



An Accessible Future for Volk's Electric Railway



A proposal to Brighton & Hove City Council

October 2020

Executive Summary

This document sets out a proposal by Volk's Electric Railway Association (VERA) to radically change the future of the world's oldest operating electric railway. Built in 1883, Volk's Electric Railway has run along Brighton's seashore from the Aquarium and Palace Pier to Black Rock for 137 years, with only two short breaks in service during that time.

The railway, officially designated as a Heritage Railway, is an under-utilised asset owned and operated by Brighton & Hove City Council. It has a route configuration that severely limits its ability to raise meaningful revenue. Parts of the railway do little to impress the visitor especially between Banjo Groyne and Black Rock Station. It is by no mistake that VERA has captioned the title photograph in this document as 'Britain's smelliest station?' and it is this vista that attracts by far the most adverse comments from the railway's passengers.

The case for extending the railway towards, or even into, the new Black Rock Development at the site of the old Lido is compelling. Not only would this remove the railway from the scourge of the present terminus but enable it to provide a public service throughout the year to and from a station that is eminently fit-for-purpose.

Being built during the reign of Queen Victoria, the railway's cars were not designed to be accessible to less able-bodied passengers but VERA has bold and ambitious plans to rectify this problem. Inaccessible transport, in any form, is an unsustainable situation for 21st century Brighton and needs to be given due consideration when planning for the future.

Although the railway benefitted from the Heritage Lottery Fund in 2015 -2017, VERA believes there is an obligation to go further in order to fully realise the potential that can be unlocked. Despite the work that was done, there is little to inform the visitor to the seafront that they are heading for the Aquarium Station and that is unacceptable from a marketing perspective.

For more than 25 years VERA has been assisting the Council with the operation and maintenance of Volk's Electric Railway, providing skilled volunteer labour and, from time to time, financial support. Of equal importance is the in-depth knowledge and appreciation of what the railway needs to become the 'outstanding visitor attraction' that it so richly deserves.

The proposal set out in the following pages is in logical steps, each one costed to enable the next to achieve the maximum impact on public awareness and revenue. With an overall 'package' cost of just under £1 million, if all steps were implemented in one financial year then payback could be achieved in 6 years, equivalent to a revenue benefit of £167,000 per annum.

THE PROPOSAL

Step 1 – Signage

For some years and certainly since 2017 when the Heritage Lottery-funded project was finished, visitors arriving at the forecourt of Palace Pier have no idea where Volk's Electric Railway is, even though they are only 400 metres from Aquarium Station. There is, quite simply, nothing to direct them and no signage to tell them they have arrived!

It is quite incomprehensible that the 'oldest operating electric railway in the **world**' is not seen from a distance when standing near the pier, looking eastwards. This is what can be seen:



Two fishermen's huts? An ice cream parlour? Or perhaps a café?

This building is crying out for signage that says 'Volk's Electric Railway, established in 1883 and still carrying passengers along Brighton's seafront' or something very similar.

The sign could be illuminated at nighttime with low-energy LED lamps to good effect.

The cost of a quality sign, in weather-resistant material and frame, fully installed by professional sign fitters, is £5,000 - £6,000. Adding a directional sign on a post near the pier would add another £1,500. If this step results in just a 5% increase in railway patronage each season then the revenue benefit would be 7,600 single journeys x £1.99 (average single fare) i.e. £15,124. **Revenue will cover the cost in less than one season.**

Step 2 – Restoring the Aquarium North Siding

The north siding at the Aquarium Station was isolated in the mid-1960's for an operating experiment that was not deemed a success. The rails were subsequently lifted and this has imposed huge restrictions on the service capability of the railway; it was no longer possible to always have a train at the station, attracting attention and encouraging ridership.



Today, the main supporting girders are still in place so it is possible to restore the siding to its original form. A new set of points will be required and a curve put into the end of the existing platform, in an area that passengers do not use.

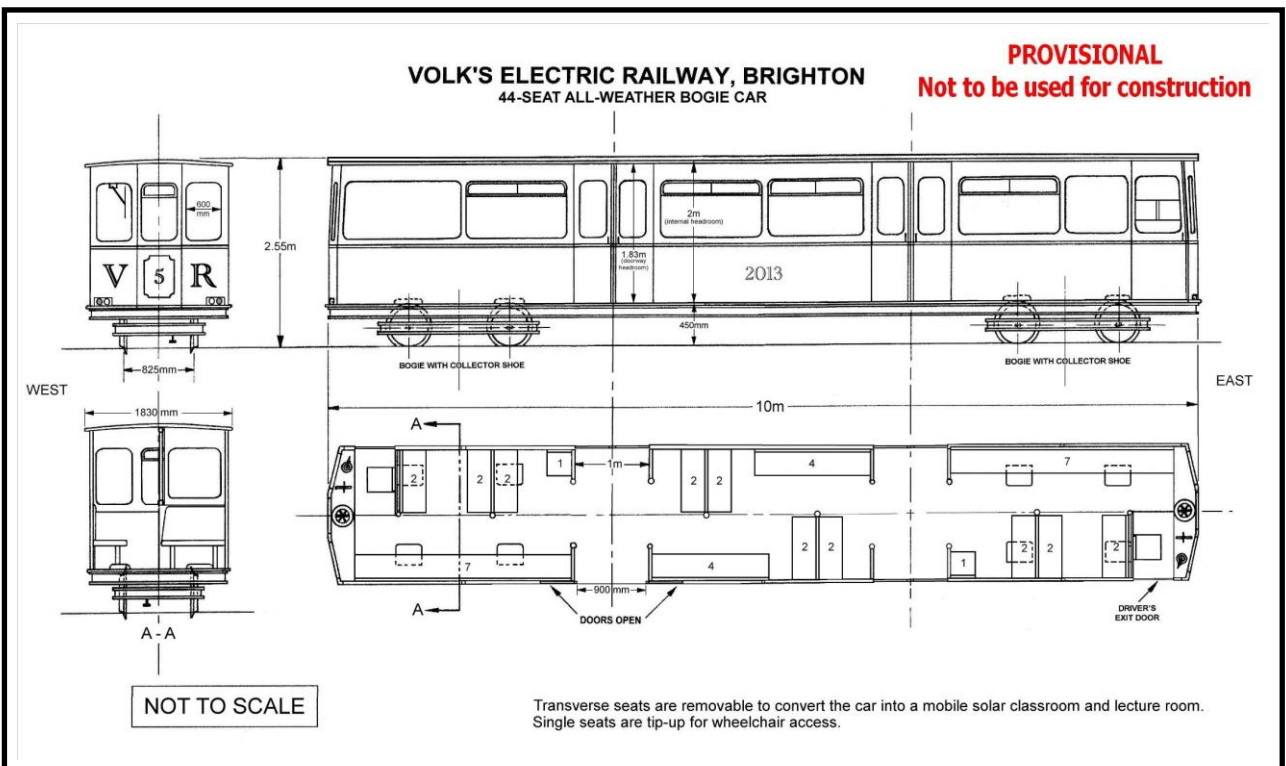
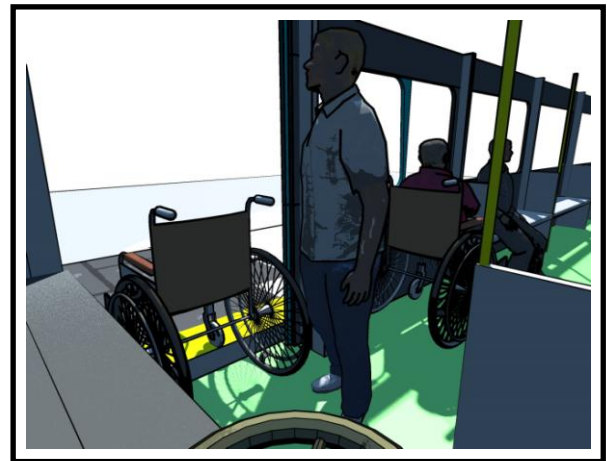
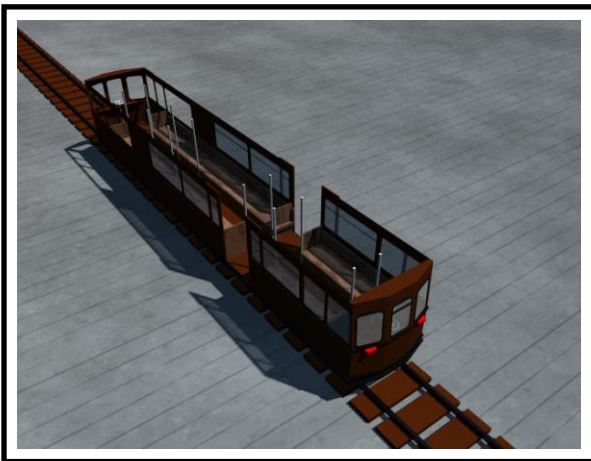
Almost immediately, a 3-car service could be run, increasing capacity by at least 10%. For an expenditure of £25,000 the revenue benefit would be 15,300 x £1.99 i.e. £30,447 resulting in a payback **within one season.**

Step 3 – New Accessible Railcar

The youngest of the Volk’s fleet is a mere 94 years old, the oldest is 128 years. When these were built there was not the slightest awareness of the needs of disabled persons, thus the cars are constructed in such a way that they cannot, and indeed should not, be altered in anyway.

Even though the railway has accessible platforms, it has no accessible cars and means that wheelchairs have to be folded up, either being left at a station or awkwardly loaded on board, creating hazards for the driver and/or passengers. This is a situation that is no longer acceptable and should be put right **as a matter of the highest priority**, in keeping with the Council’s policy of ‘supporting and caring for people with disabilities’.

In 2015 VERA drew up a specification for a fully-accessible, weatherproof railcar for operation throughout the year and in all weathers. It features power-operated doors, wheelchair spaces, good lighting and even heating. Certain seats are removable so it can also be used as a classroom for school visitors. Unfortunately, funding was not available at the time and the project fell silent. However, with the prospect of substantial development at Black Rock there has never been a better time to purchase a brand-new vehicle for the transport link.



This new railcar will be a significant improvement to the railway. As well as providing easy access for disabled persons, it will be modern, comfortable and can be used in poor weather when service is often suspended owing to the open construction of the older cars. With internal heating, the car could operate a basic service in winter months. A car of this type, waiting in the new north siding at Aquarium Station, will deliver a powerful 'we are open for business' message.

Depending on the final specification, mainly dictated by the type of electric control system used, the cost will be in the range £450,000 - £480,000. Allowing for school visits, increased disabled persons ridership and a winter service, the estimated increase in passenger numbers is 25% per annum, giving a revenue benefit of $38,250 \times £1.99$ i.e. £76,117. **Payback on capital could therefore be achieved in 6 years.**

Step 4 – Providing Basic Shelter at Halfway Station

Halfway Station serves the mid-point of the line, giving access to the children's play area and the crazy golf with a café facility. It is also one of three passing loops, the others being known as the Western Loop and the Eastern Loop. Halfway station is exposed to the elements and very bleak, having lost its post-war canopy in the mid-1980's. When the weather is fine, there is no problem but when it is raining, would-be passengers do not wait around and revenue is lost.

The solution is simple. Provide a purpose-built modular shelter similar to those used at bus stops, basic but functional.



Passengers will greatly appreciate this improvement, which will add to the 'visitor experience'. Typical cost for an anti-vandal shelter similar to that illustrated is £4,000 and if it encourages a 1% increase in ridership then the revenue benefit will be $1,530 \times £1.99$ i.e. £3,045, **a payback in less than two seasons.**

Step 5 – Extending the railway at Black Rock

By far the most important investment the Council can make for the railway is an extension beyond the existing terminus. Black Rock Station is owned by Southern Water. It is a venting and pumping station for the Storm Water Collection drain but also serves as a platform at the end of the line with a small room that acts as the ticket office. Without doubt, it is not fit for purpose and is one of the most depressing sights to confront the railway passengers. Looking tired and neglected, the drains emit a highly toxic combination of gases, particularly after a heavy storm when there is a high proportion of sewage content. The gases given off, smelling like 'rotten eggs', are methane, ammonia, carbon dioxide and hydrogen sulphide (H₂S), the latter being the most potent and extremely harmful if exposed to it for long periods. When H₂S combines with moisture it

becomes highly-corrosive Sulphuric Acid that attacks metal, concrete and the human lungs. The effects of this can be clearly seen and smelt at the platform and are a source of constant negative comment.

It is not a pleasant experience for Volk's Electric Railway passengers to be confronted with this stench at Black Rock Station. It is also unpleasant and hazardous to staff working there. It is degrading for the 'oldest operating electric railway in the world' to have to endure such disfigurement.



As a matter of urgency, the railway must be extended beyond the present terminus to a point that will be close to the proposed Black Rock Development. Initially, this could be to a temporary two-siding station, designed to be moved again if necessary and become a permanent building, perhaps inside the new complex. Two sidings would enable a 4-car service to be operated.

There are two options, the first is to extend the line in virtually a straight line, crossing the car park to the new station or secondly, to slew the line south of the Southern Water building and run parallel to the 'promenade'. These options are shown in the Appendix. The second option is preferred as it avoids having to install expensive barriers and signals at the car park entrance/exit and also provides the railway with a short storage siding just west of the existing platform.

An extension, with modest capital outlay, will enable the railway to be a major contributor to the forthcoming 'visitor attraction' at Black Rock. Estimates for this step range from £350,000 to £500,000 depending on the extent of civil works. A new and more meaningful destination could well increase ridership by 30% or more, producing a revenue benefit of 45,900 x £1.99 i.e. £91,341, **a payback of 4 – 6 years. The prestige element of this step will far outweigh that of revenue; it will give Brighton's iconic railway a renewed purpose.**

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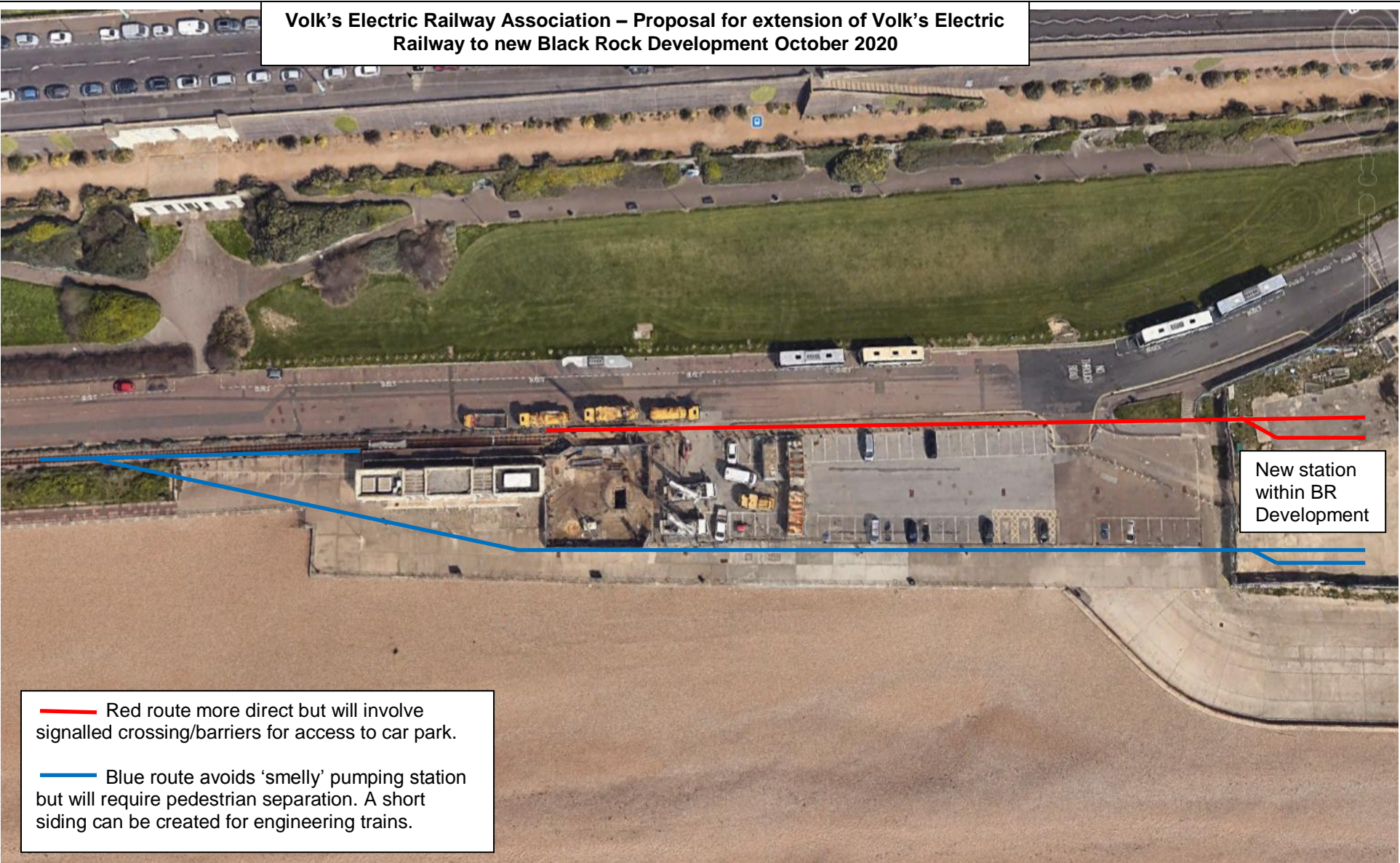
This proposal has been prepared and presented by Adrian Richards and Peter Williams on behalf of Volk's Electric Railway Association.

Notes

1. Costs do not include VAT.
2. Revenue benefits based on 2019 results: Tickets sold 74,853, equivalent to 152,858 one-way passenger journeys at average fare of £1.99. Total revenue £304,272.27
3. The Association was established in 1995 and is now a Registered Charity, No.1186970, dedicated to supporting and safeguarding Volk's Electric Railway.

APPENDIX

Volk's Electric Railway Association – Proposal for extension of Volk's Electric Railway to new Black Rock Development October 2020



New station within BR Development

— Red route more direct but will involve signalled crossing/barriers for access to car park.

— Blue route avoids 'smelly' pumping station but will require pedestrian separation. A short siding can be created for engineering trains.

