

**Edinburgh Tram Inquiry Office Use Only**

Witness Name: Andrew John BRADDOCK

Dated: 16/10/17

**THE EDINBURGH TRAM INQUIRY**  
**Witness Statement of Andrew John BRADDOCK**

Statement taken by Raymond Gray on 19 October 2016.

My full name is Andrew John Braddock. I am aged 68, my date of birth being [REDACTED]  
[REDACTED]. My contact details are known to the Inquiry.

My current occupation is a transport consultant involved in promoting light railways and trams.

Statement:

1. I currently undertake the role of part time transport consultant. I own a number of small businesses in relation to this work but I am very selective as to what work I do. I am affiliated to a number of recognised groups and associations involved in promoting light railways and trams. I have around 50 years' experience working in various roles within the transport industry. This included British Rail, London Transport and the National Bus Company. I gained various promotions and achieved the post of Director & General Manager with one of the subsidiaries of National Bus. I moved back to London Transport in 1991. I was heavily involved at a senior level with the implementation of the extensions of the Docklands Light Railway and the Jubilee underground line as the organisation's specialist in accessible transport. Subsequent to this I then worked with the team developing the Croydon tram project on accessibility issues between 1996 and 2000. In 2003 I retired early from Transport for London (TfL) and set up my own business but prior to leaving TfL I carried out some work for a French

company, TRANSDEV, on secondment, as a project manager on the proposed South Hampshire light rail scheme. I was not directly involved in the Nottingham, Manchester, Sheffield or West Midlands tram developments but have a good knowledge of their construction and the issues that they encountered.

2. Through my role with UKTram and general interest in the subject nationally I was aware when Edinburgh first had a tram project under consideration. I thought that the plans for the loop around the north of Edinburgh and the infrastructure for the city centre were good. I did wonder why there was a need for a tram line to Edinburgh Airport as I knew that this was already well served by public transport. I thought the initial plans were certainly achievable. I was aware that there was reluctance on the part of Lothian Buses to engage in the project. I think they saw the trams as competition. They should really have been embracing them. In other European cities the tram and bus services work in conjunction with each other and to each other's benefit. In Nottingham many bus services feed into the tram routes. This means that the tram acts as a catalyst to the buses with routes connecting to and from the tram lines.
3. Within the Light Rail Transit Association (LRTA) - of which I am Chairman - we have in Scotland three people based in what we call our area office. They are Iain MacDonald, Vic MacKinlay and Jim Harkins. The three of them continually lobbied Parliament about the Edinburgh Tram Project. They were engaging with members of parliament from all political parties as well as local councillors such as Lesley Hinds the transport convenor for the city council. I think generally the advice we put forward was well received. I would say the SNP were anti tram but some of the other parties were also lukewarm at best for the project. I felt confident our engagement with Parliament and local government helped to make a difference in promoting the benefits of the tram system.



4. Going back to the Croydon Tram Project there were similar objections to that plan as there were to the Edinburgh Tram Project. The difference there was that we were able to change opinions of politicians. A decision was made to take all the local politicians to Grenoble in France. There I got my friend, Hubert Guyot, who was Managing Director for Transport in the town, to speak with them. Hubert was able to demonstrate to the politicians the benefits of the tram system and how it integrated with the bus services and was now the centrepiece of an excellent transport system within the city. I would say without doubt that on our return every single politician was then on board in respect of the Croydon tram proposal. I think if Edinburgh had engaged in something similar this would have helped to unify the approach to the project.
  
5. The initial proposals for the Edinburgh trams were well thought out and should have resulted in a successful project. However all of the cost estimates were produced and accepted before the design was complete and contractors appointed. This was also before the Gogar depot site was selected. The design and contract were also in place several years before it was decided to shorten the route. A tram depot on a site in Leith was originally proposed but this had obvious value to Forth Ports during the property boom. This became an issue when the developing design need for a combination of more and longer trams made Leith unsuitable for a depot. This decision to change the depot location from Leith to Gogar caused a great deal of design wastage. It also resulted in some difficulty once the height issue was dictated by Edinburgh Airport to meet the requirement for emergency landings on the not normally used second cross runway. The new site also required particular drainage measures due to its low-lying position. The initial tramway alignment required more detail in terms of the precise location of utilities - especially beneath streets and pavements. In planning the project more direct supervision should have been specified for the utility movements and related requirements. In my opinion the change of depot location and the failure to properly oversee utilities relocation

considerably added to the project costs. I would however say that ultimately the Gogar depot is very good. It is well designed and it works very well.

6. Within the LRTA there was an impression that with Transport Initiatives Edinburgh Ltd (TIE) a lot had been left to consultants. There never seemed to be one controlling mind in TIE who really was an expert in the things required to deliver a tram project. That is a difficulty for the United Kingdom in general because we have only carried out major tram works in the last 20 years whereas in Germany they have been doing it for 100 years. In France they have over 30 years of experience which does make a difference. I have a lot of sympathy for the organisations which are going to go out to do these projects because you have got to be very careful about who you select to undertake the work. We just had the impression that things were going on out there in the street without a TIE representative asking questions and looking for solutions.
  
7. In relation to procurement and observations of other light rail contracts we note that it is essential that the sponsor/client understands all of the risks and how these are allocated. It is important to be aware what the cost implications are of changing these risks or moving them about. We know that each successive Second Generation UK Tramway has adopted a different approach largely to try and avoid the previous failures. Edinburgh made it very complicated. The knowledge of ultimate novation probably did influence the pre-contractor appointment design. This should have been appreciated far more by TIE. It also allowed project creep in all sorts of ways by the City of Edinburgh Council (CEC) with at that stage no restraint from the contractor. If you want a contractor to take real responsibility for a design, both technical and cost, then you have to have them involved from an early stage and if possible at the beginning. However, you will not get a final fixed price to start with. CEC was constrained to some extent by the "cash limit" approach of the Holyrood Government. It is clear though that CEC got the contract that it wanted. It was not a TIE or consultant led approach. In principle LRTA were concerned as to the competence of CEC to take



forward the contracting aspects of the project. We find it alarming that Transport Scotland, as the devolved Scottish Government's centre of expertise in these matters, was not in overall charge of the project.

8. I think if there had been more of a partnership approach to the project a lot of issues could have been avoided and indeed resolved at an early stage. If everyone had been on board and there was an understanding as to how risks would be shared it could have reduced the issues. It was impossible for the contractor to provide an accurate bid due to the design not having been completed. Again this was a problem that could have been avoided if someone had taken control and had an overview the project.
9. I had the impression that the right people were not in TIE. As I have said previously I think that there was a lack of experience in TIE. It is difficult to say it was a lack of knowledge as this is limited in general for tram projects. Any knowledge nationally had been built up through consortia involved in previous tram works. These companies may however have been reluctant to provide free advice. CEC should also have had a more active role in the project. They should have been continually monitoring what was going on either directly or through TIE. I know CEC wanted an arms-length business, TIE, delivering the project but CEC should have asked more questions. CEC should have known what stage work was at and what was being done to resolve any issues.
10. It staggered me that Transport Scotland effectively walked away from the Edinburgh Tram Project despite the national government investing so heavily in it. If Transport Scotland had been actively involved it may have led to an increase in meaningful checks on what work was being carried out and what stage it was at. This could have identified potential problems at an early stage. This for me was one of the major issues that impacted on the whole project. I think this also had an effect on public confidence in the project. If a member of the public ascertains that Transport Scotland are in effect walking away from the project then they are obviously going to wonder why.

11. In relation to problems with the utility work in preparation for the tram lines, a lot of these issues could have been better managed. Again TIE should have engaged more with the contractors. There appeared to be a disconnect between the two parties. I would say once more this comes down to a lack of experience and knowledge by TIE in relation to this type of work.
12. After the Infrastructure Contract was placed there was a major change to TIE personnel. This in effect destroyed any continuity there had been. TIE then appeared to identify itself as in charge of construction management rather than technical specification. In effect observing the progress of the project. I believe that this control format allowed relationships and the practical resolution of issues of all descriptions to deteriorate to situations where construction work essentially stopped. The Infraco contract became a cumbersome risk-prone document due to its separation from the Multi – Utilities Diversion Framework Agreement (MUDFA) contract. The speed of construction was constrained by the extended lines of communication between TIE and the utility contractors and the other companies involved. This was again further frustrated by incomplete design works, which significantly hindered progress. The contract therefore became an easy source for establishing a route for argument and litigation. The introduction of Turner and Townsend (T & T) appeared to be a good move for the project. T & T had been involved with the projects in Sheffield and Nottingham with this came experience. T&T became the new CEC Project Manager.
13. The acquisition of the trams was one part of the project that went very well. The decision to purchase 40 metre trams as opposed to 30 metre was a very good one. On a lot of tram systems across Europe 30 metre trams have been bought. The thinking behind this being that if they need to extend they can. In Edinburgh the infrastructure for these trams is all in place. The tram stops are suitable meaning the infrastructure, such as tram stops, are all fit for purpose. The purchase of, what was thought too many trams for the line, was seen as another fault. However this was actually a good thing. If there is expansion in the future you have the trams in place. You can run more trams more regularly and replacements are available at short notice should any




issues arise with those in service. The purchase of the trams for Edinburgh was actually very cost effective.

14. Manchester trams did have some issues but they learnt from these. When they carried out their major expansion they used all the experience gained from the original project. Edinburgh could have learned from Manchester and Nottingham but there are issues with contractors not wanting to discuss their work with competitors. UKTram has long advocated for the Department of Transport to oversee the various tram projects more closely, as was the case in France. It would have made sense if they had a rolling project starting say in Manchester then all the personnel involved could then take what they had learned to the next project. The lessons learned from each project would assist greatly with the next. This would lead to a reduction in the costs in the long term. There would need to be standardisation. If you were to take a tram from Edinburgh and put it on the tracks in Croydon the very least you would have to do would be to regrind the wheels but, in fact, many more issues of incompatibility would be found. In other European countries all trams by and large are the same. All knowledge and information is shared.
15. The person who made a huge difference to the Edinburgh Tram Project was Sue Bruce. When she became chief executive of CEC things improved greatly. I first met Sue when she made a presentation at the Light Rail Conference. I thought here is someone from Edinburgh totally behind the Edinburgh Tram Project, realising there are problems but committed to resolving these. Sue made a lot of difficult decisions abandoning TIE and bringing the whole project under a very tight CEC team. Sue engaged with politicians and ensured that they were on side. I would say her approach was more in line with how the Europeans implement tram systems.
16. I would say that the completed Edinburgh tramline is very good. There are issues such as the fare to travel to the airport, which is a bit excessive. I hope that the relationship between Edinburgh Trams and Lothian Buses continues

to improve. Lothian Buses needs to realise that the trams are a benefit for them, substantially increasing public transport use overall in the city. The tram in Edinburgh has proved to be very popular with a steady increase in passengers. The tram operator has a very good team in place. During the construction of the tramline in Edinburgh possible disputes with members of the public and businesses could have been avoided if communication had been better.

17. My overall impression is that the failings in the project were due 80% to politics and 20% to lack of knowledge and experience. The SNP instruction to its expert agency - Transport Scotland - to withdraw from the project being the most serious error of judgement.

I confirm that the facts to which I attest in this witness statement, consisting of this and the preceding six pages are within my direct knowledge and are true. Where they are based on information provided to me by others, I confirm that they are true to the best of my knowledge, information and belief.

Witness signature   
Date of signing ..... 13/1/2017 .....