



# 8. Planning for Sustainable Transport

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### 8.1 Introduction

Transport is a derived demand, in that people travel primarily out of a need for other things such as education, work and shopping. The management of this demand where it is created is a critical element of transport planning in the GDA. The pattern of where people live, work, attend school or college, socialise etc. is therefore the key determinant in the type of transport system we require. Historically in the GDA, the location of services and employment, and the policy of providing car-based solutions to transport problems has led to the creation of an overly car-dependent city-region. The consequences of this include issues such as congestion, air pollution, severance, unattractive urban environments, poor walking and cycling environments, and a public transport system which is significantly compromised by the requirement to serve travel patterns which are dispersed and complex.

This section sets out the measures that the NTA believes are essential in meeting the objectives of the transport strategy to foster sustainable development and to fully integrate land use planning and transport planning, as a means of reducing travel demand both in terms of numbers of trips made and the length of trips.

*“The objective of transport investment is to contribute to economic, social and cultural progress of the Region, and the protection and enhancement of the environment, in line with Government priorities in other sectors.*

*The success of transport planning in meeting society’s needs requires close integration of transport investment and land use planning, to guide the direction of future development within the Region.”*

*Regional Spatial and Economic Strategy, 2019-2031 – The Eastern and Midland Regional Assembly*



## 8.2 Emerging Concepts in Urban Planning

The 15-minute city and 10-minute neighbourhood concepts have emerged in recent years and have gained particular traction globally as a result of the Covid-19 pandemic. They have emerged as a coherent means of expressing the need to include transport as a central consideration in the planning and design of urban areas. In essence, these concepts are centred on the premise that people should be able to meet most of their needs within a short walking or cycling distance of their homes.

This does not supersede or replace the concept of the settlement hierarchy whereby land uses which serve metropolitan or regional catchments are provided in larger centres. As such, while everything cannot be within 15 minutes of everyone, (e.g. major universities, specialist health care, or major cultural and sporting venues) many of one's daily or regular requirements can realistically be met within your own neighbourhood.

The land use measures contained within the Transport Strategy will maintain a focus on this approach and provide a statutory basis for its implementation in development plans and local area plans. Their application to transport and land use integration in the GDA is set out in the sections below.

## 8.3 Sustainable Delivery of Housing

Facilitating the delivery of large numbers of new housing units of high quality and diversity, in locations which maximise the number and the range of households who can travel by public transport, walking and cycling, is a critical aspect of integrated transport and land use planning in the GDA. All of the major land banks in Metropolitan Dublin which will cater for the demand for housing in the region, in line with the NPF and RSES, are supported by the NTA and will be served by high-quality public transport.

### Measure PLAN1 - Housing and Transport

The NTA will continue to support sustainable housing provision in the GDA.

SDZ Planning Schemes, Local Area Plans and large planning applications should be accompanied by appropriate Transport Plans or Transport Assessments setting out how the plan or development minimises the need to travel and how public transport, walking and cycling together can cater for the majority of travel demand. They should also be accompanied by a statement setting out the infrastructure and services required to achieve this, and an agreed phasing programme for its provision.

The NTA is fully engaged with EMRA and the local authorities in this matter and will continue to play its role, via the planning process, in ensuring that demand for housing is met in a timely and sustainable manner.

## 8.4 Consolidation of Development

The consolidation of development is a means of ensuring that the negative patterns of urban sprawl and edge of town development cease and are not repeated. The National Planning Framework and Regional Spatial and Economic Strategy are predicated on the redevelopment of sites within the existing footprint of the city and suburbs, and large regional towns, to a much greater extent than previously applied, with targets of at least 50% of all new homes within or contiguous to the built up area of Dublin city and suburbs and a target of at least 30% for other urban areas.

Such an approach allows for new populations to emerge in areas already served by public transport and active travel modes, and where a range of social services and retail can be accessed without recourse to the private car, and without the need to travel long distances. It also facilitates the use of existing infrastructure and service patterns to deliver significant uplifts in accessibility whereby new services can effectively “plug-in” to an already established network. For example, the City Edge Masterplan can benefit from existing rail lines and bus services but also from the major investments in those modes contained in the later sections of this Transport Strategy.



### Measure PLAN2 – Consolidated Development

In accordance with the NPF and RSES, the NTA will only support development patterns in the GDA which seek to consolidate development as a means of preventing urban sprawl, reducing the demand for long-distance travel and maximising the use of existing transport infrastructure and services.

Peripheral development will only be considered in exceptional circumstances – on an evidence-based planned approach – and for specific land uses that cannot be accommodated in town and city centres.

### Measure PLAN3 – Retail Development

From a transport perspective, the development of major “out-of-town” retail developments in the GDA, other than those which form part of major residential development areas such as Cherrywood or Clonburris, or extensions to legacy retail centres, should not be permitted.

### Measure PLAN4 – Office Developments

From a transport perspective, large office developments outside the footprints of existing and proposed urban areas served, or proposed to be served, by high quality public transport, should not be permitted.

Additionally the consolidation of development served by sustainable transport reduces the use of greenfield land, protecting biodiversity. Consolidation of development is at the core of integrated land use and transport planning and one which is fully supported by the Transport Strategy. Figure 8.1 illustrates a medium-high density suburban centre typology which would support sustainable transport.

## 8.5 Transit-Oriented Development

At a level down from the strategic consolidation of development generally into existing built-up areas, the focussing of this development towards public transport services is critical. Transit-Oriented Development (TOD) is a concept that has existed for some time (see Figure 8.2). In the GDA, it has been given expression in recent years by development proposals based primarily on accessibility to existing and proposed rail lines. Most notably, the Adamstown and Cherrywood Strategic Development Zones (SDZs) and the forthcoming City Edge Masterplan are based on servicing a major part of the transport demand by Luas and/or DART.

TOD incorporates the idea that the level of accessibility afforded by such infrastructure and services allows for a higher intensity of development, and in some cases, a higher proportion of uses such as office and retail than would ordinarily be considered outside central areas, e.g. Sandyford. TOD can also be applied to sites around city centre transport hubs whereby the levels of accessibility afforded at such locations could facilitate extremely high levels of intensity in the context of Dublin.

**Figure 8.1:** Suburban Development Centre



Figure 8.2: Plan of Transit-Oriented Development Centre







### Measure PLAN5 – Transit-Oriented Development

The NTA will continue to support and facilitate the delivery of Transit-Oriented Development at locations identified as appropriate for such, and will work with EMRA and the local authorities in identifying further locations served by existing and proposed public transport which are appropriate for high density development supporting a mix of uses.

## 8.6 Mixed Use Development

At the district or neighbourhood level, and a cornerstone of the 15-minute city concept, is the requirement to provide for an appropriate mix of uses within development areas, an outcome of which is the reduced need for longer distance travel. The traditional planning concept of discrete zonings for housing, industry, employment and recreation simply no longer apply in an era of diverse household types, non-polluting employment, and the increasing desirability to provide for informal and passive recreation as much as more formal playing pitches and parks and gardens. In other words, at the district level, and without compromising city centres and the need for large regional-scale facilities, many of people's daily needs can be provided within walking and cycling distance of their homes.

### Measure PLAN6 – Mixed Uses

The NTA will continue to support and facilitate land use policies which seek to provide for an appropriate mix of uses at the district and neighbourhood level.

## 8.7 Filtered Permeability

Facilitating movement by walking and cycling is a critical element in neighbourhood planning. In particular, the concept of filtered permeability, whereby pedestrians and cyclists can travel through areas and motorised traffic cannot, is important in conferring an advantage on these modes making them safer and more attractive than the car for short trips to local services. This concept has been applied in multiple locations across the GDA, both in new developments and via retrofitting of new links into existing areas.

In existing urban and suburban areas which are defined by cul-de-sacs and boundary walls which segregate neighbourhoods – often along social class lines – the “breaking through” of these barriers to allow access for pedestrians and cyclists, including connections to nearby public transport, can be problematic. Many schemes, however, have been successfully realised by the local authorities in the GDA, in collaboration with the NTA.

### Measure PLAN7 – Filtered Permeability

Development Plans, SDZ Planning Schemes and Local Area Plans in the GDA should ensure that the road and street networks in new development areas are designed on the basis of providing for filtered permeability, and should incorporate measures which deliver filtered permeability in existing neighbourhoods.

## 8.8 Planning for Schools

The location and design of schools, and the management of transport requirements for those travelling to schools, are major considerations in land use and transport planning in the city-region.

Only 4% of teenagers cycle to education in the GDA. 32% are driven by car. Nationally, the proportion of children being driven to school has risen from 16% in 1981 to 53% in 2016. The proportion cycling to school nationally has fallen from a peak of 15% to 2%. While these figures do not show the significant geographical variations, the trend has been clear for many years in that the school run has become a prominent challenge for transport planning in the city-region. This gives rise to a number of issues, including:

- Congestion at peak hours;
- Development of a car-culture instilling driving as the norm at a young age;
- Lack of social interaction for children and parents;
- Increased air pollution levels at schools; and
- Lack of exercise for children leading to obesity and other associated health issues.

The NTA is addressing school transport issues nationally in three specific ways:

- Redesigning urban bus networks to provide enhanced bus services to school locations;
- Development of cycling and pedestrian infrastructure serving schools; and
- Managing An Taisce’s Green Schools Travel Module on behalf of Department of Transport.

The latter two items are set out in more detail in the Traffic Management and Behavioural Change sections of this report. This section sets out the core measures for school planning and design which should be considered by the Department of Education and local authorities when zoning for school sites and when designing schools. The ideal of schools being located at the core of a walkable neighbourhood is shown in Figure 8.3.

### Measure PLAN8 – School Site Selection

In the site selection process for new schools, sustainable transport shall be a critical consideration. Except in exceptional circumstances, sites should not be progressed until it can be demonstrated that the majority of students and staff will travel to the school by public transport, walking and cycling.

### Measure PLAN9 – Location of Schools

Development Plans, SDZ Planning Schemes and Local Area Plans in the GDA should ensure that access by walking, cycling and public transport is a key determinant in the location of new schools.

### Measure PLAN10 – Design of Schools

Planning for new schools and the expansion of existing schools in the GDA should ensure that the detailed design is undertaken in a manner which maximises the priority for pedestrians and cyclists. Access, footpaths, car parking (if required) and cycle parking should all be arranged so as to eliminate, as far as practicable, interference and conflict between motorists and pedestrians and cyclists.

### Measure PLAN11 – Road Network Serving Schools

Planning applications for new schools or the expansion of existing schools will be supported by the NTA only where it has been demonstrated that the road network in the vicinity of the proposed development facilitates, or is planned to facilitate, safe and convenient walking and cycling access to the school.

**Figure 8.3:** Local School in Walkable Neighbourhood Centre



## 8.9 Urban Design and Placemaking

Placemaking is the process of creating quality places that people want to live, work, invest and spend time in. It is based on a simple principle; that if you plan for people and places, you get people and places. Increased traffic and congestion is not the inevitable result of growth. It is the product of choices made to shape our communities to accommodate the private car.

Better street design in urban areas, including the presence of active street frontages, will encourage more people to choose to walk, cycle or use public transport by making the overall experience safer, more accessible and attractive. It will lower traffic speeds, reduce unnecessary car use and create a built environment that responds more sympathetically to the distinctive natures of the individual communities and places



across the GDA. The potential also exists to foster greater biodiversity in urban areas through good urban design which takes this issue fully into account.

With this in mind, the NTA to date has incorporated high-quality urban design and placemaking improvements into the design of major transport schemes. This policy will continue as part of the implementation of the Transport Strategy. In conjunction with the local authorities, the NTA have also implemented a number of walking and cycling schemes across the GDA which have led to significant enhancements to the urban environment.

### Measure PLAN12 – Urban Design in Major Infrastructure Projects

The NTA will incorporate a high standard of urban design and placemaking into the planning and design of all major public transport infrastructure schemes, and will consider how greater biodiversity could be fostered.

### Measure PLAN13 – Urban Design in Walking and Cycling Projects

In the design, planning and prioritisation of walking and cycling schemes, the NTA and the local authorities will ensure the incorporation of urban design and placemaking considerations.

### Measure PLAN14 – Reallocation of Road Space

The NTA, in conjunction with the local authorities, will seek the reallocation of road space in Dublin City Centre, Metropolitan towns and villages, and towns and villages across the GDA to prioritise walking, cycling and public transport use and prioritise the placemaking functions of the urban street network.

## 8.10 Local Transport Plans

The NTA, in conjunction with TII, have developed an advice note which sets out a methodology on how to assess the opportunities and constraints for sustainable transport within an area. This Area Based Transport Assessment (ABTA) methodology has been designed as a key input into Local Transport Plans (as provided for in the NPF and RSES), and can be undertaken in parallel to statutory plans. The ABTA approach should be used to ensure that transport planning and land use planning are fully aligned at the local level and that all opportunities for sustainable transport are maximised.

Additionally, the RSES sets out that EMRA will work with the NTA and relevant local authorities to prepare Local Transport Plans for selected settlements such as Drogheda, Arklow, Ashbourne, Balbriggan, Naas, Navan, Newbridge, and Wicklow-Rathnew and certain large settlements or development areas

within the Dublin Metropolitan Area. The latter would include major regeneration areas such as City Edge and the lands at Jamestown, Finglas.

### Measure PLAN15 – Local Transport Plans

The NTA will promote and assist Local Authorities to develop Local Transport Plans based on the ABTA methodology, as part of the statutory plan-making process.

## 8.11 The Road User Hierarchy

In order to encourage the use of sustainable modes of transport, the design of our networks must consider a hierarchy of users and provide for them in that order.

Almost all journeys begin and end on foot. In addition to those who walk for the entirety of journeys, public transport users have to walk to and from stops and stations and car drivers often need to walk from their parking spaces to shops and places of work. As such, the pedestrian is placed at the top of the user hierarchy.

A high priority must also be given to cyclists, because trips by this mode have a great potential to replace trips by private car, most specifically for short to medium distance trips, but increasingly for longer trips as e-bikes extend the range of this mode.

Due to the significantly greater numbers of people that can be carried by bus and tram, public transport needs to be prioritised over the private car in the design of our transport networks. Below that, access for goods delivery and services should be considered next, in particular for serving the economic needs of town and city centres.

The road user hierarchy is outlined in Figure 8.4.

### MEASURE PLAN16 - The Road User Hierarchy

The NTA, in the decision-making process around the design, planning and funding of transport schemes in the GDA, will be guided by the priority afforded to each mode in the Road User Hierarchy as set out in the Transport Strategy.

Figure 8.4: Road User Hierarchy

