



The Tailor's Hall, Back Lane, Dublin 8.
E: Damien.otuama@antaisce.org
T: 01-7077064
M: +353-87-2840799

National Transport Authority
Dún Scéine
Harcourt Lane
Dublin 2

Friday, November 28, 2014

Public Consultation on Swiftway Bus Rapid Transit – Swords/Airport to City Centre

Dear Sir/Madam,

I am pleased to make a submission in respect to the above proposal. This submission has been jointly prepared by An Taisce (www.antaisce.org), Cyclist.ie – The Irish Cycling Advocacy Network (www.cyclist.ie) and Dublin Cycling Campaign (www.dublincycling.ie).

The submission comprises four main sections:

Section 1: Overarching Remarks / Standard Points Applying to Many Locations

Section 2: Comments on the General Planning of the Scheme

Section 3: Detailed Comments on Public Transport Aspects

Section 4: Specific points on a map-by-map basic with a particular focus on the perspectives of bicycle users

These are followed in the Appendices by schematic maps by An Taisce of the National Transport Authority's Draft Integrated Implementation Plan 2013 – 2018 including the Swords BRT.

Please excuse any formatting inconsistencies / typos etc. in this submission. It took considerable time to examine the voluminous material made available on your website: <http://www.nationaltransport.ie/consultations/public-consultation-on-swiftway-bus-rapid-transit-swordsairport-to-city-centre/>



Section 1: Overarching Remarks / Standard Points Applying to Many Locations

- 1.1 Dublin Cycling Campaign/Cyclist.ie/An Taisce, as indicated in our original submissions, are overall strongly in favour of the concept of BRT and in this case of the proposed BRT public transport preferred route between Swords and City Centre. We are of the view that the provision of high quality public transport and BRT is an essential strand to an efficient and more sustainable transport system where car commuting is de-prioritised. This imperative is all the more pressing as the scientific knowledge around the cumulative build-up of fossil-fuel based emissions crystallizes further – as set out, for example, in the latest publication of the Intergovernmental Panel on Climate Change (http://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_SPMcorr1.pdf).
- 1.2 We commend the NTA and consultants in producing such a comprehensive and detailed report and route assessment process. We are particularly happy to see the inclusion of ‘cycle network integration’ as part of the Multi Criteria Analysis (MCA) approach, as outlined in the Route Options Assessment Report.
- 1.3 The present drawings which, as indicated, are ‘subject to further development’, contain a number of minor errors in presentation, which create a certain amount of confusion in determining the detail of what is actually proposed in a small number of areas. We look forward to perusing the final iteration of the drawings in order to comment fully.
- 1.4 We are conscious that the overall design must meet the requirements of the Roads Act, 1993, Sect 13.(5), which states: “In the performance of their functions under subsections (1) and (2), a road authority shall consider the needs of all road users”. From our examination of the drawings and as elaborated below, it appears that at too many junctions and along some links, the cyclist is thought of as a ‘pedestrian on wheels’ rather than a user of a vehicle and this translates into very circuitous, convoluted and ultimately inadequate provision for cycling.

Junctions, Crossings and Shared Cyclist/Pedestrian Spaces

- 1.5 We have issues with virtually all of the junctions in relation to cycling and these need to be looked at in detail. The final proposed solutions need to be outlined clearly.
- 1.6 Four arm / complex junctions. On many/most of these junctions, especially north of the canal cordon, there are a number of serious short-comings. These include:
 - (a) Inadequate treatment for cyclists emerging from or travelling into local roads. It is totally inadequate for bicycle users to have to take right hand turns in 4-5 stages. See for example Map 9.
 - (b) For every junction, all right turn and straight-ahead movements need to be checked. In too many cases, these manoeuvres are far too convoluted and disjointed. It seems that it is only the left-turn manoeuvre for cyclists that appears to have been considered!
 - (c) Additionally, how is it proposed that these junctions will be signed for cyclists so as to

explain how they proceed straight-ahead or turn right? It is important to consider this in detail. If you imagine someone driving a car and approaching a complex junction: at a certain point the lanes are arranged to allow vehicles to go left/straight/right depending on the situation. There are clear and timely markings in the middle of the lanes and often signage explaining to vehicles how to negotiate the junction. At no stage is it expected that a car will stop in the middle of the junction to figure out what is going on or to make a u-turn. Now consider a cyclist approaching a similar junction. In many, if not most cases, it is not at all obvious to a cyclist how they can legally and safely make a right turn or even go straight on. If a cyclist is not familiar with the junction - or has not got a detailed engineering drawing with him/her - the information conveyed by the infrastructure will send the cyclists down the road to the left. This is unacceptable.

1.7 We are very much in favour of roundabout removals, as indicated in the Swords area and on R132, and their replacement by signalised junctions, as these are generally more receptive to safe use by cyclists and pedestrians. However, in too many cases, cyclists are simply shunted into shared spaces with pedestrians which contravenes the NTA's own guidance. Section 1.9 of the National Cycle Manual includes the following advice: "Shared facilities between pedestrians and cyclists generally result in reduced Quality of Service for both modes and should not be considered as a first option." (<http://www.cyclemanual.ie/manual/thebasics/1-9-pedestrians-and-cyclists/>). This advice is entirely consistent with the feedback we receive hear from the National Council for the Blind of Ireland. Please revisit all situations where (potentially fast moving commuting) cyclists are set the share space with pedestrians.

1.8 Where off-road cycle tracks are proposed, it is essential that there is a level difference with the footway. Shared cycle-pedestrians spaces are only acceptable (both for cyclists and pedestrians and especially mobility impaired pedestrians) in very low flow situations. This design feature is very common in the Northwest Swords area Map 2 particularly.

1.9 BRT/QBC passing a side road on the left. There needs to be design provision for car drivers turning left across BRT/QBC lane *and then across cycle-lane on the inside*. There is a serious safety issue here for cyclists. This repeats itself throughout the scheme.

1.10 When off-road cycle tracks are provided, it is unclear / not thought through how cyclists turn right off the off-road track to access developments on the opposite side of the road.

BRT and Other Vehicles

1.11 We are very unhappy with the proposals for cyclists in relation to crossing the Airport roundabout. The proposals as outlined are a particular deterrent to cyclists traveling north to south towards the city: cyclists will be required to make 4 separate crossings of these busy roads just to get through this junction. This junction design needs fresh thinking where cycling is concerned and we recommend that some form of high quality pedestrian/cyclist bridge is carefully considered.

1.12 It is not clear if there are due to be any longitudinal constraints on the BRT lanes at any stage to prevent interference and entry by other traffic. This is a not-uncommon feature

of other BRT systems. Clarity on proposals to restrict unwanted entry of 'other' vehicles into BRT lanes would be welcome.

- 1.13 Whether taxis are admitted to the BRT lanes needs to be reviewed on a case-by-case basis. Taxis can facilitate public transport trips and are very useful for people who do not have access to cars. However, if the volume of taxis in a bus lane gets to the point where the buses are being delayed then they frustrate the proper functioning of the system. Consideration needs to be given to the average occupancy of vehicles. For taxis it is low, especially given the number of taxis driving around waiting to pick up passengers. Meanwhile buses can efficiently carry large numbers of people. The Canal Cordon Counts of traffic into Dublin City centre show that efficient bus lanes into the city can carry very large numbers of people, to the extent that they can improve the situation in the general vehicle lanes as well. In particular taxis should be removed from many of the congested city centre bus lanes. When designing for taxis the question should be: Are passengers finding it difficult to find a taxi and what needs to be done about it?

Speeds and Places:

- 1.14 30km/hr. There are many parts of the route in which: (a) there is a very narrow cycle-lane on the inside of the BRT & Bus Lane, and/or (b) there are (multiple) left-turn movements across the cycle-lane, and/or (c) the cycle-lane is positioned on the outside (i.e. the right-side) of bus-stops and/or left-only lanes. Therefore, one can expect there to be weaving of one type or another across the paths that cyclists will be taking. For these weaving movements to occur safely, speeds need to be low. We strongly recommend that for all of the BRT route within the canal cordon area and for those other parts passing through narrow and/or pedestrian heavy corridors, that the speed limit is set as 30km/hr. We expect this will have minimal impact on journey times as bus speeds would rarely rise about 30 km/hr in these streets. This will also have a positive urban design impact in conjunction with good detailing of the infrastructure.
- 1.15 Consideration needs to be given, especially in city areas, to the reduction of entry/exit points on to the main route. The development of the BRT proposal needs to prioritise main route traffic flow and prioritise side entry/exit points in order to prioritise traffic along BRT route, increase safety for all road users, and reduce the level of 'rat running' by other vehicles, which are disruptive to residential areas.

Links / Other General Points

- 1.16 What is the legal position re cyclists using BRT lane?
- 1.17 It is proposed that blue painted cycle track at particular locations.
- 1.18 Buffer zones between (parallel) car parking / loading / taxi rank spaces and cycle track. There must be adequate width to take account of wider doors of Sports Utility Vehicles etc. Cycle tracks should never be positioned alongside parked vehicles. It is never appropriate to encourage cyclists to cycle in this position where they are vulnerable to being hit by opening doors.

Section 2: Comments on the General Planning of the Scheme

2.1 An Taisce made a submission in March 2014 on the initial consultation on the Swiftway system, which was strongly supportive of the proposals.

<http://www.antaisce.org/node/978>

2.2 An Taisce also drew and published a series of schematic maps illustrating the potential of the various proposals in the National Transport Authority Draft Integrated Implementation Plan 2013-2018. See this press release:

<http://www.antaisce.org/node/366> and the maps in full in the appendix of this submission:
<http://www.antaisce.org/node/978>

2.3 An Taisce is strongly supportive of the overall concept of Bus Rapid Transit for Dublin, of the National Transport Authority's Draft Integrated Implementation Plan 2013 – 2018 and of the SwiftWay proposals.

2.4 Detailed comments and constructive criticisms follow below. Here we will make some general comments.

2.5 If one goes back and reads the section on Quality Bus Corridor (QBC's) in the 1995 Dublin Transport Initiative report, there is a list of measures which were to be included in the QBC's. The list is very similar to the list in the current proposals, and what is generally considered Bus Rapid Transit.

2.6 Since 1995 there has been much debate about Bus Rapid Transit, QBC's and Light Rail Transit, both nationally and internationally. The concept of Bus Rapid Transit has become widely known among transport policymakers. The Luas in Dublin has been a striking success with the public and has changed the perception of what public transport can be, among a large sector of the population. The QBC's have been a mixed success. Where good priority and frequency were delivered there has been a large shift from private car use to bus use e.g. the Stillorgan, Malahide and Lucan QBC's. Other QBC's have been less successful. Many of the other high quality customer experience elements of the DTI proposals have not been delivered.

2.7 The conclusion that should be drawn is not that the QBC's have failed, but that they have been a partial success due to their partial implementation. What is needed now is to use the Luas as a local benchmark of quality, and to use international experience of BRT, to upgrade the QBC's to the same level of quality as Luas. The SwiftWay proposal will do this if done correctly.

2.8 It should also be noted that much has been achieved since 1995, which will make SwiftWay a lot easier to deliver compared, for example, to what a typical British city might face. E.g.

- Significant priority has already been claimed for QBC's especially on this Swords QBC route.
- We now have the Leap Card integrated ticket.
- We have a National Transport Authority to deliver integrated transport.

- We have built up considerable local skills through the RPA and QBN Office.
- We have the Automatic Vehicle Location system and a control centre to manage public transport and traffic.
- The College Green busgate
- The Marlborough Street bridge.
- An Integrated Journey Planner and the Google Maps planner.

The missing pieces of the jigsaw are:

- Integrated branding for urban public transport
- Integrated information and mapping for public transport
- High quality vehicles
- High quality public transport interchanges.
- Good running surfaces
- Signal priority in certain areas.

Long Term Potential of BRT

2.9 Dublin has expanded massively over the last generation into a sprawling low density city. We will never provide an integrated Paris Metro public transport system across the entire city using rail due to the size and density of the area to be served.

2.10 It is crucial to deploy our investment as widely as possible and to provide an integrated network. An Taisce has illustrated this network effect in the maps in the Appendix. It can be seen that the SwiftWay and Phoenix Park tunnel projects can for the first time provide a significant integrated network of public transport services across the city. It can be seen how many potential trips could be made by making only one transfer.

2.11 Suggestions have been made in some of the maps in the Appendices for improved integration. Other maps also illustrate the long-term benefits of the Dart Underground proposals.

2.12 Another benefit of the BRT proposals is that they can be deployed quickly. If they are successful, as they have been elsewhere, a debate can be held about extending them to other areas such as Ballymun, Coolock, Finglas and Lucan. See the maps produced here by Aris Venetikidis for the longterm potential:

http://www.venetikidis.com/ArisV/DUBLIN_TRANSPORT_MAP.html

Comments on Capacity

2.13 The comments on capacity, that BRT is a mode that fits in between conventional bus and Light Rail Transport, are not valid. International guidance and examples show that BRT can provide the same capacity as Light Rail Transit. There are a variety of criteria for why one might choose between Light Rail Transit and Bus Rapid Transit. It is not a case of deciding the capacity that is required and then selecting the mode. The existing QBC's such as the Malahide, Lucan and UCD ones, have an actual delivered capacity of up to 8000 passengers per direction per hour (i.e. buses with capacities of 91 or 125 at 60 to 120 buses per hour.).

Environmental Concerns

2.14 As noted there are a variety of options for propulsion of the vehicles. Wrightbus in Ballymena manufacture efficient diesel hybrid buses. The Cristalis trolleybus BRT system from Lyon is also an option. When considering the environmental benefits it is important to consider the potential reduction in car use. E.g. A BRT system with diesel buses will still deliver a reduction in local and overall emissions due to the reduction in private car use. Furthermore the lower cost of BRT means that more if it can be deployed. The potential for emissions reduction per euro of investment should be considered.

Section 3: Detailed Comments on Public Transport Aspects

Welcome for the scale of the investment

3.1 An Taisce strongly welcomes the improvement in provision for buses that these proposals represent. They should be able to deliver a proper Bus Rapid Transit service rather than just some sort of super-QBC. In particular we welcome:

- (a) The decision to provide continuous high quality infrastructure and to address pinch points through road widening, land purchase, bridge reconstruction and significant construction. In the past QBC's were often limited to working within the existing roadway leading to significant compromises.
- (b) The reallocation of general traffic lanes to bus lanes and the creation of bus only streets in the city centre.
- (c) The rationalising of lane widths for all lanes along the route. The consideration of urban design in the City Centre.

The Dublin Port Tunnel Bus Services

3.2 The bus services through the Dublin Port Tunnel from Swords and the Airport will remain attractive for many passengers. They may serve different areas, provide a better door-to-door journey time or provide a better chance of getting a seat. Both should compliment each other. The branding of these Port Tunnel services should be considered in the delivery of the Swiftway to Swords. At BRT platforms in Swords and the Airport there should be clear information on the different options passengers have.

Enforcement of Bus Lanes

3.3 The BRT lanes in the centre of the Swords bypass are a welcome innovation. Where kerb lane BRT lanes are provided: General traffic should not be allowed enter the BRT lane beyond the junction at all. Before the junction all general traffic should generally be excluded. If traffic is allowed in, it should only be left-turning traffic. Traffic going straight-on should not be allowed in as is the present arrangement on many QBC's.

3.4 Consideration should be given to concrete, plastic or rubber physical separators to exclude general traffic.

3.5 The legislation should be amended to allow for enforcement cameras on the front of buses. If they encounter a vehicle illegally in the bus lane they should record this

allowing a fine to be posted out. This would be fair and efficient as, by definition, the illegal car would be delaying the bus.

Bendy Buses

3.6 There appears to be a prejudice against bendy-buses in the London based media. These are run successfully in many places across the world and can be designed to work in Dublin.

3.7 The trial of bendy buses on the No. 4 a few years ago was doomed to fail from the start due to the use of bendy buses with only a single door.

3.8 In the section on cycling we have made detailed comments about bike-bus interaction.

Urban Design

3.9 There is a need to consider a wider range of criteria when designing the system that narrow transport considerations. The routes will run along key urban corridors. For Dublin to be an attractive and competitive city for citizens and investors, we need to design streets that are beautiful and that consider all uses.

3.10 The Line 4 BRT route in Nantes is a leading international example. The design of the Luas on Harcourt Street and the Luas Red line through the City Centre are also good local examples.

3.11 The new Irish Design Manual for Urban Roads and Streets is excellent and should also be used:

<http://www.environ.ie/en/Publications/DevelopmentandHousing/Planning/FileDownload.32670.en.pdf>

3.12 A good reference on integrating BRT into urban streets is the CERTU report on Bus with a High Level of Service (BHLS). It explains the need to provide a façade to façade urban design treatment. <http://www.uitp-bhls.eu> or available on request from secretary@antaisce.org

Branding

3.13 The SwiftWay branding and graphic design looks weak.

3.14 We already have good and respected brand for this type of service with the Luas brand. This brand should be used for the BRT routes too. The Luas level of quality should be used as a benchmark in delivering a similar level of quality for the BRT routes.

3.15 There is also a need to rationalise and integrate branding of public transport generally in Dublin. London has Cross Rail, Underground and bus. Paris has RER, Metro and Bus. Germany has S-Bahn, U-Bahn and Bus. Spain has Cercanias, Metro and Bus. Ireland should follow this good practice. We should have a hierarchy of services based on the passenger experience not the operator or mode. We should brand the network around a hierarchy of three levels of service: DART, Luas and Bus.

(a) DART: Covers longer distances with greater station spacing with high capacity and a minimum frequency of 4 services per hour. Can be electrified or diesel trains or possibly an express Airport bus service through the Dublin Port Tunnel.

(b) Luas: Serves urban area of Dublin with medium sized distances and stop spacing

and a minimum frequency of 6 services per hour. E.g. the existing Luas Light Rail services and the proposed BRT services.

(c) Bus: The remaining bus services which compliment Dart and Luas. See the maps by Aris Venetikidis to see how this might look in practice.

http://www.venetikidis.com/ArisV/DUBLIN_TRANSPORT_MAP.html

Points to Consider in the Detailed Design for Part 8

3.16 The detailed design for the Part 8 Planning Application should consider the following points.

3.17 Branding and mapping. A map of high quality public transport including DART Luas and Swiftway must be produced and used. It is pointless displaying maps of independent DART, LUAS and Swiftway systems on each individual service. What the passenger needs is an integrated transport system.

3.18 The detailed design must address signage for integration with other high quality public transport services. e.g. with the train at Drumcondra and the Luas in the City Centre. There needs to be clear information for people getting off a Luas or Swiftway on the platform to guide them to the platform of the next service they wish to get. This will be difficult to design in the O'Connell St. / Abbey Street area but is very important. See for example the new Barcelona Bus Network <http://www.tmb.cat/en/nova-xarxa-de-bus> where there is information and signage on the footpath to guide passengers from one stop to the next.

3.19 From Parnell Square to Earlsfort Terrace the Swiftway goes through some of Dublin's set-piece urban spaces such as O'Connell Street, Parnell Square, Merrion Square and St. Stephen's Green. A high level of detail will be required for the Part 8 application to demonstrate how these spaces will work as urban places, including street furniture and paving layouts and materials.

Section 4. Specific points

Map 19

- Leeson Street and Earlsfort Terrace
 - o As per sections A-A and BB, cycle-lanes of a width of 1.2m are far too narrow. As the designers may well be aware, the research of Parkin & Meyers (2010) showed that drivers pass more closely to cyclists within narrow cycle lanes than to those cyclists on roads without narrow cycle lanes. Such narrow lanes are at best pointless and at worst dangerous. See Earlsfort Terrace point below.
- The Leeson Street / Stephen's Green junction is still hostile for cycling as per these designs. More specifically:
 - o The (intimidating for many) right hand turn from Leeson Street onto Stephen's Green West remains the same. this is an opportunity to address this issue

- o The provision of a straight ahead eastbound cycle lane from Stephens Green South on to Leeson St is already part of the Stephens Green East scheme yet to be completed fully. This has not been included on this drawing and should be.
- Earlsfort Terrace
 - o The National Concert Hall is one of the main cultural institutions in the city, and before and after events, concert goers drift back and forth across the street to the hotel and bar across the road. Surely there is an opportunity here to redefine Earlsfort Terrace as a place – and an attractive public space using high quality materials? As with the existing designs, the street is very much ‘channelised’ into a series of corridors defined by lines and signs. This represents a lost opportunity.
- Earlsfort Terrace/Hatch st

We note no specific provision for BRT along Hatch Street, and query the viability of the movement from Earlsfort Terrace into Hatch St. Is this feasible with large BRT vehicles?
- Merrion Row.
 - o The footways on this street are of an excessively narrow width and have been for decades. The effective width is even narrower given the presence of bollards. Surely this is an opportunity to widen the paths.
 - o A contra-flow cycle track on this street linking back as far as Baggot Street Lower is really needed here.
- Merrion Square West
 - o We do not understand why the nose-to-kerb car parking directly adjacent to the southbound cycle track is retained, as from the drawings it would appear that access to traffic other than public transport and bikes is forbidden.. Surely this is the time to move this parking – and the drawings show extra proposed parking on Merrion St Upper and there is ample parking on the other sides of Merrion Square.
 - Merrion Street Lower / Lincoln Place We are happy with the provision of a northbound contra-flow cycle track on Merrion St. Lower, but provision for entry into rear of Trinity College should be included we are concerned about the utility of an off-road cycle track takes a tight (LH) turn onto Lincoln Place - do we want this last piece in!!?
 - o LH turn from Westland Row onto M.St. Lower. It is a really bad idea to position a cycle track on the LHS of a tight left turn here. The safer manoeuvre here is for the cyclist to take the lane; otherwise they risk being crushed.
- Leinster Street
 - o We strongly endorse the proposal to run a contraflow cycle lane Westwards to link with Nassau Street (and on to Suffolk Street)

Map 18

- Westland Row
 - o As per the designs, no northbound cycle lane is shown, even though this is a priority Cycle Route 13 in proposed GDA cycle network; cyclists, it is assumed, will share the BRT & bus lane. It is recommended that the speed limit on this street is set at 30kph.
 - There is no p
- Lombard Street

- o We strongly endorse the proposal to run a northbound contraflow cycle track along Lombard St. However, the plans need to be clear on a route for cyclists coming from Westland Row northbound to enter Lombard St. This needs to be addressed. We also suggest that the northbound route be extended to Liffey.
- o Similarly the contraflow track needs to continue northwards onto the quays
- Pearse Street
 - o Westbound. Given the proximity of this route to Trinity College Dublin and the nearby Dublin Bikes station, it is preferable that a wide (2.5m +) cycle track is provided here to allow for cyclists of mixed abilities to over-take each other. There is adequate width available from building to building to cater for this proposal.
 - o Eastbound. We strongly endorse the proposal to have an eastbound contraflow cycle lane. However, the tie-in with the D'Olier Street cycle-lane needs to be re-examined/configured. Additionally, the contra-flow cycle track on Pearse Street needs to be extended southbound along the rest of Pearse Street towards Ringsend Road

We note proposed repositioning of pedestrian crossing on Pearse St close to Shaw Street and wonder why!?

- College Street
 - o While appreciating that the BRT route does not extend beyond the College Green area, we feel it is incumbent to indicate how the prioritised Cycle Routes 7 & 11 in the GDA Cycle Network, will link in with Dame St/Nassau St. It is unclear from Map 18 what is proposed at the junction of College Street and Westmoreland Street. How is it proposed that bicycle users will continue onto College Green (and then onto Dame Street and Grafton Street)? This is too crucial a junction to be left unresolved!

- D'Olier Street/College St/Westmoreland St

We strongly endorse the general proposals for this area. The proposals should greatly improve these areas as public spaces. But, we recommend that the complex junction at College St/Townsend St be given a clear 'Visualisation' to enable clarity of interpretation. We also suggest that provision be included for cycling to and from Hawkins St.

- o We strongly endorse the proposal to rationalise the space on Dolier St so that there is only one remaining Shared Bus & Traffic Lane. We are concerned however with the design detail, traffic signalling and positioning of the cycle-lane to the left of the BRT & Bus Lane when, presumably, buses will be turning left onto Townsend Street
- Westmoreland Street
 - o It appears as if the proposed off-road cycle track is two-way. The drawings need to show the tie-ins with other tracks more clearly.

Map 17

- - O'Connell Street
 - o We note O'Connell St plans for cyclists are still to be developed, but also note present plans show no provision for northbound cyclists between O'Connell bridge and Henry St Northbound. Plan for cyclists?
 - o Southbound. Proposals for cyclists to access Westmoreland St 2 way cycle track from O'Connell St should be clarified

- Parnell St and Marlborough St, while not prioritised in the GDA Cycle Network, should be referenced as potential 'low traffic' cycle routes and designs incorporated to facilitate cycle movement avoiding the busy O Connell St both in north and south directions
- Parnell Square East
 - Northbound. We warmly welcome the provision of a northbound cycle-lane to link with North Frederick Street. We also support the design element of having a cycle track behind the bus-stop. This will work well on the incline as the speeds of cyclists will be low/moderate.

The proposal as outlined for a 'shared lane' northbound on Parnell Square east needs to be clarified. Is this to include ALL traffic as it would appear!? We are not in favour of 'other' traffic in this area, as it will critically affect BRT and public transport performance.

 - Re: the idea of having the cycle track behind the bus-stop on the southbound direction, we are cautious about the idea of fast-moving cyclists interacting with embarking/disembarking bus passengers here. The detail needs to be right here.

Map 16

- Consider reduction in side entry/exit routes to increase main route traffic flows, improve safety for all road users, and reduce 'rat running' traffic levels.
- we note provision at Binn's Bridge for proposed Royal canal cycle route crossing
- North Frederick Street
 - Outbound. Adequate buffer between parking/loading/taxi bay and cycle track?
 - Inbound provision for cyclists between Dorset St and Hardwicke St on N Frederick St needs to be clear as this is also part of GDA Network cycle route 3
 - Dorset Street Lower
 - Outbound. Concern that a (narrow) cycle-lane is positioned on the inside of the BRT & Bus Lane and that there are multiple side roads into which cars will be turning. From a Bikeability perspective, the cyclist would be safer cycling in the middle of a narrow combined bus and cycle lane.
 - Both cycle lane and BRT lane widths are sacrificed on part of this route (see Section CC) - this design needs to be revisited, favouring sustainable transport options, possibly at the expense of reducing pathway widths and placing public lighting on buildings rather than lamp standards!?

Map 15 (Drumcondra)

- Drumcondra (Tolka River) Bridge
 - Outbound. There is conflict between visualisation diagram and outline plan drawing. If Shared space between pedestrians and cyclists is proposed as in Visualisation it puts both parties at risk. Additionally, the north end of the cycle track brings cyclists back onto the carriageway at the point where vehicles turn left. POTENTIALLY VERY DANGEROUS.

- Inbound. Cycle lane alongside BRT & Bus Lane looks very narrow. See general point above.
- Upper Drumcondra Road
 - Staggered pedestrian crossing. A single stage crossing would treat pedestrians with more dignity rather than treating them like sheep!
 - Outbound. Outside St. Patrick's College, is the cycle lane part of the BRT platform?
 - Inbound. Junction with Richmond Road. Again, cyclists are being positioned in a less-than-ideal situation with respect to left turners into Richmond Road. This need revisiting.
- Lower Drumcondra Road
- The proposed cycle tracks appear to mirror existing routes. Many seasoned cyclists stay on main road at this location due to poor quality of cycle track and the number of junctions to be negotiated, where present priority is for exiting motor vehicles. The priority for cyclists needs to be clear from all directions!
- The longitudinal profile of the cycle tracks in both directions on this section needs to be improved, particularly at crossings of minor roads. The present profile is one of the reasons why many cyclists remain on the main road. There is also an opportunity to improve the relatively steep entry to the southbound cycle track by relocating the entry point from Drumcondra Road Lower to a point further northwards.
- This section as in many others along the proposed route needs to give consideration to closing off a number of side road entry/exit points, and developing alternative traffic flows. the side road incursions, while necessary at some points are disruptive of main route flow, and need to be prioritised

Map 14 (Drumcondra / Griffith Avenue)

- Outbound
 - Junction with Wellpark Avenue. Left-turn conflict with straight-ahead cyclists - need to be clear on priority.
- Inbound
 - Junction with Griffith Avenue. Left-turn conflict with straight-ahead cyclists - need to be clear on priority.

major issues again with cycle options at Griffith, especially for right turners, and also for straight ahead priority, both on main route and East-West legs

Map 12 (Whitehall)

- Swords Road / Collins Avenue Junction
 - The same issues in relation to shared facilities occur again
 - major issues again with cycle options at all junctions especially for right turners, and also for straight ahead priority
 - Cyclists mixed with pedestrians here. Not satisfactory.
 - How is it proposed that inbound cyclists on the Swords Road turn right onto Collins Avenue?

- How is it proposed that eastbound cyclists on Collins Avenue (Whitehall side) turn right onto Swords Road to head inbound?
- Particular difficulty with cyclists travelling from old Swords Road towards City and how it is proposed that they negotiate this junction
- No indication of west-east or east-west cycle provision on Collins Avenue
- Swords Road/Shantalla Road Junction design needs a full revamp to take account of Priority Cycle Route 2A from Swords to City Centre. Design shown on Map 12 is unclear in relation to priority. Consideration should also be given to close off minor roads to motor traffic at this junction

Maps 11 and 13 (Coolock Lane/Santry)

We assume that proper priority will be given to BRT crossing on Coolock Lane and at Swords Road junction

The same issues in relation to shared facilities occur again

major issues again with cycle options at all junctions especially for right turners, and also for straight ahead priority

While we appreciate that the proposed cycle routing through Santry village is not on the direct route of the proposed BRT, we are very disappointed with the marginal changes proposed through this area, shown on Map 13. This is not in keeping with the stated aims in the Route Options Report Section 2.7, to provide... 'cycle infrastructure to the appropriate level and quality of service (as defined by the NTA National Cycle Manual) required for a primary cycle route', nor for what is proposed as major Cycle Route 2A in GDA Cycle Network.

- Outbound
 - Left turn slip lane into Omni Park creates a difficult zone for cyclists. Not recommended as per Cycle Manual: "Slip lanes often give drivers an unreasonable sense of priority, and by virtue of their oblique geometry, they restrict views of cyclists and pedestrians. They should be removed wherever possible." (<http://www.cyclemanual.ie/manual/designing/4-5-left-turns/>)
 - Crossing of Santry Avenue. It would be advantageous to run large cycle logos across the junctions here - i.e. to link with cycle/bus lane on other side of junction.
- Swords Road / Coolock Lane junction. Provision for cyclists is totally inadequate here. Cyclists appear to be given the crumbs at the table here and are mixed with pedestrians. How is the right turn from Coolock Lane onto Swords for cyclists supposed to work? We would hope that this is not indicative of the standards proposed for Route 2A as outlined in the final GDA Cycle Network Plan!?

Map 10 (Santry Lane / Turnapin)

- South of Santry River (on both sides of the road)
 - Cyclists mixed with pedestrians on a shared surface. This is inadvisable on a commuting route where cyclists will be travelling at speed, and it should be possible to extend the land take on Morton Stadium side to enable full separate provision..
- Turnapin Lane junction
 - Need to avoid mixing cyclists and pedestrians here as well [CHECK GRADIENTS HERE. SPEEDS WILL BE HIGH IF THIS IS DOWNHILL]

Map 09 (Dardistown)

- Junction of Swords Road and Collinstown. The design of this junction needs to be revisited. Cyclists appear to be an after-thought, sharing with pedestrians and losing priority for many movements. More specifically:
 - Provision for northbound cyclists along Swords Road across this junction is too fragmented and discontinuous.
 - Right turn for cyclists from Collinstown onto Swords Road inbound. How does this work?
 - Similarly right turn for cyclists coming from airport on to Collinstown Road

Map 08

- Inbound and outbound. Shared space between (potentially very fast moving) cyclists and pedestrians is unsatisfactory. - this section has just been recently completed as laid out on this drawing. It is essentially no change to the existing situation, which has been praised in a number of quarters!
- Junction of Swords Road and South Corballis (airport entrance) Road. There is terrible service here for cyclists:
 - On every arm of the junction it appears to be assumed that all cyclists turn left! What about (i) straight-ahead manoeuvres and (ii) right hand-turns?! This need to be catered for properly.
- North of South Corballis(Airport Entrance) Road going outbound, heading northwards
 - This provides a very low level of service for cyclists through sharing space with pedestrians and losing priority at six entrances. This is not of a standard consistent with the new cycle manual!
 - It is completely unclear how cyclists will turn right off this 'facility' - turn right to where!?? - there are no options
- Junction opposite 'Kealy's'.
 - Conflicts / loss of priority for southbound (straight-ahead) cyclists with left-turners. This needs to be revisited. - this at present is a dead end entrance with no activity....but point taken

Map 07 (Airport Roundabout / Cloughran)

- Airport Roundabout
 - North, East and South arms. It is assumed that these will be signalled to provide priority for BRT? - this roundabout is already a signalled roundabout. Are you just making a GENERAL point here as it should be assumed that ALL junctions will give priority!?
 - As mentioned above under 'General Points', the cycle provision at the main Airport Roundabout is unacceptable and will not lead to increased cycling along this route due to the complexity of movements required when heading towards the city. This junction requires a radical solution.
- Clonshaugh Road junction
 - We welcome the conversion of the roundabout to a signalled crossing.
 - However, it is still slightly unclear how each of the right-turn manoeuvres for cyclists will take place. There appears to be little right-turn pockets to support two-stage crossings. Will these be supported by dedicated cycle signals to

enable cyclists to move ahead of the traffic which is behind them (some of which might be turning left)

Map 06

- Two-way cycle track on East side of road. We are uneasy about the provision of two-way cycle tracks alongside roads where there are adjacent developments or side-roads, given that drivers exiting these places may not expect to see cyclists.
- Outbound. Cycle provision outside of Texaco. Given the geometry of entrances to the petrol station here, there is a high risk of conflict with straight-ahead moving cyclists. The design here is totally inadequate to meet the five needs of cyclists: road safety, coherence, directness, attractiveness and comfort - as stressed in the NTA Cycle Manual (<http://www.cyclemanual.ie/manual/thebasics/fiveneeds/>)
- Dublin Road / Boromhe Road / Airside four armed-junction and approaches to the junction.
 - See standard point above.
 - Shared space with pedestrians on a commuter cycling route is not satisfactory
 - Both straight-ahead and right turn movement for cyclists are convoluted. They also involve the cyclist interchanging between being a cyclists and pedestrians-on-wheels.

Map 05 to Map 03

- 1 We fail to understand in the context of the overall design why no cycling provision is proposed along the R132 between the Estuary and Pinnock Hill roundabouts, despite the explanation in Section 3.4.3 of the Options Assessment Report. The R132 is the most obviously direct route from North Swords & North Dublin to the airport and city centre, and there is adequate width to enable cycling provision to be accommodated.
- Pinnock Hill Roundabout/junction
 - We welcome the conversion of the roundabout to a signallised crossing.
 - However, provision for cyclists at this reconfigured junction is still VERY poor.
 - While there are four general traffic lanes plus the BRT lane on the southern approach arm to the junction, cyclists are lumped in with pedestrians and forced to take a convoluted route simply to continue through the junction. This is the type of design we came to expect 15 years ago, but not in 2014! This needs revisiting. Cyclists are not pedestrians whenever a junction appears!
 - All other arms and manoeuvres need to be 'proofed' from a bicycle perspective.
 - North of junction, what happens to cyclists?!

Map 04

- Junction with Malahide Road
 - While we welcome the conversion of the roundabout to a signallised four armed junction, the proposed design still looks like it represents an incredibly intimidating space for cyclists. By providing so many lanes of traffic(left-only,

straight-ahead, right-only) on the approach to the junction, this has the effect of creating a very long crossing distance for cyclists using the Malahide Road. Even for pedestrians (and especially elderly or more mobility impaired pedestrians) walking across four lanes of traffic to reach the BRT stop will feel intimidating. In the context of ultimately seeking to reduce car trips, these types of designs where so much provision is made for cars need to be phased out.

- Junction with Seatown
 - Similar comments to previous points above apply.

The cycling links at the Seatown Junction (Map 4) on the R132 need to link in with plans being developed for the Sutton to Swords cycling route, and should indicate these potential links, as this route is likely to be quite busy and used for leisure cycling once developed.

-

Map 03

- Castlegrange Road / R132 junction.
 - There is inadequate clarity as to how cyclists are to cross the R132, say, to travel from Castlegrange Road to Newcourt Road (? i.e. the road off which Newcourt links). Sharing with pedestrians is not satisfactory. Cyclists are road users not pedestrians! PLEASE STOP TREATING CYCLISTS AS PEDESTRIANS WHEN THEY REACH JUNCTIONS.
- Balheary Road crossroads.
 - Once again cyclists are turned into pedestrians at junctions. This is not satisfactory.
 - How are cyclists to go straight and turn right for each movement through the junction? Clearly this has not been addressed.

Map 02

- West end of scheme
 - Again, the cyclist is assumed to be a pedestrian on wheels. Not satisfactory.

Map 01

- For various stretches on the westbound and eastbound directions, it is unclear / not thought through how cyclists turn right off the off-road track to access developments on the opposite side of the road.

We trust you find the above comments helpful as the scheme advances to the next stage. We look forward to seeing the next iteration of design drawing.

Yours faithfully,

Damien Ó Tuama
National Cycling Coordinator – Cyclist.ie / An Taisce

APPENDIX

Schematic maps by An Taisce of the National Transport Authority's Draft Integrated Implementation Plan 2013 – 2018 including the Swords BRT.

Live Public Transport Proposals in Dublin in 2014

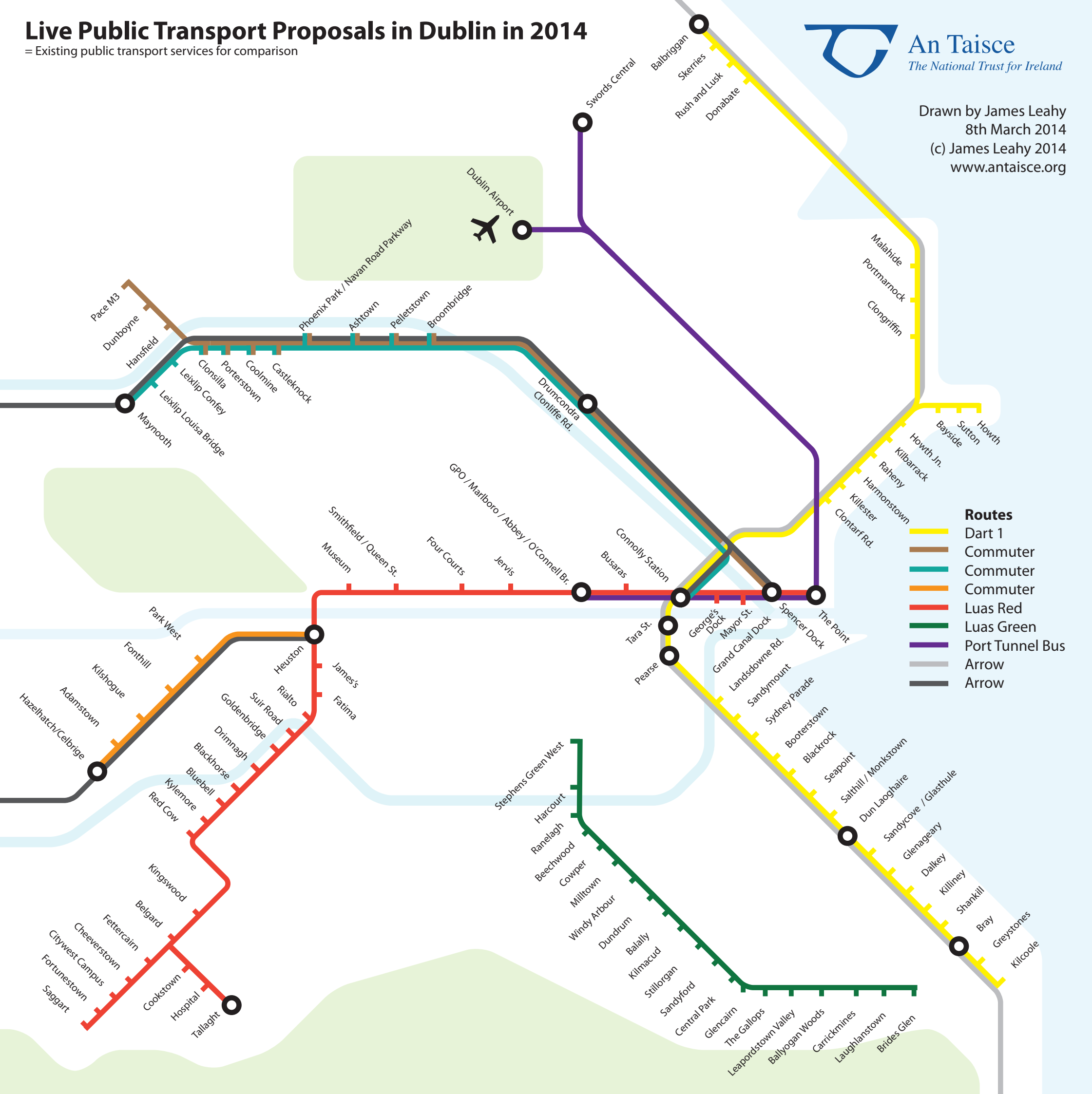
= Existing public transport services for comparison



An Taisce

The National Trust for Ireland

Drawn by James Leahy
8th March 2014
(c) James Leahy 2014
www.antaisce.org



Live Public Transport Proposals in Dublin in 2014

= National Transport Authority's Draft Integrated Implementation Plan 2013-2018

With alternative DART arrangement and BRT Extensions assumed by An Taisce.



An Taisce

The National Trust for Ireland

Drawn by James Leahy

7th March 2014

(c) James Leahy 2014

www.antaisce.org



Routes

- Dart 1 (2014)
- Dart 2 (2016)
- Dart 3 (2016)
- Dart 4 (2016)
- Luas Red (2014)
- Luas Green (2017)
- BRT 1 (2018)
- BRT 2 (2018)
- BRT 3 (2018)
- Port Tunnel (TBC)
- Arrow
- Arrow

Live Public Transport Proposals in Dublin in 2014

= National Transport Authority Draft Integrated Implementation Plan 2013-2018 + DART Underground



An Taisce
The National Trust for Ireland

Drawn by James Leahy
8th March 2014
(c) James Leahy 2014
www.antaisce.org



Live Public Transport Proposals in Dublin in 2014

= National Transport Authority Draft Integrated Implementation Plan 2013-2018 + DART Underground
 + Phoenix Park tunnel with DART arrangements assumed by An Taisce.



An Taisce
 The National Trust for Ireland

Drawn by James Leahy
 8th March 2014
 (c) James Leahy 2014
 www.antaisce.org



- Routes**
- Dart 1 (2030?)
 - Dart 2 (2030?)
 - Dart 3 (2016)
 - Dart 4 (2016)
 - Luas Red (2014)
 - Luas Green (2017)
 - BRT 1 (2018)
 - BRT 2 (2018)
 - BRT 3 (2018)
 - Port Tunnel (TBC)
 - Arrow
 - Arrow