

03 EXISTING TRANSPORT CONTEXT

If we continue with present policies, congestion will get worse, transport emissions will continue to grow, economic competitiveness will suffer and quality of life will decline.

Smarter Travel - A Sustainable Transport Future

The first task in the preparation of the Strategy was to undertake an assessment of existing transport conditions. This chapter outlines the current situation and conditions within the CMA in the context of land-use, transport supply and movement patterns.

Study Area

The Cork Metropolitan Area (CMA) was previously defined by the Cork Area Strategic Plan (CASP) and includes Cork City, its suburbs and the towns and rural areas in the immediate hinterland of the City of Cork as a single integrated unit.

The CMA covers 820km² and has a population of just over 305,000, as determined from the Census 2016.

The Study Area encompasses Cork Harbour and the Port of Cork. The River Lee runs directly from the harbour through the centre of the metropolitan area splitting into two channels which form the centre island of Cork City. The area is characterised by hilly, steep terrain to the north and south of the city.

Cork City is home to two large third level education centres, University College Cork (UCC) and Cork Institute of Technology (CIT), which are both located in the southwest of the city as is Cork University Hospital (CUH). The area is served by Cork Airport, located in the south of the city, Intercity and suburban rail services, and regional and city bus services. These are discussed in further detail in this chapter.

There are significant employment centres within the current City Council administrative area particularly in Mahon, the City Centre, Model Farm Road and southwest of the City at Cork University Hospital and Wilton. Outside the City, there are notable employment clusters at Cork Airport, along the N25 corridor and within Ringaskiddy, Ballincollig and Little Island.

Existing CMA Movement Context

There is in the region of 820,000 trips originating within the CMA on average each weekday (over 24 hours) with the morning peak and late afternoon being the busiest periods. The late afternoon trip intensity is due to the prominence of education trips as well as retail and leisure trip purposes.

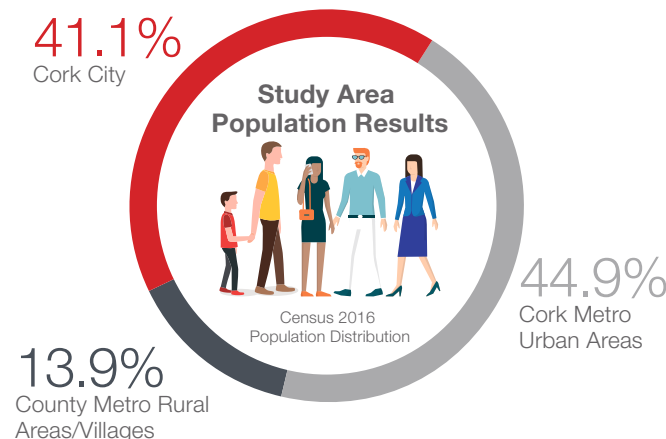
Trips to places of education make up the highest percentage of trips in the morning peak - representing 36% of the total. Whilst the volume of commute trips is also significant at 29%, 'other trip' purposes make up a greater proportion of 35%. These trips comprise of shopping, leisure, business and visiting friends or family representing 50% of all trips over the course of the whole day.

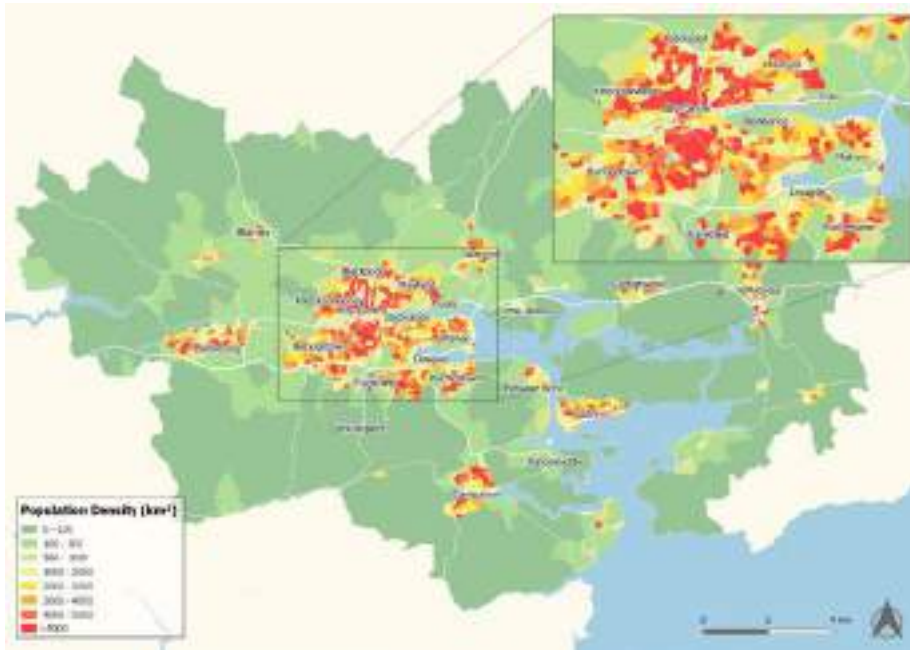
There is a dispersed pattern for journeys to work generally within the Metropolitan area. The private car tends to be used for radial trips into/out of the City as well as for trips on orbital routes between employment centres, such as along the N40.

Existing Development Patterns

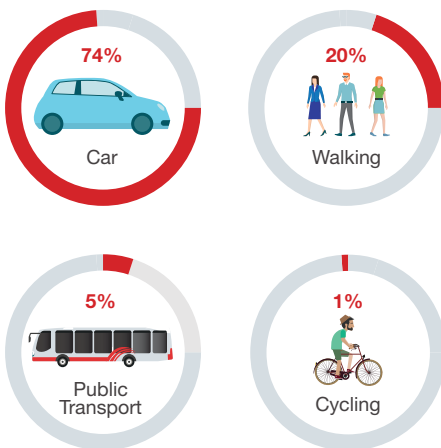
The residential population within the study area is primarily focused in urban areas comprising of Cork City, its environs, and the surrounding settlements. There is a higher residential population within the south of Cork City compared to the north.

The distribution of the population within the south of the City extends further east-west than north-south (roughly 10km east-west from Mahon to Bishopstown and 5km north-south from the City Centre). The most populated area outside the City is within the south Environs including Douglas.





2016 POPULATION DENSITY



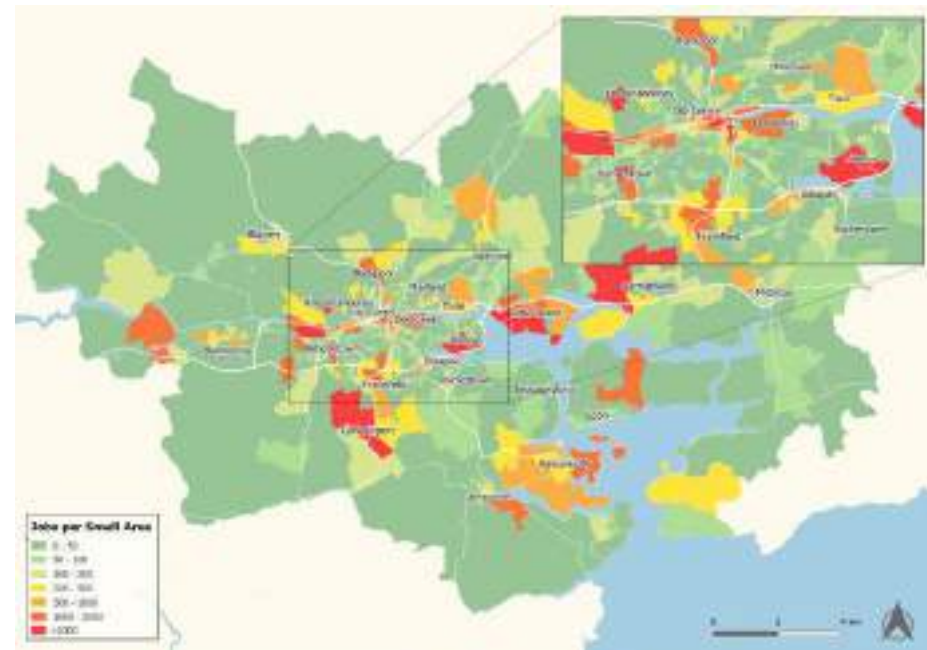
SWRM 24-HOUR MODE SHARE ACROSS THE CMA

CMA Mode Share

The current limitations of the public transport provision in the CMA are reflected in the low mode share for public transport of 5% across the whole day and all trip purposes.

Only 7% of journeys to work in Cork City are undertaken by public transport, whereas across the whole Metropolitan area, the equivalent figure is 3%.

By comparison, walking has a 20% mode share, while the dominant mode is car which is used for 74% of trips throughout the region. Cycling makes up the remainder of trips over the course of the day, with 1% of all trips made by bike.



2016 JOBS PER CSO SMALL AREA

Approximately 86% of trips to work in the Metropolitan area outside of the urban area are by car, with the car mode share reducing to 65% within the City boundary. This reflects the very high rate of car dependency in the non-urban areas of the CMA.

Current Transport Provision

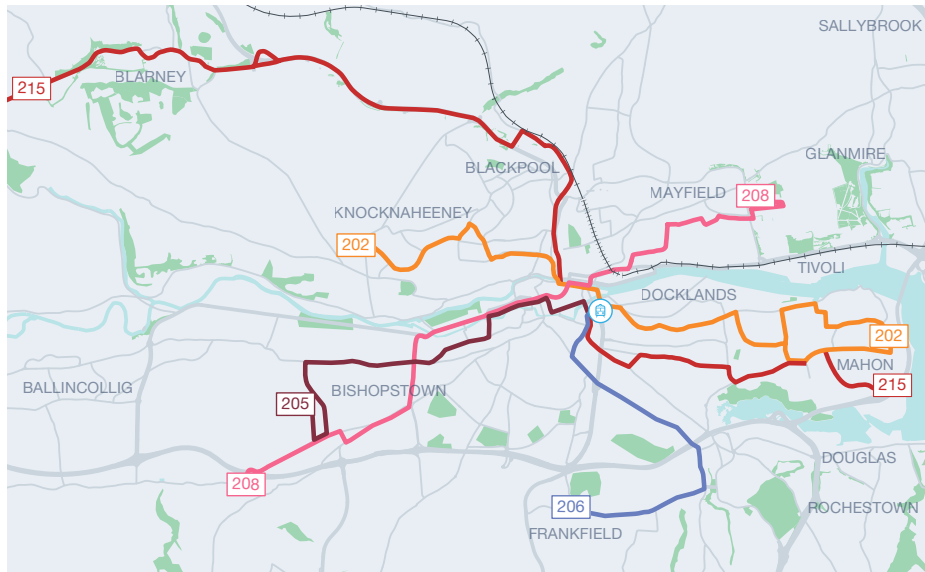
Local and Regional Bus Services

The Cork City network, operated as a State subvented network contracted by the NTA, offers a reasonably extensive coverage of the City. The majority of city bus services operate cross city and radially from the City Centre, with some orbital routes catering for inter-suburban trips and providing connections to both UCC and CIT.

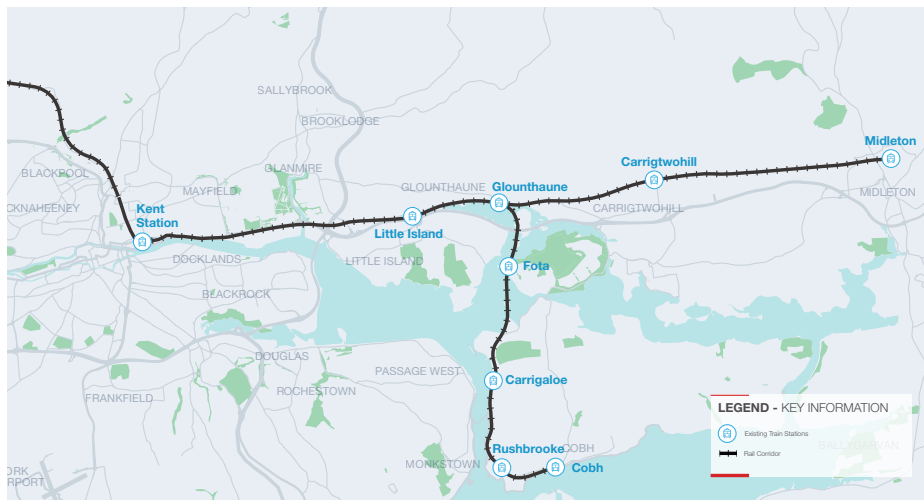
The frequency of services varies across the network and there are only five 'high frequency' routes (generally every 10 to 20 minutes).

There is a higher concentration of frequent bus services in the south of the city compared to the north reflecting the distribution of population. The City network extends beyond the City boundary to serve high populations and employment centres including the South City Environs, Ballincollig, Ringaskiddy and Blarney.

The fare structure has also recently been changed enabling passengers in these areas to avail of the lower cost city fares.



EXISTING HIGH FREQUENCY BUS SERVICES



EXISTING RAIL NETWORK

Within the wider metropolitan area there are regular bus services serving the main settlements, but no orbital services operating across the wider metropolitan area or through the Jack Lynch Tunnel. Longer distance bus services are generally characterised by limited stop coach services operated by Bus Éireann from their Cork City bus station on Parnell Place. There are a limited number of licenced commercial bus services such as the recent Cobh Connects service linking Cork City with Cobh.

Longer distance trips extending beyond the CMA are well served by a variety of commercially licensed bus services. Cork City Centre has an extensive one-way traffic system that has a negative impact on public transport operations as bus routes are separated on inward and outward legs. This can be confusing for infrequent bus passengers and visitors to the City unfamiliar with the city bus network. Certain bus routes are also separated due to restricted road widths.

Rail Network

Cork City is reasonably well connected on the Irish Rail Network offering connections within the CMA to Cobh, Rushbrooke, Carrigaloe, Fota Island, Midleton, Carrigtwohill, Glounthaune and Little Island.

The Cork–Dublin rail line, providing hourly services, is the top performing InterCity line in the country in terms of passenger numbers. Apart from the direct InterCity morning service to Dublin, connections are available at Mallow, Limerick Junction and Heuston Station in Dublin.

All rail services in the CMA operate to and from Kent station. The location of the station and its current access and layout arrangements are not ideal for accessing the City Centre. Way-finding and legibility are poor despite some recent improvements. The one-way traffic system around the station also negatively impacts bus journey times and the attractiveness of rail-bus interchange.

Less than 1% of all goods transported in Ireland are now transported by rail freight. Port of Cork, traditionally one of the biggest generators of rail freight movements, had a rail freight facility at Tivoli serving the Port. However, in recent years the station has become disused and freight movements are now undertaken by road.

Cycle Network

The past five years has seen significant improvements in cycling infrastructure primarily within in the City Centre as part of the roll out of the Cork City Centre Movement Strategy.

Whilst the cycle network is improving, the present network is disjointed and of variable quality. This is particularly the case outside the immediate City Centre where there is currently a lack of quality cycle infrastructure and segregated routes on roads with traffic speeds of over 30kph. The steep topography in parts of the CMA poses a barrier to cycling.

Nonetheless, the success of recent improvements, not least the calls to extend the bike share scheme and use of the cycle network, demonstrate a significant latent demand for cycling as either a primary mode of choice in its own right, or as part of linked trips with public transport.

Pedestrian Network

Walking levels and the quality of the pedestrian environment vary considerably across the CMA. This reflects differing intensities of land use, changing movement and place priorities and community severance caused by physical barriers such as waterways and heavily trafficked vehicular routes. Cork City Centre has a well-established pedestrian network with a generally attractive and walkable environment. Outside of the City Centre, the quality of the pedestrian environment is inconsistent even allowing for changes in topography.

Many of the key arterial walking routes to the City have inconsistent footpath quality and sub-standard widths in some areas particularly at local and neighbourhood centres. Some residential areas including Ballinlough, Ballintemple, Sundays Well and Blackrock lack footways on certain parts of the network and pedestrian priority over local junctions.

Across the CMA, attempts to promote higher and safer levels of walking trips to shops, local services and schools are undermined by a lack of permeability in housing and retail development layouts. The development of community facilities in unsuitable locations that lack supporting pedestrian infrastructure is also an issue.

Cars parked illegally on the footpaths and at dropped kerbs is a recurring problem, reducing sightlines and forcing pedestrians including those with mobility impairments onto the carriageway.

Other barriers to walking and access to public transport for people with disabilities and push chairs, include insufficient crossing times at signalised junctions, street furniture clutter, and a lack of public seating and toilets.

Improving the quality of the pedestrian network and the environment to support safer and higher levels of walking and accessibility to other forms of transport will be a key objective of the Strategy.

Strategic Road Network

The movement of goods and services within the CMA is supported by the strategic road network comprising eight national roads, five of which form part of the TEN-T (Trans European Network - Transport) Core and Comprehensive network.

There is a major reliance on strategic roads such as the N28 (connecting with Ringaskiddy), N27 (connecting with Cork Airport), N40, M8, N25 and N20 for national, regional and local connectivity. Maintaining the capacity of the roads with optimal levels of service is of critical importance for growing the economy of Cork.

There is capacity in parts of the strategic road network but also high volumes of traffic in certain areas, resulting in congestion at some pinch-point locations, including the Dunkettle Interchange and sections of the N40.

Transport Infrastructure Ireland (TII) is progressing the upgrade of the Dunkettle Interchange and has completed a Demand Management Study for the N40 corridor, identifying a number of low cost interventions aimed at improving traffic flow and maintaining capacity.

The CMA lacks a strategic orbital corridor to the north of the city resulting in strategic traffic and Heavy Goods Vehicles (HGVs) from the N20 routing through the City adding to congestion in residential streets and within the City Centre itself.

The enhancement and management of the road network for the movement of strategic traffic will be an important aspect of the CMA's future transport network including measures identified in TII's N40 Demand Management Study

Regional and Local Road Network

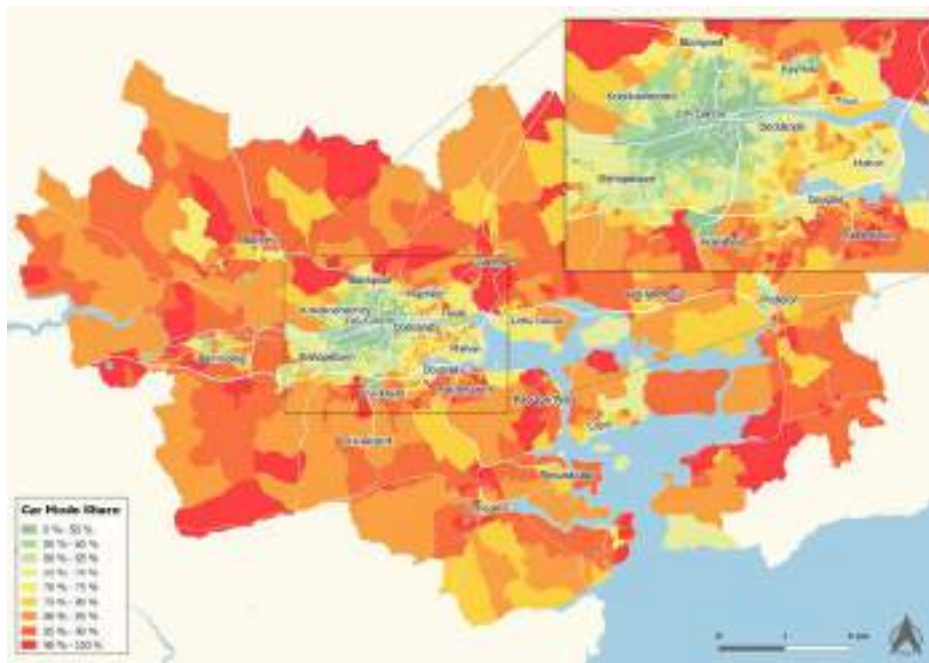
The regional and local road network provides access to local services and links communities. The current local road network has evolved over many years but may be considered unsuitable to facilitate the safe and efficient movement of people and goods in the future. There are very few orbital routes in Cork City resulting in local journeys routing through the City Centre or redistribution to the National Road network for local trips.

Congestion is experienced during peak periods within the City Centre and on radial routes. In many areas, the opportunity to provide additional road capacity is limited and often undesirable in terms of the impact it would have on the quality of the urban realm.

To provide for a better, more efficient and sustainable transport network, **there are a number of key challenges that must be addressed by CMATS.**

Traffic congestion and delays will inevitably rise with future growth if the current dependence within the CMA on the private car is not addressed.

Many parts of the local road network fail to make appropriate provision for pedestrians, cyclists, those with mobility impairments and other vulnerable road users including children. Nowhere is this more apparent than on roads serving recently developed residential areas on the edge of the city's built up area.



2016 CAR MODE SHARE

Summary and key challenges to be addressed within CMATS

Cork's transport network is coming under increasing strain and the existing network will not support the future transport needs of a growing City and Metropolitan area. Cork has a very high mode share for car and unless the attractiveness of alternative modes of transport is enhanced, Metropolitan Cork will continue to have high levels of car dependency, journey delays, congestion and pollution, which all have impacts on quality of life.

To provide for a better, more efficient and sustainable transport network, there are a number of key challenges that must be addressed by CMATS. These include:

- Ensuring that the transport network can support the population, employment and educational growth as envisaged by the NPF 2040;
- Supporting the vibrancy, accessibility and liveability of Cork City Centre and Metropolitan centres;
- Ensuring that future development is located and designed in a fashion that prioritises walking, cycling and public transport and reduces the need to travel by car;
- Improving the public transport offering through higher frequency services operating with greater speed, directness and journey time reliability;
- Balancing the needs of different transport modes to better support the movement of people through the transport network, particularly within the confines of the limited space available in parts of the City;
- Increasing residential density levels on the basis of centrality within centres and public transport accessibility;
- Accommodating a greater number of trips more efficiently by maximising connectivity by walking, cycling and public transport to major employment and education centres;
- Supplementing the public transport network with complementary facilities such as Park and Ride for the benefit of people accessing the city from the surrounding rural areas;
- Maintaining an effective strategic road network in the CMA that is integrated with the wider national road network to cater for strategic through trips and the movement of goods especially serving the expanding Port of Cork facilities at Ringaskiddy and Marino Point;
- Maximising existing transport infrastructure including the InterCity and Commuter rail network and Cork Airport;
- Overcoming physical constraints for transport presented by the challenging topography and physical features in Cork;
- Improving transport infrastructure in a cost-efficient manner that will support the case for funding and investment;
- Achieving efficiency and resilience within Cork City Metropolitan Area's transport network;
- Improving the safety of road users in Cork through the reduction in traffic collisions and incidents;
- Prioritising active modes (walking and cycling) to improve health benefits; and
- Reducing the impact of transport on the environment through targeted measures to limit the negative impact of air and noise emissions.



04 CMATS 2040 LAND USE

Supporting ambitious growth targets to enable Cork to grow by at least 50% to 2040 and to enhance its significant potential to become a city of scale.

National Planning Framework 2040

In February 2018, the Government published the NPF 2040. This document sets out the planning policy framework for the next 22 years. The publication of the NPF provides a major new policy emphasis on renewing and developing existing settlements, rather than continual expansion and sprawl of cities and towns into the countryside, at the expense of town centres and smaller villages.

National Growth

The NPF 2040 document estimates that the population of Ireland will increase by approximately 1 million people by 2040 with a requirement of an additional 600,000 jobs and a minimum of 500,000 additional homes.

The NPF recognises the role that Cork and the other regional cities of Limerick, Galway and Waterford have to play in providing a counter-weight to Dublin and assigned a minimum population growth forecast of 50-60% to each regional city.

Regional Growth

The NPF 2040 will be translated at a regional level, metropolitan and local level through the production of the RSES, MASPs and the forthcoming Development Plans and Local Area Plans of both Cork City Council and Cork County Council.

As discussed in Chapter 2, the draft RSES and MASP was open for consultation between December 2018 and March 2019. These provided population projections to the horizon year of 2031 for both Cork City and Suburbs (283,669) and the Rest of the Cork Metropolitan Area (125,157). In the absence of a definitive land use distribution for the CMA, assumptions have been made considering the NPF National Planning Objectives and the statutory Development Plans of both Cork local authorities.

Additionally, the Strategy transport measures have been developed to be scalable, flexible and have adequate reserve capacity to allow for any changes in growth that may arise from the RSES and MASP processes to be catered for by the proposed strategy network.

NPF National Policy Objectives

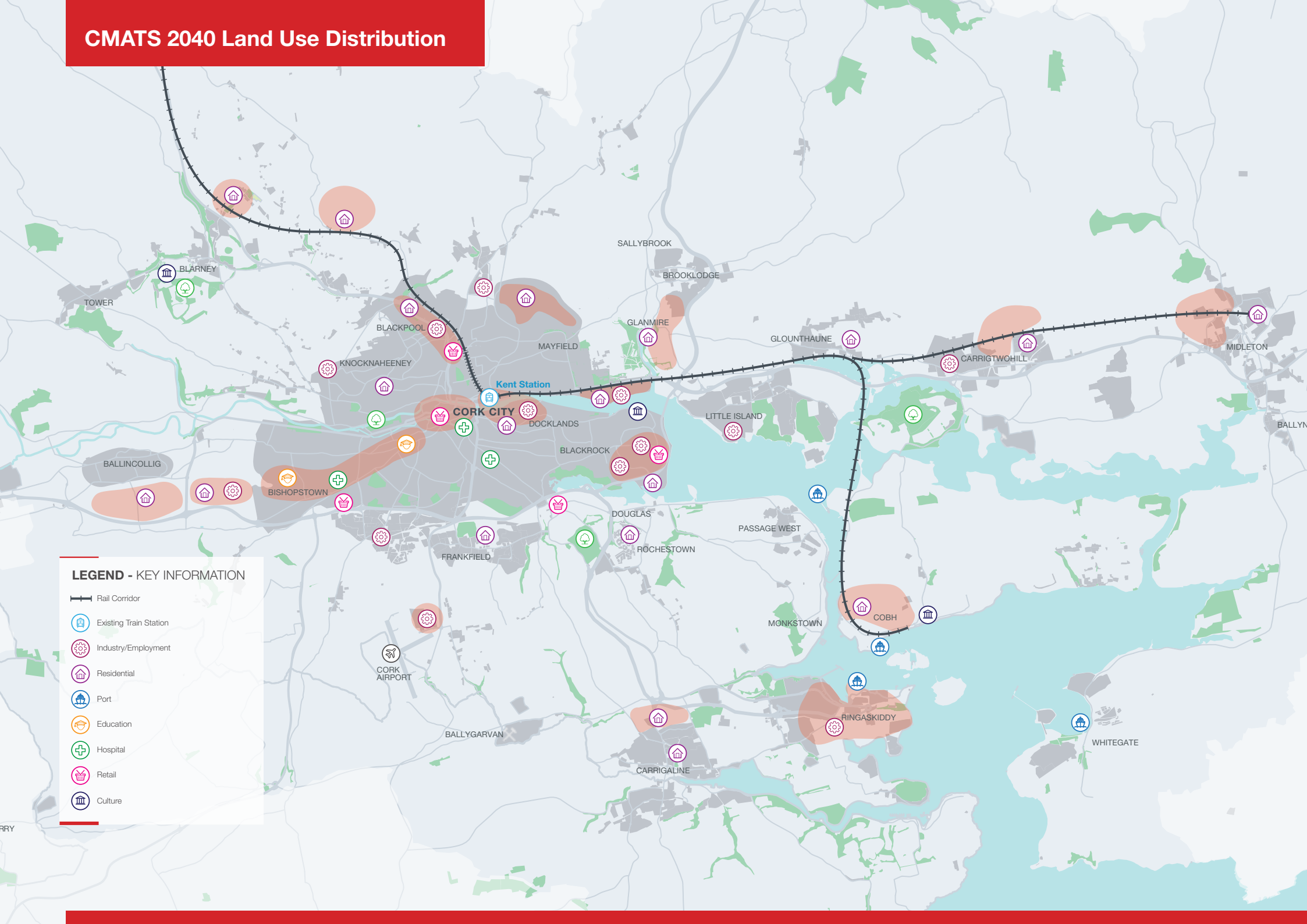
The various policies within the NPF are structured under National Policy Objectives (NPOs). NPOs were developed following extensive analysis and consultation and set a new way forward for regional and local planning and sustainable development policy in Ireland. The NPOs have been used as the basis to develop the land-use growth targets and distribution of growth for CMATS, along with the core strategies within the Cork City and Cork County Development Plans.

Some of the key NPOs relevant to the development of CMATS include:

- NPO 1b – Southern Region population growth of between 340,000-380,000 to 2040 i.e. a target population of almost 2 million;
- NPO 1c – 225,000 additional people in employment in the Southern Region i.e. 880,000 in total;
- NPO 2a – A target of half (50%) of future population and employment growth will be focused in the existing five cities and their suburbs;
 - This translates into a targeted population growth for the Cork City and Suburbs (NPO8) of between 105,000 and 125,000 above 2016 levels.
- NPO 3 – The NPF sets a target for at least 40% of all new housing to be delivered nationally within the existing built-up areas of cities, towns and villages on infill and/or brownfield sites;



CMATS 2040 Land Use Distribution



- This translates to 50% of the growth to be accommodated within the built-up footprints of the Cork City and Suburbs and 30% of the growth in surrounding settlements within their existing built-up footprints.
- NPO 9 – In each Regional Assembly area, settlements outside of ‘City and Suburbs’ may be identified for significant (i.e. 30% or more) rates of population growth at regional and local planning stages;
- The NPF makes specific reference to the fact that these settlements may lie within the commuter catchment of the city or areas that have potential for high levels of travel by sustainable modes;
- For Cork, this would align with settlements along the existing rail line and future high capacity transport corridors;
- NPO 68 – NPF outlines that Metropolitan Area Strategic Plans (MASPs) may enable up to 20% of the phased population growth targeted in the principal City and Suburban area, to be accommodated in the wider metropolitan area i.e. outside the city and suburbs, in addition to growth identified for the Metropolitan area. The NPF states that this should be subject to:
 - Any relocated growth being in the form of compact development, such as infill or a sustainable urban extension; and
 - Any relocated growth being served by high capacity public transport and/or related to significant employment provision.

- NPO 69 – Statutory arrangements between spatial planning and transport planning in the Greater Dublin Area will be extended to other cities.

RSES Regional Growth Objectives

The draft RSES and MASP have built upon the above NPOs translating them into the regional context. These objectives provide a strong framework for CMATS to shape the distribution of growth targets integrating land use and transport planning.

Cork Draft MASP Policy Objective 7 outlines objective around Integrated Land Use and Transport Planning seeking infrastructure led:

- Regeneration, consolidation and growth of the City Centre, docklands and city suburban areas;
- Regeneration, consolidation and growth of strategic residential and employment nodal locations along a light rail corridor;
- Regeneration, consolidation and growth of strategic residential and employment nodal locations along the suburban rail corridor; and
- Regeneration, consolidation and growth of strategic residential and employment nodal locations along the BusConnects corridors. Strategic initiatives at the Cork Science and Innovation Park and international transport gateways of the Port of Cork and Cork Airport are also supported as priority locations under the MASP for transport infrastructure investment.

CMATS Land-Use Outcome

CMATS supports the delivery of the 2040 population growth target for the Cork Metropolitan Area of 172,000 persons (125,000 for Cork City and 47,000 for the County Metropolitan area and attendant jobs and education growth.

Metropolitan Cork will be a national driver of population growth and economic activity over the lifetime of CMATS. To support the compact growth aspiration of the NPF 2040, Cork City will become the focus for significant regeneration opportunities at brownfield locations such as the Cork Docklands, Blackpool and Tivoli.

In terms of employment and education, CMATS prioritises development along its identified high capacity public transport corridors. Increased employment growth along the proposed Ballincollig-City Centre-Docklands-Mahon high capacity public transport corridor is envisaged while also serving the significant education, health and research cluster at University College Cork, Cork Institute of Technology and Cork University Hospital.

The development of the proposed Science and Innovation Park at Curraheen is supported to further increase demand for the corridor.

Across the wider Metropolitan area, clusters of employment, population, education, health and institutional services will be located mainly within or at the edge of existing urban settlements such as Glanmire, Ballincollig and Cobh.

However, in line with Cork County Council's nine designated Urban Expansion Areas, there will be limited greenfield development along identified high capacity transport corridors such as Water-Rock and Carrigtwohill North (on the Midleton-Cork rail line) and Monard and Stoneview (on the Mallow-Cork rail line).

The Strategy supports the growth of strategic employment growth areas located along the Mallow and Midleton/Cobh rail lines at Blackpool, Tivoli, Little Island, Carrigtwohill, Midleton and Cobh. Little Island is identified as a key strategic employment area with significant capacity potential.

A number of strategic employment sites exist within the CMA at Cork City Centre, Docklands, Ringaskiddy and Cork International Airport. They have significant comparative advantages and their continued growth is supported in this Strategy.

Ringaskiddy, Marino Point, Whitegate and Cobh are identified for employment growth through the facilitation of the planned re-development of the Docklands with relocation of industrial uses and major port facilities. Cork International Airport has significant capacity for growth as a gateway for business and tourism through transatlantic flights routes, proximity to London and continental Europe.

CMATS Land-Use Priorities

This Strategy is confronting a historical legacy which saw significant levels of growth and migration of land uses to suburban and peri-urban fringe locations, typically at lower densities and unconnected to existing and planned public transport services.

To ensure the success of this Strategy, the planning policy frameworks and implementation measures of both Cork City Council and Cork County Council must look to target higher development densities in areas where opportunities exist for sustainable transport provision and in a manner that better aligns the provision of transport with demand.

CMATS will provide this opportunity to integrate new development at appropriate densities with high capacity public transport infrastructure in conjunction with more attractive walking and cycling networks and associated public realm improvements.

This has the potential double benefit of extending the catchment of sustainable modes to more people and places and improving the viability of future investment in public transport by attracting higher demand.

Guided by the principles of the NPF, the following strategy development priorities for the distribution of land-use have been identified for the CMA:

- Ensure effective integration between transport and land-use through the delivery of Public Transport Orientated Development (PTOD). PTOD is consolidated development that provides higher density, a balanced mixed of land uses and compact settlements that reduce trip distances and are of a magnitude that supports the viability of high capacity public transport;
- The application of this principle in Cork will result in a high-intensity, mix of uses being directed to locations at existing or planned stations along the suburban and light rail lines and along the high frequency bus corridors;
- The density of future residential and employment developments such as the Tivoli Docks and existing, centrally located and accessible settlements including Cork City and the City Docks will be increased. Higher densities contribute to a more compact urban footprint that brings more people closer to destinations and public transport services with easy walking and cycling distance;

