SCOTTISH MINISTERS' REQUIREMENTS

SCHEDULE 7 PART 7

STRUCTURES WITH PARTICULAR REQUIREMENTS

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SCOTTISH MINISTERS' REQUIREMENTS

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STRUCTURES WITH PARTICULAR REQUIREMENTS

1. INTRODUCTION

1.1 General

1.1.1 In addition to the requirements of Schedule 7 Part 6, the Operating Company shall inspect, monitor, test, manage and maintain the Structures with particular requirements listed in Annex 7.7/A of this Part, in accordance with the manuals and associated inspection schedules listed in Annex 7.7/B of this Part.

1.1.2 No later than 150 Working Days after the Commencement of Service Date, the Operating Company shall supply the Director with an electronic copy of all documents (including maintenance manuals) which have been transferred to it by the previous operating company. The Operating Company shall notify the Director of any documents listed in Annex 7.7/B of this Part which were not transferred and of any further documents which it requires.

1.1.3 The Operating Company shall review annually the documents listed in Annex 7.7B of this Part for each of the Structures listed in Annex 7.7/A of this Part.

1.1.4 Following the annual review of the documents, the Operating Company shall update them to meet the requirements of current legislation, subject to the prior approval of the Director, and where amendments are required to reflect works carried out.

1.1.5 Electronic versions of updated documents shall be issued annually to the Director by the Operating Company.

1.1.6 The Operating Company shall issue an inspection report for each Structure in a General Inspection format to the Director by 31 January in the calendar year following the inspections of each Structure. The annual inspection report shall cover the matters identified in the maintenance manual including any mechanical and electrical installations. Copies of periodic inspection and test Certificates shall be provided with the reports where applicable. Separate reports shall be provided for Access Systems that remain certified for use.

1.1.7 The Operating Company shall provide a Principal Inspection Report at six yearly intervals, or as otherwise indicated in Annex 7.7/A of this Part, that includes detailed summaries of the inspection reports. Principal Inspection reports shall include priority ranking of Defects that have been identified. The Principal Inspection report shall be provided by 30 November of the year in which the Principal Inspection cycle becomes due.

1.1.8 The Operating Company shall enter all Inspection reports and related data directly into the structures management function of the Integrated Roads Information System in a format agreed with the Director within 10 Working Days of their production.

1.1.9 For the Structures listed in Annex 7.7/A of this Part, the Operating Company shall up load a summary Defect report into the structures management function of the Integrated Roads Information System in a format agreed with the Director within 10 Working Days of its production.

1.1.10 Subject to an Order, special Inspections shall be undertaken by the Operating Company.

This is Annex 7.7/A to Schedule 7 Part 7 referred to in the foregoing Agreement between Scottish Ministers and BEAR Scotland Limited.

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STRUCTURES WITH PARTICULAR REQUIREMENTS

ANNEX 7.7/A – Structures with Particular Requirements

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STRUCTURES WITH PARTICULAR REQUIREMENTS

ANNEX 7.7/A – Structures with Particular Requirements

1. Structures with Particular Requirements

The structures listed within the tables below have particular requirements which the Operating Company shall carry out in addition to those duties set down in Schedule 7 Part 6. These requirements shall be read in conjunction with the bridge maintenance and operations manuals in the Annex following this section.

Table 1.1.1.A – Structures on the Trunk Road

Structure Reference Number	Structure Name
A87 290	Skye Bridge
A87 280	Carrich Bridge
A87 245	Dornie New
A9 1350	Kessock Bridge
A828 9	Connel South Approach
A828 10	Connel Bridge
A828 11	Connel North Approach
A9 590	Killiecrankie Viaduct NB
A9 600	Killiecrankie Viaduct SB
A9 580: W36, W53, W82, W83	Killiecrankie Retaining Structures
A9 1230	Findhorn Bridge
A9 1360	Cromarty Bridge
A9 1585	Dornoch Bridge
A82 870	Ballachulish Bridge
A85 520	Falls of Cruachan E
A85 530	Falls of Cruachan
A85 540	Falls of Cruachan W
A82 1190	Laggan Swing Bridge
A82 1230	Aberchalder Swing Bridge
A82 1250	Fort Augustus Swing Bridge
A830 20	Banavie Swing Bridge

Table 1.1.1.B – Structures which are the property of British Waterways

Structure Reference Number	Structure Name
A82 1490	Tomnahurich Swing Bridge
A83 240	Ardrishaig Swing Bridge

Table 1.1.1.C – Structures not on the Trunk Road

Structure Reference Number	Structure Name
A9 1600	Mound Sluices

2. Skye Bridge

2.1.1 Constructed in 1995 this structure shown in Figure 2.1.1.A and whose location is denoted within Figure 2.1.1.B links the Isle of Skye to the Kyle of Lochalsh via the A87 trunk road. This three span structure comprises reinforced concrete piers supporting a haunched cantilever post tensioned hollow box superstructure.

The two approach spans are each 125 metres in length with the central 250 metres section spanning the navigation channel below. The deck has an overall length of 588 metres. Electrical supply cabinets and distribution board for the structure is located within the Skye Tollhouse Building together with a standby emergency generator.

Figure 2.1.1.A – A87 290 Skye Bridge

Figure 2.1.1.B – Skye Bridge Location

2.2 Particular Requirements for the A87 290 Skye Bridge

2.2.1 The Operating Company shall train sufficient staff to maintain the electrical equipment on this structure specifically:

(i) Internal deck box lighting, and

(ii) Navigation lights.

2.2.2 The Operating Company shall also monitor:

(i) the bentonite slurry between the north pier and surrounding caisson.

2.2.3 In addition to structural inspections and maintenance requirements the Operating Company is advised that the year in which the first inspection will be due shall be as referred to in this annex.

Table 2.2.3.A – PI/GI Inspection Dates

Bridge Number	Bridge Name	Date of last PI/GI (most recent)	Date of next PI	Date of next GI
A87 290	Skye Bridge	2010 PI	2016	2012

2.2.4 The Operating Company is advised that a detailed inspection regime as outlined within the Maintenance Manual for this structure may necessitate the inspection of specific elements on a more frequent timeframe. Where applicable, details shall be contained within the Maintenance Manual.

2.2.5 A summary defect report is required for this structure.

3. Carrich Bridge

3.1.1 Constructed in 1995 this structure shown in Figure 3.1.1.A and whose location is denoted within Figure 3.1.1.B carries the A87 trunk road over tidal water west of the Kyle of Lochalsh on the approach to the Skye Bridge.

This eight span structure comprises a post tensioned box beam segmentally constructed and supported upon reinforced concrete abutments and columns. The structure is founded upon rock.

The span lengths by the abutments are 20.80 metres whilst the remaining spans are 26.00 metres each. The overall deck length is 197.60 metres.

Figure 3.1.1.A – A87 280 Carrich Bridge

Figure 3.1.1.B – Carrich Bridge Location

3.2 Requirements for A87 280 Carrich Bridge

3.2.1 In addition to the requirements of Schedule 7 Part 6 the Operating Company is advised that the year in which the first inspection shall be due shall be as referred to in this annex.

Table 3.2.1.A – PI/GI Inspection Dates

Bridge Number	Bridge Name	Date of last PI/GI (most recent)	Date of next PI	Date of next GI
A87 280	Carrich Bridge	2010 PI	2016	2012

4. Dornie New

4.1.1 Constructed in 1991 this ten span structure shown in Figure 4.1.1.A and whose location is denoted within Figure 4.1.1.B is of composite construction and carries the A87 across tidal water.

Comprising precast pre-tensioned M-beams and a reinforced concrete deck slab the superstructure has an over all length of 265 metres and is simply supported upon articulated bearings above reinforced concrete columns and abutments. Each of the spans is 26.00 metres in length.

Figure 4.1.1.A – A87 245 Dornie New

Figure 4.1.1.B – Dornie New Location

4.2 Requirements for A87 245 Dornie New

4.2.1 In addition to the requirements of Schedule 7 Part 6 the Operating Company is advised that the year in which the first inspection shall be due shall be as referred to in this annex.

Table 4.2.1.A – PI/GI Inspection Dates

Bridge Number	Bridge Name	Date of last PI/GI (most recent)	Date of next PI	Date of next GI
A87 245	Dornie New	2010 PI	2016	2012

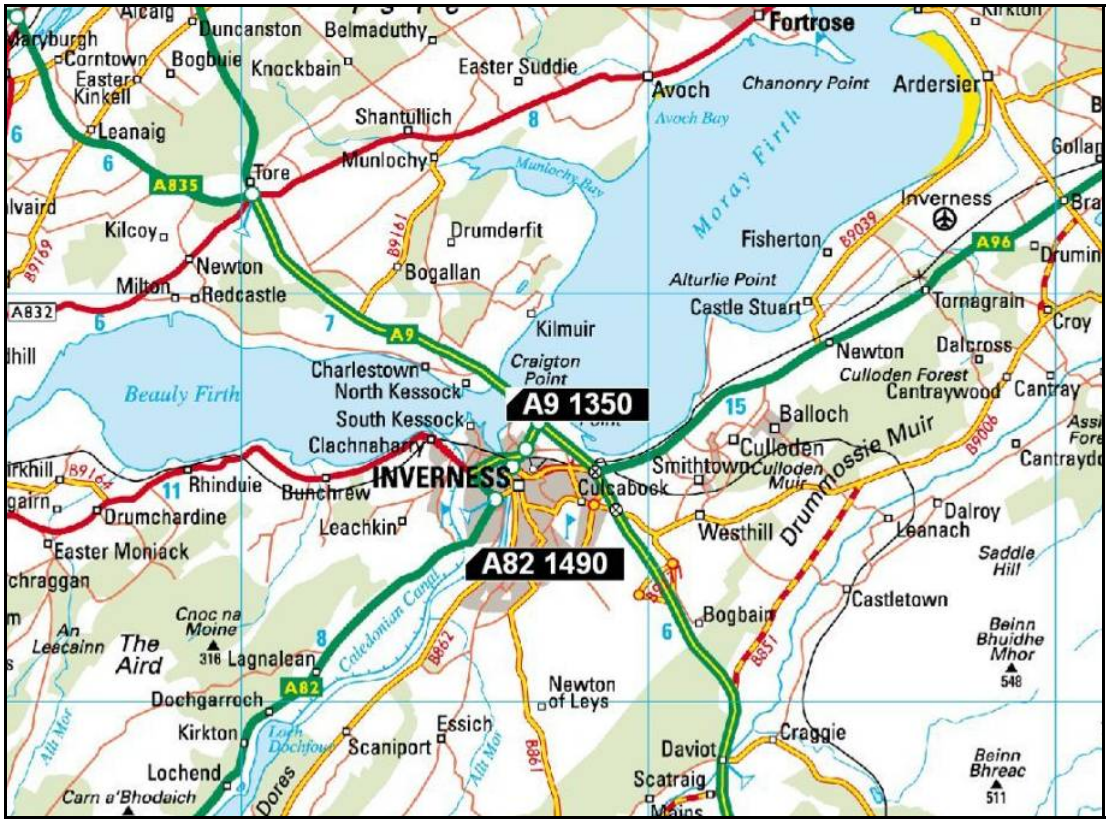
5. Kessock Bridge

5.1.1 Constructed in 1982 this thirteen span structure shown in Figure 5.1.1.A and whose location is denoted within Figure 5.1.1.B is a cable stayed bridge that carries the A9 trunk road across the Beauly Firth by Inverness.

Comprising reinforced concrete columns above cutwater plinths and abutments, the substructure supports 1052 metres of continuous steel deck with two lanes in each direction and footways either side. The principal span 240 metres in length is supported upon two reinforced concrete piers beneath twin 45.00 metre high single cell welded steel box pylons by means of steel wire cables.

Figure 5.1.1.A – A9 1350 Kessock Bridge

Figure 5.1.1.B – Kessock Bridge Location



5.2 Requirements for the A9 1350 Kessock Bridge

5.2.1 The Operating Company is advised that a detailed inspection regime as outlined within the Maintenance Manual for this structure may necessitate the inspection of specific elements on a more frequent timeframe. Where applicable, details shall be contained within the Maintenance Manual.

5.2.2 In addition to the requirements of Schedule 7 Part 6 for the structure, there are additional requirements that include the following elements:

(i) Mass dampers.

(ii) Seismic buffers.

(iii) Pendel bearings.

(iv) Cable anchorages.

(v) Pylons and deck panels for steel defects.

(vi) Fendering for ship impact.

Electrical installations include navigation lights and internal lighting to the pylons. The existing gantry from the original construction remains in use, although a new gantry is under consideration.

The mastic asphalt deck surfacing is life expired, with replacement surfacing planned for 2012 at the earliest.

5.2.3 A summary defect report is required for this structure.

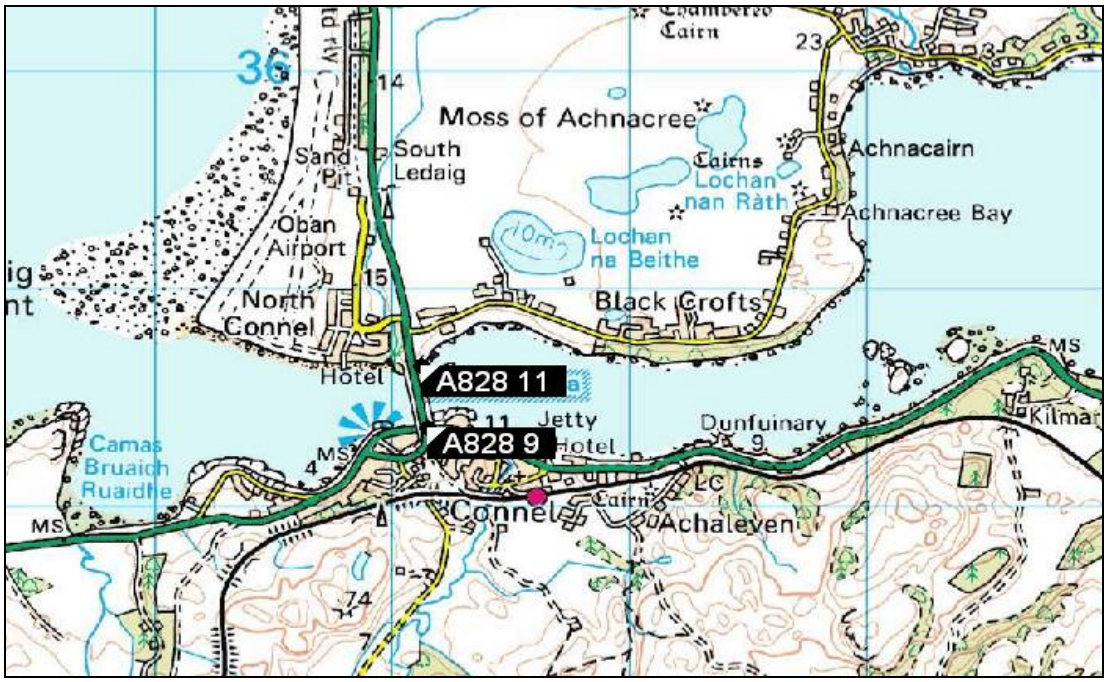
6. Connel South Approach

6.1.1 Constructed in 1903 the south approach to Connel Bridge shown Figure 6.1.1.A and whose location is denoted within Figure 6.1.1.B is a three span masonry arch carrying the A828 trunk road across the A85.

Comprising three spans of 11.75, 11.80 and 11.80 metres the overall deck length is 46.70 metres. The structure is founded upon rock and has a minimum clearance height of 9.10 metres.

Figure 6.1.1.A – A828 9 Connel South Approach

Figure 6.1.1.B – Connel South Approach Location



6.2 Requirements for A828 9 Connel South Approach

6.2.1 The Operating Company should carry out inspection and management operations of this structure in conjunction with those for the A828 10 Connel Bridge.

6.2.2 In addition to the requirements of Schedule 7 Part 6 the Operating Company is advised that the year in which the first inspection shall be due shall be as referred to in this annex.

Table 6.2.2.A – PI/GI Inspection Dates

Bridge Number	Bridge Name	Date of last PI/GI (most recent)	Date of next PI	Date of next GI
A828 9	Connel South Approach	2008 GI	2011	2013

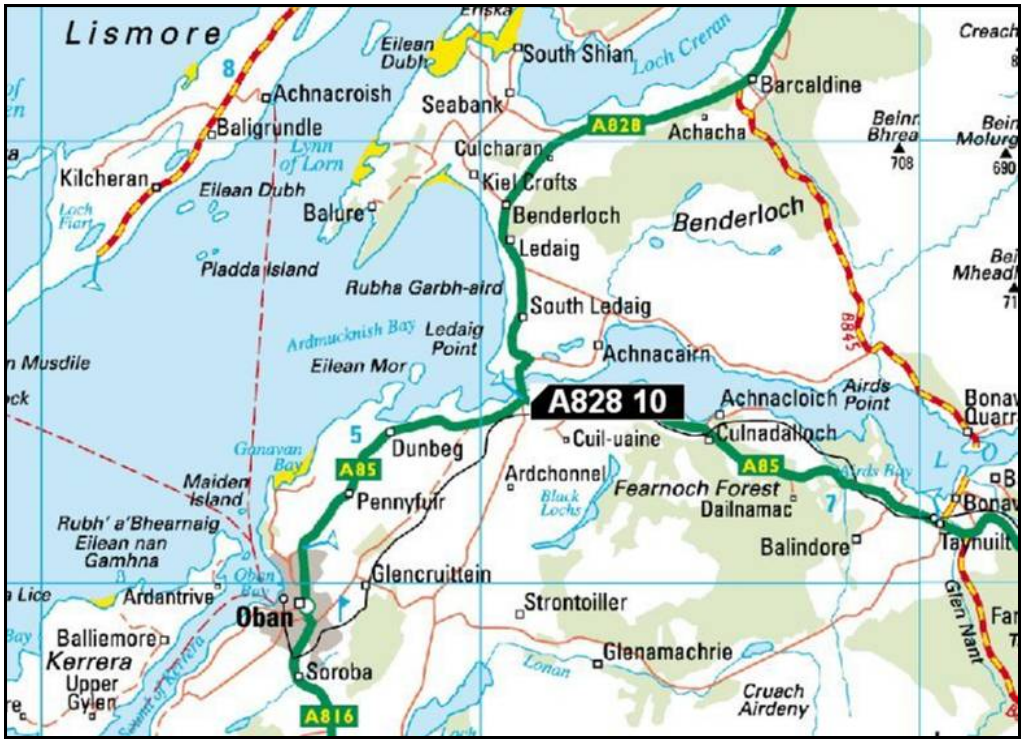
7. Connel Bridge

7.1.1 Constructed in 1903 the structure shown in Figure 7.1.1.A and whose location is denoted within Figure 7.1.1.B carries the A828 trunk road across Loch Etive.

This three span structure has two identical cantilever steel trusses supporting a centrally suspended span. The overall length is 223.50 metres with the approach spans anchored on their landward sides by vertical ties into masonry anchorage piers.

Figure 7.1.1.A – A828 10 Connel Bridge

Figure 7.1.1.B – Connel Bridge Location



7.2 Requirements for the A828 10 Connel Bridge

7.2.1 The Operating Company is advised that a detailed inspection regime as outlined within the Maintenance Manual for this structure may necessitate the inspection of specific elements on a more frequent timeframe. Where applicable, details shall be contained within the Maintenance Manual.

7.2.2 The Operating Company is advised that the current inspection gantry lies abandoned below the structure and it is not intended to replace it. Therefore alternative means of access to the deck soffit and bridge bearings is now required.

The operating company shall therefore deploy all methods as his disposal to undertake such works including roped access.

7.2.3 When undertaking inspections the Operating Company shall also include the following:

(i) Check for localised breakdown of the paint system.

(ii) Check for loss of section.

(iii) Check for rusted rivets/bolts at connections.

(iv) Check for vehicle impact damage.

(v) Check on integrity and seals of access covers.

(vi) Removal of debris.

(vii) Clearance of drainage.

(viii) Inspection of the precast deck soffit.

7.2.4 Electrical installations include navigation lights and advance warning overhead vehicle detection system on approaches to the bridge.

7.2.5 A summary defect report is required for this structure.

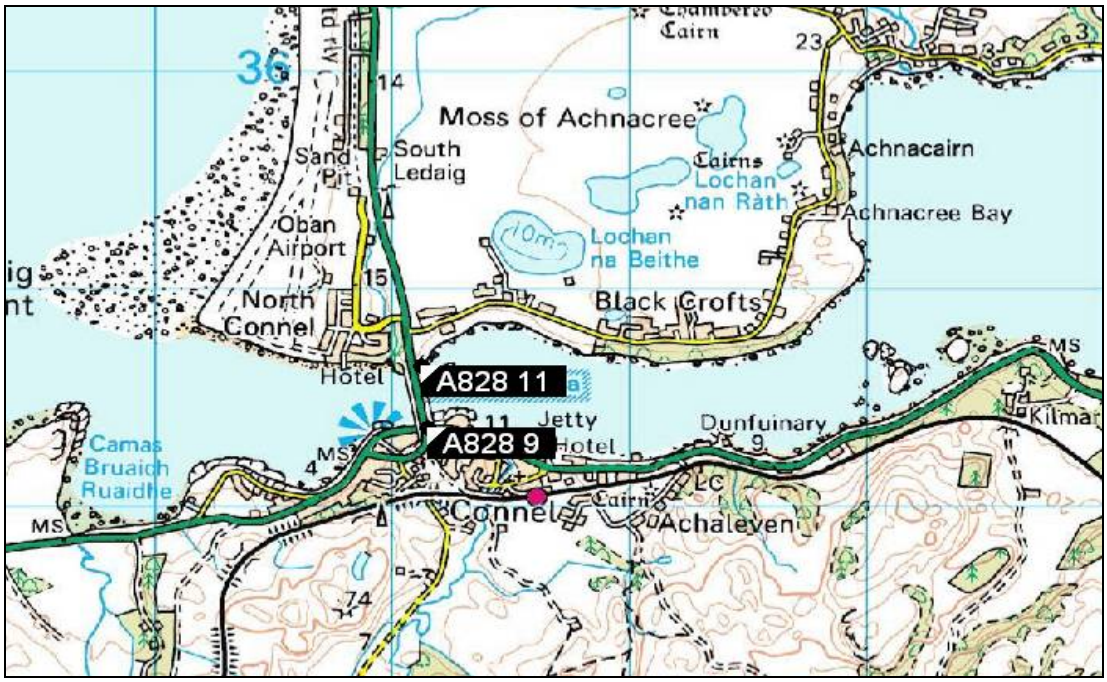
8. Connel North Approach

8.1.1 Constructed in 1903 the north approach to Connel Bridge shown Figure 8.1.1.A and whose location is denoted within Figure 8.1.1.B is a three span masonry arch carrying the A828 trunk road across the north bank of Loch Etive.

Comprising three spans of length 11.67, 11.80 and 11.80 metres the overall deck length is 46.70 metres. Founded upon rock the minimum arch height is 15.74 metres.

Figure 8.1.1.A – A828 11 Connel North Approach

Figure 8.1.1.B – Connel North Approach Location



8.2 Requirements for A828 11 Connel North Approach

8.2.1 The Operating Company should carry out inspection and management operations of this structure in conjunction with those for the A828 10 Connel Bridge.

8.2.2 In addition to the requirements of Schedule 7 Part 6 the Operating Company is advised that the year in which the first inspection shall be due shall be as referred to in this annex.

Table 8.2.2.A – PI/GI Inspection Dates

Bridge Number	Bridge Name	Date of last PI/GI (most recent)	Date of next PI	Date of next GI
A828 11	Connel North Approach	2008 GI	2011	2013

9. Killiecrankie Viaduct NB

9.1.1 Constructed in 1986 the structure shown in Figure 9.1.1.A and whose location is denoted within Figure 9.1.1.B carries the A9 trunk road north bound towards Killiecrankie.

Comprising forty one spans of 15.00 metres the structure is founded upon rock with spread footings. These support the precast pretensioned beams and insitu deck above the integral cross heads. At the interface articulation is afforded by mechanical bearings. The deck has an overall length of 615 metres.

Figure 9.1.1.A – A9 590 Killiecrankie Viaduct North Bound

Figure 9.1.1.B – Killiecrankie Viaduct North Bound Location

9.2 Requirements for A9 590 Killiecrankie Viaduct North Bound

9.2.1 In addition to the requirements of Schedule 7 Part 6 the Operating Company is advised that the year in which the first inspection shall be due shall be as referred to in this annex.

Table 9.2.1.A – PI/GI Inspection Dates

Bridge Number	Bridge Name	Date of last PI/GI (most recent)	Date of next PI	Date of next GI
A9 590	Killiecrankie Viaduct NB	2010 GI	2014	2012

9.2.2 The Operating Company is advised that in addition to the above inspection programme, the schedule for operating and maintaining this structure is listed within Annex 7.7/B.

10. Killiecrankie Viaduct South Bound

10.1.1 Constructed in 1986 the structure shown in Figure 10.1.1.A and whose location is denoted within Figure 10.1.1.B carries the A9 trunk road south bound from Killiecrankie.

Comprising nineteen spans of 15.00 metres the structures are founded upon rock with spread footings. Theses support the precast pretensioned beams and insitu deck above the integral crossheads. At the interface articulation is afforded by mechanical bearings. The deck has an overall length of 285 metres.

Figure 10.1.1.A – A9 600 Killiecrankie Viaduct South Bound

Figure 10.1.1.B – Killiecrankie Viaduct South Bound Location

10.2 Requirements for A9 600 Killiecrankie Viaduct South Bound

10.2.1 In addition to structural inspections and maintenance requirements the Operating Company is advised that the year in which the first inspection shall be due shall be as referred to in this annex.

Table 10.2.1.B – PI/GI Inspection Dates

Bridge Number	Bridge Name	Date of last PI/GI (most recent)	Date of next PI	Date of next GI
A9 600	Killiecrankie Viaduct SB	2010 GI	2014	2012

10.2.2 The Operating Company is advised that in addition to the above inspection programme, the schedule for operating and maintaining this structure is listed within Annex 7.7/B.

11. Killiecrankie Retaining Structures

11.1.1 Constructed in 1986 these four retaining walls whose location are denoted within Figures 11.1.1.A and 11.1.1.B comprise reinforced concrete, faced with gabions or cast stone as denoted within the table below. The walls are founded upon bedrock and are of varying length and height.

Table 11.1.1.A – Killiecrankie Retaining Walls

Reference	Wall Name	Facing	Length	Max Height	Min Height
A9 580 W36	Killiecrankie D/H LB	Cast stone	367	11.00	2.40
A9 580 W53	Killiecrankie GAB RA	Gabions	115	5.00	1.00
A9 580 W82	Killiecrankie C/R CB	Cast stone	325	11.00	3.00
A9 580 W83	Killiecrankie U/H RA	Cast stone	322	10.00	3.00

Figure 11.1.1.A – A9 W82 and W36 Retaining Structure Locations

Figure 11.1.1.B – A9 W83 and W53 Retaining Structure Locations

11.2 Requirements for A9 580 Retaining Structures

11.2.1 In addition to structural inspections and maintenance requirements the Operating Company is advised that the year in which the first inspection shall be due shall be as referred to in this annex.

Table 11.2.1.A – PI/GI Inspection Dates

Bridge Number	Bridge Name	Date of last PI/GI (most recent)	Date of next PI	Date of next GI
A9 580 W36	Killiecrankie D/H LB	2009 PI	2015	2011
A9 580 W53	Killiecranke Gab RA	2009 PI	2015	2011
A9 580 W82	Killiecrankie C/R CB	2009 PI	2015	2011
A9 580 W83	Killiecranke U/H RA	2009 PI	2015	2011

11.2.2 The Operating Company is advised that in addition to the above inspection programme, the schedule for operating and maintaining this structure is listed within Annex 7.7/B.

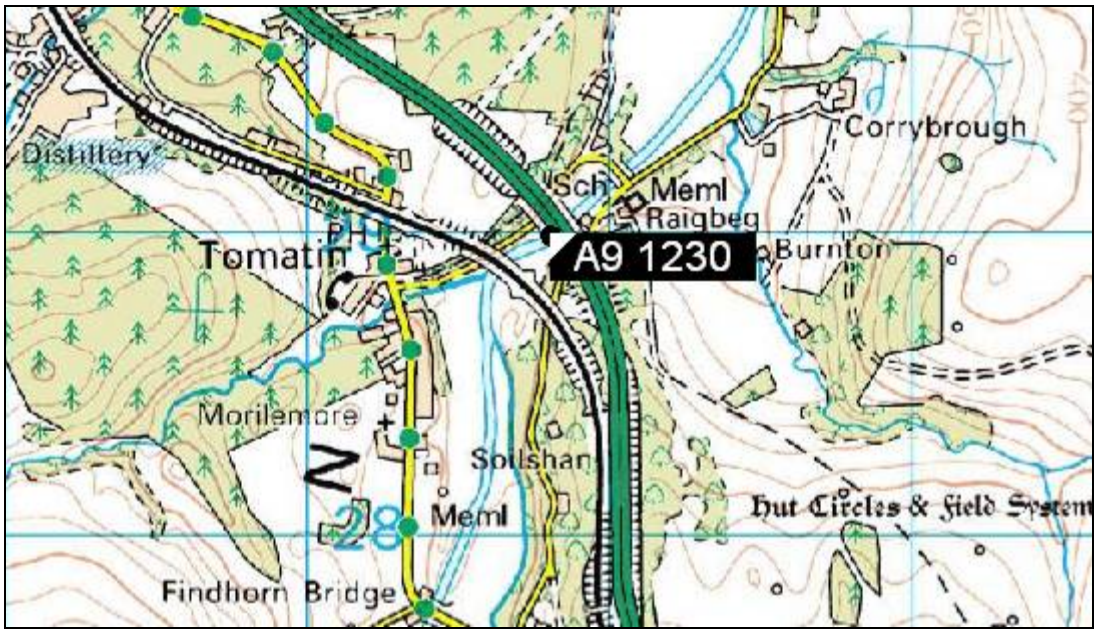
12. Findhorn Bridge

12.1.1 Constructed in 1976 this structure shown in Figure 12.1.1.A and whose location is denoted within Figure 12.1.1.B is situated due south of Inverness and carries the A9 over two access roads situated either side of a flood plane.

Comprising five spans ranging from 45.00 to 53.00 metres the overall deck length is 249 metres. The beam and slab superstructure is supported on 48 No bearings upon reinforced concrete supports which in turn are founded on steel piles.

Figure 12.1.1.A – A9 1230 Findhorn Bridge

Figure 12.1.1.B – Findhorn Bridge Location



12.2 Requirements for A9 1230 Findhorn Bridge

12.2.1 In addition to the requirements of Schedule 7 Part 6 the Operating Company is advised that the year in which the first inspection shall be due shall be as referred to in this annex.

Table 12.2.1.A – PI/GI Inspection Dates

Bridge Number	Bridge Name	Date of last PI/GI (most recent)	Date of next PI	Date of next GI
A9 1230	Findhorn Bridge	2009 GI	2013	2011

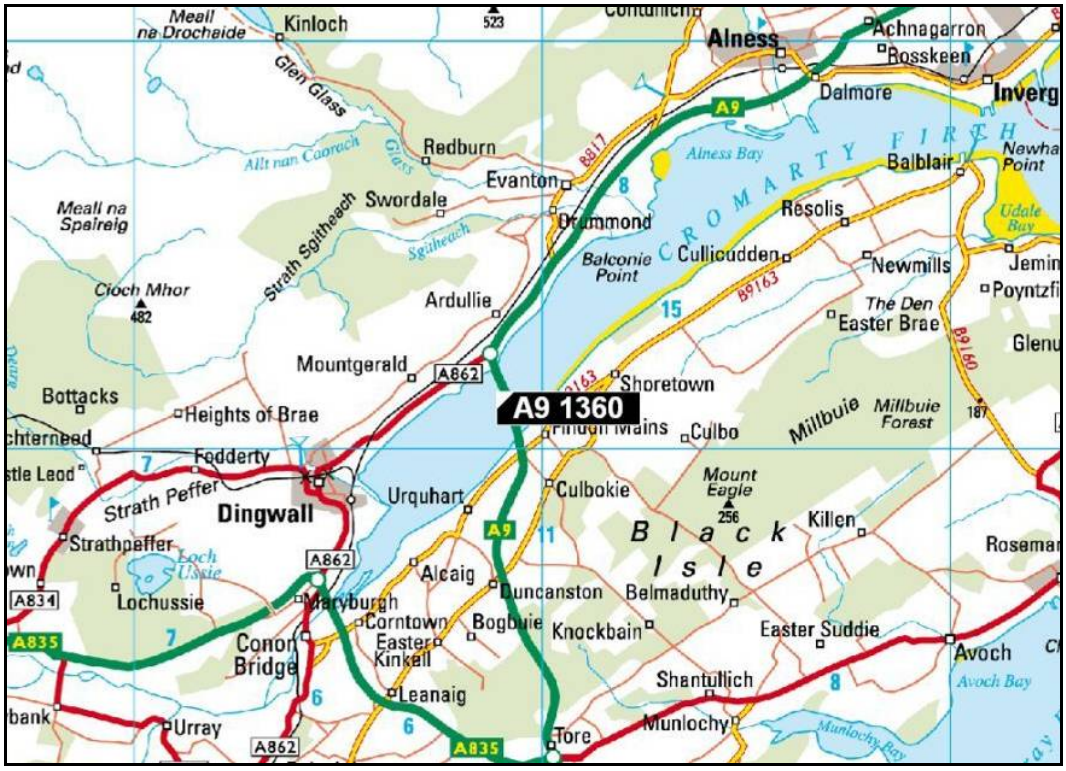
13. Cromarty Bridge

13.1.1 Constructed in 1979 the structure shown in Figure 13.1.1.A and whose location is denoted within Figure 13.1.1.B carries the A9 trunk road across the Cromarty Firth.

This sixty eight span composite structure has an overall length of 1464 metres and a width of 11.30 metres and supports a single carriageway with pedestrian pavements on either side. The deck comprises pre-stressed pre-tensioned beams and reinforced concrete upon reinforced concrete columns and end abutments.

Figure 13.1.1.A – A9 1360 Cromarty Bridge

Figure 13.1.1.B – Cromarty Bridge Location



13.2 Requirements for the A9 1360 Cromarty Bridge

13.2.1 The Operating Company is advised that this structure is in distress as a result of poor detailing. Low lying in a marine environment makes it vulnerable to chloride attack. As a consequence this structure is exhibiting very serious early deterioration requiring:

(i) new joints,

(ii) new parapets,

(iii) re-waterproofing,

(iv) re-surfacing,

(v) concrete repairs to deck and pier crossheads, and

(vi) chloride and alkali silica reaction treatment.

Concerns with the extent of deterioration of the aluminium parapet led to the installation of a Varioguard steel barrier across the whole bridge in 2008 as a temporary measure, to ensure public safety.

The Operating Company is advised that during the course of this contract, intervention works will most likely be undertaken.

13.2.2 In addition to the requirements of Schedule 7 Part 6 the Operating Company is advised that the year in which the first inspection shall be due shall be as referred to in this annex.

Table 13.2.2.A – PI/GI Inspection Dates

Bridge Number	Bridge Name	Date of last PI/GI (most recent)	Date of next PI	Date of next GI
A9 1360	Cromarty Bridge	2008 PI	2014	2012

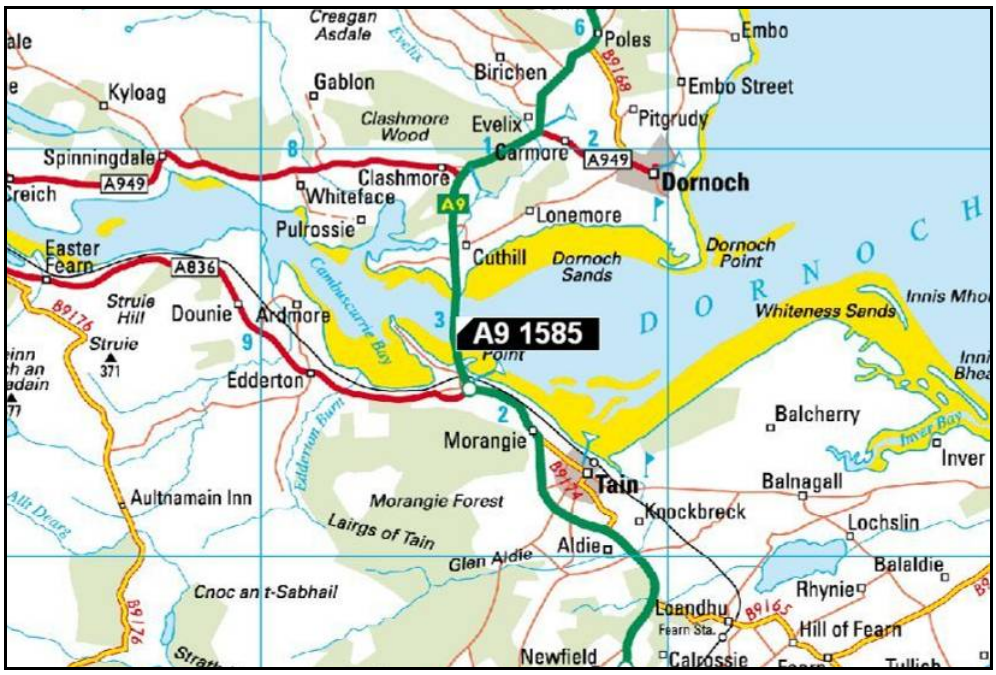
14. Dornoch Bridge

14.1.1 Constructed in 1991 the structure shown in Figure 14.1.1.A and whose location is denoted within Figure 14.1.1.B carries the A9 trunk road across the Dornoch Firth estuarial crossing.

Comprising twenty one spans the structure is a post tensioned box supported on tapering reinforced concrete columns and abutments. With an overall length of 890 metres and a width of 13.20 metres the structure supports a single carriageway with pedestrian pavements on either side.

Figure 14.1.1.A – A9 1585 Dornoch Bridge

Figure 14.1.1.B – Dornoch Bridge Location



14.2 Requirements for the A9 1585 Dornoch Bridge

14.2.1 The Operating Company shall undertake underwater inspections to inspect the condition of the piers and the sea bed around the foundations in accordance with the Design Manual for Roads and Bridges at a maximum of six yearly intervals.

14.2.2 The Operating Company shall also survey the piers every two years to determine if displacement in any direction or vertical settlement has taken place since the previous survey.

14.2.3 Electrical installations include navigation lights and internal lighting within the deck.

14.2.4 In addition to the requirements of Schedule 7 Part 6 the Operating Company is advised that the year in which the first inspection shall be due shall be as referred to in this annex.

Table 14.2.4.A – PI/GI Inspection Dates

Bridge Number	Bridge Name	Date of last PI/GI (most recent)	Date of next PI	Date of next GI
A9 1585	Dornoch Bridge	2007 PI	2013	2012

14.2.5 The Operating Company is advised that in addition to the above inspection programme, the schedule for operating and maintaining this structure is listed within Annex 7.7/B.

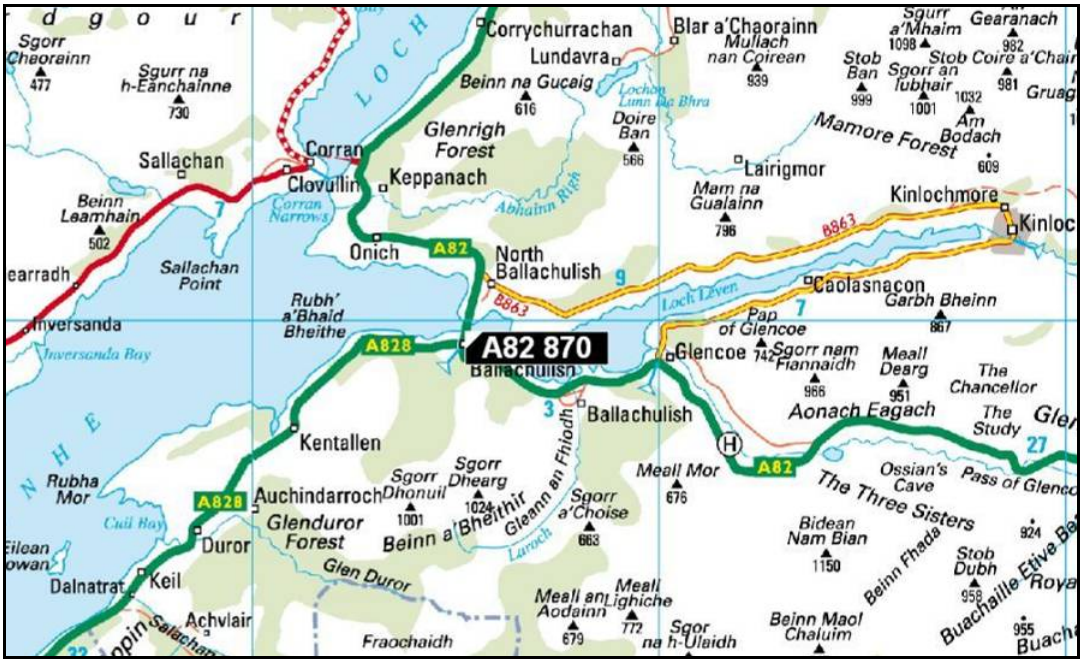
15. Ballachulish Bridge

15.1.1 Constructed in 1975 the structure shown in Figure 15.1.1.A and whose location is denoted within Figure 15.1.1.B carries the A82 trunk road across the Ballachulish narrows close to the mouth of Loch Leven.

This three span steel truss structure is supported on reinforced concrete piers and full height end abutments. The deck has an overall length of 294 metres and supports a single carriageway with concrete verges on either side. The deck width is 11.20 metres.

Figure 15.1.1.A – A82 870 Ballachulish Bridge

Figure 15.1.1.B – Ballachulish Bridge Location



15.2 Requirements for the A82 870 Ballachulish Bridge

15.2.1 The Operating Company is advised that a detailed inspection regime as outlined within the Maintenance Manual for this structure may necessitate the inspection of specific elements on a more frequent timeframe. Where applicable, details shall be contained within the Maintenance Manual.

15.2.2 The Operating Company shall undertake a structural and protective coating condition survey on a yearly basis. The central ties require particular inspection where surface water from the deck is emerging at the abutment face above the ties causing minor corrosion. Defects in the surface coatings shall be repaired by surface preparation and re-coating.

15.2.3 Inspections of the South Pier will require the use of a temporary access gantry. This may be supported on the permanent runway beams beneath the bridge deck, as the through trussed box girder renders the use of a bridge inspection vehicle impractical. The OC shall procure the required gantry and ensure that the necessary certification is in place for the gantry and runway beams prior to bringing into use.

15.2.4 Inspections for the bearings will require the use of a temporary installed gantry, as described above or scaffold erection.

15.2.5 In addition to the requirements of Schedule 7 Part 6 the Operating Company is advised that the year in which the first inspection shall be due shall be as referred to in this annex.

Table 15.2.5.A – PI/GI Inspection Dates

Bridge Number	Bridge Name	Date of last PI/GI (most recent)	Date of next PI	Date of next GI
A82 870	Ballachulish Bridge	2010 GI	2014	2012

15.2.6 The Operating Company is advised that in addition to the above inspection programme, the schedule for operating and maintaining this structure is listed within Annex 7.7/B.

15.2.7 A summary defect report is required for this structure.

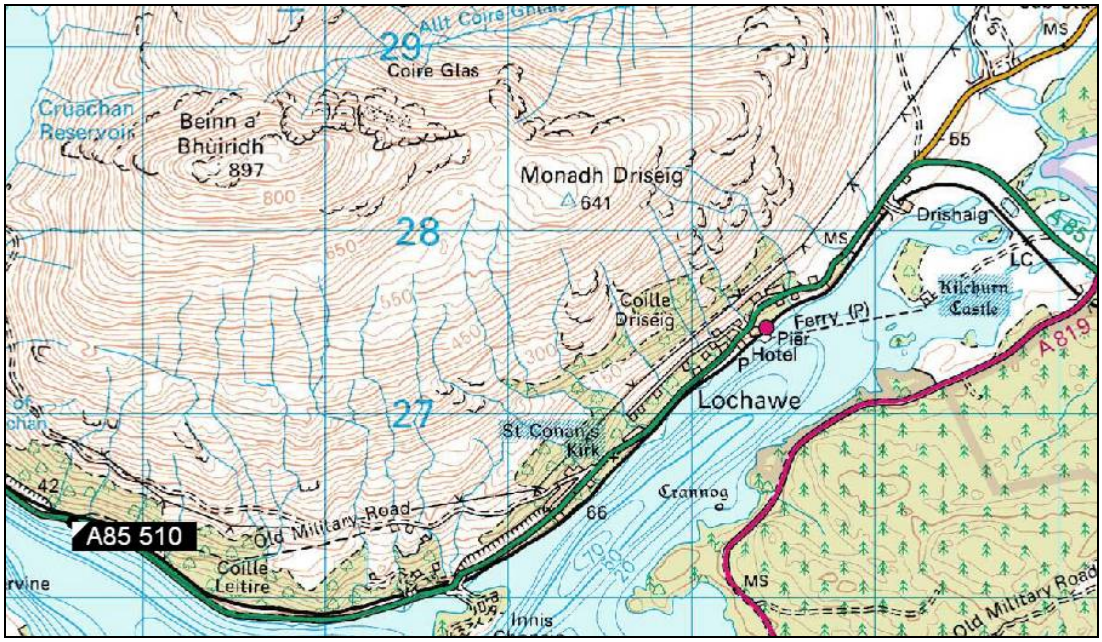
16. Falls of Cruachan E

16.1.1 Constructed in 1972 this single span structure shown in Figure 16.1.1.A and whose location is denoted within Figure 16.1.1.B is situated near the Falls of Cruachan Rail Station and carries the A85 trunk road over an inland loch.

With a single span of 64.0 metres, the structural form comprises a post tensioned monolithic box with edge cantilevers, simply supported upon unreinforced elastomeric bearings above bankseat abutments. Spread footings from the base of the abutments which are founded on rock. The minimum headroom clearance is 3.0m.

Figure 16.1.1.A – A85 520 Falls of Cruachan E

Figure 16.1.1.B – Falls of Cruachan E Location



16.2 Requirements for A85 520 Falls of Cruachan E

16.2.1 In addition to the requirements of Schedule 7 Part 6 the Operating Company is advised that the year in which the first inspection shall be due shall be as referred to in this annex.

Table 16.2.1.A – PI/GI Inspection Dates

Bridge Number	Bridge Name	Date of last PI/GI (most recent)	Date of next PI	Date of next GI
A85 520	Falls of Cruachan E	2010 PI	2016	2012

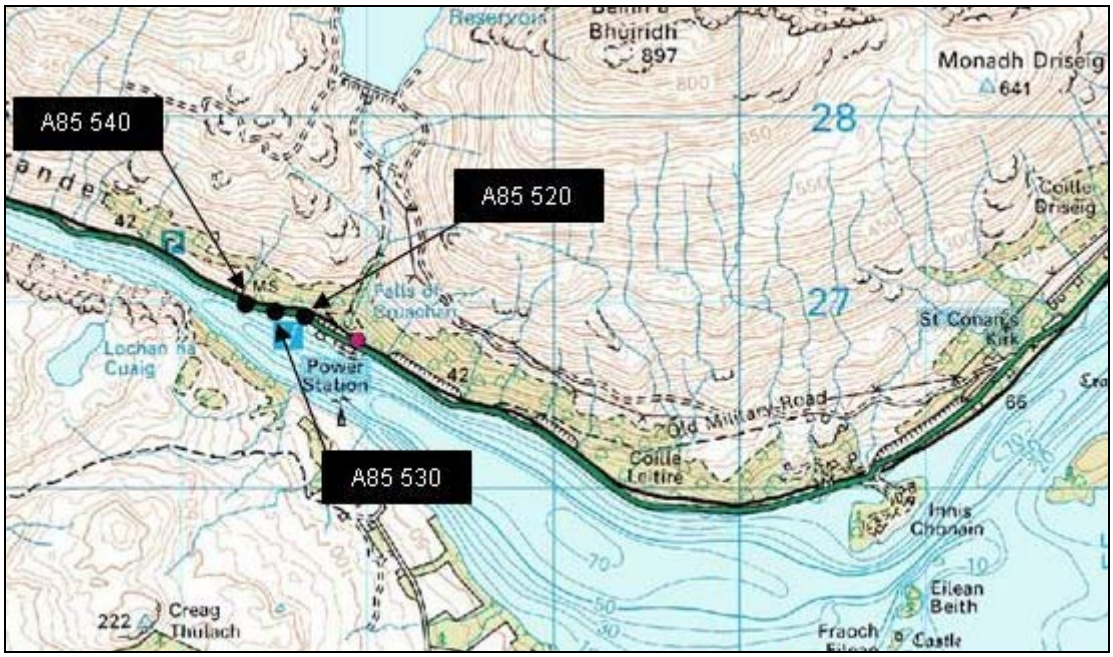
17. Falls of Cruachan

17.1.1 Constructed in 1972 this twenty two span structure shown in Figure 17.1.1.A and whose location is denoted within Figure 17.1.1.B is situated near the Falls of Cruachan Rail Station and carries the A85 trunk road over an inland loch.

Comprising spans of varying length (8.80 metres minimum, 15.20 metres maximum) the structural form is made up of precast reinforced concrete beams composite with the reinforced concrete deck slabs. The deck is simply supported upon unreinforced elastomeric bearings above full height cantilever abutments at both ends and reinforced concrete columns between. The minimum headroom clearance is 2.0m.

Figure 17.1.1.A – A85 530 Falls of Cruachan

Figure 17.1.1.B – Falls of Cruachan Location



17.2 Requirements for A85 530 Falls of Cruachan

17.2.1 In addition to the requirements of Schedule 7 Part 6 the Operating Company is advised that the year in which the first inspection shall be due shall be as referred to in this annex.

Table 17.2.1.A – PI/GI Inspection Dates

Bridge Number	Bridge Name	Date of last PI/GI (most recent)	Date of next PI	Date of next GI
A85 530	Falls of Cruachan	2010 PI	2016	2012

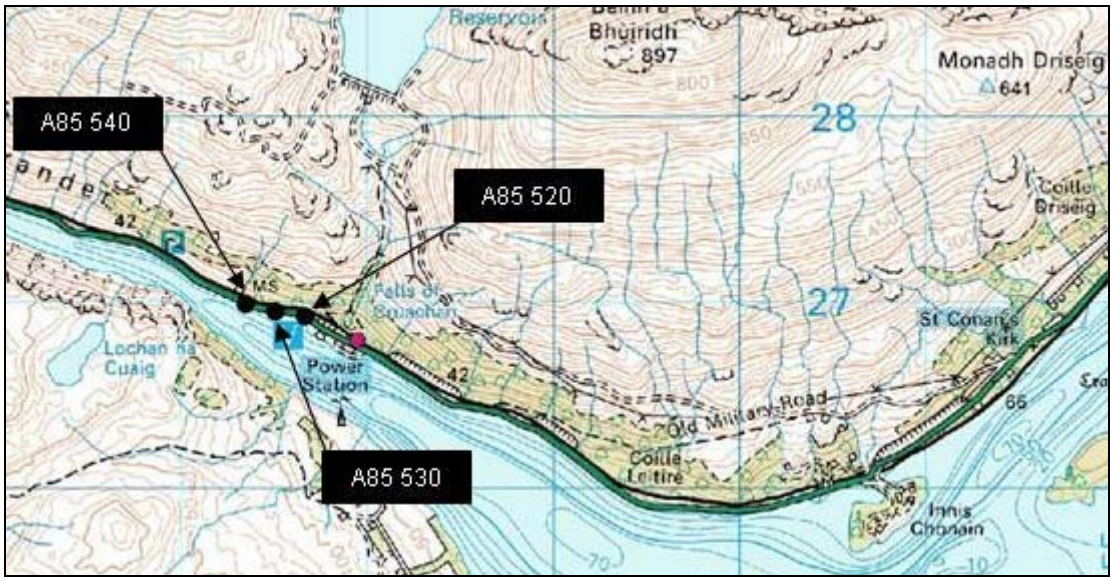
18. Falls of Cruachan W

18.1.1 Constructed in 1972 this nine span structure shown in Figure 18.1.1.A and whose location is denoted within Figure 18.1.1.B is situated near the Falls of Cruachan Rail Station and carries the A85 trunk road over an inland loch.

Comprising spans of 7.30m the continuous reinforced concrete deck with edge cantilevers is supported upon reinforced concrete piers with minimum headroom of 3.0m.

Figure 18.1.1.A – A85 540 Falls of Cruachan W

Figure 18.1.1.B – Falls of Cruachan W Location



18.2 Requirements for A85 540 Falls of Cruachan W

18.2.1 In addition to the requirements of Schedule 7 Part 6 the Operating Company is advised that the year in which the first inspection shall be due shall be as referred to in this annex.

Table 18.2.1.A – PI/GI Inspection Dates

Bridge Number	Bridge Name	Date of last PI/GI (most recent)	Date of next PI	Date of next GI
A85 540	Falls of Cruachan W	2010 PI	2016	2012

19. Laggan Swing Bridge

19.1.1 Constructed in 1936 the structure shown in Figure 19.1.1.A and whose location is denoted within Figure 19.1.1.B has an opening span of 35 metres and carries the two lane A82 trunk road across the Caledonian canal by Laggan.

The superstructure is an all-welded steel deck supported by two main edge girders.

The swing bridge is an hydraulically power operated swing bridge with the control room housed in the gate house adjacent to the structure.

Figure 19.1.1.A – A82 1190 Laggan Swing Bridge

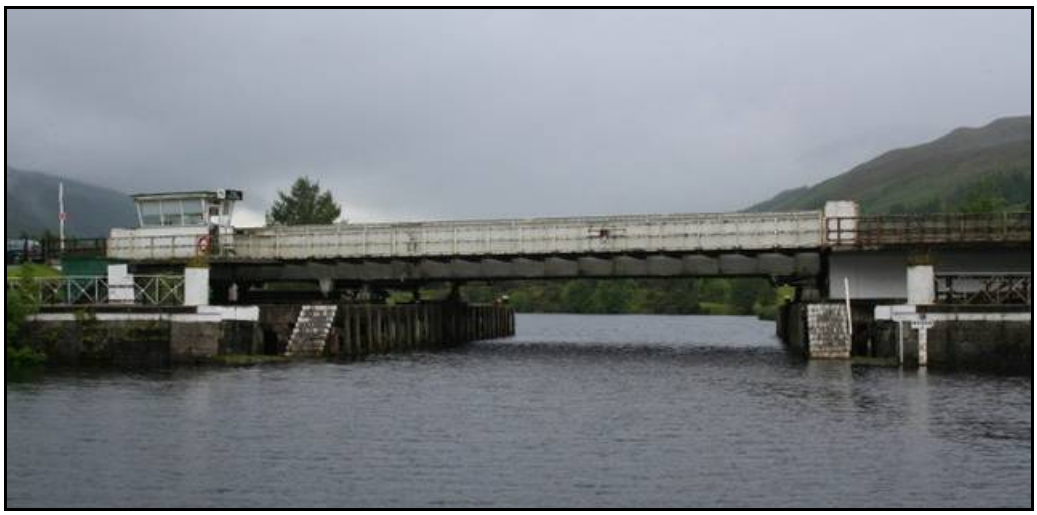
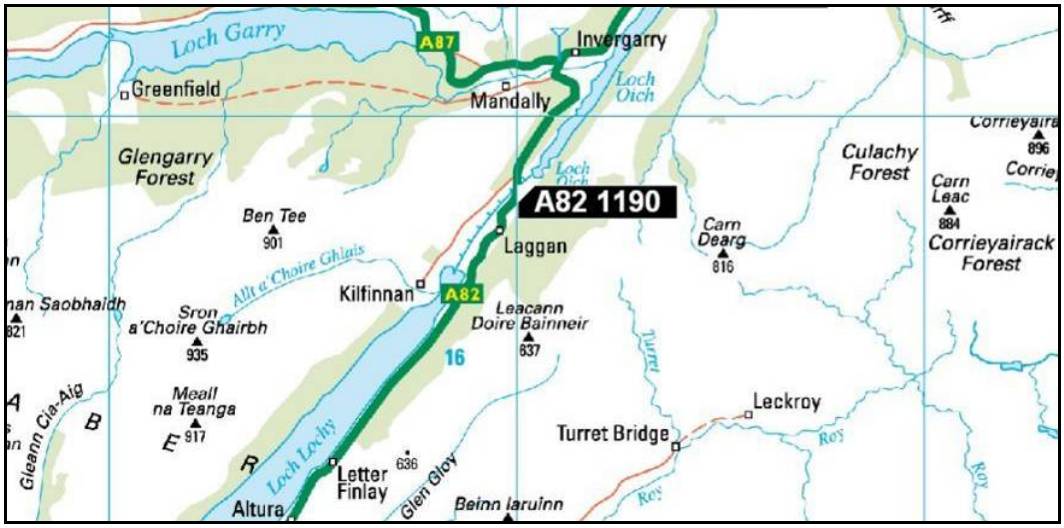


Figure 19.1.1.B – Laggan Swing Bridge Location



19.2 Requirements for the A82 1190 Laggan Swing Bridge

19.2.1 The Operating Company is advised that a detailed inspection regime as outlined within the Maintenance Manual for this structure may necessitate the inspection of specific elements on a more frequent timeframe. Where applicable, details shall be contained within the Maintenance Manual.

19.2.2 The additional requirements for this structure include:

(i) Electrical/mechanical hydraulic installations.

(ii) Bridge operating equipment and enclosures.

(iii) Vehicle barriers and wig wags.

19.2.3 This swing bridge is subject to an agreement between the Scottish Ministers and British Waterways whereby British Waterways operates the swing bridge at its own expense as required to permit the passage of vessels through the canal.

19.2.4 In accordance with the maintenance manual, the Operating Company is advised that annual civil and structural inspections of this structure is required in addition to monthly maintenance of the mechanical and electrical equipment.

19.2.5 The Operating Company shall carry out the weighing and calibration of the balance of the superstructure and counterweights of the swing bridge every six years.

If the weighting and calibration checks show that adjustments are necessary the Operating Company shall subject to an Order carry out the rebalancing of superstructures and counterweights.

19.2.6 The Operating Company is advised that whilst British Waterways are responsible for carrying out a monthly full functional test of this bridge using standby emergency generators and hydraulic power-packs, it is the Operating Companies responsibility to direct and oversee these monthly tests in addition to providing the mechanical and electrical personnel to assist British Waterways in this work.

The Operating Company shall provide an observer approved by the Scottish Ministers to witness the swing bridge monthly tests thus ensuring the Scottish Ministers interests are protected. This individual shall be either the Major Bridges Manager or a Chartered Civil Engineer. The Operating Company shall also maintain monthly records of the results and observations made to be compiled into an annual certificate issued to the Director on the structures functionality.

19.2.7 The Operating Company shall liaise with British Waterways and permit access to the Unit for British Waterways to operate the swing bridge and when required to permit the passage of vessels through the canals and to carry out other work associated with the swing bridge.

19.2.8 The Operating Company shall liaise with British Waterways with regard to the operation of the swing bridge and shall ensure that any Operations to be carried out by the Operating Company or work by British Waterways on or near the swing bridges shall be undertaken in a manner that will minimise disruption to trunk road users.

19.2.9 The Operating Company shall ensure that:

(i) no work shall be carried out on the swing bridge without prior written consent of British Waterways, or

(ii) within 50 metres of the wig-wag barriers at the swing bridge without prior liaison and consultation with British Waterways.

19.2.10 The Operating Company shall notify British Waterways as described below when carrying out its Operations in accordance with any other provisions of this Contract including but not limited to the following:

(i) The Operating Company shall notify British Waterways immediately of any inspections and maintenance requirements affecting the Structure.

(ii) The Operating Company shall notify British Waterways immediately of any incident affecting the structure.

(iii) The Operating Company shall notify British Waterways in writing immediately of any damage or claims for damages affecting the Structures.

19.2.11 A summary defect report is required for this structure.

20. Aberchalder Swing Bridge

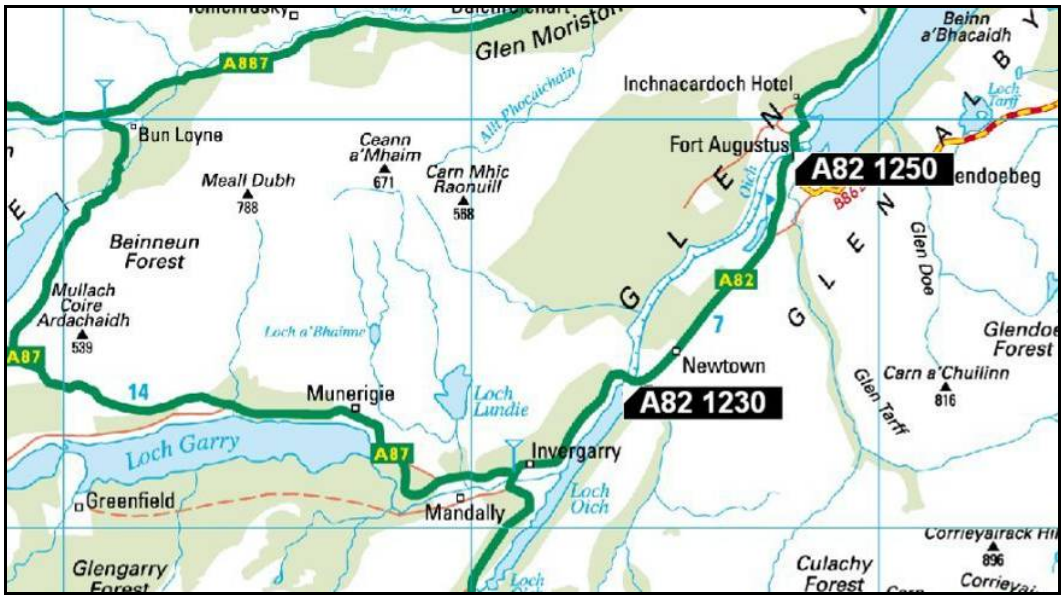
20.1.1 Constructed in 1936 the structure shown in Figure 20.1.1.A and whose location is denoted within Figure 20.1.1.B comprises two spans that carry the A82 trunk road across the Caledonian Canal by Invergarry.

The deck superstructure is an all-welded steel deck supported by two main edge girders.

The swing bridge is an hydraulically power operated swing bridge with the control room housed in the gate house adjacent to the structure.

Figure 20.1.1.A – A82 1230 Aberchalder Swing Bridge

Figure 20.1.1.B – Aberchalder Swing Bridge Location



20.2 Requirements for the A82 1230 Aberchalder Swing Bridge

20.2.1 The Operating Company is advised that a detailed inspection regime as outlined within the Maintenance Manual for this structure may necessitate the inspection of specific elements on a more frequent timeframe. Where applicable, details shall be contained within the Maintenance Manual.

20.2.2 The additional requirements for this structure include:

(i) Electrical/mechanical hydraulic installations.

(ii) Bridge operating equipment and enclosures.

(iii) Vehicle barriers and wig wags.

20.2.3 This swing bridge is subject to an agreement between the Scottish Ministers and British Waterways whereby British Waterways operates the swing bridge at its own expense as required to permit the passage of vessels through the canal.

20.2.4 In accordance with the maintenance manual, the Operating Company is advised that annual civil and structural inspections of this structure is required in addition to monthly maintenance of the mechanical and electrical equipment.

20.2.5 The Operating Company shall carry out the weighing and calibration of the balance of the superstructure and counterweights of the swing bridge every six years.

20.2.6 If the weighting and calibration checks show that adjustments are necessary the Operating Company shall subject to an Order carry out the rebalancing of superstructure and counterweights.

20.2.7 The Operating Company is advised that whilst British Waterways are responsible for carrying out a monthly full functional test of this bridge using standby emergency generators and hydraulic power-packs, it is the Operating Companies responsibility to direct and oversee these monthly tests in addition to providing the mechanical and electrical personnel to assist British Waterways in this work.

The Operating Company shall provide an observer approved by the Scottish Ministers to witness the swing bridge monthly tests thus ensuring the Scottish Ministers interests are protected. This individual shall be either the Major Bridges Manager or a Chartered Civil Engineer The Operating Company shall also maintain monthly records of the results and observations made to be compiled into an annual certificate issued to the Director on the structures functionality.

20.2.8 The Operating Company shall liaise with British Waterways and permit access to the Unit for British Waterways to operate the swing bridge and when required to permit the passage of vessels through the canals and to carry out other work associated with the swing bridge.

20.2.9 The Operating Company shall liaise with British Waterways with regard to the operation of the swing bridge and shall ensure that any Operations to be carried out by the Operating Company or work by British Waterways on or near the swing bridges shall be undertaken in a manner that will minimise disruption to Trunk Road users.

20.2.10 The Operating Company shall ensure that:

(i) no work shall be carried out on the swing bridge without prior written consent of British Waterways, or

(ii) within 50 metres of the wig-wag barriers at the swing bridge without prior liaison and consultation with British Waterways.

20.2.11 The Operating Company shall notify British Waterways as described below when carrying out its Operations in accordance with any other provisions of this Contract including but not limited to the following:

(i) The Operating Company shall notify British Waterways immediately of any inspections and maintenance requirements affecting the Structure.

(ii) The Operating Company shall notify British Waterways immediately of any incident affecting the structure.

(iii) The Operating Company shall notify British Waterways in writing immediately of any damage or claims for damages affecting the Structures.

20.2.12 A summary defect report is required for this structure.

21. Fort Augustus Swing Bridge

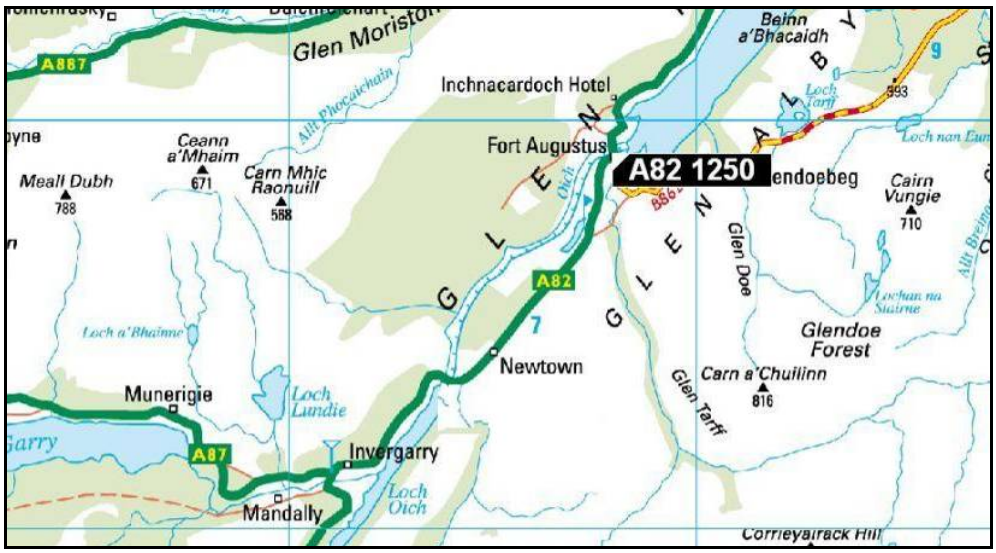
21.1.1 Constructed in 1932 the structure shown in Figure 21.1.1.A and whose location is denoted within Figure 21.1.1.B carries the A82 trunk road across the Caledonian Canal by Fort Augustus.

The swing bridge is comprised of an all-welded steel deck carriageway supported by two main edge girders with an opening span of 27.00 metres.

The swing bridge is an hydraulically power operated swing bridge with the control room housed in the gatehouse adjacent to the structure.

Figure 21.1.1.A – A82 1250 Fort Augustus Swing Bridge

Figure 21.1.1.B – Fort Augustus Swing Bridge Location



21.2 Requirements for the A82 1250 Fort Augustus Swing Bridge

21.2.1 The Operating Company is advised that a detailed inspection regime as outlined within the Maintenance Manual for this structure may necessitate the inspection of specific elements on a more frequent timeframe. Where applicable, details shall be contained within the Maintenance Manual.

21.2.2 The additional requirements for this structure include:

(i) Electrical/mechanical hydraulic installations.

(ii) Bridge operating equipment and enclosures.

(iii) Vehicle barriers and wig wags.

21.2.3 This swing bridge is subject to an agreement between the Scottish Ministers and British Waterways whereby British Waterways operates the swing bridge at its own expense as required to permit the passage of vessels through the canal.

21.2.4 In accordance with the maintenance manual, the Operating Company is advised that annual civil and structural inspections of this structure is required in addition to monthly maintenance of the mechanical and electrical equipment.

21.2.5 The Operating Company shall carry out the weighing and calibration of the balance of the superstructure and counterweights of the swing bridge every six years.

If the weighting and calibration checks show that adjustments are necessary the Operating Company shall subject to an Order carry out the rebalancing of superstructure and counterweights.

21.2.6 The Operating Company is advised that whilst British Waterways are responsible for carrying out a monthly full functional test of this bridge using standby emergency generators and hydraulic power-packs, it is the Operating Companies responsibility to direct and oversee these monthly tests in addition to providing the mechanical and electrical personnel to assist British Waterways in this work.

The Operating Company shall provide an observer approved by the Scottish Ministers to witness the swing bridge monthly tests thus ensuring the Scottish Ministers interests are protected. This individual shall be either the Major Bridges Manager or a Chartered Civil Engineer. The Operating Company shall also maintain

monthly records of the results and observations made to be compiled into an annual certificate issued to the Director on the structures functionality.

21.2.7 The Operating Company shall liaise with British Waterways and permit access to the Unit for British Waterways to operate the swing bridge and when required to permit the passage of vessels through the canals and to carry out other work associated with the swing bridge.

21.2.8 The Operating Company shall liaise with British Waterways with regard to the operation of the swing bridge and shall ensure that any Operations to be carried out by the Operating Company or work by British Waterways on or near the swing bridges shall be undertaken in a manner that will minimise disruption to trunk road users.

21.2.9 The Operating Company shall ensure that:

(i) no work shall be carried out on the swing bridge without prior written consent of British Waterways, or

(ii) within 50 metres of the wig-wag barriers at the swing bridge without prior liaison and consultation with British Waterways.

21.2.10 The Operating Company shall notify British Waterways as described below when carrying out its Operations in accordance with any other provisions of this Contract including but not limited to the following:

(i) The Operating Company shall notify British Waterways immediately of any inspections and maintenance requirements affecting the Structure.

(ii) The Operating Company shall notify British Waterways immediately of any incident affecting the structure.

(iii) The Operating Company shall notify British Waterways in writing immediately of any damage or claims for damages affecting the Structures.

21.2.11 A summary defect report is required for this structure.

22. Banavie Swing Bridge

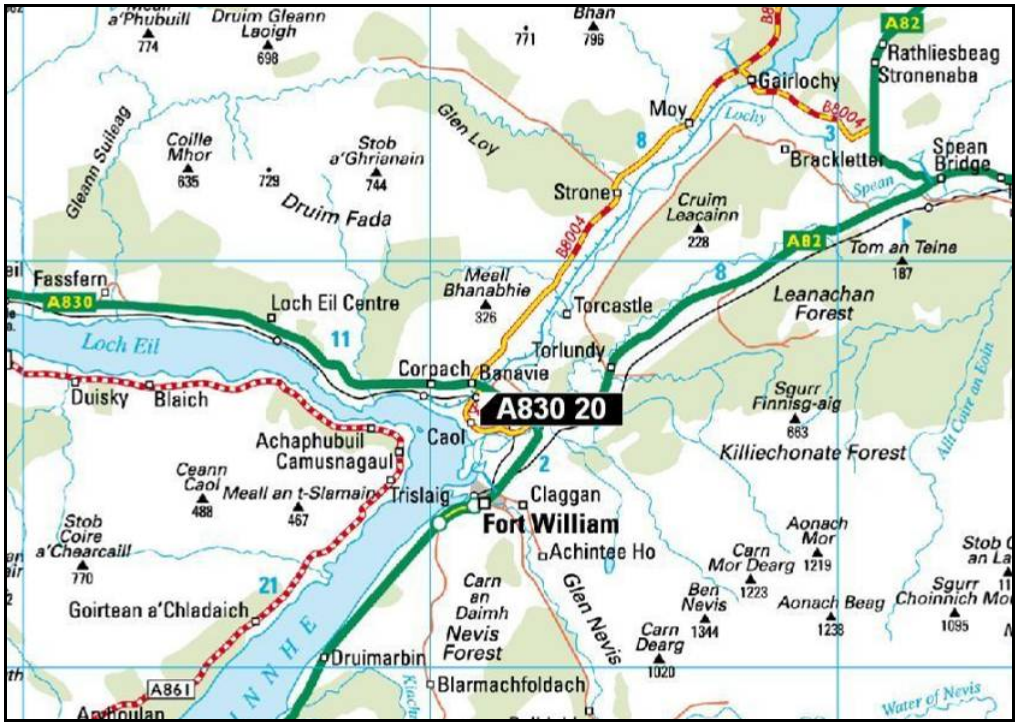
22.1.1 Constructed in 1971 the structure shown in Figure 22.1.1.A and whose location is denoted within Figure 22.1.1.B carries the A830 trunk road across the Caledonian Canal.

Supported by two main edge girders the deck is of welded construction, providing a span of 36.00 metres.

Operated by a newly installed electric motor, and hydraulic system the swing bridge control room is housed in the gate house adjacent to the structure.

Figure 22.1.1.A – A830 20 Banavie Swing Bridge

Figure 22.1.1.B – Banavie Swing Bridge Location



22.2 Requirements for the A830 20 Banavie Swing Bridge

22.2.1 The Operating Company is advised that a detailed inspection regime as outlined within the Maintenance Manual for this structure may necessitate the inspection of specific elements on a more frequent timeframe. Where applicable, details shall be contained within the Maintenance Manual.

22.2.2 The additional requirements for this structure include:

(i) Electrical/mechanical hydraulic installations.

(ii) Bridge operating equipment and enclosures.

(iii) Vehicle barriers and wig wags.

22.2.3 This swing bridge is subject to an agreement between the Scottish Ministers and British Waterways whereby British Waterways operates the swing bridge at its own expense as required to permit the passage of vessels through the canal.

22.2.4 In accordance with the maintenance manual, the Operating Company is advised that annual civil and structural inspections of this structure is required in addition to monthly maintenance of the mechanical and electrical equipment.

22.2.5 The Operating Company shall carry out the weighing and calibration of the balance of the superstructure and counterweights of the swing bridge every six years.

If the weighting and calibration checks show that adjustments are necessary the Operating Company shall subject to an Order carry out the rebalancing of superstructure and counterweights.

22.2.6 The Operating Company is advised that whilst British Waterways are responsible for carrying out a monthly full functional test of this bridge using standby emergency generators and hydraulic power-packs, it is the Operating Companies responsibility to direct and oversee these monthly tests in addition to providing the mechanical and electrical personnel to assist British Waterways in this work.

The Operating Company shall provide an observer approved by the Scottish Ministers to witness the swing bridge monthly tests thus ensuring the Scottish Ministers interests are protected. This individual shall be either the Major Bridges Manager or a Chartered Civil Engineer. The Operating Company shall also maintain monthly records of the results and observations made to be compiled into an annual certificate issued to the Director on the structures functionality.

22.2.7 The Operating Company shall liaise with British Waterways and permit access to the Unit for British Waterways to operate the swing bridge and when required to permit the passage of vessels through the canals and to carry out other work associated with the swing bridge.

22.2.8 The Operating Company shall liaise with British Waterways with regard to the operation of the swing bridge and shall ensure that any Operations to be carried out by the Operating Company or work by British Waterways on or near the swing bridges shall be undertaken in a manner that will minimise disruption to trunk road users.

22.2.9 The Operating Company shall ensure that:

(i) no work shall be carried out on the swing bridge without prior written consent of British Waterways or

(ii) within 50 metres of the wig-wag barriers at the swing bridge without prior liaison and consultation with British Waterways.

22.2.10 The Operating Company shall notify British Waterways as described below when carrying out its Operations in accordance with any other provisions of this Contract including but not limited to the following:

(i) The Operating Company shall notify British Waterways immediately of any inspections and maintenance requirements affecting the Structure.

(ii) The Operating Company shall notify British Waterways immediately of any incident affecting the structure.

(iii) The Operating Company shall notify British Waterways in writing immediately of any damage or claims for damages affecting the Structures.

22.2.11 A summary defect report is required for this structure.

23. Tomnahurich Swing Bridge

23.1.1 Constructed in 1937 the structure shown in Figure 23.1.1.A and whose location is denoted within Figure 23.1.1.B carries the A82 trunk road over the Caledonian Canal by Inverness.

The swing bridge control room is housed in the gate house adjacent to the structure.

The Operating Company is advised that this structure is currently the property of British Waterways however it is envisaged at some future date the ownership will be transferred to the Scottish Ministers.

Figure 23.1.1.A – A82 1490 Tomnahurich Swing Bridge

Figure 23.1.1.B – Tomnahurich Swing Bridge Location

23.2 Requirements for the A82 1490 Tomnahurich Swing Bridge

23.2.1 British Waterways shall be responsible for the maintenance and operation of this swing bridge.

23.2.2 The Operating Company shall liaise with British Waterways and permit access to the Unit for British Waterways to operate the swing bridge and when required to permit the passage of vessels through the canals and to carry out other work associated with the swing bridges.

23.2.3 British Waterways shall be responsible for carrying out a monthly full functional test of this bridge using standby emergency generators and hydraulic powerpacks.

The Operating Company shall provide an observer approved by the Scottish Ministers to witness the swing bridge monthly tests thus ensuring the Scottish Ministers interests are protected. This individual shall be either the Major Bridges Manager or a Chartered Civil Engineer. The Operating Company shall also maintain monthly records of the results and observations made to be compiled into an annual certificate issued to the Director on the structures functionality.

23.2.4 The Operating Company shall liaise with British Waterways with regard to the operation of the this swing bridge and shall ensure that any Operations to be carried out by the Operating Company or work by British Waterways on or near the swing bridges shall be undertaken in a manner that will minimise disruption to Trunk Road users.

23.2.5 The Operating Company shall ensure that no work shall be carried out within 50 metres of the wig-wag barriers of this swing bridge without prior liaison and consultation with British Waterways.

23.2.6 The Operating Company shall notify British Waterways as described below when carrying out its Operations in accordance with any other provisions of this Contract including but not limited to the following:

(i) The Operating Company shall notify British Waterways immediately of any inspections and maintenance requirements affecting the Structure.

(ii) The Operating Company shall notify British Waterways immediately of any incident affecting the Structure.

(iii) The Operating Company shall notify British Waterways in writing immediately of any damage or claims for damages affecting the Structure.

23.2.7 A summary defect report is required for this structure.

24. Ardrishaig Swing Bridge

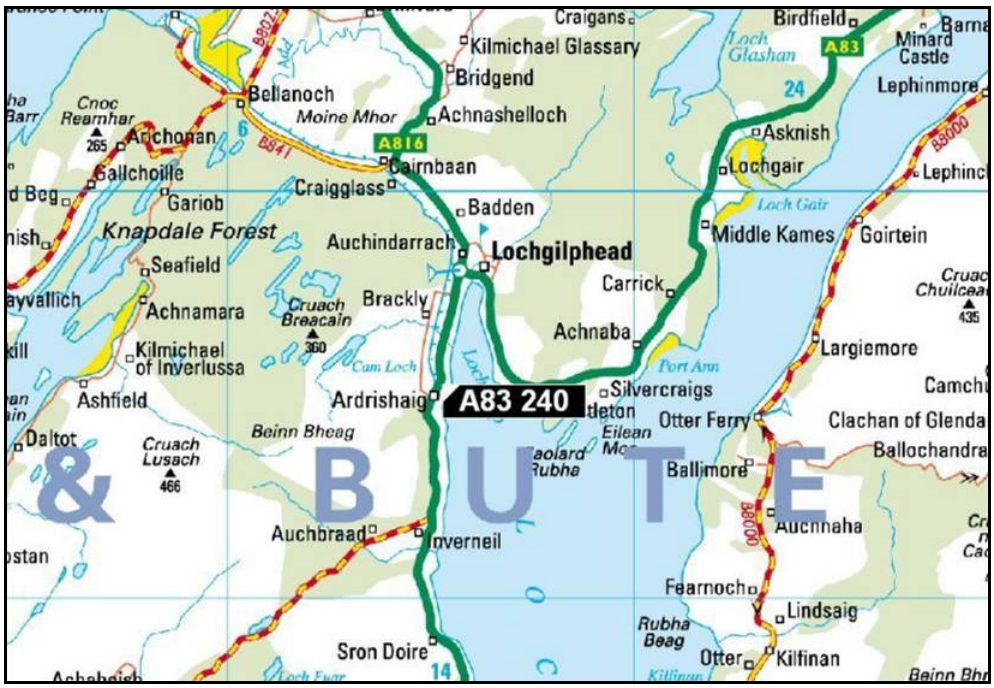
24.1.1 Constructed in 1986 the structure shown in Figure 24.1.1.A and whose location is denoted within Figure 24.1.1.B carries the A83 trunk road over the Crinan Canal at Ardhishaig

The swing bridge control room is housed in the gate house adjacent to the structure.

The Operating Company is advised that this structure is currently the property of British Waterways however it is envisaged at some future date the ownership will be transferred to the Scottish Ministers.

Figure 24.1.1.A – A83 240 Ardrishaig Swing Bridge

Figure 24.1.1.B – Ardrishaig Swing Bridge Location



24.2 Requirements for the A83 240 Ardrishaig Swing Bridge

24.2.1 British Waterways shall be responsible for the maintenance and operation of this swing bridge.

24.2.2 The Operating Company shall liaise with British Waterways and permit access to the Unit for British Waterways to operate the swing bridge and when required to permit the passage of vessels through the canals and to carry out other work associated with the swing bridges.

24.2.3 British Waterways shall be responsible for carrying out a monthly full functional test of this bridge using standby emergency generators and hydraulic powerpacks.

The Operating Company shall provide an observer approved by the Scottish Ministers to witness the swing bridge monthly tests thus ensuring the Scottish Ministers interests are protected. This individual shall be either the Major Bridges Manager or a Chartered Civil Engineer. The Operating Company shall also maintain monthly records of the results and observations made to be compiled into an annual certificate issued to the Director on the structures functionality.

24.2.4 The Operating Company shall liaise with British Waterways with regard to the operation of the this swing bridge and shall ensure that any Operations to be carried out by the Operating Company or work by British Waterways on or near the swing bridges shall be undertaken in a manner that will minimise disruption to Trunk Road users.

24.2.5 The Operating Company shall ensure that no work shall be carried out within 50 metres of the wig-wag barriers of this swing bridge without prior liaison and consultation with British Waterways.

24.2.6 The Operating Company shall notify British Waterways as described below when carrying out its Operations in accordance with any other provisions of this Contract including but not limited to the following:

(i) The Operating Company shall notify British Waterways immediately of any inspections and maintenance requirements affecting the Structure.

(ii) The Operating Company shall notify British Waterways immediately of any incident affecting the Structure.

(iii) The Operating Company shall notify British Waterways in writing immediately of any damage or claims for damages affecting the Structure.

24.2.7 A summary defect report is required for this structure.

25. Mound Sluices

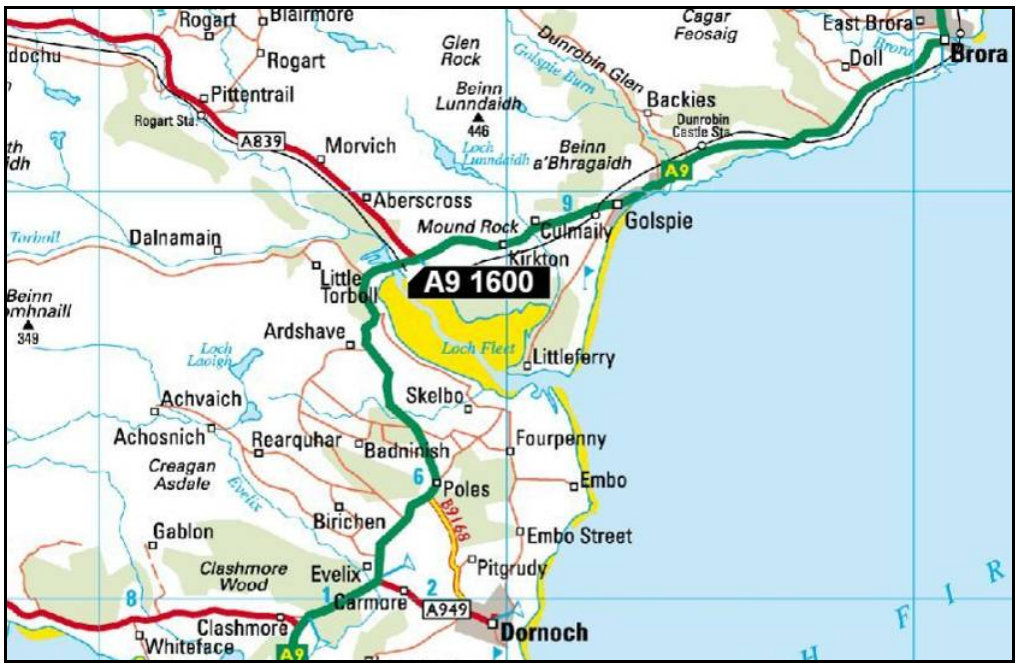
25.1.1 Constructed in 1816 the structure shown in Figure 25.1.1.A and whose location is denoted within Figure 25.1.1.B is an historic multi arch masonry bridge that carried the A9 trunk road until 1940 and is now by-passed by the reinforced concrete mound bridge.

The slucies structure is a six span single carriageway with an overall length of 40.8 metres and deck width of 5.50 metres. The masonry arches are supported by solid wall piers with full height stone gravity abutments.

The Operating Company is advised that whilst the Scottish Ministers are responsible for maintaining the mound bridge and sluices, Highland Regional Council is responsible for maintaining the carriageway.

Figure 25.1.1.A – A9 1600 Mound Sluices

Figure 25.1.1.B – Mound Sluices Location



25.2 Requirements for the A9 1600 Mound Sluices

25.2.1 The Operating Company is advised that under normal conditions the sluice gates are self-operating being closed by the head of sea water on a rising tide and opened by the head of impounded fresh water on a falling tide.

Under conditions of exceptionally heavy rainfall sometimes combined with snowmelt insufficient fresh water escapes through the sluices in a tidal cycle and the improved agricultural land upstream of the sluices can become flooded.

25.2.2 The Operating Company shall train sufficient staff to manually operate the sluices to ensure that whenever called upon by affected landowners the sluices are operated within 2 hours of receiving the request.

25.2.3 The Operating Company shall provide affected landowners with their 24 hour helpline telephone number.

25.2.4 In carrying out their duties the Operating Company is required to liaise with:

(i) Scottish Environmental Protection Agency.

(ii) British Waterways.

(iii) Local Authority.

(iv) Affected Land Owners.

(v) Stakeholders.

25.2.5 In addition to the requirements of Schedule 7 Part 6 the Operating Company is advised that the year in which the first inspection shall be due shall be as referred to in this annex.

Table 25.2.5 – PI/GI Inspection Dates

Bridge Number	Bridge Name	Date of last PI/GI (most recent)	Date of next PI	Date of next GI
A9 1600	Mound Sluices	2009 GI	2012	2014

25.2.6 The Operating Company is advised that in addition to the above inspection programme, the schedule for operating and maintaining the winch, chains and bolts of this structure is listed within Annex 7.7/B.

25.2.7 A summary defect report is required for this structure.

This is Annex 7.7/B to Schedule 7 Part 7 referred to in the foregoing Agreement between Scottish Ministers and BEAR Scotland Limited.

SCOTTISH MINISTERS' REQUIREMENTS

SCHEDULE 7 PART 7

STRUCTURES WITH PARTICULAR REQUIREMENTS

ANNEX 7.7/B – Documents for Structures with Particular Requirements

SCOTTISH MINISTERS' REQUIREMENTS

SCHEDULE 7 PART 7

STRUCTURES WITH PARTICULAR REQUIREMENTS

ANNEX 7.7/B – Documents for Structures with Particular Requirements

These documents are Reference Documents.

Structures on the Trunk Road

A87 290 Skye Bridge	
1.	A87 Skye Bridge - Operations Manual
2.	A87 Skye Bridge - Maintenance Manual
3.	A87 Skye Bridge - Wind Management Plan
4.	A87 Skye Bridge - Inspection Schedule

A87 280 Carrich Bridge	
1.	A87 Carrich Viaduct - Maintenance Manual

A87 245 Dornie New
Presently no Maintenance Manual exists for this structure

A9 1350 Kessock Bridge	
1.	A9 Kessock Bridge - Maintenance Manual - Volume 1 of 4 Section A - Substructure
2.	A9 Kessock Bridge - Maintenance Manual - Volume 2 of 4 Section B - Superstructure
3.	A9 Kessock Bridge - Maintenance Manual - Volume 3 of 4 Section C - Services
4.	A9 Kessock Bridge - Maintenance Manual - Volume 4 of 4 Section D - Appendices
5.	A9 Kessock Bridge - Maintenance Gantry Scissor Lift - Operations, Inspection and Maintenance
6.	A9 Kessock Bridge - Wind Management Plan
7.	A9 Kessock Bridge - Inspection Schedule

A828 9 Connel South Approach

Refer to the A828 10 Connel Bridge - Maintenance Manual

A828 10 Connel Bridge

1. A828 Connel Bridge - Maintenance Manual
2. A828 Connel Bridge - Inspection Schedule

A828 11 Connel North Approach

Refer to the A828 10 Connel Bridge - Maintenance Manual

A9 590 Killiecrankie Viaduct North Bound

1. A9 Perth Killiecrankie to Inverness Trunk Road Improvement North of Calvine Stage 2 Maintenance Manual
2. A9 Killiecrankie - Inspection Schedule

A9 600 Killiecrankie Viaduct South Bound

1. A9 Perth Killiecrankie to Inverness Trunk Road Improvement North of Calvine Stage 2 Maintenance Manual
2. A9 Killiecrankie - Inspection Schedule

A9 580 Retaining Structures

1. A9 Perth Killiecrankie to Inverness Trunk Road Improvement North of Calvine Stage 2 Maintenance Manual
2. A9 Killiecrankie - Inspection Schedule

A9 1230 Findhorn

Presently no Maintenance Manual exists for this structure

A9 1360 Cromarty Bridge

Presently no Maintenance Manual exists for this structure

A9 1585 Dornoch Bridge

1. A9 Dornoch Bridge Maintenance Manual

A82 870 Ballachulish Bridge

1. A82 Ballachulish Bridge Inspection and Maintenance Manual

A85 520 Falls of Cruachan E

Presently no Maintenance Manual exists for this structure

A85 530 Falls of Cruachan

Presently no Maintenance Manual exists for this structure

A85 540 Falls of Cruachan W

Presently no Maintenance Manual exists for this structure

A82 1190 Laggan Swing Bridge

1. Operator & Maintenance Instruction Manual for Laggan Swing Bridge - Electrical Section

2. Swing Bridge - Inspection Schedule

A82 1230 Aberchalder Swing Bridge

1. Operating and Maintenance Manual for British Waterways Aberchalder Bridge Volume 1 – Mechanical

2. Operating and Maintenance Manual for British Waterways Aberchalder Bridge Volume 2 – Electrical

3. Swing Bridge - Inspection Schedule

A82 1250 Fort Augustus Swing Bridge
1. A82 Fort Augustus Canal bridge Schedule of Monthly Inspections - Electrical and Mechanical
2. A82 Fort Augustus Canal Bridge Inspection and Maintenance Schedule - Structural
3. A82 Fort Augustus Swing Bridge Operations and Maintenance Manual Vol 1 - General
4. A82 Fort Augustus Swing Bridge Operations and Maintenance Manual Vol 2 - Electrical
5. Swing Bridge - Inspection Schedule

A830 20 Banavie Swing Bridge
1. Banavie Swing Bridge – Safety, Operational and Maintenance Manual
2. Swing Bridge - Inspection Schedule

Structures the Property of British Waterways

A82 1490 Tomnahurich Swing Bridge
Maintenance Manual held by British Waterways

A83 240 Ardrishaig Swing Bridge
Maintenance Manual held by British Waterways

Structures not on the Trunk Road

A9 1600 Mound Sluices
1. Mound Sluices Inspection Schedule