### Swiftway BRT - Swords/ Airport to City Centre Proposed Scheme - FAQs

#### 1. What is BRT?

BRT stands for 'Bus Rapid Transit'. BRT is a high-quality, high-capacity, and effective form of public transport, offering attractive multi-door vehicles, off-board ticketing and frequent services along key strategic corridors using a priority bus lane. It seeks to emulate the performance and service characteristics of a light-rail system like Luas – but at about a third of the cost. The first phase of BRT will connect Swords and Dublin Airport to the City Centre. 'Swiftway' is the brand by which the BRT network for Dublin will be known.

#### 2. How does Swiftway differ from conventional bus services?

BRT systems such as Swiftway are generally of a higher standard than conventional bus services, including those services operating on Quality Bus Corridors (QBCs). They offer increased reliability in relation to punctuality and journey times, and also provide higher passenger capacity through investment and improvement to the existing road infrastructure, vehicles and service performance. The vehicle fleet and design of the stops are more akin to a light rail (Luas) type of system.

# 3. Can conventional buses using the Swords Quality Bus Corridor achieve the objectives of Swiftway at a lower cost?

In essence, no they cannot. While some local improvements can be carried out such as extending bus lanes and removing spatial constraints, to achieve the objectives of Swiftway would require the same level of investment.

In addition to improvements in infrastructure along the length of the proposed route, Swiftway will utilise single deck articulated vehicles with multiple doors along the length of the vehicle to facilitate fast boarding and alighting, and to increase operational reliability. These vehicles will be fully accessible for wheelchairs, prams and mobility impaired persons due to the level boarding from the stop platforms on and off the vehicles.

These features coupled with the off board ticketing (tickets purchased in advance or Leap cards) will decrease the time that vehicles spend at stops (dwell times).

The rationalisation of stopping patterns is a key advantage of BRT over conventional buses – with stop spacing similar to Luas. Certain other bus services will be retained on the BRT corridor to serve intermediate bus stops.

#### 4. How can you fit BRT lanes into already constrained areas?

Measures such as the use of existing bus lanes and hard shoulders, reconfiguration of traffic lanes, and road and bridge widening will be used to provide the additional space required for the scheme, including providing for the segregation of cyclists from BRT running lanes where possible. In certain locations, where unavoidable, land and property acquisition will be required to facilitate the space required to deliver the Swiftway Scheme. The need for, and extent of, land and property acquisition formed part of the Multi-Criteria Analysis (MCA) for the route option assessment. In all cases, land and property acquisition will be kept to the minimum necessary to construct and operate the scheme.

# 5. Why not build more Luas lines which are successful and proven in Dublin instead of introducing a new public transport mode such as Swiftway?

BRT systems have a passenger carrying capacity between conventional buses and light rail systems. In developing public transport networks the capacity of the public transport service should match both the existing demand and have reserve capacity to meet future demand on the corridor. A "one solution fits all" approach isn't appropriate when developing a public transport network. On some corridors BRT will be suitable and in other cases it will not be the correct solution. Furthermore, BRT can typically be delivered at a substantially lower cost to a light rail system, and can be constructed with much less disruption along the route corridor.

BRT by its nature is flexible in so far as routing and service patterns can change over time to be compatible with, and complementary to, other public transport services as the integrated transport network for the Greater Dublin Area evolves.

# 6. What will Swiftway stops look like?

Swiftway stops will be similar in style and design to Luas stops, and will provide real time passenger information, ticket vending machines and validation, CCTV, and a comfortable waiting environment for passengers with shelters and seating at each stop. The stop platforms will be at a similar height to the vehicle floor height so as to provide level boarding on and off the vehicles.

# 7. How were the Swiftway stop locations chosen?

In general, within the urban city centre area, stops are to be typically located at 400m to 500m intervals, while in suburban areas stops are to be typically located at 800m intervals. This varies locally but where possible Swiftway stops have been located as close as possible to key passenger trip attractors/generators including urban towns/villages, Dublin Airport, educational facilities, hospitals, shopping centres, key transport interchanges (bus, Luas, DART and rail), large employment areas, large residential areas and sports/events venues.

# 8. How will the ticketing system work on Swiftway?

The ticketing system on Swiftway will be an off-board system similar to Luas using either tickets bought before travel or Leap cards. Ticket vending machines and Leap card validators will be installed at stops.

# 9. Will Swiftway tickets cost more than Dublin Bus tickets given the higher level of service?

Swiftway fares will be comparable to existing public transport fares on the routes. Concessionary fares will apply as they do to other forms of public transport in Dublin.

# 10. How long will it take to go from Swords/Airport to the City Centre?

The target journey time from Swords Central (proposed BRT stop immediately south of the R132 Malahide Road junction) to O'Connell Bridge will be about 35 minutes – a reduction of about one third from current peak period bus journey times along this

corridor. The estimated 'end to end' journey time will be 45 minutes. While 'off-peak' journey times by bus may sometimes achieve this at present, the objective of Swiftway is to ensure day-long predictability and reliability of journey times, which requires the level of investment proposed. By removing constraints where buses are currently delayed, rationalising stop locations and ensuring Swiftway will have priority along the route, reliable journey times can be achieved.

#### 11. How frequent will the Swiftway service be?

It is intended to operate Swiftway at a frequency of approximately every four minutes during peak commuter travel times, with a reduced service 'off peak' to cater for demand. Services can also be tailored to meet specific times of peak demand, such as major sporting or entertainment events. The Swiftway Swords-Airport to City Centre scheme is also being designed to accommodate a future doubling of frequency to facilitate demand increases along the route over time.

### 12. How long will Swiftway operate in a typical day?

Currently, it is intended that Swiftway services will operate similar hours to existing bus and Luas services. The hours of operation during weekdays are likely to be between 6.00am and 12.00 am. These hours may vary at weekends.

### 13. What type of vehicle will be used on Swiftway?

The Swiftway vehicle will be a single deck articulated vehicle with multiple doors along its length to facilitate fast boarding and alighting of passengers and to increase operational reliability. The vehicles will be fully accessible for wheelchairs, prams and mobility impaired persons due to the provision of level boarding from the stop platforms on and off the vehicles.

The Swiftway vehicles will be approximately 18m in length and will have a minimum passenger capacity of 120 persons. Longer vehicles, up to 24m, are operated on some European BRT systems. The Swiftway infrastructure has been designed to accommodate these longer vehicles should they be needed to meet passenger demand in the future.

Most BRT systems in operation worldwide use diesel powered propulsion systems, with improvements to engine standards and new propulsion technologies continuing to advance. The European Commission has over the last couple of years also been steadily making the standards relating to vehicle emission standards more rigorous. The latest EURO VI regulations came into effect from January 2014 and are intended to significantly reduce environmentally harmful emissions, in particular pollutants such as nitrogen oxides and particulate matter. Swiftway BRT vehicles will be required to conform to these latest emission standards.

There are a number of options for Swiftway vehicle propulsion system technologies such as diesel, hybrid, gas, fuel cells and electric. The NTA will assess the alternative propulsion systems and fuels available for Swiftway and a decision will be made at a later stage.

#### 14. What provisions will be made for cyclists?

In general, parallel segregated cycle facilities will be provided along BRT corridors, or alternative routings developed on adjacent streets. The Greater Dublin Area (GDA) Cycle Plan identified that the existing Swords QBC corridor would form part of the primary cycle network (Route 2A) and the proposed Swords-Airport to City Centre BRT scheme will deliver the infrastructure for significant sections of the 2A Cycle Route. Two exceptions to this are where it is proposed to route cyclists through Santry Village and Swords Main Street while Swiftway bypasses these areas. Works will be carried out separately to upgrade cycle facilities in both Santry Village and along Swords Main Street.

# 15. Is the Swords/Airport to City Centre Swiftway intended to be a substitute for Metro North?

The Swords/Airport to City Centre Swiftway is not intended as a substitute for Metro North. The proposed Swiftway service is the appropriate transport solution to serve the existing public transport deficit along the general scheme corridor in the short to medium term.

If development occurs along this corridor as currently planned, further significant investment in rail based transportation infrastructure along the corridor will be required, which may include Metro North.

#### 16. What will happen to existing Dublin Bus services along the Swiftway route?

A core objective of the Proposed Scheme is the enhancement of public transport provision along the general scheme corridor.

To achieve this, existing bus services will be reorganised to support and complement the enhanced public transport provision brought about by Swiftway along the corridor. In some instances, the planned Swiftway service will overlap with existing bus services operating on the same route, some of which may be replaced or rerouted. In other areas, existing bus services may also be rerouted or have service frequencies altered to feed into the Swiftway service and improve overall capacity on the corridor to meet demand.

Any bus services that uses the Swords corridor will however benefit from the enhanced bus priority infrastructure proposed along the Swiftway route and will therefore experience overall shorter journey times.

# 17. To what extent will the proposed Swiftway affect other existing bus stops?

As part of the necessary bus network reorganisation along the proposed Swiftway BRT route, it is a requirement to rationalise the location and, in some instances, the frequency of existing bus stops. Along the Swords/Airport to City Centre route, regular Dublin Bus stops will be indented so that priority for Swiftway services can be provided over regular bus services. To cater for the new Swiftway stops, a number of bus stops will be removed or relocated. Although there will inevitably be some local impacts to bus services in terms of existing bus stops being removed or relocated, the impacts of the reorganisation of the bus stops in addition to the new BRT stops will generally be positive overall and an improvement to the existing situation, including the provision of additional pedestrian crossings along the route at key locations.

#### 18. Are traffic changes going to form part of the scheme?

There will be traffic changes proposed, primarily at junctions, as part of the Proposed Scheme, the details of which shown on the Proposed Scheme drawings on the Swiftway website (www.swiftway.ie). Additional traffic management measures such as re-routing for access and circulation in parts of the City Centre, are also likely to form part of the Scheme. Access will be maintained to all existing private car parking areas along the route.

### 19. Will Swiftway impact on the flow of general traffic at junctions?

In order to provide priority for Swiftway vehicles at junctions, where practically achievable, it is proposed to extend the BRT lanes through the junctions and reorganise general traffic lane arrangements at junctions as necessary. While this may have an impact on traffic flow at certain locations, the scheme will deliver benefits to the overall transport network.

The measures proposed to ensure Swiftway priority may however reduce road capacity for general traffic at some locations and may also impose increased delays. Increased delays for general traffic are, in effect, accepted as part of the "trade-off" of providing an enhanced public transport system that is designed to achieve desired and sustainable mode share targets including a transfer from travel by private car to public transport.

The Proposed Scheme also includes substantial investment in pedestrian and cycle facilities, and journey times for these modes are also likely to reduce significantly.

#### 20. How will general traffic be prevented from using the BRT Lane?

Where lateral (side running) running BRT lanes are proposed, these lanes will be an open system and enforcement will be similar to that in place for existing bus lanes. Where a central median running way for BRT vehicles is proposed, the current design for the BRT lane will be physically delineated from general traffic (e.g. by a kerb and landscaping).

#### 21. How much will Swiftway cost?

Based on the emerging preferred scheme outline design developed at this stage, the Swords/Airport to City Centre Swiftway project budget is estimated be in the range €200m to €250m, inclusive of VAT. This includes for infrastructure provision and initial vehicle fleet acquisition.

#### 22. Will there be any property acquisition along the proposed route?

It is likely that there will be some property acquisition at locations along the proposed route to provide priority for Swiftway vehicles and continuous BRT and cycle lanes along the entirety of the route. The amount of land and property acquisition will be kept to the minimum necessary to construct and efficiently operate the Proposed Scheme.

#### 23. Will there be any Park and Ride facilities proposed along the Swiftway route?

It is not currently intended to provide 'Park and Ride' facilities along the Swords / Airport to City Centre Swiftway route. The route has been identified to primarily serve the existing areas directly rather than providing 'Park and Ride' facilities to expand the effective catchment of Swiftway and intercept commuter travel from outside the immediate catchment.

# 24. Will there be any opportunities to interchange with other transport services along the route?

There will be opportunities to interchange with existing and future planned transport services at the following locations;

- Existing Dublin Bus services at numerous locations along the route;
- Luas Red and Green (Cross City) lines on O'Connell Street;

- Intercity/Suburban Rail services at Drumcondra Rail Station;
- DART/Intercity/Suburban Rail services at Pearse Street Station; and
- Other planned Swiftway routes from Clongriffin to Tallaght and Blanchardstown to UCD in the vicinity of St. Stephens Green.

#### 25. How has the Preferred Route been chosen?

Prior to the Swiftway BRT Network launch in February 2014, initial feasibility studies were carried out on the three individual route corridors which have concluded that BRT is a feasible public transport solution for each of the corridors.

As part of the initial scheme planning for the proposed Swords / Airport to City Centre Swiftway corridor, an assessment was undertaken to establish the technical feasibility of establishing a BRT service and associated infrastructure provision within the corridor. The work undertaken included establishing scheme objectives for the proposed Swords/Airport to City Centre Swiftway route, initial patronage demand forecasts, high level economic appraisal and an initial assessment of possible route options along the Swords corridor. The purpose of the assessment was to establish the viability of the Scheme and that a technically feasible route was available within the broad Swords to City Centre corridor. This technically feasible Emerging Preferred Route (EPR) was presented as part of the Swiftway Network public consultation held earlier this year.

The identification of a final Preferred Route has been on the basis of the completion of a comprehensive route options assessment process, taking into consideration, where practical, the feedback from the Swiftway BRT network launch public consultation.

The process of choosing the Preferred Route was to initially create a 'spiders web' of all route options/road sections that could potentially accommodate BRT. Each individual route section was then assessed to establish the practicality of routing BRT on that particular section of road / street. Following these initial assessments, the roads / streets that were found to be suitable were grouped together into overall route segments. These were then assessed in more detail using established multi-criteria analysis. The criteria ranked economy, safety, environment, accessibility and social inclusion and integration. The route segments that ranked best in the multi-criteria assessment were then joined up to form a complete end to end 'Preferred Route' for the Proposed Scheme.

#### 26. Why has the BRT route changed from Pine Grove to Glen Ellan?

In terms of the Preferred Route to serve the north-west Swords area, the route via Pine Grove was presented as the technically feasible Emerging Preferred Route (EPR) at the Swiftway BRT Network launch in February 2014. This was one of two core practically feasible route options identified, with the other route being via Balheary Road and Glen Ellan Road.

Following completion of the detailed options assessment process, the Glen Ellan route emerged as the Preferred Route due to the large residential and employment catchments served, its conformity with local Planning objectives, the ability to practically deliver the Swiftway service on this route, albeit with some local land-take requirements, its consistency with the Greater Dublin Area (GDA) Cycle Plan and its lower environmental impacts.

As with all of the practically feasible route options, both the Pine Grove and Glen Ellan routes subsequently needed to be considered in more detail as part of the final route options assessment process, in particular in terms of identifying a suitable terminus location and an appraisal of the potential environmental impacts.

### 27. Why does Swiftway not route through Swords Town Centre?

The routing of Swiftway along Main Street in Swords was examined during the route options assessment process. The most fundamental constraint to the delivery of the Swiftway service along Swords Main Street and route connections north (Seatown Road and North Street) is the limited road width available to achieve BRT priority without significant land-take and property acquisition. Other factors including reliability of journey time, road safety, archaeological, architectural and cultural heritage, landscape and visual impacts and cost make routing along the R132 a more feasible option. As part of the necessary overall bus network reorganisation associated with the introduction of the Swiftway BRT service, there will continue to be regular, frequent bus services routed along Swords Main Street.

### 28. Will the Swiftway serve Dublin Airport?

It is intended that Swiftway will directly serve the Airport with a separate service starting and terminating at Dublin Airport and running to the City Centre. A detailed overall service plan is yet to be developed for the Swiftway service but it is likely that the Airport service will be separate to the Swords service which, during peak commuter periods, will bypass the Airport on the R132. With the introduction of Swiftway, the airport will continue to be served by direct and indirect services to the City Centre.

#### 29. Why does Swiftway not route through Santry Village?

The routing of Swiftway through Santry Village was examined in detail during the route options assessment process. The outcome of this assessment was that in order to provide full BRT priority through Santry Village, significant land acquisition, including from a large number of residential properties, boundary works, new carriageway construction, utility diversions and extensive traffic management during construction would be required. In particular, the scheme would require the full or partial acquisition of over 100 front gardens and driveways in Santry, which would significantly impact on affected premises and their occupants. By routing along the N1 (old N1), with stops located north and south of Santry Village, Swiftway continues to serve a similar residential and employment catchment, with significantly reduced impacts.

As part of the necessary overall bus network reorganisation associated with the introduction of the Swiftway BRT service, there will continue to be regular, frequent bus services routed through Santry Village.

#### 30. Why has the BRT route changed from Mountjoy Square to Dorset Street?

Analysis of existing Dublin Bus journey times indicates that the greatest delays along the Swords to City Centre route corridor occur on Dorset Street between Clonliffe Road and O'Connell Street. For this reason, it was initially proposed to avoid this congested route and to instead bypass it via Mountjoy Square North, Gardiner Place and Great Denmark Street, availing of amendments to the traffic circulation regime to achieve BRT priority.

As the detailed route options assessment process was advanced, in consultation with Dublin Bus and Dublin City Council, a more detailed assessment of Dorset Street was undertaken to seek to overcome the existing causes of delay to public transport in this area. In consultation with these stakeholders, a number of adjustments to bus stop locations and local traffic circulation arrangements have been identified that can address and overcome the sources of these delays to ensure journey time reliability. On the basis that these constraints on Dorset Street can be overcome, it now represents the Preferred Route for the Proposed Scheme. Furthermore, it will avoid directly impacting on existing parking and loading arrangements along Gardiner Place / Great Denmark Street, including drop-off and pick-up at Belvedere College. The Mountjoy Square area will remain well served by public transport by virtue of its proximity to the proposed route corridor on Dorset Street and other existing bus services running along Gardiner Street.

### 31. Why does the route need to extend past the current terminus on Abbey Street

The largest concentration of office employment in Dublin is located in the South City Centre quadrant bounded by the River Liffey to the North and Clanbrassil Street to the West. There are in the order of 250,000 jobs in this area. The extension of Swords/Airport to City Centre Swiftway route to this South City Centre area will significantly enhance access and connectivity to the area from the Swords corridor, which will result in economic benefits for both areas. Furthermore, the extension to the South City Centre will accommodate direct interchange with the other planned Swiftway route from Blanchardstown to UCD at St. Stephen's Green.

# 32. Where will the depot for the Swiftway be located?

At this stage, it is envisaged that the existing Dublin Bus Depot in Harristown will be used as the depot for Swiftway vehicles (i.e. for storage, maintenance, cleaning and refuelling of vehicles).

#### 33. Have the environmental impacts of Swiftway been considered?

An environmental assessment formed part of the multi-criteria analysis during the route options assessment stage. An Environmental Impact Statement (EIS) will be prepared for the scheme design on the Preferred Route, which will consider both the positive and negative construction and operational impacts of the Proposed Scheme. The EIS will accompany the planning application for the Proposed Scheme. It should also be noted there will be potential environmental benefits such as a reduction in greenhouse gas emissions due to increased use of public transport, while the Swiftway vehicles will emit low emissions and noise.

# 34. How will anti-social behaviour be dealt with?

Whilst not envisaged to be an issue, the Swiftway related passenger activity will add passive surveillance to the areas around the stops. CCTV will be provided at the stops as well as on board the vehicles.

# 35. Will access to business and residential properties be affected?

Access to business, commercial and residential properties will be generally unaffected when the scheme is operational. It is inevitable that there will be some disruption during the construction stage, however, this will be for a relatively limited period of time and impacts will be kept to a minimum. The aim will be to maintain access at all times.

# 36. How will Swiftway impact on on-street parking bays and loading-bays?

In general, where practicable, on-street parking will be retained along the Swords/Airport to City Centre Swiftway route. However, it will be necessary to curtail or remove some onstreet paid parking from a small number of city centre streets to ensure BRT priority on these streets.

Some existing loading bays will have to be removed to ensure Swiftway priority on the proposed route. Where loading facilities are affected by Swiftway, alternative loading provision has generally been identified up to a maximum distance of 70m from the affected premises. Alternatively, loading will be permitted during the hours when Swiftway is not operating (anticipated to be 12:00 AM – 06:00 AM).

# 37. Who will operate and manage Swiftway?

It is intended that the initial operational and maintenance contract for the Swords/Airport to City Centre Swiftway service will be assigned to Dublin Bus.

# 38. What consultation has been undertaken to date?

An initial public consultation took place to launch Swiftway between 17<sup>th</sup> February 2014 and 18<sup>th</sup> March 2014. The 'Emerging Preferred Route' for the three route corridors were on display at the Fingal County Council, Dublin City Council and South Dublin County Council offices:

- Fingal County Council, County Hall, Main Street, Swords, Co. Dublin;
- Dublin City Council Civic Offices, Wood Quay, Dublin 8; and
- South Dublin County Council, County Hall, Town Centre, Tallaght, Dublin 24.

Exhibitions manned by members of the project team also took place during this time period.

The Swiftway Consultation Report, which is available on the NTA's website (http://www.nationaltransport.ie/wpcontent/uploads/2014/01/Swiftway Public Consultation Report - July 2014.pdf) presents full details and responses to comments received. Some of the key issues raised in relation to the Proposed Scheme are listed below.

• Potential for negative impacts associated with the route through the open space and park area at Pinegrove (north-west Swords);

- The proposed Swiftway route does not take into account the large population living in the west of Swords;
- Rathbeale Road is already overcapacity;
- Turnapin stop should be put in place from the start not at a later date.
- Suggestions for additional BRT stops (e.g., at Northwood);
- Swiftway service in Santry village; and
- Careful consideration should be given to the section linking Grafton Street with O'Connell Street.

The issues raised during the public consultation have been considered as part of the route options assessment process and in determining the Preferred Route.

### 39. What information is being presented as part of the public consultation?

The Proposed Scheme design and associated Preferred Route is presented as part of this public consultation.

#### 40. What happens next?

The scheme design will be progressed, taking into account observations and submissions made as part of this public consultation. An application, incorporating an Environmental Impact Statement, will be required to be made to An Bord Pleanála for planning consent to develop the proposed Swords/Airport to City Centre Swiftway Scheme. It is intended that an application for planning consent will be made to An Bord Pleanála in Quarter 1 of 2015. A statutory consultation will take place following the lodgement of the planning application, details of which will follow in due course.

Subject to planning consent, and project funding subsequently being made available by Government, the detailed scheme design will be finalised and tender documents for infrastructure procurement, associated systems and vehicle fleet acquisition will be prepared. It is anticipated that procurement processes and infrastructure construction will last for about two and half years.