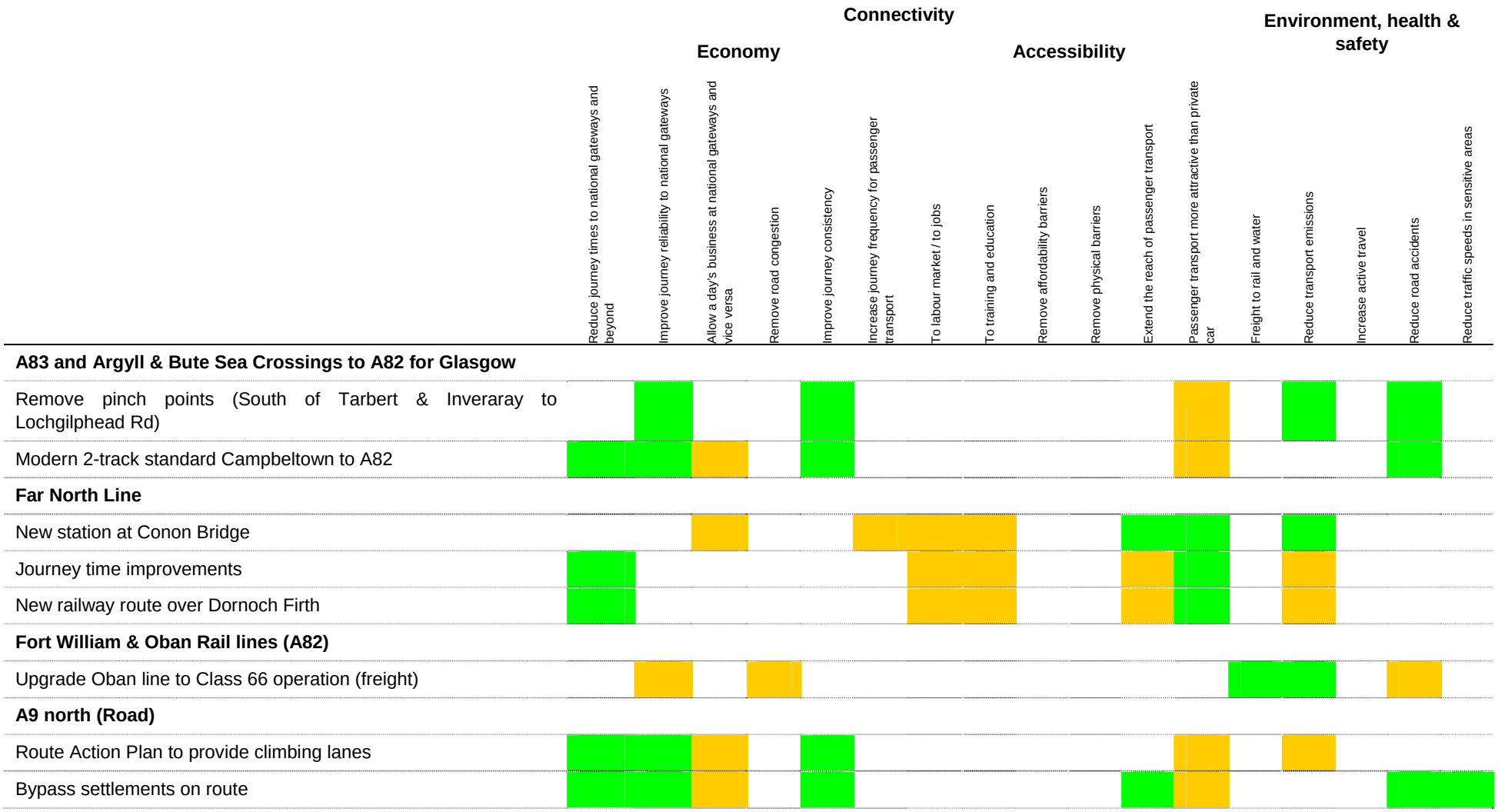
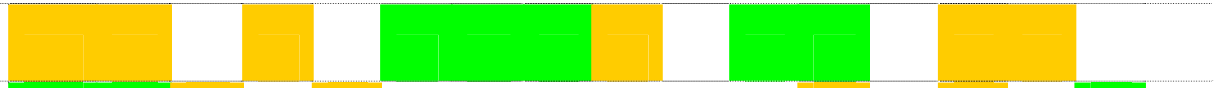
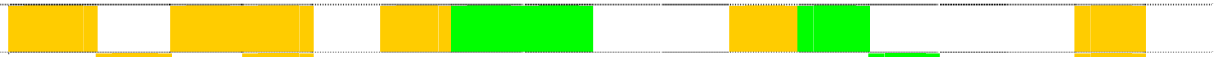

CONNECTIVITY
Economy
Accessibility
Environment, health & safety
Reduce journey times to national gateways and beyond
Improve journey reliability to national gateways
Allow a day's business at national gateways and vice versa
Remove road congestion
Improve journey consistency
Increase journey frequency for passenger transport
To labour market / to jobs
To training and education
Remove affordability barriers
Remove physical barriers
Extend the reach of passenger transport
Passenger transport more attractive than private car
Freight to rail and water
Reduce transport emissions
Increase active travel
Reduce road accidents
Reduce traffic speeds in sensitive areas
priority on approaches and P&R
Other bypasses on route (including Nairn and Keith) with demand management & provision of space for passenger transport / cycling through settlements, plus bus priority on approaches and P&R
Dual carriageway options on A96. (Variants of this option would include providing dual carriageway sections through to full dual carriageway of route)

TABLE 7.2 LINKS WITH MODERATE FUNCTIONS AND WHICH ARE LEAST ADEQUATE - STEP 2



Provision of roadspace for passenger transport / cycling north of Inverness and P&R facilities and services	
Berriedale Braes crossing	
Oban A85 connections to A82 for Glasgow	
A85 enhancement (removal of pinch points & strengthening)	
Oban Development Road with Demand management measures in Oban	
Western Isles Sea Connections & A87 connections to A82 for Glasgow	
Skye air service to the Central Belt, including airstrip/terminal development	
Stornoway Sea Crossings and A835 to Inverness	
Enhance Garve to Contin stretch of A835	
Kyle Rail Line	
Commuter service to Inverness	
Heavier rolling stock access	
Lineside loading for freight	
Increase line capacity and speeds	
Moray A941 and A95 to A9 for Edinburgh	
Elgin to Criagellachie A941 road improvement to modern 2-track standard	
A95 Road improvement to modern 2-track standard	
Barra flights	
Fixed landing strip on Barra with surface access strategy for better integration	

7.3 A summary of the STEP 2 appraisal for links with both high and moderate functions is given in Table 7.3 below. The interventions for each link are presented in order of the total number of green scores that they have received. Where two or more options have the same number of green allocations, they are then ranked according to the number of amber allocations received and so on.

7.4 From this assessment against connectivity, environment, and health and safety tests, the 'best fit' options have been identified. Best fit options are those which have generally scored four or more 'greens' in the assessment against these tests.

TABLE 7.3 SUMMARY OF STEP 2 ASSESSMENT - LINKS WITH HIGH FUNCTIONS AND LOW ADEQUACY

	Greens	Ambers	Reds	Neutrals	Best fit options
A82 Corridor (Road)					
Western bypass at Crainlarich and Pulpit Rock tunnel	5	2	0	10	✓
Ballachulish to Fort William route enhancements	4	2	0	11	✓
Tarbet to Ballachulish strategy (road improvement Tarbet to Inverarnan and route enhancement Tyndrum to Ballachulish)	4	2	0	11	✓
Pinch points/junction improvements Fort William to Inverness	4	2	0	11	✓
A82 to A9/A96 Inverness link road	4	2	1	10	✓
Modern 2-track standard Inverness-Glasgow	4	1	1	11	✓
Canal crossing measures	3	2	0	12	
Highland Main Line					
Journey time and frequency improvements (hrly departure) with EARL(airport access)	4	4	0	9	✓
Provide paths for a daily freight service	2	1	0	14	
A9 Inverness to Edinburgh (Road)					
Dual carriageway options between Inverness and Perth. (Variants of this option include schemes to provide dual carriageway sections; and/or wide 2+1; and full dualling of route)	4	1	1	11	✓
Additional overtaking opportunities between Inverness and Perth	3	1	0	13	
Removal of bottlenecks outside region	3	0	1	13	
Inverness airport and flights					
Surface Access Strategy	4	5	0	8	✓
Support further direct regional and international connections	2	0	1	14	

	Greens	Ambers	Reds	Neutrals	Best fit options
Direct flight to Glasgow secured	1	1	1	14	
Terminal building and runway extension	3	2	1	11	✓
Secure current connections to London	1	0	0	16	
Inverness-Aberdeen rail line (A96)					
Commuter services Elgin-Inverness	6	2	0	9	✓
Dalcross station	5	3	0	9	✓
Journey time improvements and hourly Inverness-Aberdeen	3	6	0	8	✓
Secure freight paths	2	2	1	12	
Freight gauge enhancement Inverness to Elgin	2	2	0	13	
A96 Corridor ROAD					
Fochabers bypass with demand management & provision of road space for passenger transport / cycling through Fochabers, plus bus priority on approaches and P&R	4	6	0	7	✓
Elgin bypass with demand management & provision of road space for passenger transport / cycling through Elgin, plus bus priority on approaches and P&R	4	6	0	7	✓
Other bypasses on route (including Nairn and Keith) with demand management & provision of space for passenger transport / cycling through settlements, plus bus priority on approaches and P&R	4	6	0	7	✓
Dual carriageway Inverness to the airport	3	4	1	9	✓
Dual carriageway options on A96. (Variants of this option would include providing dual carriageway sections through to full dual carriageway of route)	4	1	1	11	✓
Overtaking facilities on links on route	2	1	0	14	

TABLE 7.4 SUMMARY OF STEP 2 ASSESSMENT - LINKS WITH HIGH FUNCTIONS AND LOW ADEQUACY

	Greens	Ambers	Reds	Neutrals	Best fit options
A83 and Argyll & Bute Sea Crossings to A82 for Glasgow					
Modern 2-track standard Campbeltown to A82	4	2	0	11	✓
Remove pinch points (South of Tarbert & Inveraray to Lochgilphead Rd)	4	1	0	12	✓

	Greens	Ambers	Reds	Neutrals	Best fit options
Far North Line					
New railway route over Dornoch Firth	2	4	0	11	
Journey time improvements	2	2	0	13	
New station at Conon Bridge	3	7	0	7	✓
Fort William & Oban Rail lines (A82)					
Upgrade Oban line to Class 66 operation (freight)	2	3	0	12	
A9 north (Road)					
Berriedale Braes crossing	3	4	0	10	✓
Bypass settlements on route	5	2	0	10	✓
Provision of roadspace for passenger transport / cycling to north of Inverness and P&R facilities and services	5	6	0	6	✓
Route Action Plan to provide climbing lanes	3	3	0	11	✓
Oban A85 connections to A82 for Glasgow					
A85 enhancement	3	1	0	13	
Oban Development Road and demand management measures in Oban	4	6	0	7	✓
Western Isles & Skye connections to Glasgow (A82)					
Skye air service to the Central Belt, including airstrip/terminal development	3	0	0	14	✓
Stornoway Sea Crossings and A835 to Inverness					
Enhance Garve to Contin stretch	3	1	0	13	
Kyle rail line					
Increase line capacity and speeds	2	4	0	11	
Commuter service to Inverness	3	6	0	8	✓
Heavier rolling stock access	1	3	1	12	
Lineside loading for freight	1	2	0	14	
A941 and A95 to A9 for Edinburgh					
Elgin to Criagellachie A941 road improvement to modern 2-track standard	4	0	0	13	✓
A95 Road improvement to modern 2-track standard	4	0	0	13	✓
Barra flights					
Fixed landing strip on Barra	5	0	0	12	✓

8. STRATEGIC NETWORK – INITIAL PROGRAMME OF STRATEGIC NETWORK INTERVENTIONS

8.1 The options that have been deemed as 'best fit' options in the assessment above have been programmed over a 15 year period. As was discussed earlier, the RTS guidance states that such a programme should cover a 10-15 year period. The programme shown below refers to 5 year periods as follows: 2008-2012, 2013-2017 and 2018-2022.

8.2 The programme below also includes time allocated for scheme preparation, that is for land acquisition and design for example. Where a scheme will require significant preparation the scheme has been spread over an appropriate time period. For example, the Loch Lomond side improvement strategy has been spread over the short to medium term, which reflects the significant detailed design work that will be required to deliver this scheme.

8.3 The first table relates to links with high functions and low adequacy, while the second table relates to those links with moderate functions and low adequacy.

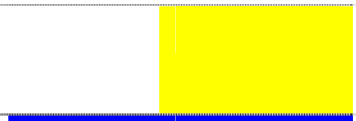
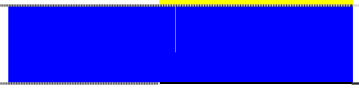
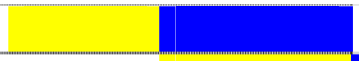
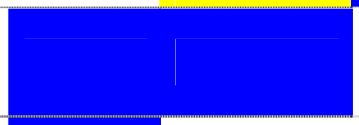
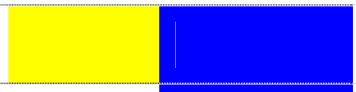
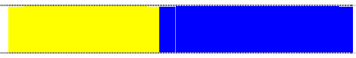
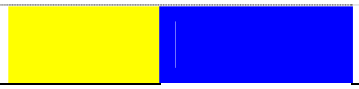
TABLE 8.1 STRATEGIC NETWORK INTERVENTIONS PROGRAMME - LINKS WITH HIGH FUNCTIONS AND LOW ADEQUACY

Link		Feasibility and design work	
		Delivery	
		PROVISIONAL PROGRAMME	
Option	**Short term (2008-12)**	**Medium term (2013-17)**	**Long term (2018-22)**
A82 Corridor (Road)			
Western bypass at Crianlarich and Pulpit Rock Tunnel	Crainlarich Bypass Pulpit Rock	Pulpit Rock	
Ballachulish to Fort William route enhancements			
Tarbet to Ballachulish strategy (road improvement Tarbet to Inverarnan & route enhancement Tyndrum to Ballachulish)	Tarbet to Invernarnan Tyndrum to Ballachulish	Tyndrum to Ballachulish	
Pinch points / junction improvements Fort William to Inverness			
A82 to A9/A96 Inverness link road			
Modern 2-track standard Inverness to Glasgow			
Highland Main Line			
Journey time and frequency improvements (hourly departure)			
A9 Inverness to Edinburgh (Road)			

Dual carriageway options between Inverness and Perth			
Variants of the above option include schemes to provide dual carriageway sections; and/or wide 2+1s			
Inverness airport and flights			
Surface Access Strategy to deliver better integration			
Terminal building and runway extension			
Inverness-Aberdeen Rail Line			
Commuter services Elgin-Inverness			
Dalcross Station at Inverness airport			
Journey time improvements and hourly departure Inverness to Aberdeen			
A96 Corridor (Road)			
Dual carriageway Inverness to airport			
Fochabers bypass with demand management & provision of space for passenger transport / cycling through Fochabers, plus bus priority on approaches and P&R			
Elgin bypass with demand management & provision of space for passenger transport / cycling through Elgin, plus bus priority on approaches and P&R	Demand management Bypass		
Other bypasses on route (including Nairn and Keith) with demand management & provision of space for passenger transport / cycling through settlements, plus bus priority on approaches and P&R	Demand management Bypasses		
Dual carriageway options on A96			
Variants of the above option would include providing dual carriageway sections only			

TABLE 8.2 STRATEGIC NETWORK INTERVENTIONS PROGRAMME - LINKS WITH MODERATE FUNCTIONS AND LOW ADEQUACY

Link		**Feasibility and design work**	
		Delivery	
		PROVISIONAL PROGRAMME	
Option	**Short term (2007-12)**	**Medium term (2012-17)**	**Long term (2017-23)**
A83 and Argyll & Bute Sea Crossings to A82			

for Glasgow	
Modern 2-track standard Campbeltown to A82	
Address pinch points on route (South of Tarbert & Inveraray to Lochgilphead Road)	
Far North Line	
New station at Conon Bridge	
A9 North (Road)	
Berriedale Braes crossing	
Bypass settlements on route	
Provision of roadspace for passenger transport / cycling to north of Inverness & P&R facilities and services	
Route Action Plan to provide climbing lanes	
Oban A85 connections to A82 for Glasgow	
Oban Development Road and demand management measures in Oban	
Oban and Fort William Rail Line rail service enhancement / frequency increase	
Western Isles & Skye connections to A82 for Glasgow	
Skye air service to central belt	
Kyle Rail Line	
Commuter service to Inverness	
Moray connections to A9 for Edinburgh	
Elgin to Criagellachie A941 road improvement to modern 2-track standard	
A95 road improvement to modern 2-track standard	
Barra airport and flights	
Fixed landing strip and surface access strategy to deliver better integration	

9. REGIONAL NETWORK – OPTIONEERING AND ASSESSMENT

9.1 This final Part of the report considers the generation and appraisal of interventions for the regional network. The 'regional network' links the local service centres to the regional centres around the region. Local service centres have been identified in each of the Local Authority area in keeping with the methodology that was employed by the Highland Council in identifying local service centres in its Structure Plan.

9.2 A similar process has been undertaken on each of the links in this network as has been undertaken on the 'red network'. That is:

- (Each of the links in this network serves one function, i.e. they link one local centre to the relevant regional centre. Thus, function of the links in this network have not been assesses.)
- The adequacy of each of the links in the network has been assessed according to the adequacy tests as detailed in Part 2 (page 4) of this note. Accordingly, each link in the regional network has been allocated an adequacy score. (The calculation of the adequacy for the regional network is not documented in this current note, but is contained within a separate paper.)
- Each link has been considered in respect to future demands on the network, in keeping with the process described in Part 3 (page 9) of this note.
- Where the link is not adequate, aspirations have been set, reflecting the specific issues / inadequacies that pertain to that particular link in the network.
- Options have been developed for each link in the network in order to realise the aspirations.
- Each option will then be assessed against:
  - STEP 1 – the Strategy objectives.
  - STEP 2 – connectivity and the national objectives of improving the Environment, Health and Safety.
  - STEP 3 – feasibility and deliverability, effectiveness, acceptability and policy.

9.3 Table 9.1 overleaf presents the list of links in the 'regional network', their adequacy score, whether or not issues exist as to future demand or risk issues, and the aspirations for this link where inadequacies do exist. The final columns of Table 9.1 then present the options to address the inadequacies that have been presented.

9.4 For these links in the 'regional network' a cut off has been taken at 80%. That is, for those links in the network with an assessed adequacy of less than 80%, aspirations have been set and options developed. These options will be taken forward for further development, appraisal and prioritisation. For those links in the network with an adequacy of greater than 80%, options will not be considered at this time. The Strategy will require that these links are closely monitored in the future, to ensure that their adequacy does / has not fallen. The guidance on Regional Transport Strategies recommends that the Strategy is reviewed, revised and refreshed every four years in line with local governmental electoral cycles. This will allow an ongoing process to assess adequacy as the region develops.

TABLE 9.1 LINK ADEQUACY, ASPIRATIONS AND OPTIONS

Link ID	Link	Adequacy score	Future demand / risks on / to link	1) Journey reliability	2) Reduced journey time	3) Journey frequency	4) Journey consistency	5) Daily link available	6) Days business / commute	7) Safety	8) Other	Option 1	Option 2	Option 3
32	Orkney inter-isle network	43%	Yes	✓					✓		✓	Fixed links	Inter-isle ferry and air service connectivity enhancements	
33	Luing ferry	57%	Yes			✓					✓	Greater frequency	Replacement vessels and infrastructure	
34	Islay-Jura ferry	57%	Yes			✓					✓	Greater frequency	Replacement vessels and infrastructure	
35	Lismore ferry	57%	Yes			✓					✓	Greater frequency	Replacement vessels and infrastructure	
36	Raasay ferry	57%									✓	New terminal facility		
37	Western Isles spinal route (A859, A867, A865, A888) & Sound of Harris and Barra crossings	63%	Yes	✓	✓	✓	✓					Fixed links on the Sounds	Faster, more frequent ferry crossings	Road improvement options
38	A816 Oban to Lochgilphead	63%	Yes	✓	✓		✓			✓		Provide overtaking opportunities	Road improvement options	
39	A848 & A849 Tobermory to Fionnphort & Iona ferry	63%		✓			✓					Route enhancement on final 5 mile section of route		
40	A941 Dufftown to A95	63%	Yes	✓			✓			✓		Road improvement options including addressing pinch points and providing overtaking opportunities		
41	A838 Kinlochbervie to Lairg	75%		✓								Removal of single-track sections	Route enhancement	
42	A890 Lochcarron to A832	75%		✓			✓			✓		Road improvement including single track sections and visibility improvements in		

Link ID	Link	Adequacy score	Future demand / risks on / to link	1) Journey reliability	2) Reduced journey time	3) Journey frequency	4) Journey consistency	5) Daily link available	6) Days business / commute	7) Safety	8) Other	Option 1	Option 2	Option 3
												vicinity of Achnashellach		
43	A939 Tomintoul to A95	75%	Yes							✓	✓	Road improvement options		
44	A98 from Elgin to Fraserburgh and A950 Peterhead	75%	Yes							✓		Route enhancement		
45	A832 Gairloch to Garve	75%	Yes	✓			✓			✓		Road improvement options		
46	Mallaig Rail Line	83%												
47	Orkney internal air services	83%	Yes											
48	A832 Fortrose to Tore	86%												
49	Western Isles internal air service	86%												
50	A916 Kirkwall to St Margaret's Hope	86%	Yes											
51	Kinlochlevein to A82	88%	Yes											
52	A941 Lossiemouth to Elgin	88%	Yes											
53	A886 Rothesay to A815 & Colintraive ferry	88%												
54	A882 A9 to Wick	88%												
55	A837 & A835 Lochinver to Ullapool	88%	Yes											
56	A815 Dunoon to A82	88%												
57	A861 Acharacle loop and Corran Ferry	88%												

Link ID	Link	Adequacy score	Future demand / risks on / to link	1) Journey reliability	2) Reduced journey time	3) Journey frequency	4) Journey consistency	5) Daily link available	6) Days business / commute	7) Safety	8) Other	Option 1	Option 2	Option 3
58	Gigha ferry	100%	Yes											
59	Small Isles ferry service	100%												
60	B9103 Hopeman and Burghead to A96	100%												
61	Tarbert – Portavadie ferry	100%												
62	Portavadie to A886	100%												
63	Lochaline ferry	100%												
64	Arran ferry (from Claonaig)	100%												
65	A986 Dounby to A965	100%												
66	A862 Beauly to Inverness	100%												
67	A846 Port Askaig to Port Ellen	100%												
68	A836 Bettyhill to Thurso	100%												
69	A830 Mallaig to A82	100%												
70	A819 Dalmally to Inveraray	100%												

9.5 Table 9.2 below presents the initial assessment of those links in the 'regional network' that have been identified as not being adequate (i.e. those links with an adequacy score of less than 80%).

9.6 In the regional network it is appropriate that different sifting tests are applied to those that were applied to the top level of the network to reflect the fact that the function of this network in connecting local centres to the regional centres across the region. The STEP 1 sifting tests are as follows:

i. If the **economy** objective scores green or amber, then the option is taken forward to STEP 2.

ii. If the **participation** objective scores green or amber, then the option is taken forward to STEP 2.

iii. If neither the **economy** or **participation** objective scores green or amber, then option is dropped.

9.7 For options that survive this initial sift against the Strategy objectives an initial 15 year programme has been assigned as was the case with the Strategic Network above.

TABLE 9.2 ASSESSMENT OF OPTIONS AGAINST STRATEGY OBJECTIVES

	Enable the Region to compete and support growth	Enable people to participate in everyday life	Improve the health of the Region's people	Improve safety and security	Manage the impacts of transport on the Region's natural and built heritage assets	OUTCOME OF ASSESSMENT AGAINST STRATEGY OBJECTIVES
Orkney inter-isle connections						
Fixed links						Progress to Step 2
Inter-isle ferry and air service connectivity enhancements						Progress to Step 2
Lismore, Luing and Isla-Jura ferry services						
Greater frequency						Progress to Step 2
Replacement vessels and infrastructure						Progress to Step 2
Raasay ferry						
New terminal facility						Progress to Step 2
Western Isles spinal route (A859, A867, A865, A888) and Sound of Harris and Barra crossings						
Fixed links on the Sounds						Progress to Step 2
Faster, more frequent ferry crossings						Progress to Step 2
Road improvement options						Progress to Step 2
A816 Oban to Lochgilphead						
Provide overtaking opportunities						Progress to Step 2
Road improvement options						Progress to Step 2
A848 & A849 Tobermory to Fionnphort and Iona Ferry						
Route enhancement on final 5 mile section of route						Progress to Step 2
A941 Dufftown to A95						

	Enable the Region to compete and support growth	Enable people to participate in everyday life	Improve the health of the Region's people	Improve safety and security	Manage the impacts of transport on the Region's natural and built heritage assets	OUTCOME OF ASSESSMENT AGAINST STRATEGY OBJECTIVES
Road improvement including addressing pinch points and providing overtaking opportunities						Progress to Step 2
A838 Kinlochbervie to Lairg						
Removal of single-track sections						Progress to Step 2
Route enhancement						Progress to Step 2
A890 Lochcarron to A832						
Route enhancement including single track sections and visibility improvements in vicinity of Achnashellach						Progress to Step 2
A939 Tomintoul to A95						
Road improvement options						Progress to Step 2
A98 from Elgin to Fraserburgh and A950 Peterhead						
Road improvement options						Progress to Step 2
A832 Gairloch to Garve						
Road improvement options						Progress to Step 2

9.8 From this initial assessment of the options against the Strategy objectives, all options listed appear to offer an adequate degree of fit, such that they should be taken to the next stage of assessment. The second step in the option prioritisation process for the regional network is the testing of the options against their contribution to **Connectivity** *and* then to test them against the national objectives of improving the Environment, Health and Safety. A similar process to that employed above in step one has been undertaken, whereby each of the options has been given a score on a three point scale.

TABLE 9.3 ASSESSMENT OF OPTIONS AGAINST CONTRIBUTION TO CONNECTIVITY, ENVIRONMENT, HEALTH AND SAFETY

	Connectivity													Environment, health & safety			
	Economy				Accessibility												
	Reduce journey times to regional centres and beyond	Improve journey reliability to regional centres	Allow a day's business at regional centre and vice versa	Remove road congestion	Improve journey consistency	Increase journey frequency for passenger transport	To labour market / to jobs	To training and education	Remove affordability barriers	Remove physical barriers	Extend the reach of passenger transport	Passenger transport more attractive than private car	Freight to rail and water	Reduce transport emissions	Increase active travel	Reduce road accidents	Reduce traffic speeds in sensitive areas
Orkney inter-isle connections																	
Fixed links	■	■	■		■		■	■	■		■						
Inter-isle ferry and air service connectivity enhancements	■	■	■		■	■	■	■			■			■			
Lismore, Luing and Isla-Jura ferry services																	
Greater frequency			■			■	■										
Replacement vessels and infrastructure	■	■	■		■	■	■	■			■			■			
Raasay ferry																	
New terminal			■			■	■										
Western Isles spinal route (A859, A867, A865, A888) and Sound of Harris and Barra crossings																	
Fixed links on the Sounds	■	■	■		■		■	■	■		■						
Faster, more frequent ferry crossings	■	■	■		■		■	■			■						
Road improvement options	■	■	■		■		■	■						■		■	
A816 Oban to Lochgilphead																	
Provide overtaking opportunities	■	■		■	■							■		■		■	
Road improvement options	■	■		■	■		■	■						■		■	
A848 & A849 Tobermory to Fionnphort and Iona Ferry																	

	Connectivity																	
	Economy					Accessibility						Environment, health & safety						
	Reduce journey times to regional centres and beyond	Improve journey reliability to regional centres	Allow a day's business at regional centre and vice versa	Remove road congestion	Improve journey consistency	Increase journey frequency for passenger transport	To labour market / to jobs	To training and education	Remove affordability barriers	Remove physical barriers	Extend the reach of passenger transport	Passenger transport more attractive than private car	Freight to rail and water	Reduce transport emissions	Increase active travel	Reduce road accidents	Reduce traffic speeds in sensitive areas
Route enhancement on final 5 mile section of route																	
A941 Dufftown to A95																	
Road improvement including addressing pinch points and providing overtaking opportunities																	
A838 Kinlochbervie to Lairg																	
Removal of single-track section at Laxford Bridge																	
Route enhancement																	
A890 Lochcarron to A832																	
Route enhancement including single track sections and visibility improvements in vicinity of Achnashellach																	
A939 Tomintoul to A95																	
Road improvement options																	
A98 from Elgin to Fraserburgh and A950 Peterhead																	
Road improvement options																	
A832 Gairloch to Garve																	
Road improvement options																	

9.9 A summary of the STEP 2 appraisal for the regional links is shown in Table 9.4 below. The interventions for each link are presented in order of the total number of green scores that they have received. Where two or more options have the same number of green allocations, they are then presented according to the number of amber allocations received and so on.

9.10 From this assessment against connectivity, environment, and health and safety tests, the 'best fit' options have been identified. Best fit options are those which have generally scored four or more 'greens' in the assessment against these tests.

TABLE 9.4 SUMMARY OF STEP 2 ASSESSMENT

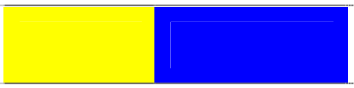
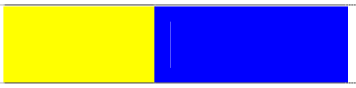
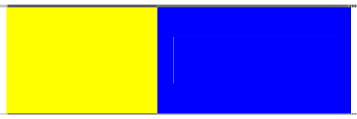
	Green	Amber	Red	Neutral	'Best fit' options
Orkney inter-isle connections					
Inter-isle ferry and air service connectivity enhancements	4	5	0	8	✓
Lismore, Luing and Isla-Jura ferry services					
Greater frequency	2	1	0	14	
Replacement vessels and infrastructure	4	5	0	8	✓
Raasay ferry					
New terminal	2	1	0	14	✓
Western Isles spinal route (A859, A867, A865, A888) and Sound of Harris and Barra crossings					
Fixed links on the Sounds	7	1	0	9	✓
Faster, more frequent ferry crossings	4	3	0	10	✓
Road improvement options	4	4	0	9	✓
A816 Oban to Lochgilphead					
Provide overtaking opportunities	3	4	0	10	
Road improvement options	4	4	0	9	✓
A848 & A849 Tobermory to Fionnphort and Iona Ferry					
Route enhancement on final 5 mile section of route	4	3	0	10	✓
A941 Dufftown to A95					
Road improvement including addressing pinch points and providing overtaking opportunities	4	5	0	8	✓
A838 Kinlochbervie to Lairg					
Removal of single-track section at Laxford Bridge	4	3	0	10	✓
Route enhancement	4	3	0	10	✓
A890 Lochcarron to A832					
Route enhancement including single track sections and visibility	4	3	0	10	✓

	Green	Amber	Red	Neutral	'Best fit' options
improvements in vicinity of Achnashellach					
A939 Tomintoul to A95					
Road improvement options	4	3	0	10	✓
A98 from Elgin to Fraserburgh and A950 Peterhead					
Road improvement options	4	3	0	10	✓
A832 Gairloch to Garve					
Road improvement options	4	3	0	10	✓

9.11 The options that have been deemed as 'best fit' options in the assessment above have been programmed over a 15 year period. As was discussed earlier, the RTS guidance states that such a programme should cover a 10-15 year period. The programme shown in Table 9.5 refers to 5 year periods as follows: 2008-2012, 2013-2017 and 2018-2022.

TABLE 9.5 REGIONAL NETWORK INTERVENTIONS PROGRAMME

Link		**Feasibility and design work**	
		Delivery	
		PROVISIONAL PROGRAMME	
Option	**Short term (2008-12)**	**Medium term (2013-17)**	**Long term (2018-22)**
Orkney inter-isle connections			
Inter-isle ferry and air service connectivity enhancements			
Lismore, Luing and Islay-Jura ferry serices			
Replacement vessels and infrastructure			
Raasay ferry terminal			
New terminal			
Western Isles spinal route			
Fixed links on the Sounds			
Faster, more frequent ferry crossings			
Road improvement options			
A816 Oban to Lochgilphead			
Road improvement options			

A848 & A849 Tobermory to Fionnphort and Iona Ferry	
Route enhancement of remaining five mile section	
A941 Dufftown to A95	
Road improvement including addressing pinch points and providing overtaking opportunities	
A838 Kinlochbervie to Lairg	
Removal of single-track section at Laxford Bridge	
Route enhancement	
A890 Lochcarron to A832	
Route enhancement including single track sections and visibility improvements in vicinity of Achnashellach	
A939 Nairn and Tomintoul to A95	
Road improvement options	
A98 from Elgin to Fraserburgh and A950 to Peterhead	
Road improvement options	
A832 Gairloch to Garve	
Road improvement options	

10. STEP 3 PRIORITISATION

Context

10.1 The outcomes of Steps 1 and 2 of the prioritisation process were presented in the Draft Regional Transport Strategy for consultation in November 2006. After this time, work continued to develop the Strategy including the Step 3 prioritisation. How the findings of the consultation processes fed into the final Strategy are reported in the appended Consultation Report.

10.2 This section focuses on Step 3 prioritisation process, taking account of Scottish Executive guidance on a second tier of prioritisation which should focus on the following key principles:

- feasibility and deliverability;
- effectiveness;
- acceptability; and
- policy fit.

Further development work – costings and prioritisation

10.3 Two workshops were held with Permanent Advisers, after the publication of the draft RTS, to further progress the development of the final RTS. These workshops focused on costing of options, and prioritisation of options based on deliverability in particular. This work subsequently fed into the final draft RTS.

Costings

10.4 The outputs of the **costings** workshop were cost estimates for each option, as informed by the Permanent Advisors and other HITRANS partners. This exercise showed that the amount of information on costs for options varies widely; some options relate to well advanced projects, where formal costing work has been carried out; some options are merely conceptual with limited or no costings attached. Therefore, to attempt consistency as far as possible, optimism bias has not been applied to options; where a range was given (e.g. £1-2m), the upper range was used; and where formal costings from other sources presented low, medium and high costs, the medium cost was used.

10.5 To develop a sense of realism about the potential funding available for the RTS, a broad estimate of existing annual transport expenditure in the Highlands and Islands was developed. This was estimated from the Scottish Transport Statistics publication, as well as Scottish Budget figures. A broad estimate of current transport expenditure in the Highlands and Islands of £200 to 300 million per year was derived. However, as this figure includes all transport expenditure by public authorities (although not by the private sector), a proportion for capital spend has been calculated, as this is most likely to be the amount accessible to the RTS (this total is estimated to be in the region of £50 million a year). The Permanent Advisors agreed that it would be appropriate to aspire to an increased spend of **£150m a year** for the RTS.

Prioritisation framework

10.6 The second workshop with Permanent Advisors looked at **deliverability and prioritisation**.

10.7 The Scottish Executive suggests a two-tier approach to **prioritisation** within the RTS, as follows:

- the first tier is about high level objectives, connectivity, spatial priorities; and
- the second tier is about considering the key principles of feasibility and deliverability; effectiveness; acceptability; and policy.

10.8 The development of the RTS has been consistent with this. The options presented in the draft RTS have largely been sifted against the first tier considerations, as well as the principles of effectiveness and policy (the former in particular through the assessment of adequacy and functionality of the network). The remaining key areas for prioritisation are feasibility and deliverability.

10.9 To assist with prioritisation of RTS options, further information was gathered on each individual option, and presented in a 'm**ini-STAG'** for each option. This process involved gathering further information on key risks to delivery, any existing appraisal information such as value for money, contribution to policy objectives at the national and European levels. The inconsistency of information available on each option was highlighted, particularly with regards appraisal. However, this was a useful exercise in assessing delivery issues, such as timescales, key risks to implementation such as environmental constraints, likely stakeholder objections, and stage in planning and preparation. These individual documents are available upon request from HITRANS.

10.10 A methodology was developed by Steer Davies Gleave, which took account of the key issues in deliverability of each proposed RTS option arising from this 'mini-STAG' process, as well as the planning stage of the option. Each option was colour coded in terms of deliverability and planning stage. For deliverability:

- green (no major issues/risks);
- amber (some issues in delivery); or
- red (major risks or issues which could affect / hinder delivery).

10.11 For planning stage, colour coding is explained as:

- green: almost ready for implementation if funding becomes available (design, appraisal etc. complete);
- amber: some work done, such as designs or appraisal, but may be out of date, or still a lot of work to be done to get the project to funding bid stage; and
- red: an idea or concept with virtually no work done to date.

10.12 Feedback from Transport Scotland on the RTS (discussed further in the accompanying consultation report), suggested a STAG process was required before commitment to specific schemes. However, in further discussion Transport Scotland agreed that time has not permitted full STAG appraisal of all options, and that the final RTS could identify options where further STAG work is required.

10.13 During the RTS development, options were allocated to short, medium and long term delivery horizons (as shown in the published draft RTS). The prioritisation methodology seeks to guide the Partnership's decision on which options to prioritise within these delivery horizons, which may be particularly important should funding levels not meet the expectations of the Partnership. The key principles of the prioritisation approach are therefore:

- **Short-term, highest priority schemes** (priority 1a) are those in advanced planning stage with high deliverability (both green). Remaining schemes are categorised either as requiring further development (priority 1b) or with significant deliverability issues to overcome (priority 1c).
- For **medium-term schemes**, the stage in planning is less important so the highest priority schemes (priority 1a) are determined as those at the green or amber planning stages, and with 'green' deliverability. The remaining medium-term schemes are categorised in the same way as short-term schemes.
- For **longer-term schemes**, the stage in planning is not considered. Rather, priority 1a schemes are those with 'green' delivery. All remaining schemes are categorised in the same way as short-term schemes.
- Regular review of prioritisation categories is required as options progress and deliverability issues are overcome.

10.14 The outputs of this workshop were a slightly amended programme of options, and broad agreement to an approach to prioritisation should budget constraints require further prioritisation in the future.

10.15 Options colour-coded as per paragraphs 10.10 and 10.11 above are presented in Appendix A.

APPENDIX A

STEP 3 PRIORITISATION: ASSESSMENT OF OPTIONS

TABLE 10.1 STRATEGIC OPTIONS

Options		Time scale for delivery	Planning Stage	Deliverability	Delivery
A82 Corridor (Road)					
S1a	Western bypass at Crianlarich and Pulpit Rock Tunnel	Short term	Advanced	Committed scheme from TS Limited info on this option	Transport Scotland
S1b	Ballachulish to Fort William route improvements	Medium term	Early – some old designs on stretch but need to be developed from scratch	Needs significant work to advance, high degree of difficulty (high rock faces, no alternative alignment) Env sensitive	Transport Scotland
S1c	Tarbet to Ballachulish strategy (road improvement Tarbet to Inverarnan & route enhancement Tyndrum to Ballachulish)	Short term Tarbet to Invernarnan	Advanced for Tarbert to Inverannan		Transport Scotland
		Medium term Tyndrum to Ballachulish	Early for Tyndrum to Ballachulish This is part of the studies from S1b, there is some commitment to Tarbert – Inveraran. There is some money from Minister to Transport Scotland so Transerve will deliver. Beyond that, no designs for improvements, and significant amount of work required to advance option.	Numerous technical difficulties – blanket bog in some sections, Glencoe is a National Scenic Area (which does mean the option is impossible, but clearly processed that need to be gone through), Rannoch Moor SSSIs and so on. Will not require TR orders, land ac not a problem	Transport Scotland
S1d	Pinch points / junction improvements Fort William to Inverness	Series of gradual improvements could be commenced in short term after RAP	Early – no work done to date Improvements to the current pinch points and junctions. A need to do a feasibility study/RAP first to highlight key strategic works – no desire to	Some canal bridges to be tackled. Not a significantly environmentally sensitive area. Some Forestry Commission land, but this should not present a barrier.	Transport Scotland

Options		Time scale for delivery	Planning Stage	Deliverability	Delivery
			upgrade whole of road to 7.3m width. 67miles (108km). Progress a series of phased improvements over lifetime of RTS.		
S1e	A82 to A9/A96 Inverness link road - EAST	Short term	Advanced overall although western link road least advanced High priority for HC, boost ec dev of Inverness Some sections very well advanced although western section of link road least well advanced. Linked to significant development to east of Inverness. Consultants (Scott Wilson) work ongoing, including STAG.	On western section on new link road – SSSIs, gravel quarry, geological designations, river otters, archaeological designations. This will mean it will take time to get the design right, whilst not necessarily hindering the project from being implemented. Land qc – no probs, In East, all development land so will be a quick process. Likely to be objections to new link road in West – some people want a tunnel, some want bridges over canals. However, some issues remain over western link road	Transport Scotland
S1e	A82 to A9/A96 Inverness link road - WEST	Medium term	Early in planning stage	Delivery issues involving canal.	
S1f	Strip widening of A82 Inverness to Glasgow	Short to med to long term	Some sections (above) are in advanced stages of planning, however some require significant work to progress. This option was originally full upgrading to two track standard, but has been amended to strip widening where feasible, as earlier option overly ambitious.	Many issues in full upgrade, including National Scenic Area in Glencoe, steep topography and lack of space to widen road on some sections etc. Selective strip widening should be more deliverable, as will work around existing constraints.	Transport Scotland
Highland Main Line					
S2a	Journey time and frequency improvements (hourly departure)	Medium to long term	Some work done on options	Significant scheme, incremental	Transport

Options		Time scale for delivery	Planning Stage	Deliverability	Delivery
			(Room for Growth) Room for Growth study by Scott Wilson looks at timetable improvements etc for Perth to Inverness section., Frank Roach model of incremental improvements (HRP doing their own work prior to RTS, includes links in Fife, so working with other partnerships – have agreed joint effort on this). Will be influenced by EARL. In RUS.	approach needed Whether EARL goes ahead or not, and whether electrification or not, will have an impact on rolling stock, and whether Inverness trains will stop at Ed Airport (impacts on journey time, performance etc). Work going on already on improvements south of Perth, outside of this option but helping it (signalling improvements etc). Dependent on SPR, although now adopted in RUS (March 2007) High revenue support costs	Scotland
A9 Inverness to Edinburgh (Road)					
S3a	Strategic dualling of carriageway between Inverness and Perth	Medium term	Advanced, programme ongoing Scottish Executive have a programme of 2 plus 1s currently between Inverness and Pitlochry, with dualling proposed south of Pitlochry. However, a proposal to dual the whole carriageway is deemed to be outside of the current RTS (formerly S3a in Draft RTS), so this option is for strategic dualling only.	Less technical difficulties than full dualling	Transport Scotland
Inverness airport and flights					
S4a	Surface Access Strategy to deliver better integration (excluding Dalcross station)	Short term	BRDG bid submitted by	Number of small scale improvements (excl Dalcross	HIAL

Options		Time scale for delivery	Planning Stage	Deliverability	Delivery
			HITRANS There is no access strategy to the airport at the moment, a proposal for a new rail station (Dalcross Station) close to the airport has been looked at. A bus route development grant bid has been submitted to enhance the bus services from Inverness to the airport. HIAL Inverness Airport Masterplan	station)	
S4b	Runway extension	Medium term	Runway extension is within Masterplan, but will only be done if there is a demand from operators and a clear business case to support it	Master plan includes section on impacts and mitigation. Potential impact on protected species; slight adverse impact on landscape and visual amenity; increased emissions although at a low level; increased noise impact but at no significant impact on communities. Land take required for any extension of runway to north east from Moray Estates – Masterplan suggests this is not a problem.	HIAL

Options		Time scale for delivery	Planning Stage	Deliverability	Delivery
	Terminal building	Short term	A capital funding bid is being made to the Scottish Executive in March this year with a decision expected by the end of 2007. Assuming a positive outcome the circa 15 month construction period would span financial years 2008/09 and 2009/10 with the expanded facility coming into full operation in spring 2010.	Advanced in planning stage, Masterplan has identified key risks and mitigation, no major obstacles in way of delivery bar no support from Scottish Executive	
Inverness-Aberdeen Rail Line					
S5a	Commuter services Elgin-Inverness	Short term	TEE complete, Halcrow 2006	No major risks, requires revenue support.	Transport Scotland
S5b	Dalcross Station at Inverness airport	Short term	Advanced – TEE completed, timetable and performance modelling completed, 90% of funding secured	Key risks identified in SW pre-feasibility study. Issues for implementation include: further investigation into interface with Dalcross level crossing, neg with NR, discussion with First Scotrail,	Transport Scotland
S5c	Journey time improvements and hourly departure Inverness to Aberdeen	Medium and long term	Room for Growth options, but needs more work to develop programme. No work on this at the moment, due to need to wait to see outcomes of Aberdeen Crossrail, and work being focused on Elgin-Inverness option (S5a). However, RUS suggests additional capacity needed, potentially in middle section although HRP are pushing for additional capacity at either end including a loop at Dalcross.	Linked to outcome of Crossrail proposals – needs strong partnership working between HITRANS and NESTRANS Possible conflict of interest with NESTRANS Crossrail proposal, as Crossrail of little benefit to HITRANS, and proposal may "blight" progress on this option for some time. FSR working for TS on Edin-Fife-Aber recast which may impact on	Transport Scotland

Options		Time scale for delivery	Planning Stage	Deliverability	Delivery
			Recommendation in current Scott Wilson study to have a 07:00 train from Inverness, arriving Aberdeen at 09:15, which is positive, although needs to be accept by TS.	Inv-Aber, as will Laurencekirk station re-opening. In Network Rail RUS March 2007.	
A96 Corridor (Road)					
S6a	Dual carriageway Inverness to airport	Short term	Approved by HC Committee in Nov 2006. Contained within Development Framework for East Inverness, which has been approved by Highland Council Planning, Dev, Europe and Tourism committee in Nov 2006. Scott Wilson Inv-Aber corridor study ongoing.	SSSIs, farm severance likely. CPO required as farm ownership	Transport Scotland
S6b	Fochabers bypass	Short term	Public Inquiry accepted scheme, TS committed scheme	Outstanding objection from landowner	Transport Scotland
S6c	Elgin bypass with demand management & provision of space for passenger transport / cycling through Elgin, plus bus priority on approaches and P&R	Short term demand management / local internal improvements			Moray Council
		Medium term bypass	Some work but needs revisiting, including lines, and out of date STAG (being updated 2007)	Linked to flood alleviation scheme progress	Transport Scotland
S6d	Other bypasses on route (including Nairn and Keith) with demand management & provision of space for passenger transport / cycling through settlements, plus bus priority on approaches and P&R	Short term demand management / local internal improvements			Moray and Highland

Options		Time scale for delivery	Planning Stage	Deliverability	Delivery
					Council
		Long term bypasses	Proposals costed for Nairn bypass Need to build justification for Keith bypass.		Transport Scotland
S6f	Strategic dualling of the A96	Medium to long term	Reference Consultants work identifying key problem areas in terms of journey time (Jan 2007)	Amber as needs further work to identify key areas to upgrade	Transport Scotland
A83 and Argyll & Bute Sea Crossings to A82 for Glasgow					
S7a	Modern 2-track standard Campbeltown to A82	Medium term	Some scheme development although more work to be done	TS not taking forward currently, needs commitment Stretches of the A83 are at risk from landslide (these are generally at pinch points as identified in S7B).	Transport Scotland
S7b	Address pinch points on route	Short to medium term	Some scheme development although more to be done TS not taking forward currently, needs commitment	Stretches of the A83 are at risk from landslide, particularly at pinch points. Gaining consent from land owners (most likely to be an issue at Muasdale). Potential for delays at land acquisition stage.	Transport Scotland
Far North Line					
S8a	New station at Conon Bridge	Short term	Advanced Submitted to TS and awaiting discussion on commitment. No STAG as yet although have done TEE (but no EALI, may not have to do STAG).	No major issues, local support No major issues. Only key risk is whether TS support or not – have not formally asked for this support yet, but will be doing so shortly. May not want to stop trains at this station. Deliverability also requires North	HITRANS

Options		Time scale for delivery	Planning Stage	Deliverability	Delivery
				of Inverness timetable recast to be implemented (Scott Wilson ongoing work). May not have to do a STAG. HITRANS is funding capital element	
A9 North (Road)					
S9a	Berriedale Braes crossing	Medium term	Study ongoing Scott Wilson consultants studying this currently – report by end Dec, reporting to Exec, updating feasibility study.	Technically very difficult as need a viaduct due to gradient of land.	Transport Scotland
S9b	Bypass settlements on route	Long term	No work done to date Local plan is identifying land for bypasses. Scottish Executive/Transport Scotland need to take forward, but done no work to date.	PI likely No significant difficulties. However, semi urban areas so likely to need Public Inquiry. Semi urben areas so issues for land acquisition	Transport Scotland
S9c	Provision of roadspace for passenger transport / cycling to north of Inverness & P&R facilities and services	Short to medium term		Little work done to date but relatively simple works (apart from P&R)	Transport Scotland
S9d	Route Action Plan to provide climbing lanes and other improvements	Short term	Designed 15 years ago, started buying land but not finalised. Designs exist	Issues for farmers requiring access to land. Some land acquisition needed but relatively straightforward	Transport Scotland
Oban A85 connections to A82 for Glasgow					
S10a	Oban Development Road and demand management measures in Oban	Short to medium term	STAG 2 ongoing. To be developed further; Argyll & Bute Council looking to appoint consultants to	Some top/drainage issues which may drive up costs. In addressing traffic demand management within Oban itself,	Argyll and Bute Council

Options		Time scale for delivery	Planning Stage	Deliverability	Delivery
			undertake an Oban Transportation Study and STAG Appraisal, which will include the Development Road and traffic demand management measures.	there are likely to be a number of infrastructure constraints that will require due consideration. The STAG appraisal process will identify any further key issues arising as a result of the Oban Development Road. PI may delay process. Traffic Model – VISSIM – has been developed for Oban. Effectively, a STAG part 1 has been undertaken for the Development Road, but as part of the Oban Transportation Study a full STAG Appraisal will be undertaken for the Development Road and traffic demand Management measures in oban. (Topographical study currently being progressed). Delays may arise from topographical constraints and known drainage issues (SUDS will be a requirement). STAG 2 for obtaining funding from the SE; land acquisition process and gaining planning approval.. High acceptatbility. Dev contributions may provide some of funding.	
S10b	Oban and Fort William Rail Line rail service enhancement / frequency increase	Short to medium term	Consultancy report on timetable recast due in March	Option may need to be split. Strong partnership working with	HITRANS

Options		Time scale for delivery	Planning Stage	Deliverability	Delivery
			07. All timetabling work underway, although no appraisal work of physical works required as yet.	SPfT required Delivering additional journeys should be straightforward. Class 66 element – difficult as no proven demand from freight on this line. Enhance timetabling integration – risks when linking with buses, as no control over bus operations. To get an extra service to Oban out of Glasgow during evening peak, suggestion to tag onto back of existing train. Negotiation with SPfT needed, as may not want to give up a 15slot out of Glasgow for a train going to Oban, is perceived to be a local risk primarily. By changing at Maryhill, 17xx trip to Oban can be achieved.	
Western Isles & Skye connections to A82 for Glasgow					
S11a	Skye air service to central belt	Medium term	Work ongoing	SSSI at end of runway	HIAL
Kyle Rail Line					
S12a	Commuter service to Inverness	Short term	Could start in May 07 First Scotrail have indicated this option may go ahead in May 2007. However, even if it does not then, HRP view is that it will emerge from current timetable recasting work, which is due to report in March 2007.	No cost and low risk Only risk is that demand will be low. No cost option. No performance risk – in fact, enhanced. Using existing traincrew working time.	HITRANS (specifying timetable)
Moray connections to A9 for Edinburgh					
S13a	Elgin to Craigellachie A941 road improvements	Short to medium term -	Medium, RAP 2004, but no	Moderately advanced – costings	Moray

Options		Time scale for delivery	Planning Stage	Deliverability	Delivery
		phased	appraisal or costings. High priority to MC. Some engineering and cost scoping done, but no formal STAG. Route Strategy prepared in 2004, but needs further detailed action plan to identify targeted action on pinch points and alignment issues, with costed programme of improvements. Some work has already been carried out on improvements at critical point – Drumbane.	work and detailed action plan required No significant technical difficulties – some gradient issues, peat issues which will add to ground costs, but no problems that have caused significant issues elsewhere. Relatively straightforward.	Council/ HITRANS
S13b	A95 road improvements	Medium to long term - phased	Early? (depends if BEAR worked up any programme of improvements) Very high priority to MC as poor condition and key economic link Some engineering and cost scoping done, but no formal STAG. Route Action Plan for A95 done in 1998 by Highland and Moray Councils, and suspicion that more recent work done by BEAR – however, Moray Council do not have access to this information. This issue needs to be explored with Transport	uncertainty over BEAR information available – if none, then significant work required to identify plan of improvements	Transport Scotland

Options		Time scale for delivery	Planning Stage	Deliverability	Delivery
			Scotland, as affects status of this option and stage in the planning/development process. Likely to be a series of phased improvements, simplest and quickest to implement could be done first in staged approach.		
Barra airport and flights					
S14a	Fixed landing strip and surface access strategy to deliver better integration	Short term			HIAL

TABLE 2 REGIONAL NETWORK OPTIONS FOR PRIORITY LINKS

Options	research and scheme preparation ▲ delivery ➔	Time scale for delivery	Planning Stage	Deliverability	Delivery
Orkney inter-isle connections					
R15a	Inter-isle ferry and air service connectivity enhancements	Short through to long term	Consultants work ongoing Programme being developed, consultants developing costed preferred option and reporting end February 2007. Full STAG report being prepared in conjunction with this. Early in planning process – requires permission for harbour developments.	Some issues including environmental constraints but nothing major A number of technical issues. Main constraint is North Ronaldsay – ferry service is tidal and weather dependent, so timetabling impossible, which has knock on impacts on other ferry services as shares a vessel with other islands, and on the number of runs that can be made to this isle – presently 1 per week. Making infrastructure weather proof will solve this problem, but at substantial cost. Environmental constraints that need further consideration as well. Deliverable incrementally, focusing on priorities first.	Orkney Islands Council
Easdale, Lismore, Luing and Islay-Jura ferry services					
R16a	Replacement vessels and / or infrastructure	Medium to long term	STAG work ongoing, Islay Jura no work to date Luing – STAG currently being undertaken Easdale – STAG currently being undertaken Lismore – SE have just announced commencement of	Significant marine and env issues, some local opposition No major issues associated with Luing, Easdale and Islay-Jura. Due to tidal movements surrounding Lismore a fixed link will require to penetrate the sea bed and therefore poses significant environmental/ marine issues. (Some Easdale locals	Argyll and Bute Council / Scottish Executive

Options	research and scheme preparation ▲ delivery ➔	Time scale for delivery	Planning Stage	Deliverability	Delivery
			STAG Islay – Jura – nothing progressed to date.	against the scheme). Potential exists for land owner disputes; however, land owners are generally fully supportive of proposals. Planning process has to go ahead, plus land acquisition	
Raasay ferry terminal					
R17a	New terminal	**Short to medium term**	Everything in place to progress with funding	PI passed and all approvals gained	Highland Council
Western Isles spinal route					
R18a	Fixed links on the Sounds	**Long term**	Very early – no work for Barra, preparatory work for Harris ongoing	Long term project but no major issues affecting deliverability	CNES
R18b	Faster, more frequent ferry crossings	**Short term**		No major issues although programme of improvements to be developed	(CNES and) Scottish Executive
R18c	Road improvement options	Short through to long term – complete beyond lifespan of this RTS	Can be done in phases of improvements Key priority for CNES ec dev and social inclusion	No major obstacles, although lack of funding main barrier	CNES
A816 Oban to Lochgilphead					
R19a	Road improvement options	Short term	STAG, designs, topographical studies progressing STAG currently being undertaken with Argyll & Bute undertaking the preliminary alignment design. (Topographical studies done).	Archaeological issues STAG will identify any key technical feasibility issues; however, there are a number of prehistoric archaeological sites in the vicinity of the route and this	Argyll and Bute Council

Options	research and scheme preparation ▲ delivery ➔	Time scale for delivery	Planning Stage	Deliverability	Delivery
				may affect deliverability. Land acquisition needed High level of support.	
A848 & A849 Tobermory to Fionnphort and Iona Ferry					
R20a	Route enhancement of remaining five mile section	Short term	Detailed design stage, STAG starting soon	No significant issues in deliverability Nothing identified at this stage. Full Environmental Appraisal has been conducted. STAG process for funding; land acquisition. (The line of development is located immediately in front of one local residential property with seaward views and objections have been raised by the resident).	Argyll and Bute Council
A941 Dufftown to A95					
R21a	Road improvement including addressing pinch points and providing overtaking opportunities	Short term	Developing a Route Action Plan, conceptual at moment	Straightforward gradual enhancements, no major barriers to delivery	Moray Council
A838 Kinlochbervie to Lairg					
R22a	Removal of single-track section at Laxford Bridge	Medium term	Designs been done, land acquired Of Strategic importance to Highland Council Road design for road widening	Some land bought 10 yrs ago. Requires planning consent. Over a salmon pool, so will need approval of Duke of Westminster Estate which could take 18months. Not a technical	Highland Council

Options	research and scheme preparation ▲ delivery ➔	Time scale for delivery	Planning Stage	Deliverability	Delivery
			exists, but not for bridge.	challenge, just takes time. Will talk to SNH and SEPA as a matter of routine, to ensure they are happy.	
R22b	Route enhancement	Short to medium term, 10 yr programme of minor enhancements	Limited planning needed, as simple works done on the ground. Enhancements can be done as and when funding received – work tends to be done with limited design as experienced engineers etc. Therefore, money goes into improvements as opposed to planning and design. Some work has already been carried out on this route.	No major difficulties. SNH and SEPA will need to be consulted, but this is uniform, and good relationship already developed between HC and these bodies – talk to them as a matter of routine when planning road improvements. No land acquisition required. Little potential for delay as scheme does not need approval and can therefore be undertaken as a lifeline scheme. No planning consent required.	Highland Council
A890 Lochcarron to A832					
R23a	Route enhancement including single track sections and visibility improvements in vicinity of Achnashellach	Medium term	Designs in place for sections	Options to consider including over or under railway bridge; environmentally sensitive area	Highland Council
A939 Tomintoul to A95					
R24a	Road improvement options	Short term	Scheme developed for one section only Tomintoul to Bridge of Brown – scheme developed for this stretch, in Moray Council capital programme. 12km to A95 least well developed	SSSIs, work still to be done on programme of improvements SSSIs on Tomintoul to Bridge of Brown section	Moray and Highland Council

Options	research and scheme preparation ▲ delivery ➔	Time scale for delivery	Planning Stage	Deliverability	Delivery
			in terms of proposals.		
A98 from Elgin to Fraserburgh and A950 to Peterhead					
R25a	Road improvement options	Medium term	In capital programme but no work to date	Progress in phases; forest issues	Moray Council
A832 Gairloch to Garve					
R26a	Road improvement options	Medium term	Designs in place, although trunk road section designs from 15/20 yrs ago	Environmental constraints Gairloch section is a priority as bottleneck and inhibiting ec dev. Environmentally sensitive section. Hydro scheme alongside road. SNH issues as mussel beds etc. HC have been speaking to Gairloch Estates already about land acquisition.	Highland Council Transport Scotland for trunk road section

TABLE 10.2 HORIZONTAL THEMES

Options	research and scheme preparation ▲ delivery ➔	Time scale for delivery	Planning Stage	Deliverability	Delivery
Active travel					
H27a	Clearer policy to promote in land use planning and development control processes across the region – includes all projects in this strategy, AT audit	Ongoing		Buy in needed from all local authority partners	All partners in HITRANS
H27b	Active travel infrastructure audits in Regional Centres and other localities around the region	Ongoing			All partners in HITRANS
H27c	Longer-term investment programme in response to audits	Ongoing			All partners in HITRANS
H27d	Travel behaviour change programme	Short term		Buy in needed from all local authority partners	All partners in HITRANS
H27e	Bespoke Travel Plan elements and support	Ongoing	HITRANS Travel Plan officer in place		All partners in HITRANS
Aviation					
H28a	Evaluate economic and social opportunities of providing other / enhancing existing air connections around the region	Short to medium term		Methodologies exist from other similar research in the region	All HITRANS partners
H28b	Evaluate the impacts and outcomes of Air Discount Scheme. Assess options for further development	Short term		Methodologies exist from other similar research in	All HITRANS partners

Options	research and scheme preparation ▲ delivery ➔	Time scale for delivery	Planning Stage	Deliverability	Delivery
				the region	
H28c	Development of direct rail services between Inverness and Edinburgh airport	Medium term		Issues over rolling stock and electrification	Transport Scotland
H28d	Continue to press and collaborate with others for slots for Inverness services at London (Gatwick/Heathrow) hubs	Short term	Work required	Straightforward revenue support	Highland Council
Community and health transport					
H29a	Baseline review including gap analysis	Short term			All HITRANS partners
H29b	Demonstration project of a good practice example of joined up working	Short term		Models exist that could be studied in the region	All HITRANS partners
H29c	Consistent monitoring and evaluation framework for region	Short term			All HITRANS partners
H29d	Securing additional funding including alternative funding mechanisms to current, including exploration of different operational structures such as social enterprise, where appropriate	Ongoing			All HITRANS partners
H29e	Training and mentoring programme for sector	Ongoing			All HITRANS partners
H29f	Common standards to guide decision making on procurement of local transport services	Short term			All HITRANS partners
H29g	Sharing of resources (e.g. vehicles) and knowledge (e.g. good practice)	Ongoing			All HITRANS partners
H29h	Integration of services & with mainstream passenger transport (including interchange facilities)	Short term			All HITRANS partners
H29i	Car sharing (lifts)	Short term		Models exist that could be applied	All HITRANS partners

Options research and scheme preparation ▲ delivery ➔		Time scale for delivery	Planning Stage	Deliverability	Delivery
H29j	Car sharing (community)	Short term		Models exist that could be applied	All HITRANS partners
Congestion & urban issues					
H30a	Improve transport infrastructure (links with all options concerning bypasses e.g. S6b-d, S9b)	Ongoing			All HITRANS partners
H30b	Travel demand management package (links to H27d and H27e)	Short term			All HITRANS partners
H30c	Package to increase the appeal of active travel and public transport	Short term			All HITRANS partners
H30d	Strategic Park & Ride sites and services (minus P&R identified in Strategic options S4a and S9c)	Short term		Some P&R site proposal being developed e.g. north of Kessock Bridge, Dalcross	All HITRANS partners
H30e	Evaluate options for parking / pricing strategy for urban centres	Short term			All HITRANS partners
H30f	Enhance connectivity between Inverness Retail Park and the city centre (excluding S1e)	Short term		Masterplanning work ongoing, Oban Dev Road	HC
Freight transport					
H31a	Freight Quality Partnership	Short term		Would require stakeholder support	All HITRANS partners

Options research and scheme preparation ▲ delivery ➔		Time scale for delivery	Planning Stage	Deliverability	Delivery
H31b	Addressing inefficiencies and constraints in the transport network	Short term			All HITRANS partners
H31c	Review of grant funding to better fit with market needs	Short term			All HITRANS partners
	Take forward outcomes of current coastal shipping study – sea freight study				
H31d	Evaluation of programme to reduce the cost of moving goods	Short term			All HITRANS partners
Locally significant network & road maintenance					
H32a	Attract additional funding	Ongoing		Lack of funding is main barrier to implementation	All HITRANS partners
Mainstream passenger transport					
H33a	Multi-modal / operator ticketing system	Short term		Will require significant stakeholder support and buy-in	All HITRANS partners and transport operators
H33b	Comprehensive and user-friendly information and mapping	Short term			All HITRANS partners and transport operators
H33c	Consistent standard for supporting infrastructure	Short to long term			All HITRANS partners and transport operators
H33d	Integrated timetabling across the region	Short term			All HITRANS

	Options research and scheme preparation ▲ delivery ➔	Time scale for delivery	Planning Stage	Deliverability	Delivery
					partners and transport operators
H33e	Hub and spoke interchange network, including infrastructure	Medium term			All HITRANS partners and transport operators
H33f	Targeted support for socially excluded groups to improve access opportunities. This could include tackling any aspect of accessibility – physical, awareness, affordability, acceptability and availability	Short term			All HITRANS partners and transport operators
H33g	Development of taxi sector as part of passenger transport network	Short term			All HITRANS partners and transport operators
H33h	Bus Quality Partnerships / Contracts	Short to medium term			All HITRANS partners and transport operators
H33i	Invest in poor quality transport terminals and vehicles (including continued investment in accessible vehicle fleet)	Short to long term			All HITRANS partners and transport operators
H33j	Rail service enhancement / frequency increase – incremental programme of improvements to the region's rail network	Ongoing	HRP are developing programme of priorities		HITRANS
H33k	Develop a comprehensive bus strategy for the region, which will be based on the development of a	Short term	Work has begun	Operators	HITRANS

	Options research and scheme preparation ▲ delivery ➔	Time scale for delivery	Planning Stage	Deliverability	Delivery
	region-wide accessibility model		on discussions with operators	buy-in achieved, need to secure support of other key stakeholders	
H33l	Ensure that appropriate provision for buses is made in all road improvements, and improve facilities on existing roads. Fast-tracking of bus lay-by schemes on trunk/local roads, to enhance safety and promote use of buses	Ongoing			HITRANS
H33m	Develop an innovative approach to Demand Responsive Transport across the region, building on the new DRT fund delegated to Regional Transport Partnerships	Short term			HITRANS
Ports, ferries and waterways transport					
H34a	Understand origin and destination patterns for passengers and freight	Short term			HITRANS
H34b	Rationalise the waterborne transport network **– relates to NTS commitment to review Lifeline Ferry Services, HITRANS to work with Scottish Executive**	Medium to long term		May face community objections if some services are reduced	HITRANS / Scottish Executive
H34c	Enhance ferry services and develop fit for purpose timetables	Medium to long term			HITRANS
H34d	Evaluate alternative pricing mechanisms	Medium to long term			HITRANS
H34e	Develop a regional investment strategy	Short term			All HITRANS partners
Costs of transport and travel					
H35a	Make travel more affordable to individuals and businesses, extending Assisted Development Scheme to ferries*		Feasibility work required	Cost implications to be explored	HITRANS

	Options research and scheme preparation ▲ delivery ➔	Time scale for delivery	Planning Stage	Deliverability	Delivery
H35b	Achieve equity and consistency in the concessionary fares system, across all relevant modes*		Feasibility work required	Cost implications to be explored	HITRANS
H35c	Explore ways of reducing the cost of freight transport*		Feasibility work required	Cost implications to be explored	HITRANS
Environmental impacts					
H36a	Develop ways to mitigate the environmental impacts of socially and economically necessary travel across the region		Research required	Policy built into RTS and requirement of SEA process	HITRANS

CONTROL SHEET

Project/Proposal Name:	DEVELOPMENT OF A REGIONAL TRANSPORT STRATEGY FOR THE HIGHLANDS AND ISLANDS
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ISSUE HISTORY

Issue No.	Date	Details
1		**Formatted draft to Howard**
2	**30.10.06**	**Amended following Stakeholder conference**
3	**14.03.07**	**Final following Stage 3 Prioritisation**
4	**28.03.07**	**Final submission to Ministers**

REVIEW

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