Cirencester Community Railway

Cirencester Community Railway

Extended Scheme and Project

Document: Extended Scheme

Document Version **2.1**

Authors: Jane & Richard Gunner 24th June 2017

Whiteway House,
The Whiteway,
Cirencester,
Gloucestershire
GL7 7BA
UK

+44 (0)1285 658929
fax: +44 (0)1285 658717
e-mail: jane@r2g2.co.uk

Contents: Page

1 OVERVIEW 3
2 OBJECTIVES OF THE PROJECT 4
3 JUSTIFICATION 4
3.1 Environmental Benefits 4
3.2 Timing 4
3.3 Status 4
4 IMPLEMENTATION 4
4.1 Tasks 5
5 POSITIVE IMPLICATIONS 5
6 NEGATIVE IMPLICATIONS 5
7 CHALLENGES 6
7.1 Land Ownership 6
7.2 Safety Management 6
7.3 Operation of the Transport Services 6
7.4 Kemble Station Car Park 6
7.5 Kemble Bridge 6
7.6 Beechwood House Bridge 7
7.7 Park Lease Farm Bridge 7
7.8 Adjacent Properties 7
7.9 Chesterton Halt Car Park 7
7.10 Rolling Stock 8
7.11 Security 8
7.12 Ticketing 8
7.13 Combined Use of Route 8
8 PLANNING ISSUES 9
9 FUNDING 9
9.1 Government Sources 9
9.2 Housing Development 9
10 NEXT STEPS 9
10.1 Landowners 9
10.2 Formation of Public Association 9
10.3 Budgetary Costings 9
10.4 Rail Authorities 10
10.5 Feasibility Study 10
11 TOWN EXTENSION 10
11.1 Route Details 10
11.2 Benefits 11
11.3 Challenges 11
12 DOCUMENT VERSION CHANGES 11

1 OVERVIEW

The thriving market town of Cirencester used to have two separate railway lines and three stations. Now its nearest station is Kemble.

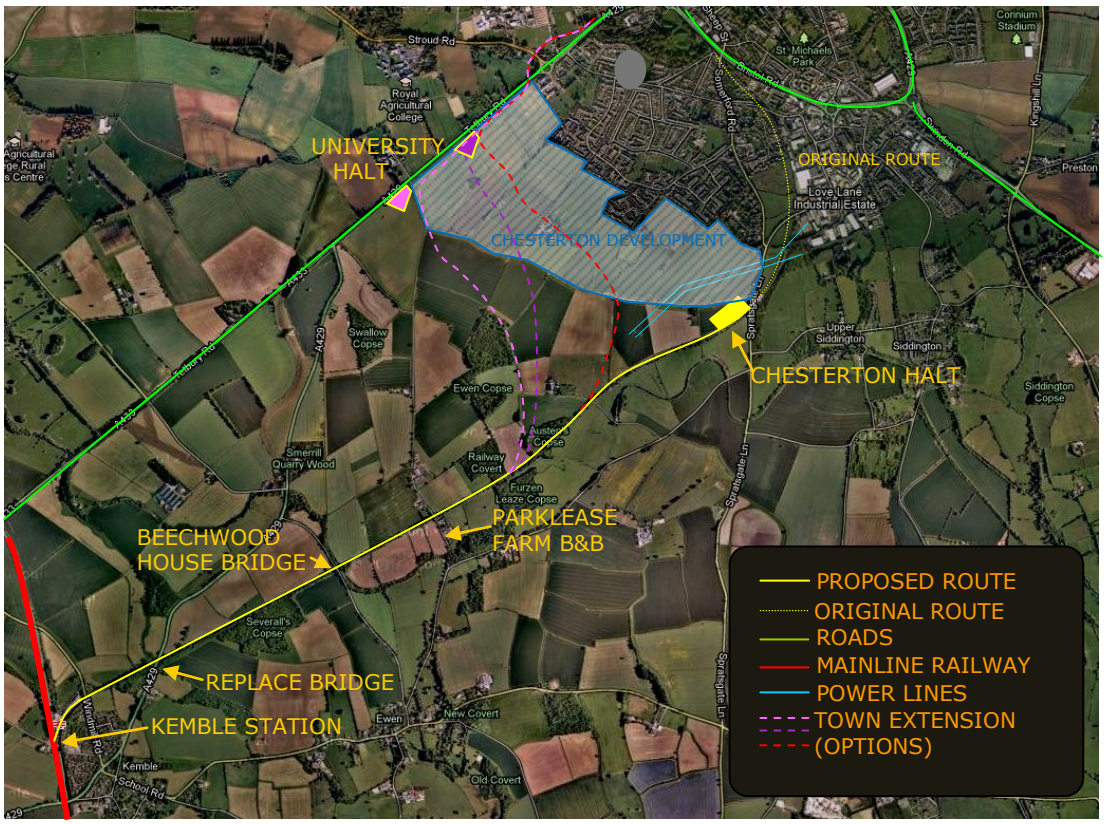

Figure 1 - Plan of the Route, Options and Relevant Features

The track was removed and the wooden sleepers have taken on a role as fence-posts, but the route remains. Most of the way it is an open path, in a few places closed but without major obstructions.

Figure 2 - Sections of the Route

This scheme is a first examination of the possibility of re-instating the route as a railway line to carry passenger traffic from Cirencester to the main line at Kemble. It is intended as a medium for promoting discussion and gathering views and support, and is a living document which will grow and develop as the plan takes shape. The recently-proposed Town Extension is discussed in section 11.

It is not expected that the final implementation will be exactly as outline here, and views and contributions are welcomed.

2 OBJECTIVES OF THE PROJECT

- To re-instate the train route from Cirencester to Kemble
- To build a single-track line following the old route and terminate in the field beside Spratsgate Lane at 51.700478, -1.965932
- To provide a local service to meet all trains on the newly-dualled line between Swindon and Kemble.

3 JUSTIFICATION

The number of people using Kemble station is a clear demonstration of the need for a more convenient form of public transport between the town and the main rail network. This Project will help to alleviate the overloading of the car parking facilities at Kemble Station.

3.1 Environmental Benefits

The provision of regular public transport linking the town with the main rail network will reduce the dependence on cars. A large proportion of the passengers through Kemble are London commuters, so they and all other regular travellers will be able to reduce the number of cars they own, and the distances they travel by car.

An increasing proportion of people, especially in the younger age group, are preferring not to own cars. This is partly due to the ever-increasing cost of fuel, insurance and maintenance. Similarly, an increasing population of more elderly people are living beyond the age where driving is a cost-effective (and safe) option. In all, a large market of potential users of public transport is opening up, and if reliable services are made available this trend will be encouraged.

The rail bus will include provision for transportation of bicycles to increase the catchment areas at both ends of its route.

3.2 Timing

2013 is a particularly important time to proceed with this Project, because

(1) The main line from Swindon to Kemble is being dualled, increasing the number of trains on the line, and therefore the opportunity for passengers to travel via Kemble.

(2) The main line through Swindon is being electrified, giving an opportunity for a major increase in the frequency of trains on those routes.

(3) The land to the west of Chesterton has been allocated for housing, so a significant number of new dwellings will be built on this side of the town in the next few years. This will increase the number of passengers able to walk to the proposed service, and the development of the rail service will increase the value of all the houses on the west of Cirencester significantly.

(4) In view of the significant increase in the population of the Cirencester area, the number of passengers through Kemble station should be expected increase, especially as the new housing will accommodate a high proportion of young families wishing to commute to London. It will be necessary to expand the parking facilities at Kemble Station if this Project is not completed.

(5) It has been suggested that assistance with the clearance, engineering and bridge-building may come under the remit of the emerging charitable organisation JointForcesUK. This will draw on the resources and expertise of ex-service personnel in similar construction Projects.

3.3 Status

There is an expectation that a town of the size and importance of Cirencester *should* have a railway station. With its university and a large tourism industry, Cirencester would derive a huge benefit from an effective public transport link from the rail network and from London.

4 IMPLEMENTATION

This proposal is to re-build a single track following exactly the old route, using modern materials and modern technology.
The rolling stock will be a single motorised carriage, normally housed at the Cirencester platform. This will make a return journey to Kemble to meet each train stopping at the station, with a potential for a stop on demand at the Bed and Breakfast en route.

4.1 Tasks

The following is a list of the main tasks

1. Consultation

Some of the bodies and individuals with who consultation must be held are:
Landowners
Railtrack
Other rail Projects
Cotswold District Council
Materials suppliers
Construction companies/JointForcesUK
Rail bus builders
Signalling experts
Owners/occupiers of Parklease Farm for a halt at the B&B

2. Planning

Feasibility Study
Materials estimation
Assessment of bridges
Costings

3. Construction

Clearing route
Building bridge across A429
Building bridge across Windmill Road, Kemble
Maintaining bridge at Beechwood House
Constructing the station at Chesterton Halt
Provision of services at Chesterton Halt
Fencing route
Laying ballast
Laying sleepers
Laying tracks

4. Establishment of Operating Company

Legal issues
Liability issues
Funding issues
Selection of company type
Selection of governing body
Recruitment of staff, helpers, supporters, volunteers

5. Rolling Stock

Definition of requirements
Identification of possible suppliers
Investigation of electric battery option
Hire or purchase of rail bus

5 POSITIVE IMPLICATIONS

The following benefits are expected to result from this Project:

- Reduced car usage
- Reduced car ownership
- Improved access to the town for visitors, businesses and students
- Increased car parking availability for rail travellers from Kemble
- Increased tourism for the many attractions in the town
- Increased property values in the Chesterton area
- Improved access to Gloucester Royal Infirmary
- Easier access to the new Royal Agricultural University for students, staff and visitors
- Community integration
- Improved employment opportunities for the increasing numbers of non-drivers
- Reduction of traffic at the dangerous junction between the A433 and the A429
- Act as a focus for the new Green Corridors and cycle paths throughout the town

6 NEGATIVE IMPLICATIONS

The existing bus route to Kemble will be to some extent superseded. However, new opportunities for a local bus service will arise, with the need to have a circular shuttle service through the major residential centres of Stratton, Bowling Green, Kingshill, Siddington, The Beeches, Chesterton and the Town Centre.
It will be necessary to re-use some of the existing car parking spaces at Kemble, as the line of the old track runs through what is now car park. However, this will be insignificant compared to the newly extended car park at Kemble, and will be more than compensated for by the much larger car parking space available under the power lines at Chesterton Halt.

7 CHALLENGES

7.1 Land Ownership

After the closure of the old rail connection, the land occupied by the track was sold back to adjacent landowners at a low cost. It is therefore necessary to reach agreement with all the owners of this land. If it is necessary to purchase the land, the Project will need to create a legal entity to own the land and enter into contracts.

In particular, the acquisition of the land for the Chesterton Halt car park may involve a significant sized parcel of land. However, the land selected lies directly under the power lines and is blighted from a residential planning point of view, reducing its value for housing.

7.2 Safety Management

The route is currently open to the public as a walking and bridle path, except for the bridges and some small areas that are fenced off. If this access is to continue, then it will be necessary to fence the line from pedestrians. The rail bus will not travel excessively fast, but nonetheless precautions will have to be thorough to prevent collisions with people and animals. There may be a possibility of automatic vision systems to heck that the line is clear

In addition, all the usual criteria for safe operation of a public railway will have to be met. It would be preferable to operate the service without staff on the rail bus, but this question will be answered by consultation with the appropriate authorities.

7.3 Operation of the Transport Services

In order to meet the requirements for safety and insurance the rail service will have to be operated by a legal entity. Normally tracks, facilities and stations are owned by Railtrack, and services are operated by a major rail company. Agreement will have to be obtained from the regulators to any arrangement proposed.

7.4 Kemble Station Car Park

The route of the old track passes through one side of the car park at Kemble, and although it will be possible to minimise the number a parking spaces lost, this will result in reduced revenue for Railtrack from parking fees. However, since the construction of the new extended car par at Kemble the loss of parking space to the proposed track will not be significant.

One of the main objectives of the Project is to reduce the number of cars travelling to the station, so the demand for parking at Kemble should be reduced while increasing passenger revenue. In addition, a much larger car parking space will be available at the Cirencester end of the line, reducing the number of cars coming from Cirencester and parking at Kemble.



7.5 Kemble Bridge

After the line between Cirencester and Kemble was closed, the bridge over the A429 was removed and the road was straightened. This has resulted in a gap in the embankment about 40 metres wide, which will need to be bridged.


7.6 Beechwood House Bridge

This bridge will require examination, but appears to be reasonably sound. The load on it will be significantly less than it was originally designed for, but its current strength will need to be checked.

7.7 Park Lease Farm Bridge

This bridge carries a road passing over the track, and its strength therefore should not be an issue. However it will still need to be checked.

The possibility of building a 'request' halt there to service the farm and B&B will considered. It is noted that in 1962 there was a halt at this location. For the proposed link, it is suggested that the railcar will make a brief stop there when requested by an internal button or a text message or e-mail request.

7.8 Adjacent Properties

There are a number of properties, originally owned by the railways, adjacent to the route, and it is important to try to minimise the nuisance to them caused by the re-instatement of rail traffic. The Project will if possible use an electric battery-powered rail bus, although this may mean working with possible developers of this technology.

If this technology is not yet feasible then low noise will be a major requirement for the engine used in the rail bus.

7.9 Chesterton Halt Car Park

A car park will be required in the field at the Cirencester end, so agreement of the land owner will be needed, and a significant cost will be incurred in constructing it. However, the preferred area is directly under the power lines approaching Cirencester from the south, so its market value is not as high as other land nearby.

Provision for safe storage of bicycles, as well as shelter for waiting passengers will be needed, and a suitable electrical supply for charging the rail bus. It is proposed that CCTV and other monitoring features are included.

7.10 Rolling Stock

1. Requirements

The Project needs a single reliable rail bus, essentially a passenger carriage with built-in propulsion. In the longer term, ideally this would be battery electric powered, to avoid the noise of a diesel engine and to avoid vulnerability to oil prices. In the interim while technology advances, it may be necessary to use a hybrid diesel-battery-electric to provide on-board power and limit the use of the engine.

Although there appear to be currently no readily available battery electric rail bus vehicles in the UK, discussions with the Future Railway staff indicate that their Enabling Innovation Team is planning to develop a battery electric locomotive in the next two years. This would be a Heavy Rail project and not directly applicable to the Cirencester Community Railway, but will help to create technology for Light Rail applications, and demonstrates an interest in this transportation concept.

2. Sources of Rolling Stock

It is normal for Train Operating Companies (TOCs) to hire the majority of their rolling stock from rolling stock leasing companies (ROSCOs). This arrangement would suit the Project as it would reduce the need for initial investment. It also raises the possibility that in the event of mechanical problems a replacement would be available at short notice.
There are three ROSCOs, and discussions will determine which if any will be able to lease the type of vehicle the Project prefers.

In addition, there is a Very Light Rail Innovation group based at WMG Centre at Warwick University, who are developing a Very Light Rail vehicle. This is planned to be 18m long, weigh only 18 tonnes and would be ideally suited to act as a vehicle for our link.

It is envisaged that it would seat about 40, with standing room for 40 more during rush hours. Provision for convenient transportation of bicycles is also a consideration.

If the VLR vehicle is available in time for our needs, this would enable us to move straight to a technology-leading comfortable transportation system.

7.11 Security

The Kemble end of the route and the track itself will be fairly immune from interference, but the facilities at Chesterton Halt will need to be protected against vandalism and theft. This can be provided by linking to the Cirencester CCTV system which has recently come under the aegis of the Town Council.

7.12 Ticketing

Although the service is likely to be financially independent of the rail network, there will be an expectation that it will be possible to buy a through ticket to any destination. Initially this may be complex to arrange, but it is hoped that as technology develops it will become possible to provide ticket machines on the rail bus, linked to a major rail ticket website.

7.13 Combined Use of Route

Alternative uses for the route are also being proposed, such as a walking or cycling route. The existing path is wide enough to accommodate more than one means of transport, with barriers to maintain safety, although care will be needed to arrange layouts under and over bridges.

We feel that a light rail link will maximise the use of this route, especially during commuter rush hours.

8 PLANNING ISSUES

The following issues are likely to involve discussions with the CDC Planning Officers and Gloucestershire Highways:

- Access Routes and Traffic
- Habitat Impacts
- Environmental Issues

9 FUNDING

For the original railway, funding was raised by public subscription mainly from the affluent population of the town. Today the demographic of the area has changed, and the reasons for travelling have also evolved. The decision about whether the service is run by a profit-making or non profit-making organisation will be made after taking advice, as this will make a major impact on the options for fund-raising.

9.1 Government Sources

Government grants have been available to restoring stations, and it is hoped that some funding for this type of practical, environmentally sound, infrastructure Project would be available from Government bodies.

9.2 Housing Development

It is anticipated that the rail service would be seen as an integral part of the housing development adjacent to Chesterton, as there will be an obligation on the developer to contribute to local public transport enhancement.

10 NEXT STEPS

The following steps are seen as necessary to progress the Project:

10.1 Landowners

To obtain agreement in principle from the owners of the land on the route, the Chesterton Halt station and car park, and the Kemble Station car park. This agreement would not be definitive at this stage, as the feasibility of the Project has not yet been established. However, a broad agreement in principle would pave the way for the Feasibility Study.

10.2 Formation of Public Association

1. Setting up a website
   A simple website outlining the objectives and progress of the Project has been created, at CirenTrain.org.uk.
2. Formation of a Legal Body
   The formation of an appropriate body will require careful consideration; possibilities include a Limited Company or a Community Interest Company.
3. Drafting a Constitution
   A simple constitution is needed to define the objectives and administration of the Association. For a CIC, standard Articles of Association are published by HMRC.
4. Organising an Inaugural Meeting
   Almost without exception, everyone with whom this Project has been discussed has expressed enthusiasm for it, tempered with realistic caution about the task involved. The District Council has also begun to show an interest.
   A public meeting should be called by a notice in the local paper, coupled with an article outlining the Project.

10.3 Budgetary Costings

To find realistic prices for materials and tasks, and calculate costs for the major aspects of the Project. These are seen as:

1. Clearance, preparation, drainage and fencing of the route
   The railway line will require fencing on both sides to prevent livestock and wild animals from straying onto the track.
2. Materials for and laying of the track
   The approximate costs of materials for the construction of the track are required.
3. Materials for and construction of Chesterton Halt
   Although modern rail vehicles are designed to be accessed without a full height platform, some form of raised area will be required, as well as shelter, bicycle racks and car parking.
4. Labour costs for design and construction work
   Although it is hoped that a large proportion of the construction can be undertaken by ex-services personnel under a Government supported scheme, there will be significant labour costs remaining.

5. Costs of construction of bridges
   The construction of suitable aesthetically pleasing bridges will require significant expenditure.
6. Rail Coach, purchase or rental
   The review of the costs will also require a preliminary assessment of the types of vehicle available at reasonable cost.
7. Provision of infrastructure and services at Chesterton Halt
   The installation of electricity, water and drainage will be a significant outlay, but will be significantly reduced if taken in conjunction with the adjacent development of housing at Chesterton.

10.4 Rail Authorities

Preliminary discussions with Government advisors, Railtrack, GWR, etc.

10.5 Feasibility Study

A formal feasibility study will be undertaken to examine all aspects of the Project, including but not limited to:

1. Costs
2. Returns
3. Customer base and usage
4. Legal issues
5. Funding arrangements

The results of this study will reveal the realistic likelihood that the Project will be financially viable and socially and environmentally beneficial, and will determine whether it goes ahead.

11 TOWN EXTENSION

The objective of the Town Extension is to overcome the problem of transportation from the town centre to the Chesterton Halt station. This problem is seen as a significant drawback to the Original Scheme, as it involves busses circulating regularly, and becomes an additional change of mode on the journey.
The original route of the line passes behind industrial units until it reaches Chesterton Lane, and thus far could be conceivably be re-instated. Also, the route alongside the dual carriageway under Bridge Road to the Waitrose roundabout, could be re-instated as there is space beside the road. However, crossing Chesterton Lane and running down Meadow Road, would call for a new bridge or elevated track, and disrupt access to houses.
So for the Town Extension, as an alternative route nearer Cirencester, it is proposed that the line will swing northwards to the corner of the Chesterton Development near the Royal Agricultural University. It will then run alongside the Tetbury Road, crossing at a level crossing and running along the wide footpath down the hill into the town. The line will terminate at Town Halt opposite the Leisure Centre, a short walk from the Market Place and main amenities of Cirencester.

11.1 Route Details

Note that the route for this extension has yet to be defined in detail; in particular the following aspects will be resolved by analysis as part of the Feasibility Study:

1. The route across open fields will obstruct valuable farmland and will deviate from the old embankment. It will therefore require significant earthworks and possibly a bridge for agricultural access.
2. The crossing over the Tetbury Road will require a level crossing or other more expensive solution. If the line is defined as a tramway, then a level crossing is permitted, but would obstruct traffic on the road at regular intervals.
3. It will also be necessary to cross the Stroud Road, and the optimal locations of these crossings must be determined.
4. The gradient of the hill up Old Tetbury Road is estimated to be 1:30. This is well within the capability of the WMG VLR, but the impact of this hill at the outset of the journey needs to be analysed in detail.
5. The exact location of Town Halt must also be determined.
6. The Inner Route (shown in red) passes through the middle of the planned Chesterton housing development; this would cause some disruption to the layout and transportation in the development but could allow stops to be made at more than one place in the development, enabling the train stops to be nearer to be more accessible. However, this would also slow the train and increase journey times, so the benefit might be offset by degrading to overall service.
7. The Outer Route (shown in yellow) passes completely along the outskirts of the planned development, causing least disruption, but requires more track across open fields away from the existing route, and therefore more costly civil engineering.
8. The Medium Route (shown in purple) lies between the Inner and Outer Routes, passing through a small section of the planned development but requiring less construction in open fields.
9. The location of the station is shown at the nearest point to the Royal Agricultural University, which is seen as a major user of the service. It is also near to Cirencester College, so that it

can act as a commuting route for students, in addition to serving the planned Chesterton development. The exact position of the station will be determined by analysis as part of the Feasibility Study.

11.2 Benefits

This extension will provide the following benefits to the line and to the people of Cirencester:

1. The trains will come right to the central part of the town, within walking distance of most hotels and many residential areas. This will be more convenient, avoiding additional transport mode changes and increasing the line's usage.
2. The location of University Halt will give access direct to the University, reducing the need for cars among students and enhancing the University's accessibility.
3. University Halt will also give good access to Cirencester College, providing a convenient route for students from Stroud and Swindon.
4. The car park for University Halt will be directly accessed from the A429 Tetbury Road, with better connection to the A419 and A417. The original Chesterton Halt at Spratsgate Lane would involve a route through the Love Lane Industrial Estate, which is often very congested.
5. The extension to the town centre, coupled with the car park on the Tetbury Road, acts as a Park-and-Ride facility, but one in which the link to the town is regular and already justified. This will help to resolve the over-stretched parking facilities in Cirencester.

11.3 Challenges

The following challenges will need to be addressed and resolved:

1. Running the route across open fields will require significant additional civil engineering work, and the agreement of the landowner.
2. Finding a good route into the town will not be easy, and any solution will be a series of compromises.
3. While the parking land at Chesterton Halt made use of land under the power lines which was not suitable for housing, car parking at University Halt would occupy productive farmland. However, this would be cheaper than land in the town centre.
4. The route of the extension will be less straight than the original route, and although the VLR is better able to negotiate bends this is likely to slow the journey.
5. The addition of the extension will increase the total journey time, making the original objective of meeting every mainline train that stops at Kemble more difficult with only one VLR vehicle. This may therefore require two trains to be running much of the time, with two platforms or a passing place at University Halt.

12 DOCUMENT VERSION CHANGES

2.0	8 May 2017	Addition of the Extension to the Centre of Cirencester
2.1	24 June 2017	Addition of Reference to the Extended Car Park at Kemble

