TYNE AND WEAR PASSENGER TRANSPORT AUTHORITY

New Tyne Crossing

Proof of Evidence on the Rationale for the New Tyne Crossing

By

John Miller
Engineer to the Tyne Tunnels

February 2003

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1. INTRODUCTION

Qualifications

1.1 I am John Francis Miller and I hold a degree in Engineering Science from the University of Leicester, which I obtained in 1975. I have been a Chartered Engineer since 1980 and I am a Member of the Institution of Civil Engineers. In addition I have gained 26 years experience in the field of planning, highways and transportation.

1.2 I am Head of Planning and Transportation at Newcastle City Council, a post I have held since 1999 and which includes responsibility for planning and transport policy, development control, building control, countywide conservation, local plans and traffic management. Additionally, I have been the Engineer to the Tyne Tunnels since 1995 on behalf of the Tyne & Wear Passenger Transport Authority (TWPTA) and a Non Executive Director of the Tyne & Wear Passenger Transport Executive.

1.3 The Engineer to the Tyne Tunnels is responsible for the overall management of the tunnels, their improvement and maintenance and all staff (approximately 100) employed through the Tyne Tunnel Manager, Mr. Peter Hedley. The Engineer is also responsible for the financial management of both capital and revenue programmes, expenditure and income. On significant matters of policy and financial relevance, the Engineer reports to the TWPTA or where appropriate the Tyne Tunnels Working Group (sub group of the TWPTA).

1.4 Prior to my current appointment I held a number of positions at the former Tyne & Wear County Council and at Newcastle City Council. In particular, from 1989 I was Principal Assistant, Policy & Research in the City Engineer's Department, leading a team engaged in the formulation of the City's Transport Policy and its integration with the Tyne & Wear and national context. It was whilst I was in this post that I became a member of the Cross Tyne Study Officer Group whose reports eventually led to the identification of the A19 corridor as the most appropriate location for additional cross Tyne capacity.

1.5 In 1993 I became the Assistant Director of Traffic and Transportation in the former Department of Engineering, Environment and Protection at Newcastle City Council. Responsible for over 100 staff, I was required to deliver the City's transport policy, traffic management, parking and transport related development control services.

1.6 Following an internal reorganisation in 1995 I became Head of Highways & Transportation for Newcastle City Council where I was the Council's Chief Officer responsible for transportation /highways services. In 1999 I became Head of Planning &

Transportation within the newly formed Directorate of Enterprise, Environment and Culture.

Structure of Evidence

1.7 Given my close involvement in the project since 1989 and my role as the main the contact officer for the TWPTA I am familiar with the site and the relevant issues. My evidence deals with the following issues:

Section 2: a description of the TWPTA and its role
Section 3: a summary description of the proposals
Section 4: the development of the New Tyne Crossing
Section 5: conclusions

1.8 I also set out a response to objectors at Appendix CC. In addition to my evidence, separate specialist evidence has been prepared. This combined evidence will demonstrate that the positive effects of the New Tyne Crossing will be:

- to solve the problems of congestion in the tunnel at the entrances and its approaches;
- to improve safety and lower the risk to the travelling public in the tunnels;
- to improve public transport access through the tunnel and in the vicinity;
- to promote wider economic benefits in the region.

1.9 These are the objectives that TWPTA is seeking to achieve by construction of the New Tyne Crossing.

2. THE TYNE & WEAR PASSENGER TRANSPORT AUTHORITY

2.1 In this section I describe the Tyne & Wear Passenger Transport Authority, its strategic objectives and initiatives, as set out in the TWPTA's Policy 2000 (Appendix A) and reiterated in the Best Value Performance Plan 2002-2003 (CD40). I then go on to describe the TWPTA's role as operator of the Tyne Tunnels and its policies in relation to the Tunnels.

The Tyne & Wear Passenger Transport Authority

2.2 Passenger Transport Authorities (PTAs) and Passenger Transport Executives (PTEs) were first set up under the Transport Act 1968. The 1968 Act sets out the general functions of a Passenger Transport Authority such as the TWPTA. These include, inter alia:

- Formulating general policies with respect to the description of public transport passenger transport services considered to be appropriate for the area and to secure for the purpose of meeting any public passenger transport requirements which in the view of the authority would not be met apart from any action taken by the executive for that purpose.
- Setting general policies for the PTEs guidance in the discharge of the above function.
- To have particular regard to the transport needs of the elderly and disabled.

2.3 Subsequently the functions of PTAs were taken over by metropolitan county councils in England through the Local Government Act 1972 and then transferred to the present PTAs, established by the Local Government Act 1985. The PTA for this area is known as the Tyne & Wear Passenger Transport Authority (TWPTA) and the PTE as Nexus.

2.4 On April 1 1986 all the property comprising part of the Tyne Tunnels and all other property rights and liabilities in respect of the tunnel which had been vested in or attached to the former Tyne and Wear County Council were vested in the TWPTA by virtue of the Tyne Tunnels Order 1986. The functions conferred on the former County Council by the Tyne Tunnels Acts 1946, 1960 and the Tyne and Wear Act 1976 in relation to the tunnel were also conferred on the TWPTA.

2.5 The Tyne Tunnels Act 1998 subsequently gave the TWPTA, inter alia, the power to take all such steps as it may think fit to facilitate the provision and operation of a new tunnel crossing.

2.6 The TWPTA is an independent corporate body that consists of fifteen councillors appointed by the five constituent authorities that lie within Tyne and Wear. Four members

represent Newcastle, four Sunderland, three Gateshead, two North Tyneside and two South Tyneside. These numbers are approximately in proportion to their relative populations. The five districts also provide the majority of the TWPTA's funds through a levy, although additional funding has been secured from other sources; examples being the Tyne & Wear Local Transport Plan (TWLTP), the DfT's Rural Bus Challenge, the Urban Bus Challenge and the Home Office (under the Crime Reduction Programme).

2.7 In partnership with the five authorities of Tyne and Wear the TWPTA is responsible for setting or contributing to transport policy and financial management of a range of transport matters. This includes input to the Tyne & Wear Local Transport Plan; operating the Tyne Tunnels; setting the Concessionary Travel Scheme as well as fares on the Metro, Shields Ferry, local rail and on contracted bus services.

2.8 The TWPTA is subject to the Best Value regime. Best Value is a requirement of the Local Government Act 1998 and requires local authorities including PTAs to make arrangements to secure continuous improvement in the way in which they exercise their functions. It is necessary to publish annual reports which are used to focus resources of the TWPTA to achieve identified desired outcomes for authorities. Best Value performance plans are a key component in managing the TWPTA's performance. The TWPTA produces a Best Value Performance Plan - for both its passenger transport functions and specifically in relation to the Tyne Tunnels. It provides stakeholders in the TWPTA with a summary of the TWPTA's performance over the last year in relation to Best Value reviews and the TWPTA's performance targets. It also sets out the TWPTA's targets for the coming year in the context of the TWPTA's longer-term strategic aims.

2.9 Newcastle City Council has been the lead authority for the TWPTA since 1986, following the abolition of the former Tyne & Wear County Council. In the period to 1992 the City Council was also the lead authority for transport planning in Tyne & Wear. The five authorities of Tyne & Wear and the TWPTA work in close collaboration in relation to all aspects of transport planning under the auspices of the TWLTP Approval Process, which is illustrated at Appendix C.

2.10 On matters of public transport (policy advice, concessionary fares, metro systems and other related matters) the TWPTA operates with its executive arm Nexus.

TWPTA's Strategic Objective

2.11 The strategic objective of the TWPTA as set out in its Policy Statement 2000 (Appendix A) is "to promote and encourage safe, integrated and efficient transport facilities and services for Tyne and Wear and its surrounding area through the development of

partnerships between other local authorities, transport operators, public service providers, Nexus and local communities". This strategic objective is further expressed through a series of objectives to translate it into action. As well as all forms of public transport, the TWPTA's initiatives also take account of the needs of the private motorist, the freight transport industry and the health, safety and wellbeing of Tyne & Wear's residents and visitors.

2.12 The TWPTA supports the continued regeneration of Tyne & Wear both economically and socially and sees transport policy and its implementation as a key element in achieving this aim, as set out in the Policy Statement 2000. As a corporate body the TWPTA believes transport policy has a role to play in the reduction of social exclusion, regeneration of the economy, improvement of the environment and reduction of traffic congestion and its associated effects.

2.13 The principal objectives of the TWPTA are to promote and encourage:

- Safe;
- Accessible;
- Integrated;
- Efficient;
- Economic; and
- Sustainable

transport facilities and services for Tyne and Wear and its surrounding area through the development of partnerships between other local authorities, transport operators and central government (and its agencies), as detailed at Appendix B.

2.14 Its main priorities in moving towards these objectives, as set out in the Policy Statement 2000 (Appendix A) and the Best Value Performance Plan 2002-2003 (CD40) are:

- to halt the decline in public transport use in the area;
- to increase public transport use in Tyne and Wear;
- to market public transport as a key ingredient in the reduction of social exclusion, the regeneration of the economy, the improvement of the environment and the reduction of the ill effects of traffic congestion on health and the economy; and
- to support accessibility and mobility for all regardless of levels of income and car ownership

TWPTA Initiatives

2.15 In recent years there have been a number of major improvements to Tyne & Wear's transport infrastructure and related facilities, led and funded (wholly or partly) by the TWPTA, with a total of £143.5M invested in transport infrastructure over the last 5 years. These include (as detailed in the Policy Statement 2000 (Appendix A), the Best Value Performance Plan 2002-2003 (CD40) and Towards 2010 (Appendix D)):

- the rebuilding of Haymarket and Sunderland bus stations;
- the extensions of the Metro to the Airport and Sunderland Direct;
- a new Ferry and Landing for the service between North and South Shields;
- the development of Care Services for the disabled across Tyne and Wear;
- provision and development of Park and Ride facilities at Callerton and Heworth;
- the establishment of single journey "Transfares" linking all travel modes; and
- a substantial upgrade of Metro stations and rolling stock.

2.16 These schemes are all in line with the objectives set out by the TWPTA and the public transport strategy for Tyne and Wear 'Towards 2010' which was published in 1996 (Appendix D) and 'Towards 2016'which was adopted after consultation by the TWPTA in December 2001 (Appendix E).

2.17 Looking forward, the TWPTA is promoting two major infrastructure projects to enhance transport in and around Tyne & Wear. The first project is the New Tyne Crossing , the subject of this public inquiry and which it is proposed will be funded, constructed and operated by a Concessionaire at an estimated capital cost of £138M. The second, which is at a very early stage, would see the Metro System extensively enlarged to bring the system within range of a substantially larger proportion of the Tyne & Wear population. This project is known as 'Project Orpheus'. The total capital cost of these proposed schemes is estimated to be £1,200M. Additionally the TWPTA is also proposing the following schemes in order to implement its strategy for Tyne & Wear, as set out in Towards 2010 (Appendix D) and carried forward in Towards 2016 (Appendix E) and the Best Value Performance Plan (CD40):

- Stephenson Corridor Jobs Link (£12.3M)
- Centrelink (£28.6M)
- Metro Track Dualling (£13.6M)
- Four Lane Ends Interchange (£7.6M)
- Central Station Interchange (£19M)

2.18 The schemes that the TWPTA is promoting are also included in the TWLTP. The TWLTP recognises the importance of providing an integrated transport system that caters for all sectors, which mirrors the TWPTA's strategy.

The TWPTA as Operator of the Tyne Tunnel

2.19 When opened in 1967, the existing Tyne Tunnels were operated under a joint arrangement between Northumberland and Durham County Councils. Upon the creation of the Metropolitan County Councils in the 1974 local government reorganisation the operation of the tunnel passed to the Tyne & Wear County Council. This Council operated the Tyne Tunnels until the local government reorganisation in 1986 when the Metropolitan County Councils were abolished. The question of who should operate the tunnels after the abolition of Tyne & Wear County Council was debated by a joint Committee comprising County Councillors of Durham and Northumberland and District Councillors from Tyne and Wear in late1985/early 1986. It was the view of that Committee that the Tyne Tunnels, being an important transport link, should be operated by the Passenger Transport Authority as the most appropriate joint body in the metropolitan area of Tyne & Wear . This decision was implemented by the Tyne Tunnels Order 1986 (S.I. 1986 No. 298) pursuant to the Local Government Act 1985.

2.20 The Tyne & Wear Act 1976 (as amended by the Tyne Tunnels Order 1986 and the Tyne Tunnels Act 1998) later superseded this Act and provides authority for the administration and provision of the Tyne Tunnels.

2.21 The lead authority for the TWPTA and therefore for the operation and management of the tunnels is Newcastle City Council. Whilst it may appear unusual for a PTA to operate part of the local road infrastructure it has been the model adopted for both the Metropolitan Areas of Merseyside and Tyne and Wear.

Tyne Tunnels Policies and Initiatives

2.22 In addition to the general policies of the TWPTA, which relate to its statutory function, it has also developed policies specifically relating to the Tyne Tunnels, as detailed in the TWPTA Policy Statement 2000 (Appendix A). I set these out below.

- *"the vehicle and pedestrian/cyclist tunnels to be managed and operated in a safe, efficient and cost effective manner both for the benefit of local users and longer distance traffic so as to support the social and economic well-being of the region, provide a vital link in the regional and national road networks and reduce the adverse impact of traffic on the Tyne and Wear conurbation;*

- *the promotion of good relations with adjacent communities through the thoughtful maintenance of the Tunnel's assets and through the development of educational and business partnerships wherever possible;*
- *maintenance work in the Tunnel that could restrict usage to be fully co-ordinated with work on the wider road network through liaison with highway authorities and agencies in the region;*
- *delays at toll booths and the number of Tunnel closures each year to be minimised; and*
- *the quality of facilities and services to customers to be continuously improved."*

2.23 In order to achieve these objectives for the Tyne Tunnel the Policy Statement 2000 (Appendix A) identifies that the TWPTA will:

- *"set annual financial and operational targets for the Tunnel;*
- *receive six-monthly reports on performance;*
- *determine the tolls to be charged for the use of the vehicle tunnel;*
- *receive quarterly reports on financial performance; and*
- *develop proposals for a second tunnel with the view to this being built and operated by a concessionaire along with the existing tunnels."*

2.24 The aims supporting the proposals for the New Tyne Crossing set out at page 42 of the Best Value Performance Plan 2001-2002 (CD40) include:

- *"Improve cross Tyne movement for all vehicles;*
- *Dual the last stretch of single carriageway along the entire length of the A19; and*
- *Remove the congestion on approach roads and through the tunnel itself aiding inward investment"*

by the construction of a New Tyne Crossing.. These are further developed at page 57 of the Best Value Performance Plan 2002-2003 (CD40). This identifies that the TWPTA aims to achieve:

- *"the new tunnel will ease congestion and speed traffic flow*
- *Improved traffic management arrangements*
- *24 hour/7 day pre-paid top up tolls*
- *improved visual and audio security monitoring in the cyclist and pedestrian tunnels*
- *24 hour/7 day on-site maintenance attendance".*

2.25 The New Tyne Crossing will also respond to users who when consulted in late 2000 stated "*they were dissatisfied with congestion and waiting times at the tunnel*" (paragraph 1.7.3, Tyne Tunnels Best Value Review, CD42). Additionally, the recent Best Value Inspection assessed the current tunnel service as 'fair' with excellent prospects for improvement (paragraph 12, CD41). The report identifies a number of actions including the completion of a second tunnel and states "the major, long term improvements to the tunnels' service is dependent on the opening of the second tunnel" (paragraph 40, CD41). The Inspector's report goes on to cite the political commitment to the project and its inclusion in the TWLTP, the Regional Economic and draft Transport Strategies and the relevant Unitary Development Plans and says "*the achievement of these actions will address a number of major issues relating to safety and traffic management and result in greatly improved traffic flows for the benefit of users and the local economy*" (paragraph 43, CD41).

2.26 The TWPTA's policies are consistent with the TWLTP, which recognises the development opportunities along the A19 corridor and identifies the importance of the roles the Stephenson Corridor Jobs Link and the New Tyne Crossing will play in enhancing transport provision. These initiatives are part of wider transportation proposals for the A19 corridor, which will assist in enhancing its attractiveness to travellers, developers and employers.

3. DESCRIPTION OF THE EXISTING TUNNELS AND PROPOSALS

3.1 The existing pedestrian and cycle tunnels were built over the period 1947 to 1950 by Charles Brand & Son Ltd at a cost of £830,000. They provided a convenient link between the shipyards (and other businesses) sited on both banks of the Tyne and the homes of the workforce. At their peak these tunnels were used by 12-14,000 people per day. By 2001 usage was estimated to be 4-500 people per day and remains relatively stable at this level of use. The vehicular tunnel was built between 1961 and 1967 at a cost of £22M. The tunnel carried 6,500 vehicles per day in its first year and has a capacity rating of 25,000 vehicles per day. Today, it is having to cater for 34,000 vehicles per day. A full history of the Tyne Tunnels is provided in 'Crossing the Tyne', an extract from which is provided at Appendix F.

3.2 The proposal for the New Tyne Crossing, to which this proof of evidence relates, is for the construction of a new, two lane, immersed tube road tunnel crossing of the River Tyne between Jarrow on the south bank and Howdon on the north bank, together with new and modified connections to the A19 trunk road and local highway network. Ancillary works will include the formation of a new southbound toll plaza and administrative offices in North Tyneside, construction of a public transport-only link between East Howdon bypass and the southbound tunnel approach road and a ventilation building in Jarrow, along with changes to the highway network.

3.3 As detailed at Appendix G the proposed tunnel is situated adjacent and largely parallel to the existing Tyne Tunnel and will enable the dualling of the only single carriageway section (2Km) on the entire A19 route between Thirsk in Yorkshire and Seaton Burn Interchange in Northumberland (150 Km). Under normal operating circumstances, the proposed tunnel will carry southbound traffic and the existing tunnel northbound vehicles. A full description of the proposals is set out at Section 3 of Volume 1 of the Environmental Statement and the evidence of Richard Thurlow provides further engineering details.

4. TOLLING PROPOSALS

4.1 The application for the Transport and Works Act Order includes provisions for tolling of the Tyne Tunnels.

4.2 Given the existing Tyne Tunnel and the New Tyne Crossing will be operated together, a new uniform tolling arrangement should be adopted that will give the TWPTA greater certainty than the existing procedure allows so that its present and future commitments can be met at all times. The existing procedure under Section 13 of the Tyne and Wear Act 1976 is now over 25 years old and was conceived when the concession structures, such as that proposed for the New Tyne Crossing, were not routinely used. A new structure must be responsive to requirements of funding the construction, operation and financing of the New Tyne Crossing.

4.3 The model which is proposed would allow, but not necessarily require, increases in line with inflation via an indexation mechanism. If, because of the operation or maintenance requirements of the Tunnels or to meet obligations under a concession agreement, it was necessary to increase the level of tolls further, the TWPTA considers it would be proper to scrutinise the reasons for such an increase and accordingly would hold a local inquiry to consider this. Under the proposal the TWPTA would be bound to have regard to the result of such an Inquiry before changing tolls as set out in paragraph 9 of the proposals (CD1). The TWPTA accepts that if the tolls were to increase for any other reason it should itself be scrutinised and for this reason the Secretary of State would be able to hold an inquiry and decide on the level of a toll in that circumstance. The TWPTA believes that this approach provides a balance between responsiveness to local issues, the requirements of financing the New Tyne Crossing and the need for decisions on toll levels to be the subject of proper consideration.

4.4 The purposes to which the TWPTA would be able to apply surplus tolls (if any) after providing for the maintenance of the Tyne Tunnels and meeting its obligations under a concession are proposed to be widened. The purposes now include an ability to cross-subsidise public transport proposals or other transport initiatives that the TWPTA consider reasonable through its own duties/powers or through those of the Tyne and Wear Local Highway Authorities.

5 THE DEVELOPMENT OF THE NEW TYNE CROSSING

5.1 This section of my proof summarises the main work undertaken by the TWPTA since 1986 to identify the overall need for additional river crossing capacity, the preferred locations for provision of such capacity and the type of engineering solution for a new crossing. I deal with each of these issues in turn below, and further detail is provided by other expert witnesses in respect of the transportation, socio-economic, engineering, planning and a range of environmental issues as set out at 4.36 below.

5.2 The current proposal to construct a new, two-lane immersed tube tunnel adjacent to the existing Tyne Tunnel at St Bede's is the culmination of work undertaken by various consultants working with and under the guidance of the TWPTA and associated authorities. This work has assessed the overall need for additional river crossing capacity, in terms of network capacity constraints, forecast traffic growth, the likely level and location of future employment and other development, as well as the detailed consideration of a number of alternative locations and crossing types to meet the need for additional capacity and the impact of a traffic restraint/public transport investment scenario.

Background to selection of the NTC as proposed

5.3 In 1979, the former Tyne & Wear Structure Plan recognised the need to duplicate the existing Tyne Tunnel at some point in the future. Policy T12 of the Structure Plan identifies that the route for Tyne Tunnel duplication will be protected from development for future implementation, with the justification being identified as "*The Tyne Tunnel as it stands is a sub standard link in the Trunk Road route ... More capacity at this point would ease other Tyne crossings and improve access to the main strategic industrial sites ... and between the older inner areas and the employment opportunities on both sides of the Tyne*". An extract from this document is provided at Appendix H.

5.4 On the 3 January 1984 the Director of Engineering, Tyne and Wear County Council presented a report to the Tyne and Wear County Council Highways Committee. It appeared at Item 9 of the Agenda and was entitled "Tyne Tunnel Duplication – Central Jarrow Local Plan". The report referred to the County Structure Plan Policy T12 and noted that the Tyne Tunnel duplication was included. The report explained the need to define a "protected area" for the proposed route, both "north and south of the area". The protected areas were defined in drawings appended to the report. Extracts of the report, the drawing and the official recorded minutes of the meeting are to be found at Appendix I.

5.5 Following local government re-organisation in 1986 strategic decisions affecting the whole of Tyne and Wear including the Tyne Tunnels were included in the remit of a committee of the five Tyne and Wear District Council Leaders and Deputy Leaders known as the Tyne & Wear Co-ordinating Committee (TWCC). In 1986 the TWCC made a decision that cross river movement between Newburn and the coast be investigated with particular reference to studying whether or when there would be a need for additional cross Tyne capacity. As lead authority for the TWPTA and the Tunnels as well as all transport planning in Tyne and Wear, Newcastle City Council was given the task of undertaking the study. There followed a series of increasingly detailed studies over a ten year period.

Cross Tyne Transport Study – Phase 1

5.6 The MVA Consultancy was commissioned in September 1988 to work with Newcastle City Council (lead authority for transport planning in Tyne & Wear) under the guidance of the jointly funded Tyne & Wear Joint Transport Modelling Group. MVA undertook a study to determine whether further cross Tyne traffic capacity was necessary and to provide a basis on which to examine east-west movements within the central areas, as set out in the Cross Tyne Transportation Study Inception Report (CD30, p1-2). The study reported in January 1990.

5.7 The study recognised that the highway network crossing the Tyne could only be expected to cope with the anticipated natural growth in traffic for the following 7 to 8 years (to 1997 or 1998). It stated that the Tyne & Wear Development Corporation developments would "*dramatically reduce the timescale for the need of additional cross Tyne capacity*"(CD30, p12). Further it warned, "*any restraint on access to these proposed developments could adversely effect the developments themselves*"(p12). The report concluded that the analysis of the traffic patterns indicated, "*a new Tyne Crossing would be best located to the east of the Tyne Bridge*"(p11).

5.8 The recommendations of the study highlighted three physically feasible options that required further investigation into the "*traffic, environmental, and economic development implications*"(p14). The three sites were St. Bede's (adjacent to the existing Tyne Tunnel), St. Anthony's (Walker) and St. Lawrence's (Gateshead to Newcastle Quaysides)(p12). The location of these sites is illustrated at Appendix J.

5.9 In relation to the Tyne Tunnel, the report notes that "*the Tyne Tunnel is operating ... above ... design capacity and significant delays on approaches ... at periods are the norm*"(p9). The report goes on to say "*due to the expected additional traffic impact of*

proposed major developments such as the Tyne & Wear Development Corporation areas along the River Tyne in Newcastle, the Central East Gateshead Industrial Estate, and Howdon in North Tyneside, there will be significant traffic movement at the Tyne Bridge and Tyne Tunnel in particular. The impact of this development traffic in addition to the natural traffic growth has serious implications for cross Tyne movement ..."(p11).

5.10 These findings were reported to the TWCC on 1 March 1990 where it was agreed that the study should proceed to a second phase (Phase 2), accepting that a clear need for additional capacity had been demonstrated. As detailed at Appendix K the TWCC stated that the Phase 2 study should identify a preferred alignment for a New Tyne Crossing. In addition, the study was to assess the feasibility of introducing traffic restraint measures and improvements to public transport as well as identifying ways of accommodating the projected growth in traffic.

5.11 At this stage Sunderland Council identified that it would not be contributing to the future studies as it considered the provision of additional cross Tyne capacity was predominantly an issue for the Tyneside authorities and agencies. The authorities also identified that agreement to proceed with Phase 2 did not imply a commitment by the authorities to funding the construction of a new river crossing.

The Options for a New Tyne Crossing

Cross Tyne Study – Phase 2

5.12 The four Tyneside local authorities and the Tyne and Wear Urban Development Corporation (TWUDC), with the Department of Transport as an observer, commissioned the Phase 2 study in February 1991. The study was undertaken by a group called the Technical Steering Group (TSG) that comprised specially selected and experienced professionals from a number of transport planning/other organisations. Its membership is given at Appendix L. Under the chairmanship of Professor Peter Hills from Newcastle University (who was also the Director of the Transport Operations Research Group) its terms of reference were (CD29, p2):

- to develop the findings of the Phase 1 study;
- to prepare an individual report on each of the three potential crossing alignments identified in Phase 1; and
- to produce a final summary report.

5.13 The various crossing alignments were evaluated and the TSG reported in July 1992 (CD33-38). The reports also included an evaluation of a fourth crossing point located at

Walker (identified by the TSG) and notated as the "Walker Crossing", together with a "Public Transport/Traffic Restraint" option (CD34). To formulate their recommendations the TSG researched, analysed and prepared the following forecasts for the year 2001:

- Household population and employment levels;
- Car-ownership levels;
- The spatial distribution of these factors;
- The road network; and
- The number of car-trips: all day and off-peak.

5.14 The report clearly identified that all three then existing strategic crossings of the Tyne: Blaydon Bridge (A1), Tyne Bridge (A167) and Tyne Tunnel (A19) were operating over their design capacity at peak hours and had been for a number of years (CD33, p10). Traffic growth across the river was continuing to rise by 3-4% every year. Movement across the river was being suppressed and would continue to be so until new capacity could be provided.

5.15 In considering the St. Bede's crossing, the report noted that, despite the opening of the four lane Blaydon Bridge (part of the new Newcastle Western Bypass) in 1990, the traffic flows at the Tyne Tunnel were higher in 1992 than they were in 1988 and that peak hour spreading was increasing. Delays of 20 – 30 minutes were being reported at the Tyne Tunnel at peak times. It predicted that by 2001 traffic at the Tyne Tunnel would grow to 39,000 vehicles per day (vpd) (weekday) – well above its design capacity – and that as a consequence there would be significant delays throughout the day and considerable trip-suppression would be evident as a result (Cross Tyne Phase 2 Summary Report, CD33, p20). As detailed in the evidence of Gordon Henderson predictions of growth in Cross Tyne traffic flows have proven accurate. The report also noted "*All delays and under-capacity problems at the Tunnel would be overcome in 2001 by providing the additional capacity...*" (CD33, p37, paragraph 6.2.2).

5.16 The Study reported that the level of demand for cross Tyne trips was such that even the most adventurous public transport scenario combined with traffic restraint still needed support from a new road crossing (CD33, pXI). The possibility of extending the Metro across the river at the Tyne Tunnel was evaluated and rejected because of physical constraints and a lack of demand for such an expensive facility, as set out at CD33.

5.17 The report concluded that the identified crossings were not mutually exclusive, as more than one crossing could be built, and that virtually all the road crossings could be justified. It was emphasised that the TSG was "*unanimous that the case for an additional*

crossing to meet the needs for Cross Tyne traffic in 2001 has been demonstrated" (CD33, p37).

5.18 The TSG identified that the decision on a preferred crossing(s) location was a political judgment that would be based on a number of key environmental and programme issues as well as the specific needs which each alignment would address. Consequently, rather than make a precise and unequivocal recommendation as to which scheme should be developed, the TSG's report provided a methodology to assist the TWCC in determining the way forward by designing a "decision tree" in the report noting "*that all the schemes provide good value for money in economic terms*" (CD33, p32). The report suggested "*it may be appropriate to give a high weighting in the decision process to the ease of funding and programming of the scheme selected...*"(CD33, p37)

5.19 The methodology in the form of a decision tree is outlined in Appendix M with the key decisions identified. The most significant influence in the decision making process, which led to the selection of St. Bede's and other crossing options being rejected, relates to likely unacceptable environmental impacts in the Newcastle – Gateshead conurbation and/or the failure of the crossing to address strategic accessibility problems. There is also a distinct lack of appropriate infrastructure on the both sides of the Tyne. The other options tended to direct traffic into local communities, which are more sensitive to vehicular intrusion. If other alignments were chosen, wider connections through the east side of Newcastle would create high levels of severance to the communities and create a range of environmental problems.

5.20 The TWCC received the report on 24 September 1992 (Appendix N) and agreed that there should be a period of consultation, which would culminate in a report being presented to the appropriate Committee of each of the Tyne and Wear Districts during the following October/November cycle of meetings. Their views were reported to the TWCC on 20 May 1993 confirming the "*TSG was unanimous about the need for new crossing capacity to be provided downstream of the Tyne Bridge; and that only the St Bede's option has raised no fundamental objections from the four Tyneside Authorities. Newcastle, South Tyneside and North Tyneside have declared their support for the St Bede's Crossing whilst Newcastle has determined to oppose the three other crossings. North and South Tyneside favour a second tunnel at St Bede's and would not support a bridge crossing at this location*". Page 3 of the report also identifies that the TWUDC considered that a new crossing "*at this point would benefit greatly by relieving an obvious constraint to movement*". The report also notes that Central Government had identified a new river crossing as an initiative that might attract private finance. The TWCC agreed

"*that further development work should be undertaken regarding the St Bede's Crossing*". It was further agreed that "*South Tyneside and North Tyneside should take the lead in discussions on this option with support from the TWPTA*" (Appendix O).

5.21 In a joint report of the Chief Executive, South Tyneside and the Executive Director, North Tyneside on 12 November 1993, the TWCC were informed that "*North Tyneside, South Tyneside, Newcastle City and Gateshead Councils had formally supported the St Bede's Crossing and that the Tyne and Wear Development Corporation and the TWPTA had also indicated their support*" as detailed in the minute provided at Appendix P. Following this the TWCC directed that discussions should be held with the local MPs and Ministers. These took place over the period from September 1994 to December 1995. A key issue that was clarified as a result of these discussions was that the Government would not provide public funds for the New Tyne Crossing nor take over the existing tunnel(s).

Developing the Option

5.22 Having concluded that there was a justification for a new river crossing in terms of capacity together with a preferred location, North and South Tyneside Authorities together with the TWPTA, the former Urban Development Corporation and the Government Office for the North East (GONE) commissioned a Private Finance Initiative (PFI) feasibility study. The study was aimed at examining the engineering, programming and financing of the project and in particular the potential to engage private funding through a PFI type approach.

5.23 The Hambros / Babtie / Steer Davis Gleave / Freshfields / Chestertons consortium was appointed in May 1995 and reported in January 1996 (CD39). The consortium concluded that a tunnel crossing at St Bede's was an attractive and viable PFI opportunity with the main constraint being the promotional costs. The report recommended that an immersed tube solution was the most suitable, having regard to risk transfer, project specific requirements, environmental impact and whole life costing. The report went on to outline a programme for lobbying, financing and building the new crossing, including the necessary statutory processes. The consortium's report was considered by the TWCC on the 16 May 1996 (Appendix Q) where it was agreed, *inter alia*, that the project be taken forward as a PFI which should include the existing tunnel and that South Tyneside and North Tyneside would lead in the PFI process whilst recognising the role of the TWPTA.

5.24 The PFI is frequently used to deliver major infrastructure projects. This is an effective means of procurement because it transfers many of the project risks to the private sector, which has the experience and expertise to manage them. The private sector will design,

build, finance and operate the new tunnel and will operate the existing tunnels. Financing costs will be repaid through the collection of toll revenues on the new and existing vehicular tunnels, without additional demands on the public purse. Accordingly, the TWPTA concluded that the PFI would be a suitable vehicle to deliver a New Tyne Crossing.

5.25 The 1996 study had identified the need for the Tyne & Wear authorities to meet the promotional costs of approximately £10M. This was a difficulty to the project and led to an approach to Government for support in meeting this cost. In a letter from GONE on 3 September 1996 to the Chief Executive of South Tyneside (Appendix R) this request for "*money up front*" was described as "*the stumbling block*" for the New Tyne Crossing. However, the possibility of amending the existing legislation to allow toll revenue raised at the tunnel to be used to promote the project would be considered by Government.

5.26 The Leaders and Deputy Leaders of the constituent authorities were consulted on how best to take matters forward given the lack of promotional funds and the legal constraints imposed by the legislation currently governing the Tyne Tunnels. Their view was that the project should be advanced on the basis that the TWPTA should be the promoter of the scheme, rather than North and South Tyneside, and that the costs would be met from dedicated tunnel funds . This view was formally accepted by the TWCC on the 3 July 1997 (Appendix S). It was further recommended that the newly elected Government should be approached to ask their view of the policy and again to seek their view on the possibility of the Tyne Tunnel being adopted and thereby becoming a trunk road.

5.27 A meeting was held with the Minister for Transport on the 21 July 1997. At that meeting the following points were identified, as detailed at Appendix T:

- Government would be supportive of the scheme on the basis of it being progressed as a PFI type project.
- Making the Tyne Tunnel a trunk road "was not an option".
- The Government would not be willing to make funding available for the preliminary costs in promoting the scheme.
- Government would lend support to a Private Members Bill - provided there was full support from local MPs.
- Debt write-off or the waiving of interest would not be considered because of the precedent it would set.
- Toll levels at the tunnel were low and that the tolls (including HGV) should be higher to fund the preliminary costs of promoting the New Tyne Crossing..

5.28 Having considered the Government's response the TWPTA at its meeting on 23 October 1997 (Appendix U) approved the lodging of a Bill in Parliament to take the process further. The Bill sought to permit the income from tolls at the existing Tyne Tunnel to be used in promoting the New Tyne Crossing and enjoyed the unanimous support of Local MPs. The Bill which was unopposed, received Royal Assent on the 9 April 1998 making it possible to fund the promotion of the Order under the Transport and Works Act to progress the actual scheme through the PPP/PFI process.

5.29 On 25 June 1998 (Appendix V), the TWPTA approved plans for the New Tyne Crossing, and agreed to ask North Tyneside MBC and South Tyneside MBC in their capacity as the riparian and planning authorities, to consider these plans and to approve them formerly for development control purposes. Both Councils did so by mid October 1998. The June 1998 report also outlined the need to appoint professional advisors and a programme for the development of the project and set a target date for opening in late 2005.

5.30 The Arup Consortium, was appointed as technical advisor to the TWPTA on 8 November 1999, following a competitive tender. The process for selection of the advisor is detailed at Appendix W. The Arup Consortium is fully described in the evidence of Mr Thurlow and was commissioned to carry out the work necessary to obtain approval under the Transport and Works Act 1992 and advise on the appointment of a Concessionaire to construct the New Tyne Crossing and operate the new and existing tunnels.

5.31 A further review of the preferred tunnel construction technique was undertaken by the Arup Consortium in its capacity as professional advisor to the TWPTA. The review concluded that the cost of a two lane bored tunnel would be significantly higher than an immersed tube and would result in higher tolls for users. Although the environmental effects of an immersed tube tunnel would be higher during construction these would be temporary and could be mitigated to a large extent. The review also concluded that a bridge option was not viable. A full description and analysis of the tunnel options is provided by Mr Thurlow.

5.32 On 10 May 2001 the Tyne and Wear Leaders and Deputy Leaders meeting received a report (Appendix X) outlining the outcome of the detailed investigations carried out by the Arup Consortium. The meeting gave approval to promotion of an immersed tube tunnel. The TWPTA also received a comprehensive report on this issue at their meeting on 31 May 2001 and resolved that *"(i) the 2 lane option for the New Tyne Crossing be approved; (ii) an immersed tube be confirmed as the most appropriate form of construction for the crossing; (iii) approval be given to a pre-application consultation exercise ..."* (Appendix Y). The two lane immersed tube tunnel option was selected as it

could be privately financed and therefore be financially freestanding with a toll level that would be acceptable with environmental impacts that could be mitigated to a large extent.

5.33 Additionally, at this stage South Tyneside MBC also resolved to support the promotion of the Jarrow junction, following a public consultation on the feasibility of the options for the southern junction to the New Tyne Crossing, as detailed at Appendix Z. This decision endorsed the TWPTA's decision on 17 October 2001 to proceed with the Jarrow Junction, rather than a southern junction at Simonside, subject to the views of South Tyneside MBC, as detailed in the minute provided at Appendix AA.

5.34 As a part of the preparation of the Transport and Works Act Order it was necessary for the TWPTA to formally resolve to apply for a Transport and Works Act Order pursuant to Section 239 of the Local Government Act 1972. At its meeting on 28 February 2002 the TWPTA resolved to proceed with an Immersed Tube solution and to apply for a Transport and Works Act Order (Appendix BB). Following this committee the TWPTA with its advisors have progressed the preparation and submission of a Transport and Works Act Order application, which has culminated in this Inquiry.

5.35 Over a 14 year period which has seen demand for cross Tyne trips increase and congestion with its incumbent effects worsen, the Tyneside Authorities have undertaken a series of increasing detailed studies for a new crossing, ensuring that at each stage detailed and reasoned justification has been provided for the scheme. Only when the constituent authorities of the TWPTA have been satisfied that appropriate evidence has been provided has the project feasibility commenced to the next stage. This is detailed in the various studies and committee reports itemised above and it is on the basis of this process and analysis that the TWPTA has promoted the New Tyne Crossing.

5.36 Additionally, the TWPTA has reappraised those schemes assessed by the Phase 2 study. The aim of the reappraisal was to confirm the decision making process in terms of current day transportation planning methodology and approach. Malcolm Simpson's evidence identifies that St Bede's is still the most appropriate location for a new crossing.

5.37 The evidence of the witnesses that follow will set out in more detail the case for the New Tyne Crossing. I briefly summarise below the broad cases that will be presented by the witnesses on behalf of the TWPTA.

Richard Thurlow will fully describe the scheme including details of the construction techniques; feasibility of its implementation and a review of the land required to implement the proposal, together with a summary of the programme for the design and construction of the works;

Dr Paul Johnson provides environmental evidence in respect to the Environmental Statement generally and with respect to specific issues relating to water quality, fisheries and ecology of the River Tyne, terrestrial ecology, surface water hydrology and hydrogeology, community severance and the Code of Construction Practice.

Dr Michael Bull provides specific environmental evidence in respect of air quality including a qualitative assessment of the proposed construction on air quality and a quantitative assessment of the operation of the NTC on air quality. He also compares forecast air pollution with current air quality and demonstrates that the proposal will not have a negative effect on air quality.

Chris Manning's evidence deals with noise and vibration and appraises the construction and operational impacts of the proposal and shows that although there will be an increase in noise and vibration during the construction works this can be mitigated through suitable measures and that the operation of the NTC will not result in significant noise effects.

Ian Lofthouse's evidence considers the options for the disposal of waste arising from the scheme.

Gordon Henderson's evidence sets out the need for a NTC in transportation terms and describes the forecast impacts as well as assessing how the proposal is quantified through cost benefit analysis and how it fits into the transport strategy for Tyneside.

Malcolm Simpson's evidence identifies that the studies undertaken by the TWPTA leading to the development of this proposal would make the same conclusions if undertaken today.

Christopher Tunnell's evidence demonstrates that the NTC will make a major contribution to the economic regeneration of Tyne and Wear and is crucial to maintaining the competitiveness of the North East economy.

Colin Jubb reviews the character and quality of the existing landscape/townscape and the effects of the proposed development on the landscape/townscape together with the mitigation measures that have been incorporated in the proposals.

Harvey Emms reviews the proposal against national, regional and local planning policy to weigh the planning merits of the New Tyne Crossing and concludes that on balance the NTC should be permitted.

Nicholas Chism's evidence sets out the details of the financial viability of the proposal and the mechanism by which the scheme is likely to be financed.

Paul Fenwick reviews the status of negotiations with owners and occupiers of properties affected by the proposal and summarises the current position in respect of objectors to the scheme.

5. CONCLUSIONS

6.1 My evidence has described the role of the TWPTA as the owner of the existing Tunnels and promoter of a New Tyne Crossing using finance raised by tolls.

6.2 I have outlined the studies that have taken place over a period of 16 years explaining why the TWPTA is promoting the New Tyne Crossing at St Bedes.

6.3 The TWPTA's approved 'Towards 2010' forward plan, its Best Value Performance Plan 2002-3 and Policy Statement 2000 provide a clear, policy basis to support the crossing. The high priority awarded to the Crossing in the TWLTP (Centre of Excellence), the Regional Economic Strategy, the draft Regional Transport Strategy, and the development plans of North and South Tyneside gives a clear indication of the importance of the project to the region.

6.4 The evidence presented by and on behalf of the TWPTA demonstrates that there is a definite need for a New Tyne Crossing and that it is most appropriately located at St Bede's. Although there will be some temporary environmental disbenefits these can and will be mitigated.

6.5 The provision of New Tyne Crossing will meet the TWPTA's objectives summarised as:

- solving the problems of congestion in the tunnel at the entrances and it's approaches;
- improving safety and lower the risk to the travelling public in the tunnel;
- improving public transport access through the tunnel and in the vicinity;
- promoting wider economic benefits in the region.

6.6 The provision of the New Tyne Crossing will provide a welcome relief to the millions of travellers who cross the Tyne at this location every year and who are regularly experiencing delays and inconvenience. They and the many businesses in the region have made it clear that a New Tyne Crossing is considered a matter of priority. Failure to address the issues of current and forecast traffic levels at the Tyne Tunnel will result in compounded congestion delays and related environmental and safety problems that will also have a detrimental impact on the ability of the area to attract new investment.