Sustainable Movement

Vision

Increase the number of people walking, cycling and using public transport and reduce the need for car journeys, resulting in a more active and healthy community, a more attractive public realm, safer streets, less congestion, reduced carbon emissions, better air quality, and a positive climate impact.

7.0 Introduction

Movement is essential to how we live our lives and for society to function both socially and economically – for commuting to work, travel to school, social and leisure trips, and for the supply of goods and services. The private vehicle will always have an important role to play in how people move around South Dublin. However, in recent decades traditional layouts with low density housing, distributor roads and cul-de-sacs have resulted in people having to choose to drive for the majority of their trips. This has created environments which are dominated by the car and where distances to shops, bus stops, schools and workplaces are excessively long. This, coupled with the lack of adequate provision for walking and cycling has resulted in an urban environment dominated by motorised traffic and often hostile to cyclists and pedestrians. The dominance of car-based transport also has many adverse environmental and social impacts including traffic accidents, congestion, noise, and emissions with negative implications for air quality, health and climate change.

Recent thinking in relation to development of sustainable towns and cities involves the '10-minute neighbourhood' or the 'connected neighbourhood' concept, whereby the services people need in their daily lives are located a short distance from their home by walking or cycling. This concept facilitates active travel modes (walking and cycling) and the use of public transport resulting in more compact, vibrant and walkable urban areas. This approach is echoed in national planning policy (the *National Planning Framework*) which has Compact Growth and Sustainable Mobility as key National Strategic Outcomes and regional planning policy *(the Regional Spatial and Economic Strategy*) which promotes more compact, higher density neighbourhoods focussed on public transport nodes. In areas designed in this manner, people of all ages and abilities can choose to make short and medium length trips by walking and cycling and it is easier and more economical for public transport to operate to cater for medium and longer trips. More pleasant urban environments are created where social and economic activity can thrive. The County Development Plan reflects national and regional policy and incorporates compact growth, sustainable movement and the connected neighbourhood concept at the core of its approach to placemaking.

Travel data for the County indicates that one quarter of trips under 3km and almost half of trips under 6km are taken by car. There is significant scope for a shift to walking and cycling for these shorter trips. However, to make this shift attractive to people, changes to the environment are required to make walking and cycling easier – these changes include designing new development areas around active travel modes and public transport and building at higher densities. In existing areas, measures to promote active modes and public transport include improving pedestrian facilities by implementing measures such as widening footpaths and enhancing surfaces, removing obstacles such as walls and railings in order to create better permeability, and providing a network of safer cycle lanes. This County Development Plan contains policies and objectives for healthy placemaking and sustainable movement that over time, will achieve an increase in walking, cycling and use of public transport and a decrease in use of the private car.

7.1 Sustainable Movement and Climate Action

The national *Climate Action Plan* (2019) indicates that transport accounts for almost one fifth of Ireland's greenhouse gas emissions (figure from 2017). In the South Dublin County area, data from the 2016 census indicates that 62% of journeys are by private transport, which are mainly car-based trips. It is therefore clear that changing the way in which we move around to more sustainable modes including walking, cycling and public transport has significant potential to help us tackle climate change by reducing emissions from transport. This chapter contains policies and objectives that seek to achieve this goal, and which will assist South Dublin County in achieving its climate action targets. There is also significant scope for movement and transport corridors to form important links in the Council's green infrastructure network as they provide opportunities for additional and replacement planting of native species and pollinators, which will in turn contribute to biodiversity and carbon sequestration. Policies contained in this chapter for an increase in EV charging facilities to encourage the transition from petrol and diesel cars to electric vehicles will also make a big impact on emissions and greatly reduce greenhouse gas emissions.

7.2 Planning Policy Context

Development Plan policies and objectives must be consistent with national and regional planning policy as set out in the *National Planning Framework* (NPF) and *Regional Spatial and Economic Strategy* (RSES). A number of objectives in these documents are particularly relevant to the area of sustainable movement:

- National Strategic Outcome 4 of the NPF is Sustainable Mobility.

- National Policy Objective 64 of the NPF states *'Improve air quality and help prevent people being exposed to unacceptable levels of pollution in our urban and rural areas through integrated land use and spatial planning that supports public transport, walking and cycling as more favourable modes of transport to the private car…'*

- Chapter 5 of the RSES contains the *Dublin Metropolitan Area Strategic Plan (MASP).* Regional Policy Objective 5.2 of the MASP is to *'Support the delivery of key sustainable transport projects including Metrolink, DART and LUAS expansion programmes, BusConnects and the Greater Dublin Metropolitan Cycle Network and ensure that future development maximises the efficiency and protects the strategic capacity of the metropolitan area transport network, existing and planned'.*

- Regional Policy Objective 5.3 of the RSES/MASP requires that *'Future development in the Dublin Metropolitan area shall be planned and designed in a manner that facilitates sustainable travel patterns, with a particular focus on increasing the share of active modes (walking and cycling) and public transport use and creating a safe attractive street environment for pedestrians and cyclists'.*

There are many other national and regional policy objectives relevant to transport and sustainable movement, some of which are referred to within individual policies and objectives in this chapter. A full list of national and regional policy objectives is set out within Appendix 7. The NTAs Strategy for the Greater Dublin Area is a key policy document referenced below.

7.3 Overarching Policies and Objectives

The social, economic and environmental wellbeing of South Dublin County and the Dublin Region is dependent on the efficient and sustainable movement of people and goods within and through the County. An overarching policy is to rebalance transport and mobility within the County by promoting ease of movement by sustainable modes (including walking, cycling and public transport). This will provide for the freeing up of road space for essential functions such as, public transport and emergency vehicles. It will also allow for commercial transport which is essential to economic growth. In doing so, the Council will continue to provide for all elements of the transportation network that are within its remit and will engage with external agencies including the National Transport Authority (NTA) and Transport Infrastructure Ireland (TII) to assist the delivery of sustainable transport projects that are provided at a regional or national level.

In preparing this County Development Plan, in addition to the policy documents outlined above, the Council has had regard to a number of strategic documents with relevance to transport and movement including:

- **Transport Strategy for the Greater Dublin Area** (2016-2035), National Transport Authority: This document provides a framework for the planning and delivery of transport infrastructure and services in the Greater Dublin Area (GDA) over the strategy period. The strategy is currently being reviewed and South Dublin County Council is participating in this process. An updated strategy will be prepared for the period up to 2042.

- **Climate Action Plan** (2019), Department of the Environment, Climate and Communications: This document charts a course towards meeting EU emissions reduction targets for Ireland to 2030, with a view to reaching the longer term target of net zero emissions by 2050. Modal shift to walking, cycling and public transport is one of the main measures being promoted by the Action Plan to achieve its targets for transport as well as building the EV charging network, conversion of the public fleet to EVs, and use of biofuels.

- **Design Manual for Urban Roads and Streets** (2013; updated 2019), Department of Transport, Tourism and Sport and Department of Environment, Community and Local Government: This document provides guidance relating to the design of urban roads and streets. The focus of the manual is on the fact that well-designed streets can create connected physical, social and transport networks that promote walking, cycling and public transport as real alternatives to car journeys.

- **National Cycle Manual** (2011), National Transport Authority: This document offers

guidance on integrating cycling in the design of urban areas in order to create a safe traffic environment for all road users and to encourage more people of all ages and abilities to cycle.

The Council recognises that new development, both residential and commercial, permitted in line with this Plan will lead to additional trips being generated. The Council will work with the relevant agencies to seek to ensure that as high a proportion as possible will be conducted by sustainable means. However, it is accepted that a residual proportion of the trips generated will be taken by private vehicle. The challenge is to ensure that this does not add to existing levels of congestion or saturation of the road network.

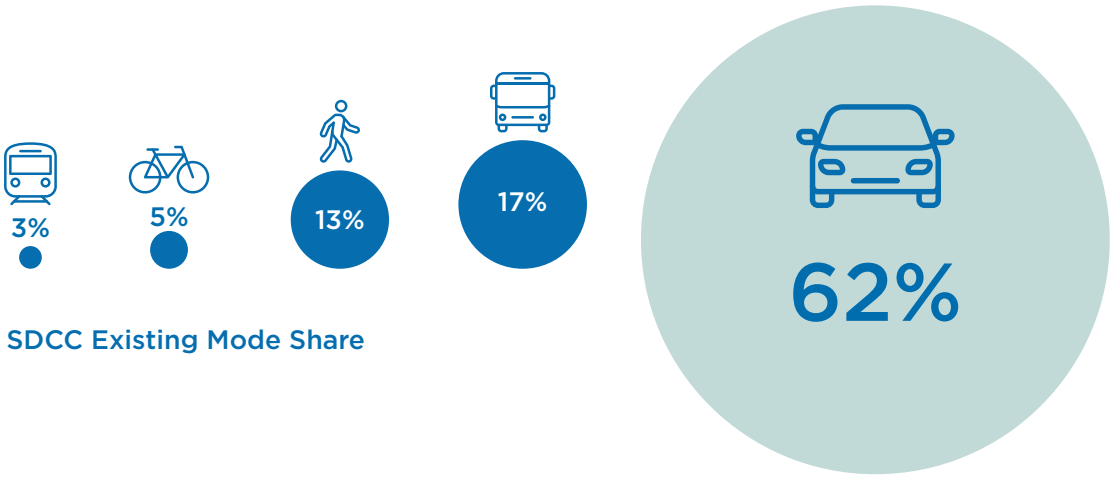
Policy SM1: Overarching – Transport and Movement
Promote ease of movement within, and access to South Dublin County, by integrating sustainable land-use planning with a high-quality sustainable transport and movement network for people and goods.
SM1 Objective 1: To achieve and monitor a transition to more sustainable travel modes including walking, cycling and public transport over the lifetime of the County Development Plan, in line with the County mode share targets of 15% Walk; 10% Cycle; 20% Bus; 5% Rail; and 50% Private (Car/Van/HGV/Motorcycle).
SM1 Objective 2: To ensure consistency with the NTA's Transport Strategy for the Greater Dublin Area (2016-2035) and any superseding document, as required by RPO 8.4 of the RSES.
SM1 Objective 3: To support the delivery of key sustainable transport projects including DART and Luas expansion programmes, BusConnects and the Greater Dublin Metropolitan Cycle Network in accordance with RPO 5.2 of the RSES/MASP.
SM1 Objective 4: To ensure that future development is planned and designed in a manner that facilitates sustainable travel patterns, with a particular focus on increasing the share of active modes (walking and cycling) and public transport use and creating a safe and attractive street environment for pedestrians and cyclists, in accordance with RPO 5.3 of the RSES/MASP.
SM1 Objective 5: To ensure that future development is planned and designed in a manner that maximises the efficiency and protects the strategic capacity of the metropolitan area transport network, both existing and planned, and to protect and maintain regional accessibility, in accordance with RPO 8.3 of the RSES.
SM1 Objective 6: To safeguard the County's strategic road network and to improve the local road and street network in a manner that will better utilise existing road space and encourage a transition towards more sustainable modes of transport.

SM1 Objective 7:
To engage with relevant agencies including the National Transport Authority (NTA) and Transport Infrastructure Ireland (TII) in relation to strategic and local transportation issues including delivery of transport projects and to encourage consultation with local communities.

SM1 Objective 8:
To prepare Integrated Transport Studies for urban areas within the County, as need arises, to provide a long-term plan for the movement of pedestrians, cyclists, public transport and private vehicles and to have regard to the European Commission's Guidelines for Developing and Implementing a Sustainable Urban Mobility Plan (2nd Edition, 2019) in the preparation of such studies.

7.4 Travel Mode Share

Data indicates that a significant majority of trips (62%) originating in South Dublin County are by private transport and are mainly car-based. Cycling accounts for a very small proportion of journeys at 5% while walking comprises 13% of trips. Approximately one fifth (20%) of trips are taken by public transport which breaks down as 17% bus and 3% rail.

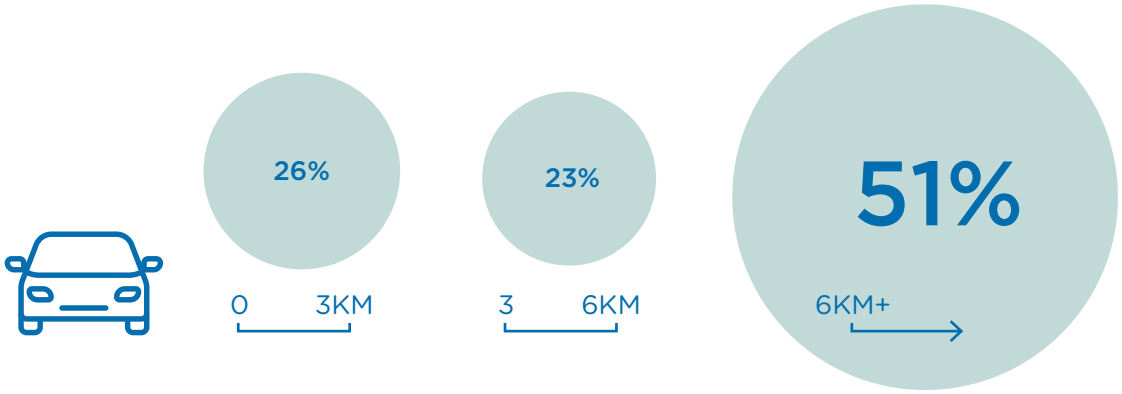


SDCC Existing Mode Share

Source: Census 2016 POWSCAR data (Place of Work, School or College Census of Anonymised Records)
Car symbol refers to all motorised private transport (car, van, HGV, motorbike, etc.)
Figures have been rounded for presentation purposes.

When length of trip is factored in, just over one quarter of car-based trips are for journeys of under 3km. There is scope for many of these short trips to be made on foot or by bicycle, given the right conditions including wider paths, cycle lanes with better surfaces, and the creation of more direct routes, resulting in a more permeable and connected environment. Just under a quarter of trips of between 3km and 6km are by car – some of these medium-length trips could be undertaken by cycling, with the improvement and provision of facilities such as safe cycle lanes and secure bike

parking at key destinations. Just over half of car-based trips are for distances of more than 6km. Similarly, many of these trips could be undertaken by public transport.



Lengths of Car Journeys Originating in South Dublin County

Transition to public transport will be aided by improvements in the pipeline including the roll-out of BusConnects which will include proposals for six new dedicated bus routes through the County. BusConnects will provide a redesigned more efficient bus network with high frequency spines, new orbital routes and increased bus services. Similarly, heavy rail services within the County are scheduled for significant upgrade and improvement including proposals for DART+ that will see increased train frequency on the Heuston to Hazelhatch line with capacity for up to 15 trains per hour in each direction with stops at Adamstown, Clonburris and Park West in the Naas Road area, along with the opening of the rail station at Kishogue in Clonburris. In addition, there is scope for increased capacity on the existing Luas lines to Tallaght and Saggart, as well as the potential benefits that new Luas lines to both Lucan and the southern part of the County would bring.

Considering the urgent need to transition to more sustainable modes of transport, the Council has set mode share targets for the County which aim to increase the amount of people walking, cycling and using public transport and decrease the number of journeys in private vehicles over the lifetime of the County Development Plan and beyond. These targets are set against a backdrop of planned improvements to public transport and cycling infrastructure. In particular, the roll-out of the Cycle South Dublin network which will encourage safer cycling within the County. There are several strategic development areas within the County where higher density more compact development is planned which will facilitate sustainable travel in growth areas. These areas include the Tallaght and Naas Road regeneration areas and Clonburris and Adamstown SDZs. South Dublin's targets will see walking increase from 13% to 15% and cycling double from a low base of 5% to 10%. Bus mode share would increase from 17% to 20% while rail mode share would increase from the current very low level of 3% to 5%. These incremental increases in mode share would result in the decrease in private car use from the current high level of 62% down to 50% during the County Development Plan period.

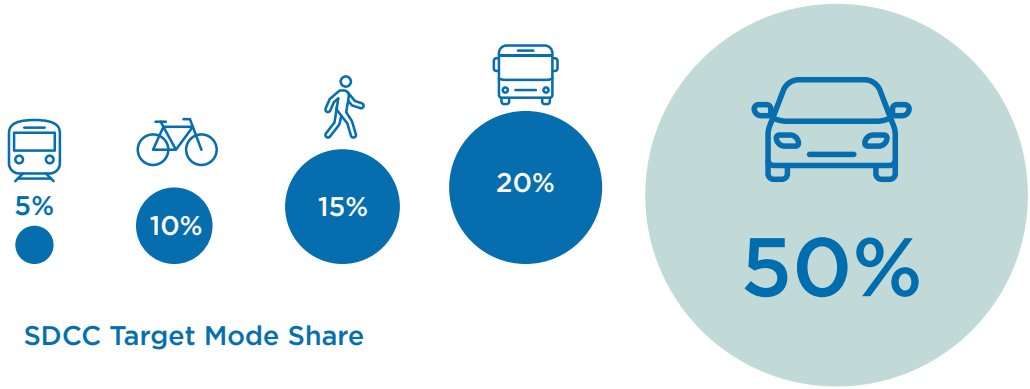


Table 7.0 Existing and Target Mode Share (percentage)

Mode	SDCC Existing Mode Share (%)	SDCC Target Mode Share (%)
Walk	13	15
Cycle	5	10
Bus	17	20
Train	3	5
Private (Car, Van, HGV, Motorcycle)	62	50

7.5 Walking and Cycling

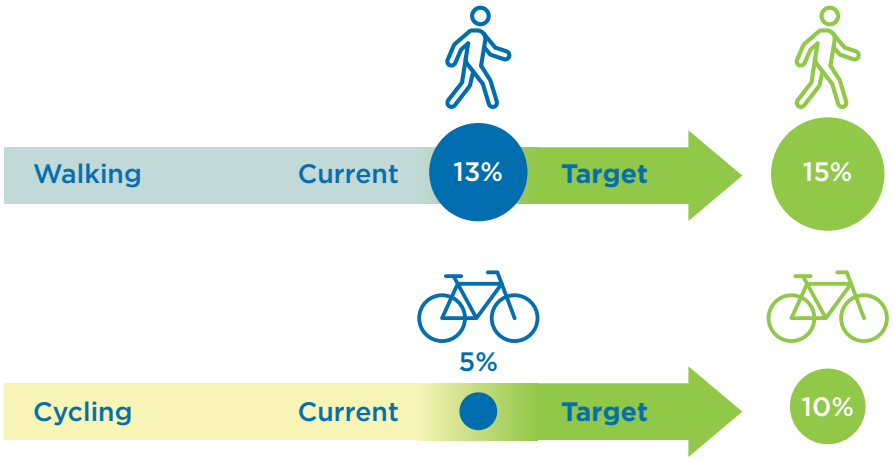
To make active travel a credible alternative choice to car-based transport, and to facilitate the 10-minute neighbourhood, certain critical factors need to be in place:

- A permeable pedestrian and cycling network that allows for multiple direct connections between key destinations such as residential areas, shops, schools, employment centres and public transport links; and
- An attractive and safe pedestrian and cycling environment where high quality facilities are provided supporting their use by all ages and abilities.

To achieve these objectives, the Council is actively engaged in initiatives which will have a direct positive impact on walking and cycling:

- **Cycle South Dublin** – This is a programme of works to provide a safe cycle network within the County over the next decade;
- **Sustainable Movement Studies** – These studies, carried out as part of the preparation of the Development Plan, involved close examination of movement within neighbourhoods with a view to identifying projects that will encourage active travel and the use of public transport;
- **Greenway projects** including the extension of the Grand Canal Greenway and the continuing rollout of the Dodder Greenway.

A target mode share of 15% for walking and 10% for cycling has been set by the Council increasing the mode share from 13% and 5% respectively.



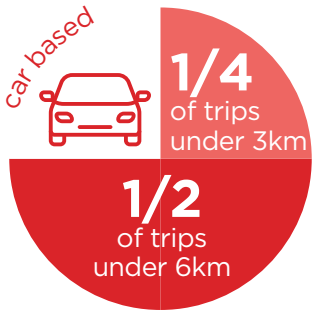
7.5.1 Sustainable Movement Studies

Sustainable Movements Studies were undertaken for each of the seven Neighbourhood Areas with the support of the NTA. The purpose of the studies was to:

- Paint a picture of movement issues within each area; and
- Identify measures to increase active transport modes (walking and cycling) and public transport to help achieve their target mode share and reduce dependency on the car.

The outcomes of these studies have informed the policies and objectives on sustainable movement within this chapter of the Development Plan. Summaries of the issues identified within each Neighbourhood Area are set out in Chapter 12 *Our Neighbourhoods.*

Travel data for the County indicates that one quarter of trips under 3km and half of trips under 6km are car-based. Many of these short trips could be done by walking or cycling.



The Studies identify various measures to trigger a shift towards active travel and public transport including:

- Improvements to public transport waiting facilities;
- Traffic calming measures;

- Footpath widening and surface enhancement;
- Creating more permeable connections for walking and cycling and access to public transport routes;
- Improvements to cycle lane and cycle parking provision.

The studies have identified a number of potential projects within the County which will be set out in a Sustainable Movement Report for the County which will accompany the Plan. Funding is available from the NTA for these types of project, and this will be investigated as a resource to facilitate the achievement of the recommended improvements.

Over time the implementation of these measures will result in more people walking, cycling and using public transport and less people using the private car. This will result in many widespread and transformative benefits including:

A more active and healthy population

An increase in road safety

A reduction in greenhouse gas emmissions and consequent positive climate impact

A reduction in traffic congestion

Improved air quality

7.5.2 Cycle South Dublin

Cycle South Dublin is a Council programme of works that aims to provide a well-connected, well designed, and safe walking and cycling network that offers people of all ages and abilities an attractive and credible alternative to using the car. It proposes a set of projects that would deliver nearly 260km of new and improved cycle lanes over the next ten years. Since 2016, traffic congestion in South Dublin County has grown by 11% on main roads and this will become ever more challenging as the County's population continues to grow over the coming years. The objectives of Cycle South Dublin are to:

- Provide a comprehensive and connected cycle network across South Dublin County;
- Increase participation and make cycling a more achievable mode of transport for people of all ages and abilities; and
- Improve the cycling identity of the County.

The projects, which will be mainly funded by the NTA, will include improvements to the existing network and new 'Now', 'Soon' and 'Later' schemes to be progressed over the next 2, 5 and 8 years, respectively (see Table 7.1 below). A further separate phase of works to facilitate cycling will be delivered by the NTA associated with the BusConnects project.

Table 7.1 Cycle South Dublin Routes and Projects

Cycle South Dublin Routes and Projects (Cycle South Dublin routes are indicated on Development Plan Maps)					
'Now' Schemes		**'Soon' Schemes**		**'Later' Schemes**	
Route No.	Route/Project	Route No.	Route/Project	Route No.	Route/Project
1	**Lucan Canal Loop**	3	**Corkagh Park to Grand Canal** (A) Clondalkin Village to Grand Canal (B) Corkagh Park	20	**Newcastle to Rathcoole**
2	**Grand Canal extension**	4	**Tallaght to Clondalkin Village**	21	**Fortunestown Lane** (A) Citywest Avenue to junction with Citywest Road (B) Ardmore Drive to its junction with Cookstown Road
5	**N81** (B) Jobstown Junction	5	**N81** (A) Jobstown Junction to N82 junction	22	**Citywest Road - Citywest Avenue to N81**
6	**Tallaght Village to Dodder Valley**	7	**Greenhills Road to Dodder Valley**	23	Tymon to Greenhills Park From the Greenhills Road to Kippure Avenue, St Finbars Close, St James Road to Greenhills Park
8	**Dodder Greenway** (A) Dodder Greenway bridges (B) to (F) Dodder Greenway Links	14	**Liffey Valley to Lucan** Arc roundabout to Lucan	24	**M50 Greenway** (A) Clondalkin Grand Canal to Ibis Roundabout (B) Red Cow round-about to Kingswood (C) Kilnamanagh to Tymon Lane (D) Balrothery, M50 footbridge, Firhouse Weir, Junction of Ballycullen Road and Firhouse Road
9	**Firhouse to Knocklyon**	15	**Clondalkin Boot Road to N4** (A) Clondalkin Boot Road to Coldcut Road	25	**Rathcoole to Saggart**

10	**Wellington Road**	16	**Ninth Lock Road**	32	**Butterfield Avenue**
11	**Grange Road** Nutgrove Avenue to St Enda's Drive	17	**Citywest Avenue, City West Road to R136** Citywest Avenue, N82 to Outer Ring Road	33	**Ballyroan Road**
12	**Tallaght Streets** (A) Belgard North Link Road (B) Airton Road Extension (C) Public realm and Plaza	18	**Bothar Katharine Tynan to Ballymount, Calmount Avenue**	34	**Ballycullen Road**
13	**Celbridge Link Road**	19	**City West to Rathfarnham** (A) N82 to N81 (B) N81 to Whitestown Way (C) Killininny Road to its junction with Ballycullen Road (D) St Colmcille Way to Ballyboden Road (E) Ballyboden to Rathfarnham	35	**Cromwellsfort Road and Kimmage Road West**
15	**N4 to Liffey Valley Shopping Centre and Coldcut Road** (B) N4 to Liffey Valley SC and Coldcut Road	26	**Canal Loop to Celbridge Road** (A) Griffeen Valley Park to Celbridge Link Road (B) Celbridge Road to South Dublin County boundary		
21	**Fortunestown Lane** (C) Citywest Avenue to junction with Garter Lane (one side)	27	**Bancroft Park** (B) Bancroft Park		
27	**Castletymon Road** (A) Castletymon Road	28	**Killinarden Park to Oldbawn Road** (A) Killinarden Park to Whitestown Way (B) Whitestown Way to Oldbawn Road		
29	**Limekiln and Whitehall Road West**	31	**Kennelsfort Road**		
30	**Templeville Road**				

7.5.3 Design of Cycle Facilities

The design of cycle facilities in Ireland is guided by the *National Cycle Manual*, NTA (2011) and any on-going revisions to this document. The cycle manual seeks to encourage cycling by promoting a safe environment for all road users with a specific focus on cyclists. It offers guidance on integrating the bike in the design of urban areas through five basic principles:

- **Safety:** Designers of transport infrastructure must seek to maximise road safety for all road users, including cyclists.
- **Coherence:** Cycling routes within the network should be logical and continuous.
- **Directness:** Cycling infrastructure should be as direct as possible, minimising any delays or detours.
- **Attractiveness:** The cycling environment along a route should be pleasant and interesting. This is particularly important for beginners, tourists and recreational cyclists.
- **Comfort:** Cycling infrastructure should be designed, built and maintained for ease of use and for comfort.

The Planning Authority will generally apply the standards contained in the *National Cycle Manual* when designing new cycle facilities (including tracks, lanes, paths and storage facilities), and in the assessment of any new development proposals, subject to certain constraints and environmental sensitivities.

The quantum of cycle parking required to service new developments is contained within Chapter 13 *Implementation and Monitoring*, Bicycle Parking Standards.

7.5.4 Active Travel and Schools

Travel data indicates that almost half of children walk to school where the school is located within the same neighbourhood area. However, the analogous figure for cycling is very low at just over 4% while car journeys at almost 40% are excessively high for these short trips. With the provision of better cycle infrastructure and the prioritisation of active travel routes around schools, there is significant scope to greatly improve active modes, particularly cycling.

Several measures can be implemented to encourage a modal shift to walking and cycling for school journeys:

- At planning and design stage, school sites should be chosen that are as close to the communities they serve as possible;
- Permeability and connectivity with the surrounding area should be ensured by provision of multiple pedestrian and cyclist access points to school sites;
- Mobility management plans should be required in order to establish measures to reduce car-based travel and increase active travel modes and public transport use;
- Adequate and secure bicycle storage should be provided within school sites;
- Positive interventions should be implemented such as participation in the Green

Schools and School Streets projects (see below);
- Priority should be given to provision of infrastructure including safe cycle ways, footpaths and improved permeability schemes through the Cycle South Dublin programme and other such initiatives.

The Council will continue to work with local schools and the Department of Education and Skills at planning, design and operational stages in order to implement the measures set out above with the aim of ultimately leading to a significant modal shift towards active travel to school.

(Refer also to Section 8.10.2 in Chapter 8 *Community Infrastructure and Public Open Space*).

School Streets Initiative

The aim of the *School Streets* initiative is to restrict motorised traffic within an agreed street, or zone, outside the school gate to create a safer environment in which children can feel encouraged to cycle, walk or scoot to school. South Dublin County Council and the NTA are partners in the initiative.

Objectives of the initiative include:

- Improved road safety and reduced traffic congestion by encouraging walking and cycling;
- Improving the local environment and air quality by reducing dependence on motorised vehicles; and
- Promoting better health through more active travel.

The Council has identified eight schools across the County for a School Street pilot project which will be funded by the NTA.

The Council will take the lead in working with schools within the County to identify further suitable projects in order to achieve the objectives of the initiative.

Green Schools Initiative

Green Schools is an environmental management and education programme for schools, operated and coordinated by the Environmental Education Unit of An Taisce. The aim is to promote long-term, whole-school action for the environment that is student-led, with involvement from the wider community. There are several themes in the programme including transport, which aims to increase the number of students walking, cycling, scooting, using public transport or carpooling to school. The transport theme is funded by the Department of Transport, Tourism and Sport and is supported by the NTA. Many schools in the South Dublin County area participate in the Green Schools initiative. The Council works closely with An Taisce, supported by various government departments and sponsors, in the implementation of the *Green Schools Programme*.

Policy SM2: Walking and Cycling

Re-balance movement priorities towards sustainable modes of travel by prioritising the development of walking and cycling facilities and encouraging a shift to active travel for people of all ages and abilities, in line with the County targets.

SM2 Objective 1:
To achieve and monitor a transition to the County mode share targets of 15% Walk and 10% Cycle.

SM2 Objective 2:
To create a comprehensive and legible County-wide network of safe cycling and walking routes that link communities to key destinations, amenities and leisure activities through implementation of the Cycle South Dublin project, the recommendations of the Sustainable Movement Studies and other permeability measures.

SM2 Objective 3:
To ensure that connectivity for pedestrians and cyclists is maximised and walking and cycling distances are reduced by promoting compact growth and permeability in the design and layout of new development areas.

SM2 Objective 4:
To ensure that connectivity for pedestrians and cyclists is maximised and walking and cycling distances are reduced in existing built-up areas, by removing barriers to movement and providing active travel facilities in order to increase access to local shops, schools, public transport services and other amenities, while also taking account of existing patterns of anti-social behaviour and other unintended consequences of removal of such barriers.

SM2 Objective 5:
To ensure that all streets and street networks are designed in accordance with the principles, approaches and standards contained in the Design Manual for Urban Roads and Streets so that the movement of pedestrians and cyclists is prioritised within a safe and comfortable environment for a wide range of ages, abilities and journey types.

SM2 Objective 6:
To ensure that facilities for pedestrians and cyclists are designed in accordance with the principles, approaches and standards contained in the National Cycle Manual or any updated guidance and to promote off-road cycle infrastructure where feasible, subject to any design having regard to environmental sensitivities.

SM2 Objective 7:
To promote walking and cycling for school trips by implementing the following measures:

- → Identifying school sites that are as close as possible to the communities they serve;
- → Ensuring that multiple access points are provided to school sites for pedestrians and cyclists;
- → Ensuring that adequate and secure bicycle storage is provided within schools;
- → Promoting initiatives such as the Green Schools and Schools Streets projects;
- → Prioritising school routes for permeability projects and provision and enhancement of pedestrian and cycle ways; and
- → Supporting the use of a range of physical measures to provide improved safety for pedestrians and cyclists at and close to schools.

SM2 Objective 8:
To work with the NTA to acquire funding and secure full implementation of the Cycle South Dublin programme and the Sustainable Movement Studies recommendations.

SM2 Objective 9:
To work with the NTA to review the feasibility of implementing additional cycling facilities within the major urban and recreational areas of the County.

SM2 Objective 10:
To further develop a footpath and cycle path repair and assessment system where members of the public can report maintenance issues and instigate repairs, and to implement a public lighting renewal, improvement and maintenance strategy in urban areas that provides adequate public lighting and puts the safety of pedestrians, cyclists, women and minority groups at the heart of this strategy, and to ensure that cycle paths are consistently and properly maintained to a high standard to ensure that cyclists use them.

SM2 Objective 11:
To provide additional directional signs for major destinations, civic amenities and tourist attractions on major pedestrian and cycle routes, including references to distances, estimated times and/or number of steps to be taken.

SM2 Objective 12:
To support the implementation of the Council's adopted County-wide signage strategy (2020) that accords with the *National Traffic Signs Manual* and the Failte Ireland *'Dublin Visitor Orientation Strategy'* (2020) and takes into account the local heritage and history of an area, particularly in a village context.

SM2 Objective 13:
To ensure that new walking and cycling routes are designed, insofar as possible, to function as links in the County's green infrastructure network and that adequate replacement and additional planting of native species and pollinators is provided, and that SuDS approaches are used to deal with surface water run-off.

SM2 Objective 14:
To ensure that all walking and cycling routes have regard to environmental conditions and sensitivities including biodiversity, protected species and designated sites and to incorporate appropriate avoidance and mitigation measures as part of any environmental assessments.

SM2 Objective 15:
To investigate the feasibility and potential opportunities for a greenway linking Newcastle, Rathcoole, Hazelhatch and the Grand Canal.

SM2 SLO 1:
To provide for a pedestrian bridge over the N7 at the Barney's Lane junction to improve access to the Saggart Luas terminus.

SM2 SLO 2:
To consider an off-road shared cycle and pedestrian path from Stocking Lane to the Hellfire Club to provide a safe alternative to cars, to access this amenity.

SM2 SLO 3:
On land border at Castleview site (formerly known as Coolamber), to maintain a complete unbroken natural boundary comprising railings or other permanent structure along the perimeter of the site (with the exception of an entrance off the Newcastle Road and pedestrian and cyclist permeability with the Finnstown Neighbourhood Centre to the north of the site). The above notwithstanding any other related policies or objectives outlined in this Plan.

7.6 Public Transport

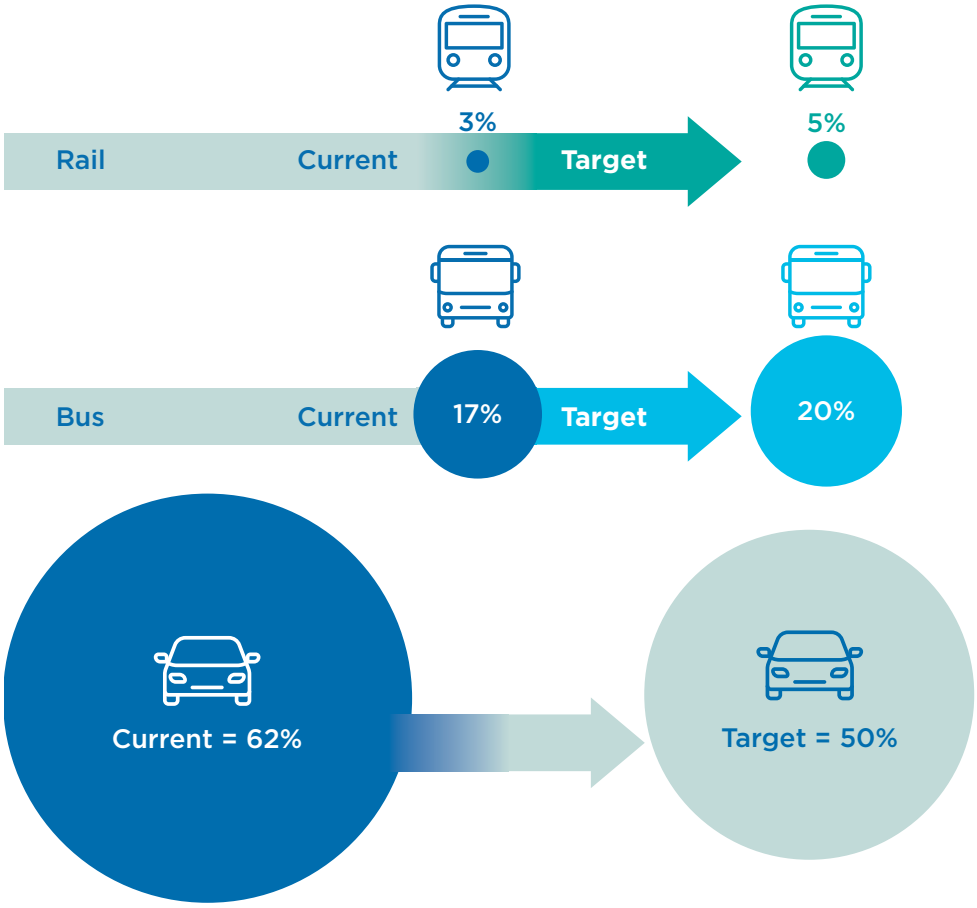
Approximately one fifth (20%) of trips originating in South Dublin County are by public transport. This figure is quite low considering the built-up character of much of the County, its proximity to Dublin City and the public transport services available in the developed parts of the County.

To encourage a significant shift to public transport, the Council will continue to work with the NTA, the statutory authority responsible for long-term strategic transport planning in the Greater Dublin Area, to focus on the delivery of:

- Orbital public transport services linking major centres and areas of employment such as Tallaght, Clondalkin and Liffey Valley and further linking to other parts of the Greater Dublin Area;
- Additional and extended public transport routes to service newly developed and developing areas, and existing areas where gaps in services exist;
- Transport hubs, to connect services (such as between orbital and radial routes

and/or core and feeder routes) and form a 'web' like network;
- → Improved access to public transport stops and services;
- → Improved integration between higher density forms of development and public transport nodes.

The Council's target is to increase public transport use for trips originating within South Dublin County from the current low base of 17% bus and 3% rail, to 20% bus and 5% rail, respectively, over the lifetime of this Development Plan. This target also sees private motorised travel (mainly car-based) reduce from the current high level of 62% to 50%.



There are a number of strategic projects in the GDA Strategy 2016-2035 proposed for South Dublin County that have the potential over the coming years to have a transformative impact on travel by shifting the dominance of car-based transport towards public transport. These include:

- → BusConnects
- → DART+ along the Kildare Line from Heuston to Hazelhatch
- → Luas to Lucan
- → Transport interchanges at Tallaght and Liffey Valley.

The GDA Strategy is under review and the feasibility of a further light rail to the south-west of the County is being examined as part of this work. If proven to be feasible and included in the GDA Transport Strategy, the Council would support the improved public transport benefits it would bring.

Policy SM3: Public Transport – General

Promote a significant shift from car-based travel to public transport in line with County targets and facilitate the sustainable development of the County by supporting and guiding national agencies in delivering major improvements to the public transport network.

SM3 Objective 1:
To achieve and monitor a transition to the County mode share targets of 20% Bus and 5% Rail.

SM3 Objective 2:
To facilitate and secure the implementation of major public transport projects as identified within the NTA Transport Strategy for the Greater Dublin Area (2016-2035), or any superseding document, including BusConnects, the DART expansion programme along the Kildare route, the opening of the new rail station at Kishogue and the Luas to Lucan.

SM3 Objective 3:
To ensure that future development is planned in such a manner as to facilitate a significant shift to public transport use through pursuing compact growth policies, consolidating development around existing and planned public transport routes and interchanges, and maximising access to existing and planned public transport services throughout the network.

SM3 Objective 4:
To optimise accessibility to public transport, increase catchment and maximise permeability through the creation of new and upgrading of existing walking and cycling routes linking to public transport stops.

SM3 Objective 5:
To facilitate an interlinked network that maximises the efficiency of existing services, reduces overall journey times and facilitates easy exchanges between modes and routes.

SM3 Objective 6:
To establish future public transport routes that will support the County's medium to long term development, including orbital routes to provide connectivity between outer suburban areas.

SM3 Objective 7:
To support and encourage the NTA in investigating high-capacity public transport solutions for Dublin south-west, including examining the feasibility of Metro and/or Luas, serving areas including Ballyboden, Ballycullen/Oldcourt, Firhouse, Kimmage, Knocklyon, Rathfarnham, South Tallaght, Templeogue and Terenure.

SM3 Objective 8:
To support and collaborate with the NTA and Dublin City Council in carrying out an Area Based Study on future transportation for the Naas Road/ Ballymount strategic regeneration lands.

SM3 Objective 9:
To ensure that all new public transport corridors are designed to enhance the County's green infrastructure network by ensuring adequate replacement and additional planting of native species and pollinators and to ensure that SuDS approaches are used to deal with surface water run-off.

SM3 Objective 10:
To work with the relevant transport agencies to ensure that all public transport proposals have regard to pertaining environmental conditions and sensitivities including biodiversity, protected species and designated sites and incorporate appropriate avoidance and mitigation measures as part of any environmental assessments.

7.6.1 BusConnects

BusConnects is the NTA programme for improvement of bus services in Dublin and other cities across Ireland and is a key part of Government policy to improve public transport and address climate change. The key elements of the strategy as it applies to Dublin are:

- A network of continuous bus priority and safe cycling facilities along 16 corridors;
- A redesigned more efficient bus network with high frequency spines, new orbital routes and increased bus services;
- More user-friendly and convenient ticketing and payment systems;
- Improved bus waiting facilities;
- A transition to a low emissions bus fleet.

It is anticipated that a planning application for the radial core bus corridor infrastructure will be submitted by the NTA to An Bord Pleanála in late 2021. Construction is expected to take place between 2022 and 2027.

Table 7.2 BusConnects Proposed Radial Core Bus Corridor Routes Serving South Dublin County

Route Number	Origin/Destination
Route 6	Lucan to City Centre
Route 7	Liffey Valley to City Centre
Route 8	Clondalkin to Drimnagh
Route 9	Greenhills to City Centre
Route 10	Tallaght to Terenure
Route 11	Kimmage to City Centre
Route 12	Rathfarnham to City Centre

A number of orbital routes are also proposed which will greatly improve ease of movement within the County and to destinations beyond. These are set out in Table 7.3.

Table 7.3 BusConnects Proposed Orbital Routes Serving South Dublin County

Route Number	Destinations
S4	Liffey Valley – Ballyfermot – Crumlin – Milltown – UCD
S6	Tallaght – Dundrum – UCD – Blackrock
S8	Tallaght – Sandyford – Dun Laoghaire
W2	Liffey Valley – Clondalkin – Tallaght
W4	Tallaght – Grange Castle – Liffey Valley – Blanchardstown
W6	Maynooth – Celbridge – Citywest – Tallaght

Policy SM3: Public Transport – Bus
SM3 Objective 11: To facilitate the delivery of the BusConnects Core Bus Corridors and seek additional bus corridor and orbital routes to serve the County by securing and maintaining any required route reservations and to ensure the BusConnects Corridors do not adversely affect the village life and livelihoods of any of our County Villages.
SM3 Objective 12: To work with the NTA to secure the expansion of the bus network to serve new development and regeneration areas within the South Dublin County area including Tallaght, Naas Road, Adamstown, Clonburris, Fortunestown, Ballycullen and Newcastle.
SM3 Objective 13: To support new Bus Rapid Transit (BRT) lines as a means of providing new public transport links, where rail options are demonstrated by the NTA not to be achievable over the period of the County Development Plan 2022-2028, including for the planned Metro (Metrowest) and along the Outer Ring Road and Adamstown-Citywest corridors.
SM3 Objective 14: To support a review of bus services in the Naas Road environs including investment in orbital services with a view to meeting future demand and enhancing development potential of the Naas Road regeneration area.
SM3 Objective 15: To support the enhancement of the Local Link Rural Transport Programme in order to provide the rural communities of the County with access to improved bus services.
SM3 Objective 16: To support a review of bus corridors in the N4 environs to expand into the commuter belt towns of bordering County Kildare with a view to meeting future demand of the surrounding Lucan and Adamstown area.

SM3 Objective 17:
To work with the NTA and other state agencies to facilitate the delivery of the Kennelsfort Road-R148 grade separated junction or an equivalent solution to maximise the efficacy of the BusConnects Project.

SM3 Objective 18:
To liaise with bus service providers where new bus stop infrastructure is proposed in order to ensure facilities such as shelters and bins are included, where appropriate.

7.6.2 Rail

DART Expansion Programme

The implementation of the DART expansion programme will provide DART+ services as far as Hazelhatch on the Kildare Line, serving the developing Adamstown SDZ lands, the Grange Castle Business Park, the established areas of Clondalkin and the Strategic Development Zone (SDZ) lands at Clonburris where a community of 23,000 population is planned. The newly-built station at Kishogue will open during Phase 1B of the Clonburris SDZ Planning Scheme (1,001 – 2,000 residential units). The expansion programme will also provide an increased train frequency at Park West in the Naas Road area.

Existing Luas Lines

The existing Luas lines to Tallaght and Saggart provide excellent access to a high-quality public transport link for people living in and working in South Dublin. As new development in South Dublin and in Dublin City continues over the coming years, the Council will work with the NTA to assess the need and opportunity to increase the

capacity on these existing lines to provide an increased service in line with need.

Luas to Lucan

The NTA strategy provides for the extension of the Luas to Lucan, which will deliver a high-capacity radial service from this area to the City Centre, sufficient to cater for the high transport demand along this corridor. The Luas will extend, subject to a preferred route, into the centre of Lucan's large residential areas to the south of the N4 and will connect to the city centre serving Lucan Village, Liffey Valley and Ballyfermot along its route.

Metro/Luas to Dublin South West

The Council will continue to engage with the NTA, in the context of the review of the GDA Transport Strategy, regarding public transport options for Dublin south-west including the feasibility of Metro and/or Luas to serve the area.

7.6.3 Transport Interchanges

Multi-modal transport interchanges increase the efficiency and flow of public transport services. A public square and transport interchange is proposed for Tallaght Town Centre, that would provide a first-class interchange between the Luas, BusConnects, taxi, cycling and walking.

In the 6-year period to 2026, the Tallaght Local Area Plan (LAP) provides for between 3,500-5,000 new housing units, the potential for significant additional non-residential floorspace through more intensive employment, commercial and industrial use, new schools and public services. Key to the realisation of the short-term development potential of these lands are the implementation of the Transport Interchange which will be located adjacent to the Tallaght Luas Stop, along with BusConnects, enhanced orbital and local bus services and improved pedestrian and walking networks, including permeability measures within the LAP area and to neighbouring areas.

A transport interchange is also being progressed at the Liffey Valley Shopping Centre campus. Liffey Valley Shopping Centre is a Major Retail Centre and Level 2 Major Town Centre in the retail hierarchy of the RSES which is continuing to expand, and the interchange will serve an essential function in the wider bus network and the NTA's BusConnects project.

Park and Ride Facilities

Park and Ride provides the opportunity for modal transfer from the private car to the public transport network, for trips where car use is necessitated at the point of origin. They should be located in areas where the road network has the capacity to absorb the impact of car traffic and should not be located to encourage people who would otherwise access public transport locally, to drive further to access a site, adding to congestion. A number of park and ride facilities are located in the County with further proposed. The Planning Authority will consult with the NTA and other stakeholders to secure their implementation, as appropriate. Park and Ride policy is a component of the GDA Strategy.

Table 7.4 Park and Ride Proposals

Park and Ride Proposals	
Locations	**Status**
Adamstown Station (Dublin-Kildare Railway)	Temporary facility operating with a permanent facility to be completed as part of the Adamstown District centre development (as identified within the Adamstown SDZ Planning Scheme)
Kishogue Station (Dublin-Kildare Railway)	Park and Ride will come on-stream with the opening of Kishogue Station
Lucan (N4 Bus Corridor)	Availability of site for the provision of park and ride to be investigated including potential for Park and Ride at location on N4 immediately adjacent exit 4A and subject to this location being acceptable to the NTA

Policy SM3: Public Transport – Rail, Transport Interchange and Park and Ride
SM3 Objective 19: To promote the delivery of the Luas to Lucan and facilitate the reservation of any identified or emerging route.
SM3 Objective 20: To support additional capacity on the Luas Red Line, to service the intensification of development in Tallaght and Fortunestown and the future development of the Naas Road lands.
SM3 Objective 21: To support the opening of the Kishogue rail station to align with the delivery of homes within the Clonburris SDZ area, in accordance with SDZ Planning Scheme phasing.
SM3 Objective 22: To investigate the option of an inter-county rail service stopping at Kishogue station which would provide access to new employment space at Clonburris and give direct access to the Grange Castle Business Park.
SM3 Objective 23: To support the delivery, in the short to medium term, of measures to enhance the development potential of the Naas Road/Ballymount lands including: → A new train station on the Kildare Line adjacent to Kylemore Road; → A new Luas stop on the Red Line between the Kylemore and Red Cow stops (as per the RSES and MASP); and → Increased frequency of Luas Red Line trams.

SM3 Objective 24:
To support and facilitate the development of multi-modal transport interchanges at Tallaght Town Centre and Liffey Valley.

SM3 Objective 25:
To facilitate the provision of Park and Ride facilities in appropriate locations at transport nodes and along strategic transport corridors in accordance with the NTA Strategy.

7.7 Road Network

While investment in active travel and public transport infrastructure remains at the top of the hierarchy, there will continue to be a need to invest in new road and street infrastructure. Improvements to the road network and some new roads will be required in the County to manage transport more efficiently and to provide access to newly developing areas where there is a need to unlock brownfield and other lands in line with the principles of compact growth. Efficient road infrastructure is also critical to support the economic development of the County and in particular the movement of goods.

It is also acknowledged that the creation of more road space to cater for traffic, particularly in existing areas, is expensive and may serve to attract more cars to the network. Managing travel demand and freeing up road and street space will be one of the key challenges that the Council will face during the lifetime of this Plan.

The road network will require to be carefully managed and expanded to:

- Facilitate access to areas of economic activity to and from the National Road network, especially on the periphery of urban areas;
- Effectively manage access to and from the National Road network to minimise any impacts on the local road and street network;
- Ensure the safe and efficient operation of the national road network;
- Provide access to new communities and development lands;
- Make the most efficient use of existing road space;
- Provide a safer street environment with reduced vehicle speeds, particularly in areas where pedestrians and cyclists are likely to be more active;
- Manage car parking in an effective manner.

7.7.1 Strategic Road Network

The principal strategic road network in the County comprises the N4, N7 and N81 forming three key radial routes; and the M50, Newlands-Fonthill (R113) and Outer Ring Road (R136) forming three key orbital routes. Management of the national road network including the N4, N7, N81 and M50, which are among the busiest roads in the country, is the responsibility of Transport Infrastructure Ireland (TII). The Council will continue to work with the NTA and TII to protect the capacity of these important strategic roads.

To ensure ongoing competitiveness and the efficient movement of people and goods within the County, strategic road access requires to be direct, particularly between areas of employment and the national road network. The Core Strategy identifies a number of strategic development areas that will accommodate new communities. While public transport access will be prioritised, access to these areas will also be required as part of the future development of the strategic road and street network.

Policy SM4: Strategic Road Network
Improve and, where necessary, expand the County-wide strategic road network to support economic development and provide access to new communities and new development areas.
SM4 Objective 1: To work closely with transport agencies including the Department of Transport, the National Transport Authority and Transport Infrastructure Ireland to protect capacity and deliver improvements and extensions of the strategic road network, where necessary and in line with national, regional and local climate action plans.
SM4 Objective 2: To facilitate and secure the implementation of major road projects as identified within the relevant strategies and plans for the Greater Dublin Area.
SM4 Objective 3: To increase competitiveness by ensuring the efficient movement of people and goods between enterprise and employment areas and the national road network.
SM4 Objective 4: To ensure that developing areas have sufficient access to the County's road network.
SM4 Objective 5: To support the provision of junction upgrades, where necessary, at key locations on the strategic road network.
SM4 Objective 6: To support innovative demand management measures on the M50, given current and projected demand for orbital movement and planned future population and employment growth in the County.
SM4 Objective 7: To implement the 6-year Roads Programme set out under Tables 7.5 and 7.6 and to work towards the implementation of the medium-longer roads programme where feasible and subject to funding.

SM4 Objective 8:
To work with the relevant transport agencies to ensure that all road and street network proposals have regard to pertaining environmental conditions and sensitivities including biodiversity, protected species and designated sites and incorporate appropriate avoidance and mitigation measures as part of any environmental assessments.

SM4 Objective 9:
To ensure that all new roads and streets are designed to enhance insofar as feasible, the County's green infrastructure network by ensuring adequate replacement and additional planting of native species and pollinators and to ensure that SuDS approaches are used to deal with surface water run-off.

SM4 Objective 10:
To support sustainable measures including car-pooling and car clubs which promote access to cars rather than car ownership and which facilitate higher utilisation of vehicles rather than higher numbers of vehicles.

SM4 Objective 11:
To incorporate, where feasible, wildlife crossings including bridges and underpasses into the designs for new road infrastructure and where possible, incorporation of such measures into the existing road network.

SM4 SLO 1:
To ensure that development on these lands at Whitechurch/Edmondstown only occurs where it can be delivered in tandem with the necessary transport infrastructure, including provision for walking and cycling, to facilitate such development.

SM4 SLO 2:
To include an underpass as a part of any traffic management consideration as a practical solution to traffic delays on the N4 at Palmerstown Village.

7.7.2 New Street and Road Proposals

The strategic road network consists of national and regional routes that carry the bulk of traffic within and through the County. Some expansion of the strategic road network is required to provide access to developing areas and to support the economic development of the County. This network expansion will also support the provision of accompanying infrastructure that supports more sustainable modes (e.g. bus lanes and priority, cycle lanes, footpaths and crossing points).

Through traffic primarily occurs along the M50 Motorway, two National Roads (N4 and N7) and one National Secondary Road (N81). The management of these roads is the responsibility of TII. The Council will continue to work with TII to support major improvements to the national road network and to maintain and protect the safety, capacity and efficiency of national roads and associated junctions in accordance with the *Spatial Planning and National Roads: Guidelines for Planning Authorities,* DECLG (2012).

South Dublin County Council is responsible for the management of the regional and local road network. The Council's proposals for the short and medium to long term development of the regional road network are outlined in Tables 7.5 and 7.6.

→ Table 7.5 outlines a **Six Year Road Programme**, which is subject to available funding. Designs have been prepared in respect of some of these proposals. The Council may, at its discretion, introduce an additional road proposal, where such a proposal benefits economic and population growth.

→ Table 7.6 **Medium to Long Term Road Objectives** outlines corridors that are considered necessary to providing a long-term road network and to provide access between major areas of economic activity and the national and regional road network. Some of these roads have been the subject of preliminary design studies and their detailed design will be undertaken and phased according to need. Where the opportunity arises, roads shown as long-term may be brought forward for construction at an earlier date, subject to funding being available.

Table 7.5 Six Year Road Programme

Road	Description	Function
Adamstown Street Network	Various streets within the Adamstown SDZ lands.	Formation of a strategic street network providing access throughout the site.
Ballycullen-Oldcourt Street Network	Various streets within the Ballycullen-Oldcourt LAP lands.	Formation of a strategic street network providing access throughout the site.
Naas Road Framework Area Street Network	Various streets and roads within the Naas Road Framework Area.	Formation of a strategic street network within the regeneration lands.
Ballyboden Road/Stocking Lane (R115)	Upgrade of existing road.	To enhance pedestrian and cycling facilities and exploit the tourist potential of the route.
Baldonnell road to Citywest Interchange proposed Link Road	New road from the Baldonnel Road to the (N7) junction at Brownsbarn.	To provide improved access to/from the Baldonnell employment area.
Celbridge Link Road	New road between the Adamstown SDZ lands and Celbridge Road (R403).	To provide access to the Adamstown SDZ lands.
Citywest Junction Link	Re-alignment of eastbound slip lane.	To improve the safety of the access to the N7.

Clonburris/ Kishogue Street Network	Various streets within the Clonburris SDZ/LAP lands.	Formation of a strategic street network providing access throughout the Clonburris LAP/SDZ lands.
Fortunestown Street Network	Various Streets within the Fortunestown LAP lands.	Formation of a strategic street network providing access to the Fortunestown LAP lands.
Greenhill Road Upgrade and Links	Upgrade of Greenhills Road from Airton Road to Walkinstown Roundabout with new links to Ballymount Avenue, Limekiln Road and Calmount Road for BusConnects provisions and long-term residential communities.	To provide improved access to/between employment lands within Tallaght, Ballymount and Robinhood and to provide improved access to and from the Greenpark, Limekiln and Greenhills area and provide for BusConnects provisions.
Griffeen Avenue	Improvements at junctions with Griffeen Road, Outer Ring Road and the link between them.	Enhance the efficiency and safety of these junctions for all users.
Newcastle Street Network	Various streets within the Newcastle LAP lands.	Formation of a strategic street network providing access throughout the LAP lands.
Newcastle Road (R120)	Junction upgrades at SuperValu roundabout, Hillcrest Road.	Enhance the efficiency and safety of these junctions for all users.
New Nangor Road Extension	New road between R120 and Brownstown.	To provide access to employment lands within Grange Castle and onward connections as appropriate.
Tallaght Town Centre Street Network	Various streets within the Tallaght Town Centre.	Formation of a strategic street network within the Tallaght Town Centre LAP lands.
Templeroan Road Extension	New link road from Knocklyon Road to Firhouse Road.	Local road re-alignment.
Fonthill Road/N4	Junction upgrades.	Upgrade to provide greater access/egress to Liffey Valley Shopping Centre and South Lucan, improve traffic flow and alleviate tailbacks onto the N4.

R136/N4	Right hand turn onto N4 westwards at bridge on R136.	Enhance and upgrade right hand turn onto N4 westwards at bridge on R136 as part of revised traffic management solution in Lucan village, engineered to facilitate a cycleway into village as part of NTA proposals.
Kennelsfort Road and the R148	Upgrade of existing junction.	Support the provision of a grade separated junction, to be initiated during the first two years of the 2022 to 2028 County Development Plan, to enhance the efficiency of the junction, particularly for buses on the N4/Lucan Road QBC, to ensure safe crossing facilities are provided for all users and to reconnect the Heritage Village of Palmerstown with the newer residential areas of the community.
Western Dublin Orbital Route	New road from N81 to the Leixlip Interchange.	New road from N81 to the Link between the N81, N7 and the N4 with a route Leixlip Interchange by-pass function around Rathcoole and Saggart. The need for this route, further connections and possible alternative routes will be determined through the review of the NTA's GDA Strategy and in consultation with TII and relevant local authorities. In any such route a primary objective of South Dublin County Council shall be to protect the scenic Liffey Valley parklands, and amenities at Lucan Demesne and St Catherine's Park and Lucan Village and no proposals to continue a road over these lands will be considered.

Table 7.6 Medium to Long Term Road Objectives

Proposal	Description	Function
Aylmer Road Upgrade	Upgrade of existing road from Blundelstown to Keeloges.	To provide improved access between employment areas of Greenogue and Grange Castle.
Blessington Road/N81	Upgrades to N81 from M50 to county boundary.	Local Improvements to the National Road, junction improvements and road safety measures.
Cloverhill Road/Ninth Lock Road Upgrade and Link Road.	Upgrade of Cloverhill Road from the M50 and upgrade of Ninth Lock Road from Fonthill Road to a new link road adjacent to the Dublin-Kildare railway Line.	To provide improved access to employment areas within Clondalkin and Park West (see also Junction 8 below).

7.8 Road and Street Design

There is a growing appreciation that the design of streets has a major influence on quality of life. Streets should not just be corridors for traffic, but rather should be places in which people want to live and spend time. Streets must also facilitate more sustainable forms of travel such as walking, cycling and public transport so the need for car-borne trips is minimised. This also has other positive impacts such as reducing greenhouse gas emissions and promoting more active and healthy lifestyles.

The design of roads and streets, safety and the management of speed are intrinsically linked. Research indicates that the speed at which people drive is primarily influenced by the design of the street or road, with regulatory features (such as speed limits) having a secondary role. A broad range of placemaking measures, such as high quality built form, hard and soft landscaping and incorporating high levels of pedestrian and cyclist activity, as well as more conventional road design measures, need to be considered at design stage to reduce speed and make streets living places where social and economic activity can thrive.

7.8.1 Design of Urban Roads and Streets

The design of streets in Ireland is guided by the *Design Manual for Urban Roads and Streets* (DMURS) which is mandatory for all urban roads and streets within the 60 km/h urban speed limit zone except for:

- Motorways; and
- In exceptional circumstances, certain urban roads and streets with the written consent of the relevant sanctioning authority.

DMURS seeks to put well-designed streets at the heart of sustainable communities and placemaking and supports broader government policies on the environment, planning and transportation. DMURS provides practical measures to achieve:

- Highly connected streets which allow people to walk and cycle to key destinations in a direct and easy-to-find manner;
- A safe and comfortable street environment for pedestrians and cyclists of all ages;
- Streets that contribute to the creation of attractive and lively communities;
- Streets that calm traffic via a range of design measures that make drivers more aware of their environment.

DMURS highlights how in recent times the car has become the dominant force in determining how street networks and streets are designed, which has led to the implementation of standards that are not suited for use in urban areas. This approach has had a negative impact on more vulnerable users, such as pedestrians and cyclists, and on how streets are used and perceived as places. DMURS focuses on highlighting issues and providing a range of practical and innovative approaches to best practice solutions. These solutions are applied from the macro level (street network) to the micro level (detailed street design) via a range of design processes and strategic plans.

There are roads throughout the County that are not fronted with development. Whilst the Council will implement the appropriate geometric standards from DMURS, where applicable, many of these roads are unlikely to significantly change due to the constrained nature of the road-side environment. In such cases a range of secondary measures will be applied to ensure that an attractive boundary is provided. Harsh measures such as bare concrete walls should not be permitted, and alternative landscape measures such as street trees, screen planting and planted verges will be provided. These measures also have great potential to create green links within the County's green infrastructure network. Similarly in rural areas, the need to improve road safety must be balanced with the protection of elements such as roadside trees, hedgerows and banks which can be valuable wildlife habitats and contribute to general biodiversity, green infrastructure and rural character.

Policy SM5: Street and Road Design
Ensure that streets and roads within the County are designed to balance the needs of all road users and promote place making, sustainable movement and road safety providing a street environment that prioritises active travel and public transport.
SM5 Objective 1: To ensure that all streets and street networks are designed to passively calm traffic through the creation of a self-regulating street environment that promotes active travel modes and public transport.
SM5 Objective 2: To design new streets and roads within urban areas in accordance with the principles, approaches and standards contained within the *Design Manual for Urban Roads and Streets.*
SM5 Objective 3: To advance national and local initiatives in relation to road design and safety.
SM5 Objective 4: To prioritise safety on rural roads and junctions, while considering the protection of biodiversity, green infrastructure and rural character present in roadside trees, hedgerows and banks, etc.
SM5 Objective 5: To design new roads and streets to incorporate green infrastructure elements such as planting of native trees, hedgerows and pollinator species in medians and on roadside verges, as appropriate to the location.
SM5 SLO 1: To provide for visitor parking spaces, along with a turning point, on any primary access roadway off Mount Bellew Way so as to provide for future development of these zoned lands, and to facilitate the better management of drop-offs and pick-ups at the neighbouring Lucan Educate Together NS.

7.9 Transport Studies and Traffic Management

South Dublin's transport policy and implementation sits within the context of the various strategies and plans outlined above. Integrated Transport Studies will be undertaken where necessary in the context of these plans and strategies including the NTAs Transport Strategy for the Greater Dublin Area and the Council's active travel measures such as Cycle South Dublin.

Traffic and Transport Assessments and/or Workforce Travel Plans (also known as Mobility Management Plans) will be required to support development proposals that have the potential to generate significant traffic movements, to demonstrate that there is public transport carrying capacity and road capacity to serve the development (refer also to Chapter 13 *Implementation and Monitoring*).

7.9.1 Integrated Transport Studies

Integrated transport studies and plans for established communities and new areas of development will be carried out in consultation with the NTA, as required. They will have regard to the European Commission's *Guidelines for Developing and Implementing a Sustainable Urban Mobility Plan* (2nd Edition, 2019), where a sustainable urban mobility plan is defined as *'a strategic plan designed to satisfy the mobility needs of people and businesses in cities and their surroundings for a better quality of life'* and will address issues including:

- The existing network, investigating movement around and through the defined area with the aim of optimising accessibility for all modes of transport, and in particular sustainable modes;
- The development of networks that maximise connectivity and ease of movement for all modes including pedestrians, cyclists and vehicles;
- Improved facilities for pedestrians and cyclists, such as increased footpath/ cyclepath widths and safer crossings;
- Opportunities for public realm improvements that balance the needs of 'movement' and 'place' with improved levels of safety for all users within a traffic calmed environment;
- Restrictions on the movement of certain vehicle types, such as Heavy Goods Vehicles (HGVs);
- Infrastructure improvements to prioritise the movement of public transport, such as bus lanes, bus gates and signal prioritisation;
- Opportunities for the provision of taxi ranks and drop-off areas that serve transport hubs and/or the needs of particular land uses;
- Car parking management to ensure the sufficient distribution of spaces.

Traffic Management Centre

Within South Dublin, a Traffic Management Centre utilises Intelligent Transportation Systems and communications infrastructure to manage the transport network. It provides a single, purpose-built location to integrate the traffic management core systems to support safe and efficient management of the urban transportation

network, including an incident management centre which co-ordinates the management of major events and incidents. The Council will continue to work with the NTA and other local authorities within the Greater Dublin Area to ensure the ongoing operation of this facility.

Policy SM6: Traffic and Transport Management
Effectively manage and minimise the impacts of traffic within the County having regard to the need to provide shared road space for different users.
SM6 Objective 1: To effectively manage the flow of through traffic along the strategic road network and maximise the efficient use of existing road resources.
SM6 Objective 2: To protect sensitive areas from inappropriate levels of traffic through design measures that will calm and/or reroute traffic.
SM6 Objective 3: To minimise the impact of new development on the County's road and street network through prioritising active travel and public transport and implementing appropriate traffic and transport management measures.
SM6 Objective 4: To maintain and protect the safety, capacity and efficiency of National roads and associated junctions in accordance with the Spatial Planning and National Roads: Guidelines for Planning Authorities, DECLG (2012), the Trans-European Transport Networks (TEN-T) Regulations and with regard to other policy documents such as the TII M50 Demand Management Report 2014 and the N4 and N7 Corridor Study 2017.
SM6 Objective 5: To continually review the efficiency of major junctions that are managed by South Dublin County Council and to consult with the relevant national agencies regarding the implementation of any proposed solutions.
SM6 Objective 6: To undertake an analysis, where areas are identified and opportunities exist, for more effective traffic management and mobility improvements.
SM6 Objective 7: To carry out a review of Heavy Goods Vehicles (HGV) restrictions in the County and consult with An Garda Síochána in relation to the implementation of restrictions on the movement of HGVs within residential areas and around schools.
SM6 Objective 8: To require all major traffic generating development to submit a Mobility Management Plan/Workforce Plan and/or Traffic and Transport Assessment.

SM6 Objective 9:
To ensure that appropriate design and mitigation measures are applied to all transport schemes to reduce the impact of noise and air pollution within residential communities in accordance with the EU directive on Assessment and Management of Environmental Noise.

SM6 Objective 10:
To prioritise traffic calming measures, where appropriate, and works needed to improve safety at road crossings.

SM6 Objective 11:
To commit to proceeding to deliver a Traffic Management Masterplan for Palmerstown following a definitive outcome from the NTA/TII on the Kennelsfort Road/R148 grade-separated junction.

SM6 SLO 1:
To investigate the need to carry out a traffic and transport study for Rathcoole, Saggart and Newcastle and the surrounding areas following the publication of the GDA Strategy review to 2042 which will clarify the context within which the road network in the area will function and to include a review of HGV movement.

SM6 SLO 2:
To undertake a traffic management strategy for Lucan Village, to assess traffic management options, including measures to improve the cycling and pedestrian environment and to examine the potential for off-street parking.

SM6 SLO 3:
In recognising significant forecast for local population growth, to undertake a detailed traffic study that determines a programme of works that aims to alleviate the existing traffic 'bottle-neck' between Supervalu roundabout on the Newcastle Road, Lucan and the N4 junction.

SM6 SLO 4:
To improve the safety of the junction between the Kilteel Road (L2003) and Calliaghstown Lane (L6008).

7.10 Car Parking

The availability and cost of car parking has a major impact on the level of traffic that is generated by a development and attracted to an area. According to the NTA *Transport Strategy for the Greater Dublin Area*, the supply and management of parking at destinations is central to the management of travel demand. It has a critical influence on mode choice for all journey purposes; if parking is scarce or expensive, people are more likely to choose public transport options or active modes.

Parking also has a key influence on congestion, the design of new development, operation of all transport modes, and the allocation and design of space in urban areas. There is a need for a balanced approach to car parking management that takes the car parking needs of businesses and households into account, and the need to

promote more sustainable forms of transportation and limit the impact of traffic congestion. As recommended by the NTA Transport Strategy, the Council applies maximum standards for a range of land use types, with the level of parking provision applied being based on the level of public transport accessibility. The Council has a role both as a provider of parking e.g. on-street parking and parking for staff and the public at Council facilities; and as a regulator of parking provision i.e. parking in relation to development proposals. In either context, parking levels will be determined in line with the standards for particular uses, having regard to location and accessibility levels of public transport.

7.10.1 Management of Public Parking

Where parking demand is high, the Council will carefully manage the turnover of spaces through Pay and Display and/or Permit parking. Such restrictions are generally put in place to ensure the efficient turnover of spaces and to maximise the value of available spaces. The Council's Control of Parking Bye Laws regulate parking in relevant areas in the County.

Pay and Display parking helps to encourage a turnover of parked cars and also encourages those people who live within a short to medium distance to choose to walk or cycle instead of driving. Permit systems are put in place within residential areas located within or in close proximity to higher demand areas in order to prioritise on-street spaces for the use of residences and their visitors. This also has the effect of reducing the amount of traffic attracted to such areas.

Pay parking or limited parking in town centre areas may also have unintended consequences such as making people shift custom to out-of-town shopping locations where parking is cheaper or free, especially where good public transport alternatives are not available. As such, payment systems will be required in car parks associated with major shopping centres and other large commercial developments where new facilities or major extensions to existing facilities are proposed. This will ensure the efficient turnover of parking in such developments and allow urban centres and public transport to compete with 'out of town' centres on a more equitable basis.

7.10.2 Electric Vehicle Charging

The Government's Climate Action Plan (2019) has as a target to accelerate the take up of EV cars and vans so that they comprise 100% of all new cars and vans by 2030 with no new non-zero emissions vehicles being sold beyond this date. Achieving this goal will result in 935,600 EVs on the road by 2030. In order to support this target, the four Dublin Local Authorities in conjunction with the Climate Action Regional Office (CARO) and Smart Dublin are producing an overarching EV charging strategy for the whole Dublin region. RPO 7.42 of the RSES states that:

'Local authorities shall include proposals in statutory land use plans to facilitate and encourage an increase in electric vehicle use, including measures for more recharging facilities and prioritisation of parking for EVs in central locations'.

Standards for the provision of EV charging are set out in Chapter 13 *Implementation and Monitoring*. Chapter 10 *Energy,* also contains policies and objectives relating to EV charging.

Policy SM7: Car Parking and EV Charging
Implement a balanced approach to the provision of car parking with the aim of using parking as a demand management measure to promote a transition towards more sustainable forms of transportation, while meeting the needs of businesses and communities.
SM7 Objective 1: To implement maximum car parking standards for a range of land-use types, where provision is based on the level of public transport accessibility.
SM7 Objective 2: To limit the availability of workplace parking in urban centres to discourage car commuting, where alternative transport options are available.
SM7 Objective 3: To implement area-based parking caps in locations where the highest intensity of development occurs and is promoted, such as town / district centres and higher-order public transport nodes.
SM7 Objective 4: To promote the provision and management of destination parking in areas of high trip demand, subject to appropriate pricing and locational criteria, taking into account the availability of more sustainable transport options.
SM7 Objective 5: To support the expansion of the EV charging network by increasing the provision of designated charging facilities for Electric Vehicles on public and private land in partnership with the ESB and other relevant stakeholders; and to support the Dublin Regional EV Parking Strategy.
SM7 Objective 6: To promote appropriate parking arrangements for specific user requirements including disabled drivers, motorcycles and scooters in town and district centres, public transport nodes and other destinations.
SM7 Objective 7: To design and manage parking to ensure the efficient turnover of spaces within town, district and village centres and higher density development areas by applying the following measures: → Ensuring that car parking is predominantly provided on-street and within communal and undesignated spaces, except in areas identified as tourist and food destination locations where additional widening of pedestrian areas is desirable necessitating the removal of on-street parking to facilitate; → Placing restrictions on longer term parking.

SM7 Objective 8:
To require payment systems for car parks associated with major shopping centres and other large commercial developments where new facilities or major extensions to existing facilities are proposed.

SM7 Objective 9:
To ensure that car parking is designed in such a manner as to promote visual amenity, green infrastructure, carbon sequestration and sustainable drainage (SuDS) by applying the following requirements:

- → Provision of landscaping integrated into the design of all car parking, to include planting of native trees and pollinator species;
- → Provision of not more than two parallel or five perpendicular spaces between trees/planting bays;
- → Use of permeable paving, where appropriate.

SM7 Objective 10:
To ensure that parking provision, including the provision of EV charging facilities, does not detract from the comfort and safety of pedestrians and cyclists, visual amenity or the character of an area. (refer also to Chapter 10 *Energy*).

SM7 Objective 11:
To review and seek to improve the issue of on-street car parking in housing estates to eliminate any road safety or social issues they present, where issues of safety are clearly identified.

7.11 Climate Action Audit

Climate Action Audit

Source of Green House Gases (GHGs)	Measures to Address Climate Impacts
The source of GHGs from **transport** principally arises from: → Emissions from engines powered by petrol and diesel.	The Development Plan contains policies and objectives which promote measures that have the potential to reduce the climate impact of **transport** by encouraging a shift from private motorised transport to walking, cycling and public transport. Measures to achieve this modal shift include the following: → Implementing compact growth and sustainable movement and placemaking concepts in the planning and design of new development areas; → Planning, design and implementation of major walking and cycling networks (Cycle South Dublin, Grand Canal and Dodder Greenways, etc.); → Implementation of permeability projects to facilitate active travel and connectivity to public transport; → Active support for public transport projects; → Design of streets and roads to prioritise active travel; → Parking policies tailored to reflect land-use, location and public transport accessibility; → Demand management measures such as car park charging regimes linked to public transport accessibility; → Requiring mobility management plans for major developments; → Promoting an increase in EV charging facilities. Other climate-positive measures include: → Ensuring that transport corridors perform a function as green infrastructure links through tree planting and landscaping and incorporation of SuDS features; → Ensuring that design of car parking incorporates planting, permeable surfaces (where appropriate) and SuDs features.