

Objection to Leeds Trolleybus TWAO by North West Leeds Transport Forum

Submitted by its Co-chairs Doug Kemp and Martyn Thomas

This objection is submitted by the North West Leeds Transport Forum (www.nwltf.org.uk). NWLTF came together in 2013 to represent the communities in North West Leeds who were concerned by the proposals to introduce a trolleybus system on the A660 and Otley Old Road but who, nevertheless, wanted to see improvements to transport in North West Leeds. It has the support of, amongst others, the West Park Residents Association, The Weetwood Residents Association, The Drummond and Churchwood Resident Association and local businesses. It holds regular meetings open to representatives of these organisations and has drawn on advice from experts in Transport Planning, Vehicle Technology, Town Planning and Traffic Safety.

This objection is based on material currently available to us. We understand that the Proposer's have not yet completed their analysis but intend to do so early in 2014. We reserve the right to add further objections in the light of any new material which comes to our attention.

We object to the granting of the Transport and Works Act Order. Our objection is made in the light of the interests of the members of our constituent organisations and more generally on behalf of residents, taxpayers, council tax payers, local businesses and consumers of services funded locally and nationally.

1 We consider that it would be wholly wrong and unsafe to grant the TWAO given the many deficiencies in the consultation process. For example:

- a. The fact that, as indicated in A-01-03, the first objective of the Promoters' Communication Management Strategy was to "*Establish, develop and maintain active support for and understanding of, the proposed NGT project from key stakeholders, partners and ultimately the public, across Leeds and its City Region through planned, targeted, effective and consistent communications*" – it was not to consult nor even to ascertain opinion.
- b. Reliance on, and frequent quoting of, an opinion survey conducted in Summer 2009 in respect of an outline proposal for a network of NGT routes including a city centre loop and a link out to St James Hospital (the briefing material promised that the scheme would "help tackle congestion and reduce pollution in Leeds", and that "90% of the funding for NGT would come from Central Government and 10% would come from local sources"). The results of that survey (which showed 77% support for the aspirational system) have been quoted as if they indicate support for the system now defined in the TWAO (even though it related to a different scheme which was expected to reduce –rather than increase – congestion and pollution, and was to be 90% - rather than 69% - funded by Central Government).

There has been no attempt by the promoters to measure public response to the system now proposed. The irrelevance/inaccuracy of the 2009 survey is indicated by the results of a questionnaire survey conducted by NWLTF in September and October 2013 and which included the same question as was posed in the 2009 survey and revealed 3% support for the proposal (95% of the 893 questionnaires returned showed opposition or strong opposition to the trolleybus scheme as proposed in the TWAO documents). The results of this new questionnaire confirm our earlier impression that public opinion was very much against the proposals;

- c. Opinions expressed by members of the public at the various “information events” organised by the NGT Team were overwhelmingly against the proposals. An Open Meeting at Leeds Civic Hall in July 2013 attracted well over 100 attendees of whom only one - a resident of Bradford - spoke in favour of the scheme.
- d. The TWAO documentation, as well as numerous public pronouncements by the Promoters, claims that the proposed system has the support from business community. An internal document from DfT (obtained via a FOI request) suggests that DfT were surprised at the apparent support of the business community given that the direct impacts of the scheme on business were negative. DfT speculate that this may be because the consultees were not representative or that the consultees were unaware that the scheme would lead to delays. We suggest that both these explanations are likely to be valid.
- On the question of representativeness, we understand that a survey by the Federation of Small Businesses conducted in September and October 2013 revealed very little awareness of any consultation having taken place and widespread objection to the proposals as published in the TWAO (85% of businesses in postcodes Leeds 6 and 16 do not think that the trolleybus is the right solution for Leeds' public transport problems. The all city figure is 69%. A majority (58%) are in favour of more modern improved buses. At an FSSB consultation meeting on Oct 15th there was a unanimous vote against the trolleybus). We further understand that the Federation of Small Businesses were not consulted by the promoters prior to submission of the TWAO.
- On the question of business consultees' understanding of the proposals, a reading of the statements included in appendix 10 suggests a high degree of misunderstanding - the statement from Jones Lang Lasalle, for example, appears to expect an easing of traffic flow and congestion - whereas the Promoter's own forecasts clearly demonstrate an increase in congestion. A reading of the statements in Appendix 10 also suggests that The Promoter's classification of them all as statements of support is disputable. The Statement from the Chamber of Commerce, for example, is simply indicating that transport is important and that local skills and experience should be capitalised on.
- e. The various information events organised by Metro along the proposed NGT route were staffed by people who were unable to answer key questions (e.g. about the number of trees likely to be felled and lopped, about the height of the OHLE, precisely where certain bus stops were to be moved to, about the number of seats there would be on the NGT vehicles). Also, although written comments and questions were invited, few of them have been responded to except in most general terms. Finally it was made clear that the fundamental aspects of the design (a trolleybus route having its own stops separate from those used by ordinary buses) were already set in stone.
- f. Changes in plans between one event and another and differences between the plans shown at Information Events and those simultaneously available on line, and differences between the TWAO documentation and other information issued by the promoters in September 2013 has caused considerable confusion among the public, local Councillors and major employers. For example:
- i. At the time of the Information Event at St Chads Parish Centre it was unclear where the bus stops at Far Headingley would be located (plans shown at the event did not

correspond with those simultaneously available online and event staff were unable to say which was correct).

- ii. The Leeds Plans Panel in July 2013 considered plans which showed West Park bus stop adjacent to the proposed NGT stop but the TWAO now shows it in a new position.
 - iii. Leeds Metropolitan University were led to believe that an additional Trolleybus stop would be included outside their building on Woodhouse Lane (and this is indeed shown in the TWAO documents) but it appears that this stop has not been included in the estimated cost of the scheme and it is not included in publicity material "*New Generation Transport for Leeds – A catalyst for economic growth*" published by the promoters in September 21013.
- g. The notices alerting the public to the TWAO have been far from prominent and barely legible. Several have been fixed high up and have been printed in what appears to be no 8 font.
- h. The volume and layout of material in the TWAO submission daunted many individuals and organisations and has made it unrealistic to have expected them to digest it and respond within the available 42 day period (8000 pages in 6 weeks approximates to 190 pages per day or 22 pages per hour of library access). Some key aspects of the material were very difficult to find and, even when found, were not expressed in terms easily understood by lay people (for example, delays at junctions are expressed in terms of degree of saturation or number of vehicles queuing rather than in terms of minutes of delay). Daunted by the volume and format of the TWAO material, many people will have relied on the headline claims made by the promoters (see i below).
- i. The Promoter's published material has headlined several misleading claims which, because most people will not have taken the time to examine the claims in more detail, will have reduced the volume of objection and are likely to have encouraged some organisations and individuals to support the proposals. For example:
- i. The claim, very widespread in the promoter's publicity material, that public transport will be improved by the introduction of a trolleybus system is misleading because, even using the promoter's forecasts and assumptions and applying standard behavioural weightings to the various components of travel time, it is clear that journeys by bus will be worse and that, except during the morning peak during term time, even journeys by trolley bus will be worse. (This remarkable finding results from detailed analysis of expected walking times and waiting times and allowing for the fact that an increased proportion of passengers will have to stand).
 - ii. The Promoters' widely repeated claim that the introduction of the Trolleybus is a step towards a more integrated transport system is bizarre. The proposal involves introduction of a new system with its own stops and brand image. The result being that Public transport will be less integrated. The promoters' claim is particularly difficult to understand given that, on page 16 of Appendix 37 of the Programme Entry Business Case they quite rightly stated that "*It is not desirable to split services operating on the same corridor between two similar routes with the same catchment area.*"
 - iii. The claim, very widespread in the promoter's publicity material, that the trolley bus would be the first stage in a rapid transit network for Leeds is misleading. Not only because, at an average speed of 25kph, it scarcely qualifies as "rapid", but because the further extension to create a full network is likely to be prohibitively expensive.
 - iv. The claim, very widespread in the promoter's publicity material, that traffic conditions will be improved because car drivers will switch to the new trolleybus is misleading

because, even using the promoter's forecasts, it is clear that the net effect on general traffic will be to increase congestion delay and rat-running.

- v. The suggestion, inherent in much of the Promoter's literature and explicit in their rejection of the Low Cost Alternative considered in the Business Case, that real improvement in public transport is not achievable without the proposed trolleybus is misleading. Analysis of existing conditions reveals that the key problems for public transport on the A660 are the long dwell times at bus stops (which could be reduced by improvements to ticketing, boarding procedures and bus specification) and the unreliability of services (associated with bunching caused by long dwell times) and that significant further savings in bus journey times could be made without major investment. (See our Appendix on Alternative Approaches).
 - vi. The claim, widespread in the Promoter's publicity material, that NGT will benefit the Leeds economy and create new jobs (a very precise figure of 4260 is quoted) is partly based on the assumption that it will improve connectivity. Given that it will lead to an increase in congestion and arguably deterioration in the quality of the public transport on offer, this claim cannot be substantiated.
 - vii. The claim that the trolley bus will provide approximately 250 jobs connected with its operation and maintenance does not allow for the loss of employment associated with the reduced frequency of bus services.
 - viii. The claim, written down in the Executive Summary of Programme Entry Business Case (p2/87, §1.4) and often repeated by the Promoters, that the scheme will '*offer significant local environmental benefits*' is clearly at odds with the predicted increase in greenhouse gas emissions and the undoubtedly deleterious impact on local trees and greenspace.
 - ix. The claim, often repeated by the Proposers, that the scheme has public support (see Objection 1 b above).
- j. The promoters' published material has contained several misleading claims which, because most people would not have the wherewithal to challenge them, will have reduced the volume and vehemence of objection and may have encouraged some organisations and individuals to support the proposals because. For example:
- i. The claim (in A-08h-6, p170) that large increases in accessibility are due to, among other things, the fact that "*NGT typically provides more frequent services*" is misleading (current frequency averages one bus per 3 minutes. Proposed frequency at any given stop will be up to one vehicle per 6 minutes).
 - ii. The claim (in A-08h-6) that "*walking distances to nearest stop have not altered significantly in most residential areas*" is misleading (it is not made apparent that walking distances will be significantly greater in some areas – e.g. St Anne's Road and Beckett Park where, following removal of one stop and the relocation of another, the distance between northbound public transport stops will approach 500 metres. The reduction in the number of bus stops along the A660 in both directions has not been highlighted in the proposals but is clearly a cause for concern.
 - iii. The analysis of access misleading in that it mentions widening of pavements (para 4.14) but not the proposed narrowing or the inevitable increase in street furniture.
 - iv. The claim, in A-01-11 p21, that access will be improved because there will be more access points is misleading because it doesn't mention reduced frequency, delays to general traffic or loss of existing bus services.

- v. The claim (in A08h6 p174) that the impact on parking In Far Headingley will be a reduction of 12 permanent spaces offset by 5 new permanent spaces in front of the shops on Otley Road is misleading. Investigation of the proposed TROs and observation of the current situation reveals that the loss of permanent spaces will be closer to 20 than 12 and that the main impact on local businesses will be the loss of upwards of 30 off-peak spaces along Otley Road.
 - vi. The claim (in the FAQ section of the NGT website) that trolleybus frequency might be increased above 10 per hour is misleading because such increases would be beyond the capability of the traffic control system to provide priority (it should have been made clear that any increase in frequency above 10 per hour would not offer the same journey times).
 - vii. The claim, in the AST, that the impact on Air Quality is *slightly beneficial* due to the reduced number of diesel buses, is misleading because legislation will by then have required a reduction in the emission of particulates.
 - viii. The claim, in the AST, that the impact on Physical Activity is *slightly beneficial* is misleading because any increase in walking associated with the forecast switch from car to trolleybus is outweighed by the promoters' own forecast that 6.6% of trolleybus users would otherwise have used active modes.
 - ix. The claim, in the AST, that the impact on Journey Quality is *positive* is misleading because it considers only the hoped-for conditions for trolleybus users and ignores the clear deteriorations for bus users and car occupants.
 - x. The claim, in the AST, that the impact on Access to Services is *beneficial* is misleading because it only considers the speed of trolleybus journeys, not the overall journey time (including waiting and walking) or effect on access by bus or by car.
- k. The promoters' literature has failed to draw attention to negative features of the proposed system which might well be thought important in allowing people to come to an informed opinion on the strengths and weaknesses of the proposed scheme. For example:
- i. The fact that the scheme is predicted to result in increased congestion, delay, rat running, fuel consumption and emission of greenhouse gasses.
 - ii. The fact that the introduction of a second mode of public transport with its own stops results in a halving of the effective frequency (and thus a doubling in average wait times) at any given stop.
 - iii. The fact that the choice of an overhead power source will necessitate severe lopping of numerous trees (over and above the published number that are to be felled).
- l. The videos and photo montages which have played a prominent role in the promoter's publicity material conjure the impression that introduction of the trolleybus will result in uncongested roads. This is not consistent with the forecasts but may have misled the public.
- m. The case for the trolleybus, as presented in the Promoter's literature and in publicity given out via printed and broadcast media has been based on analysis which is incomplete or of questionable quality (see Objection 2 below) and may therefore have misled the public, the business community and elected representatives.
- n. The promoters have expressed the opinion that they will win at a public inquiry into the Trolleybus because they won at the Supertram Inquiry and that they would expect less opposition to the trolleybus because its impact is lower. The Inspector will take his own view on this assumption but

NWLTF would like to suggest that the main reason for the relatively muted response to the Supertram proposal was that few people believed that it would ever happen. We observe that this opinion, though less prevalent, is still widespread in respect of the trolley and that the current level of objection would have been greater still if all residents thought the scheme would actually come to pass.

2 We consider that it would be wholly wrong and unsafe to grant the TWAO given the many deficiencies in the analysis. For example:

- a. It is clear that the analysis is still incomplete (The TWAO documents reveal that work on the Leeds Transport Model and on the modelling of accessibility was “still ongoing” as at Sept 13. Similarly, we are told that no detailed modelling has yet been done to indicate the performance of the trolleybus or the conventional bus or of traffic conditions on the A660 in the light of the designs submitted in the TWAO). There is thus no accurate information on the impacts of the proposed designs on journey times by the various modes of transport or on the commercial viability of the proposed trolleybus service.
- b. Some of the results quoted in the TWAO documents (based, no doubt, on the incomplete analysis) are so curious as to invite scepticism. For example, A08h-6 contains a prediction that the southbound trolleybuses will be quicker in the am peak than in inter-peak.
- c. The modelling which has been completed (some of which was reported in the documents attached to the submission of the Programme Entry Business Case) is deficient or unconvincing in several respects. For example:
 - i. The highway model used by the promoters does not meet DfT’s normally expected standards.
 - ii. The Leeds Transport Model does not include a detailed representation of the choice between bus and NGT (this omission was justified in the AECOM Model validation report p12 by the then assumption that main effect of the introduction of NGT would be mode shift from car to NGT – but actually mode shift from bus is the main feature of the forecast. The mode shift forecasts should therefore be treated with circumspection.
 - iii. There has apparently been no detailed modelling of 1800-1900 conditions (PEBC app12 p2) – a period which is crucial on the A660. The forecast performance of the network in the evening peak must therefore be treated with circumspection.
 - iv. The analysis of junction performance presented in A08h6 section 5.2.1 is misleading because the junctions have been optimised for the “do something” case but not for the “do minimum”.
 - v. The analysis of junction performance presented in A08h6 section 5.2.1 is misleading because an input assumption was that demand on the A660 would not grow (because it was considered to be already at capacity) and yet it shows increases in southbound speed in the am peak (which would logically then attract additional demand until the road was again full to capacity). This will tend to have resulted in an under-prediction of congestion and delay.
 - vi. There is a significant inconsistency in the reported level of current demand for buses. Appendix 13 of Appendix 3 of the PEBC reports results of the bus occupancy survey which are different from those reported in Appendix 8 (which deals with bus flow modelling). The morning peak southbound flow at woodhouse flow is variously

reported as 1400 or 1045. Uncertainty about important input values such as this one must cast doubt on the reliability of the modelling which has been used to support the design process.

- vii. The predicted demand for the Trolleybus (hence the residual demand for buses and for car travel, hence the number of buses likely to remain and hence the traffic conditions on the A660) is dependent on the following factors:
- the existence of an intangible preference for trolleybus over all other modes (which was not justified by the stated preference work conducted for the promoter)
 - the absence of any disinclination to travel standing rather than seated
 - the failure of bus operators to provide improved boarding times or more attractive vehicles (note that the stated preference work suggested that an improvement from “old bus” to new bus” would be valued more highly than a shift from “old bus” to “NGT”) and of Metro to provide improved bus stops.
 - The socio-economic characteristics of the population resident in the northern part of the NGT Catchment area continuing to generate substantial demand for public transport (note that the student population in this area has fallen significantly below that assumed in the modelling – according to a recent report by Unipol the number of students in the Far Headingley area fell 57% between 2006 and 2012).
 - The assumed success of the park and ride facility at Bodington (note that 2/3 of the predicted shift from car to NGT is by people using the park and ride) despite the fact that the attractiveness of the proposed park and ride is questionable (the trolleybus will not offer a dedicated, non-stop, shuttle service and users will be particularly frustrated in the evening peak when they have to compete with other users to get a seat – and even perhaps any space at all).
- d. Document A08 e 4 claims (on p15) that the development of 1385 houses at Kirkstall Forge is “*in close proximity to St Chads NGT stop*” and that the resulting change in accessibility is “*significantly beneficial*”. (Kirkstall Forge is actually about 1.5 miles from St Chads NGT stop as the crow flies and the walk would involve an exhausting trek crossing three roads, ignoring the bus routes thereon, crossing a railway line, climbing several steep gradients and passing through two woods and across a campus). This mistake clearly raises questions about the quality control on the analysis and on the reliability of other claims made for the proposed trolleybus system.
- e. Document A-08h-3 (*para 5.32 et seq*) suggests that access to healthcare facilities will be improved because the journey times by trolley bus will be faster than those (currently) achievable by bus but this analysis does not appear to have taken account of the greater average walking distance, the longer average waiting times, the increased likelihood of having to stand while on the vehicle or the likelihood of decreased frequency of buses serving places not on the NGT route.
- f. The Programme Entry Business Case (§2.12, p10/87) states that the bunching of bus services is ‘*due to traffic congestion*’. This suggests a worrying lack of knowledge about the causes of bus bunching – its fundamental cause is long dwell times at bus stops rather than congestion.

3 We consider that it would be wholly wrong and unsafe to grant the TWAO given that the estimation of the scheme’s value for money is so very questionable. For example:

- a. There are doubts about the reliability of the modelling work which underlay the calculation of the Benefit Cost Ratio (see Objection 2 above)
- b. Even assuming that the analyses conducted by the promoters prior to submission of the Programme Entry Business Case are correct:
 - i. The predicted BCR is below the average for DfT funded schemes
 - ii. 71% of the Trolleybus patronage is simply transferred from bus
 - iii. 6.6% of the Trolleybus patronage is transferred from active modes
 - iv. Car journey times are predicted to increase
 - v. Business costs are predicted to increase
 - vi. Greenhouse gasses emissions are predicted to increase

The Appraisal failed to quantify the (negative) value of the loss of trees associated with the proposed scheme. This is remarkable given the strength of public opinion on this issue. A sample survey of 21 trees at St Chads using the Capital Asset Value for Amenity Trees (CAVAT) method suggested they were worth £500,000. The full value of all 400+ trees to be lost and of those to be lopped can only be speculated on, however given that this sample is largely representative of the overall size, age and quality of trees proposed for removal along the entire route and using data provided by Mott MacDonald within their Arboricultural Assessment, it is possible to extrapolate value of approximately £14,000,000 worth of trees for the proposed entirety of tree loss along the route - a figure which could make a difference to the overall BCR.

- c. The cost of maintaining (primarily watering) the new trees has apparently not been fully quantified.
- d. The commercial viability of the proposed trolleybus system is dependent on:
 - The unsafely predicted level of demand (see Objection 2.c.vii above)
 - The questionable containability of costs for operation of a system using vehicles not used elsewhere in the UK (left hand drive).
- e. There has been no proper consideration of alternative, lower cost, solutions:
 - i. The “Low Cost Option” and the “Next Best Alternative” were defined for a network of routes rather than as direct alternatives to the scheme defined in the TWAO (or in the PEBC).
 - ii. The role of a Bus Quality Contract as a part of an alternative to the Trolleybus scheme has not been considered (although it was mentioned in the PEBC as a means of protecting the NGT services once they had been introduced).
 - iii. The possibility of introducing selected parts of the proposed scheme (e.g. the South Route plus the southern part of the North route – up to the University - in combination with use of a Quality Bus Contract or Quality Bus Partnership together with limited engineering works and a phased introduction of Park and Ride at Bodington) has not been considered.
 - iv. Alternative layouts in the Headingley area (e.g. involving dedicating the existing alignment to public transport, pedestrians and cyclists, with other traffic transferred to the new alignment) have not been properly considered.

4 We consider that it would be wholly wrong and unsafe to grant the TWAO given the numerous inconsistencies between published planning and transport policies and objectives and the actual outcomes of the NGT proposals:

- a. The **Equality Act** places a 'Public Sector Equality Duty' on public authorities like Metro to eliminate discrimination and advance equality of opportunities. Metro claim to prioritise the needs of disabled and infirm passengers – but the increased walking, waiting and standing associated with the new trolley system clearly discriminates against disabled and infirm passengers. Examination of the forecast performance and impacts of the scheme suggests that the benefit to a minority of peak period trolley bus users is achieved at a cost to all other road users and to the communities and businesses along the route.
- b. In discussions with Metro representatives, reference was often made to the principles contained in the **Manual for Streets** (2007 and 2010). This includes the statement (para 4.71) that *'traditionally, road hierarchies have been based on traffic capacity'* e. g. radial road, distributor road, access road. However, the approach now recommended to street design is *'determined by the relative importance of both their place and movement functions'* e.g. shopping street, boulevard, mixed-use street. The insensitive treatment of the A660 corridor, which has all the above characteristics, to enable the imposition of an inflexible system is contrary to these principles.
- c. In respect of public transport **Manual for Streets** states in para 6.5.11 that *'Bus stops should be placed near junctions so that they can be accessed by more than one route on foot or near specific passenger destinations (schools, shops etc)*. Many bus stops along the route have been moved away from such locations.
- d. The **Manual for Streets** also emphasises in para 10.1 that *'street furniture and lighting equipment should also be integrated'* and *'that it is especially important in historic towns and conservation areas'*. It is therefore not appropriate to duplicate lighting columns with OLE and to have separate trolley and bus stops.
- e. This latter point is reinforced in **Streets for All** published by English Heritage (2005) which states that *'the underlying principles are to reduce clutter, co-ordinate design, and reinforce local character whilst maintaining safety for all'*.
- f. The **National Planning Policy Framework** (NPPF) in para 64 states that *'Permission should be refused for development of poor design that fails to take the opportunities for improving the character and quality of an area and the way it functions'*. In West Park, for example, DF7 drawings state that there is an 'opportunity to upgrade surfaces to the local neighbourhood centre' but no actual proposals have been put forward in the TWAO.
- g. The **NPPF** in para 65 goes on to state that *'Local Planning Authorities should not refuse planning permission for buildings or infrastructure which promote high levels of sustainability because of concerns about incompatibility with an existing townscape, if those concerns have been mitigated by good design (unless the concern relates to a designated heritage asset and the impact would cause material harm to the asset or its setting which would not be outweighed by the proposal's economic, social and environmental benefits).'* Conservation Areas (of

which there are several along the A660 route) are ‘designated heritage assets’, as are Listed Buildings and Structures (of which there are several along the A660 route).

- h. **The NPPF** in para 132 states that ‘*When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset’s conservation. Significance can be harmed or lost through alteration or destruction of the heritage asset or development within its setting.... As heritage assets are irreplaceable, any harm or loss should require clear and convincing justification*’. In respect of Conservation Areas those elements described as having ‘*special architectural or historic interest*’ are particularly significant to ‘*the character or appearance of which it is desirable to preserve or enhance*’. It should be noted that the Headingley, Hyde Park and Woodhouse Moor CA has been added to English Heritage’s ‘**Heritage at Risk**’ Register (2013). The TWAO seeks to justify the associated specific listed building and conservation area applications in general terms such as ‘considerable public benefit to the people of Leeds in economic growth and environmental terms’ which ‘outweighs any harm..... to their significance assets’. We contend that these justifications do not meet the NPPF test (see references q. – u.).
- i. ‘Saved Policies’ from the **Unitary Development Plan** (Review2006) include SA1 which states a strategic aim to protect ‘*existing good environment, and conserving and enhancing where there is scope for improvement*’. More specifically N18A states that ‘*There will be a presumption against any demolition of a building or parts of a building which makes a positive contribution to the character and appearance of a Conservation Area*’ while N20 states that ‘*Demolition or removal of other features which contribute to the character of the Conservation Area and which are subject to Planning Control, such as trees, boundary walls or railings will be resisted*’. The NGT proposals in respect of the northern route are clearly contrary to the policies.
- j. Policy T1(v) of the **Unitary Development Plan** referred to the intention to “*encourage integration between travel modes through better interchange between and within modes*”. We contend that, by introducing a new mode with its own stops quite separate from the bus stops, the Trolleybus proposals would represent a reduction in integration.
- k. **The West Yorkshire Local Transport Plan** (WLTP) of Oct 2012 has six ‘*big ideas*’, including developing ‘*integrated ticketing and smart card technology*’, ‘*a new approach to buses as part of an integrated transport system*’ and ‘*supporting Park and Ride buses*’. In addition, their priorities include the ‘*continued development of proposals for Bus Quality Contract Schemes*’. We would support all these aspirations and consider them to be more appropriate solutions to the needs of the A660 corridor than a Trolleybus competing with existing bus services.
- l. **The WYLTP** also states under the Quality of Life heading that ‘*the quality of public space (including streetscape) is, and will continue to be, an important consideration in all transport projects*’. The TWAO proposals, involving loss of over 400 trees and the severe lopping of an unknown number to allow for the overhead power cables, the addition of extra street furniture and of the OLE poles and cables themselves, is clearly at odds with this consideration.
- m. Objectives of the **Local Transport Plan** (according to The Programme Entry Business Case §2.16, p11/87) include “*to make progress towards a low carbon, sustainable transport system for the region*”. This is clearly at odds with the increase in greenhouse gas emissions and the reduction

in the use of active modes which are forecast by Metro as consequences of the introduction of the trolleybus system.

- n. Objectives of the **Local Transport Plan** (according to The Programme Entry Business Case §2.16, p11/87) include *“to enhance the quality of life of people living and working in the region”*. This is clearly at odds with the anticipated loss of trees and greenspace, the predicted increase in congestion and the threat to small businesses in the communities along the A660.
- o. The **NPPF** (in paras 29-30) and the strategy for **West Yorkshire’s Third Local Transport Plan** each indicate that the use of sustainable modes of transport should be encouraged. The **Leeds Climate Change Strategy - Vision for Action** gives particular priority to the promotion of smarter choices including walking and cycling. The fact that the trolleybus is forecast to lead to a reduction in the use of active modes indicates that the TWAO proposals are contrary to these policies and priorities. We also note that, since the A660 corridor already has around twice the proportion of active mode use and public transport use than that achieved in any other corridor into Leeds, a policy-compliant priority would be to invest in increasing the use of active modes in those other corridors rather than in jeopardising the current performance of the A660.
- p. The **Leeds City Region Transport Vision** refers to *“making best use of the transport assets in the City Region”*. We contend that, given its expected impact on existing bus services and its resultant under-use of bus stops, it signally fails to do this.
- q. The **West Park Conservation Area Appraisal and Management Plan (2008)** states that *‘The parade of shops on Otley Road forms part of a focal point around the roundabout area, a gateway to the suburb. The forecourt is the principal public space in the Conservation Area’* (p7). *‘There are a number of important specimens (trees) by the parade of shops’* (p12). These points appear to have been ignored in the proposals included in the TWAO.
- r. The **Far Headingley Conservation Area Appraisal and Management Plan (2008)** states that *‘Trees are an important part of the distinctive character of the area’*. *‘Tree lined roads are a defining feature’* (p10) (significant trees are identified on map p8). It goes on to state the importance of ensuring *‘that traffic management measures impact as little as possible on the special character of the area’* (p12). However, in the **NGT Main Statement** (para 7.159) a description of the impact of loss of greenspace and trees within Conservation Areas is followed by the conclusion that it will have (only) *‘moderate adverse effect on Otley Road between St.Chad’s Drive and St.Chad’s Parish Church’*. We contend that the impact is severe and note that the **NGT non-technical summary (A.08a)**, summarising the environmental impact of the scheme overall, recognises in para 8.57 that Otley Road (St.Chad’s) (N10) is among the *‘character areas that have significant negative residual effects..... where there is not the opportunity to provide sufficient mitigation measures’*.
- s. The **Headingley Hill, Hyde Park and Woodhouse Moor Conservation Area Appraisal and Management Plan (2012)** (describing an area which has since been added to English Heritage’s *‘Heritage at Risk’* Register 2013) states that *‘The streetscape of Headingley Lane is central to the character of the area’* (p 10). *‘Any proposal under the NGT scheme, or similar Public Transport schemes, should respect the particular character of the streetscape of Headingley Lane, notably stone boundary walls, and take advantage of opportunities for*

enhancements' (p17). However, the **NGT Main Statement** (para 7.156), having described the impact upon listed structures within Conservation Areas, concludes that it will have a 'moderate adverse effect for Rose Court' and minor impacts for three other Grade II listed buildings. We contend that the impact is severe and note again that the **NGT non-technical summary (A.08a)**, identifies the stretch from Shaw Lane to Hyde Park Corner (By-pass and Headingley Lane) (N12-16) as being among the 'character areas that have significant negative residual effects..... where there is not the opportunity to provide sufficient mitigation measures'.

- t. The **Headingley and Hyde Park Neighbourhood Design Statement (2010)** states that *'The implementation of the NGT scheme, or other public transport proposals, would have an impact on the area, particularly if they involved a by-pass of the Headingley Centre. Any such proposal should be sensitively undertaken to create a 'green corridor' with accompanying pedestrian and cycle ways, so minimising impact on the mature landscape of the area'*. (p21). However, the **NGT Main Statement** (para 7.159) clearly states that the 'off highway corridor between Headingley Lane and Alma Road will result in the severance of the small paddock areas and hedgerows between Oakfield, Headingley Castle and St. Columba's Church, a loss of trees within the swathe of woodland corridor, which forms part of the character and special interest of the area, providing an important background setting for many of its significant buildings (moderate adverse effect) and severance of local side roads'. The statement concludes that 'The significance of the effects of these cumulative impacts on Headingley Conservation Area is considered moderate adverse'. We contend that the cumulative impact is severe and note yet again that the **NGT non-technical summary (A.08a)**, identifies the stretch from Shaw Lane to Hyde Park Corner (By-pass and Headingley Lane) (N12-16) as being among the 'character areas that have significant negative residual effects..... where there is not the opportunity to provide sufficient mitigation measures'.
- u. The **Far Headingley, Weetwood and West Park Neighbourhood Design Statement 2013** (Currently under review, approved by LCC Planning Board for formal public consultation in the autumn of 2013) observes that *'The design of the (NGT) route, stops and key junctions provides the opportunity to enhance the public realm and the experience of pedestrians and cyclists, through improved paving, avoidance (and removal) of street clutter, and additional tree planting. It must recognise the local distributor function of the Otley Road and also respect and contribute positively to the character of the three Conservation Areas it passes through. The Otley Road corridor through Far Headingley and West Park is characterised by wide verges and mature trees and its non-urban character must be respected'* (p 18). *'Otley Road becomes a dual carriageway on its approach to Lawnswood roundabout but is attractively lined by mature trees, including in the central reservation'* (p64). The TWAO proposals clearly conflict with the spirit of the Neighbourhood Design Statement. (We note that the **NGT non-technical summary (A.08a)** recognises in para 8.57 that Otley Road (Bodington P and R to West Park) (N04) and Otley Road (St.Chad's) (N10) are among the 'character areas that have significant negative residual effects..... where there is not the opportunity to provide sufficient mitigation measures').

5 We consider that it would be wholly wrong and unsafe to grant the TWAO given the failure of the proposals to meet the aims and objectives set out for them in TWAO literature and in the Programme Entry Business Case. For example:

- a. The **NGT Main Statement (A -08b)** states in para 7.159 that ‘trees, gardens and soft landscaping form key elements in the special character of three conservation areas through which the North Line runs. The loss of those elements will adversely affect the character and special interest of the conservation areas’. It concludes in para 7.178 that ‘the main significant residual effects are those associated with the construction of the off highway corridor at Alma Road (Headingley Centre) and Monument Moor, and the loss of trees within the Conservation Areas (West Park to Woodhouse Moor). Whilst these impacts will be mitigated through replanting and landscaping, such mitigation will not take place until planting has matured’ (15+ years). However, yet again, we note that the **NGT non-technical summary (A.08a)** recognises the stretch from Shaw Lane to Hyde Park Corner (By-pass and Headingley Lane) (N12-16) as being among the ‘character areas that have significant negative residual effects..... where there is not the opportunity to provide sufficient mitigation measures’. We also note that Monument Moor will be used as a major construction compound with potentially ongoing adverse effects on the historic green space.
- b. In para 3.21, in respect of the possible use of the Headingley by-pass alignment for general traffic, the **NGT main statement** states that ‘routing cars away from the primary shopping frontage may lead to a reduction of business activity adversely impacting on socio-economic and community aspects’ but does not mention the likelihood that a similar, arguably greater, impact would result from the proposed routing of public transport away from the primary shopping frontage.
- c. The **NGT Main Statement (A -08b)** states in respect of the Monument Moor section that a justification for off highway routes is that ‘it provides a more legible NGT system and better opportunities for network identity’. This implies that branding and legibility is more important than the achievement of integrated public transport and environmental considerations. We beg to differ and invite the Inspector to form a view on this issue.
- d. The **NGT Main Statement (A -08b)** summarises Leeds’ transport problems and opportunities in para 1.24 (table 1.1). Under the heading Social Equity, reference is made to the need for public transport to assist regeneration in south and east Leeds and to serve households in central, south and east wards. With limited public funds in this age of austerity the priorities should therefore not be the Northern route beyond the University. The same paragraph also highlights the role of ‘A new, high quality bus based system with park and ride’ - not a trolleybus.
- e. The **NGT Urban Design and Access Statement** summarises Design Objectives/Principles in Table 1-01. These are:
 - ‘Promote a network that respects and enhances the existing and distinctive character of the areas through which it passes’. There should therefore be an appropriate response to the existing character of the route not an imposed concept requiring significant changes to that character as is the case of the Northern route.

- 'NGT should minimise its impact on buildings/boundaries, spaces and features that have cultural and/or historical significance'. Whereas this is particularly not the case in Far Headingley, along Headingley Lane and across Woodhouse Moor.

- 'Minimise clutter often associated with transport infrastructure'. Whereas OLE poles with no guarantee of combining them with lighting columns, wire attachments to listed buildings, duplication of stops etc., all demonstrably add to clutter.

- 'Grass verges and landscaping should be maintained or introduced wherever possible to soften the transport corridor and create buffer zones'. The proposal results in precisely the opposite with the loss of trees and grass verges outbound in Far Headingley, the loss of trees in the central reservation both sides of the Lawnswood roundabout, the creation of a segregated track behind Headingley Centre and across Monument Moor, and general road widening elsewhere with loss of trees and green frontages to properties.

- f. **Document A-01-02** para 3.2 refers to several objectives for NGT which are said to be consistent with the third West Yorkshire Local Transport Plan. Among these are: #3 ('Improve efficiency of city's Public transport and Road networks') and #5 ('Reduce transport's emissions of CO2 and other GHG'). We contend that Metro's own forecasts of the impacts of the trolleybus indicate that these objectives will not be met (note, respectively, the predicted increase in congestion - increased congestion being a clear marker of reduced network efficiency - and the predicted increase in GHG).
- g. **Document A-01-02** para 3.3 states that part of the **NGT Vision** is to create an '*integrated transport system for Leeds*'. As noted at Objection 4l above, we contend that, by introducing a new mode with its own stops quite separate from the bus stops, the Trolleybus proposals would represent a reduction in integration.

6 We consider that it would be wholly wrong and unsafe to grant the TWAO given the many concerns that are raised in respect of safety. For example:

- a. The failure to engage with the Ambulance Service in respect of the need for ambulances to move through the A660 corridor (particularly following closure of Accident and Emergency Services in Otley). The problems likely to be experienced in a more-congested Central Headingley are particularly alarming.
- b. Siting of the trolley stops adjacent to Lawnswood School in the centre of the carriageway gives rise to safety issues; children waiting at the trolley stop seeing a bus approaching will be tempted to rush across the carriageway to get to the bus stop (and vice versa). The un-segregated footways in the vicinity of the Lawnswood School are inherently unsafe with the high pedestrian footfall.
- c. The suggested use of an uncontrolled crossing adjacent to the Oxley Hall entrance across an inbound bus lane and a general traffic lane then across an outbound trolley lane and general traffic lane.
- d. The siting of Trolley stops and bus stops on opposite sides of side roads creates a safety hazard if someone at one stop sees a vehicle of the other type approaching first and so runs to that

other stop (they may not pay sufficient heed to traffic turning in or out of the side road). This issue occurs at several locations. For example:

- i. at the entrance to Weetwood Hall (southbound) on plan TD/011
 - ii. at the entrance to “the Village” Leisure Centre (southbound) on plan TD/012
 - iii. at The entrance to St Chads church (northbound) on plan TD/014
 - iv. at Park Terrace (southbound) on Plan TD/014.
 - v. at Headingley Hill trolleybus stop (northbound) on plan TD/0019
 - vi. at Regent Park Avenue (southbound) on plan TD/0021
- e. The northbound lane of Otley Road immediately prior to Churchwood Avenue at the controlled crossing point scales to a lane width of less than 2.5 metres alongside a narrow cycle lane. This layout is not safe given the likelihood of competition between the different modes of transport.
- f. The configuration of the southbound traffic lanes along Otley Road from Shaw Lane towards Alma Road has the ingredients to generate conflict prejudicial to road safety. Buses are expected to move from the end of the nearside lane public transport lane across into the outside general traffic prior to Alma Road to achieve access to the bus stops at the Arndale centre.
- g. The emergence of traffic from the car park at the Arndale Centre is potentially dangerous .The limited sight lines afforded to vehicles is particularly problematical. The uncontrolled crossing over the trolley lanes and then onto the narrow un-segregated footways is unsafe. The requirement for pedestrians and cyclists to negotiate an 8 metre wide two lane trolley lane system without any formal control and to land on narrow footways which are un-segregated is unacceptable.
- h. The closure of Richmond Road with the indicated alternative of Richmond Avenue is prejudicial to road safety. A U-turn is possible from Richmond Avenue into Headingley Lane but only in conflict with other vehicles. In addition there is a bus stop 3 metres to the north of the junction and a narrowing of the northbound general traffic lane.
- i. The inbound traffic lane on Headingley Lane at its junction with Richmond Avenue seems to be well less than 3 metres but alongside a 2 metre cycle lane. The use of Heavy Goods Vehicles and buses must be prejudicial to road safety.
- j. The bus stop outside 38 Headingley Lane appears to be 2.5 metres at its widest point. Bus use at this point may well encroach onto the cycle lane with that class of user being forced into the inbound general traffic lane.
- k. The trolleybus lane over Monument Moor at Rampart Road is shown to have an uncontrolled pedestrian crossing to reach the footway. This crossing should have control to provide a safe environment.
- l. The outbound bus and cycle lane between St Mark’s Avenue and Clarendon Road is described as being generally 3.65 metres wide but scales to less than that at certain points. The use of articulated trolleybuses is a particular safety concern in that any move around cyclists may well lead to conflict with the two general traffic lanes (inbound and outbound).

- m. The suggested on-road arrow signing along Woodhouse Lane from Portland Crescent to Portland Way is not consistent in destination throughput and creates a potential for conflict between the nearside lane traffic attempting to cut across into A660 northbound lane.
- n. The disabled parking facility/ drop off points at Portland Gate will necessitate U turns (aka three point turns) to exit that road which is not a safe environment in this confined space.
- o. The layout of the uncontrolled pedestrian crossings at the top of Cookridge Street with a heavy footfall from the Arena in addition to general pedestrian movement does not offer a safe environment.
- p. The footway width alongside the Leonardo Building is inadequate for heavy pedestrian use. Any spill onto the road would have potentially dire consequences, particularly when related to q below.
- q. The access to Cookridge Street and Rossington Street from Great George Street is a potentially dangerous manoeuvre with the layout offered. Traffic entering Cookridge Street must by TRO (trolley lane) use the eastern side of the road (alongside a disabled parking area) and potentially face a southbound trolley movement in their lane; unless of course they can access Rossington Street before that situation arises.

7 We consider that it would be wholly wrong and unsafe to grant the TWAO given the serious harm that the proposed system will do to the amenity of North West Leeds. For example:

- a. Objection 4 above touches on several examples of damage to amenity and draws attention to the fact that the NGT non-technical summary (A.08a) identifies several stretches of the route as ‘character areas that have significant negative residual effects..... where there is not the opportunity to provide sufficient mitigation measures’.
- b. The loss of over 400 mature trees will materially diminish the current attractive ambience. Their replacement by new planting will eventually be some recompense – provided they survive (see Objection 3d above) - but the loss of the existing mature specimens will be apparent for a generation.
- c. The lopping of an unknown number of overhanging trees to make way for the overhead power lines associated with the Trolleybus will materially diminish the current attractive ambience.
- d. The proposed works, most particularly the road widening and loss of trees and grass verges will have a marked detrimental impact on the ambience of the area and is at odds with Neighbourhood design statements and the conservation area status.
- e. The commercial viability of local shops, restaurants and other community facilities (including Cottage Road Cinema which is one of the oldest continually operating cinemas in the country) is threatened by the loss of parking spaces – most particularly the loss of off-peak parking space on Otley Road.
- f. The expected reduction in frequency of public transport services from any given stop would seriously degrade the current accessibility of this area to/from central Leeds (the existing bus services currently run at an average of one bus per three minutes. It is expected that this will be

reduced to one per six minutes. The trolleybus frequency is said to be “up to 10 per hour” but they will be picking up at a separate set of stops and, with the provision of trolleybus turn-back at the University and at Alma road, there is a concern that even this frequency will not be maintained beyond Alma Road).

8 We consider that it would be wholly wrong and unsafe to grant the TWAO given the inflexibility and cost of the proposed trolleybus system. For example:

- a. The trolley bus routes could not be extended without significant infrastructure expenditure. Examples of extensions which have been suggested include:
 - i. new demand points in the city centre – such as the proposed Victoria Gate Development
 - ii. St James Hospital
 - iii. The deprived communities of East Leeds
 - iv. Urban regeneration and development priorities in East Leeds and the lower Aire Valley.
- b. Prioritised trolleybus frequency cannot be increased beyond 10 per hour because the traffic control signals cannot offer more than 10 priority events per hour without seriously compromising the movement of general traffic. Given that the trolley is forecast to be at 80% of its peak capacity in the first year of operation, this leaves very little room for increased demand unless the proposed articulated vehicles were to become bi-articulated (an eventuality which has been considered by Metro but which they have since said is “not being planned for”). Interestingly, if the increased employment predicted by the Proposers as a positive impact of the Trolley bus (see Objection 1 i vi above) did occur, the new workers would more than fill the new capacity of the trolley system.
- c. Prioritised trolleybus frequency cannot be reduced at will (it must be a multiple of the signal cycle times).
- d. The trolleybus concept is incompatible with the idea of express services from the park and ride sites.
- e. A progression from overhead power to a more advanced power source which does not require overhead wires would result in significant additional expenditure (new vehicles, sale of the trolley vehicles into an uncertain second –hand market, scrapping of the overhead wires) and would leave the scar of lopped trees and defaced buildings.
- f. No other major city (in Europe or worldwide) is currently installing a trolleybus system *ab initio* and many of those that have one want to, or are actively, getting rid of them because of inflexibility, maintenance cost and impact on quality of streetscene.

9 We consider that it would be wholly wrong and unsafe to grant the TWAO given the uncertainty as to the public transport services that would eventually be offered. For example:

- a. The trolleybus frequency is intended to be of up to 10 vehicles per hour but the provision for turn-back at the University combined with the fact that the commercial viability of the trolleybus is dependent on some unsafe assumptions (see Objection 3 d) gives concern that this level of service may not be offered beyond Alma Road – particularly if, as happened in Sheffield following introduction of its Tram system, a period of intensive on-road competition between the trolleybus operator and incumbent bus operators culminates in management of the trolleybus service passing to a commercial bus operator.
- b. Not all of the trolleybus stops included in the TWAO have been included in the budget.
- c. Facilities at those bus stops which, according to the TWAO, are to be moved are not specified and, apparently, have not been included in the budget.
- d. The impact on the existing bus services on the A660 cannot be known in advance but is assumed to include a halving of current frequencies. The local bus operator has intimated that the more likely result is of an even greater reduction in frequency and that the extension routes (nos. 28, 97 and 1 beyond Bodington) may become commercially unsustainable. There is also the possibility that loss of revenue from the profitable A660 route would force reductions in service elsewhere in the city Region. The loss or curtailment of services which are not served by the proposed Trolleybus could seriously diminish accessibility for many people.
- e. The PEBC refers to the possibility that a Bus Quality Contract might be used to protect the Trolley bus service. The meaning of this is not spelled out but presumably includes the possibility of using Bus Quality Contract powers to prevent bus operators from offering lower fares than those offered on the Trolleybus. Such action would be anti-competitive and would deprive bus users of low fares.