

Dear Jims, LOCAL PLAN REVIEW.

I attended the consultation event at the Park Royal Hotel + collected a number of documents including a one page paper entitled "Warrington Borough Council Local Plan FAQs" - in this document it mentions the crossing of the Ship Canal with a public transport link (possibly a busway) using old railway bridge. I will comment on this later.

Generally I am not against the extra housing - most of these proposals were in the original New Town Plan + as long as they are linked into adequate proposals to increase the infrastructure - mainly roads but also schools, doctors, surgeries, District Shopping etc.

I say above "mainly roads" but there are public transport options - see the enclosed "pre-feasibility study report" for a Warrington Tramway Solution (I understand a copy has previously been handed to the Chief Executive. The Tramway Scheme suggested is in the form of a cross N/S + E/W but it can be extended to serve the proposed Garden City Suburb + with stations to serve the other major developments eg. in Grappenhall

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The Pre-feasibility Study Report also suggests that private funding is available + not an increase in public expenditure.

The Tramway option may also save major highway improvements on the A49 / A57 if linked to Park + Ride to link into the Tramway Terminals.

Please take these ideas into account.

# Warrington Tramway



Trampower

## Pre-feasibility Study Report

Prepared by



**Trampower**

*Leading to better transit*

# Warrington Tramway

## Pre-feasibility Study Report

### SUMMARY

Until 1935 Warrington had a five line tramway, serving a large part of the town. Now the car is the dominant mode of transport, carrying 80% of trips. The result of this is regular and serious congestion. Trams in other places have attracted significant trips from cars, reducing traffic congestion.

This Report sets out how Warrington could have a tram network, at no cost to the public purse, by identifying self funding lines, with a maximum attraction of trips from private cars. Trams are proven to attract trips from cars, so reducing congestion, toxic traffic pollution and pressures on car parking, especially in the Centre.

Trampower is promoting a tramway in Preston, privately funded, which will attract about 25% of the car trips in the corridor. This is in line with other UK tramways. Such a reduction of local traffic can provide space for the promotion of other sustainable transport like walking and cycling.

The Preston GUILD Line is being promoted by means of planning applications to the Local Planning Authority. It has the support of 80% of local residents who took part in a 1 in 4 household survey, with a 42% completion rate. Independently the local paper conducted an on line poll with 78% voting in favour of trams.

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## 1.0 Introduction

### 1.1 The first tramway.

Until 1935 Warrington enjoyed a five line tramway service (Fig. 1). Like other Municipal systems it was a victim of competition from cars and buses, and under investment to repair or keep the system up to date.

Fig. 1 Warrington operational tramway

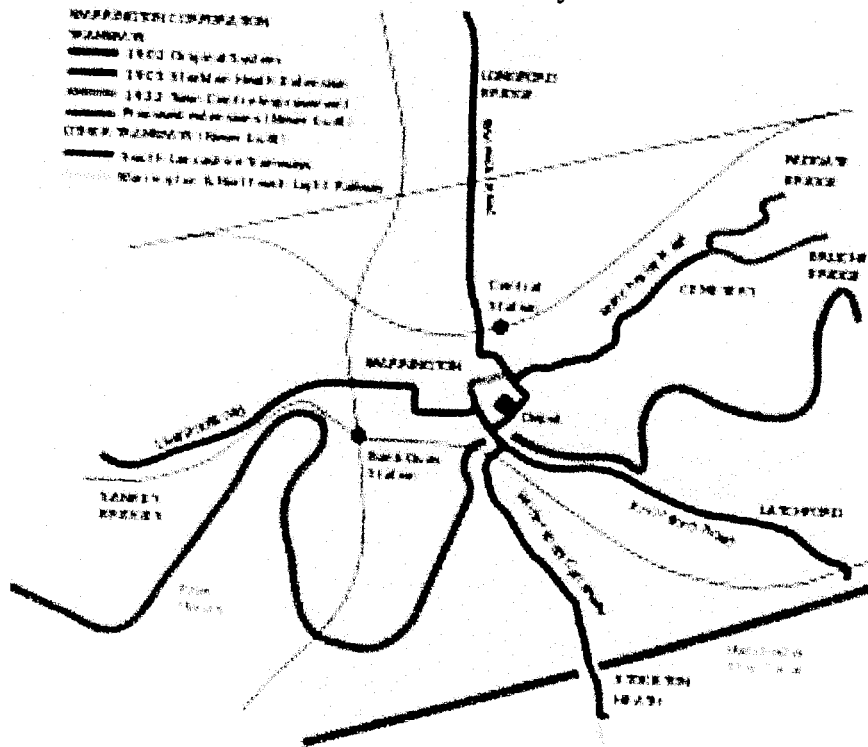


Fig. 2 Tram at Bridge Foot



There are many towns in other countries, smaller than Warrington (pop 208,000) that have tram systems, providing acceptable alternatives to car commuting.

Table 1 Towns with tramways

Year	Location	City Pop. *	City Area (km2)	Pop. Per km2
2006	Valenciennes, France	45,000		
2001	Messina, Italy	247,593	211	1,173
2000	Montpellier, France	244,700	56.9	4,300
2000	Orleans, France	113,126	27.48	4,117
1999	Kaiserslautern, Germany	98,044	139.7	702
1997	Saarbrücken, Germany	180,515	167	1,080
1996	Oberhausen, Germany	218,898	77	2,843
1994	Rouen, France	106,592	21.38	4,986
1992	Karlsruhe, Germany	285,812	173.46	1,648
1991	Lausanne, Switzerland	128,302	41.37	3,101
1987	Grenoble, France	157,900	18.13	8,709
1983	Utrecht, Netherlands	288,535	99.32	2,905

Data collected by Colin Griffin, Galway Technology Institute

Presently Warrington is dependent on car travel (over 80%) (Table 2). This has been made possible by new and increased road capacity, and growing car ownership over the last 30 years.

“Green light for light rail” making it clear that no new tramways would be funded, unless the CAPEX was nearer the cost in other countries. Since then there has been the Edinburgh tramway cost escalation problem.

#### 4.3 Business Plan

The final part of getting a tramway built and operating is preparing a Business Plan. Business Plans have been provided for new tramways in Galway, Hamilton (Ont) Preston, Slough and Southwark. This cost of this will be £45,000. It will include identifying an operating partner, as well as setting out the investment profile, the opening procedure, revenue build up, and hence the need for working capital. The Business Plan will set out the most cost effective method of selecting a contractor to undertake the construction.

#### 4.4 Potential Funding

It is doubtful that there will be any public grants available for a new tramway in Warrington, because the alternative calls on public funds, e.g. NHS, schools etc., are so large. Public funding also means that there would have to be a competitive bidding process. Given the high cost of preparing such bids and the small chance of winning, many contractors are loath to submit bids, or will front end load them in order to recover the risk of preparing such bids.

In comparison with the technical risks, e.g. ground conditions, utility plant etc., the biggest risks arise from the public sector and politics, e.g. changes in policy. This is why PFI and PPP projects are so expensive. Private contractors inflate costs to cover all possible public sector and political risks.

The Business Plan will identify viable tramlines, and make these fundable by private or commercial sources, or other debt based capital investment, including syndicates of local investors. With

conventional investments providing low rates of interest, a tramway with an IRR of about 10% is an attractive option, even allowing for the perceived risk of a start up investment. The £25million Preston GUILD Tramway is being funded in this manner.

## 5.0 Practicalities

### 5.1 Approvals

Publicly procured tramways have used Transport and Works Act Orders to gain approval. Local authorities giving themselves such powers, especially for contentious projects would be a conflict of interest. The Department for Transport is clear that such powers can be granted directly by a Local Authority, approving a planning application.

This is the route adopted by the Preston GUILD Tramway<sup>4</sup>. It also means that the Local Authority and Councillors can be fully engaged with the decision making, and therefore involve their constituents. A tramway project, locally determined will have better ownership, than a decision made remotely by the DfT ?

### 5.2 Operating the system

The tramway promoting company could set up an operating division. The tramway could also be operated by one of the local transport enterprises. This would allow a rationalization and optimization of services, to improve the public transport offer in Warrington. In preparing the Business Plan, negotiations will be undertaken and an agreement in principle could be reached.

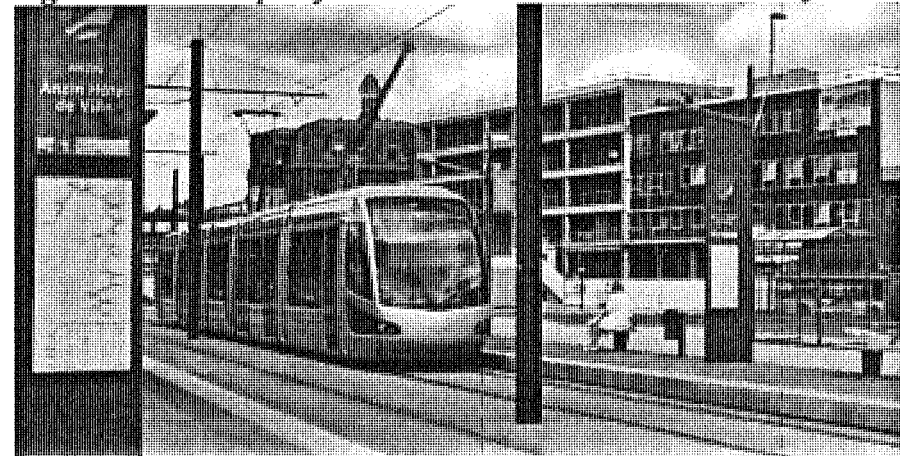
### 5.3 Integrating public transport

Integrating the local public transport system is more than common operations, since there will always likely to be several other operators in Warrington, including taxis. It means convenient interchanges for park and ride, as well as railway and bus stations. These will be important considerations in the Feasibility Study.

### 5.4 Economic impact in Warrington

Warrington is an important regional centre, with a hinterland stretching south and north but sandwiched by Liverpool and Manchester to the west and east. From experience in other places, it is clear that fixed track tramways provide a quantum improvement of public transport. This can be a catalyst for increasing investor confidence (Fig. 7). There is strong evidence that tramways raise the value of property along routes<sup>5</sup>.

Fig. 7 Property investment follows a new tramway.



Whilst these economic benefits are unlikely to result in a financial gain for the new tramway, they will boost the revenue of The Council, as well as generating new high value employment.

### 5.5 Environmental issues

Warrington has a high burden from toxic traffic pollution, with an estimated 100 people being killed pa from particulates. There is no data available for NOx emissions. Even if zero polluting

<sup>4</sup> [www.prestontrampower.com](http://www.prestontrampower.com)

engines were available, tyre and tarmac PM<sup>6</sup>, the 'Oslo effect', would still exceed safe health levels. This would result in over 50 deaths pa.. It compares to c7 people pa killed in road crashes. At the present such zero emission technologies are not available. Hybrid buses are not zero emitting. Buses and lorries are also the heaviest traffic polluters.

Trams are zero emitting in the street and when supplied by renewable power generation, carbon free, so helping global warming targets. Trams are also proven to attract car trips, and will reduce the total burden of toxic traffic pollution and carbon emissions, as well as reducing dependence on imported oil.

#### 5.6. Health and social impacts

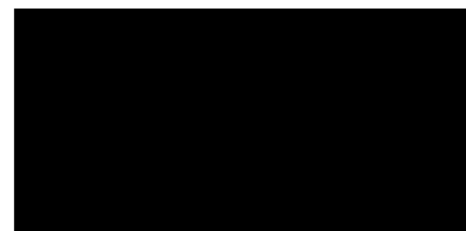
The health impact costs on the NHS are estimated to be £100million pa in the greater Preston area, arising from treating asthma, bronchitis, cardio-vascular and other diseases caused or exacerbated by traffic pollution. The burden on the NHS in Warrington is likely to be greater. Trams not only reduce the level of toxic pollution, they also encourage modest and regular exercise. This is proven to improve fitness and promote better health<sup>7</sup>. Both reducing pollution and encouraging modest exercise will reduce the burden on the NHS, and for older people delay the need for social care.

## 6.0 Conclusion

This Pre-Feasibility Study Report has set out the parameters for introducing a tramway in Warrington. It has indicated the likely capital costs (CAPEX). Further work needed to confirm financial viability and the way in which the tramway can be operated successfully.

A new tramway will be a significant improvement in the transport system of Warrington, where presently over 80% of trips are by car, reducing congestion and toxic air pollution levels. A tramway will provide acceptable alternatives for many car trips and increase investor confidence. Further developments will add to the income of The Council, and boost the local economy.

LL 17.10.16



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<sup>6</sup> Road vehicle tyre, brake and Road surface wear. EMEP/EEA emission inventory guidebook 2016. Leonidas Ntziachristos, Paul Boulter

<sup>7</sup>

[http://www.apta.com/resources/reportsandpublications/Documents/APTA\\_Health\\_Benefits\\_Litman.pdf](http://www.apta.com/resources/reportsandpublications/Documents/APTA_Health_Benefits_Litman.pdf)