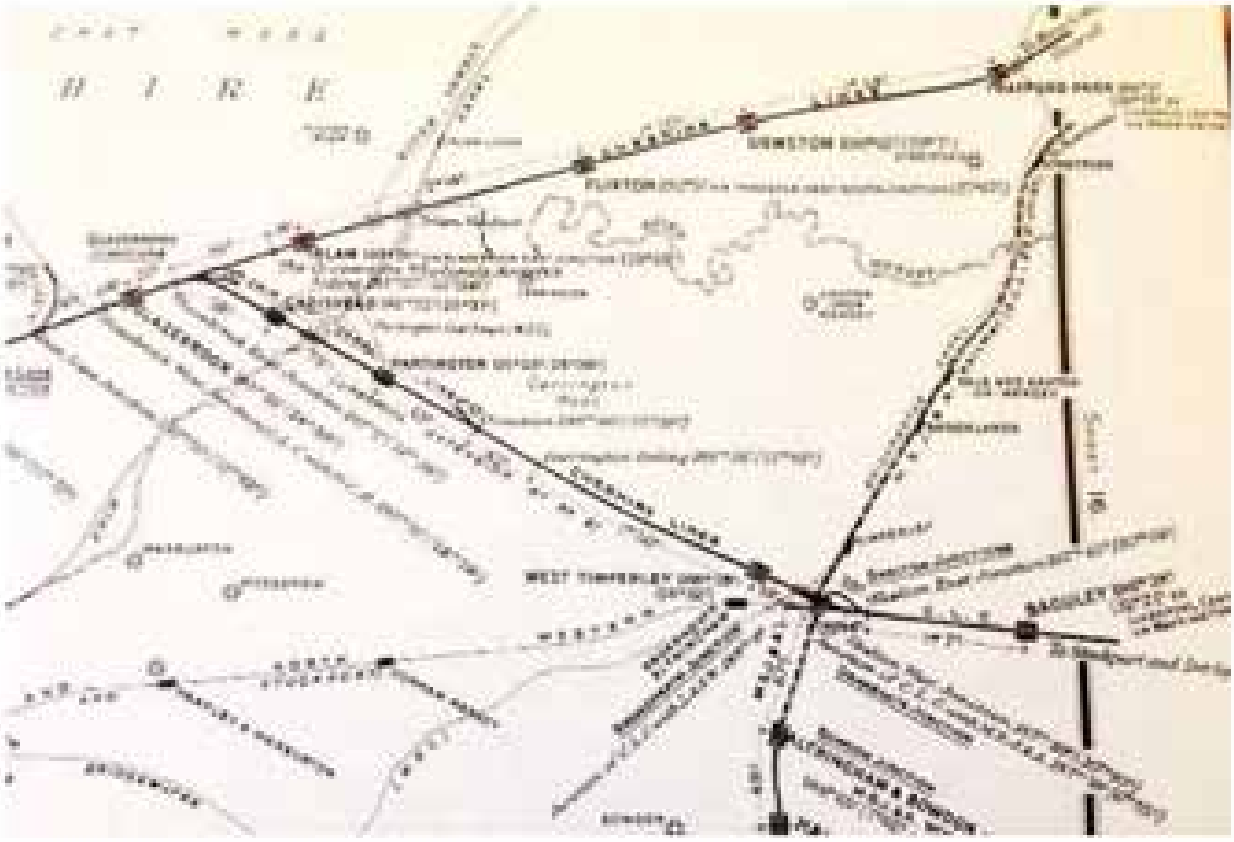
CHESHIRE LINES RAILWAY / CADISHEAD VIADUCT

IRLAM TO TIMPERLEY - GLAZEBROOK TO GODLEY LINE

RE-OPENING PROPOSAL



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May 2015

Version 3.0
Doc Ref: NM/CA/CM/REP/0066
Issue: May 2015 (P1)

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1. INTRODUCTION

This document forms the basis of a proposal to reopen 9.5km (6 miles) of the former Cheshire Lines railway from Irlam (Glazebrook East Junction) to Skelton Junction - Timperley near Altrincham. The line forms part of the former Glazebrook to Godley line, which was closed to passengers in 1964 and freight in 1993. Originally the line serviced three stations at Cadishead, Partington and West Timperley before joining the Altrincham Stockport line at Skelton Junction (Timperley). It is also proposed to re-open a short (1.5km) branch from Irlam Station to Glazebrook East Junction to connect to the Glazebrook Timperley line.

There are two sections of track bed involved:

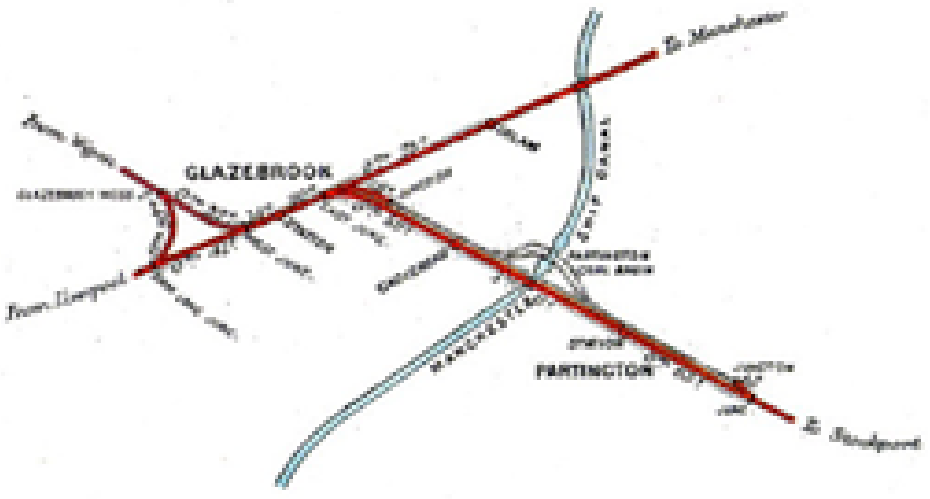
- Irlam Station, ex-Lancashire steel branch line Glazebrook East to Irlam Station - 1.5km
- Glazebrook East Junction through to Skelton Junction Timperley – 8km

The short Lancashire steel branch section between Glazebrook East Junction which runs alongside the main Manchester to Liverpool railway was closed and lifted when the Steelworks at Irlam closed in the late 1970s. The longer section between Glazebrook East Junction and Timperley closed in1984 over the canal and in 1993 to Carrington site.

This proposal builds on the recent success of the re-opening and restoration of Irlam station, a Victorian Station House on the main Manchester to Liverpool line. The proposal is to relay track from just west of the station to Glazebrook East Junction (1.5km), where it would join the disused Glazebrook to Godley line track bed. This would be followed by the relaying of track on the disused track bed from Glazebrook East Junction through Cadishead, across the Manchester Ship Canal, Partington, Carrington, West Timperley and finally to Skelton Junction (Timperley), where a main line connection is possible. There is also the possibility of utilising the disused branch line across the former petrochemical site at Carrington.

The project would be privately managed and funded subject to being able to obtain a track bed lease from Network Rail.

A Heritage Rail Centre would be built at Irlam and either Skelton Junction or Timperley to operate the railway. With rebuilt stations platforms at Cadishead, Partington and West Timperley.



Whilst this proposal is mainly focused on opening a heritage railway, it also promotes a future proofing plan for Multi Model operation should main line traffic return and or light rail be extended from Timperley, through Carrington, Partington to Irlam and Cadishead. Finally, it promotes the re-opening of a canal crossing for rail, road, cycle and pedestrian use.

2. HISTORY

The railway was originally built by the Cheshire Lines Committee (CLC) in 1872, opening for service in March 1873. This line was built principally for freight as part of a rail route from the Yorkshire Coalfields through Woodhead Tunnel, then through Stockport, Cheadle, Timperley, onto Partington, crossing the Manchester Ship Canal into Cadishead, finally joining the main Manchester/Liverpool CLC line just west of Irlam station at Glazebrook East Junction. There were three stations at West Timperley, Partington and Cadishead all of which closed when the route was closed to passengers in 1964. The line however remained open to freight, mainly coal traffic until 1984 when the canal viaduct closed. The coal traffic to Partington coaling basin and Liverpool ceased in 1991. The line finally closed in October 1993 when freight services to the Carrington branch closed.

The route also has a branch line through Carrington Petrochemical Works originally for delivery of coal to Carrington Power Station and to serve the Petrochemical site. The branch finally closed in 1993 when the chemical works at Carrington ceased to use it. The coal fired power station is now closed and being replaced by a gas fired station. The branch line track bed is however, still in existence until it meets the A6144.

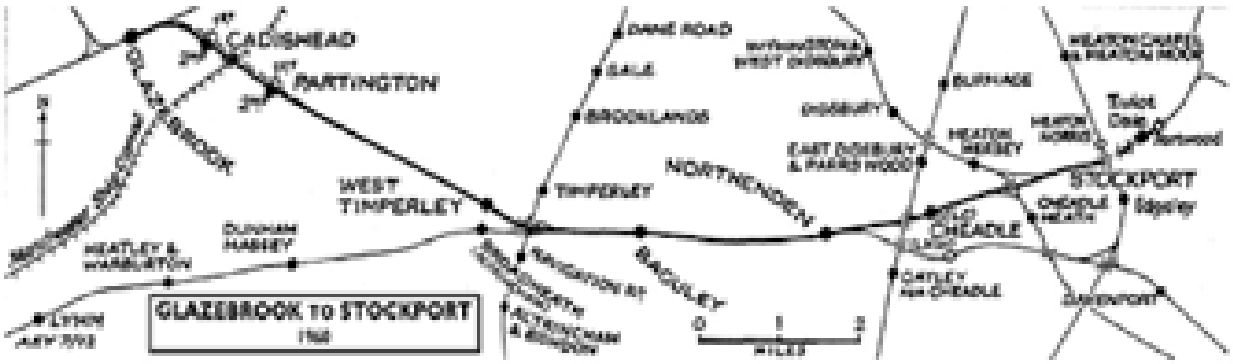
Cadishead viaduct is one of five rail crossings over the canal. It was built in 1892/3 by the Manchester Ship Canal Company (MSCC) when the Cheshire Lines railway was re-aligned 43 feet higher following the construction of the Manchester Ship Canal. This rail crossing is known as Deviation 4. Shipping on the canal required a water clearance of 75 feet. When the deviated rail line was reopened the existing line was severed by the canal construction. The rail lines either side of the canal were retained by the MSCC for use by the Partington Coaling Basin and the Ship Canal Railway which have both since closed. They remained connected into the main CLC railway at Glazebrook East Junction on the north side and just south of Partington station on the south side. They are relevant to this paper as the routes are still in existence and the land in the ownership of the MSCC (Peel Ports) adds considerable width to the route and therefore potential for multiple use and possible road access to the viaduct.

The rail line from Altrincham to Glazebrook East was a twin track line, however the Canal Viaduct was built to carry four tracks for future expansion that never came, hence its considerable width.

3. ROUTE DISTANCES

The line is known in railway circles as the Glazebrook to Godley line, Godley being just East of Stockport, where it joined the Woodhead line. The route truncated at Stockport when the M60 was built, however, the line between Skelton junction (Altrincham) and Stockport remains open to rail traffic. The part of the line of interest to us is between Skelton Junction just east of Altrincham and Glazebrook East junction, which is actually in Cadishead. The total distance is 8km (5 miles), broken down as follows:

- Skelton into Carrington site Junction 4.5km
- Skelton Junction to Partington Manchester Road A6144 6km
- Skelton Junction to Cadishead Viaduct 0.5km
- Skelton Junction to Glazebrook East Junction 8km
- Skelton Junction to Irlam Station 9.5km
  (note 1.5km is from Glazebrook East to Irlam Station)



4. STATIONS ON THE ROUTE

There were/are three stations on this route, plus the proposed branch into Irlam:

- Irlam
- Cadishead
- Partington
- West Timperley

All of the above stations closed to passengers in November 1964, with the exception of Irlam Station which continued to be operational. The remains of Cadishead, Partington and West Timperley station can be seen on the following website http://www.disused-stations.org.uk/w/west_timperley/

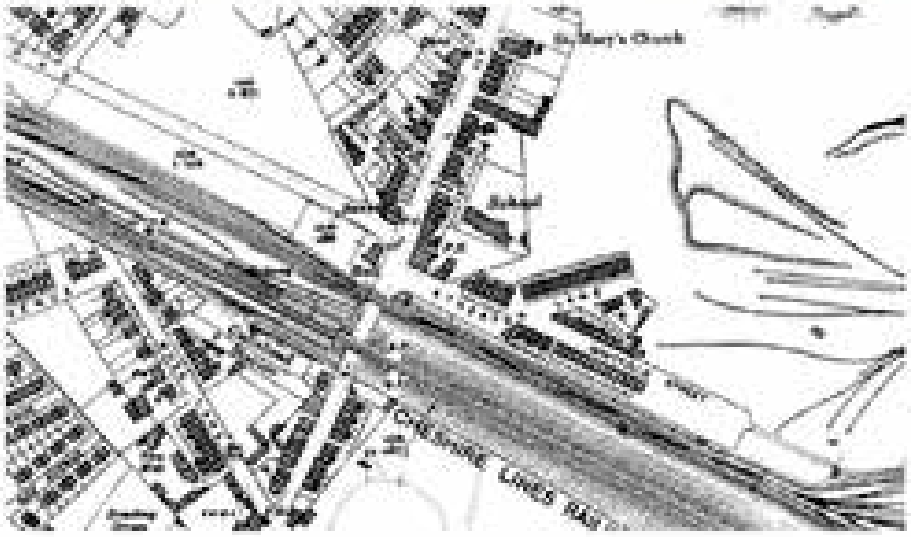
4.1 Irlam Station

The station has recently (2015) undergone a complete refurbishment and the original Station House has been put back into service. Having been restored to its original architectural stature, it is now a heritage railway station.

Irlam Station would form the northern extremity of the line and provide services to operate the heritage railway. It has parking and refreshment facilities as well as frequent services on the main Manchester to Liverpool line, which are used by over 250,000 people a year.

4.2 Cadishead Station

Cadishead Station is situated on Liverpool Road, Cadishead. It is around half a mile from Glazebrook East Junction and a mile (by rail) to Irlam Station. Prior to closure it had substantial station buildings, as can be seen below.



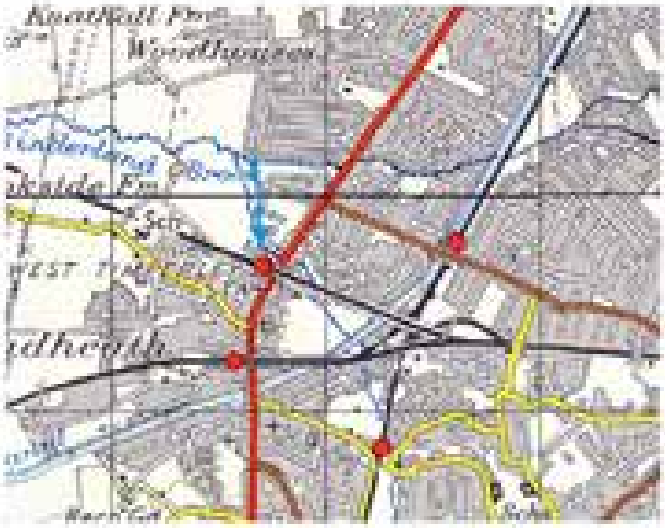
The 1980s picture above shows Glazebrook East junction is in the distance

4.3 Partington Station

Partington Station is situated on the A6144 just to the east of Partington Village. Like most of the Cheshire Lines stations, Partington had a substantial station building. It would have been rebuilt (like Irlam) in 1892/3 due to the construction of the Manchester Ship Canal.

4.4 West Timperley Station

West Timperley Station is situated just south of the A56. The map shows the stations location and the final rail connection to Skelton Junction where it joins the Altrincham Stockport line.



5. ROUTE AND TRACK BED OWNERSHIP

The route and track bed as we understand it, is reserved as being potentially useful as a rail route sometime in the future. It is therefore unobstructed all the way from Skelton Junction to Glazebrook East Junction. The route is in the control of Network Rail rather than the residual rail authority. The track bed from Glazebrook East Junction to Irlam station is also in the control of Network Rail.

The two parallel branches either side of the canal and running in parallel to the CLC line from Partington station to the Canal and from Glazebrook East Junction to the canal are owned by Manchester Ship Canal Company (Peel Ports).

6. BRIDGES & CROSSINGS ON ROUTE

In total there are six road over bridges and four under bridges on the south side. There are two under and one over bridges on the north side. There is also one over bridge on the Bridgewater Canal and the main viaduct at Cadishead. All road over bridges are maintained except Sandy Lane foot / cycle bridge in Cadishead. Rail over bridges exist but, presumably only have limited maintenance for safety.

6.1 South Side Skelton Junction to Carrington

6.1.1 Over/under road, rail foot and river/canal bridge

- Manchester Altrincham railway over bridge
- Bridgewater Canal over bridge
- A56 rail over bridge West Timperley station (disused)
- Turnbull Road under bridge
- Woodcote Road under bridge
- Birch Road under bridge
- Brook Hays road bridge crossing
- Dunham Road underbridge
- Sinderland Road
- A6144 Manchester Road overbridge Partington station (disused)
- River Mersey dry bed, bridge removed

6.2 North Side Cadishead to Glazebrook East Junction

6.2.1 Road over bridge

There are two over bridges at Sandy Lane and New Moss Lane, Cadishead shown below. Sandy Lane is now only open for cycles and pedestrians. The extent of the route width can be seen in the photograph below. Glazebrook East Junction and the main CLC Manchester line lies just beyond the bridge

6.2.2 Under Bridges

There are only two road under road bridges north of the canal. The new tunnel for the A57 Cadishead bypass and the Liverpool road B5320 road crossing. The former is only a few years old.

The B5320 crossing shown below remains in good condition. Cadishead railway station (closed 1964) lay between the two bridges shown. The bridge in the background is the Canal lines branch.

7. CARRINGTON STRATEGIC SITE ACCESS

The former chemical works at Carrington has been declared a strategic development site for Greater Manchester. The route connects into the west side of the site and has rail access through it. The viaduct has the potential to give a canal crossing linking Irlam and Cadishead to Carrington for rail (light and/or heavy), cycling, pedestrian and possibly limited weight road vehicles.

8. IMPACT OF COMMUNITIES

8.1 Partington and Carrington

Partington has a community of 8,000, Carrington is currently much smaller, but there are major plans for the expansion of housing. From a rail transport view both are fairly isolated. Flixton station is 6km from Partington and currently even further from Irlam, via Warburton Bridge. Re-opening this line and Cadishead Viaduct to multi modal use would reduce the distance by 0.5-3km. Both communities would benefit from better communications and this would help economic growth. With only modest house building in Partington and Carrington it would increase Irlam Stations 3km catchment area population by 50% to around 30,000.

Re-opening the viaduct would improve the environmental amenity to the proposed housing development by Peel Holdings along the canal bank in Partington and also planned developments in Cadishead.

8.2 Tourism

Heritage Railways are an expanding sector in the UK, often run by large number of volunteers supported by professional and experienced staff. Railways do for some reason evoke significant emotion and nostalgia in people and the support for them is substantial and increasing. Heritage Railway Lines and Centres attract substantial tourist interest and bring people from far and wide to see and ride on them. Two examples of the nearest Heritage Railways are:

- Worth Valley Railway at Keighley attracts over 100,000 visitors a year to its 4 mile track and heritage museum
- The East Lancashire Railway attracts over 200,000 visitors a year to its base at Bolton St Bury. It operates about 12 miles of track

Relative to the rest of the UK, the North West has few heritage railways, of the two above only one is in Greater Manchester and is a major success, as a tourist attraction and an employer.

8.3 Employment

Operating and maintaining a heritage railway, whilst making much use of volunteers will also generate employment. Re-opening the station house for rail use at Irlam will create over 20 jobs. Re-building the line will involve much sub-contracted work and once open will require staff to operate. We can easily see this project having in excess of 100 employees.

8.4 Environment Impact

The route is largely derelict but, as private land is not accessible to the public, re-opening this route will both maintain and improve amenity. Specifically, it will address the eyesore of the disused canal viaduct. It will also provide an accessible green corridor over its six mile route.

8.5 Cycling and Walking

This project will have a major impact on both cycling and walking. It gives us the opportunity to open up over 6 miles of cycle and walkways between Irlam, Cadishead and Timperley. It will allow connection of national cycle routes, including the TransPennine Trail and more importantly, open a much needed access route across the Manchester Ship Canal. Communities on both side of the canal will benefit.

9. RE-OPENING CADISHEAD VIADUCT

One of the bigger challenges of this project would be re-opening the rail viaduct over the canal. The best potential we have of financing the re-opening the viaduct is to find as many uses as reasonable for it. Fortunately, the viaduct was built as a four track bridge and therefore has potential capacity for more than single use. The route remains a reserved route by Network Rail which is why the track bed is uninterrupted over its length. Re-opening it for heavy rail freight use alone will however be very costly and its justification based as a freight route to avoid Manchester is difficult. The best option is therefore to find as many compatible uses as possible, share its use and hence cost of repair.

Possible uses are:

9.1 Heritage Railway

This proposal is about the Heritage Railway but the canal viaduct is a substantial resource that could be shared. The Heritage Railway Trust could however be the catalyst and the driving use that leverages several other uses. It will attract a lot of funds from the private sector and there are well established models for running heritage railways. As a reserved route we have to find a way to re-open a heritage route but, not prevent future re-opening to heavy rail and other uses as follows:

9.2 Heavy Rail

The origins of the rail route are described above. The route is complete from Skelton Junction West Timperley near Altrincham to Glazebrook East Junction. The route beyond Skelton Junction to Stockport is also still in use. There is therefore a possibility this route could re-open to heavy rail if demand exists. The most likely driver for this would be freight. The viaduct is an expensive component on the route. Only Network Rail can answer the question of potential route re-opening and to date whilst it is a reserved route, there are no firm plans to re-open it for heavy rail.

9.3 Metro Link

Manchester Metro Link route follows the Manchester South and Altrincham Junction Railway route from the city centre to Altrincham and passes Skelton Junction just East of Altrincham between Timperley and Navigation Road stations. The possibility, therefore, exists to extend the Metro link from Timperley/Altrincham, servicing Carrington strategic site, Partington, Irlam, Cadishead. It would also be possible to link the route into Irlam station or along Liverpool Road. The total route distance is 9.5Km.

With plans to bring Metrolink to Port Salford, the extension from Port Salford to Irlam station would complete a circular route taking in the west and south west of Greater Manchester, opening up the potential of the large Carrington site for development. There are no plans to do this but, it is possible to mix heavy and light rail and if the route was re-established it would be a step nearer.

9.4 Road Crossings

The canal has a limited number of road crossings and they are hugely expensive. Cadishead lies 8 km west of the M60, 3km east of Warburton Bridge and 7km east of the M6. Another crossing could be brought into use at relatively modest cost for the capacity gained.

The completion of Cadishead A57 Bypass allows local connection from the A57 on the north bank of the canal and the redundant Parrington Coaling basis sidings and branch line parallel to the main route embankment links the canal to the A6144 connecting between Partington and Carrington at the site of the disused Partington station.

Assuming the bridge main steel work is replaced, it would be possible to put two single tracks roads across the viaduct, should Metrolink arrive or heavy rail return, this could be a shared resource along with the heritage line.

The original viaduct design loadings are very high due to the four track heavy rail design. We have made an assessment below of load capacity.

9.5 Cycleway and Pedestrian Access

Both cycle and pedestrian access could be restored as part of a reopening. A footpath and cycleway along the side of the disused route could then be built. The route accesses the TransPennine rail near Altrincham and plans are underway for onward cycle connections north and west across Chat Moss from Irlam and Cadishead. Joining up the TransPennine trail to Irlam and Cadishead with its route North across Chat Moss is a worthy addition to the national cycle network.

Additionally, it would bring the 8,000 residents of Partington to within 3km of Irlam Station, halving the distance they must travel to Flixton station today.

10. SHIP CANAL VIADUCT INFORMATION

On first glance this would seem a daunting task, especially for a Heritage Rail Trust. Its dominance to the eye adds to that feeling however, it is not that big a job in engineering terms, we have a lot on our side. The vast majority of it is built in high quality engineering brick, with only the centre span steel.

The brickwork in the viaduct remains generally in very good condition due mainly to the quality of the engineering brick used in its construction. Unlike its sister viaduct at Irlam the approach viaducts retained their brick arch construction (at Irlam these were removed in 1895 to remove lateral loads, due to pier slip towards the canal). Having brick approach viaducts in comparison significantly reduces the Cadishead viaduct re-opening costs as it is only the central steel section that requires repair/replacement.

The central steel section is the original steelworks and is badly corroded. It spans 137 ft/42M and weighs 494 imperial tons. The design load of the bridge is unknown exactly, but the span laid with track was tested with 750 imperial tons using rail locomotives prior to opening in 1893.

The viaduct is a four track bridge however if finances are limited we can accommodate the Heritage Rail line, cycling and pedestrian access on half of it.

Currently the viaduct is secured off with old shipping containers. The aesthetics of this are poor to the future plans for regeneration of Partington and Cadishead canal banks.

11. VIADUCT STRUCTURE

We don't yet have a lot of information on the bridge structure. The original steel structures for both Irlam and Cadishead viaducts were manufactured by the Glasgow firm of Sir William Arrol & Co. The Cadishead viaduct spans 137 feet and has 494 imperial tons of steel in its main span.

The main structural piers are 192 feet high, 20 feet thick and 86 feet wide. The piers were built 17 feet below the bed of the canal. From this we can work out the approximate potential load the main piers can carry. It is very substantial. Our focus will probably be the repair/replacement of the central steel structure.

Load testing with 750 tons of locomotives in 1893

Pier connection loading points (right)

11.1 Route Gradients

The gradient on the route from Skelton Junction to Glazebrook East is fairly low, the peak gradient is 1:135 on the embankments one mile either side of the canal.

12. COST OF RE-OPENING THE VIADUCT

The cost of re-opening the viaduct will be substantial. The challenges of working over an active waterway at 75 feet, removing and replacing significant amounts of steel requires experienced contractors. We know that the replacement costs of the steelwork on the Irlam viaduct was around £5M in 1998, however, Cadishead has four major advantages over Irlam:

- The steel section is the centre span only and not the approach viaducts as at Irlam. This more than halves the amount of steel work to repair
- The Cadishead centre span is 12 feet shorter (137 ft vs 149 ft) and has 10% less steel in it (494t vs 550t)
- The viaduct is closed to all traffic, unlike Irlam which had to remain open to heavy rail traffic during the steelwork replacement. In order to remain open major repairs were first needed to the east side structure. Being closed to traffic makes site management and engineering costs significantly lower
- If financially constrained, we could refurbish only half the viaduct

13. FINANCING THE HERITAGE RAILWAY AND REPORTING THE VIADUCT

Our proposal is for a private sector led initiative, however it may be that we can attract public sector money for several aspects of the proposal such as cycling, pedestrian and possible vehicle use. We propose to establish a Heritage Rail Trust to manage this project. We have the funds to carry out the feasibility study and prepare detailed proposals to Network Rail and Trafford and Salford councils.

14. MAIN LINE CONNECTIONS

Main line connections are important to Heritage Railways, in order to access the increasing number of main line certified heritage locomotives available. In this case the possibility exists for main line connections at both ends - Skelton Junction connection to the Stockport line and Glazebrook Junction to the west running the main Manchester Liverpool line. There are also passing loops at the old exchange siding at Glazebrook which would allow access east, running to Manchester.

15. POSSIBLE FUTURE LINE CONNECTIONS

In addition to the potential freight uses noted above, re-establishing this link would also allow the potential for expansion of track access services outside the main franchise framework.

16. CHESHIRE LINES HERITAGE TRUST

The Trust is not yet established, however we have funds to do so and subject to support from Trafford and Salford Councils and a commitment from Network Rail to seriously consider and help facilitate this initiative, we will do so.

17. INITIAL ACTIONS

17.1 Political Support

In order to test the feasibility of this project the Trust will need political and officer support from both Trafford and Salford councils. We hope that they will see the potential wide ranging benefits to this project, in terms of:

- Sorting out an unsightly viaduct on our canal banks
- Improving tourism in Salford and Trafford through the attraction of a Heritage Railway
- Environmental improvements to over 6 miles of disused railway
- Laying the foundations for future wider use of this route
- Opening up the route to cycling and pedestrians, connections to national cycleways

- Employment
- Bringing the communities of Partington, Carrington, Irlam and Cadishead together
- Improving people within the 3km travel zone of Irlam Station by around 50%
- Halving the distance to a railway station for residents of Partington and Carrington

17.2 Network Rail

Network Rail play a key part in this project; the route, track bed and viaduct are all in their ownership. To succeed we have to find a way of convincing them of the wider benefits of this plan and our ability not to prejudice future route uses. There is much they can gain not only in their statutory duty to develop rail and re-use assets, but in reduction of their maintenance costs and maintenance and re-establishment of a 6 mile route for future use.

The government strategy published in 2004 outlines the way communities can get involved in local and branch lines. Network Rail has an increasing number of major UK wide projects to address. The community rail development strategy was established for project such as this to enable the re-opening of disused lines and adoption by local communities.

17.3 Feasibility Study

Subject to the support of Salford and Trafford Councils and the willingness of Network Rail to engage in negotiations, we are proposing that a feasibility study be undertaken to test the viability and impact that such a project might have. We have the funds to undertake such a study and would like to proceed subject to the above.

18. APPENDIX

18.1 Photographs en-route

The Viaduct today, sealed off with old containers, not the most attractive security method.

Cadishead viaduct in the distance up the 1-135 gradient from Cadishead Station with Liverpool Road bridge in the foreground.

Canal Viaduct and dry Mersey Crossing clearly visible. The Mersey dry river bed bridge has been removed.

Partington coaling basin sidings and Ship Canal branch lines running parallel at lower level to the main line offer us a wide corridor. On the south side to the A6444 and on the north side back to Glazebrook East

View south from Glazebrook East junction showing Main line elevated and Ship Canal branch line running parallel giving us a wide corridor to the canal viaduct