Waverley Line Eden Viaduct Project

Notes on a network of walking and cycling routes based upon the railway viaduct crossing of the River Eden

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January 2016
1 Introduction
The Eden Viaduct, constructed for the historic Waverley Line to Edinburgh but abandoned in 1966, has long been seen as an invaluable opportunity to open up a network of popular walking and cycling routes in the area. Until recently earlier schemes have been frustrated by the potential liabilities of the viaduct, but in 2014 Highways England (the owners of the viaduct) undertook extensive repairs, and the Waverley Viaduct Trust has been setup to manage a route across the viaduct and links to and from the viaduct. These notes describe the key links associated with the viaduct, which are required to take full advantage of the river crossing afforded by the viaduct.

2 Description of the Links
The chief links are those connecting the north part of Carlisle (Belah, Moorville and Kingstown) with the Infirmary and the southwest of the City (Bellevue and Morton). In addition real improvements to the Hadrian’s route east/west can be made, as well as numerous other small links and details all of which would transform walkers and cyclists experience and ensure the most popular use of the viaduct. These notes describe the ideal and optimum routes. They follow public and privately owned lands and until agreements are reached with all parties any one route cannot be considered confirmed in all its details.

The notes on the route commence with a brief overview, followed by more detail.

3 Map 1 showing an overview of cycling and walking routes centred on the Waverley Viaduct

1 Crindledyke Cycleway Scheme through to Etterby Road with its ridge over the main line railway.
2 Northern approach to Waverley Viaduct along field edge
3 Waverley Viaduct crossing the River Eden
4 Connect to the Infirmary and follow Port Road for the most direct route south including using some fragments of the former railway.
4a Follow Engine Lonning for a route into the south west quadrant of the City
5 From the west endeavour to create a route along the line of the former Port Carlisle Canal/Railway all the way from the Grinsdale road so as to create a substantial Greenway, an attraction in its own right.
6 For a direct way to the city centre drop down from the railway level to reach Willowholme Road and consider an at-grade crossing of Castle Way direct to the Centre.
6a After dropping down from the railway, turn back towards the river along the mill leat for a riverside route to the Castle.
7 On the north bank the Crindledyke route continues to cross the Eden Bridge.
4 Details of options for approach to northern end of viaduct

The connections at either end of the viaducts are obviously crucial. Their resolution will depend upon the support of sympathetic landowners and be the result of careful and detailed discussion.

At the northern end the repeated flood damage to the river’s bank and the riverside footpath (No 109080) preclude this route. The three options shown here all look for a slightly more northerly and more protected link, to the Etterby Road. Eventually, the CC will have to seek a diversion order in respect of footpath 109080 which might follow the more northerly and protected link to the Etterby Road. All the options require agreements to be negotiated with private landowners and care should be taken to meet their requirements for security and reduction in trespass as well as minimising interfering the least with the farm management. Good fencing and the constant presence of the public to provide passive surveillance is found to go a very long way to ensuring that the path is properly managed. The public tend to keep to the defined path.

Without this link to the north to make the viaduct the focus of a through route and everyday journeys, it must be questioned whether this listed viaduct can have a secure future with assured maintenance. To that end its owners, Highways England, may consider it prudent to use their powers to secure the through route, although in all normal situations voluntary settlements would need to be given to fencing, gating and all other requirements of the farmer to allow for the proper management of the lands.

Map 2 details of options for the northern approach to the Viaduct

a All the options depend upon running down off the viaduct along the line of the existing embankment. Works to even out the gradient and plant the side slopes will be required.

b Across the flood plain (where the embankment has been removed) the path needs to be carefully supported by side kerbs of concrete railway sleepers or similar in order to provide a robust construction which can cope with the occasional flooding. This section should be carefully fenced with a double fence and hawthorn planting in between to minimise chance of trespass. Provision will need to be made to repair this fence when it is damaged by flood. Should fences not be acceptable to the Environment Agency then an option is to widen, lengthen and deepen the existing ‘lake which lies on the boundary of the former railway where its embankment has been removed. Short lengths of fencing would then only be needed at either end where the ground is higher and the arrangement would be no impediment to floods. The sketch section shows this arrangement.

c One option could be to run along the northern edge of the flooded field where the ground is a little higher, to join the sunken lane up to Etterby Road. The future of this whole field, which is now a gravel strewn part of the flood plain, maybe uncertain. As the riverside footpath has been lost in the most recent floods it may be that any future cycling route should be designated as the formal path?

d A second option would be to run just inside the field edge of the upper field and then to ramp through to the same sunken lane. This option could enable the existing public footpath to be diverted from its current course.

e A third option would be to uprate the existing public footpath, perhaps fencing it off from livestock.

f A local link to Stainton could follow the existing field edge footpath route.

g Existing sunken lane and public right of way.

h Etterby Road is fairly lightly trafficked but even so some thought is needed as to how best provide the continuity of the route.

i Existing road leading to nature reserve where a new construction could connect through to the north of the City.

In all these cases careful consideration would need to be given to fencing, gating and all other requirements of the farmer to allow for the proper management of the lands.

Cross sections for security north of Waverley Viaduct

1 View looking north; path on east side of former railway land

Extend existing ‘lake’ to be 15m wide and run for as much of the length of the route as possible

Gravel strewn fields

Dense vegetation prevents trespass

Proposed 2.5m wide path at field edge

2 View looking eastwards at edge of flood plain

2.5m wide path set at ground level and contained by concrete railway sleeper edgings

Proposed 2.5m wide path at field edge

View of riverside field after 2015 flooding

The Waverley Viaduct
5 Details of southern approaches to viaduct

The southern approaches are largely in public ownership, and a most important destination for everyday journeys is the Infirmary. At the same time the railway path to the riverside with its extensive views from the viaduct could be seen as a valuable resource for the hospital, for its staff and visitors alike – somewhere quiet to go to at often difficult times. As well as this local destination the through routes to the southern part of Carlisle should be carefully brought forward.

a The first detail to be tackled is how to commemorate the crossing of the Roman Wall, and perhaps the Waverley Line as well. This might be by a feature in the path, or a sculpture/construction.

b The path from the Burgh Road and the Grinsdale direction could remain on its present alignment, although reconstructed to a better standard.

c The Engine Lonning Link requires a new 1:20 ramp cut out of the banking here. As far as possible this should relate to the complex industrial and transport history in this area, as well as marking the line of the Port Carlisle Ship Canal.

d The route to the Infirmary should follow the bed of the former Waverley Railway to give a smooth gradient (the current path runs at a much higher level starting with a long flight of steps).

e Construct 1:20 ramp and join Infirmary Road.

f Continue path to pass north of the Industrial Unit to reach Port Road on the level.

g Cut through the banking here to achieve a 1:20 gradient down to a new bridge over the brook to end up at the level of Willow Holme Road. The exact location and details of this ramp should be selected so as to be well clear of the alignment of the Roman Wall, and to take account of any other details in this heavily worked railway and industrial area. Indeed this would be an opportunity to recall the extensive sheds, sidings and other railway works in this area.

h Reconstruct this path and gain width, perhaps by using the edge of the playing fields, to reach Willowholme Road for the city centre.

i Backtrack to the riverside (or use existing flight of steps with wheeling ramp) for a route to the Castle parks.

"Ninth Legion", Kilmacolm Path

Entrance to Engine Lonning
6 Southern links to Caldew and elsewhere

Feeder routes from the southern part of the city will be important, well defined routes and good details to overcome major road crossings.

- Follow Port Road (on route of former railway).
- Select a largely on road route to the Caldew Cycleway. Traffic calming and other feature required on roads as well as safe crossings of Wigton and Dalston Roads.
- The optimum route to the city centre requires careful work to make a new 1:20 ramp down to the end of Willow Holme Road and existing tarmac path.
- Construct new field edge path as existing footpath is much too restricted.
- Willow Holme Road has wide footway and can link to existing route to the city centre.
- Castle Way is a considerable barrier and a single stage light crossing would open up a direct route to the centre as well as allow the Caldew cycle route to run further northwards.
- The established Caldew Cycleway.
- For a direct route south follow Engine Lonning by constructing a new easily graded ramp up from the viaduct.
- Follow residential roads southwards with appropriate measures and protected crossings of the principal roads.
- The path through the attractive Morton Park could be adapted and widened to make a very useful feeder route.

7 Conclusions and recommendations

The Waverley Viaduct Trust has embarked on a challenging journey to open up the historic Waverley Viaduct with its wide vistas over the Eden, building on Highways England’s conservation work of the structure.

To make the most use of this investment, and to ensure an ongoing long term maintenance support, it will be essential to create a network of popular walking and cycling routes focussed on the Viaduct, using the Viaduct and relying on the Viaduct.

These brief notes sketch out the essential elements of this network, all of which we recommend are brought forward as part of the Viaduct scheme. Early agreements should be reached with landowners on both sides of the river and planning applications submitted, all of which will give added weight to any applications for grant to restore the Viaduct to public use.

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January 2016