SUBMISSION FROM THE CHARTERED INSTITUTE OF LOGISTICS AND TRANSPORT IN IRELAND TO THE NATIONAL TRANSPORT AUTHORITY'S PUBLIC CONSULTATION ON BUS RAPID TRANSIT (BRT)

Introduction

The Chartered Institute of Logistics and Transport in Ireland ("the Institute") is the independent professional body for people engaged in logistics and all modes of transport. The Institute is part of an international body with 30,000 members worldwide. As a professional body, the Institute does not lobby on behalf of any sectoral interest, but seeks to take an independent, objective and considered view on matters of public policy.

The Institute welcomes the opportunity to respond to the public consultation on bus rapid transit.

Institute Strongly Supports BRT

The Institute strongly supports BRT and welcomes the commitment of the NTA to develop a number of BRT routes in the Greater Dublin Area. In 2012 the Institute published a policy brief on BRT which called for a fundamental rethink on the potential of bus-based transit solutions for Ireland's major urban areas. It also organised seminars to increase understanding and knowledge of the BRT concept and consider potential applications in Ireland. The Institute will continue to do everything it can to support and promote the development of BRT in Ireland and the comments which we make below should be considered in that context.

Importance of a Policy Context for BRT

It would be very helpful if the NTA published a short statement outlining its high level policy on BRT, explaining how it saw BRT fitting into the overall public transport network for the Greater Dublin Area and setting out some of the key technical and performance criteria it proposes to adopt. It published a very useful Core Dublin Network Study in October 2012 which gave some indication of its overall approach and set out a number of conclusions and recommendations. The materials published for the current consultation also give further indications of the NTA's thinking. While it is possible to divine much of the NTA's possible policy approach from these publications, it would be very useful to have an explicit statement of the Authority's overall policy perspective on BRT.

The Institute would also welcome a statement from the NTA on whether it sees scope for the implementation of BRT in other cities. A number of studies have been published which recommend the development of BRT, in various forms, outside of the Greater Dublin Area and it is now time for the Authority to set out its policy response to those studies. Whatever decision is taken, there is ample scope to further develop bus services and bus priority in the regional cities. Improvements to public transport provision in those cities can be achieved for a fraction of the expenditure required in the Greater Dublin Area.

How does BRT fit into the Public Transport Network?

It is important to have a clear understanding of how BRT fits into the overall public transport network in the Greater Dublin Area. Are the three corridors identified for the current consultation the only ones considered suitable for BRT? How will BRT interface with conventional bus services? Will conventional bus services be permitted to use BRT corridors and how will conventional bus services be reconfigured following the introduction of BRT?

There appear to be some inconsistencies in the published materials which the NTA should address. The Core Dublin Network Study excluded the Swords – City Centre corridor from further study because it had demand levels that exceeded “the capacity of a moderate capacity BRT system, in the longer term”. That corridor is now not only included but it is proposed to be given priority for development on the basis that it can provide an interim public transport solution pending the implementation of Metro North. This apparent change of mind needs to be more fully explained. By contrast, the Lucan corridor was excluded from consideration on the basis that “there would not be sufficient demand to justify a BRT provision in this sector in the event of Luas Line F proceeding as currently planned”. If BRT can be considered as an interim solution in the Swords corridor, why not in the Lucan corridor if the demand analysis justifies it?

Was BRT considered to serve Ballymun? A line to Ballymun was part of the original three line core LRT network recommended by the Dublin Transportation Initiative. It did not proceed because funding was only initially available for two lines. Ballymun was subsequently included on the Metro North corridor but that project is now on indefinite hold. Consideration should therefore be given to how best to provide a high quality public transport service for this area not only serving the city centre but also to Dublin Airport, both of which are important employment zones. Similar considerations would also apply to the Finglas corridor.

System Concept

The submission will now go on to consider a number of aspects of the system concept for BRT which the Institute urges the NTA to consider as part of the development of a policy statement and the subsequent planning, design and implementation of BRT. The comments made refer primarily to the relevant findings and conclusions of the Core Dublin Network Study. Where we do not comment it can be assumed that we are broadly comfortable with the conclusions of that study.

Capacity of BRT

The Core Dublin Network Study recommended that the BRT system should be based on a moderate capacity system of 2,400 to 3,600 ppdph, with the possibility of expansion to 4,500 if longer vehicles of up to 25 metres were authorised for use at some future point. This is based on a maximum frequency of 30 vehicles per hour. The Institute considers that this is an unduly conservative approach and urges the NTA to reconsider. Practical experience elsewhere and observation of performance on the existing QBCs in Dublin suggests that significantly higher capacities are potentially achievable. We accept that there will be constraints which mean that higher frequencies and capacities are not always achievable, but this is not a sufficient reason for adopting such a conservative capacity ceiling. Another reason for considering a higher capacity threshold is the fact that the levels of public funding available for transport investment are likely to be constrained for an extended period and are unlikely again to reach the levels achieved (in real terms) in the late 2000s. There is therefore an increased imperative to seek effective lower cost solutions to transport deficiencies; high performance BRT is one such potential solution.

We recognise that higher vehicle frequencies would carry some risk of bunching and of vehicles delaying each other and would require more than one vehicle to clear junctions in a single traffic light phase. We understand from the Core Dublin Network Study that the NTA's preference is to avoid this in the interests of maintaining service quality. However, given the passenger volumes that need to be carried and the limited number of public transport corridors available in Dublin, it is not practical to pursue this policy. Corridors should be designed to allow higher frequency vehicle flows while minimising the impact on service speeds and reliability on the core BRT routes.

We note that another constraint on BRT capacity is the fact that the longest bus currently authorised to operate on all Irish public roads is 18.75 metres in length. Longer vehicles of upwards of 24 metres are available and could potentially be used in certain circumstances, increasing the capacity threshold by up to 25%. We recommend that the NTA begin an early dialogue with the Department of Transport, Tourism and Sport about the scope for authorising these longer buses. In particular, consideration should be given to the use of a more flexible permit system which could authorise the use of longer buses in particular areas or on specific corridors.

This might be easier to achieve that a national authorisation applicable to all public roads. We urge an early start to this dialogue as experience suggests that it could take some time to do the necessary legal and technical preparatory work.

Think LRT, Implement BRT

The Institute considers that the approach to the design of BRT routes should be based on LRT standards. The aim should not be to build a “tram on tyres” but rather to deliver a public transport product of equivalent quality coupled with the flexibility of the bus. Consider what would be appropriate if LRT was being built on the route and only depart from that standard where there is a robust and objective technical justification for doing so. There is no reason why lower standards should be acceptable for a bus than for a tram. In advocating this, we accept that it will not be necessary to adopt certain LRT standards. For example, as mentioned in the Core Dublin Network Study, it will not be necessary to relocate underground utilities along most of the path of a BRT route. We also urge the NTA to consider the implementation of BRT in a wider urban design context and to view its implementation as not only a way to improve public transport provision but to enhance the urban space. This approach was a success for Luas and should be replicated when developing BRT.

Access Arrangements for Business

The NTA should give careful consideration to impact of reducing available roadspace for commercial traffic and to the adequacy of access arrangements for businesses located along the BRT corridors, during construction and during subsequent operation.

In each corridor an assessment should be made of the level of commercial traffic, the likely impact that the proposed re-allocation of roadspace will have for that traffic and the measures to be implemented to mitigate the adverse effects where no suitable alternative routes are available. Arrangements for effective consultation with commercial road users should be put in place at the start of, and throughout, the planning and design process.

Shops, factories and other business premises have a range of access requirements which need to assessed and provided for. This includes access for deliveries, dispatch, servicing and customer/employee parking. Some premises do not have off-street parking facilities or rere access and appropriate arrangements will need to be made to accommodate them. Some dispatch/delivery operations (such as cash in transit, beer and pharmaceuticals) have significant health and safety or security implications and require special arrangements, for example parking in close proximity to the dispatch or delivery point. Restricting deliveries to night time may be

an option in some cases but it may also be constrained by night time delivery restrictions in residential areas or by the particular business model. It is critical that there is effective prior consultation during the planning and design process with businesses likely to be affected. This includes not only the businesses located along or in close proximity to the proposed BRT corridor but also their logistics providers. It is important that the distinct perspectives of both parties are sought and understood. We understand that the consultation process used in advance of the London Olympics worked well. In that case the Olympic Route Network and Games Lanes had a huge impact on deliveries and servicing activities.

Impact on Taxi Services

The NTA needs to assess the impact of its proposals on the provision of taxi services. Will taxis be allowed to use the BRT corridors and if not what will be the impact? This could be particularly severe if taxis were excluded from the corridor serving Dublin Airport. Are there taxi ranks on any of the proposed corridors and, if so, what alternative provision is planned?

Impact on Cyclists

It appears that cyclists may be excluded from BRT corridors. The NTA should explain clearly what alternative provision it proposes to make to replace lost cycle priority on these corridors.

Open or Closed System?

The Institute would be broadly supportive of an open or semi-open BRT system, with conventional bus services, but not general traffic, permitted to use the reserved BRT lanes. This would ensure that the maximum number of public transport users benefitted from the BRT infrastructure. However, very careful attention would need to be given to the design and operational characteristics of such a system. Just as with railways, interspersing limited stop and stopping services could impact on the capacity and quality of service of a BRT system and therefore needs to be carefully evaluated. In the absence of adequate passing places or overtaking opportunities, buses on the existing QBCs or bus lanes can currently be delayed by those ahead of them or by other permitted users. Consideration should therefore be given to means by which this potential problem could be avoided. One option might be the provision of passing places where feasible and required. A review of practice abroad and technical visits to view actual operating experience in other cities would be of assistance in this regard. The NTA also needs to consider whether longer distance scheduled bus services will be permitted to avail of the enhanced priority on the BRT

corridors. In principle they should be permitted to access the corridors unless this would to lead to an unacceptable capacity reduction or dislocation for BRT services.

Vehicles

The choice of bus to be used on the BRT network should be an output of the design studies, not an input to them. The key considerations when selecting vehicles should be: capacity and quality. It is important to purchase vehicles which deliver the optimum passenger carrying capacity and passenger experience. The Institute has no strong views on the most appropriate type of vehicle to be used on BRT routes, but urges the Institute to make its choice with great care and to review practical experience on other BRT systems. No amount of desk-based analysis will replace the learning experience of travelling on a bus in actual revenue service. The passenger experience should be a very important consideration, including ease of access and egress, comfort during travel and seating/standing ratio. We have little experience of articulated buses in Dublin but there is anecdotal evidence that the limited earlier trial produced some negative passenger reaction, especially from people who had to stand during their journeys. The ratio of seated to standing places will also be a significant consideration and there is likely to be user resistance to standing over longer distances. While we understand the temptation to select a bus design that looks very different and possibly looks like a tram, we urge that the NTA adopts a precautionary approach. The emphasis should be on performance rather than perception. Select a vehicle that has a proven track record rather than one that looks good.

The Institute strongly supports the use of vehicles with multiple doors and off-bus ticketing. One of the major disappointments of the current bus operations in the capital is the continued use of single doors and the need for Leap card users to interact with the driver, both of which cause unnecessary delay and inconvenience for users.

Location of BRT Lanes

Nearly all of the proposed BRT routes are on-street on four lane roads, presumably with BRT and general traffic each having one lane in each direction. This is different from Luas which is mainly off-street, on dedicated streets or one-way streets. The closest equivalent to the proposed BRT arrangements is the Luas along the Naas Road. However, in that case trams runs down the centre of the road whereas it appears that BRT is proposed to operate on the side lanes.

The centre of the road should be used for BRT, where possible. Using lanes adjacent to the footpath risks BRT buses being delayed by left turning traffic, parking traffic, vehicles making pickups or vehicles partly parked on the footpath but partly

blocking the bus lane. It is also unlikely that the current general driver culture will give BRT buses as much respect as is given to trams since drivers know that a bus can move out of a bus lane to get by while a tram cannot. If we want to ensure uninterrupted journeys for BRT, then central lanes are best. This would require the building of island stops which we accept may not always be possible. However islands can be staggered. It is assumed that buses (unlike Luas) will only have doors on one side.

Service Plan

It is not clear from the literature published by the NTA what service plan it has in mind for the proposed BRT corridors. Will BRT services operate only on BRT corridors or will they serve adjacent areas before joining the corridors? Will feeder services be provided? How will conventional bus services in the surrounding areas be reconfigured? The Core Dublin Network Study discusses the service options but gives little indication of the Authority's preferences, apart from proposing a semi-open system with the possibility of segments of routes being fully reserved for BRT vehicles. We understand that the full service plan is likely to be corridor-specific, but it would be useful for the NTA to set out some broad principles which would govern its choices. It would be helpful to have an indication of the minimum service level contemplated, the catchment area envisaged (for example a 15 minute walk time or alternatively a maximum distance to a BRT station), how BRT and conventional bus services will inter-operate, whether BRT services will leave the corridor or be served by feeder buses and so on. The end-to-end journey time should be an important factor taken into account in designing the service plan. Saving six or seven minutes onboard can be easily negated if somebody has a 20 minute walk to access a BRT service.

As mentioned earlier, the Institute favours an open system with conventional services being able to use the BRT corridors. The corridors being considered are mostly on-road and already used by existing bus services. It would therefore be difficult to see how these conventional services could be effectively provided other than on the BRT corridor. We appreciate that an open system will require careful design so as not to adversely affect the delivery of high quality BRT services or dilute the BRT brand. We would also favour BRT services operating into surrounding areas and accessing the BRT corridors at appropriate points. This would help extend the BRT catchment area and avoid excessive walking distances or transfer penalties from feeder services.

Convenient interchange with other public transport services should be taken into account when designing BRT corridors and considering service plans. We note that good interchanges are proposed in the city centre between BRT routes and between BRT and other public transport modes. However, some opportunities for interchange

with DART in the suburban areas appear to have been missed, for example close to Belfield and at Clongriffin. Where interchange opportunities are provided, high quality information should be made available. This includes effective signposting to enable people get from one service to another, on-site timetables and online information.

In general, we regard feeder bus routes with interchange onto BRT as impractical. Passenger interchange will usually only work where there is a very high service frequency on both the feeder and mainline routes, thereby minimising the interchange penalty. Therefore, as stated above, we recommend that conventional bus services should instead be able to use the BRT corridors.

There is a need to develop an orbital bus network and it would be important to consider how a future orbital network would interface with the proposed BRT corridors.

Consideration should be given to extending the UCD route further south along the N11 so as to maximise its catchment area.

The location of BRT stations close to areas of high demand is important. For example, on the Swords corridor the busiest stops as of now are probably Northwood, Collins Avenue/Iveragh Road and St Patrick's College/Richmond Road. Yet only one of these locations is listed as having a stop. We therefore recommend that there be a critical review of the locations of passenger demand on the proposed BRT corridors so as to match station locations as closely as possible to demand while retaining the limited stop characteristics of BRT.

Care should be taken in the naming of BRT stations to ensure that they do not mislead customers. Wherever possible, names already used for railway stations or Luas stops should be avoided unless they are co-located or in very close proximity. An example of this is the Killester stop on the Clongriffin – Tallaght BRT corridor which is some distance from Killester DART station or indeed Killester itself.

Implementation, Operating and Management Arrangements

The NTA literature is silent on how the BRT infrastructure will be provided, who will operate the BRT services and who will manage and maintain the supporting infrastructure. The approach to Luas procurement has been very successful and the NTA might usefully consider whether it is a model which could be replicated in whole or in part for the BRT system. What is essential is that the operator/service provider has a demonstrated ability to manage and deliver to very high standards and that the contractual relationship between the NTA and the operator/service provider is such as to ensure a high quality of service delivery which commands and retains public confidence. There would also be benefits in having a single party responsible for maintaining and operating the BRT station infrastructure and providing the service and this is clearly demonstrated in the Luas case. If this proves impractical, it is

critical that each individual element of the BRT package is delivered to a high quality. Inadequate performance on one or more elements of the overall package will undermine the brand and negate high performance on other elements.

Branding

The Institute strongly supports effective branding for the BRT services. Critical to the success of the brand will be the overall quality of the service offering in terms of fast, frequent and reliable services, a clearly understandable service pattern, buses providing a high quality passenger experience, high quality station infrastructure, excellent passenger information on the BRT corridor and online. The NTA needs to guard against the dilution of the brand as happened with the original Cityswift services. Consideration should be given to extending the Luas brand to the BRT corridors. This would send out a message that this is a high quality rapid transit service whether on steel or rubber wheels. It would also reinforce the point made earlier that the design of the BRT network should start from the principle of adopting standards similar to those applied to the development of the Luas network.

It is important that BRT be delivered, presented and marketed as something new and different from the traditional bus, something new and exciting and akin to Luas.

Costings

The Institute would welcome the development of more detailed costings for the provision and operation of the BRT services. The initial estimates seem somewhat high but it is difficult to reach any definitive conclusion given the necessarily limited information provided in the Core Dublin Network Study.

The Proposed Corridors

The Institute has no major issues to raise in relation to the proposed corridors. However we would like to offer a few observations.

Regarding the Swords corridor, it is not clear whether all BRT services will travel via Dublin Airport. The map seems to suggest that both Airport and direct services are envisaged. This should be clarified. If the Airport is being served, special provision will need to be made on buses for heavy baggage. Should the Dublin Port Tunnel be used for some services? There needs to be clarity as to what is intended in respect of existing commercial bus services operated on this corridor. We will be very interested to see how contraflow will be implemented on Pearse Street. We have already mentioned the desirability of changing the name of the Killester BRT station.

Regarding the Blanchardstown – UCD corridor, there should be provision for interchange with the DART network. Extending the UCD end of the corridor further south would improve its viability.

Regarding the Clongriffin – Tallaght corridor, we have already mentioned the desirability of providing interchange with rail services. There is also a substantial oneway loop in the Rathfarnham area which raises concerns. How will this work in practice, particularly for people who are not familiar with the network? While the loop on the city quays may be easily understood by users, the same is not true for this loop. If possible, it should be avoided. If not, careful arrangements need to be implemented to make them easily legible by public transport users.

The delivery of high quality bus priority to and through the city centre will be critical to the success of all three proposed BRT routes, particularly the cross-city routes.

Concluding Remarks

The Institute is most anxious to see speedy progress on the implementation of BRT in Dublin and will provide the NTA with whatever support and assistance it can. It is currently considering hosting a seminar in the early Summer which would focus on practical implementation issues for BRT.

The choice and design of the first corridor to be implemented is of crucial importance. It will provide proof of concept. It needs to be designed and implemented in a way that clearly demonstrates the capacity of BRT to deliver a very high quality public transport service at a fraction of the cost of tracked systems. It needs to provide a quantum leap beyond the current standard of service provision.

The implementation of BRT should not be undertaken at the expense of other necessary improvements in the bus service and the upgrading of the existing QBCs. We should continue to improve bus priority on the existing QBCs and bus lanes and tackle pinch points. The use of multiple doors for access and egress and better arrangements for onboard Leap card validation should be introduced across the bus network at the earliest possible opportunity.

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