



# **Chapter 5 Sustainable Mobility & Transport**

#### 5.1 Introduction

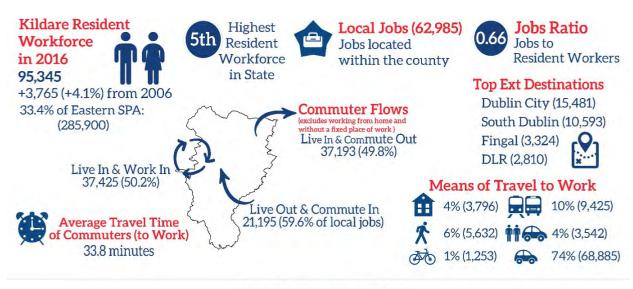
Aim: To promote and facilitate ease of movement within and through County Kildare, by integrating sustainable land use planning and a high-quality integrated transport system; and to support and prioritise investment in more sustainable modes of travel, the transition to a lower carbon transport system, and the development of a safer, efficient, inclusive, and connected transport system.

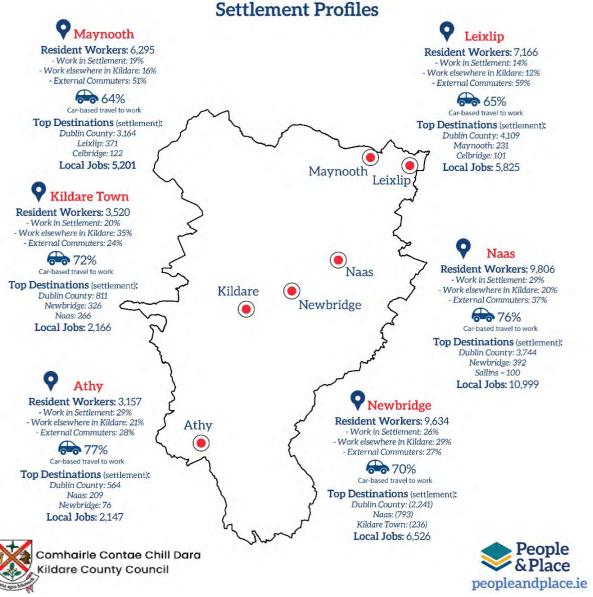
The transportation system caters for the movement of communities and businesses across County Kildare. Inequalities in job opportunities between the north and south of the county are an outcome of an uneven development paradigm centred on large urban centres. Good public transport could ameliorate this by improving access to employment. See the Road and Rail Network of County Kildare on Map 5.1. National and regional transport policy recognises that current transport trends in Ireland and the Greater Dublin Area, in particular, in relation to current levels of car use, are unsustainable and that a transition towards more sustainable modes of transport, such as walking, cycling and public transport is required.

In recent decades dispersed land uses have resulted in people needing to drive to avail of services and facilities. Solidifying the evidential approach to well-planned settlement expansion and new communities, while encouraging the compact growth of existing settlements, will support the establishment of sustainable travel patterns and the Council's climate change goals. This concept aligns with the principles of promoting compact urban development and sustainable mobility, promoted by both the National Planning Framework (NPF) and the Regional Spatial Economic Strategy (RSES).

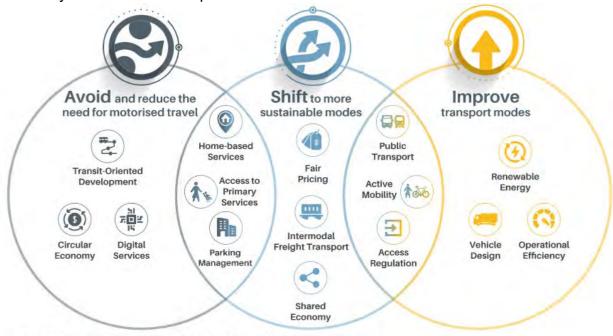
Appetite for more liveable, people-oriented cities is driving a surge of interest in the development and delivery of a '10-minute settlement' concept which seeks to have a range of facilities and services accessible within a short walking or cycling timeframe from home or accessible by public transport services within a short walk from home. It is also a key target of the National Physical Activity Plan to increase the number of people taking regular exercise by 1% a year over ten years by making exercise a normal part of everyday life and providing people with more opportunities to be active.

If current trends in relation to vehicular traffic continue, congestion will undoubtedly increase, transport emissions will grow, economic competitiveness will suffer and quality of life within Kildare will decline. Kildare County Council recognises its important role as a local authority in increasing accessibility, promoting active travel modes and reducing car use by a variety of means and to better integrate land use and transportation planning. The Council, through this and other plans, will proactively engage with the National Transport Authority and other relevant transport agencies in seeking to achieve the above.





The overall policy direction of this chapter is to adopt the 'Avoid-Shift-Improve' measures which is outlined in Figure 5-1 below. This approach is based on avoiding or reducing the need to travel, shifting to more environmentally friendly modes and improving the energy efficiency of motorised transport modes.



\*The A-S-I diagramme presents a non-exhausive list of measures for illustrative purposes only.

**Figure 5.1 –** Avoid-Shift-Improve<sup>1</sup>

In addition, this chapter adopts the 'Decide and Provide' approach to plan for the travel demand deemed necessary. This approach involves deciding on a preferred future that is desirable and achievable and providing a development path best suited to achieving it.

This County Development Plan (CDP) contains a series of sustainable transport goals, 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 the use of the private car. Furthermore, the CDP includes sustainable transport indicators, including mode share targets, for the purpose of monitoring the efficacy of policies and objectives.

### **5.2 Policy Context**

Sustainable Movement and Transport are underpinned by policy at a national and regional level. The sustainable mobility policies and objectives in this plan have been informed by the following policy documents and strategies:

<sup>&</sup>lt;sup>1</sup> SLOCAT. 2020. Avoid-Shift-Improve Refocusing Strategy, https://slocat.net/asi/.

# 5.2.1 National Planning Framework and National Development Plan - Project Ireland 2040 (NPF)

The NPF recognises the importance of an integrated approach to land use and transport planning in achieving the NPF outcomes. The outcomes of relevance to the Movement and Transport Chapter are:

- NSO 1 Compact Growth,
- NSO 2 Enhanced Regional Accessibility,
- NSO 3 Strengthened Rural Economies and Communities,
- NSO 4 Sustainable Mobility,
- NSO 5 a Strong Economy supported by Enterprise, Innovation and Skills
- NSO 8 Transition to a Low-Carbon and Climate Resilient Society.

#### 5.2.2 The Planning Land Use and Transport – Outlook 2040

This document was under preparation by the Department of Transport, Tourism and Sport at the time of writing. This document will comprise of a long-term framework to support the prioritisation of transport interventions and investment to further support the delivery of the National Strategic Outcomes.

#### 5.2.3 Regional Spatial and Economic Strategy (RSES), 2019-2031

The RSES acknowledges that the transport sector is one of the main contributors to national Green House Gas (GHG) emissions and emphasises the importance of promoting a modal shift away from a dependence on the private car to more sustainable modes of transport, in order to facilitate greater efficiency in transport networks thereby addressing the impacts of climate change.

The Dublin Metropolitan Area Strategic Plan (MASP) in Chapter 5 of the RSES contains Regional Policy Objective 5.2 which will 'support the delivery of key sustainable transport projects including Metrolink, DART and LUAS expansion programmes, BusConnects and the Greater Dublin Metropolitan Cycle Network and [will] ensure that future development maximises the efficiency and protects the strategic capacity of the metropolitan area transport network, existing and planned'. While the MASP does not cover all of County Kildare (concentrating on the north of the county), it is envisaged that the infrastructure developments in these areas such as DART + West and South-West and the BusConnects programme will positively enhance north Kildare and encourage a natural modal shift towards more sustainable modes of transport. Furthermore, the electrification of the lines to Maynooth/Kilcock and south to Hazelhatch/Sallins, etc., will assist in freeing capacity and improving service times to other settlements served by the national train network.

#### 5.2.4 Climate Action Plan 2021

This plan sets a roadmap for taking actions that would halve emissions by 2030 and reach net zero no later than 2050. The plan calls for a significant cut in transport emissions by 2030 through measures including:

- 500,000 extra walking, cycling and public transport journeys per day by 2030.
- Increasing the proportion of kilometres driven by passenger electric cars to between 40 and 45% by 2030, in addition to a reduction of 10% in kilometres driven by the remaining internal combustion engine cars.
- All replacements for bus and commuter rail vehicles and carriages to be low or zero carbon by 2030.
- Increased rollout of rural public transport through Connecting Ireland [42-50% reduction in emissions by 2030]

#### 5.2.5 National Sustainable Mobility Policy (2022)

The Sustainable Mobility Policy sets out a strategic framework for active travel and public transport in Ireland to 2030. This Policy is primarily focused on measures to promote and facilitate active travel and public transport for all and, in doing so, encourage less private car usage.

The Policy is guided by three key principles which are underpinned by 10 high-level goals. The key principles are:

- Safe and Green Mobility
- People Focused Mobility
- Better Integrated Mobility.

An action plan (2022 -2025) accompanies the policy and includes a comprehensive range of new and expanded measures across the 10 high-level goals. The plan will be reviewed and updated in 2025 and a new action plan will be put in place for 2026 to 2030.

# 5.2.6 Spatial Planning and National Roads Guidelines for Planning Authorities (DECLG), 2012

These guidelines set out planning policy considerations relating to development affecting national primary and secondary roads, including motorways and associated junctions, outside the 50-60km/h speed limit zones for cities, towns and villages.

These guidelines encourage a collaborative approach between planning authorities and TII in ensuring that Ireland's national road system is planned for and managed in an integrated manner enabling economic development while encouraging a shift towards more sustainable travel and transport.

#### 5.2.7 Design Manual for Urban Roads and Streets (DMURS), 2019

DMURS provides mandatory guidance for all urban roads and streets within the 60 km/h urban speed limit. It seeks to address street design within urban areas (i.e. cities, towns and villages) and to put well designed streets at the heart of sustainable communities. It sets out a clear and integrated design approach which seeks to balance the needs of residents and visitors (place function) with the needs of pedestrians, cyclists, public transport, cars and goods vehicles (the transport function) while incorporating good planning and design practice with a focus on the public realm.

#### 5.2.8 Draft Transport Strategy for the Greater Dublin Area, 2022-2042

This strategy provides a framework for the planning and delivery of transport infrastructure and services in the Greater Dublin Area (GDA) over the next two decades. The Strategy sets out measures that the NTA believes are essential in meeting the objectives of the transport strategy to foster sustainable development and to fully integrate land use planning and transport planning, as a means of reducing travel demand both in terms of numbers of trips made and the length of trips. The objectives of the Strategy are:

- An Enhanced Natural and Built Environment
- Connected Communities and Better Quality of Life
- A Strong Sustainable Economy
- An Inclusive Transport System

#### 5.2.9 Connecting Ireland Rural Mobility Plan, November 2021

Connecting Ireland is a major public transport initiative developed by the National Transport Authority (NTA). The plan aims to improve mobility in rural areas, and it will do this by providing better connections between villages and towns by linking these areas with enhanced regional networks, connecting cities and regional centres nationwide. As part of the five-year Connecting Ireland plan, the NTA is proposing an overall increase of approximately 25% in rural bus services which will provide 70% of people in rural Ireland with access to public transport service which will include at least three return trips daily to the nearby town. (This compares to the current figure of 53%.) The Connecting Ireland Plan identified a number of Regional Corridor Proposals and the following Local Route proposals for County Kildare:

- A new route from Sallins to Arklow via Naas, Blessington, Glendalough, Wicklow and Rathdrum.
- A new route from Newbridge to Naas via Kilmeague, Allenwood and Caragh.
- Alter route 880 from Carlow to Maynooth to serve Narraghmore and Calverstown.
- A new route from Carlow to Sallins via Castledermot, Baltinglass, Blessington and Naas.

#### 5.3 Overarching Goals, Policies and Objectives

A sustainable transport system is one that is accessible, safe, environmentally-friendly, and affordable. (ECMT 2004) This definition indicates the need for a balance between social, economic, and environmental goals, policies and objectives. Although Figure 5.2 below fits each goal into a specific category, they often overlap. Generally, pollution is considered an environmental issue, however it also affects human health (social issue), and the tourism industry (economic issue). The Kildare County Development Plan 2023-2029 is committed to focusing on the need to underpin the planning process with an integrated approach to sustainable transport. Integrated land-use and transportation has a key role to play in delivering social, economic and environmental sustainability.

#### **Environmental**

- Climate change prevention and mitigation
- Air, noise and water pollution prevention
- Non-renewable resources conservation
- Biodiversity protection

#### Social

- Community Cohesion
- Safety and Security
- Public Fitness and Health
- Social Equity (Fairness)

#### **Economic**

- Affordability
- Efficient Transport
   Operations
- Economic Productivity
- Economic Development

## Good Governance and Planning

Integrated, comprehensive, and inclusive planning

Figure 5.2 - Sustainable Transport Goals<sup>2</sup>

<sup>&</sup>lt;sup>2</sup> Source: Victoria Transport Policy Institute. Well Measured - Development Indicators for Sustainable and Liveable Transport Planning. June 2021

#### NTA's Workplace Travel Plans, A Guide for Implementers (2013)

The Covid-19 pandemic has created a shift towards a larger proportion of the population now working from home which reduces commuter congestion, in particular, car-based travel patterns. This change has had a broadly acknowledged and notable positive impact in reducing emissions from carbon dioxide and other pollutants. and assists with the new Climate Change agenda. While the 'living with Covid' future remains uncertain, there is a risk that old work and travel patterns and habits may return over time, if and when the pandemic wanes. In order to maintain the momentum that has been generated, Kildare County Council will encourage employers across all sectors to adopt Workplace Travel Plans in order to reduce car-based travel which plays a crucial role in reducing costs associated with air quality and noise, congestion and climate change. Workplace travel plans can include measures such as:

- Facilitating home working and teleconferencing.
- Introducing monthly and annual tax saver tickets for public transport.
- Dedicating priority parking for car-shares.
- Introducing the Cycle to Work scheme.
- Covering bicycle parking and proving lockers and showers.
- Reducing leased car parking.
- Introducing low-carbon business travel policies.
- Providing information on public transport availability locally.

#### **Compressed Natural Gas (CNG)**

In line with the sustainable transport goals of "Climate change prevention and mitigation" and "air pollution prevention", this plan supports the transition to a low carbon climate resilient and environmentally sustainable economy by addressing transport emissions. It is important to specifically address the transport emissions produced by HGVs as they are responsible for a disproportionate amount of transport emissions. HGVs comprised 4% of registered vehicles nationally in 2018, however, SEAI estimates indicate that they produced 14% <sup>3</sup> of total transport emissions <sup>4</sup>. Decarbonisation of HGVs is particularly challenging as electricity is currently not a viable alternative to diesel. CNG has the potential to address these transport emissions with reduced carbon emissions relative to diesel.

CNG is natural gas that has been compressed to fit into a vehicle's tank and is particularly suitable for use in commercial vehicles. The development of CNG infrastructure will enable fuel switching from diesel to CNG for HGVs and buses. The necessary infrastructure needs to be in place to support the technology and a modal shift in the HGV sector, in particular. This aligns with the RSES for the Eastern and Midland region which states that improved transport infrastructure "should be supported by increased availability of low carbon fuels/biofuels such as Compressed Natural Gas (CNG) as well as implementation of the National Policy Framework on Alternative Fuels Infrastructure for Transport in Ireland."

<sup>&</sup>lt;sup>3</sup> In calculating this figure SEAI include all goods vehicles over 2 tonnes.

<sup>&</sup>lt;sup>4</sup> SEAI. Transport. <a href="https://www.seai.ie/data-and-insights/seai-statistics/key-statistics/transport/">https://www.seai.ie/data-and-insights/seai-statistics/key-statistics/transport/</a>. Date of Access: 28/09/2021

# Policy

It is the policy of the Council to:

TM P1	Promote sustainable development through facilitating movement to,
	from, through and within the County that is accessible to all and
	prioritises walking, cycling and public transport.













# Objectives

it io ari objec	are of the oddfich to.
TM O1	Support the NTA Draft Transport Strategy for the Greater Dublin Area (2022-2042) and facilitate and secure the implementation of projects identified within the Strategy.
TM O2	Promote and drive a human-centred, whole journey approach to improving transport infrastructure and accessibility in County Kildare to ensure a seamless user experience. The use of kissing gates in active travel projects will not be permitted in cases where they would deny access to those using mobility aids and non-standard bicycles.
TM O3	Ensure the application of universal design principles in all new transport infrastructure (including public transport pick up points) and strive to adapt existing infrastructure to become more accessible, where feasible, in accordance with the County Kildare Access Strategy – A Universal Access Approach (2020-2022) and the Department of Justice and Equality's National Disability Inclusion Strategy (2017-2021).
TM O4	Support the use of gas in transport by a presumption in favour of applications for CNG refuelling infrastructure, subject to the satisfaction of normal planning and environmental criteria.
TM O5	Encourage the use of materials and engineering solutions that optimise natural surface water drainage as part of Sustainable Urban Drainage Systems (SUDS) with all new active travel, public transport, parking, road and street developments and ensure adequate replacement and additional planting of pollinator-friendly and native species.
TM O6	Support and encourage employers to develop and implement Workplace Travel Plans based on the NTA's Workplace Travel Plans: A Guide for Implementers (2013), in order to promote more sustainable travel options.
TM 07	Introduce measures to reduce traffic congestion in town centres such as pedestrianisation, pedestrian priority and/or improved pedestrian/cycling facilities, in particular increasing the number of safe crossings.
TM O8	Investigate the feasibility of locations for car-free residential, town centre and other developments, in appropriate locations near high quality, frequent public transport services, as part of the preparation of the suite of Local Area Plans.

TM O9	Support and encourage the transition from fossil fuel use and consider				
	the preparation of guidance for decommissioning of changing				
	infrastructure to more sustainable uses, through the preparation of the				
	Local Climate Action Plan.				

#### **Actions**

It is an action of the Council to:

TM A1	Prepare a County Kildare Sustainable Mobility Plan that addresses the long-term mobility needs of communities and businesses in the county in co-operation with the National Transport Authority that is aligned with the National Sustainable Mobility Policy (2022), the National Investment Framework for Transport in Ireland and the Draft Transport Strategy for the Greater Dublin Area 2022-2042. The plan should address urban and rural transport issues, the integration of transport modes and public transport connections between the towns and villages of the county.
TM A2	Prepare, implement and review (where appropriate) Local Transport Plans (LTPs)/ Area Based Transport Assessments (ABTAs) <sup>5</sup> for each of the statutory LAP settlements <sup>6</sup> in County Kildare in consultation with TII and the NTA, based on the following ABTA guidelines published by the TII/NTA – ABTA 'How to Guide', Pilot Methodology (September, 2021) and the Area Based Transport Assessment Advice Note (December, 2018). LTPs/ABTAs will include the transport priorities for each settlement in terms of public transport infrastructure and services; cycle investment; improvements to the pedestrian environment; parking measures and road enhancements. LTPs/ABTAs must be developed to provide a framework to cater for the movement of pedestrians, cyclists, public transport services and private vehicles which are aligned with the hierarchy of users and modal shift targets set out in this Plan. The Accessibility and Movement Objectives of Local Area Plans should be based on relevant LTPs/ABTAs.
TM A3	Identify filtered permeability <sup>7</sup> measures including, home zones <sup>8</sup> and low-traffic neighbourhoods <sup>9</sup> in all towns throughout the county in order to reduce greenhouse gas emissions and promote a more sustainable, connected way of life for the citizens of the county.

<sup>&</sup>lt;sup>5</sup> Note: Area Based Transport Assessment (ABTA) sets out the methodology for the preparation of Local Transport Plans.

<sup>&</sup>lt;sup>6</sup> Naas, Maynooth, Newbridge, Celbridge, Leixlip, Athy, Kilcock, Kildare Town, Clane, Monasterevin, Kilcullen and Sallins

<sup>&</sup>lt;sup>7</sup> Filtered permeability is an urban planning concept that "filters out" through car traffic on selected streets to create a more attractive environment for walking and cycling, while maintaining accessibility for local inhabitants, deliveries or emergencies. (Integrated Cycling Planning Guide 2021-2027, European Union).

<sup>&</sup>lt;sup>8</sup> A Home Zone is street or group of streets designed to meet the needs of pedestrians, cyclists, children and residents and where the dominance of the car is reduced.

<sup>&</sup>lt;sup>9</sup> Low traffic neighbourhoods comprise groups of residential streets, bordered by distributor roads, where "through" motor vehicle traffic is either discouraged or removed entirely.

#### 5.4 Sustainable Movement

The Council recognises the overall benefits of sustainable modes of transport, which include:

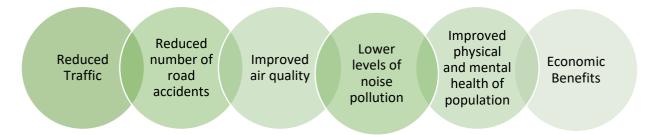


Figure 5.3 - Sustainable Movement Benefits

Ireland has set a target to develop a low/near zero carbon emission transport network by 2050. This plan will prioritise active modes of travel and the use of public transport to provide for the sustainable movement of people and goods in a way that aims for maximum impact on the national transition to net zero carbon by 2050. Heavy rail has a pivotal role to play based on the unique ability of electrified rail services to move large numbers of people quickly and safely.

#### **County Kildare: Travel Mode Share**

According to the Census 2016 POWSCAR data, the commuting patterns in County Kildare for employment and educational purposes rely heavily on motorised private transport. Active transport and public transport accounts for a very small proportion of journeys to work as can be seen in Figure 5.4 below.

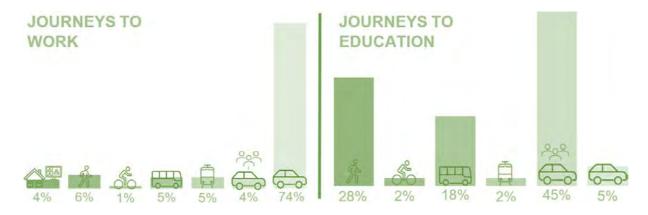


Figure 5.4 - County Kildare Mode Share 10

More than half of the car-based journeys to education are for journeys of 6km and under and 16% of the journeys to education are for journeys less than 6km. Considering the '10-minute settlement' concept, an opportunity exists for many of these short journeys within an approximate 10-minute commute to be made by walking or cycling, given the right conditions.

<sup>&</sup>lt;sup>10</sup> Census 2016 POWSCAR data

According to 'Get Ireland Walking' an individual can walk 1km in approximately 10 minutes, therefore many of the 0-3km trips can be made by walking or cycling. Within urban areas in Ireland cyclists typically travel between 15 and 20km/h <sup>11</sup> which translates to approximately 3km in 10 minutes. Therefore, many of the car-based journeys between 3km and 6km can be done by cycling. Similarly, many of the car-based trips for distances greater than 6km can be undertaken by public transport, where it is available.

The challenge for this plan is to put in place the foundations for the series of interventions required to achieve this model.

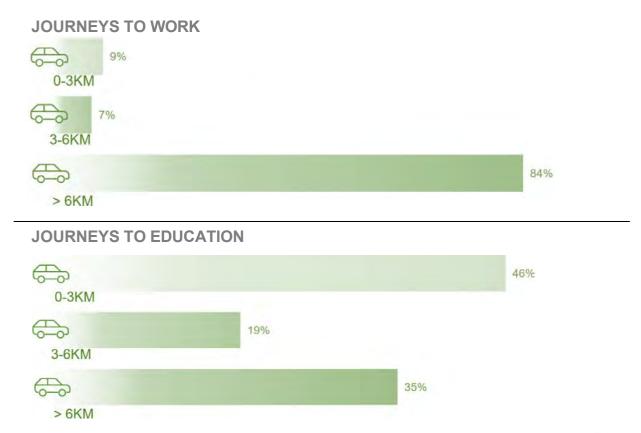


Figure 5.5 - Distance of Car Journeys to work and education originating in County Kildare 12

In 2019, the transport sector was responsible for 20.4% of National GHG emissions, the second highest contributor<sup>13</sup>. The energy use for transport was the highest by sector in 2018, accounting for 42% of total final consumption<sup>14</sup>. It is therefore essential to achieve a significant modal shift in the county during the lifetime of the CDP.

Considering the urgent need to transition to more sustainable modes of transport, Kildare County Council will endeavour to deliver a reduction in private car usage broadly in line with the 51% reduction in emissions by the end of this decade target set out in the Climate Action and Low Carbon Development (Amendment) Bill 2021.

<sup>&</sup>lt;sup>11</sup> NTA. National Cycle Manual. <a href="https://www.cyclemanual.ie/manual/designing/d-junction-introduction/">https://www.cyclemanual.ie/manual/designing/d-junction-introduction/</a>. Date of Access: 30/09/2021

<sup>&</sup>lt;sup>12</sup> Census 2016 POWSCAR data

<sup>&</sup>lt;sup>13</sup> EPA. https://www.epa.ie/our-services/monitoring--assessment/climate-change/ghg/transport/. Date of Access: 24/08/2021

<sup>&</sup>lt;sup>14</sup> SEAI. <a href="https://www.seai.ie/data-and-insights/seai-statistics/key-statistics/transport/">https://www.seai.ie/data-and-insights/seai-statistics/key-statistics/transport/</a>. Date of Access: 24/08/2021

The 2016 baseline figures for trips to work and education are provided in Table 5.1 and Table 5.2 below.

Mode share	2016 Baseline %
Walking	6%
Cycling	1%
Bus	5%
Train	5%
Car share	4%
Car*	74%
Working from Home	4%

<sup>\*</sup> Includes motorbike, scooter, van & lorry.

**Table 5.1 –** *Trips to work in County Kildare – Census 2016* 

Mode share	2016 Baseline %
Walking	28%
Cycling	2%
Public Transport	20%
Car*	50%

<sup>\*</sup> Includes motorbike, scooter, van & lorry.

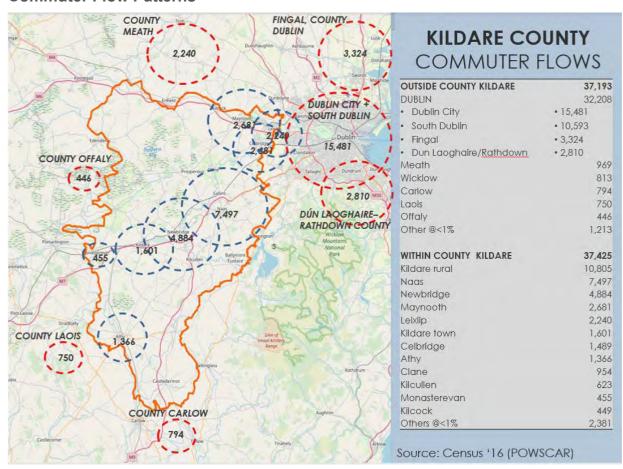
**Table 5.2 –** Trips to education in County Kildare – Census 2016

Achieving such a significant modal shift is dependent on a wide range of factors many of which are outside the remit of Kildare County Council, such as national economic performance, Government investment in sustainable transport infrastructure, the speed of delivery and operation of sustainable transport options, private bus service provision and a societal willingness to embrace change.

However, the recent (7 December 2021) Government approval of the Dart+West project to enter the planning system is a crucial milestone in transforming the rail network that will provide a reliable alternative to the private car. The project will see the construction of a new depot near Maynooth as well as the electrification of the current Maynooth Line and the upgrading of infrastructure at both Connolly and Docklands stations in the city centre.

In addition, Kildare County Council has identified a number of interventions for the County which will assist in delivering this modal shift, such as the provision of cycling infrastructure and public transport measures. These interventions are based on the main commuter flow patterns to work as identified below, with a specific focus on commuter flow patterns in and around the Key Towns of Maynooth and Naas.

#### **Commuter Flow Patterns**



<sup>\*</sup> Those working from home and without a fixed place of work are excluded.

Figure 5.6 - Kildare County Commuter Flow Patterns to work<sup>15</sup>

NAAS	Dublin = 3,744	Newbridge = 392	Sallins = 100
MAYNOOTH	Dublin = 3,164	Leixlip = 371	Celbridge = 122
LEIXLIP	Dublin	Maynooth	Celbridge
	= 4,109	= 231	= 101
NEWBRIDGE	Dublin = 2,241	Naas = 793	Kildare Town = 236
ATHY	Dublin	Naas	Newbridge
	= 564	= 209	= 76
KILDARE	Dublin	Newbridge	Naas
	= 811	= 326	= 266

<sup>\*</sup>Dublin figures includes Dublin City, South Dublin, Fingal and Dun Laoghaire Rathdown

Figure 5.7 - Town level commuter flow to work

<sup>&</sup>lt;sup>15</sup> Census 2016 POWSCAR data

43% of workers in County Kildare commuted to Dublin city and suburbs in 2016. 71% of Leixlip and 40% of Naas being the highest of these, where large numbers of commuters travelled into Dublin city and suburbs for work. More than half of those commuting to locations outside the county travelled by car, 64% of the Leixlip and 80% of the Naas commuters.

Strong commuter flow patterns are evident between Naas and Newbridge, between Leixlip and Maynooth and between Kildare town and Newbridge (Figure 5.7 above refers). High levels of car use are recorded for commuting to work from these towns to their destinations (Figure 5.8 below refers).

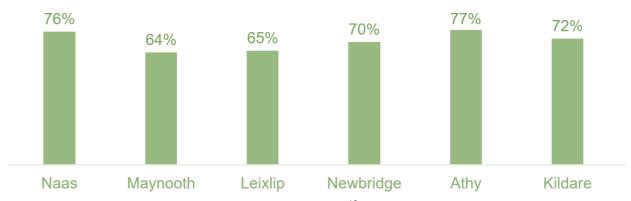


Figure 5.8 - Car-based travel to work per settlement<sup>16</sup>

In November 2019, a commuter survey was undertaken by Kildare County Council which measured commuter satisfaction (Table 5.3 refers). Leixlip and Maynooth registered the highest satisfaction with commuting costs and Athy residents registered the lowest satisfaction with the costs of commuting. The towns that attracted the highest ratings in relation to their satisfaction with their mode of travel was Leixlip and Maynooth.

	Naas	Maynooth	Leixlip	Newbridge	Athy	Kildare
Travel Mode	2.7	2.9	3.0	2.8	2.5	2.7
Commuting Costs	2.6	2.8	2.9	2.1	1.8	2.0

■ Very Dissatisfied (1) ■ Dissatisfied (2) ■ Neither Satisfied nor Dissatisfied (3) ■ Satisfied (4) ■ Very Satisfied (5)

**Table 5.3 -** Satisfaction levels with commute to work<sup>17</sup>

<sup>&</sup>lt;sup>16</sup> Census 2016 POWSCAR data

<sup>&</sup>lt;sup>17</sup> Commuter Survey, November 2019

**Objectives**It is an objective of the Council to:

TM O10	Facilitate and secure the delivery/implementation of the public transport projects that relate to County Kildare as identified within the Integrated Implementation Plan (2019-2024), (or any superseding document), including the DART+ programme (Including DART+ West and DART+ South West), BusConnects and the light rail investments. The DART+ projects present an opportunity to improve journey time, reliability, and train frequency.
TM O11	Facilitate and secure the delivery/implementation of the public transport regional corridor proposals that relate to County Kildare and the County Kildare local route proposals as identified within the NTA's 'The Connecting Ireland Rural Mobility Plan' (November 2021), specifically prioritising the proposed new local route from Naas to Newbridge. Such developments shall be subject to AA screening and where applicable, Stage 2 AA.
TM O12	Investigate the feasibility of developing high-quality, suitable, safe and sustainable cycling pathways:  i) from Leixlip, Maynooth and Naas into Dublin; and  ii) between Naas and Newbridge,  iii) Kildare town to Newbridge and westwards towards Portlaoise as far as the Kildare county boundary, and  iv) Kildare Town to Monasterevin.  Where feasibility is established, a Corridor and Route Selection Process will be undertaken where appropriate, for relevant new road infrastructure in two stages", Stage 1 – Route Corridor Identification, Evaluation and Selection.
TM O13	Promote and facilitate the implementation of public transport projects (bus and rail) and encourage transport providers and other agencies (e.g. NTA, developers etc.) to improve public transport (bus and rail) and to have regard to and support recently implemented and/or planned routes under NTA's Bus Connects and proposed / planned routes under NTA's Connecting Ireland Rural Mobility Plan; Including:  1. Kilcock, Maynooth and Leixlip into Dublin;  2. Celbridge into Dublin;  3. Maynooth to Naas;  4. Leixlip to Naas;  5. Celbridge to Naas;  6. Naas to Caragh. in addition to a range of rural transport routes. Such developments shall be subject to AA screening and where applicable, Stage 2 AA.
TM O14	Support the implementation of the Bus Connects projects in County Kildare and those that connect towns in Kildare with towns in adjoining counties.
TM O15	Ensure the delivery of the transport proposals of the Strategic Land Use, Employment and Transportation Study of North East Kildare, when prepared, in co-operation with all relevant stakeholders. (Refer to

	Objective RE O17)
TM O16	Support and facilitate the improvement of public transport for Monasterevin.
TM 017	Support and facilitate the provision of electric vehicles including Battery Electric Vehicles (BEV) and Plugin Hybrid Electric Vehicles (PHEV) including electric cars, bikes and scooters as a more sustainable low carbon option to the conventional private motor vehicle. The support of e-scooters will be subject to the enactment of legislation to regulate and legalise e-scooters.
TM O18	Support action 87 of the National Sustainable Mobility Policy   Action Plan 2022-2025. In this regard, the Council will support the NTA to expand shared car, bike and powered personal transporters (PPT) services at transport hubs and interchanges.

#### Action

It is a Action of the Council to:

TM A4	Continue to work with NTA to identify best route options to serve the
	county over the period of the plan in line with the NTA's Connecting
	Ireland Plan, Bus Connects, Greater Dublin Area Cycle Network Plan,
	GDA Transport Strategy and other relevant strategies and to continue to
	seek funding from the NTA for suitable Smarter Travel projects.

#### **Target**

It is a target of the Council to:

TM T1	As a <b>minimum</b> , reduce the current car-based trips to work from 74% to
	50% and the car-based trips to education from 50% to 40% by the end
	of this Plan period. 18



# Journeys to Education Lifetime of CDP 50%

<sup>&</sup>lt;sup>18</sup> Interim targets until completion of Sustainable Energy Climate Action Plan when a review will occur.

#### 5.4.1 Walking and Cycling

Active travel is the most sustainable mode of transport. Advancing walking and cycling as alternatives to private car use will prove crucial to the sustainable development of County Kildare. Pedestrian and cycle infrastructure are required that form an integrated, safe, convenient, direct and comfortable network of routes. This will mean reclaiming car-dominated space for upgrading walking and cycling infrastructure to better serve the daily, local trips of people of all ages, abilities and backgrounds in every neighbourhood.

#### **Policy**

It is the policy of the Council to:

TM P2	Prioritise and promote the development of high-quality, suitable, safe and sustainable walking and cycling pathways and facilities, both intercounty, intra-county (in consultation with all relevant stakeholders including neighbouring local authorities) and within the towns and settlements of County Kildare within a safe road/street environment that will encourage a shift to active travel that is accessible for all, regardless of age, physical mobility, or social disadvantage, subject to all relevant and cumulative environmental assessments and planning conditions. New projects (including greenways, blueways and cycleways) should first be subject to the undertaking of feasibility assessment. Where feasibility is established, a Corridor and Route Selection Process will be undertaken where appropriate, for relevant new road infrastructure in two stages". Stage 1 – Route Corridor
	new road infrastructure in two stages", Stage 1 – Route Corridor Identification, Evaluation and Selection and Stage 2 – Route Identification, Evaluation and Selection.

#### **Objectives**

TM O19	Ensure regular maintenance of walking and cycling routes and ensure that all roads in new developments are designed in accordance with the principles, approaches and standards contained in the Design Manual for Urban Roads and Streets 2019, the National Cycle Manual (NTA, 2011 – or the pending update) and the Draft GDA Cycle Network Plan (NTA, 2021).
TM O20	Ensure new development areas are fully permeable for walking and cycling at a minimum, public transport (where appropriate) and provide for filtered permeability for private vehicle access in accordance with the NTA Permeability Best Practice Guide in order to give a competitive advantage to active travel modes for local trip making.
TM O21	Ensure site layout proposals detail present and possible future connections to pedestrian/cycle links and improve permeability between existing and proposed developments including adjacent developments thereby facilitating the '10-minute settlement' concept.
TM O22	Investigate the feasibility of dedicating a street(s) to pedestrian only activity on certain days of the week or at certain times of the day, in a pilot town during the life of this Plan.

TM O23	Secure the development and delivery of the cycle network identified in
1101 020	the Draft Greater Dublin Area Cycle Network Plan (2021) and any
	subsequent updates to same to be published alongside the Transport Strategy for the Greater Dublin Area 2022-2042 and the TII National
	Cycle Network, subject to funding from the NTA.
TM O24	Implement the greenway and blueway projects that promote walking
	and cycling in conjunction with the relevant organisations and bodies
	<ul><li>including:</li><li>Naas to Sallins Greenway and Naas to Corbally Harbour greenways</li></ul>
	and linking these to the national Grand Canal Greenway network.
	The development of a walking route from Palmerstown House     through Kordiffstown Amenity lands to link with the Solling Admen
	through Kerdiffstown Amenity lands to link with the Sallins Aylmer Greenway in consultation with all relevant landowners subject to
	appropriate environmental assessments and considerations.
	The development of a walking route between Lullymore, Killinthomas  Woods, and Datherson, in consultation, with all relevant
	Woods and Rathangan in consultation with all relevant landowners. The delivery of the Barrow Blueway with Waterways
	Ireland and associated works to enhance the amenity use of the
	river and canal area.  • The development of further Sli na Sláinte routes in the county.
	• The development of further SII has Stainte routes in the county.  Investigate the feasibility of further connections from existing and
	proposed greenways in County Kildare.
	<ul> <li>Investigate the feasibility of re-opening/upgrading and re-developing the historic Barrow Drainage Scheme access routes and trail along</li> </ul>
	the eastern bank of the river Barrow between Monasterevin and
_	Athy.
TM O25	Investigate the feasibility of connecting the Naas to Corbally Harbour Greenway with the proposed Greenway along the former
	Tullow/Harristown railway line/ Naas-Baltinglass Greenway and, where
	considered feasible, to initiate the delivery of this project within the
TM O26	lifetime of the Plan in conjunction with all relevant landowners.  Investigate the feasibility of developing a cycle connection between the
1101 020	Royal Canal and Grand Canal Greenways between Leixlip, Louisa
	Bridge and Hazelhatch.
TM O27	Support the development of the Grand Canal Greenway and all associated infrastructure, from Aylmer Bridge to Clonkeen.
TM O28	Investigate the feasibility of developing a greenway/cycle way
	connecting the Corbally Line through Dowdingstown Wood and Two
TM O29	Mile House to Kilcullen.
TIVI UZ9	Support the creation of a 'learn to cycle park' as part of the development of Greenways, adjacent to existing playgrounds and/or
	other suitably sized amenity areas in the county.
TM O30	Support action 27 of the National Sustainable Mobility Policy   Action
	Plan 2022-2025. In this regard, the Council will support the NTA and TII to develop and implement an active travel infrastructure programme for
	Naas.
TM O31	Ensure the delivery of robust and efficient cycle and walking
	infrastructure in Naas by enhancing permeability and improving linkages between Naas Town Centre, surrounding residential and employment
	areas, Sallins Railway Station and the Northwest Quadrant.

TM O32	Ensure the provision of improved cycle and walking infrastructure linking Maynooth Town Centre, the Royal Canal Greenway, the train station, the proposed Maynooth Outer Orbital Route and to Kilcock, Celbridge and Leixlip.
TM O33	Liaise with Irish Rail with respect to identifying and developing a new pedestrian crossing over the Rail line (separate to DART +) from Kilmacreddock to Intel/Greenway in order to promote "Active Travel" permeability links to the Strategic Employment Lands at Collinstown.
TM O34	Investigate the feasibility of developing a cycle-way at the following locations;
	<ul> <li>from Milltown to Newbridge along the R416.</li> <li>from Ballitore to Crookstown.</li> </ul>
	<ul> <li>from Castledermot to the southwest, along the R448 to the county</li> </ul>
	<ul><li>boundary.</li><li>from Athy along the N78 to the east as far as the M9 Motorway,</li></ul>
	subject to the requirements of TII publication.
	from Caragh Village to Naas along the R409 and R445.
TM O35	Investigate the feasibility of developing a walking route within and connecting the villages of Brannockstown, Gilltown, Two Mile House and Carnalway.
TM O36	Investigate the feasibility of providing for footpaths / cycleways from
TM 027	towns and villages to nearby services and amenities, as appropriate.
TM O37	Support the creation of a walking route within the de Burgh (Oldtown) Demesne in Naas where it can be sensitively designed to take into account existing trees and hedgerows within this landscape and also where it incorporates permeability routes at suitable locations along its perimeter.
TM O38	Support the development of accessible and barrier free cycling as a practical transport choice by providing secure, well-designed and well-lit cycle parking facilities, including electrical and cargo/delivery bicycle parking in towns, at public service destinations and in all new residential and commercial developments in accordance with cycle parking design guidelines; The National Cycle Manual (NTA, 2011 – or the pending update), The Draft GDA Cycle Network Plan (NTA, 2021) and the Standards for Cycle Parking and Associated Cycling Facilities for New Developments document (Dun Laoghaire Rathdown County Council, 2018).
TM O39	Promote and encourage the use of the Toolkit for School Travel (2019) by teachers, parents and others and promote and encourage, in consultation with the Department of Education, substantial changes in relation to the items that learners are expected to bring to and from school daily to encourage more learners to cycle to school.
TM O40	Support the Cycle Café Scheme by identifying additional suitable 'Cycle Café' premises in the County in order to create a network of 'pit stops' for cyclists in order to boost the profile of cycling and tourism in County Kildare and to promote sustainable travel.

# Action

It is an action of the Council to:

TM A5	Prepare a walking and cycling strategy to identify and invest in new
1111 / / /	high-quality, suitable, safe, and sustainable walking and cycling routes,
	in consultation with stakeholders with links from towns and villages to
	public transport services, amenities, services, schools, and existing and
	proposed developments. These walking and cycling routes should be
	segregated and the cycling routes should accommodate two-way
	access, whenever possible.
TM A6	
I IVI AO	Support action 26 of the National Sustainable Mobility Policy   Action Plan 2022-2025, to develop pedestrian enhancement plans for Naas
	· · · · · · · · · · · · · · · · · · ·
TM A7	and Maynooth in co-operation with the NTA.
TM A7	Develop a new pedestrian and cycle link from Celbridge/Backweston to
	Leixlip, via Castletown House, through Kildare Innovation Campus
	(former Hewlett Packard site), across the M4 to the Wonderful Barn and
	onto Leixlip Town Centre and Leixlip Louisa Bridge Station, in
TNA AC	accordance with the requirements of TII publications.
TM A8	Investigate the feasibility of providing a dedicated shared path connection
	between the settlements in the MASP area to align with the proposed
	routes identified in the National Transport Authority's Draft Greater
	Dublin Area Cycle Network (2021) or any subsequent updates to same.
TM A9	Investigate the feasibility of providing a footpath and cycle lane along
	the R405 between Maynooth and Celbridge.
TM A10	Identify appropriate opportunities to provide 'Park and Stride' facilities
	within towns and villages at locations that allow safe pedestrian access
	to school sites. Consideration should be given to co-locating 'Park and
	Stride' facilities with other parking facilities at locations that will allow
	parents to park or drop children off and for children to walk safely to
	school. Improvements may be carried out in conjunction with the NTA,
	through the Sustainable Transport Management Grants Scheme.
TM A11	Support the development of a model for bike share schemes, the
	extension of the Dublin Bike Scheme and/or other bike sharing schemes
	to key settlements and towns and encourage the inclusion of a hybrid
	electric bike fleet in order to promote the use of the scheme for long-
	distance commuting.
TM A12	Seek funding to develop Local Permeability Schemes in conjunction
	with the NTA in order to maximise access to town centres, local shops,
	schools, public transport services and other amenities.
TM A13	Prepare 'Guidelines for Permeability Connections' in County Kildare to
	include a flagship permeability project in Kildare.
TM A14	Prepare a Cycle Network Study for each of the key towns in County
	Kildare consisting of the primary links identified in both the TII's National
	Cycle Network (2022) and the NTA's Draft Greater Dublin Area Cycle
	Network Plan (2021), connections between the major towns and
	surrounding settlements, key strategic cycle routes, greenways and
	local links, all in accordance with the National Cycle Manual. The study
	will include draft widths, levels of service and identify local targets.
TM A15	Investigate the feasibility of providing a cycling route linking Donadea
	Forest to Killinthomas Woods.

TM A16	Progress the delivery of key measures outlined in the Naas / Sallins Transport Strategy 2020 on a phased basis as funding is secured.
TM A17	Prepare cycle parking strategies and investigate the appropriate locations for cycle parking facilities within the county in order to ensure sufficient cycle parking on-street in towns and villages, in accordance with the NTA's Draft Greater Dublin Area Transport Strategy and Cycle Network Plan (2021). The locations of such facilities can be identified where appropriate through the Local Area Plan process.
TM A18	Carry out local traffic management improvements to provide safer routes to schools in order to support the Green-Schools Travel Programme, including the 'School Street' initiative and the 'Safe Routes to School' Programme, in consultation with all the relevant stakeholders and agencies.
TM A19	Provide new or upgraded lighting for all footpath and cycle track schemes subject to the consideration of ecology and impacts on wildlife. Appropriate environmental assessments will be required and may result in unlit sections which may include some parts of the county's Greenways. Where applicable, all species-specific mitigation will be included within the relevant sections of the Appropriate Assessment.
TM A20	Carry out quality audits of the existing pedestrian and cycle infrastructure in the towns and villages within County Kildare to ensure universal accessibility and that infrastructure is designed in accordance with the principles, approaches and standards contained in the Design Manual for Urban Roads and Streets 2019, the NTA National Cycle Manual and other relevant standards.
TM A21	Collaborate with Waterways Ireland and other relevant stakeholders to ensure that recreation, amenity and heritage sites in County Kildare are accessible to all, and that design solutions retain existing man-made, local features of interest such as 'kissing gates'. The retention of existing kissing gates will be assessed in the context of delivering a balanced approach to the protection of heritage and universal access where they would not deny access to those using mobility aids and non-standard bicycles.
TM A22	Investigate the feasibility for a new pedestrian bridge crossing the River Liffey in the vicinity of Alexandra Bridge in Clane.

#### **Target**

It is a target of the Council to:

TM T2	As a <b>minimum</b> , increase the current modal shares of trips to work by
	walking to 20% and cycling to 10% during the lifetime of this Plan. 19

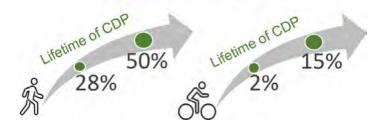
#### **JOURNEYS TO WORK**



<sup>&</sup>lt;sup>19</sup> Interim targets until completion of Sustainable Energy Climate Action Plan when a review will occur.

TM T3	As a <b>minimum</b> , increase the current modal shares of trips to education
	by walking to 50% and cycling to 15% during the lifetime of this Plan. <sup>20</sup>

#### JOURNEYS TO EDUCATION



#### **5.4.2 Public Transport**

Approximately 14% of trips originating in County Kildare are by public transport. Levels of public transport use vary significantly across the county. While trips to Dublin are reasonably well catered for by both bus and rail services, most of the county's workforce (64%<sup>21</sup>) live and work within the county. The use of public transport is particularly low in areas where it is difficult to reach services by foot and where services are infrequent or removed from employment areas. Therefore, this plan will particularly focus on supporting improvements to intra-county public transport services.

#### **Policy**

It is the policy of the Council to:

TM P3	Promote the sustainable development of the county by supporting and
	guiding national agencies in delivering major improvements to the public
	transport network and to encourage a shift from car-based travel to
	public transport that is accessible for all, regardless of age, physical
	mobility, or social disadvantage.

#### **Objectives**

TM O41	Generate additional demand for public transport services by strengthening development around existing and planned high-capacity transport routes and interchanges and by reducing walking and cycling distances through the implementation of local permeability improvements and improving access to public transport as part of road improvement projects where possible.
TM O42	Seek to address urban congestion with particular emphasis on facilitating the development of local bus services for the Key Towns along with associated identified economic clusters within the county ensuring connectivity to and from residential areas, key employers, and public transport hubs such as train stations, along with retail and amenity sites.
TM O43	Support the implementation of the Local Link Rural Transport Programme Strategic Plan (2018-2022).

<sup>&</sup>lt;sup>20</sup> Interim targets until completion of Sustainable Energy Climate Action Plan when a review will occur.

<sup>&</sup>lt;sup>21</sup> Census 2016 POWSCAR data

TM 044	Liaise with and encourage transport providers and other agencies (e.g.
	NTA, developers etc.) to improve bus transport movement, accessibility
	and reliability, to ensure pick up points are clearly identifiable
	(particularly in rural areas), to provide appropriate bus shelters, to
	provide real time information panels at bus stops and to integrate the
	timetabling of bus and rail services.
TM O45	Work with statutory agencies and stakeholders to promote and facilitate
	the development of a public transport hub in Naas and Sallins which will
	connect road, rail and public bus transport, including Park and Ride and
	interchange facilities.
TM O46	Support the delivery of a bus-only link to the Sallins bypass through the
	Northwest Quadrant in Naas which will provide a direct bus service to
	the Sallins Railway Station from the town centre of Naas.
TM 047	Support and facilitate the implementation of the Irish Rail Accessibility
1101 047	Programme and also to support and facilitate the NTA in order to ensure
	the inclusivity and mobility of persons with reduced mobility within the
TM O48	public transport network.
1 W U48	Support the implementation of the Irish Rail Customer Information
	Services (CIS) Strategy Report to provide reliable real time passenger
	information that is accessible to all, co-ordinated across the network in
TM 040	stations and on trains, and that is consistent across all media.
TM O49	Support the implementation of the Irish Rail Multi-Modal Interchange
	Strategy to provide for ease of interchange between rail and all other
	modes, prioritising those that are sustainable – cycling, electric charging,
	wayfinding and shared mobility.
TM O50	Facilitate and support the extension of the DART+ line to Kilcock, the
	extension of the DART+ Southwest line to Naas/Sallins (and promote a
	future extension to Newbridge and Kildare Town in the next DART +
	programme / GDA Transport Strategy Review) and the extension of the
	LUAS network, in co-operation with Irish Rail, the Department of
TM 054	Transport and the National Transport Authority.
TM 051	Support the electrification of intercity routes.
TM O52	Investigate, in co-operation with Irish Rail and the National Transport
	Authority, the provision of new railway stations and the
The 0.50	upgrading/relocation of existing stations.
TM O53	Investigate the feasibility of a new train station at the Curragh in
	consultation with Irish Rail and the NTA.
TM O54	Support and facilitate, in co-operation with Irish Rail and the National
	Transport Authority the delivery of the following proposed new facilities
	to connect to the existing and proposed rail network;
	A second railway station, sited to the west of the existing station
	in Sallins, including a park and ride facility (1, 000 spaces).
	A second Maynooth railway station/depot sited to the west of
	Maynooth
	A railway station at Collinstown including a Park and Ride facility
	(c. 1,000 spaces – 500 initially) and
	A Kill park and ride facility - bus based (500 spaces).
TM O55	Investigate the feasibility of providing for a Park and Ride facility for
000	Newbridge train station in consultation with Irish Rail and the NTA.

TM O56	Assist the NTA with identifying stops and other facilities on
	proposed/planned bus routes.
TM O57	Support Irish Rail with respect to increasing the number and frequency
	of shuttle buses that operate between train stations and nearby towns.
TM O58	Support the implementation of the Irish Rail Freight Strategic Plan.
TM O59	Facilitate and encourage the provision of taxi and bus services and
	parking where required to improve access to tourism and heritage
	facilities.
TM O60	Support and liaise with Irish Rail with respect to the upgrade of the
	Athy/Waterford rail link.
TM O61	Require all developments to undertake an assessment of the public
	transport capacity related to the area of the proposed development site.

#### **Action**

It is an action of the Council to:

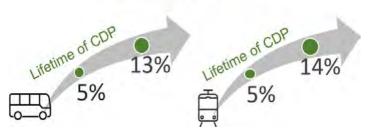
TM A23	Actively seek funding for projects under the NTA's "Sustainable
	Transport Measures Grants" programme that contribute to improving the
	transport offer for those choosing alternatives to the private car.

#### **Target**

It is a target of the Council to:

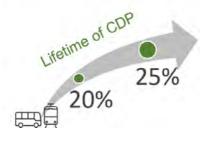
TM T4	As a minimum, increase the current modal shares of work trips by bus to
	13% and train to 14% during the lifetime of this Plan.

#### JOURNEYS TO WORK



TM T5	As a minimum, increase the bus services for the rural areas of County Kildare by 25% <sup>22</sup> to provide 70% of the people living in rural County Kildare access to public transport services.
TM T6	As a minimum, increase the current modal share of education trips by public transport to 25% during the lifetime of this Plan.

#### JOURNEYS TO EDUCATION



 $<sup>^{\</sup>rm 22}$  Figures derives from the NTA's Connecting Ireland Plan, 2021.

#### 5.5 Road and Street Network

Whilst the Council is committed to the promotion of active travel and public transport use, continued investment in the county's road and street network is necessary to ensure the sustainable and efficient movement of people and goods within the county, to provide access to developing areas and to support economic activity.

As part of the overall National Roads Development Programme, it is an objective to carry out a number of specific projects during the lifetime of the plan as funding becomes available.

Kildare County Council intends to proceed with a number of specific projects during the period of this plan. The Council may at its discretion, introduce roads objectives other than those listed in this Plan.

The Council will have regard to the standards set out in the 'Rural Road Link Design' DN-GEO-03031 (TII, 2017), the Design Manual for Urban Roads and Streets (2019), the Guidelines for Setting and Managing Speed Limits in Ireland (2015) and other appropriate standards. These documents seek to implement a range of design measures that ensure roads and streets are designed and managed to cater for all road users. The road network will require improvement and careful management in order to:

- Provide a safe and attractive street environment which encourages reduced vehicle speeds in urban areas and encourages people to walk and cycle;
- Prioritise sustainable modes of transport so as to reduce traffic congestion on the existing road network;
- Meet the road and transport needs of the county;
- Facilitate access to key employment areas to and from the national road network;
- Improve and manage access to and from the national road network to facilitate all traffic and mitigate impacts on the national, regional, local road and street network;
- Provide access to new communities and through development lands.

A research paper by the Engineering Departments of Trinity College and the University College Dublin examined the potential for car-shedding<sup>23</sup> in the Greater Dublin Area. The findings of this paper are that individual commuters need a proper incentive to interrupt commuting habits that have been in place for a long time. However, if such incentives result in tangible time and cost savings for commuters, then this could lead to sustainable mode choice behaviour in the GDA. Car-shedding could be promoted in line with supporting private car-sharing companies providing services in County Kildare.

164

<sup>&</sup>lt;sup>23</sup> Car-shedding is defined as the concept of encouraging the reassessment of the need to utilise a private car for certain trip purposes and refers to prompting a reduction in use and ultimately ownership of privately owned vehicles. (Carroll, et al.,)

# Policy

It is the policy of the Council to:

TM P4	Ensure ongoing competitiveness and the efficient movement of people and goods in the county through the improvement and expansion of the road and street network within the county to support economic development and provide access to new and existing communities, employment areas and development, all while prioritising sustainable modes of transport. New roads and other transport infrastructure projects should first be subject to the undertaking of feasibility
	assessment. Where feasibility is established, a Corridor and Route Selection Process will be undertaken where appropriate, for relevant
	new road infrastructure in two stages", Stage 1 – Route Corridor
	Identification, Evaluation and Selection and Stage 2 – Route Identification, Evaluation and Selection.

# Objectives

TM O62	Ensure the protection of the strategic transport function of national roads, including motorways and their associated junctions, by maintaining and protecting their safety, capacity, efficiency and strategic function, in line with national policy as set out in the Spatial Planning and National Road Guidelines for Planning Authorities (2012).
TM O63	Ensure that the planning, design and implementation of all road and street networks within urban areas across the county accord with the principles set out in the Design Manual for Urban Roads and Streets (2019), the National Cycle Manual (2011 – or the pending update) and all other standards where relevant.
TM O64	Investigate the requirement/feasibility for relief routes for towns, where considered necessary through the preparation of local transport plans.
TM O65	Ensure a comprehensive assessment of all alternative grid connection route options is carried out prior to any proposals for grid connections utilising the national road network being considered.
TM O66	Secure the implementation of the Priority Road and Bridge Projects and the Regional Roads Identified for Improvement (Table 5.4 and 5.5, refer) and maintain corridors free from development to facilitate future roads, cycle facilities and other transport infrastructure improvement identified within this Plan and Local Area Plans.
TM O67	Support and facilitate in conjunction with Meath County Council, private developers and landowners, the construction of the Maynooth Outer Orbital Route.
TM O68	Co-operate with adjoining local authorities and other public authorities to secure new and/or improved road infrastructure in towns bordering the county boundary including those at locations in Blessington, Kilcock, Maynooth and Leixlip.
TM O69	Support and promote the delivery of a second bridge crossing in Newbridge as a priority of this development plan.
TM O70	Make provision for cattle grids on The Curragh, where considered necessary and appropriate.

TM 071	Ensure that all new developments in proximity to National Routes and	
1101 07 1	Regional Routes and other heavily trafficked roads are spatially and	
	acoustically assessed and designed to minimise noise impact and to	
	protect sensitive noise receptors from	
	traffic noise in accordance with national and local planning guidance as	
	may be issued.	
TM 072	Implement the requirements of S.I. No. 140 of 2006 Environmental	
	Noise Regulations and the recommendations of the Kildare Noise	
	Action Plan 2019-2023, to seek to reduce, where necessary, the	
	harmful effects of traffic noise, through appropriate mitigation measures	
	that meet the best environmental options.	
TM 073		
TWI U/3	Ensure that new developments in proximity to National Routes and	
	Regional Routes are designed in such a way as to prevent light overspill	
	onto adjacent public roads.	
TM 074	Mitigating the negative impacts of infrastructure by incorporating wildlife	
	crossings/underpasses and fish culverts in the instance of freshwater	
	European Sites into the designs for new road infrastructure and where	
	possible, by incorporating such measures into the existing road network	
	(as appropriate).	
TM 075	Require a Glint and Glare Assessment as part of all solar energy	
1111 07 0	development proposals where there is a likelihood of impact on the	
	national road network.	
TM 070		
TM 076	Control the proliferation of non-road traffic signage on and adjacent to	
	national roads.	
TM 077	Safeguard the carrying capacity and efficiency of the national road	
	network drainage regimes in County Kildare.	
TM 078	Protect the amenity of St. Catherine's Park, no road proposal shall be	
	considered by this Council through the park within the Council's	
	ownership or jurisdiction.	
	omioranip or Jamouroum	

## Target

It is a target of the Council to:

TM T7	Increase the car share modal share for journeys to work from 4% to 8%
	during the lifetime of this Plan.

# **JOURNEYS TO WORK**

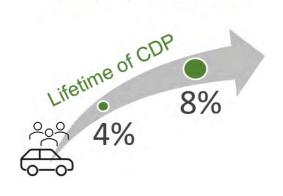


Table 5.4 - Priority Road and Bridge Projects<sup>24</sup>

Nr.	Name	Route
Α	Maynooth Eastern Ring Road (MERR)	R148 to R405 – Leixlip Road to Celbridge Road
В	Maynooth Outer Orbital Route (Northwest)	L1012 Moyglare Road and Dunboyne Road (Co. Meath) to be delivered by Meath County Council under Section 85 agreement.
С	Maynooth Outer Orbital Route (West/Southwest)	R148 to L1012 c. 3km – Kilcock Road to Moyglare Road and from the Kilcock Road south to Rathcoffey/Straffan Road.
D	Examine options in consultation with South Dublin County Council, Fingal County Council, Meath County Council, TII and other statutory agencies for the delivery of a M50 resilient outer orbital link road connecting the M3 to the M4.	Preferred route to be examined and determined.
Е	The Gallops Avenue <sup>25</sup> , Naas	Blessington Road to Dublin Road
F	A new bridge for pedestrians and cyclists will be constructed parallel to the existing bridge in Celbridge providing enhanced Vulnerable Road User (VDU) infrastructure.	A new bridge parallel to the existing River Liffey Bridge, Celbridge
G	Second River Crossing- Celbridge	From R403 Clane Road to Hazelhatch Train Station
Н	Second River Crossing <sup>26</sup> - Newbridge.	From Old Connell Road to R416 Athgarvan Road.
I	Examine options for a Western Inner Relief Road in Maynooth.	From Kilcock Road to Rathcoffey/ Straffan road.
J	Inner Relief Road, Newbridge.	L2028 to R416 Between Great Connell Road and Athgarvan Road (Liffey Hall Junction) with bridge crossing over River Liffey.

<sup>&</sup>lt;sup>24</sup> Table 5.4 is a list of priority projects for County Kildare; however, these projects are not listed in order of priority.

<sup>&</sup>lt;sup>25</sup> [in relation to the Gallops Avenue, Naas] in accordance with Objective MTO3.3 of the Naas Local Area Plan 2021-2027

<sup>&</sup>lt;sup>26</sup> A Local Transport Plan (LTP) is currently being prepared for Newbridge to inform the emerging Newbridge Local Area Plan (LAP). All transport objectives for the Newbridge LAP will be informed by the outcomes of the LTP.

Nr.	Name	Route
K	Investigate the feasibility of developing an Orbital Road around Newbridge (Barrettstown/ Milltown).	
L	Improvement to Morristown Bridge in Newbridge.	
М	Improvements to Sex's Bridge, Newbridge.	
N	Inner Relief Road, Newbridge (Newbridge LAP roads objective SR05(a))	R445 to L2018 Between Naas Road and Great Connell Road
0	To examine the feasibility of developing a ring road on the north and north-east of Newbridge to connect with the orbital relief road and to link with the M7 south-west of the town.	North and north-east of Newbridge.
Р	Kilcock Ring Road	Kilcock
Q	Inner Relief Road, Clane	R403 to R407 Capdoo, Celbridge Road to Kilcock Road
R	Examine options for a link road from the R407 to the R403 including a new Liffey Crossing east of Clane.	
S	Improvement to Moore's Bridge on the Rathbride Road in the Curragh.	
Т	Examine options for road improvements on the L2030 from Newhall to Caragh.	L2030
U	Investigate the feasibility of a new river crossing to the south-east of Caragh village.	South-east of Caragh village.
V	R416 Athgarvan road improvement works on approach roads into the village.	R416 into Athgarvan, c. 1km.
W	Examine options for road improvements on the R409 from Halverstown Cross Roads to Blackwood Cross Roads	R409
Х	Realignment of bend at Castlemitchell on R428	R428
Υ	Examine the feasibility of developing a ring road at Kilcullen.	Kilcullen

**Note**: This table is not exhaustive, other projects shall be identified in LAPs. The delivery of any project is subject to approval of funding.

#### **5.6 National Road Network**

The national road network consists of national primary and secondary roads, including motorways and their associated junctions. In addition to the M4, M7 and M9 motorways there are three national roads in County Kildare.

• The N7 linking Naas and Dublin

- The N81 running along the border between Kildare and Wicklow; and
- The N78 connecting Ballitore (Junction 3 on M9) and Athy and onwards to Ballylynan.

The network primarily serves long and middle-distance traffic originating in or passing through the county including the transportation of freight. These routes have an important role to play in the economic development of the county and the state.

#### **Policy**

It is the policy of the Council to:

TM P5	Work with Transport Infrastructure Ireland in accordance with the
	Spatial Planning and National Road Guidelines for Planning Authorities
	(2012) to develop and operate the national road network through the
	County and to ensure that the carrying capacity, efficiency and safety of
	the network and associated junctions is protected, maintained and
	improved and to prevent development that could hinder the future
	upgrading of national road network routes and interchanges.

#### **Objectives**

TM 070	Comment and for little and an artist to a second and the second an
TM O79	Support and facilitate enhanced orbital movement between the N3, the N4 and N7 national roads, by the widening of existing roads and/or the development of new road links, for the purpose of providing resilience to the operation of the M50 and incorporating provision for sustainable transport as provided for in the NTAs Draft Transport Strategy for the Greater Dublin Area 2022-2042 and the Regional Spatial and
	Economic Strategy.
TM O80	Undertake studies in consultation with TII and other relevant agencies to investigate the improvement of the safety and capacity at the M4 Maynooth Interchange (Junction 7) and investigate the provision of a future improved connection to the M4, either at the current location or elsewhere.
TM O81	Examine the feasibility of delivering a pedestrian and cycle overpass of the M4 to link the Wonderful Barn at Leixlip to the Kildare Innovation Campus (the former Hewlett Packard site) and Castletown Demesne in Celbridge in consultation with Transport Infrastructure Ireland, while being sensitive to the heritage sensitivities of both sites.
TM O82	Examine the feasibility of delivering an overpass of the M7 from the Cherry Avenue site in Kildare Town to the Irish National Stud in consultation with TII.
TM O83	Undertake studies in consultation with TII and other relevant agencies to investigate the improvement of the safety and capacity of the M7 Monasterevin Interchange (Junction 14) through the provision of an upgrade to the interchange.
TM O84	Undertake studies in consultation with TII and other relevant agencies to investigate how vehicle movements could be improved, from the west to the south as well as from the south to the west at the M7 (Junction 11)

	/M9 (Junction 1) Interchange and to investigate the feasibility of providing for a M9/M7 interchange connection along the M7 at Junction
	12.
TM O85	Ensure proposals for Motorway Service Areas are developed in accordance with the Spatial Planning and National Roads Guidelines for Planning Authorities, DECLG (2012) and TII Motorway Service Area Policy guidance document (2014 or as may be amended).
TM O86	Support and facilitate the continued operation of existing Motorway Service Areas throughout the county in accordance with the Spatial Planning and National Roads Guidelines for Planning Authorities, DECLG (2012) and TII Motorway Service Area Policy guidance document (2014 or as may be amended).
TM O87	Identify the future needs of the network and co-operate in fulfilling these needs in conjunction with TII and in accordance with the Spatial Planning and National Roads: Guidelines for Planning Authorities, DECLG (2012) and the Trans-European Transport Networks (TEN-T) Regulations.
TM O88	Improve connectivity between the local road network and the national/regional road network. The Council will ensure that any future development in this regard complies with the guidance to safeguard the overall operational function of the national road network as set out in the Spatial Planning and National Roads Guidelines, DECLG (2012). Such developments shall be subject to AA screening and where applicable, Stage 2 AA so as to ensure and protect the favourable status of European sites and their hydrological connections.
TM O89	Avoid the creation of additional access points from new development or the generation of increased traffic from existing accesses to national roads to which speed limits greater than 50kph apply as set out in the Spatial Planning and National Roads Guidelines, DECLG (2012).
TM O90	Co-operate with other agencies in the provision of additional links between the national road network and public transport especially rail and bus transport including strategic park and ride facilities.
TM O91	Support "Measure Road 6" of the Draft GDA Transport Strategy to facilitate Orbital Movement in Leinster. In this regard, the Council will support the TII and other local authorities to deliver online improvements to existing road carriageways, and localised schemes on national and regional roads, to cater for orbital traffic movement, where issues related to the safety and capacity of the network have been identified.
TM O92	Preserve the N7 Johnstown Interchange (Junction 8) area free from development for the provision of future access to Naas.
TM O93	Support the future development of a connection between the N3-N4 Barnhill to Leixlip Interchange having regard to TM O78 <sup>27</sup> of this Plan in accordance with strategic development objectives and the Spatial Planning and National Roads: Guidelines for Planning Authorities, DECLG (2012).

<sup>&</sup>lt;sup>27</sup> TM O78 reads as follows; 'It is an objective of the Council to protect the amenity of St. Catherine's Park, no road proposal shall be considered by this Council through the park within the Council's ownership or jurisdiction'.

#### Action

It is an action of the Council to:

TM A24	Upgrade the section of the N81 National Secondary Road
	(Tallaght/Baltinglass) that is located within County Kildare subject to
	funding and in accordance with the requirements of TII and subject to
	AA screening and where applicable, Stage 2 AA so as to ensure and
	protect the favourable status of European sites and their hydrological
	connections.

#### 5.7 Regional Roads

Regional roads link the principal towns in the county and surrounding counties. They also serve local traffic. They are generally unimproved "legacy" roads and a significant number carry a considerable volume of traffic. It is important for the sustainable economic and social development of the county that the carrying capacity of these routes is preserved. Regional roads are defined as Link Roads in DMURS for urban areas.

#### **Policy**

It is the policy of the Council to:

TM P6	Maintain and improve the capacity, safety and function of the regional road network (as finance becomes available) and to ensure that it is planned for and managed to enable the sustainable economic development of the county and wider area while encouraging a shift towards more sustainable travel and transport in accordance with the Core Strategy, the Spatial Planning and National Roads Guidelines (2012) and the Draft Transport Strategy for the Greater Dublin Area 2022-2042.
-------	---

#### **Objectives**

TM O94	Preserve free from development proposed transport routes (or optional routes) identified in Local Area Plans and routes for additional crossings over the river Liffey in order to accommodate increased traffic (between the Dublin Metropolitan Area and the population and employment centres in Kildare).
TM O95	<ul> <li>Restrict new access onto regional roads where the 80km per hour speed limit currently applies, except in the following exceptional circumstances:</li> <li>Developments of strategic, local, regional or national importance, where there is a significant gain to the county through employment creation or other economic benefit.</li> <li>Where applicants comply with Schedule of Local Need Criteria (see Chapter 3), are proposing to build a home on their family landholding and cannot provide access onto a nearby county road. In this instance, applicants will only be permitted to maximise the potential of existing entrances. The onus will be on the applicant(s)</li> </ul>

	<ul> <li>to demonstrate that there are no other accesses or suitable sites within the family landholding.</li> <li>Where it is proposed to demolish an existing dwelling and replace with a new dwelling, where there is an existing entrance onto the regional road.</li> </ul>
TM O96	regional road.  Improve and re-align where necessary and as funds allow, the regional roads subject to AA screening and where applicable, Stage 2 AA so as to ensure and protect the favourable status of European sites and their hydrological connections.
TM O97	Improve connectivity across the railways and canals in County Kildare, in conjunction with relevant stakeholders including Irish Rail and Waterways Ireland, to ensure new crossings do not impede the safe passage of boats navigating waterways. Subject to AA screening and where applicable, Stage 2 AA so as to ensure and protect the favourable status of European sites and their hydrological connections.

 Table 5.5 - Regional Roads Identified for Improvement

No.	Road No.	Location
1	R409	Naas to Junction of R403 at Blackwood.
2	R410	Naas to county boundary via Eadestown.
3	R411	Naas to county boundary via Ballymore.
4	R445	Naas to county boundary at Killinure via Newbridge, Kildare & Monasterevin.
5	R448	Naas to Kilcullen and junction with M9.
6	R407	Kilcock to Naas via Clane Inner Relief Road.
7	R405	Maynooth to county boundary at Hazelhatch via Celbridge.
8	R406	Maynooth to Barberstown.
9	R408	Prosperous to Maynooth.
10	R157	Junction with R148 at Maynooth to county boundary.
11	R148	County boundary at Leixlip to county boundary at Cloncurry via Maynooth and Kilcock.
12	R149	Leixlip to county boundary.
13	R404	Leixlip to Junction with the R403.
14	R449	Junction with R148 at Intel to junction with R405 at Celbridge.
15	R403	County boundary at Backweston to Clane via Celbridge.
16	R125	Kilcock to county boundary.
17	R158	Allen Bridge, Kilcock to county boundary.
18	R416	Junction with R413 at Kinneagh to Newbridge.
19	R416	Newbridge to Junction with the R415 at Milltown.
20	R413	Ballymany to Kildare.

No.	Road No.	Location
21	R418	Kilcullen to Athy including road improvement works on the approach road to Kilcullen from Athy at Thompson's Cross/Sunnyhill Road exit.
22	R418	Athy to county boundary at Newtown via Castledermot.
23	R417	Monasterevin to county boundary at Newacre via Athy.
24	R428	Athy to county boundary at Blackford.
25	R415	Allenwood to Kildare via Kilmeague.
26	R415	Kildare to junction with the R 448 at Crookstown.
27	R403	Clane to Junction with R402 via Prosperous, Allenwood & Derrinturn.
28	R414	Monasterevin to Junction with R403 at Allenwood via Rathangan.
29	R424	Monasterevin to county boundary.
30	R419	Rathangan to county boundary.
31	R401	Junction with R413 at the Curragh to county boundary at Ballinure via Rathangan.
32	R402	County boundary at Kishawanny to county boundary at Johnstown Bridge.
33	R157	County boundary at Offaly Bridge to county boundary at Catherinestown.
34	R148	County boundary at Kilmurry to county boundary at Clonard.
35	R160	Ballynadrummy to county boundary.
36	R401	County boundary at Boyne Bridge to county boundary at Ballyboggan.
37	R412	Junction with R448 at Sidegate to county boundary at Tober Lower via Brannockstown.
38	R413	Ballymore to Brannnockstown.
39	R413	Brannockstown to Ballymany via Kilcullen.
40	R427	Junction with R417 at Cloney to county boundary.
41	R448	Kilcullen to county boundary at Gorteengrone.
42	R747	Ballitore to county boundary.
43	General	To improve regional road links between Wicklow and other counties, in particular the Blessington to Naas route and routes from Dunlavin and Baltinglass to the M9/N9 in accordance with national transport policy requirements and in consultation with TII and other statutory agencies, as appropriate.
44	General	To continue to improve regional roads to the appropriate standards consistent with predicted traffic flow and in accordance with Government policy and the Roads Programme adopted by the Council. New and existing road space will be allocated to provide for bus, cycle and pedestrian facilities.

#### 5.8 Local Roads

Local roads are roads serving those areas of the county not served by the national or regional networks. Local roads are defined as local streets in the Design Manual for Urban Roads and Streets (2019) in urban areas.

#### **Policy**

It is the policy of the Council to:

TM P7	Ensure that the safety and capacity of the local road network is
	maintained and improved where funding allows and to ensure that local
	streets and roads within the county are designed to a suitable standard
	to accommodate sustainable modes of transport and the future needs of
	the county. These roads and streets should be appropriately designed
	for all road users regardless of age, physical mobility, or social
	disadvantage.

#### **Objectives**

TM O98	Maintain and improve all local roads to an appropriate standard as per
	the annual Road Work Programme, subject to availability of resources.
TM O99	Ensure that all new streets in housing and mixed-use schemes are
	designed, in accordance with:
	Design Manual for Urban Roads and Streets (2019);
	Sustainable Residential Development in Urban Areas (2009) and
	accompanying Best Practice Design Manual (2009);
	Architecture 2009-2015 Towards a Sustainable Future: Delivering
	Quality within the Built Environment (2009);
	Any new guidance/standards from the DECLG; and
	Any other relevant design standards.
TM O100	Ensure that all roads, streets and street networks within towns, villages
	and rural settlements, as appropriate, are designed to passively calm
	traffic through the creation of a self-regulating road/street environment,
TM O101	that clearly delineates village entrance points.
TWI OTOT	Ensure that all developments allow for full connectivity (pedestrian, cycle and vehicular) to adjacent road networks and to adjacent lands,
	which may be developed in the future.
TM O102	Minimise the extent of hedgerow removal in order to achieve adequate
0.10=	sightlines. However, where it has been satisfactorily demonstrated that
	there is no other suitable development site (for planning reasons) any
	removed hedgerow shall be replaced with native hedgerow species.
	Opportunities should be sought to translocate existing species rich
	hedgerows, where possible, and subject to proper biosecurity protocols.
TM O103	Investigate the feasibility of the provision of a strategic cross county link
	from the R148 (Musgrave Distribution Centre/Roundabout) to the R158/
	Balfeaghan Roundabout in consultation with Meath County Council.

TM O104	Undertake an assessment and address any identified safety concerns as
	a priority, at the following junctions;
	(i) Firmount Cross
	(ii) Dagwelds Cross
	(iii) Allenwood Cross
	(iv) Prosperous Cross.

#### 5.9 Road and Street Design

The design of roads and streets, the regulation and management of speed and the safety of road users are all intrinsically linked.

DMURS indicates that the speed at which people drive is primarily influenced by the design of the roads or streets and that regulatory features, such as speed limits, do not influence driver behaviour to the same extent. A broad range of placemaking measures, such as built form, landscaping and pedestrian and cyclist movement, as well as more conventional measures, will need to be taken into account in the design of roads and streets. The design of streets has a major influence on the quality of life and the public realm enjoyed by people. A placemaking approach that is responsive to the surrounding environment is therefore required.

The design of urban streets in Ireland is informed by DMURS (2019) which is mandatory for all urban roads and streets within the 60 km/h urban speed limit zone except for:

- National roads and
- In exceptional circumstances, certain urban roads and streets with the written consent of the relevant Authority.

DMURS highlights how in recent times the car has become the dominant force in determining how urban areas are designed. A focus on vehicle movement has led to the implementation of road standards in urban areas (e.g. road widths, building setbacks, junction designs) that are at odds with the design of traditional towns and villages where development fronted the street and streets were multi-functional spaces shared by all users (pedestrians, cyclists, cars). In more recent years, in response to increased traffic volumes, neighbourhoods have been divided into 'neighbourhood cells' that are broken up by large distributor roads designed to carry high traffic volumes. While efficient in moving vehicular traffic, the approach has had a negative impact on place making and on the usability of the street for other users.

In line with broader government policies relating to the environment, placemaking, planning and sustainable transport, DMURS seeks to achieve a balance between traffic movement and the provision of well-designed streets that are part of the overall design of a neighbourhood.

The Draft Greater Dublin Area Transport Strategy 2022-2042 outlines a user hierarchy to consider during the design of roads and streets which prioritises sustainable forms of transportation. The hierarchy considers pedestrians, cyclists, public transport, taxis & shared transport and private motor vehicles in this order. To recognise the importance of electric vehicles in reducing Greenhouse Gas emissions, Kildare County Council will add electric vehicles to the hierarchy to be considered first as part of public transport, taxis & shared transport and private motor vehicles.

#### **Special Speed Limits**

The making of Special Speed Limits is a reserved function of the Elected Members by the making of a Bye Law under the Road Traffic Act 2004 (as amended) and is subject to the requirements of the Guidelines for Setting and Managing Speed Limits in Ireland (2015). This includes the application of

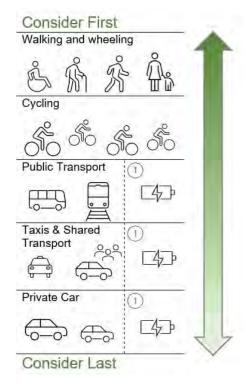


Figure 5.9 - Hierarchy of Users

lower speed limits in areas such as housing estates, town and village centres and around schools. The introduction of special speed limits serves to make areas safer for more vulnerable road users.

#### **Policy**

It is the policy of the Council to:

TM P8	Ensure that streets and roads within the county are designed to balance
	placemaking and movement to prioritise sustainable modes of transport
	and to provide a safe traffic calmed street environment in accordance
	with the principles set out in the Design Manual for Urban Roads and
	Streets (2019) while meeting the needs of road users of all ages and
	abilities.

#### **Objectives**

TM 105	Ensure that all streets and street networks are designed considering the
	hierarchy of users in Figure 5.9 above and includes the provision of
	high-quality walking and cycling infrastructure and traffic calming
	measures which may include speed ramps.

### **5.10 Traffic and Transportation Management**

The Traffic Management Centre of Kildare County Council utilises Intelligent Transport Systems and Communications infrastructure to monitor and manage the urban transport network within the county. It oversees the installation, operation and control of signals at both junctions and pedestrian crossings. A comprehensive maintenance function for the county's traffic signal network is currently in place.

#### **Policy**

It is the policy of the Council to:

TM P9	Effectively manage and minimise the impacts of traffic in urban areas
	and prioritise the movement of pedestrians, cyclists and public transport
	particularly at key junctions, while maximising the efficient use of
	existing resources.

#### **Objectives**

It is an objective of the Council to:

TM O106	Support the use of Intelligent Transport Systems (ITS) technology for pedestrian, cyclist and vehicular traffic, public transport and parking management in all new developments.
TM O107	Maintain existing vehicle actuated (VA) traffic signals to MOVA1 or SCOOT2 traffic signals as appropriate and improve energy efficiency of signals through use of ELV or LED lights.
TM O108	Seek to channel HGV traffic associated with:  (i) landfill and extractive sites onto the regional and national road networks insofar as possible and to seek appropriate and proportionate contributions towards the cost of road improvements which benefit a specific development, in accordance with Sections 48 or 49 of the Planning and Development Act 2000 (as amended) and  (ii) to assess the potential for HGV management measures in town centres where appropriate.
TM O109	Undertake HGV management measures in town centres as appropriate in order to alleviate HGV parking in non-industrial areas including housing estates'.

#### Action

It is an action of the Council to:

TM A25	Require all multi-unit developments and schools to submit mobility
	management plans and travel plans, including an assessment of the
	public transport capacity in a manner consistent with existing NTA
	guidance and to implement mobility management initiatives to minimise
	the impact of new developments on the road and street network of the
	County.

TM A26	Require the preparation of a Road Safety Audit as part of any proposed development/project of a significant scale which may have potential implications on major transport infrastructure. Such assessments shall be in accordance with the Transport Infrastructure Ireland publications 'Road Safety Audit, GE-STY-01024, (Dec 2017) and Road Safety Audit
	Guidelines, GE-STY-01027, (Dec 2017).

#### 5.11 Parking

The Development Management Standards set out in Chapter 15 of this Plan set out maximum car parking standards. This affords a degree of flexibility and allows developers to submit a car parking analysis of a particular area to demonstrate the supply and demand for car parking spaces. An area-based approach will be taken to assess the analysis of car parking depending on the nature and location of the development and its proximity to public transport where possible. There is scope within the car parking standards as set out to consider the requirements of each site.

According to the NTA Draft Transport Strategy for the Greater Dublin Area 2022-2042, the supply and management of parking at destinations is central to the management of travel demand. Limiting the availability of parking spaces and/or increasing the cost of parking will encourage the use of sustainable modes of transport and reduce traffic congestion.

The Climate Action Plan (2021) commits to increase the fleet of Electric Vehicles and low emitting vehicles (LEVs) on the road to 945,000 in Ireland by 2030. This fleet is stated to comprise of 845,000 electric passenger cars, 95,000 electric vans, 3,500 low emitting trucks and 1,500 electric buses. In order to encourage the uptake of electric vehicles the installation of charging points across the county will be prioritised.

#### **Policy**

It is the policy of the Council to:

TM P10	Balance the demand for parking against the need to promote more
	sustainable forms of transport, to limit traffic congestion and to protect
	the quality of the public realm from the physical impact of parking, while
	meeting the needs of businesses and communities.

#### **Objectives**

TM O110	Design car parking layouts in accordance with the Design Manual for
	Urban Roads and Streets (2019) and ensure that car parking, including
	the provision of fully accessible EV charging facilities, do not detract from
	the comfort and safety of pedestrians and cyclists or the attractiveness
	of the landscape.
TM 0111	All non-residential development proposals will be subject to maximum
	car parking standards (and minimum cycle parking standards) and all
	residential development proposals in areas within walking distances of
	town centres (800 metres i.e. a 10-minute walk) and high-capacity public
	transport services (including but not limited to DART+ services, Bus

<ul> <li>service stations on the national road network;</li> <li>Ensuring provision is made for fast charging points at service stations and public carparks in order to make provision for a shorter charging time than domestic charging;</li> <li>Ensuring that charging infrastructure does not encroach on footpaths or otherwise compromise the free movement of pedestrians, cyclists and public transport.</li> <li>Ensuring EV charging points are accessible to all, where possible.</li> <li>TM 0117</li> <li>Support the Government's targets for electric vehicles on roads by prioritising parking for Electric Vehicles (EVs) in central locations, by supporting the provision of charging facilities on public and private land. Ensure a future proofed approach to the rollout of EV charging infrastructure by means of planning decisions by applying the following</li> </ul>		
standards) as a limitation to restrict car parking provision and achieve modal shifts to sustainable modes of transport.  TM 0112  Consider car parking limits on an area wide basis, where appropriate, in locations where the highest density of development occurs.  TM 0113  The quantum of car parking or the requirements for any such provision for apartment developments will have regard to the proximity and accessibility to urban locations, public transport and employment locations as outlined in the Sustainable Urban Housing: Design Standards for New Apartments (2020).  Seek to reduce the level of on-street parking with a view to the reallocation of the roadspace to sustainable modes and to investigate the feasibility of delivering parking on suitable backland sites that would not jeopardise the vitality and vibrancy of the relevant town/village centre, while also ensuring the needs of persons with disabilities are met.  TM 0115  Minimise the impact of out-of-town parking on urban regeneration by ensuring adequate active transport infrastructure and/or public transport services between parking facilities and urban centres such as Naas, Newbridge, Maynooth etc.  TM 0116  TM 0116  The 0116  The 0116  The 0117  The 0117  The 0117  The 0118  The 0118  The 0118  The 0119		
TM 0112 Consider car parking limits on an area wide basis, where appropriate, in locations where the highest density of development occurs.  TM 0113 The quantum of car parking or the requirements for any such provision for apartment developments will have regard to the proximity and accessibility to urban locations, public transport and employment locations as outlined in the Sustainable Urban Housing: Design Standards for New Apartments (2020).  TM 0114 Seek to reduce the level of on-street parking with a view to the reallocation of the roadspace to sustainable modes and to investigate the feasibility of delivering parking on suitable backland sites that would not jeopardise the vitality and vibrancy of the relevant town/village centre, while also ensuring the needs of persons with disabilities are met.  TM 0115 Minimise the impact of out-of-town parking on urban regeneration by ensuring adequate active transport infrastructure and/or public transport services between parking facilities and urban centres such as Naas, Newbridge, Maynooth etc.  TM 0116 Facilitate, along with the NTA and TII, the conversion of the private car fleet to electric in the following ways:  Providing public charging points at key destinations such as public car parks, Park and Ride facilities, on-street in town centres, and public parks;  Ensuring that where car parking is proposed as part of all new developments either public or private, provision is made for all spaces to be dedicated over time to electric cars with provision for charging infrastructure built-in from the outset;  Providing significantly expanded electric car charging facilities at service stations and public carparks in order to make provision for a shorter charging time than domestic charging;  Ensuring that charging infrastructure does not encroach on footpaths or otherwise compromise the free movement of pedestrians, cyclists and public transport.  Ensuring parking for Electric Vehicles (EVs) in central locations, by supporting the provision of charging facilities		
In O113 The quantum of car parking or the requirements for any such provision for apartment developments will have regard to the proximity and accessibility to urban locations, public transport and employment locations as outlined in the Sustainable Urban Housing: Design Standards for New Apartments (2020).  TM O114 Seek to reduce the level of on-street parking with a view to the reallocation of the roadspace to sustainable modes and to investigate the feasibility of delivering parking on suitable backland sites that would not jeopardise the vitality and vibrancy of the relevant town/village centre, while also ensuring the needs of persons with disabilities are met.  TM O115 Minimise the impact of out-of-town parking on urban regeneration by ensuring adequate active transport infrastructure and/or public transport services between parking facilities and urban centres such as Naas, Newbridge, Maynooth etc.  TM O116 Facilitate, along with the NTA and TII, the conversion of the private car fleet to electric in the following ways:  • Providing public charging points at key destinations such as public car parks, Park and Ride facilities, on-street in town centres, and public parks;  • Ensuring that where car parking is proposed as part of all new developments either public or private, provision is made for all spaces to be dedicated over time to electric cars with provision for charging infrastructure built-in from the outset;  • Providing significantly expanded electric car charging facilities at service stations on the national road network;  • Ensuring provision is made for fast charging points at service stations and public carparks in order to make provision for a shorter charging time than domestic charging;  • Ensuring provision of made for fast charging be points at service stations and public carparks in order to make provision for a shorter charging time than domestic charging;  • Ensuring EV charging points are accessible to all, where possible.  TM O117 Support the Government's targets for electric vehic		,
TM 0113  The quantum of car parking or the requirements for any such provision for apartment developments will have regard to the proximity and accessibility to urban locations, public transport and employment locations as outlined in the Sustainable Urban Housing: Design Standards for New Apartments (2020).  TM 0114  Seek to reduce the level of on-street parking with a view to the reallocation of the roadspace to sustainable modes and to investigate the feasibility of delivering parking on suitable backland sites that would not jeopardise the vitality and vibrancy of the relevant town/village centre, while also ensuring the needs of persons with disabilities are met.  TM 0115  TM 0116  TM 0116  TM 0116  TM 0116  The quantum of car parking or usual parking on urban regeneration by ensuring adequate active transport infrastructure and/or public transport services between parking facilities and urban centres such as Naas, Newbridge, Maynooth etc.  TM 0116  TM 0116  TM 0117  The quantum of car parking of out-of-town parking on urban regeneration by ensuring adequate active transport infrastructure and/or public transport services between parking facilities and urban centres such as Naas, Newbridge, Maynooth etc.  TM 0116  The other parking facilities and urban centres such as Naas, Newbridge, Maynooth etc.  Providing public charging points at key destinations such as public car parks, Park and Ride facilities, on-street in town centres, and public parks;  Providing public charging points at key destinations such as public ar parks, Park and Ride facilities, on-street in town centres, and public parks;  Providing public charging points at key destinations such as public arparks;  Ensuring that where car parking is proposed as part of all new developments either public or private, provision is made for fast charging points at service stations and public carparks in order to make provision for a shorter charging time than domestic charging;  Ensuring that charging infrastructure does not encroach on footpaths or othe	TM O112	
for apartment developments will have regard to the proximity and accessibility to urban locations, public transport and employment locations as outlined in the Sustainable Urban Housing: Design Standards for New Apartments (2020).  TM 0114  Seek to reduce the level of on-street parking with a view to the reallocation of the roadspace to sustainable modes and to investigate the feasibility of delivering parking on suitable backland sites that would not jeopardise the vitality and vibrancy of the relevant town/village centre, while also ensuring the needs of persons with disabilities are met.  TM 0115  Minimise the impact of out-of-town parking on urban regeneration by ensuring adequate active transport infrastructure and/or public transport services between parking facilities and urban centres such as Naas, Newbridge, Maynooth etc.  TM 0116  Facilitate, along with the NTA and TII, the conversion of the private car fleet to electric in the following ways:  Providing public charging points at key destinations such as public car parks, Park and Ride facilities, on-street in town centres, and public parks;  Ensuring that where car parking is proposed as part of all new developments either public or private, provision is made for all spaces to be dedicated over time to electric cars with provision for charging infrastructure built-in from the outset;  Providing significantly expanded electric car charging facilities at service stations on the national road network;  Ensuring provision is made for fast charging points at service stations and public carparks in order to make provision for a shorter charging time than domestic charging;  Ensuring that charging infrastructure does not encroach on footpaths or otherwise compromise the free movement of pedestrians, cyclists and public transport.  Ensuring EV charging points are accessible to all, where possible.  TM 0117  Support the Government's targets for electric vehicles on roads by prioritising parking for Electric Vehicles (EVs) in central locations, by supporting t		
accessibility to urban locations, public transport and employment locations as outlined in the Sustainable Urban Housing: Design Standards for New Apartments (2020).  TM 0114  Seek to reduce the level of on-street parking with a view to the reallocation of the roadspace to sustainable modes and to investigate the feasibility of delivering parking on suitable backland sites that would not jeopardise the vitality and vibrancy of the relevant town/village centre, while also ensuring the needs of persons with disabilities are met.  TM 0115  Minimise the impact of out-of-town parking on urban regeneration by ensuring adequate active transport infrastructure and/or public transport services between parking facilities and urban centres such as Naas, Newbridge, Maynooth etc.  TM 0116  Facilitate, along with the NTA and TII, the conversion of the private car fleet to electric in the following ways:  Providing public charging points at key destinations such as public car parks, Park and Ride facilities, on-street in town centres, and public parks;  Providing significanty expanded electric cars with provision for charging infrastructure built-in from the outset;  Providing significantly expanded electric car charging facilities at service stations on the national road network;  Providing significantly expanded electric car charging facilities at service stations and public carparks in order to make provision for a shorter charging time than domestic charging;  Ensuring provision is made for fast charging points at service stations and public carparks in order to make provision for a shorter charging time than domestic charging;  Ensuring that charging infrastructure does not encroach on footpaths or otherwise compromise the free movement of pedestrians, cyclists and public transport.  Ensuring EV charging points are accessible to all, where possible.  TM 0117  Support the Government's targets for electric vehicles on roads by prioritising parking for Electric Vehicles (EVs) in central locations, by supporting the provisio	TM O113	
Iocations as outlined in the Sustainable Urban Housing: Design Standards for New Apartments (2020).  TM 0114  Seek to reduce the level of on-street parking with a view to the reallocation of the roadspace to sustainable modes and to investigate the feasibility of delivering parking on suitable backland sites that would not jeopardise the vitality and vibrancy of the relevant town/village centre, while also ensuring the needs of persons with disabilities are met.  TM 0115  Minimise the impact of out-of-town parking on urban regeneration by ensuring adequate active transport infrastructure and/or public transport services between parking facilities and urban centres such as Naas, Newbridge, Maynooth etc.  Facilitate, along with the NTA and TII, the conversion of the private car fleet to electric in the following ways:  Providing public charging points at key destinations such as public car parks, Park and Ride facilities, on-street in town centres, and public parks;  Ensuring that where car parking is proposed as part of all new developments either public or private, provision is made for all spaces to be dedicated over time to electric cars with provision for charging infrastructure built-in from the outset;  Providing significantly expanded electric car charging facilities at service stations on the national road network;  Ensuring provision is made for fast charging points at service stations and public carparks in order to make provision for a shorter charging time than domestic charging;  Ensuring that charging infrastructure does not encroach on footpaths or otherwise compromise the free movement of pedestrians, cyclists and public transport.  Ensuring EV charging points are accessible to all, where possible.  TM 0117  Support the Government's targets for electric vehicles on roads by prioritising parking for Electric Vehicles (EVs) in central locations, by supporting the provision of charging facilities on public and private land. Ensure a future proofed approach to the rollout of EV charging infrastructur		, , , , , , , , , , , , , , , , , , , ,
Standards for New Apartments (2020).  Seek to reduce the level of on-street parking with a view to the reallocation of the roadspace to sustainable modes and to investigate the feasibility of delivering parking on suitable backland sites that would not jeopardise the vitality and vibrancy of the relevant town/village centre, while also ensuring the needs of persons with disabilities are met.  TM 0115  Minimise the impact of out-of-town parking on urban regeneration by ensuring adequate active transport infrastructure and/or public transport services between parking facilities and urban centres such as Naas, Newbridge, Maynooth etc.  TM 0116  Facilitate, along with the NTA and TII, the conversion of the private car fleet to electric in the following ways:  Providing public charging points at key destinations such as public car parks, Park and Ride facilities, on-street in town centres, and public parks;  Ensuring that where car parking is proposed as part of all new developments either public or private, provision is made for all spaces to be dedicated over time to electric cars with provision for charging infrastructure built-in from the outset;  Providing significantly expanded electric car charging facilities at service stations on the national road network;  Ensuring provision is made for fast charging points at service stations and public carparks in order to make provision for a shorter charging time than domestic charging;  Ensuring that charging infrastructure does not encroach on footpaths or otherwise compromise the free movement of pedestrians, cyclists and public transport.  Ensuring EV charging points are accessible to all, where possible.  TM 0117  Support the Government's targets for electric vehicles on roads by prioritising parking for Electric Vehicles (EVs) in central locations, by supporting the provision of charging facilities on public and private land. Ensure a future proofed approach to the rollout of EV charging infrastructure by means of planning decisions by applying the following		· · · · · · · · · · · · · · · · · · ·
reallocation of the roadspace to sustainable modes and to investigate the feasibility of delivering parking on suitable backland sites that would not jeopardise the vitality and vibrancy of the relevant town/village centre, while also ensuring the needs of persons with disabilities are met.  TM 0115  Minimise the impact of out-of-town parking on urban regeneration by ensuring adequate active transport infrastructure and/or public transport services between parking facilities and urban centres such as Naas, Newbridge, Maynooth etc.  TM 0116  Facilitate, along with the NTA and TII, the conversion of the private car fleet to electric in the following ways:  Providing public charging points at key destinations such as public car parks, Park and Ride facilities, on-street in town centres, and public parks;  Ensuring that where car parking is proposed as part of all new developments either public or private, provision is made for all spaces to be dedicated over time to electric cars with provision for charging infrastructure built-in from the outset;  Providing significantly expanded electric car charging facilities at service stations on the national road network;  Ensuring provision is made for fast charging points at service stations and public carparks in order to make provision for a shorter charging time than domestic charging;  Ensuring that charging infrastructure does not encroach on footpaths or otherwise compromise the free movement of pedestrians, cyclists and public transport.  Ensuring EV charging points are accessible to all, where possible.  TM 0117  Support the Government's targets for electric vehicles on roads by prioritising parking for Electric Vehicles (EVs) in central locations, by supporting the provision of charging facilities on public and private land. Ensure a future proofed approach to the rollout of EV charging infrastructure by means of planning decisions by applying the following		Standards for New Apartments (2020).
the feasibility of delivering parking on suitable backland sites that would not jeopardise the vitality and vibrancy of the relevant town/village centre, while also ensuring the needs of persons with disabilities are met.  TM 0115  Minimise the impact of out-of-town parking on urban regeneration by ensuring adequate active transport infrastructure and/or public transport services between parking facilities and urban centres such as Naas, Newbridge, Maynooth etc.  TM 0116  Facilitate, along with the NTA and TII, the conversion of the private car fleet to electric in the following ways:  Providing public charging points at key destinations such as public car parks, Park and Ride facilities, on-street in town centres, and public parks;  Ensuring that where car parking is proposed as part of all new developments either public or private, provision is made for all spaces to be dedicated over time to electric cars with provision for charging infrastructure built-in from the outset;  Providing significantly expanded electric car charging facilities at service stations on the national road network;  Ensuring provision is made for fast charging points at service stations and public carparks in order to make provision for a shorter charging time than domestic charging;  Ensuring that charging infrastructure does not encroach on footpaths or otherwise compromise the free movement of pedestrians, cyclists and public transport.  Ensuring EV charging points are accessible to all, where possible.  TM 0117  Support the Government's targets for electric vehicles on roads by prioritising parking for Electric Vehicles (EVs) in central locations, by supporting the provision of charging facilities on public and private land. Ensure a future proofed approach to the rollout of EV charging infrastructure by means of planning decisions by applying the following infrastructure by means of planning decisions by applying the following	TM 0114	
not jeopardise the vitality and vibrancy of the relevant town/village centre, while also ensuring the needs of persons with disabilities are met.  TM 0115  Minimise the impact of out-of-town parking on urban regeneration by ensuring adequate active transport infrastructure and/or public transport services between parking facilities and urban centres such as Naas, Newbridge, Maynooth etc.  TM 0116  Facilitate, along with the NTA and TII, the conversion of the private car fleet to electric in the following ways:  Providing public charging points at key destinations such as public car parks, Park and Ride facilities, on-street in town centres, and public parks;  Ensuring that where car parking is proposed as part of all new developments either public or private, provision is made for all spaces to be dedicated over time to electric cars with provision for charging infrastructure built-in from the outset;  Providing significantly expanded electric car charging facilities at service stations on the national road network;  Ensuring provision is made for fast charging points at service stations and public carparks in order to make provision for a shorter charging time than domestic charging;  Ensuring that charging infrastructure does not encroach on footpaths or otherwise compromise the free movement of pedestrians, cyclists and public transport.  Ensuring EV charging points are accessible to all, where possible.  TM 0117  Support the Government's targets for electric vehicles on roads by prioritising parking for Electric Vehicles (EVs) in central locations, by supporting the provision of charging facilities on public and private land. Ensure a future proofed approach to the rollout of EV charging infrastructure by means of planning decisions by applying the following infrastructure by means of planning decisions by applying the following		, and the second
town/village centre, while also ensuring the needs of persons with disabilities are met.  Minimise the impact of out-of-town parking on urban regeneration by ensuring adequate active transport infrastructure and/or public transport services between parking facilities and urban centres such as Naas, Newbridge, Maynooth etc.  Facilitate, along with the NTA and TII, the conversion of the private car fleet to electric in the following ways:  Providing public charging points at key destinations such as public car parks, Park and Ride facilities, on-street in town centres, and public parks;  Ensuring that where car parking is proposed as part of all new developments either public or private, provision is made for all spaces to be dedicated over time to electric cars with provision for charging infrastructure built-in from the outset;  Providing significantly expanded electric car charging facilities at service stations on the national road network;  Ensuring provision is made for fast charging points at service stations and public carparks in order to make provision for a shorter charging time than domestic charging;  Ensuring that charging infrastructure does not encroach on footpaths or otherwise compromise the free movement of pedestrians, cyclists and public transport.  Ensuring EV charging points are accessible to all, where possible.  TM 0117  Support the Government's targets for electric vehicles on roads by prioritising parking for Electric Vehicles (EVs) in central locations, by supporting the provision of charging facilities on public and private land. Ensure a future proofed approach to the rollout of EV charging infrastructure by means of planning decisions by applying the following infrastructure by means of planning decisions by applying the following		
TM O115 Minimise the impact of out-of-town parking on urban regeneration by ensuring adequate active transport infrastructure and/or public transport services between parking facilities and urban centres such as Naas, Newbridge, Maynooth etc.  TM O116 Facilitate, along with the NTA and TII, the conversion of the private car fleet to electric in the following ways:  Providing public charging points at key destinations such as public car parks, Park and Ride facilities, on-street in town centres, and public parks; Ensuring that where car parking is proposed as part of all new developments either public or private, provision is made for all spaces to be dedicated over time to electric cars with provision for charging infrastructure built-in from the outset; Providing significantly expanded electric car charging facilities at service stations on the national road network; Ensuring provision is made for fast charging points at service stations and public carparks in order to make provision for a shorter charging time than domestic charging; Ensuring that charging infrastructure does not encroach on footpaths or otherwise compromise the free movement of pedestrians, cyclists and public transport. Ensuring EV charging points are accessible to all, where possible.  TM O117 Support the Government's targets for electric vehicles on roads by prioritising parking for Electric Vehicles (EVs) in central locations, by supporting the provision of charging facilities on public and private land. Ensure a future proofed approach to the rollout of EV charging infrastructure by means of planning decisions by applying the following		
ensuring adequate active transport infrastructure and/or public transport services between parking facilities and urban centres such as Naas, Newbridge, Maynooth etc.  TM 0116  Facilitate, along with the NTA and TII, the conversion of the private car fleet to electric in the following ways:  Providing public charging points at key destinations such as public car parks, Park and Ride facilities, on-street in town centres, and public parks;  Ensuring that where car parking is proposed as part of all new developments either public or private, provision is made for all spaces to be dedicated over time to electric cars with provision for charging infrastructure built-in from the outset;  Providing significantly expanded electric car charging facilities at service stations on the national road network;  Ensuring provision is made for fast charging points at service stations and public carparks in order to make provision for a shorter charging time than domestic charging;  Ensuring that charging infrastructure does not encroach on footpaths or otherwise compromise the free movement of pedestrians, cyclists and public transport.  Ensuring EV charging points are accessible to all, where possible.  TM 0117  Support the Government's targets for electric vehicles on roads by prioritising parking for Electric Vehicles (EVs) in central locations, by supporting the provision of charging facilities on public and private land. Ensure a future proofed approach to the rollout of EV charging infrastructure by means of planning decisions by applying the following		disabilities are met.
services between parking facilities and urban centres such as Naas, Newbridge, Maynooth etc.  Facilitate, along with the NTA and TII, the conversion of the private car fleet to electric in the following ways:  Providing public charging points at key destinations such as public car parks, Park and Ride facilities, on-street in town centres, and public parks;  Ensuring that where car parking is proposed as part of all new developments either public or private, provision is made for all spaces to be dedicated over time to electric cars with provision for charging infrastructure built-in from the outset;  Providing significantly expanded electric car charging facilities at service stations on the national road network;  Ensuring provision is made for fast charging points at service stations and public carparks in order to make provision for a shorter charging time than domestic charging;  Ensuring that charging infrastructure does not encroach on footpaths or otherwise compromise the free movement of pedestrians, cyclists and public transport.  Ensuring EV charging points are accessible to all, where possible.  TM O117  Support the Government's targets for electric vehicles on roads by prioritising parking for Electric Vehicles (EVs) in central locations, by supporting the provision of charging facilities on public and private land. Ensure a future proofed approach to the rollout of EV charging infrastructure by means of planning decisions by applying the following	TM 0115	, , , , , , , , , , , , , , , , , , , ,
TM O116  Facilitate, along with the NTA and TII, the conversion of the private car fleet to electric in the following ways:  Providing public charging points at key destinations such as public car parks, Park and Ride facilities, on-street in town centres, and public parks;  Ensuring that where car parking is proposed as part of all new developments either public or private, provision is made for all spaces to be dedicated over time to electric cars with provision for charging infrastructure built-in from the outset;  Providing significantly expanded electric car charging facilities at service stations on the national road network;  Ensuring provision is made for fast charging points at service stations and public carparks in order to make provision for a shorter charging time than domestic charging;  Ensuring that charging infrastructure does not encroach on footpaths or otherwise compromise the free movement of pedestrians, cyclists and public transport.  Ensuring EV charging points are accessible to all, where possible.  TM O117  Support the Government's targets for electric vehicles on roads by prioritising parking for Electric Vehicles (EVs) in central locations, by supporting the provision of charging facilities on public and private land. Ensure a future proofed approach to the rollout of EV charging infrastructure by means of planning decisions by applying the following		
Facilitate, along with the NTA and TII, the conversion of the private car fleet to electric in the following ways:  Providing public charging points at key destinations such as public car parks, Park and Ride facilities, on-street in town centres, and public parks;  Ensuring that where car parking is proposed as part of all new developments either public or private, provision is made for all spaces to be dedicated over time to electric cars with provision for charging infrastructure built-in from the outset;  Providing significantly expanded electric car charging facilities at service stations on the national road network;  Ensuring provision is made for fast charging points at service stations and public carparks in order to make provision for a shorter charging time than domestic charging;  Ensuring that charging infrastructure does not encroach on footpaths or otherwise compromise the free movement of pedestrians, cyclists and public transport.  Ensuring EV charging points are accessible to all, where possible.  TM O117  Support the Government's targets for electric vehicles on roads by prioritising parking for Electric Vehicles (EVs) in central locations, by supporting the provision of charging facilities on public and private land. Ensure a future proofed approach to the rollout of EV charging infrastructure by means of planning decisions by applying the following		
<ul> <li>Providing public charging points at key destinations such as public car parks, Park and Ride facilities, on-street in town centres, and public parks;</li> <li>Ensuring that where car parking is proposed as part of all new developments either public or private, provision is made for all spaces to be dedicated over time to electric cars with provision for charging infrastructure built-in from the outset;</li> <li>Providing significantly expanded electric car charging facilities at service stations on the national road network;</li> <li>Ensuring provision is made for fast charging points at service stations and public carparks in order to make provision for a shorter charging time than domestic charging;</li> <li>Ensuring that charging infrastructure does not encroach on footpaths or otherwise compromise the free movement of pedestrians, cyclists and public transport.</li> <li>Ensuring EV charging points are accessible to all, where possible.</li> <li>TM O117</li> <li>Support the Government's targets for electric vehicles on roads by prioritising parking for Electric Vehicles (EVs) in central locations, by supporting the provision of charging facilities on public and private land. Ensure a future proofed approach to the rollout of EV charging infrastructure by means of planning decisions by applying the following</li> </ul>	TM 0116	
public car parks, Park and Ride facilities, on-street in town centres, and public parks;  • Ensuring that where car parking is proposed as part of all new developments either public or private, provision is made for all spaces to be dedicated over time to electric cars with provision for charging infrastructure built-in from the outset;  • Providing significantly expanded electric car charging facilities at service stations on the national road network;  • Ensuring provision is made for fast charging points at service stations and public carparks in order to make provision for a shorter charging time than domestic charging;  • Ensuring that charging infrastructure does not encroach on footpaths or otherwise compromise the free movement of pedestrians, cyclists and public transport.  • Ensuring EV charging points are accessible to all, where possible.  TM O117  Support the Government's targets for electric vehicles on roads by prioritising parking for Electric Vehicles (EVs) in central locations, by supporting the provision of charging facilities on public and private land. Ensure a future proofed approach to the rollout of EV charging infrastructure by means of planning decisions by applying the following		fleet to electric in the following ways:
public car parks, Park and Ride facilities, on-street in town centres, and public parks;  • Ensuring that where car parking is proposed as part of all new developments either public or private, provision is made for all spaces to be dedicated over time to electric cars with provision for charging infrastructure built-in from the outset;  • Providing significantly expanded electric car charging facilities at service stations on the national road network;  • Ensuring provision is made for fast charging points at service stations and public carparks in order to make provision for a shorter charging time than domestic charging;  • Ensuring that charging infrastructure does not encroach on footpaths or otherwise compromise the free movement of pedestrians, cyclists and public transport.  • Ensuring EV charging points are accessible to all, where possible.  TM O117  Support the Government's targets for electric vehicles on roads by prioritising parking for Electric Vehicles (EVs) in central locations, by supporting the provision of charging facilities on public and private land. Ensure a future proofed approach to the rollout of EV charging infrastructure by means of planning decisions by applying the following		Providing public charging points at key destinations such as
centres, and public parks;  Ensuring that where car parking is proposed as part of all new developments either public or private, provision is made for all spaces to be dedicated over time to electric cars with provision for charging infrastructure built-in from the outset;  Providing significantly expanded electric car charging facilities at service stations on the national road network;  Ensuring provision is made for fast charging points at service stations and public carparks in order to make provision for a shorter charging time than domestic charging;  Ensuring that charging infrastructure does not encroach on footpaths or otherwise compromise the free movement of pedestrians, cyclists and public transport.  Ensuring EV charging points are accessible to all, where possible.  TM O117  Support the Government's targets for electric vehicles on roads by prioritising parking for Electric Vehicles (EVs) in central locations, by supporting the provision of charging facilities on public and private land. Ensure a future proofed approach to the rollout of EV charging infrastructure by means of planning decisions by applying the following		
Ensuring that where car parking is proposed as part of all new developments either public or private, provision is made for all spaces to be dedicated over time to electric cars with provision for charging infrastructure built-in from the outset;     Providing significantly expanded electric car charging facilities at service stations on the national road network;     Ensuring provision is made for fast charging points at service stations and public carparks in order to make provision for a shorter charging time than domestic charging;     Ensuring that charging infrastructure does not encroach on footpaths or otherwise compromise the free movement of pedestrians, cyclists and public transport.     Ensuring EV charging points are accessible to all, where possible.  TM O117  Support the Government's targets for electric vehicles on roads by prioritising parking for Electric Vehicles (EVs) in central locations, by supporting the provision of charging facilities on public and private land. Ensure a future proofed approach to the rollout of EV charging infrastructure by means of planning decisions by applying the following		
developments either public or private, provision is made for all spaces to be dedicated over time to electric cars with provision for charging infrastructure built-in from the outset;  • Providing significantly expanded electric car charging facilities at service stations on the national road network;  • Ensuring provision is made for fast charging points at service stations and public carparks in order to make provision for a shorter charging time than domestic charging;  • Ensuring that charging infrastructure does not encroach on footpaths or otherwise compromise the free movement of pedestrians, cyclists and public transport.  • Ensuring EV charging points are accessible to all, where possible.  TM O117  Support the Government's targets for electric vehicles on roads by prioritising parking for Electric Vehicles (EVs) in central locations, by supporting the provision of charging facilities on public and private land. Ensure a future proofed approach to the rollout of EV charging infrastructure by means of planning decisions by applying the following		
spaces to be dedicated over time to electric cars with provision for charging infrastructure built-in from the outset;  • Providing significantly expanded electric car charging facilities at service stations on the national road network;  • Ensuring provision is made for fast charging points at service stations and public carparks in order to make provision for a shorter charging time than domestic charging;  • Ensuring that charging infrastructure does not encroach on footpaths or otherwise compromise the free movement of pedestrians, cyclists and public transport.  • Ensuring EV charging points are accessible to all, where possible.  TM O117  Support the Government's targets for electric vehicles on roads by prioritising parking for Electric Vehicles (EVs) in central locations, by supporting the provision of charging facilities on public and private land. Ensure a future proofed approach to the rollout of EV charging infrastructure by means of planning decisions by applying the following		
charging infrastructure built-in from the outset;  Providing significantly expanded electric car charging facilities at service stations on the national road network;  Ensuring provision is made for fast charging points at service stations and public carparks in order to make provision for a shorter charging time than domestic charging;  Ensuring that charging infrastructure does not encroach on footpaths or otherwise compromise the free movement of pedestrians, cyclists and public transport.  Ensuring EV charging points are accessible to all, where possible.  TM O117  Support the Government's targets for electric vehicles on roads by prioritising parking for Electric Vehicles (EVs) in central locations, by supporting the provision of charging facilities on public and private land. Ensure a future proofed approach to the rollout of EV charging infrastructure by means of planning decisions by applying the following		
<ul> <li>service stations on the national road network;</li> <li>Ensuring provision is made for fast charging points at service stations and public carparks in order to make provision for a shorter charging time than domestic charging;</li> <li>Ensuring that charging infrastructure does not encroach on footpaths or otherwise compromise the free movement of pedestrians, cyclists and public transport.</li> <li>Ensuring EV charging points are accessible to all, where possible.</li> <li>TM 0117</li> <li>Support the Government's targets for electric vehicles on roads by prioritising parking for Electric Vehicles (EVs) in central locations, by supporting the provision of charging facilities on public and private land. Ensure a future proofed approach to the rollout of EV charging infrastructure by means of planning decisions by applying the following</li> </ul>		charging infrastructure built-in from the outset;
<ul> <li>Ensuring provision is made for fast charging points at service stations and public carparks in order to make provision for a shorter charging time than domestic charging;</li> <li>Ensuring that charging infrastructure does not encroach on footpaths or otherwise compromise the free movement of pedestrians, cyclists and public transport.</li> <li>Ensuring EV charging points are accessible to all, where possible.</li> <li>TM O117 Support the Government's targets for electric vehicles on roads by prioritising parking for Electric Vehicles (EVs) in central locations, by supporting the provision of charging facilities on public and private land. Ensure a future proofed approach to the rollout of EV charging infrastructure by means of planning decisions by applying the following</li> </ul>		Providing significantly expanded electric car charging facilities at
stations and public carparks in order to make provision for a shorter charging time than domestic charging;  • Ensuring that charging infrastructure does not encroach on footpaths or otherwise compromise the free movement of pedestrians, cyclists and public transport.  • Ensuring EV charging points are accessible to all, where possible.  TM O117  Support the Government's targets for electric vehicles on roads by prioritising parking for Electric Vehicles (EVs) in central locations, by supporting the provision of charging facilities on public and private land. Ensure a future proofed approach to the rollout of EV charging infrastructure by means of planning decisions by applying the following		service stations on the national road network;
shorter charging time than domestic charging;  • Ensuring that charging infrastructure does not encroach on footpaths or otherwise compromise the free movement of pedestrians, cyclists and public transport.  • Ensuring EV charging points are accessible to all, where possible.  TM O117 Support the Government's targets for electric vehicles on roads by prioritising parking for Electric Vehicles (EVs) in central locations, by supporting the provision of charging facilities on public and private land. Ensure a future proofed approach to the rollout of EV charging infrastructure by means of planning decisions by applying the following		Ensuring provision is made for fast charging points at service
<ul> <li>Ensuring that charging infrastructure does not encroach on footpaths or otherwise compromise the free movement of pedestrians, cyclists and public transport.</li> <li>Ensuring EV charging points are accessible to all, where possible.</li> <li>TM O117 Support the Government's targets for electric vehicles on roads by prioritising parking for Electric Vehicles (EVs) in central locations, by supporting the provision of charging facilities on public and private land. Ensure a future proofed approach to the rollout of EV charging infrastructure by means of planning decisions by applying the following</li> </ul>		stations and public carparks in order to make provision for a
footpaths or otherwise compromise the free movement of pedestrians, cyclists and public transport.  • Ensuring EV charging points are accessible to all, where possible.  TM O117  Support the Government's targets for electric vehicles on roads by prioritising parking for Electric Vehicles (EVs) in central locations, by supporting the provision of charging facilities on public and private land. Ensure a future proofed approach to the rollout of EV charging infrastructure by means of planning decisions by applying the following		
pedestrians, cyclists and public transport.  • Ensuring EV charging points are accessible to all, where possible.  TM O117 Support the Government's targets for electric vehicles on roads by prioritising parking for Electric Vehicles (EVs) in central locations, by supporting the provision of charging facilities on public and private land. Ensure a future proofed approach to the rollout of EV charging infrastructure by means of planning decisions by applying the following		
Ensuring EV charging points are accessible to all, where possible.  TM O117  Support the Government's targets for electric vehicles on roads by prioritising parking for Electric Vehicles (EVs) in central locations, by supporting the provision of charging facilities on public and private land. Ensure a future proofed approach to the rollout of EV charging infrastructure by means of planning decisions by applying the following		·
TM O117  Support the Government's targets for electric vehicles on roads by prioritising parking for Electric Vehicles (EVs) in central locations, by supporting the provision of charging facilities on public and private land. Ensure a future proofed approach to the rollout of EV charging infrastructure by means of planning decisions by applying the following		
TM O117 Support the Government's targets for electric vehicles on roads by prioritising parking for Electric Vehicles (EVs) in central locations, by supporting the provision of charging facilities on public and private land. Ensure a future proofed approach to the rollout of EV charging infrastructure by means of planning decisions by applying the following		
prioritising parking for Electric Vehicles (EVs) in central locations, by supporting the provision of charging facilities on public and private land. Ensure a future proofed approach to the rollout of EV charging infrastructure by means of planning decisions by applying the following	TM 0447	•
supporting the provision of charging facilities on public and private land.  Ensure a future proofed approach to the rollout of EV charging infrastructure by means of planning decisions by applying the following	TWI OTT/	, , ,
Ensure a future proofed approach to the rollout of EV charging infrastructure by means of planning decisions by applying the following		, , , , , , , , , , , , , , , , , , , ,
infrastructure by means of planning decisions by applying the following		
requirements of the FU (Energy Performance of Buildings) Regulations		
Togalionions of the Lo (Lineigy) of official and of ballatings) regulations		requirements of the EU (Energy Performance of Buildings) Regulations
		Ensure a future proofed approach to the rollout of EV charging infrastructure by means of planning decisions by applying the following

TM 0118	<ul> <li>2021 (S.I. 393 2021) for Electric Vehicle recharging infrastructure:</li> <li>New buildings or buildings undergoing major renovations (other than a dwelling) shall install at least one recharging point and ducting infrastructure for at least one in every 5 car parking spaces to enable the subsequent installation of recharging points for electric vehicles.</li> <li>New buildings or buildings undergoing major renovations (containing one or more than one dwelling), which has more than 10 car parking spaces, shall install ducting infrastructure for each car parking space to enable the subsequent installation of recharging points for electric vehicles.</li> <li>Ensure the electrical wiring that developers install for all new residential</li> </ul>
TIVI OTTO	units includes a double socket Home Charge Point for Electric Vehicles
	in order to comply with the Sustainable Energy Authority of Ireland
	(SEAI) Triple E Register and to promote the use of night-time renewable
	electricity in transport. In this regard developers shall provide for within
	curtilage/driveway car parking unless otherwise
TM O119	agreed in writing with the Planning Authority.
TWOTTS	Ensure car parking particularly parking associated with retail areas is designed in such a manner as to reduce visual impact and promote
	carbon sequestration, green infrastructure, and nature-based surface
	water drainage solutions by requiring:
	The landscape design to include planting of trees and pollinator
	species to be undertaken by an appropriately qualified Landscape
	Architect and in collaboration with an appropriately qualified
	ecologist to ensure the biodiversity in the general area will support European Sites;
	<ul> <li>The construction details for the root zones of the proposed trees in</li> </ul>
	accordance with best practice and to specify which locations utilise
	systems such as 'root barriers' to avoid future conflict between roots,
	roads, footpath surfaces and underground utility services;
	The provision of not more than two parallel or five perpendicular
	spaces between trees/planting bays; and
TM O120	The use of permeable paving, where appropriate.  Promote appropriate parking arrangements for specific user
TIVI O 120	Promote appropriate parking arrangements for specific user requirements including age friendly parking, hidden disabled, disabled
	parking, bicycle parking and motorcycle parking in towns, public
	transport nodes and
	other destinations.
TM 0121	Where appropriate, to require the provision of HGV parking facilities at
	motorway service areas, fuel filling stations, new industrial developments and other appropriate locations within the County.
TM O122	Support car sharing initiatives as part of new housing developments and
	workplaces.
TM O123	Facilitate the provision of appropriately sized bus parking facilities at
	appropriate locations in all towns (Key Towns, Self-Sustaining Growth Towns and Self-Sustaining Towns).
	Towns and Jen-Justaining Towns).

#### Action

It is an action of the Council to:

TM A27	Prepare parking strategies and investigate the appropriate locations for
	car parking facilities within the county. The locations of such facilities
	can be identified where appropriate through the Local Area Plan
	process.

#### 5.12 Public Lighting

The appropriate lighting of our road network can positively contribute to a reduction in both the number and the severity of road traffic accidents.

The application of adequate lighting and using the appropriate light source provides an increase in personal safety, particularly for vulnerable road users. With recent technological advances in street lighting more energy efficient solutions are now available in order to reduce revenue costs and minimise impacts on the environment.

Good street lighting can enhance the night time environment which helps promote the night time economy as activities in towns continue beyond dusk and into the later hours.

#### **Policy**

It is the policy of the Council to:

TM P11	Ensure street lighting is provided in accordance with Kildare County
	Councils 'Street Lighting and Planning Guidance' policy document in
	either draft or adopted form. The document outlines the general
	principles and requirements for street lighting in the county.

#### **Objectives**

TM O124	Expand the existing public lighting network and ensure that all new developments are provided with adequate public lighting for the safety of all pedestrians, cyclists and minority groups. Such lighting networks shall have regard for protected species such as bats which can potentially be affected by lighting systems. The Lux, wavelength and TTC <sup>28</sup> (Total Transfer Capability) will be considered in the selection of
TM O125	appropriate lighting.  Ensure that landscape proposals detail public lighting locations and that proposed street lighting is not compromised by tree planting. The landscape proposals should ensure that the trees are planted a sufficient distance from public lighting so that when the canopy matures it does not cover the light standard.

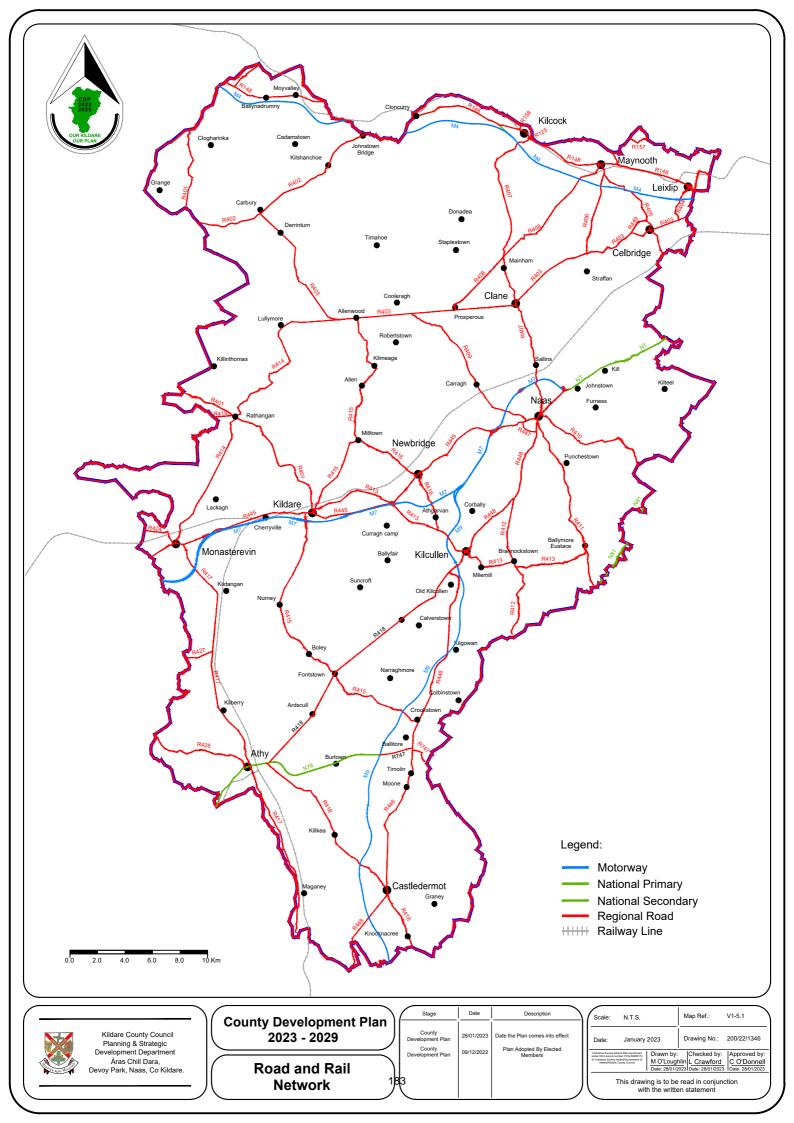
<sup>&</sup>lt;sup>28</sup> **Total Transfer Capability (TTC)**: The amount of electric power that can be transferred over the interconnected transmission network in a reliable manner while meeting all of a specific set of defined pre-- and post--contingency system conditions

TM O126	Remove all inappropriate and unnecessary street lighting and cabling and ensure future street lighting installations do not adversely impact sensitive physical, environmental, natural and heritage resources within the county.
TM O127	Ensure that all new street lighting is provided in accordance with best practice guidelines and standards in terms of the type of lighting columns, lantern types, lighting class, lux levels and LEDs being provided. The 'white light' delivered by LED lights will provide greater colour rendering and provide sharper contrast and improved safety for road users.
TM O128	Explore the possibility of providing solar powered lighting for new street lighting schemes, where appropriate.
TM O129	Consider replacing sodium lights with Smart LEDs and motion sensors and deploying Central Management Systems, to improve the efficiency of the existing public lighting assets in order to minimise electricity usage as upgrades or improvements occur.
TM O130	Ensure that the design of external lighting schemes minimises the incidence of light spillage or pollution in the immediate surrounding environment and has due regard to the residential amenity of surrounding areas and the need to mitigate adverse impacts on sensitive fauna and protected species.

## Action

It is an action of the Council to:

TM A28	Require that any lighting design strategies to be developed to minimise impacts on biodiversity. The chosen luminaires should have an optimum light control and a tightly controlled distribution to minimise light spillage or pollution outside of the immediate site area and potential impact on biodiversity in particular navigation routes and natural habitats. Cowls/shields should be utilised to provide directional lighting. In general lighting luminaires should be positioned to avoid up-lighting where possible. Consideration should be taken regarding lux level, wavelength and Total Transfer Capability (TTC) so as to avoid any potential harmful impacts on protected species such as bats.
TM A29	Require the undergrounding of wiring for public lights as part of all appropriate infrastructural projects.



#### 5.13 Aviation

#### 5.13.1 Introduction

This section of the Plan describes aviation-related planning considerations, and the restrictions on development that may apply in the vicinity of aerodromes located within or close to County Kildare.

It is a responsibility of the Irish Aviation Authority (In relation to licensed aerodromes and to aviation in general), when notified, to evaluate planning applications which might affect the safe and efficient navigation of aircraft, and to advise the Council of potential hazards to air navigation; and it is a responsibility of the Department of Defence to advise on such matters in regard to Casement Aerodrome and military aviation.

## 5.13.2 Aerodrome Safeguarding, 'Obstacle Limitation Surfaces', and 'Shielding' ICAO "Annex 14"

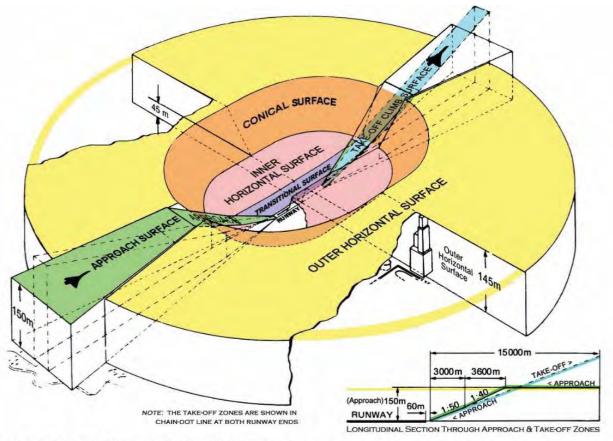
Safeguarding requirements in the vicinity of aerodromes are set out by the International Civil Aviation Organization (ICAO) in the *Standards and Recommended Practices* in its "Annex 14" document. As of 2017, the European Aviation Safety Agency (EASA), also sets out similar standards in its "Certification Specifications", which apply to Ireland's regional and international airports. Weston, Kilrush and Gowran Grange aerodromes all remain under ICAO "Annex 14" Standards and Recommended Practices, and the Department of Defence has opted to apply these ICAO Standards at Casement military aerodrome. Weston Airport is of a size that could come under EASA certification requirements, but it is temporarily exempted due to low traffic figures, and at present remains under ICAO "Annex 14" Standards.

The current ICAO "Annex 14" Standards and Recommended Practices have been extensively revised at the end of 2018, bringing them in line with the new EASA Aerodrome Certification Specifications of 2017. The principal difference which affects the Kildare County Development Plan (CDP) is a narrowing (by 10m to each side) of the Approach Surfaces and Flight Strips for larger aerodromes (e.g. Casement), but smaller aerodromes (including Weston) are currently unaffected.

#### 'Shielding'

In assessing permissible heights in relation to the ICAO 'obstacle limitation surfaces' the principle of 'shielding' (as defined by ICAO) may be relevant, in particular in elevated areas such as the vicinity of Kilteel, where existing objects, and the land itself, project above these obstacle limitation surfaces. The IAA also provide guidance on 'shielding'. This principle allows that (subject to aeronautical analysis) an existing tall 'obstacle' – whether a building, mast, aerial, tree, or the ground itself – which is located nearer to the relevant runway, may provide a 'shielding' for another new object behind it which rises to the same elevation OD.

A diagram to explain the various ICAO and EASA obstacle limitation surfaces is included below as Figure 5.10.



ICAO AND EASA 'OBSTACLE LIMITATION SURFACES' [IN THIS DIAGRAM THE VERTICAL SCALE IS 20 TIMES THAT OF THE HORIZONTAL SCALE]
O'DWYER & JONES DESIGN PARNERSHIP, AVIATION PLANNING CONSULTANTS

Figure 5.10 - Diagram to explain the various ICAO and EASA obstacle limitation surfaces

#### 5.13.3 Public Safety Zones

To more accurately make provision for the protection of people on the ground, the former prohibition on new development in the immediate vicinity of runway thresholds is transferred to new Public Safety Zones extending from the ends of runways at all aerodromes in Kildare.

At all aerodromes in Kildare, Public Safety Zones (of tapering triangular shape) are being provided in lieu of previous (trapezium-shaped) 'red' zones. These are of 1000m length by 100m width, within which no new development involving human occupancy will be permitted.

An additional Outer Public Safety Zone (of 2000m length by 200m width) is also being provided – in coordination with South Dublin – at the ends of Weston's Runway & Stopway, within which human occupancy will be limited. For Weston Airport, located in two counties (and for Casement Aerodrome, which affects Kildare), the same changes are being applied in South Dublin.

Pending more detailed review, the maximum occupancy numbers to be permitted in this Outer Public Safety Zone will be the same as applied within other Outer Public Safety Zones in Ireland (e.g. at Dublin Airport), and these occupancies are listed in Objective TM O143 below.

#### 5.13.4 Airport/Aircraft Noise

Aircraft noise may affect areas around aerodromes & helipads and under flight paths. Maximum permitted aircraft noise levels are set by ICAO and EASA, with limits and methods of calculation for each classification of aircraft set out in ICAO's 'Annex 16 – Environmental Protection Volume 1: Aircraft Noise.' Compliance with Annex 16 noise standards is regulated within the EU by the European Aviation Safety Agency and within individual States by the aircraft registration authorities (i.e. by the IAA for Irish registered ["EI"-reg] aircraft).

Environmentally incompatible development should be avoided in areas where high aviation noise is to be expected (such as within the noise contour around Weston). This would include hospitals, nursing homes, conference centres, schools, kindergartens, and some agricultural uses (such as stud farms and poultry farms).

#### 5.13.5 Terms and Definition

#### Runway

A rectangular on an airfield prepared for the landing and take-off of aircraft, which may be paved or of mown grass surface.

#### Stopway (as in Kildare at Weston)

Defined by ICAO as a rectangular area at the end of a "Take-off Run Available" prepared as a suitable area in which an aircraft can be stopped in the case of an abandoned take-off. In effect a Stopway is a physical surface which increases the "Accelerate-stop distance available" (ASDA).

#### Clearway

Defined by ICAO as a rectangular area on the ground (or water) under the control of the appropriate authority, prepared as a suitable area over which an aeroplane may make a portion of its initial climb to a specified height. [It can be of greater length than a Stopway in the same location, and it is not a physical paved surface but is a wide clear airspace which increases the "take-off distance available" (TODA)].

#### **Aerodrome Reference Codes**

Aerodrome Reference Codes [1, 2, 3 or 4] refer to the field length(s) of aerodromes /airports (i.e. runway length available). Code 1 = field length less than 800m (e.g. Kilrush), Code 2 = field length 800-1199m (e.g. Weston), Code 3 = field length 1200-1799m, and Code 4 = any field length greater than 1800m (e.g. Casement). For the different aerodrome codes, different 'obstacle limitation surface' dimensions apply.

#### **Department of Defence**

Casement Aerodrome at Baldonnell (being a military aerodrome) does not fall under the control of the IAA. However, ICAO Standards and Recommended Practices are generally applied as policy by the Department of Defence at Casement Aerodrome.

# 5.13.6 Other Aviation Considerations at/around Aerodromes Navigational Equipment & Telecommunications (See also Chapter 7 – Energy & Communications)

Additional aeronautical restrictions may arise in relation to existing Communication, Navigation and Surveillance (CNS) facilities (such as DVOR/DME facilities at Weston and Casement Aerodromes). The IAA provides guidance as to potential interference with such CNS facilities by proposed developments.

5G masts or other electronic or telecommunications infrastructure, and wind turbines, can have potential for interference with such aviation CNS equipment, and may require assessment and mitigation measures if located close to such equipment. In addition, metallic-clad surfaces in the vicinity of such CNS equipment may cause interference due to wave reflection.

#### **Cranes During Construction, and Use of Lasers and Drones**

Temporary structures, such as cranes used during construction, must also be assessed in relation to the ICAO (or EASA) obstacle limitation surfaces, and notified as necessary in advance to the IAA and relevant aerodrome operator. This applies in particular to tower cranes which may extend to a considerable height above a proposed development (and well above the 45m height of an Inner Horizontal Surface).

Use of lasers can significantly affect pilot vision and use of lasers in approach or takeoff areas should be avoided (except by prior agreement with the aerodrome operator).

Drones can be a significant hazard in the vicinity of aerodromes, and the operation of drones in controlled airspace and the vicinity of aerodromes is regulated by the IAA, who also provide guidance on drone use.

#### **Bird Strike Hazard**

The Irish Aviation Authority recommends that development which may attract birds, such as, *inter alia,* refuse tips, sewage works, reservoir, wetlands, nature reserves, or major planting schemes such as rubbish dumps, should not be located within 13km of Casement Aerodrome, or within 8km of Weston, and avoided under all runway approaches.

#### Smoke, Dust, Steam or Thermal-plume Producing Activities

Smoke, dust, steam, or thermal-plume-generating activities, such as quarrying, mineral extraction, power plants, or other industrial development which could hinder visibility, should be assessed or avoided under the approaches to runways.

#### Wind Turbines & Wind Farms (See also Wind Energy in Chapter 7)

Wind turbines and wind farms can be en-route hazards to aviation, especially in the vicinity of an aerodrome, or on its approaches, or on elevated ground. They can also interfere with navigational and broadcasting equipment, including radar. All turbines determined to be obstacles to aviation after aviation study (including, per IAA guidance, any in excess of 90m above ground) must be provided with aviation warning obstacle lights in accordance with ICAO (or EASA) requirements and must be identified on aviation charts. Additional lighting provisions will be necessary for turbines extending above 150m, and infra-red lighting – compatible with night-vision goggles – will

generally be required in Military Operating Areas.

Solar/PV Panels and External lighting and Power Lines (See also Solar Energy in Chapter 7)

Solar/PV Panel Arrays can give rise to glare problems for pilots and for air traffic controllers, so that any proposed arrays in the vicinity of aerodromes or helipads, or on their approaches, should be assessed within 'Glint and Glare' studies in relation to runway thresholds, flight paths, and control tower/s.

External lighting under runway approaches should normally be of the cut-off type (i.e. not showing light above the horizontal), and lighting masts should not protrude above any obstacle limitation surface (unless 'shielded' by an existing object of equal or greater elevation). Overhead power lines should be avoided on runway approaches close to an aerodrome or close to a helipad, with power lines routed underground in such locations.

#### 5.13.7 Military Aviation Activities

Although Casement Aerodrome at Baldonnel is located wholly within South Dublin, its Approach and Take-off-climb Surfaces extend well into Kildare – to between Naas and Blessington in respect of Casement Runway/s 04/22, and to between Maynooth and Clane in respect of Casement Runway/s 10/28. These are shown on Development Plan maps (Map Ref 5.4) and it should be noted that the designations of all of Casement's runways were changed in 2019, so that the runways referred to in previous Kildare Plans as 05/23 and 11/29 are now designated 04/22 and 10/28. Operations at Casement Aerodrome do not fall under IAA or ICAO control (as it is a military aerodrome); however, ICAO Standards and Recommended Practices are applied as policy by the Department of Defence at Casement Aerodrome.

In addition to providing safeguarding for aircraft operations to/from Casement Aerodrome, the Plan also recognises that much of the airspace above County Kildare is a "Military Operating Area" with designation "MOA4". The IAA provides that this airspace is available to non-military aircraft at most times but can be closed to non-military flying at short notice so that "military flying training, aerobatics, and air combat manoeuvres" can take place however Kildare County Council would strongly discourage such manoeuvres taking place over built-up areas.

#### 5.13.8 Helipads

To safeguard operations at helipads, it is proposed that a 1 in 8 slope in all directions around existing or future helipads will be preserved free of any new obstacles, and that no overhead wires will be allowed in their vicinity.

#### 5.13.9 Aerial Sporting and Recreational Activities in Kildare

The various aerodromes and airfields within (and close to) Kildare provide a variety of recreational facilities. These include Gliding at Gowran Grange (with associated Lee Wave Soaring Area above Kildare & Wicklow), Ballooning at Carragh, General Aviation recreational flying at Kilrush and at Weston, Flight Training at Weston, and Parachuting from Clonbullogue Aerodrome (in Offaly). Other activities include Microlight flying, Hang-gliding (near the Wicklow border), Unmanned and Model Aircraft Flying at Newbridge and Blessington, and Acrobatics by Air Corps aircraft.

The development of such aviation-related recreational facilities will be encouraged, subject to the proper planning and sustainable development of the area concerned.

#### 5.13.10 Aviation in General

#### **Policy**

It is the policy of the Council to:

TM P12	Support the safe and efficient navigation of aircrafts throughout the County.
TM P13	Discourage noise-sensitive developments in the immediate vicinity of airports and aerodromes.

#### **Objectives**

TM O131	Safeguard aerodromes and air navigation in Kildare by application of
	international 'obstacle limitation standards' – in particular the ICAO
	Standards and Recommended Practices contained in "Annex 14" to the
	Convention on International Civil Aviation (for those aerodromes
	subject to ICAO Standards), and the EASA Aerodrome Certification
	Specifications (for any aerodrome subject to EASA Specifications), and
	to take into account (per ICAO guidance) any 'shielding' that may
	be provided by existing 'obstacles' in the vicinity.
TM O132	Analyse the impact of any new aerodromes, or of an intensification of
0 .02	use of existing aerodromes, on the established character and amenities
	of an area, with a general presumption against development where the
	technical and safety requirements associated with such development
	would be contrary to the proper planning and sustainable development
	of the County.
TM O133	Consult with the Irish Aviation Authority in regard to applications in the
1 W O 133	vicinity of aerodromes, and in regard to developments that may exceed
	45 metres in height above ground level, or 45m above the aerodrome's
TM O134	datum level, or where it is considered appropriate.
TW 0134	Refer, where appropriate, proposed wind farm development
	applications located within MOA4 (as per Map 5.2) and refer proposed
	solar farm development applications located within 3km of the Curragh
	Camp to the Department of Defence.
TM O135	Restrict or prohibit development such as landfills (or other attractants to
	birds) in the vicinity of aerodromes or flight paths, or within 13km of
	Casement Aerodrome, or within 8km of Weston Airport.
TM O136	Limit residential development and other land uses impacted by noise,
	such as nursing homes, schools, hospitals and conference centres
	within the Noise Significant Area Boundary delineated for Weston (Map
	5.3) and Casement (Map 5.4) and ensure that any noise sensitive uses
	are subject to an appropriate noise assessment and mitigation
	measures to protect residential amenity.
TM O137	Restrict or prohibit smoke-, dust-, steam-, or thermal-plume-producing
	development under Approaches to aerodrome runways, which may
	interfere with the safe navigation of aircraft; and to require new external

	lighting and any solar/PV arrays in such locations to be analysed in relation to potential visual interference.
TM O138	Restrict or prohibit development or industrial processes in the vicinity of aviation Communication, Navigation or Surveillance equipment which might interfere with such equipment, and to refer such development to the IAA.
TM O139	Refer any proposed overhead power or communication cables in the vicinity of an aerodrome to the IAA, and to require any such cables to be routed underground within 100m of a runway and under all Public Safety Zone areas.
TM O140	Require an aviation analysis to be provided for any proposed development within the areas coloured dark grey on the CDP "Map of Areas of Aviation Significance", and to require aviation analysis for development of over 15m in height (above ground level) within the areas coloured light grey on the same map, and for development of over 30m in height above ground level in all other areas (and this analysis should take into account the elevations-OD/AMSL (a) of the proposed development, and (b) of the ground levels on the site, and (c) of any relevant aviation 'obstacle limitation surfaces'. Please see Map Ref. 5.2.
TM O141	Seek, when considered necessary, information such as aircraft movement (and/or passenger) logs, and aircraft movement and passenger forecasts, and aviation noise records and forecasts, in relation to any significant proposed developments at existing airports/aerodromes or at any proposed airports/aerodromes.

#### 5.13.11 Public Safety Zones

Public Safety Zones in the vicinity of aerodromes are areas in which development or certain types of development, may be restricted to provide added safety for the persons on the ground. The adoption of Public Safety Zones (in which development is restricted can have the collateral / added benefit of restricting development in these areas where higher levels of aircraft noise occur.

#### **Policy**

It is the policy of the Council to:

TM P14	Improve protection for the public on the ground, in the event of an
	aircraft crash occurring, through the provision of Inner and Outer Public
	Safety Zones around all aerodromes.

#### **Objectives**

It is an objective of the Council:

TM O142	Prohibit all <i>new</i> development involving human occupancy in the Inner Public Safety Zones (of 1km length by 100m width) at all aerodromes in Kildare, as identified on the Development Plan maps.
TM 0143	<ul> <li>Coordinate with South Dublin in limiting all <i>new</i> development in the new Outer Public Safety Zones (of 2km by 200m) at Weston Airport with occupancies per half hectare of:</li> <li>60 persons or less for housing/residential,</li> <li>85 persons or less for retail or leisure,</li> <li>110 persons or less for working premises, and</li> <li>with a prohibition (in all Public Safety Zone areas) on sports stadia, and on any <i>new</i> sensitive/institutional development such as schools or medical facilities, and on any <i>new</i> development involving 24-hour occupancy such as retirement homes.</li> </ul>
TM O144	Review Public Safety Zone dimensions and occupancy limits in accordance with actual and predicted air traffic figures and having regard for any recommended international airport Public Safety Zone practice.

#### 5.13.12 Weston Airport

Weston Airport (also called Weston Aerodrome) is located to the north-east of Celbridge to both sides of the boundary between County Kildare and South County Dublin. Most of the aerodrome, runway and associated infrastructure is located on lands within the South Dublin County Council administrative area, with a small part of its runway and its paved Stopway and its Clearway located in County Kildare.

Weston is of a size that would fall under EASA [European Aviation Safety Agency] Certification Specifications, but it has been temporarily exempted from coming under EASA control due to low annual passenger figures, and continues to be licensed by the IAA, so that ICAO's "Annex 14" Standards and Recommended Practices continue to apply at Weston for the time being. If passenger numbers increase sufficiently at Weston, it will become liable to EASA Certification (rather than being licensed by the IAA), but this will not change the safeguarding being applied, as the EASA and ICAO requirements have become coordinated as of November 2018. As of 2021, the IAA no longer applies an Outer Horizontal Surface around Weston aerodrome.

#### **Policy**

It is the policy of the Council to:

TM P15	Support the safety of operations at Weston Aerodrome, and to prevent
	encroachment of development around the Aerodrome which may
	interfere with its safe operation, in the context of the proper planning
	and sustainable development of the surrounding area and amenities.

**Objectives** It is an Objective of the Council to (re Weston):

TM O145	Prevent encroachment of development, and incompatible development, in the vicinity of Weston Aerodrome which may interfere with its safe operation.
TM O146	Have regard for the advice of the statutory bodies responsible for the control and safety of operations at Weston Aerodrome, in the context of the proper planning and sustainable development of the area and the protection of amenities.
TM O147	Refer any development within 3.6km of Weston Aerodrome's runway (i.e. within the plan area of its Horizontal and Conical Surfaces, as are indicated on Kildare CDP Maps) to the Irish Aviation Authority, and to limit the heights of development in its vicinity in accordance with ICAO 'obstacle limitation' requirements.
TM O148	Ensure a balanced approach to any further lengthening of the permitted runway or over-run areas having regard to the need for environmental and other assessments including noise and assessment of the impact on local communities.
TM O149	Continue to develop a common protocol with South Dublin County Council to guide the consideration of planning applications at Weston Airport.

#### **5.13.13 Casement Aerodrome & Air Corps Operations**

Casement Aerodrome is located wholly within South Dublin county area, at about 2.5 kilometres from the county boundary with Kildare. It is headquarters of the Irish Air Corps and the principal State military aerodrome, with substantial fixed-wing training and helicopter operations.

It should be noted that Casement's 'obstacle limitation surfaces' reach 15km from the aerodrome, and extend by a considerable distance into Kildare, and in some locations (as at Lyons Hill, and in the Kilteel area) are <u>below</u> existing ground levels. Height restrictions under Casement's Outer Horizontal Surface [OHS] and the Approach to its Runway 04 extend as far as Blessington. Please refer to Map Ref 5.4.

#### **Policy**

It is the policy of the Council to:

TM P16	Safeguard the current and future operational, safety and technical
	requirements of Casement Aerodrome and to facilitate its ongoing
	development for military and ancillary uses within a sustainable
	development framework.

#### **Objectives**

TM O150	Prevent encroachment of incompatible development, on the approaches to Casement Aerodrome which may interfere with its safe operation.
TM O151	Refer any significant proposed development (including wind and solar farms), where appropriate, within 6km of Casement Aerodrome's runways (i.e. within the plan area of its Inner Horizontal and Conical Surfaces) or under its Approach Surfaces, to the Department of Defence, and to limit the heights of development under its 'obstacle limitation surfaces' which extend into Kildare (as are indicated on Kildare CDP Maps) in accordance with ICAO 'obstacle limitation' guidance.
TM O152	Refer any development of greater than 45m height above ground level within 37km of Casement Aerodrome to the Department of Defence.

#### 5.13.14 Other Small Aerodromes and Helipads in Kildare

#### **Gowran Grange Aerodrome** (see Map Ref 5.5)

Gowran Grange Aerodrome, with one grass runway, is located beside the R411 Road south-west of Punchestown Racecourse and is home to the Dublin Gliding Club. It is not licensed (for passenger traffic) by the IAA at date of writing the CDP, and its 'obstacle limitation' restrictions will particularly affect any development in the nearby elevated land at Glebe West. [A separate adjoining airstrip within Punchestown Racecourse is no longer in operation.]

#### Kilrush Aerodrome (see Map Ref 5.6)

Kilrush Aerodrome, with two runways (one paved and one of grass) is located beside the R418 Road between Kilcullen and Athy. Although previously licensed by the IAA, it is not licensed at date of writing the CDP. Kilrush 'obstacle limitation' restrictions will particularly affect any development in nearby elevated lands at Bullhill and Lipstown.

#### Airfield at Clarkestown

Another small private unlicensed airfield with grass runway exists at Clarkestown to the west of Naas.

#### Airfield at Stramillan

A small airfield has been permitted (for possible glider use) at Stramillan near Monasterevin, but this is not yet developed.

#### Helipad/s

The county contains some private helipads but does not contain a hospital helipad at date of writing the CDP.

#### **Policy**

It is the policy of the Council to:

TM P17	Safeguard the current and future operational, safety and technical				
	requirements of Kilrush and Gowran Grange aerodromes, and of other				
	small permitted airfields with the County.				

#### **Objectives**

TM O153	Ensure that any new development within a 2.7km radius of Kilrush Aerodrome, or within 2.7km of Gowran grange Aerodrome, or of permitted airfields at Clarkestown and Stramillan (i.e. within the outlines of their Conical Surface as indicated on the CDP maps) will be subject to the obstacle limitation requirements of ICAO's 'Annex 14', and also be referred to the IAA.
TM O154	Require that any new development in the vicinity of an existing permitted helipad not project above a 1 in 8 gradient commencing at 10m from the centre of the helipad.

#### 5.13.15 Aerodromes in Other Counties which affect Kildare

#### **Dublin Airport**

The only area within Co. Kildare that is affected by Dublin Airport is a small area on the northern boundary of the County, which is subject to a Dublin Airport requirement that any proposed structure higher than 90m above ground level be notified to the Dublin Airport Authority for assessment. Please refer to Map Ref 5.2 below.

#### Moyglare and Dolly's Grove Airfields (in Meath)

The ICAO 'obstacle limitation surfaces' for two small unlicensed private airfields in Meath extend into north Kildare near Maynooth (at distances of 2.7km from these airfields). The 'surfaces' for Moyglare airfield (with one grass runway) extend to around 1.85km over Kildare, and the 'surfaces' for Dolly's Grove airfield (with one paved runway) extend to around 850m over Kildare. Please refer to Map Ref. 5.2 below.

#### **Policy**

It is the policy of the Council to:

TM P18	Safeguard the operational, safety and technical requirements of
	permitted airports/aerodromes/heliports in adjoining counties whose
	'obstacle limitation surfaces' extend above Kildare.

#### **Objectives**

TM O155	Have regard for the ICAO obstacle limitation requirements of					
	airports/aerodromes in adjoining counties whose 'obstacle limitation					
	surfaces' extend above Kildare.					
TM O156	Refer to the IAA, the IAA-ANSP (Air Navigation Services Provider) and					
	to Dublin Airport Authority any proposed development of more than					
	90m above ground level which might lie under the small part of					
	Dublin Airport's Obstacle Limitation Surface which lies above Kildare.					

#### 5.13.16 Future Aviation Facilities in Kildare

Although Covid 19 has seen a significant reduction in Aviation over the recent past, it is anticipated that Aviation will play an important role in Kildare over the coming years.

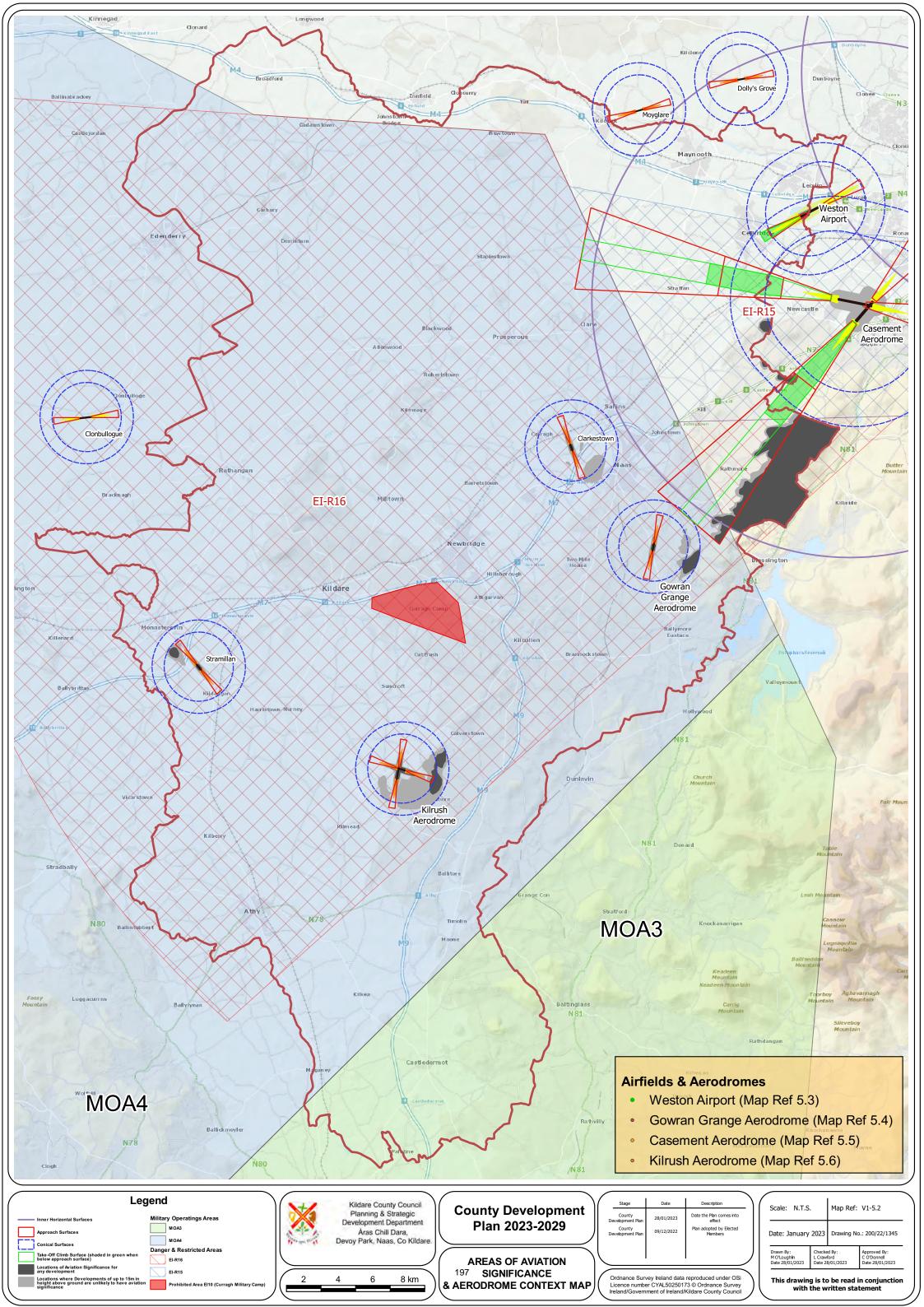
#### **Policy**

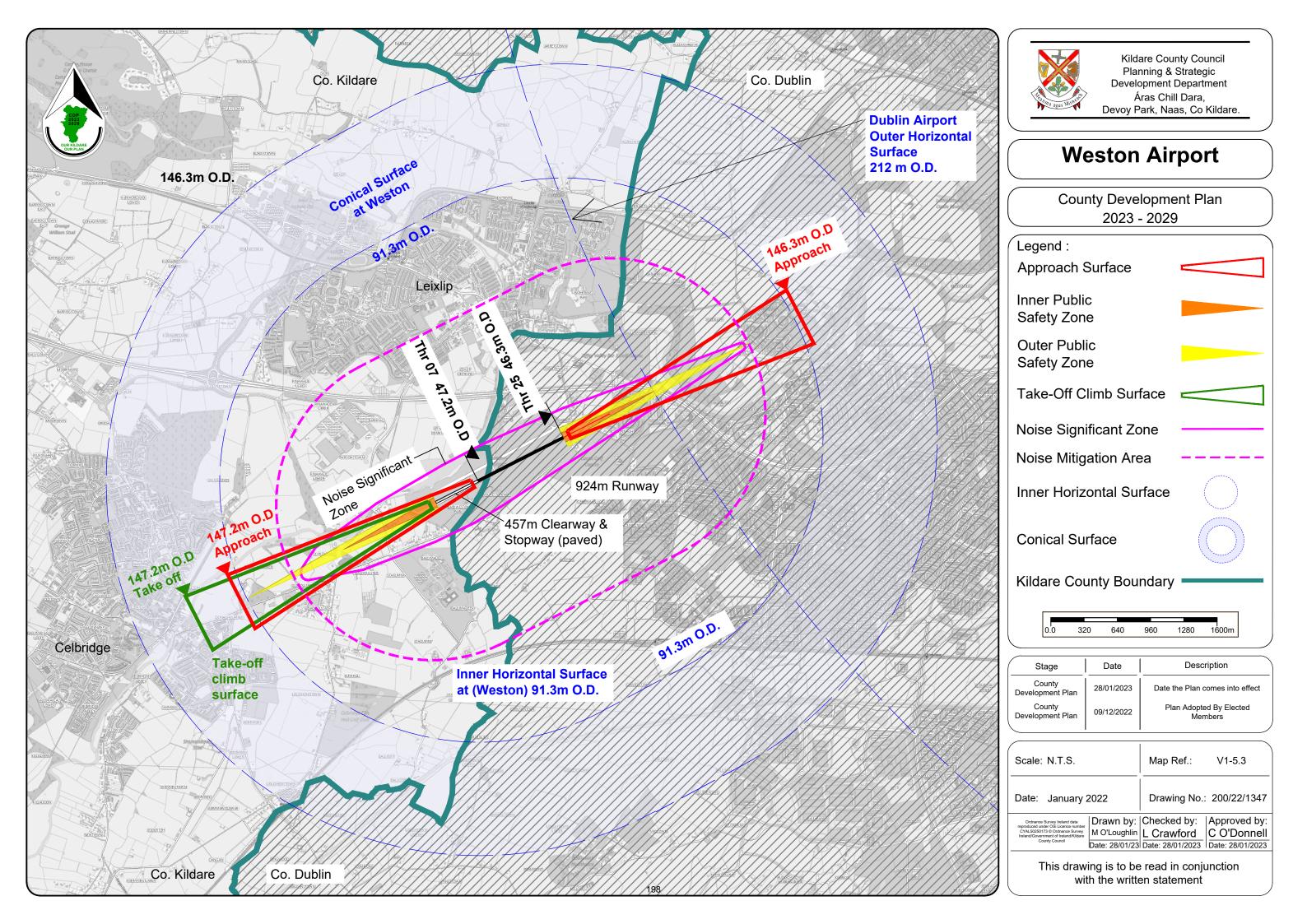
It is the policy of the Council to:

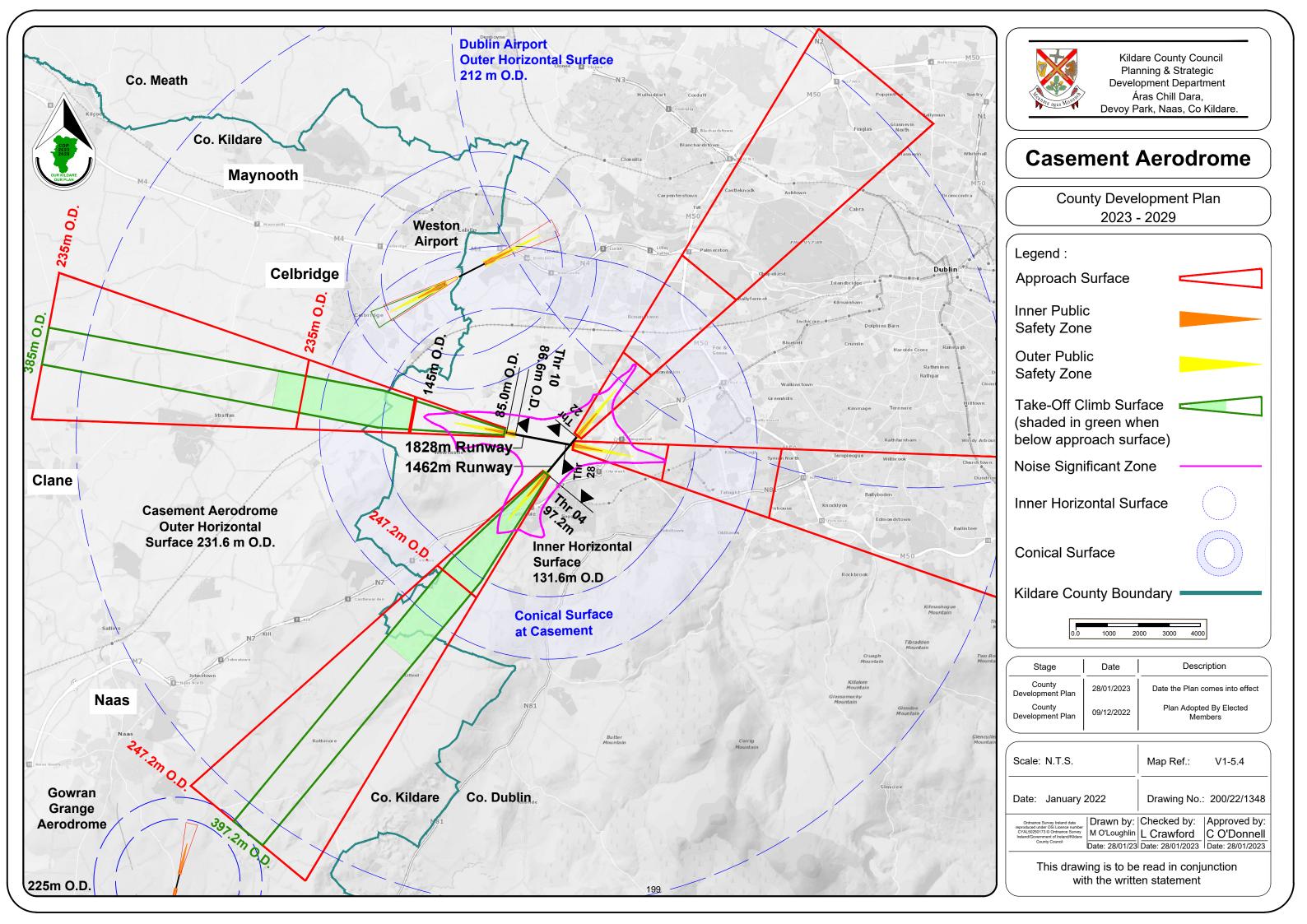
TM P19	Support the sustainable development of aviation, and of aviation sporting				
	and recreation facilities, in the county (including new airfield/s or				
	helipad/s), where such development will be consistent with the proper				
	planning and sustainable development of the surrounding area and				
	amenities.				

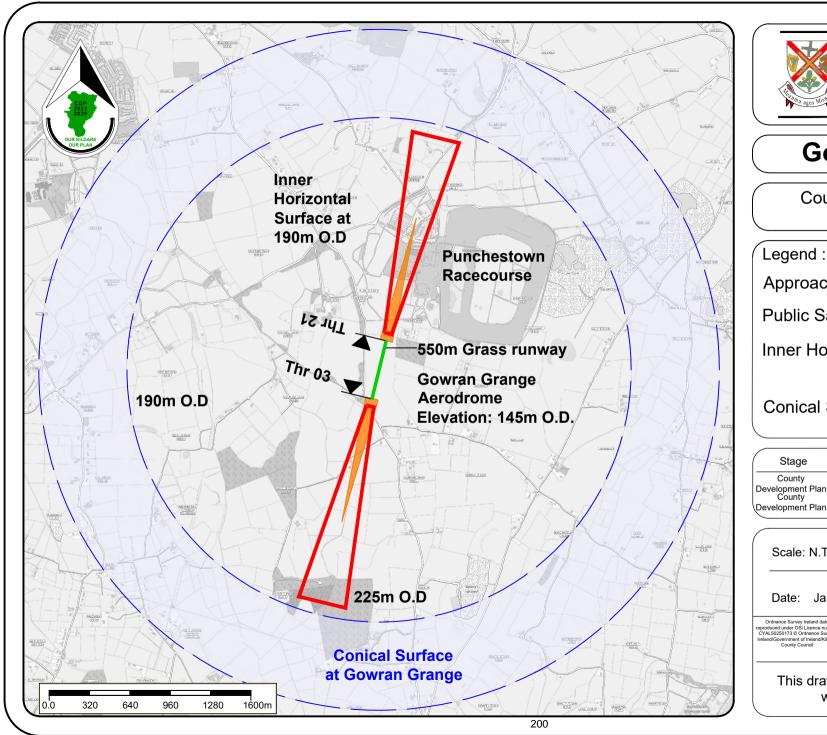
#### **Objectives**

TM O157	Require that any future aviation facilities will be compatible with the sustainable development of the surrounding area and amenities, and will be compatible with local transport strategies, and will be subject to appropriate noise control.
TM O158	Ensure that any future aviation facilities will comply with ICAO "Annex 14" Standards and Recommended Practices (or with EASA Specifications, if applicable).
TM O159	Require that any extended or new aviation recreational facility will comply with IAA guidelines and will not cause interference to existing military aviation.
TM O160	Require that there will be no obstacle extending above a 1 in 8 gradient (commencing at 10m from the centre of the helipad) at any new heliport or private helipad.











Kildare County Council Planning & Strategic Development Department Áras Chill Dara, Devoy Park, Naas, Co Kildare.

## **Gowran Grange**

County Development Plan 2023 - 2029



Approach Surface

Public Safety Zone

Inner Horizontal Surface

Date

28/01/2023

09/12/2022

**Conical Surface** 

Stage County



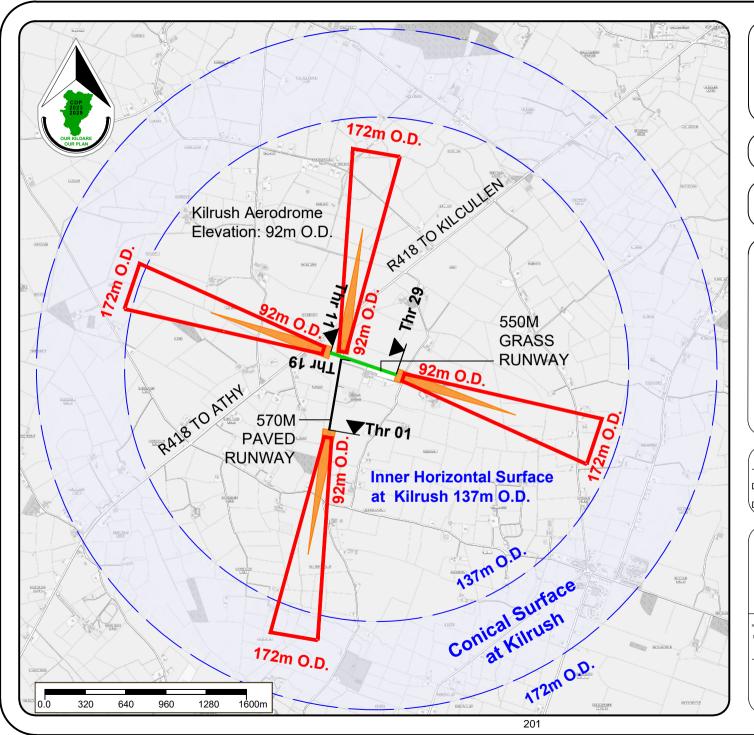
Members

Scale: N.T.S. Map Ref.: V1-5.5

Date: January 2022 Drawing No.200/22/1349

Ordnance Survey Ireland data reproduced under OSi Licence number CYAL50250173 @ Ordnance Survey Ireland/Government of Ireland/Kildare County Council Drawn by: Checked by: Approved by: M O'Loughlin L Crawford C O'Donnell Date: 28/01/23 Date: 28/01/2023 Date: 28/01/2023

This drawing is to be read in conjunction with the written statement

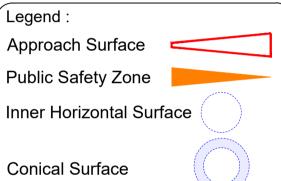




Kildare County Council Planning & Strategic Development Department Áras Chill Dara, Devoy Park, Naas, Co Kildare.

## Kilrush Aerodrome

County Development Plan 2023 - 2029



Stage	Date	Description
County Development Plan	28/01/2023	Date the Plan comes into effect
County Development Plan	09/12/2022	Plan Adopted By Elected Members

Scale: N.T.S.		Map Ref.:	V1-5.6	
Date:	Date: January 2022		Drawing No.200/22/1350	
Ordnance Survey Ireland data reproduced under OSi Licence number CYAL50250173 © Ordnance Survey Ireland/Government of Ireland/Kildare County Council			Checked by: L Crawford	Approved by: C O'Donnell
		Date: 28/01/23	Date: 28/01/2023	Date: 28/01/2023

This drawing is to be read in conjunction with the written statement