Cherrywood Strategic Development Zone

Non-Residential Parking Study

Dún Laoghaire - Rathdown County Council

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Quality information

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Executive Summary

Dún Laoghaire-Rathdown County Council (DLRCC) has commissioned AECOM to undertake a review of non-residential car and bicycle parking standards applicable within the Cherrywood Strategic Development Zone (SDZ), as outlined within the Cherrywood Planning Scheme (2014, as amended).

There is a need to achieve a balance between historic over supply and observed demand for parking at non-residential land use types on a wider scale and Cherrywood SDZ aims to lead the way in encouraging the use of sustainable modes of transport for all trip types.

The review has been undertaken across a number of key themes:

Policy Context

The Irish Government has committed to a legally binding target of net zero greenhouse gas emissions no later than 2050, and a reduction of 51% by 2030 as outlined in the Climate Act 2021.

Transport will therefore have a significant role in delivering future carbon reductions, and it is important to understand that the decarbonisation of vehicles will not solely achieve the reductions required. The Governments Climate Action Plan 2021 Report acknowledges that change will have to occur through a combination of low carbon technologies and societal and behavioural changes.

Sustainability is a key theme in the over-arching national, regional and local policies which includes strategic frameworks to support modal shift through infrastructure, service improvements and demand management and behavioural change measures. It is also identified that future development should be planned and designed in a manner that facilitates sustainable travel patterns, with a particular focus on increasing the share of active modes.

The over-arching policy context presents a strong rationale to restrict non-residential car parking standards on the basis of climate change targets and the shift towards sustainable transport and behavioural change. In particular, the GDA Transport Strategy outlines the need consider:

- Destination Parking Standards – to ensure that the quantum of parking provided at destination (non-residential commercial developments) will be significantly reduced. Parking standards should be expressed as maximums for different land-uses and locations with the objective of reducing maximum standards.
- Parking Management at Retail Centres – potential need for parking charges at retail developments, with the objective of reducing the impact of car traffic on these destinations and local communities.

Therefore, as outlined within key policy documents, it is considered that behavioural change can be achieved in relation to both existing and future developments through the implementation of demand management.

County and City Development Plan (CDP) Review

A review of relevant CDPs presents strong rationale to restrict non-residential car parking standards in relation to some land-uses, mainly High Intensity Employment (HIE) and some aspects of retail.

Cherrywood SDZ currently outlines bespoke parking standards in relation to HIE, retail and education (primary / post primary) with the remainder of land-uses then deferring to the DLR CDP parking standards.

Fingal and South Dublin non-residential standards are generally lower in comparison to Cherrywood standards with less parking provision provided on a pro-rata basis, whilst Dublin City standards are more restrictive in comparison which is to be expected due to city centre demand management policies.

Standards for HIE and some aspects of retail are considered high in comparison to DLRCC and Dublin City standards with more parking provision provided on a pro-rata basis.

Cherrywood standards for education are generally already lower than other CDPs. They are stated as < 1 per classroom (versus 1 per classroom in other CDPs) and require consultation with Department for Education and Skills therefore suggesting a case by case approach.

The remaining Cherrywood / DLRCC non-residential land-use types are generally equal to or lower in comparison to other reviewed CDPs.

Cherrywood SDZ currently defers to the DLRCC cycle parking standards which are again generally comparable to other reviewed CDPs.

It is therefore proposed to restrict Cherrywood non-residential parking standards in relation to HIE and some aspects of retail in order to better align with other GDA locations. It is also proposed to review cycle parking on a case by case basis in relation to HIE and retail in order to ensure it aligns with the more restrictive standards, whilst retaining the current cycle parking standards (DLRCC standards in relation to all other land use types) as cycle parking standards will be reviewed in due course.

Best Practice Review

In order to benchmark Cherrywood non-residential and cycle parking standards against other locations and similar development types, a best practice review was undertaken to compare to other SDZs in the Dublin area as well as other locations in the UK and RoI,

European examples show a general trend of restrictive parking standards for non-residential land use types / destination parking. New developments are designed to be highly accessible by sustainable modes.

It is therefore considered that Cherrywood's aim of reducing private car use by promoting sustainable modes aligns with the current European policy direction. However, it is acknowledged that the European approach is more aggressive in nature in order to align with climate change targets in that demand management is significantly more restrictive, zero parking developments are becoming more common, maximum standards are now normalised and often parking standards are only outlined for certain development types on the premise that other development types do not require associated parking.

Cherrywood parking standards are currently already lower than other considered RoI and UK examples and also generally lower compared to other SDZs in and around the GDA.

European examples show a shift towards more restrictive parking for non-residential land use types / destination parking locations and when considered with the presented strong policy context provides rationale for ,pre restrictive standards in relation to some land use typologies.

Demand Analysis

Analysis was undertaken of the current and future demand for car travel to destinations in Cherrywood and considered the current and future supply of car parking within the SDZ. The analysis was considered across three key data sets including:

- TRICS Database.
- Extant Planning Applications.
- Demand outputs from the NTA's Eastern Regional Model (ERM).

The purpose of the analysis was to determine whether the current and future demand and supply is in keeping with current policy and the ambitious sustainable travel targets of the Planning Scheme.

TRICS Database

The Chartered Institute of Highways and Transportation (CIHT) Parking Strategies and Management (2005) document outlines guidance which recommends that parking interventions should seek to ensure demand does not utilise more than 85% of available capacity during peak periods. If parking demand exceeds the 85% threshold, this indicates a lack of available spaces for users which may increase driver frustration and vehicles circulation in searching for an available space.

Analysis of the TRICS database in relation to the existing land use types in Cherrywood i.e. HIE, Retail and Education showed that on average, maximum parking occupancies were significantly less than the 85% threshold for retail and HIE, which suggests that parking is over-provided for these land uses.

The analysis also indicated that average maximum occupancies at both primary and post primary schools typically exceeded the 85% threshold and at peak times 100% capacity was reached, therefore suggesting that users may have difficulty finding a space. This was as expected as typically schools provide parking for staff and visitors only with drop off areas for parents leaving their children to school.

Extant Planning Applications and NTA ERM Demand Outputs

A total of 22 extant planning applications were considered in terms of current (operational) and future parking demand and supply as shown in the Table below.

	Estimated Daily Arrivals	Car Parking Spaces Provided	Cycle Parking Spaces Provided
Current Demand	2,303	1,578	474
Future Demand	12,209	4,189	3,281

As outlined in the Planning Scheme, the NTAs 2030 Transport Strategy Model suggested that demand associated with work trips to and from Cherrywood could be accommodated in alignment with the SDZ's ambitious mode share targets if an excellent public transport network is implemented and attractive facilities for walk and cycling are provided, along with disincentives for the use of private cars.

The modelling outputs from the ongoing sequencing and phasing study shows that by 2028, the ERM forecasts 24,673 trips in total will be produced and 25,501 trips will be attracted to the considered Cherrywood zones. The model cannot account for parking restraint measures and this forecast demand does not require an equivalent parking supply.

Whilst the above would initially suggest that current / future demand exceeds current / future supply, the following should be noted:

- The estimated numbers are considered as daily values.
- The typical daily profile associated with parking demand operates in peaks and troughs throughout the day as opposed to the total demand arriving and departing at the same time.
- It is considered reasonable to assume that the car demand associated with educational facilities is largely parents driving their children to school and dropping them off, rather than demand that would require a parking space.
- The short stay nature of some of the non-residential land uses proposed in the planning applications including retail, public parks, sports facilities will result in the same parking space being utilised several times throughout the day, with a higher turnover of spaces achieved.
- The element of pass by and diverted trips should be considered in specific relation to retail land uses as not all demand is considered as new on the network, rather the demand either passes by on the way to another destination or specifically diverts to the retail land use.

Revised Standards

It is considered that the current Cherrywood non-residential parking standards should be more restrictive in relation to HIE and retail in order to align with over-arching policy, other Dublin Councils and typical demand data for such land-use types.

Therefore the following maximum standards to HIE and some aspects of retail will apply:

- Office – 1 space per 140 sqm.
- Industry - 1 space per 280 sqm.
- Food Retail – 1 space per 35 sqm.
- Non-Food Retail – 1 space per 85 sqm.

It is considered that the proposed standards above in relation to HIE will replace those currently stated in the Planning Scheme (outlined in Chapter 4 Table 4.5). Therefore the methodology of reducing temporary car parking in line with quantum of HIE development delivered will instead be replaced with repurposing existing parking areas to facilitate sustainable mode infrastructure or consideration of dual use parking.

The revised standards are to be considered as maximum standards with no further reduction permitted (unless a case is made for exceptional circumstances) in order to ensure that appropriate monitoring is undertaken in order to manage the impacts of more restrictive standards, in tandem with the delivery of sustainable infrastructure and public transport services.

In light of the revised maximum standards for HIE and retail, it is also considered that it will be essential for developers to commit to supporting sustainable travel demand within the Planning Scheme; therefore enabling realistic options for employees and customers in light of the reduced parking provision.

Therefore, developers must provide a detailed submission outlining all aspects of proposed sustainable transport infrastructure and management proposals which will enable Cherrywood to enforce change and provide realistic options for travelling by sustainable modes for trips generally associated with the use of the private car.

Analysis of other non-residential land use types has shown that current standards are generally comparable to other CDPs and UK, RoI and SDZ best practice examples. Other land use types are also generally associated with shorter stay trips in comparison to HIE and retail, on that basis it is proposed to retain the current standards in relation to all other non-residential land use types. Usage will be monitored to ensure that this remains appropriate in the future.

In light of the proposed restrictive standards in relation to HIE and retail land use types, it is considered that the cycle parking provision could also be uplifted on a case by case basis in order to ensure that over-provision does not occur; this also aligns with the CDP review i.e. that cycle spaces provided were less per sqm for employment and retail land uses. As well as cycling parking, enhanced facilities and access arrangements should also be considered through cycle parking audits.

For the remainder of land uses, it is considered that cycle parking standards remain as they are currently (subject to a review by DLRCC) with a commitment of ongoing monitoring to determine demand and use for such facilities.

Provision of a Multi-Storey Car Park Facility

On the basis that Table 4.5 of the Planning Scheme is to be replaced with the revised HIE parking standard of 1 space per 140 sqm, and in order to align with this change and the rationale outlined within the report, it is proposed to remove reference to the requirement of a MSCP from the Planning Scheme.

The methodology of reducing temporary car parking in line with the quantum of HIE development delivered will also be removed and parking usage will be monitored with the potential to repurpose existing parking areas to facilitate sustainable mode infrastructure, dual use parking or to revert to the land use as defined in the Planning Scheme.

Complementary Measures

A number of complementary solutions have been explored as enablers for change within Cherrywood SDZ, such solutions will provide realistic solutions for demand management and increased sustainable mode share and also contribute to the carbon targets set by wider government.

Some of the proposed solutions are also being considered as part of Amendment No. 9 (currently being decided by An Bord Pleanála) in regard to the residential parking standards review. As such, it is considered that provision of mobility hubs, smart cycle parking etc can act with dual usage for both residential and non-residential demand.

It is considered that multi-modal mobility hubs such as those outlined in the Best Practice section of this report would provide Cherrywood with a variety of sustainable transport solutions in a central location therefore providing realistic choices for residents, visitors and employees.

A number of potential Smart solutions are also identified and can provide the ability to collect data on usage and demand, which in turn will ensure that appropriate infrastructure is provided where necessary. DLRCC are currently preparing to tender for a bespoke Smart Parking Study and therefore such solutions will be considered further in the forthcoming study including terms of implementation (developer led / contribution and / or planning conditions) and consistency with the Planning Scheme.

Mode / Share Targets

Cherrywood aims to lead the way in terms of demand management and enabling travel by sustainable modes as reflected by the recommendations outlined within this report. This is further supported by the shift in over-arching policy and the legally binding climate change targets. More restrictive parking standards in relation to non-residential land uses (as well as residential standards as outlined in Amendment No.9) act as a push measure to encourage behavioural change.

It is therefore considered that the current mode share targets outlined within the Planning Scheme may need updated in order to reflect the shift towards more sustainable modes. This is reinforced by the findings from the sequencing and phasing amendment study which is currently ongoing. The study suggests that on the basis of more restrictive parking standards and provision of sustainable infrastructure that the non-car mode share target could potentially be adjusted to 66% compared to the current 53%.

1. Introduction

Dún Laoghaire-Rathdown County Council (DLRCC) has commissioned AECOM to undertake a review of non-residential car and bicycle parking standards applicable within the Cherrywood Strategic Development Zone (SDZ), as outlined within the Cherrywood Planning Scheme (2014, as amended).

The Planning Scheme needs to ensure that the level of non-residential parking provided is appropriate for Cherrywood in order to meet the Planning Scheme's ambitious sustainable travel targets that were set against the parking standards applicable at the time.

There is a need to achieve a balance between historic over supply and observed demand for parking at non-residential land use types on a wider scale and Cherrywood SDZ aims to lead the way in encouraging the use of sustainable modes of transport for all trip types. This review of non-residential car and bicycle parking standards within Cherrywood SDZ aims to reinforce the sustainable travel targets so as they are met in a timely manner whilst also ensuring alignment with current national and regional policy.

1.1 Background

Cherrywood was designated as an SDZ in May 2010 by Government Order on behalf of DLRCC. The SDZ contains around 360ha of development lands located around 16km south-east from Dublin City Centre. The lands are bounded to the south by the M50, to the east by the M11/N11 and to the north by the Brennanstown Road.

The Cherrywood SDZ is comprised of eight development areas and has been designed in such a manner that development cannot proceed in the absence of identified educational, open space and transportation infrastructure.

Figure 1.1 shows the primary land uses identified for the SDZ including:

- Town & Village Centres.
- High Intensity Employment (HIE).
- Commercial Uses.
- Residential.
- Education.
- Green Infrastructure.

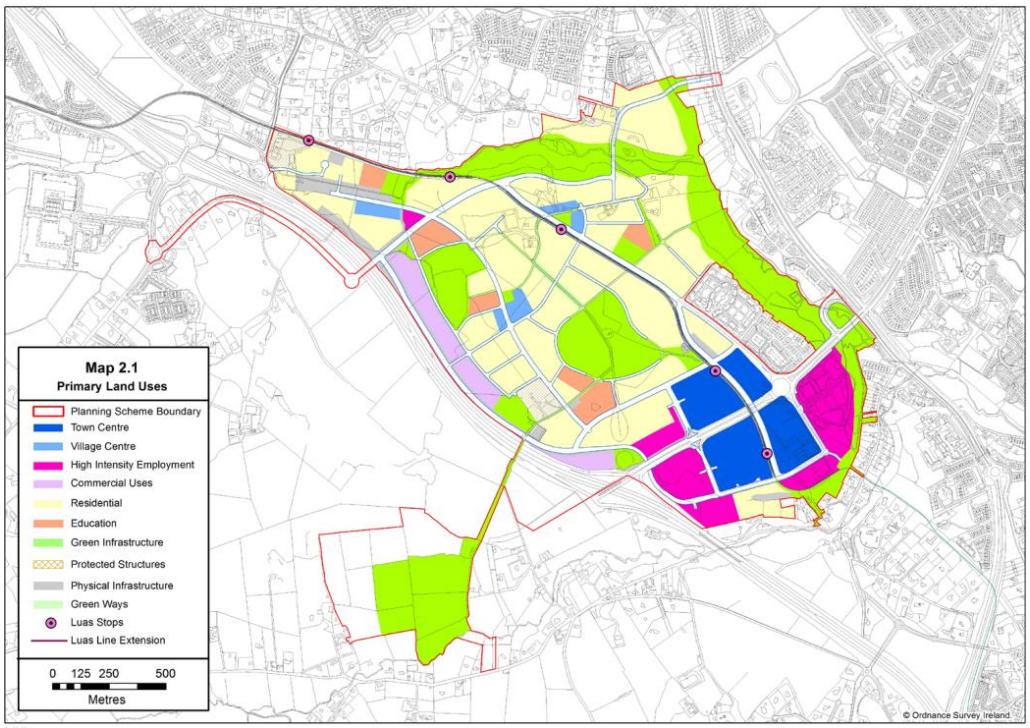


Figure 1.1 Cherrywood Primary Land Uses

To date the following non-residential development has been delivered in Cherrywood:

- 65,000m^2 of High Intensity Employment.
- Education facilities including a primary school and pre-school childcare.

1.1.1 Cherrywood SDZ Sustainable Mode Targets

An objective of the Cherrywood SDZ Planning Scheme is to develop and support a culture of sustainable travel into and within Cherrywood i.e. Transit Orientated Development as discussed in the GDA Transport Strategy (detailed further in section 2.2.5).

As part of this, ambitious yet achievable targets for sustainable travel modes in Cherrywood were developed during the preparation of the Planning Scheme between 2010 and 2012, as shown in Figure 1.2. It is noted that travel targets were developed for both external and internal trips, however the figure shows the overall modal share proportion for each mode.

The targets aim to:

- Reduce car dependency.
- Reduce long distance commuting.
- Increase public transport modal share.
- Encourage walking, cycling and wheeling.

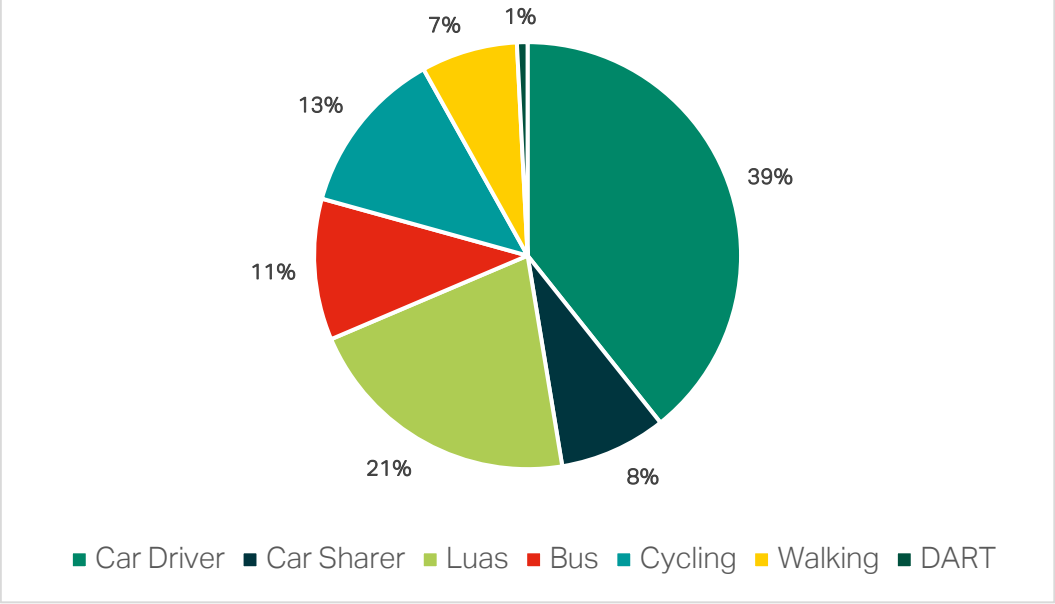


Figure 1.2 Cherrywood SDZ Sustainable Travel Targets

The Cherrywood Planning Scheme sets out ambitious mode share targets with just 39% of trips by private car and therefore parking demand management across all land uses within the SDZ must be utilised as a key tool to achieve these set targets.

1.2 Report Chapters

This report is comprised of the following chapters:

- Chapter 2 provides an overview of the applicable national, regional and local policy, guidelines and standards in relation to non-residential parking.
- Chapter 3 outlines the non-residential parking standards currently applicable in Cherrywood and benchmarks them against other relevant county Development Plans. Consideration is also given to the non-residential parking provision determined from current planning applications within Cherrywood and other ongoing studies that impact parking within the SDZ.
- Chapter 4 provides an overview of best practice examples in relation to non-residential parking standards including UK, RoI and European examples. A review of non-residential parking standards in other SDZs in and around Dublin have also been considered.
- Chapter 5 outlines analysis of existing and predicted demand as outlined in extant planning applications.
- Chapter 6 outlines complementary solutions relating to any potential amendment to non-residential car parking supply, setting out the pros and cons of potential solutions identified specifically for the Cherrywood SDZ.
- Chapter 7 details a summary of the rationale used to determine the proposed recommendations developed as a result of this study.

2. Context

2.1 Introduction

This section provides an overview of national, regional and local policy considered relevant to the consideration of non-residential parking standards as well as consideration of any applicable guidelines and strategies by other agencies.

2.2 Policy Context, Guidelines and Standards Review

There are a number of over-arching national, regional and local policies which set the context for a shift to more sustainable modes of transport and the impact of this on future growth and development in Ireland. The Irish Government has committed to a legally binding target of net zero greenhouse gas emissions no later than 2050, and a reduction of 51% by 2030 as outlined in the Climate Act 2021.

Transport will therefore have a significant role in delivering future carbon reductions, and it is important to understand that the decarbonisation of vehicles will not solely achieve the reductions required. The Government's Climate Action Plan 2021 Report acknowledges that change will have to occur through a combination of low carbon technologies and societal and behavioural changes.

2.2.1 Project Ireland 2040 – National Planning Framework

The Climate Action Plan for transport will support and build from key national policy plans that aim to drive the necessary changes including Project Ireland 2040 – the National Planning Framework (NPF) and the Sustainable Mobility Policy.

The National Planning Framework sets out the Government's high level strategic vision for shaping future growth and development in Ireland up to 2040. This framework is now considered the over-arching policy document directly relevant to the regional and local planning authorities and it utilises a set of shared goals referred to as National Strategic Outcomes.

Sustainability is a key theme within the NPF, with three of the ten National Strategic Outcomes detailed as: enhanced regional accessibility; sustainable mobility; and transition to a low carbon and resilient society. Chapter 6 of the NPF entitled 'People, Places and Communities' acknowledges that location and place have an important influence on the quality of life that people enjoy.

The key role that land use planning plays in progressing climate change mitigation and adaptation is at the forefront of the NPF.

2.2.2 Project Ireland 2040 – National Sustainable Mobility Policy

The Sustainable Mobility Policy sets out a strategic framework to 2030 for active travel and public transport to support Ireland's climate commitments. The policy outlines three principles in order to make it easier for people to travel by more sustainable modes including: green mobility; people focused mobility; and better integrated mobility.

The policy aims to support modal shift between now and 2030, through infrastructure and service improvements as well as demand management and behavioural change measures.

2.2.3 Regional Spatial and Economic Strategy (RSES) for the Eastern and Midland Region (2019-2031)

The Regional Spatial and Economic Strategy for the Eastern and Midland Region (RSES – EMR) aims to support the implementation of Project Ireland 2040 by providing a long-term strategic planning and economic framework for the development of the eastern and midland region. It includes a number of regional policy objectives including RPO5.3 which outlines that future development should be planned and designed in a manner that facilitates sustainable travel patterns, with a particular focus on increasing the share of active modes.

The RSES is underpinned by three cross-cutting principles: healthy placemaking; climate action; and economic opportunity. Sixteen Regional Strategic Outcomes (RSOs) are set out, which broadly align with the National Strategic Outcomes of the NPF, the United Nations Sustainable Development Goals, EU, and other national policies,

The RSES also identifies key 'growth enablers' to support the Region in meeting its potential. The recommended 'growth enablers', as relevant to DLR, include the following:

- Align Population, Employment and Housing Growth – Promote sustainable growth in the right locations that reduces the distance between the places people live and work.
- Compact Sustainable Growth – Promote compact, sequential and sustainable development of urban areas. Promote active land management and better use of underutilised, brownfield and public lands.
- Regeneration and Development – Identify significant ready-to-go regeneration projects in existing built-up areas.
- Economic Growth – Harness opportunities for economic growth by supporting synergies

2.2.4 DLRCC Climate Change Action Plan 2019-2024

The Council's Climate Action Plan features a range of actions across five key areas including energy and buildings, transport, flood resilience, nature-based solutions and resource management.

In relation to transport there are three key actions including electrification of the Council fleet, supporting sustainable travel and development of cycle routes and accessible footways.

There are a number of transport related actions that are currently budgeted for by DLRCC including:

- T2 – Reduce parking to provide for sustainable travel alternatives
- T4 – Develop and expand the County walking network
- T6 – Permeability and connectivity in planning process
- T7 – Develop and extend cycle network
- T10 – Develop a County bike sharing scheme
- T11 – Cycle parking in public realm
- T14 – Expand the bus network in the County
- T15 – Expand rail network in the County
- T16 – Expand car clubs in the County
- T17 – Expand EV network in the County

2.2.5 National Transport Authority – Greater Dublin Area Transport Strategy 2022-2042

The National Transport Authority (NTA) Greater Dublin Area (GDA) Transport Strategy provides a framework for the planning and delivery of transport infrastructure and services within the GDA from 2022 to 2042. It also provides transport planning policy that allows other areas of land use planning to align their own investment priorities.

The strategy has been developed to be consistent with the spatial planning policies and objectives as set out in the RSES; which are also consistent with the National Planning Framework and National Development Plan as set out in Project Ireland 2040.

In order to support the delivery of the overall aim of the Transport Strategy, four objectives have been developed comprising:

1. An Enhanced Natural and Built Environment

To create a better environment and meet environmental obligations by transitioning to a clean, low emission transport system, increase walking, cycling and public transport use, and reducing car dependency.

2. Connected Communities and Better Quality of Life

Enhance the health and quality of life for our society by improving connectivity between people and places, delivering safe and integrated transport options, and increasing opportunities for walking and cycling.

3. Strong Sustainable Economy

Support sustainable economic activity and growth by improving the opportunity for people to travel for work or business where and when they need to and facilitating the efficient movement of goods.

4. An Inclusive Transport System

Deliver a high quality, equitable and accessible transport system, which caters for the needs of all members of society.

The NTA set out seventeen essential measures to help meet these four objectives. The measures are as follows:

- PLAN1 Policy Concepts in Transport and Land Use Planning
- PLAN2 The Road User Hierarchy
- PLAN3 Housing and Transport
- PLAN4 Consolidated Development
- PLAN5 Retail Development
- PLAN6 Office Developments
- PLAN7Transit Oriented Development
- PLAN8 Mixed Uses
- PLAN9 Filtered Permeability
- PLAN10 School Site Selection
- PLAN11 Location of Schools
- PLAN12 Design of Schools
- PLAN13 Road Network Serving Schools
- PLAN14 Urban Design in Major Infrastructure Projects
- PLAN15 Urban Design in Walking and Cycling Projects
- PLAN 16 Reallocation of Road Space
- PLAN 17 Local Transport Plans

The Cherrywood SDZ is referred to specifically in:

- Measure PLAN5 – Retail Development. The strategy will provide support to retail developments that form a part of a major residential development.
- Measure PLAN7 – Transit Oriented Development. A concept that links levels of accessibility to development density, with buses and Luas trams servicing a major part of Cherrywood's transport demands.

Furthermore, the strategy also outlines the current approach to the consideration of mixed-use development as outlined in PLAN8, which focuses on reducing the need for longer distance travel by the 15-minute city concept.

Further measures have been detailed within the Strategy to support the objectives listed above. These are as follows:

Integration and Inclusion

The features of a well-integrated human-centred transport system include the physical environment of stops and stations, the length and quality of the walk between services, crossing points, travel information, fares integration, cycle parking, shelter, frequency and capacity of connecting services.

- Measure INT4 – Park & Ride

Within the GDA, it is the NTA's intention to develop a network of Park and Ride facilities in locations where high-capacity bus and rail services intersect with the national road network.

- Measure INT5 – Major Interchanges and Mobility Hubs

It is the NTA's intention, in conjunction with other key stakeholders to deliver high quality major interchange facilities or mobility hubs at appropriate locations served by high capacity public transport services.

- Measure INT10 – Smarter Travel Workplaces and Campuses

The NTA will continue to expand the Smarter Travel Workplaces and Campuses Programme in order to directly influence travel behaviour in the GDA and to maximise the use of public transport, walking and cycling infrastructure and services to be developed under the Transport Strategy.

- Measure INT13 – Sustainable Transport Incentives

Over the period of the transport strategy, the NTA, in conjunction with Government and other agencies, will explore incentives to encourage more people to transfer to public transport and cycling.

Cycling and Personal Mobility Vehicles

The steady growth of cycling mode share requires a strong policy foundation and adequate funding to support the continuation of this trend. In preparing Development Plans, the NTA will encourage local authorities to allow for at least 20% of trips to be undertaken by cycling and for cycle parking standards to be set out on this basis.

- Measure CYC1 – GDA Cycle Network

It is the intention of the NTA and the local authorities to deliver a safe, comprehensive, attractive and legible cycle network in accordance with the updated Greater Dublin Area Cycle Network.

- Measure CYC5 – Cycle Parking

Through statutory planning process and liaison with relevant stakeholders, high quality cycle parking at origins and destinations, serving the entire cycling community, should be delivered.

- Measure CYC6 – Cycle Parking Strategies

Public parking strategies should be prepared to ensure the provision of on- and off-street secure cycle parking is available for short stay use by all bike types, including cargo bikes and other non-standard bikes.

- Measure CYC7 – Bike Share Scheme Expansion

The NTA, in collaboration with the local authorities, will seek the development of a structured network of coordinated bike share schemes, appropriately serving key urban areas and operating on an integrated basis.

Roads

A key focus of the Transport Strategy is the provision of safe, resilient road transport routes and liveable streets within the context of the need to support sustainable development principles and legislative commitments to decarbonise the transport sector in Ireland.

- Measure ROAD13 – Road Space Reallocation

The local authorities and the NTA will implement a programme of road space reallocation from use by general traffic or as parking to exclusive use by sustainable modes as appropriate, as a means of achieving the following:

- Providing sufficient capacity for sustainable modes.
- Improving safety for pedestrians and cyclists.
- Encouraging mode shift from the private car and reducing emissions.

Traffic Management and Travel Options

The main objective of Traffic Management is to ensure that the regional transport system continues to operate in an efficient manner. The Strategy outlines the need to consider demand management of destination parking, with local authorities able to utilise the following measures:

- Measure TM7 – Car Free Zones

The NTA will support local authorities seeking to provide car free zones in urban areas where there are benefits to transport, traffic and/or the local economy.

- Measure TM9 – Safe Routes to School

An Taisce (The National Trust for Ireland), the NTA, local authorities, and the Departments of Transport and Education will oversee the roll out of the Safe Routes to School, which is designed to encourage as many pupils and students as possible in primary and post-primary schools to walk or cycle.

- Measure TM14 – Destination Parking Standards

The NTA, in cooperation with local authorities, will ensure that the quantum of parking provided at destinations (non-residential commercial developments) will be significantly reduced at all locations in the GDA.

The NTA intend to develop guidance on maximum car parking standards for different land-uses and locations, in association with local authorities, with the objective of reducing the maximum parking standards.

- Measure TM17 – Car-Free Commercial Development at Major Interchanges

Proposals for major employment development close to major interchanges, which seek to provide car parking, should provide evidence as to why their proposed development cannot operate without car parking.

- Measure TM18 – Parking Management at Retail Centres

An assessment on the potential need for parking charges at retail developments, with the objective of reducing the impact of car traffic on these destinations and the local communities, will be undertaken by the NTA, in conjunction with local authorities.

- Measure TM20 – Electric Cars

The NTA, TII and local authorities will facilitate the conversion of the private car fleet to electric at non-residential developments 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 significantly expanded electric car charging facilities at service stations on the road network, particularly the national road network.

- Ensuring that charging infrastructure does not encroach on footpaths, impair the public realm or otherwise compromise the free movement of pedestrians, cyclists and public transport.

Parking Standards

The strategy notes that the NTA is supportive of an approach that caps car parking on an area-wide basis in locations where the highest intensity of development occurs, or in areas that have high levels of accessibility by public transport, walking or cycling. Feasibly, this could reduce the rates of car ownership across the GDA, resulting in an associated reduced demand for car parking for a variety of land uses.

The NTA Guidelines recommend that parking standards are expressed as maximum values to which a degree of constraint can be applied in the process of determining appropriate parking provision.

There is an approach for local authorities to pursue the following in relation to parking standards:

- To seek the lowest level of provision for the most accessible areas and offer more flexibility where public transport connectivity is less comprehensive.
- To consider local availability of amenities / services, as these reduce the need to travel by car.
- For new development areas, design with sustainable travel options from the outset of the project.
- Recognise differences between central and less central areas and the opportunities for cycling and walking based on this.

2.2.6 Sustainable Residential and Compact Settlements Guidelines for Planning Authorities (2024)

The Department of Housing, Local Government and Heritage has developed guidelines which set out policy and guidance in relation to the planning and development of urban and rural settlements, with a focus on sustainable residential development and the creation of compact settlements.

The guidelines are set out in five chapters as follows:

- Introduction and Context,
- Implementation,
- Settlement, Place and Density,
- Quality Urban Design and Placemaking, and
- Development Standards for Housing.

Statutory development plans will allow for the implementation of the policy and guidance contained within the Guidelines.

The Guidelines state that in order to meet the targets set out in the National Sustainable Mobility Policy (2022) and in CAP23 for reduced private car travel, it will be necessary to design settlements to support ease of movement for pedestrians, cyclists and public transport.

Through the development of well-connected neighbourhoods, amenities should be accessible within walking distance of homes and workplaces, enabling settlements to be vibrant and to allow vulnerable users greater access to services with ease. To achieve this, the Guidelines state that car parking provisions within new settlements should be minimised to manage travel demand and prioritise active modes.

A graduated approach to the management of car parking is also necessary in meeting the National Sustainable Mobility Policy targets i.e. parking provision in areas of high accessibility should be minimised, substantially reduced, or wholly eliminated. In areas with medium accessibility, car-parking should be substantially reduced.

2.2.7 Summary

There is a consensus across the reviewed policies, guidelines and standards highlighting the priority in reducing use of private cars for more sustainable modes of transport, with the reduction of car parking standards aiding in this shift.

There are a number of emerging key policy themes directly related to non-residential parking including:

- Climate change targets are legally binding, and transport has a significant role to play in achieving the set targets through the combination of low carbon technologies and societal and behavioural changes.
- Demand management is a key push measure to initiate behavioural change.
- The NTA GDA Strategy highlights the NTA's intention to consider parking management at retail centres and to develop maximum parking standards guidelines.
- Non-residential parking should be considered in relation to levels of accessibility by sustainable modes including car free development at major interchanges.

It is therefore considered that behavioural change can be achieved in relation to both existing and future developments through the implementation of demand management practices as detailed within the key policy documents.

3. Non- Residential Parking Standards Review

3.1 Introduction

This chapter outlines a review of the current Cherrywood non-residential parking standards as set out in the Planning Scheme (2014 as amended). In order to consider how the current non-residential parking standards within Cherrywood align with local policy, a review of relevant County Development Plans relating to other Dublin Councils and localities has been undertaken. The review includes consideration of car parking, cycling parking and EV parking standards.

3.2 Cherrywood SDZ Non-Residential Parking Standards

Chapter 4 of the Planning Scheme currently outlines bespoke non-residential parking standards in relation to three land use types including:

- High Intensity Employment.
- Education.
- Retail.

Currently parking standards relating to the non-residential land use types not listed above are deferred to the standards as outlined in the DLR County Development Plan (CDP).

Currently, based on planning application information provided by BLRCC, there are six developments operational within Cherrywood SDZ with a total of 1,578 car parking spaces built and 474 bicycle spaces provided. This includes 1,079 car parking spaces for HIE usage, 20 car parking spaces located at a primary school, 127 car parking spaces for public park usage, and 352 car parking spaces at the temporary Carrickmines Park and Ride.

3.2.1 High Intensity Employment (HIE)

The Planning Scheme outlines that the previous DLR CDP (2010-2016) set maximum car parking standards for HIE on a country wide basis. The SDZ proposed the development of new neighbourhoods and a new town centre on what is primarily green field land with no overhang of car parking permitted; when the hierarchy of modal share was more vehicle dominated. Due to this, the Planning Scheme set specific standards for HIE within the SDZ (Chapter 4, Table 4.5).

However, in relation to offices located along public transport corridors, the Planning Scheme continues to defer to the DLR CDP maximum car parking standard for HIE on-site car parking i.e. 1 space per 100 sqm GFA applicable to HIE floor space permitted since the adoption of the Planning Scheme. Existing HIE floorspaces of 65,000 sqm are excluded from this car parking standard.

Table 3.1 overleaf shows the current car parking standards for HIE off-site car parking, including temporary surface car parking and permanent multi-storey car parking comprising of 1,800 sqm (which is additional to the 1 space per 100 sqm standard) as outlined in Chapter 4 of the Planning Scheme. The purpose of the temporary car parking element was to allow for the ratio of car parking spaces to employees to be managed downwards over time in line with improvements to public transport.

The current Planning Scheme (Chapter 4 Table 4.5) also outlines the commitment to provide an additional multi-storey car parking (MSCP) facility comprising of up to 1,800 car parking spaces as detailed in Table 3.1 overleaf. The table outlines that multistorey parking will be provided on a cumulative basis depending on the development threshold reached; with 600 spaces initially provided for between 100-150,000 sqm of HIE development and up to 1,800 spaces between 300,000 and 350,000 sqm of HIE development.

This facility could provide up to an additional 1,800 spaces over and above parking provided in curtilage as per the current parking standard of 1 space per 100sqm. The Planning Scheme also states that the

aim of providing this permanent facility is to enable turnover of spaces in keeping with the mixed-use nature of the SDZ.

It is noted that if the full quantum of HIE is delivered as outlined in Table 3.1, the parking standards more accurately equates to 1 space per 89 sqm. As the full quantum of HIE development has not yet been delivered within the SDZ, the standard of 1 space per 100 sqm has been considered for the purposes of comparison throughout this report.

As part of this review, a Technical Note has been prepared by AECOM to consider a solution in relation to the provision of additional permanent multi-storey parking (MSCP) within Cherrywood SDZ designated for HIE use. This Technical Note is provided in Appendix A.

Table 3.1 Cherrywood Parking Standards for High Intensity Employment[2]

Floorspace	Existing	Proposed Development m^2					
	65,000	65,000 to 100,000	100,000 to 150,000	150,000 to 200,000	200,000 to 250,000	250,000 to 300,000	300,000 to 350,000
Employees (est.)	3,250	5,000	7,500	10,000	12,500	15,000	17,500
On-site parking (Cumulative)	1,100	1,450	1,950	2,450	2,950	3,450	3,950
Multistorey (Cumulative)	-	-	600	600	1,200	1,200	1,800
Temporary Surface (Cumulative) – Flexible	700	1,050	1,200	1,200	600	600	-
Total Cumulative parking	1,800	2,500	3,750	4,250	4,750	5,250	5,750
Parking space to employee ratio Incl. temp. spaces Excl. temp. spaces	55% - 34%	50% - 29%	50% - 34%	43% - 31%	38% - 33%	35% - 31%	33%

In addition to the existing 65,000 sqm of HIE, Office Blocks F1 & F2 and a temporary HIE car park have now been delivered in the SDZ and provide 339 and 740 car parking spaces respectively. The office blocks have a combined total gross floor area of 14,309 sqm resulting in 2.37 spaces per 100 sqm. As stated previously and outlined in Table 4.1 of the Planning Scheme, it is envisaged that the temporary surface car parking will be reduced over time as more HIE development is delivered within the SDZ.

The purpose of the temporary surface car parking provision was to allow for relocation of car parking originally located on the Town Centre 4 Quadrant (development now permitted planning and currently under construction). The decommissioning of the surface car park will be as a result, in part of implementation of permitted development DZ23A/1025 which is located on part of the site. Around 230 surface parking spaces are also proposed to be decommissioned and relocated within basement

[2] Note Table 3.1 estimates the car parking provision (2012)

parking associated with HIE F Blocks. The current level of parking provided does not exceed the values set out in Table 3.1 in relation to the quantum of development currently delivered.

3.2.2 Retail

The Planning Scheme considers that multi-storey or underground parking structures are more appropriate for Cherrywood in place of individual car parks for retail located in mixed use areas.

In the case that a surface car park is proposed, the Planning Scheme states that the developer should demonstrate that this type of provision is not to the detriment of the vitality of the area, the public realm, pedestrian linkages, urban form and achieving the potential scale of development identified within the Development Areas, as set out in Chapter 6 of the Planning Scheme (2014 as amended).

It is noted that the car parking standards outlined for retail developments in Cherrywood are considered as maximum standards as shown in Table 3.2.

Table 3.2 Cherrywood Maximum Retail Car Parking Standards

Retail Type	Parking Standard
Food	1 space per 20 sqm gross floor area
Comparison	1 space per 50 sqm gross floor area
Shopping Centres & Stores	1 space per 50 sqm gross leasable area

3.2.3 Primary and Post Primary Schools

Parking standards in relation to education facilities are stated within the Planning Scheme as less than one space per classroom. The appropriate parking location and provision will be determined on a case by case basis in consultation with the Department of Education and Skills at pre-application stage due to the lack of space available for surface parking within the SDZ.

Cherrywood has been designed in order to encourage walking and cycling to school with an attractive pedestrian / cycle network of Cherrywood; schools will also be highly accessible by public transport therefore providing the option of sustainable modes for staff.

Currently one primary school has been delivered within the SDZ and, following consultation with the Department for Education and Skills, provided 20 parking spaces mainly for the use of staff and visitors which equates to 0.8 spaces per classroom.

Note: Public car parking is provided in the vicinity of the primary school at Tully Park which serves a dual usage for the park and school as this area also accommodates a drop-off facility.

3.2.4 Cycle Parking Standards

The Planning Scheme outlines that the DLRCC Cycling Policy (January 2018 or as updated) is to be used to determine cycle parking standards and associated facilities within the SDZ. The policy also includes the general principles, indicative layouts, and requirements for welfare facilities applicable to provision of cycle parking.

It should be noted that DLRCC intend to update the 2018 Cycling Policy in due course to consider if cycle parking standards are reflective of current requirements whilst also outlining the need to consider cycle parking audits and cycle access arrangements relative to proposed location. The Planning Scheme will therefore adhere to any emerging updated cycle parking standards when available.

The policy outlines that the cycle parking standards are considered as minimum standards in relation to short stay and long stay cycle parking. The policy acknowledges that a higher quantum of cycle parking may be required to meet national sustainable travel targets or higher targets associated with development specific travel plans.

The relevant cycle parking standards applicable to non-residential land uses in Cherrywood are outlined in Table 3.3 overleaf.

3.2.5 Electric Vehicle (EV) Provision

The Planning Scheme states that all car parking spaces within the SDZ are to be future proofed for EVs or 'EV Ready'. This would require all development types to 'future proof for EV charging points at appropriate locations, including homes, businesses on-street and multi-storey car parks, where parking is providing through the installation of ducting.'

The level of EV charging provision should be provided in line with current standards as outlined in the DLRC CDP detailed further in section 3.2.7.1.

Table 3.3 Dún Laoghaire-Rathdown County Council Cycle Parking Standards

Land Use		Dún Laoghaire-Rathdown County/ Cherrywood	
		Short Stay (Minimum of 2 spaces)	Long Stay (Minimum of 2 spaces)
Civic, Community, and Religious	Library, Community Hall	1 per 200 sqm	1 per 5 staff
	Place of Worship	1 per 20 seats	1 per 5 staff
Education	Creches	1 per 10 children	1 per 5 staff
	Primary	1 per 5 students	1 per 5 staff
	Post-Primary/Secondary	1 per 5 students	1 per 5 staff
	Universities, Colleges of Further Education	1 per 5 students	1 per 5 staff
Medical	Medical Clinics, Primary Healthcare Centres	1 per 2 consulting rooms	1 per 5 staff
	Hospital	1 per 10 beds	1 per 5 staff
Retail	Convenience Retail	1 per 100 sqm	1 per 5 staff
	Shopping Centres	1 per 100 sqm	1 per 5 staff
	Retail (Non-Food)	1 per 100 sqm	1 per 5 staff
	Café, Restaurants, and Takeaways	1 per 100 sqm	1 per 5 staff
	Financial, Professional Services	-	-
Employment	Offices	1 per 200 sqm	1 per 200 sqm
	Industry	1 per 200 sqm	1 per 200 sqm
Sports and Recreation	Leisure Centre/ Recreation Building	1 per 100 sqm	1 per 5 staff
	Pitches, Courts	1 per 12 ha. Pitch area 4 per court	1 per 5 staff

3.2.6 Cherrywood Future Land Uses

Chapter 2 section 2.3 of the Planning Scheme outlines land use zonings within the SDZ including:

- HIE.
- Commercial.
- Village Centre.
- Town Centre.
- Green Infrastructure.
- Education.

Examples of permissible supporting land use types within the designated zonings are also outlined in Chapter 2 of the Planning Scheme and include:

- Non retail uses – Restaurants, pubs and beauticians.
- Local convenience retail.
- Childcare – Creche and playgroup facilities.
- Community uses – Community, civic centres, libraries and places of worship.
- Sports facilities – Leisure centres and pitches.
- Healthcare facilities – Medical centres and primary care centres.

As such, the remaining review of the DLR CDP and other relevant CDPs considers the non-residential standards relating to the existing and anticipated supporting land use types in Cherrywood only.

It should be noted that in relation to Commercial land use types, the Planning Scheme does not permit retail warehousing anywhere within the SDZ. Furthermore, HIE and convenience and comparison retail are permitted in the Town and Village Centres only.

Commercial land uses are generally defined as land uses which involve the buying or selling of goods and services and therefore it is considered that the review outlined within this report chapter considers all aspects of relevant commercial use as outlined across the land use types detailed in the relevant CDPs.

It is acknowledged above that the Planning Scheme does not currently permit retail warehousing within the SDZ which may fall under the industry land use category. However there are many other land use types that may also be considered as industry including workshops, science parks etc and therefore the industry land use has been retained within the review.

It is noted that the Planning Scheme details specific car parking standards for HIE, Retail and Primary/Post Primary Schools. For the other supporting land use types listed above, the Planning Scheme refers to the parking standards as per the DLR CDP, as outlined in Table 3.4

3.2.7 Dún Laoghaire-Rathdown County Development Plan (DLR CDP) 2022 - 2028

The DLR CDP was adopted in April 2022 and will guide future development and growth in the County. The Plan's approach is centred on sustainable development and the need to create vibrant, liveable and climate resilient communities.

Guidance is provided in the Plan relating to car parking standards in four primary zones as shown in Figure 3.1 and set out in Table 3.4. The standards have been developed with the aim of encouraging modal shift to more sustainable transport modes. The four primary zones are as described as follows:

Parking Zone 1 – Generally comprises the Major Town Centre areas of Dún Laoghaire and Dundrum together with the Blackrock District Centre area. These areas are generally characterised by:

- Access to a high level of existing and planned public transport services (rail and bus) with good interchange potential,
- A high level of service accessibility, existing and planned, by walking or cycling,
- A capacity to accommodate high density retail, office and residential developments.

Parking Zone 2 – Generally includes areas which are within the following walking bands/catchments:

- 10 minute walk of the proposed CBC 13 (Core Bus Corridor) from DCC boundary along the N11 to Kill Lane,

- 5 minute walk of the N11 proposed CBC from Kill Lane Junction to Bray,
- 10 minute walk of the proposed CBC 15 from DCC boundary to Blackrock,
- 5 minute walk of Kill Lane/Avenue/Mounttown bus route,
- 10 minute walk of Dart and Luas stations.

Note: The N11 Quality Bus Corridor (QBC) and the Rock Road QBC will be replaced by CBC 13 and 15.

Note: The majority of the Cherrywood Planning Scheme lands are located in Parking Zone 2.

Parking Zone 3 – Generally comprises the remainder of the County, excluding rural areas. These are areas which are characterised by:

- Access to a level of existing or planned public transport services,
- A reasonable level of service accessibility, existing and planned, by walking or cycling,
- A capacity to accommodate a higher density of development than rural areas.

Within Parking Zone 3, maximum standards apply to uses other than residential land use types.

Note: Some lands along the northern and southwestern edges of Cherrywood Planning Scheme are identified as being within Parking Zone 3.

Parking Zone 4 – Comprises of the rural areas within the County.

Note: Ticknick Park is identified within Parking Zone 4.

As shown in Figure 3.1, Cherrywood SDZ is predominantly situated within Zone 2 and is characterised as an area with:

- Access to a good level of existing or planned public transport services.
- A good level of service accessibility, existing and planned, by walking or cycling.
- A capacity to accommodate a higher density of development than surrounding areas.

The CDP states that, in zones with a good level of public transport services, the supply of parking at non-residential destinations is to be minimised in order to encourage use of more sustainable transport modes, particularly for commuter travel.

In accordance with the parking standards set out in Table 3.4, it is the policy of the Planning Authority to restrict car parking provision where appropriate.

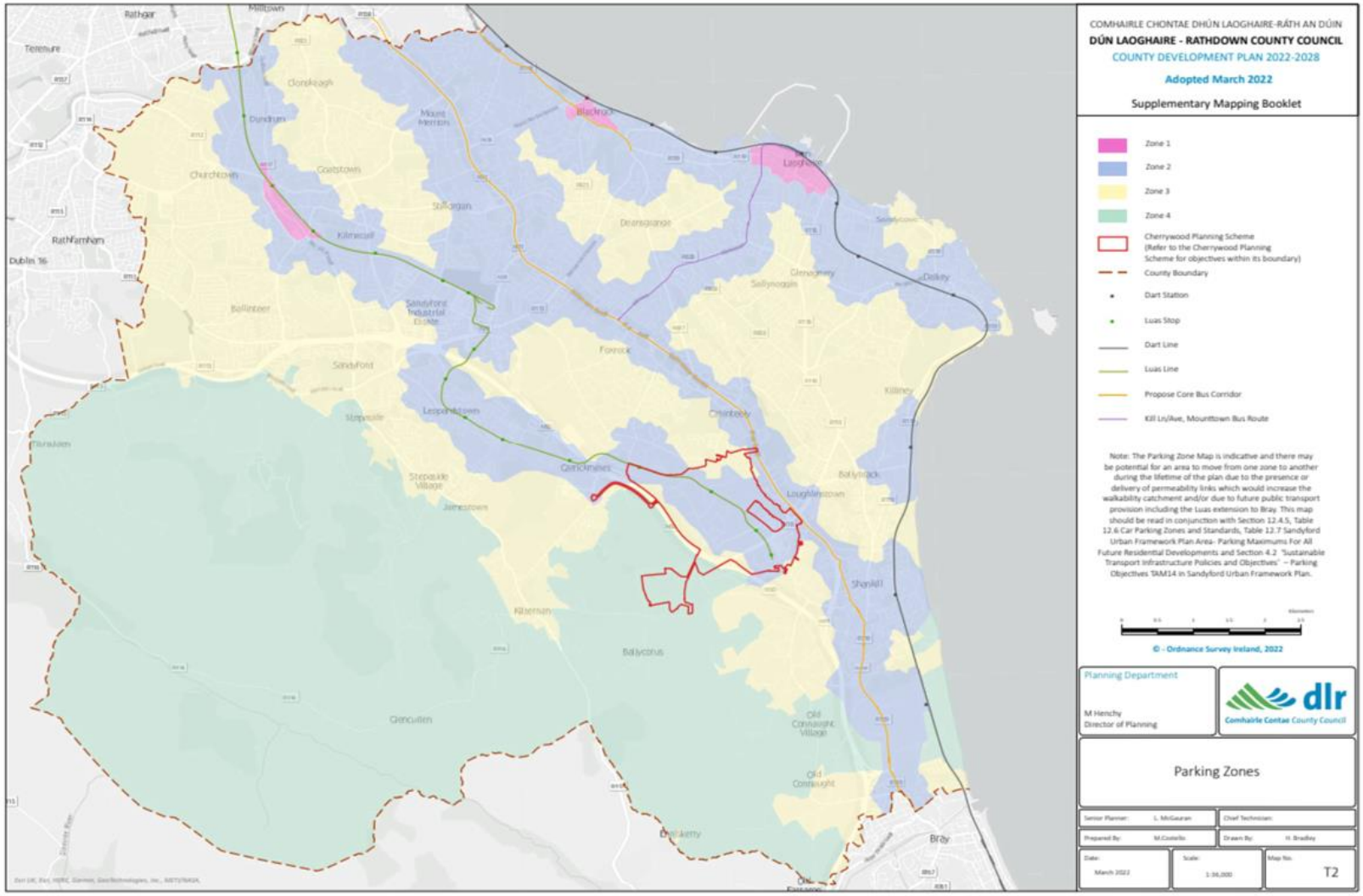


Figure 3.1 DLR CDP Parking Zones

Table 3.4 DLR CDP Non-Residential Parking Standards

Land Use		Zone 1	Zone 2	Zone 3	Zone 4 (Rural)
Civic, Community & Religious[3]	Library, Community Hall	1 per 150 sqm	1 per 100 sqm	1 per 50 sqm	1 per 50 sqm
	Place of Worship	1 per 50 seats	1 per 20 seats	1 per 10 seats	1 per 5 seats
Education	Creches	1 per 80 sqm	1 per 60 sqm	1 per 40 sqm	1 per 40 sqm
	Primary	1 per classroom	1 per classroom	2 per classroom	2 per classroom
	Post-Primary/ Secondary	1 per classroom	1 per classroom	2 per classroom	2 per classroom
	Universities, Colleges of Further Education	Case by Case	Case by Case	Case by Case	Case by Case
Medical	Medical Clinics, Primary Healthcare Centres	1 per consulting room	2 per consulting room	2 per consulting room	n/a
	Hospital	1 per 100 sqm	1 per 75 sqm	1 per 50 sqm	1 per 50 sqm
Retail	Convenience Retail >1000sqm (supermarket)	1 per 60 sqm	1 per 30 sqm	1 per 20 sqm	n/a
	Convenience Retail >100sqm	1 per 60 sqm	1 per 40 sqm	1 per 30 sqm	n/a
	Retail (Non-Food)	1 per 200 sqm	1 per 100 sqm	1 per 50 sqm	n/a
	Café, Restaurants, and Takeaways	none (GFA <100 sqm)	none (GFA <100 sqm)	1 per 30 sqm (GFA <100 sqm)	1 per 25 sqm (GFA <100 sqm)
Employment	Financial, Professional Services	none	none	1 per 50 sqm	n/a
	Offices	1 per 200 sqm	1 per 150 sqm	1 per 100 sqm	n/a
	Industry[3]	1 per 300 sqm	1 per 200 sqm	1 per 100 sqm	n/a
Sports and Recreation	Leisure Centre	1 per 100 sqm	1 per 75 sqm	1 per 50 sqm	n/a
	Pitches, Courts	Case by case	Case by case	Case by case	Case by case

[3] Civic, Community & Religious and Industry land uses are considered to be located in Zone 3.

3.2.7.1 Electric Vehicle Provision

The climate action policies of the Plan support the Government's Electric Transport Programme that aims to electrify the DLRCC mobility systems by facilitating the rollout of Electric Powered Vehicle Recharging Parking Bays across the County.

The target of the national 'Climate Action Plan 2021 Securing Our Future' regarding Electric Vehicles (EVs) is to reach the 945,000 EVs by 2030, including 845,000 cars, 95,000 electric vans, 3,500 low emitting trucks and 1,500 electric buses.

Based on this target, initial trials of electric charging points on streetlamps were previously adopted by the 2016-2022 DLRC CDP. In the current Plan, the Council's focus is on the expansion of the public EV charging points, by using the public lighting network.

In addition, the Plan states that the Local Authorities within the Dublin Region aim to prepare a strategy for developing public EV charging infrastructure at on-street locations, in support of the Government Strategy on electric vehicles and use of alternative fuels – National Policy Framework on Alternative Fuels Infrastructure for Transport for Ireland 2017 to 2030.

The Plan states that, as a minimum, EV charging points and infrastructure should be provided as follows:

- Non-residential developments (with private car parking spaces including visitor car parking spaces with more than 10 spaces e.g. office developments,) – provide at least 1 recharging point, and a minimum of one car parking space per five car parking spaces should be equipped with one fully functional EV Charging Point.
- Developments with publicly accessible spaces (e.g. supermarket car park, cinema etc.) - provide at least 1 recharging point, and a minimum of one car parking space per five car parking spaces should be equipped with one fully functional EV Charging Point.

These standards shall be replaced when detailed guidance for EV vehicles is made available by DLRCC.

3.2.7.2 Dún Laoghaire-Rathdown County Council Cycling Policy

As previously outlined in section 3.2.4, the DLRCC Standards for Cycle Parking and associated Cycling Facilities for New Developments (2018) sets out minimum standards in relation to non-residential land uses.

It is noted that e-bikes are not referenced in the current cycle parking standards. This is explored further within Chapter 6: Potential Complementary Solutions.

Some aspects of the standards rely on the anticipated number of staff. As such, the policy further outlines that if the number of staff is not known at pre-application stage, then the following can be used as a guide for the determination of appropriate cycling parking provision:

- Office type uses 20 sqm per staff member.
- Warehousing or small industry type uses 50 sqm per staff member.
- All other uses including retail 40 sqm per staff member.

The policy also outlines that as part of the cycle parking quantum required for various land uses, consideration should be given to providing short term cycle parking for cargo bikes or tricycles for developments where there may be demand such as retail.

The cycle parking standards in relation to non-residential land uses are set in Table 3.6.

3.3 Relevant County Development Plan Review

In order to consider how the current non-residential parking standards within Cherrywood align with local policy, a review of relevant County Development Plans including other Dublin Councils and localities has been undertaken. A summary of the relevant County Development Plans car parking and cycle parking standards are presented in Table 3.5 and Table 3.6 respectively.

As previously outlined in section 3.2.6 of this report, the following review is focused on the existing and anticipated future land uses within Cherrywood only.

3.3.1 Dublin City Development Plan 2022 – 2028

The Dublin City Development Plan 2022 – 2028 aims to guide the spatial direction of future development and regeneration in the city in line with the principles of compact growth in order to ensure it's developed in an inclusive way which improves the quality of life for all citizens, whilst also being an attractive place to visit and work.

The Plan sets out maximum car parking standards for various land uses as outlined in Table 3.5. There are three parking area zones within the Plan:

- Parking Zone 1 includes within the Canal Cordon and within North Circular Road in recognition of active travel infrastructure and opportunities and where major public transport corridors intersect.
- Parking Zone 2 occurs alongside key public transport corridors.
- The remainder of the City falls under Parking Zone 3.

It is noted that in Zone 1 and Zone 2, where a site is highly accessible, maximum car parking standards may be relaxed if other transport modes are sufficient in reaching the destination. Applicants must set out a clear case satisfactorily demonstrating a reduction of parking need for the development based on the following criteria:

- Locational suitability and advantages of the site.
- Proximity to High Frequency Public Transport services (10 minutes' walk).
- Walking and cycling accessibility/permeability and any improvement to same.
- The range of services and sources of employment available within walking distance of the development.
- Availability of shared mobility.
- Impact on the amenities of surrounding properties or areas including overspill parking.
- Impact on traffic safety including obstruction of other road users.
- Robustness of Mobility Management Plan to support the development.

In contrast, car parking maximums may be exceeded under very limited circumstances, such as the need for an overspill car park, however, the applicant must fully engage with Dublin City Council at pre-application stage regarding the acceptability of departure from maximum standards.

It is considered that Cherrywood SDZ is comparable to Zone 2 of the Dublin City Development Plan parking zones.

To promote and accommodate growing use of bicycles, Dublin City aims to implement well integrated, accessible and secure cycle parking that caters for all bicycle types (e.g. standard bicycles, cargo bikes, e-bikes). Cycle parking standards are shown in Table 3.5 and are applicable to all new developments.

Short-term cycle parking must be provided within 25m of destinations where required, and long-term parking must be within 50m. All long-term (more than three hours) cycle stands should be protected from the weather.

All new developments must be futureproofed to include EV charging points and infrastructure, with a minimum of 50% of spaces in new or upgraded commercially operated parking facilities providing EV charging points. The remaining 50% of spaces shall be designed to accommodate future EV infrastructure.

3.3.2 Fingal County Development Plan 2023 – 2029

The Plan acknowledges that as the demand for travel across the County continues to grow in line with ongoing and future development, there is a requirement to manage this demand with sustainable transport provision, mobility management and parking management.

The non-residential parking standards are outlined in Table 3.5 and are considered as maximum standards unless otherwise stated. It is noted that some standards are stated as Norm which refers to the number of spaces that will generally be permitted unless specific changes are considered necessary to ensure the proper planning and sustainable development of a proposed development.

There are two parking zones outlined within the Plan including:

- Zone 1 – Relates to developments within 800m of Bus Connects spine route, or 1600m of an existing or planned Luas/Dart/Metro Rail station or within an area covered by a Section 49 scheme, or in lands zoned Major Town Centre,
- Zone 2 – Relates to all other areas within the County.

It is considered that Cherrywood SDZ is comparable to Zone 1 of the Fingal Development Plan parking zones.

A reduced car parking provision may be acceptable where the Council is satisfied that good public transport links are already available or planned and / or a Management Mobility Plan for the development demonstrates that a high percentage of modal shift in favour of the sustainable modes will be achieved through the development.

Cycle parking standards are set in Table 3.6 and the CDP outlines that public accessible cycle parking facilities should meet the following requirements:

- High quality short-stay bicycle parking shall be provided within the public realm of our urban areas.
- High quality long-stay bicycle parking shall be required at all new developments including residential and employment uses.
- All cycle facilities in multi-storey car parks shall be provided at ground floor level and shall be segregated from vehicular traffic.
- The provision of secure bicycle lockers within the public realm, at public transport stops/ nodes and other suitable locations is also required.
- Bicycle parking facilities needs to accommodate the increasing diversity of bicycles, such as tricycles, cargo bikes and adapted bikes should also be provided.
- All employment generating development should provide changing, shower, storage and drying facilities to encourage employees to cycle, walk, run to work.

To encourage the use of Electric Vehicles (EVs), developments shall provide the following minimum standards for EV charging points and infrastructure:

- Non-residential developments shall be required to provide functioning EV charging points at a minimum of 10% of all spaces,
- Publicly accessible EV parking spaces should be clearly marked and be capable of communicating usage data with the National Charge Point Management System. EV parking spaces for accessible spaces should also be included in the development where these exist,
- All other parking spaces, including in residential developments, should be constructed to be capable of accommodating future charging points as required.

3.3.3 South Dublin County Development Plan 2022 – 2028

The Plan sets out the framework to guide future development within South Dublin County with the focus placed on the places residents live, work, and how residents interact and move between these places while protecting the environment.

The Plan outlines maximum car parking standards in relation to non-residential land uses as set out in Table 3.5.

There are two parking zones outlined within the Plan including:

- Zone 1 – General rate applicable throughout the County,
- Zone 2 (Non-residential) – More restrictive rates for application within town and village centres, lands zoned for regeneration and brownfield/infill sites within Dublin City and Suburbs settlement boundary within 800m of a train or Luas station and within 400-500m of a high-quality bus service (including proposed services that have proceeded to construction).

It is considered that Cherrywood is comparable to Zone 2 as outlined in the South Dublin County Development Plan.

The Plan further notes that under specific circumstances the stated maximum car parking standards may be relaxed based on the following criteria:

- The proximity of the site to public transport and the quality of the transport service it provides. (This should be clearly outlined in a Design Statement submitted with a planning application).
- The proximity of the development to services that fulfil occasional and day to day needs.
- The existence of a robust and achievable Workforce Management or Mobility Management Plan for the development.
- The ability of people to fulfil multiple needs in a single journey.
- The levels of car dependency generated by particular uses within the development.
- The ability of residents to live in close proximity to the workplace.
- Peak hours of demand and the ability to share spaces between different uses.
- Uses for which parking rates can be accumulated.
- The ability of the surrounding road network to cater for an increase in traffic.
- The criteria should be addressed as part of any Traffic and Transport Assessment and/or Workforce Plan in order to provide full justification for the number of spaces proposed.
- The maximum parking standards may also be varied in particular areas by the Planning Authority through planning mechanisms such as SDZ Planning Schemes, Local Area Plans or Movement Framework Plans and Area Access Studies.

It should be noted that in all residential, mixed use, and commercial development car parks, 20% of the total parking spaces are required to provide EV charging facilities, with higher provision expected in urban areas.

Table 3.6 sets out the minimum cycle parking standards for all new developments in South Dublin County, with parking facilities divided into two main categories:

- Short Term: designed for ease of use by the general public, located in highly visible areas, and accommodating cargo bike storage,
- Long Term: designed for use by residents and employees, located in secure areas that are not freely accessible to the general public.

The council also seeks to provide additional provision of cycle parking facilities along public transport routes, within town and village centres, public parks, and at other areas of civic importance.

3.3.4 Sandyford Urban Framework Plan (2016)

The Sandyford Urban Framework Plan was adopted as Appendix No.16 to the DLR CDP 2022-2028. Parking standards in Sandyford have been included in this review due to the similarities to Cherrywood Town Centre and its location along the Luas Line.

Provision and use of car parking and cycle parking/cycle facilities is managed by the Council through Travel Plans, with cycle parking and facilities being in accordance with the Council's 'Standards for Cycling Parking and Associated Facilities for New Development' (2018).

All other non-residential parking standards adhere to section 12.4.5 of the DLRC CDP Written Statement and as outlined in Table 3.5.

Table 3.5 CDP Non-Residential Car Parking Standards

Land Use		Cherrywood	Dún Laoghaire-Rathdown County		Dublin City	Fingal County	South Dublin County
			Zone 2	Zone 3	Zone 2	Zone 1 (Maximum unless stated otherwise)	Zone 2
Civic, Community, and Religious	Library, Community Hall	As per DLRC Zone 3	1 per 100 sqm	1 per 50 sqm	1 per 275 sqm	1 per 40 sqm	1 per 50 sqm
	Place of Worship	As per DLRC Zone 3	1 per 20 seats	1 per 10 seats	1 per 25 seats	1 per 10 seats	1 per 12 seats
Education	Creches	As per DLRC Zone 2	1 per 60 sqm	1 per 40 sqm	1 per 100 sqm	0.5 per classroom	0.5 per classroom
	Primary	<1 per classroom	1 per classroom	2 per classroom	1 per classroom	1 per classroom	0.5 per classroom
	Post-Primary/ Secondary	<1 per classroom	1 per classroom	2 per classroom	1 per classroom	1 per classroom	0.5 per classroom
	Universities, Colleges of Further Education	As per DLRC Zone 2	Case by case	Case by case	1 per classroom + 1 per 30 students	3 per lecture theatre	1 per 2 staff + 1 per 30 students
Medical	Medical Clinics, Primary Healthcare Centres	As per DLRC Zone 2	2 per consulting room	2 per consulting room	2 per consulting room	1 per consulting room	1.5 per consulting room
	Hospital	As per DLRC Zone 2	1 per 75 sqm	1 per 50 sqm	1 per 100 sqm	1 per 3 beds	1 per 150 sqm
Retail	Convenience Retail	1 per 20 sqm	none (GFA <100 sqm) 1 per 40 sqm (>100 sqm)	1 per 30 sqm	1 per 275 sqm	1 per 60 sqm	1 per 25 sqm
	Shopping Centres	1 per 50 sqm	1 per 30 sqm (supermarket >1000 sqm)	1 per 20 sqm (supermarket >1000 sqm)	1 per 100 sqm (supermarket >1000 sqm)	1 per 20 sqm (excludes circulation areas)	-
	Retail (Non-Food)	1 per 50 sqm	1 per 100 sqm	1 per 50 sqm	1 per 275 sqm	-	1 per 35 sqm
	Café, Restaurants, and Takeaways	As per DLRC Zone 2	none (GFA <100 sqm) 1 per 50 sqm (GFA >100sqm)	1 per 30 sqm (GFA <100 sqm)	1 per 150 sqm seating area	None	1 per 20 sqm
	Financial, Professional Services	As per DLRC Zone 2	none (GFA <100 sqm) 1 per 150 sqm (GFA >100sqm)	1 per 50 sqm	1 per 275 sqm	1 per 60 sqm	-
Employment	Offices	*1 per 100 sqm	1 per 150 sqm	1 per 100 sqm	1 per 200 sqm	1 per 80 sqm	1 per 75 sqm
	Industry	As per DLRC Zone 3	1 per 200 sqm	1 per 100 sqm	1 per 450 sqm	1 per 100 sqm	1 per 75 sqm
Sports and Recreation	Leisure Centre/ Recreation Building	As per DLRC Zone 2	1 per 75 sqm	1 per 50 sqm	Dependent on nature and location of use	1 per 40 sqm	1 per 40 sqm
	Pitches, Courts	As per DLRC Zone 2	Case by case	Case by case	Dependent on nature and location of use	To be determined by the Planning Authority	7.5 per pitch/court

- HIE standards when taken into consideration with Table 4.5 of the Planning Scheme equates to 1 space per 89m^2 if full quantum achieved

Table 3.6 Greater Dublin Area Cycle Parking Standards

Land Use		Dún Laoghaire-Rathdown County/ Cherrywood		Dublin City		Fingal County		South Dublin County	
		Short Stay (Minimum of 2 spaces)	Long Stay (Minimum of 2 spaces)	Short Stay	Long Stay	Short Stay	Long Stay	Short Stay	Long Stay
Civic, Community, and Religious	Library, Community Hall	1 per 200 sqm	1 per 5 staff	1 per 100 sqm	1 per 5 staff	1 per 40 sqm	1 per 5 staff	1 per 100 sqm	1 per 5 staff
	Place of Worship	1 per 20 seats	1 per 5 staff	1 per 20 seats	-	1 per 10 seats	-	1 per 10 seats	-
Education	Creches	1 per 10 children	1 per 5 staff	1 per 10 children	1 per 5 staff	5 per classroom	1 per classroom	1 per 10 children	1 per 5 staff
	Primary	1 per 5 students	1 per 5 staff	-	1 per 5 staff + 1 per 5 students	15 per classroom	1 per classroom	-	1 per 5 staff + 1 per 2 students
	Post-Primary/Secondary	1 per 5 students	1 per 5 staff	-	1 per 5 staff + 1 per 5 students	20 per classroom	1 per classroom	-	1 per 5 staff + 1 per 2 students
	Universities, Colleges of Further Education	1 per 5 students	1 per 5 staff	-	1 per 5 staff	30 per lecture theatre	1 per 2 staff	-	1 per 5 staff + 1 per 2 students
Medical	Medical Clinics, Primary Healthcare Centres	1 per 2 consulting rooms	1 per 5 staff	case by case	1 per 5 staff	1 per consulting room	1 per consulting room	1 per 2 consulting rooms	1 per 5 staff
	Hospital	1 per 10 beds	1 per 5 staff	1 per 10 beds	1 per 5 staff	1 per 20 staff	1 per 4 staff	1 per 10 beds	1 per 5 staff
Retail	Convenience Retail	1 per 100 sqm	1 per 5 staff	1 per 100 sqm	1 per 5 staff	1 per 60 sqm	1 per 60 sqm	1 per 50 sqm	1 per 5 staff
	Shopping Centres	1 per 100 sqm	1 per 5 staff	1 per 100 sqm	1 per 5 staff	1 per 100 sqm	1 per 200 sqm	-	-
	Retail (Non-Food)	1 per 100 sqm	1 per 5 staff	1 per 100 sqm	1 per 5 staff	1 per 60 sqm	1 per 60 sqm	1 per 50 sqm	1 per 5 staff
	Café, Restaurants, and Takeaways	1 per 100 sqm	1 per 5 staff	1 per 10 seats	1 per 5 staff	-	-	1 per 10 seats	1 per 5 staff
	Financial, Professional Services	-	-	-	-	1 per 50 sqm	1 per 50 sqm	-	-
Employment	Offices	1 per 200 sqm	1 per 200 sqm	case by case	1 per 75 sqm	1 per 200 sqm	1 per 60 sqm	1 per 200 sqm	1 per 200 sqm
	Industry	1 per 200 sqm	1 per 200 sqm	-	1 per 200 sqm	1 per 200 sqm	1 per 80 sqm	-	1 per 200 sqm
Sports and Recreation	Leisure Centre/ Recreation Building	1 per 100 sqm	1 per 5 staff	1 per 50 sqm	1 per 5 staff	1 per 30 sqm	1 per 2 staff	1 per 50 sqm	1 per 5 staff
	Pitches, Courts	1 per 12 ha. Pitch area 4 per court	1 per 5 staff	4 per pitch/court	1 per 5 staff	To be determined by the Planning Authority		4 per pitch/court	1 per 5 staff

3.3.5 Summary and Conclusion of CDP Review

3.3.5.1 Non Residential Car Parking Standards

Non-residential car parking standards in Cherrywood have been compared to the equitable Zone 2 in DLRC (where applicable in relation to HIE, retail and education only), Dublin City (DC), and South Dublin County (SDC), Zone 1 in Fingal County (FC), and Zone 3 in DLRC for Civic, Community, Religious and Industry supporting land uses.

A comparative summary is provided below for each applicable non-residential land use type. Where Cherrywood parking standards are stated as higher, this concludes that a greater number of parking spaces are required based on pro rata floorspace in comparison to other reviewed standards.

The Cherrywood Planning Scheme refers to DLRCC Zone 2 for the following land use types:

- Creches,
- Further Education,
- Medical Clinics,
- Hospitals,
- Cafes, Restaurants and Takeaways,
- Financial / Professional Services,
- Leisure Centre,
- Pitches.

The Cherrywood Planning Scheme refers to DLRCC Zone 3 for the following land use types:

- Industry,
- Library / Community Halls,
- Place of Worship.

All other land use types compare the Cherrywood Planning Scheme standards to the reviewed CDPs.

Civic, Community, and Religious

- Cherrywood parking standards are significantly higher for libraries, community halls and places of worship compared to DC.
- Cherrywood standards are higher than SDC, lower than DC and equal to FC for places of worship,
- Cherrywood standards are lower than FC for libraries and community halls.

Education

- Cherrywood standards are higher than DC for creches, The Cherrywood standards cannot be compared to FC or SDC due to differing metrics.
- Provision of parking at primary and secondary schools in Cherrywood is <1 space per classroom, and is subject to consultation with the Department for Education and Skills,
- SDC parking standards in the comparable zone 2 are also <1 per classroom for primary and secondary schools however the standards are stated specifically as 0.5 spaces per classroom,
- Cherrywood standards are therefore considered lower than DLRC Zone 2, DC, and FC in relation to primary and secondary schools i.e. less than one per classroom compared to one per classroom.
- Cherrywood standards default to DLRCC standards in relation to universities and further education i.e. case by case basis and are not comparable to other CDPs due to differing metrics.

Medical

- Cherrywood standards are equal to DC standards for medical clinics,
- Cherrywood standards are lower than FC and SDC for medical clinics,
- Where comparable, Cherrywood standards are higher than DC and SDC standards for hospitals.

Retail

- Cherrywood standards are higher than DLRC Zone 2, DC, FC, and SDC for convenience retail,

- It is noted that DLRC Zone 2 states that no parking is to be provided for convenience retail with a GFA of less than 100 sqm.
- Cherrywood standards are lower than DLRC Zone 2, and FC for shopping centres/supermarkets >1000sqm, Cherrywood standards do not outline whether the standard is applicable to specific GFA.
- Cherrywood standards are higher than DC for shopping centres/supermarkets >1000sqm,
- Cherrywood standards are higher than DLRC Zone 2, and DC for non-food retail and lower than SDC for non-food retail,
- Cherrywood standards are equal to DLRC Zone 2 for cafés, restaurants, and takeaways, and financial and professional services,
- Where comparable, Cherrywood standards are lower than DC, FC, and SDC for cafés, restaurants, and takeaways, and financial and professional services.

Employment

- Cherrywood standards are stated as 1 per 100 sqm which is still applicable when considered against the quantum of HIE delivered in relation to Table 4.5 of the Planning Scheme,
- Cherrywood standards are higher than DLRC Zone 2 and DC in relation to offices,
- Cherrywood standards are significantly higher than DC for industry,
- Cherrywood standards are lower than FC and SDC for offices,
- Cherrywood standards are lower than SDC for industry.

Sports and Recreation

- Cherrywood standards are equal to DLRC Zone 2 for leisure centres/recreation buildings, and pitches/courts,
- Cherrywood standards are lower than FC and SDC for leisure centres/recreation buildings,
- It is noted that the majority of the reviewed standards allow a case by case basis for parking standards for pitches/courts.

The above comparative summary has been further summarised in Table 3.7 below, and Cherrywood car parking standards have been compared to the other CDP standards based on the following metrics:

- SH Significantly Higher
- H Higher
- = Equal
- L Lower
- SL Significantly Lower
- CBC Case by Case Basis
- - Not comparable due to differing metrics

Table 3.7 CDP Non-Residential Car Parking Standards Comparison

Land Use Type	DLRCC (Zone 2)	DLRCC (Zone 3)	Dublin City	Fingal	South Dublin
HIE					
Office	H	-	SH	L	L
Industry	-	=	SH	=	L
Retail					
Convenience	H	-	SH	H	H

Land Use Type	DLRCC (Zone 2)	DLRCC (Zone 3)	Dublin City	Fingal	South Dublin
Non-Food	H	-	SH	-	L
Shopping Centre	L	-	H	L	-
Cafes, Restaurants and Takeaways	=	-	L	-	L
Financial / Professional Services	=	-	SH	L	-
Education					
Primary	L	-	L	L	=
Secondary	L	-	L	L	=
Further Education	= (CBC)	-	-	-	-
Creche	=	-	H	-	-
Medical					
Medical Clinics	=	-	=	H	H
Hospitals	=	-	H	-	H
Civic, Community & Religious					
Library / Community Hall	-	=	SH	H	=
Place of Worship	-	=	SH	=	H
Sport & Recreation					
Leisure Centre	=	-	CBC	L	L
Pitches	= (CBC)	-	CBC	CBC	-

As shown in Table 3.7, the current Cherrywood standards in relation to HIE and some aspects of retail are significantly higher in comparison to Dublin City standards and higher in comparison to the current DLRCC standards.

Cherrywood standards, which defer to DLRCC Zone 2 in the absence of specifically stated parking standards within the Planning Scheme, are also considered high in relation to medical land uses when compared to the other CDPs and high or significantly higher when compared to Dublin City in relation to civic, community and religious land uses.

It is considered that this presents an opportunity to consider a revision to standards within the Planning Scheme which are currently higher or significantly higher in comparison to the relevant CDPs reviewed.

3.3.5.2 Non Residential Cycle Parking Standards

As stated in Chapter 4 of the Planning Scheme, cycle parking standards in Cherrywood currently defer to the DLRCC Cycling Policy.

Where Cherrywood parking standards are stated as higher, this concludes that a greater number of parking spaces are required based on pro rata floorspace in comparison to other reviewed standards.

It should be noted that DLRC standards require a minimum of two cycle parking spaces for all land use types if specific standards do not already exceed this value.

Civic, Community, and Religious

- For library/community halls, Cherrywood standards are lower for short stay than DC, but equal for places of worship.

- For library/community halls and places of worship, Cherrywood standards are generally lower for short stay and equal for long stay when compared to FC and SDC,

Education

- Where comparable, Cherrywood standards are equal to DC, and SDC for creches in relation to short and long stay cycle parking.
- For primary and post-primary schools, Cherrywood standards are equal to DC standards and lower than SDC standards.
- Cherrywood and FC are incomparable for creches, primary, and post-primary schools due to differing metrics.
- For universities/colleges, Cherrywood standards are equal to DC standards and lower when compared to FC and SDC standards for long stay cycle parking.

Medical

- For medical clinics/primary healthcare centres, and hospitals, Cherrywood standards are generally comparable to all other CDPs.

Retail

- Where comparable, Cherrywood standards are equal to DC standards and lower than FC and SDC standards.

Employment

- Cherrywood long stay standards are lower than DC for offices, but equal in relation to industry.
- Cherrywood standards are equal for short stay and lower for long stay when compared to FC.
- Cherrywood standards are equal to SDC standards for both offices and industry.

Sports and Recreation

- For leisure centre/recreation buildings, Cherrywood standards are lower than DC, FC, and SDC for short stay cycle parking and generally equal for long stay.
- For pitches/courts, Cherrywood standards are equal to DC and SDC.

The above comparative summary has been further summarised in Table 3.8 overleaf, and Cherrywood cycle parking standards have been compared to the other CDP standards based on the following metrics.

- SH Significantly Higher
- H Higher
- = Equal
- L Lower
- SL Significantly Lower
- CBC Case by Case Basis
- - Not comparable due to differing metrics

It should be noted that whilst the metrics are similar to those used to summarise car parking standards in Table 3.7, there is a notable difference in the assigned colouring. Where Cherrywood standards are lower in comparison to other CDPs this is considered a negative rather than a positive when considering cycle parking.

The current cycle standards in Cherrywood defer to the DLRCC Cycling Policy and as shown in Table 3.8, the standards are generally equal where comparable to the majority of non-residential land use types across other CDPs.

However, there are instances where the Cherrywood cycle parking standards are considered lower in comparison to two out of the four comparable CDPs with less cycle parking per sqm is provided including:

- Long stay parking at office, industry and some education land uses.
- Short stay parking at libraries, medical centres and convenience and non-food retail land uses.

It is therefore considered that the current alignment with the DLRCC cycle parking standards remains appropriate for Cherrywood SDZ. It is however noted that DLRCC cycle parking standards may be subject to review in due course.

Table 3.8 CDP Non-Residential Cycle Parking Standards Comparison

Land Use Type	DLRCC		Dublin City		Fingal		South Dublin	
	Short Stay	Long Stay	Short Stay	Long Stay	Short Stay	Long Stay	Short Stay	Long Stay
HIE								
Office	=	=	CBC	SL	=	SL	=	=
Industry	=	=	-	=	=	SL	-	=
Retail								
Convenience	=	=	=	=	L	-	L	=
Non-Food	=	=	=	=	L	-	L	=
Shopping Centre	=	=	=	=	=	-	-	-
Cafes, Restaurants and Takeaways	=	=	-	=	-	-	-	=
Financial / Professional Services	=	=	-	-	-	-	-	-
Education								
Primary	=	=	=	=	-	-	-	L
Secondary	=	=	=	=	-	-	-	L
Further Education	=	=	-	=	-	SL	-	L
Creche	=	=	=	=	-	-	=	=
Medical								
Medical Clinics	=	=	CBC	=	L	L	=	=
Hospitals	=	=	=	=	-	L	=	=
Civic, Community & Religious								
Library / Community Hall	=	=	SL	=	SL	=	SL	=
Place of Worship	=	=	=	-	SL	-	SL	-
Sport & Recreation								
Leisure Centre	=	=	SL	=	SL	SL	SL	=
Pitches	=	=	=	=	CBC	CBC	=	=

3.4 Cherrywood Non-Residential Planning Applications

DLRCC supplied AECOM with an application tracker which provided details of 22 relevant applications, as outlined in Table 3.9. Four of the applications are active, two are yet to secure permission, 15 have been granted permission and have either begun or are awaiting construction and one was previously granted permission which has now lapsed and will therefore require a re-application i.e. DZ17A/0114 – Priorsland Park & Ride Facility.

The planning information for the 22 relevant applications has been interrogated to determine the proposed non-residential car and cycle parking provision. Table 3.9 summarises this information and outlines the subsequent parking ratios. It should be noted that the parking provision associated with the Priorsland Park & Ride application has been assumed as the existing temporary Park & Ride provision of 352 spaces.

The average car parking ratio per 100sqm of proposed development is 3.401, and the average cycle parking ratio per 100 sqm of development is 3.905. It should be noted that the average ratios are based total development which includes various land uses and therefore cannot be directly compared to the current parking standards.

It should further be noted that some of the applications are detailed as mixed use, and the planning documents did not provide a breakdown of parking provision in relation to each proposed land use element. As such, a specific non-residential parking ratio could not be determined for application DZ22A/0591 regarding the creche and community facilities elements.

3.4.1 Conclusion

If all of the considered existing and proposed planning applications were fully constructed without modification to the current plans, a total of 5,765 car parking spaces will be provided in off-street parking facilities for non-residential use, along with provision for 3,755 bicycles to encourage use of sustainable modes.

Currently, there are six developments operational within Cherrywood SDZ with a total of 1,578 car parking spaces built and 474 bicycle spaces provided. This includes 1,079 car parking spaces for HIE usage, 20 car parking spaces located at a primary school, 127 car parking spaces for public park usage, and 352 car parking spaces at the temporary Carrickmines Park and Ride. A breakdown of these provisions per application is provided in Appendix C. The 1,079 HIE spaces include operational office blocks F1 & F2 with 14,309 sqm gross floor area.

Table 3.9 Cherrywood Non-Residential Planning Applications

Application No.	Ref.	Land Use	Area	Status	Proposal description	Permitted Car Parking Spaces	Car Parking Ratio (per 100 sqm)	Cycle Parking Spaces	Cycle Parking Ratio (per 100 sqm)
HIE 1	DZ17A/0122	Employment - Office Blocks	DA 6 Bride's Glen	Active	Partially complete development site (previously block F) which includes a basement car park (339 existing spaces). Block F1 – 5 storey office block. Block F2 – 5 storey office block. Reconfiguration of the existing 3 level basement permitted under DO8A/0035	339 (Built)	2.369	140	0.978
HIE 1	DZ18A/1104	Employment - Office Blocks	DA 6 Bride's Glen	Active	Proposed 5 storey office block, with 3 levels of basement car parking, landscaped roof terrace and 2 no. external terraces. Demolition of as build car park and construction of a 3-level basement car park to include 367 car parking spaces, 26 motorcycle parking spaces, 42 cycle parking spaces (an additional 106 surface cycle parking spaces are proposed) as an extension to existing car park permitted under DZ17A/0122.	367	4.654	42	0.533
HIE 1	DZ17A/0731	Employment - Office Blocks	DA 6 Bride's Glen	Active	Proposed 4 storey office building with gross floor area of c.2,581 sqm, permanent access road, and surface level car park of 28 no. car spaces, including 3 no. disabled spaces, 3 no. EV provision spaces, 15 no. short stay cycle parking spaces, and 15 no. long stay, secure cycle parking spaces.	28	1.085	30	1.162
XX	DZ21A/0785	Employment - Office Building	DA 2 Cherrywood	Permission Granted	Permission for a mixed use development consisting of an 8 storey office building (HIE) of 13,487 sqm including non-retail uses comprising 1,221 sqm at ground/street level. Parking at basement level for 151 no. commercial car parking spaces and 146 no. bicycle parking spaces distributed between basement and street level.	151	1.120	146	1.083
N/A	DZ18A/0458	Education - Primary School	DA 2 Cherrywood	Active	Development of a Primary School. 2-3 storey primary school building comprising of 24 no. classrooms, special needs unit, general purpose hall, library, resource room, other support teaching rooms, office, and staff areas, and ancillary accommodation. Additional external play areas, boundary treatments, landscaping, car parking (20 no. spaces) and cycle parking (192 no. spaces) to be included on site area, with permitted parking and bus set down area.	20 (Built)	0.443	192	4.257
N/A	DZ21A/1038	Education - Post-Primary School	DA 2 Cherrywood	Permission Granted	Development of a Post-primary school consisting of a part 3 storey, part 2 storey building of 11,536 sqm gross floor area, to accommodate 1000 pupils. Site to include PE Hall, 4 classroom special educational needs unit, all ancillary teacher and pupil facilities, staff car parking, delivery and emergency vehicle access, pedestrian and bicycle access, bicycle parking, and 6 no. external ball courts.	29	0.251	220	1.907
N/A	DZ17A/0114	Multi-Storey Car Park - Park & Ride	Priorsland	Permission Granted	Permanent multi storey park and ride facility to be developed adjacent to the existing temporary park and ride facility. The new development comprises of 350 car parking spaces (including 15 no. disabled spaces), bus drop-off facility, and a “kiss and ride” facility. The facility will serve the Luas Line B1 extension Sandyford-Cherrywood.	352 (Built)	-	62	-
27	DZ23A/0359	Retail - Garden Centre	Res DA 7 Macnebury	Live Application	Proposed repairs and development of existing 2 storey dwelling (including protected structure) to a mixed-use facility. Erection of 3,808 sqm garden centre with ground and mezzanine floors. At ground floor the centre will contain open plan retail space, warehouse, office, W.C., storeroom, and elevator. The mezzanine floor will contain further retail space, warehouse, staff facilities, and storeroom. 95 standard car parking spaces, 4 accessible bays, 4 loading bays, 3 family bays, 42 bicycle spaces (including 4 cargo bicycle spaces), and 1 motorcycle space.	102	2.679	-	-
19	DZ22A/0591	Mixed-use - Retail, Non Retail, Creche, Community, Residential	DA 2 Cherrywood	Permission Granted	The proposed development consists of 472m2 of retail commercial space and 1,823m2 of non-retail commercial space.	353	12.408	44	10.304
					Included in the proposal is also 418 no. residential units, a creche and community space.	-	-	-	-
TC1, TC2, TC4	DZ17A/0862	Mixed-use - HIE, Non Retail, Community, Residential	Town Centre 1, 2, 4	Permission Granted	Development of 15 blocks on plots TC1, TC2, AND TC4, to include residential units, retail (20,284sqm), High Intensity Employment (22,946 sqm), Non retail (31,115 sqm), community uses (1,437 sqm), 2/3 level basement car park	2643	3.488	1865	2.461
TC1, TC2, TC4	DZ19A/0148	Mixed-use - Creche, Retail, Non Retail, Café/Restaurant, Residential	Town Centre 1, 2, 4	Permission Granted	Revision to developments on plot TC2, including relocation of creche				
20	DZ22A/1021	Mixed-use - Creche, Residential	Res DA 7 Macnebury	Permission Granted	Development of 283 no. residential units and creche (883 sqm). The proposed creche comprises a standalone 3 storey block with associated car parking spaces and set-down spaces.	9	1.019	32	3.624

Application No.	Ref.	Land Use	Area	Status	Proposal description	Permitted Car Parking Spaces	Car Parking Ratio (per 100 sqm)	Cycle Parking Spaces	Cycle Parking Ratio (per 100 sqm)
7	DZ20A/0052	Mixed-use - HIE, Café/Restaurant, Residential	DA 2 Cherrywood	Permission Granted	Development of residential and mixed use buildings within TC3 and associated basement parking with 180 no. car parking for commercial uses and 640 no. total bicycle spaces	180	1.325	640	4.712
2	DZ17A/0714	Mixed-use - Creche, Residential	Res DA 8 Domville	Permission Granted	Development of residential and creche buildings and associated parking in Domville site	17	4.722	-	-
22	DZ23A/0005	Mixed-use - Creche, Residential	Res DA 1 Lehaunstown	Permission Granted	Development of residential and creche buildings and associated parking in Laughanstown and Brennanstown	11	1.599	6	0.872
26	ABP31332222	Mixed-use - Supermarket, Retail, Non Retail, Creche, Gym, Community, Residential	Res DA 3 Priorsland	Live Application	Development of Priorsland village including supermarket, retail, non-retail, creche, gym, community, residential buildings including parking facilities	83	2.410	78	2.283
18	DZ22A/0770	Mixed-use - Creche, Retail, Community, HIE, Residential	Res DA 8 Tully	Permission Granted	Development of residential and mixed use properties comprising of apartment units, a creche (400sqm) with associated external play area, 3no. retail units (1,043sqm), a community room (194sqm) and HIE (High Intensity Employment) unit (65sqm), and undercroft parking of 75no. and bicycle parking.	75	4.407	-	-
24	DZ23A/0106	Mixed-use - Retail, Café/Restaurant, HIE, Residential	Res DA 8 Tully	Permission Granted	Development of residential and mixed use properties. Block A: 1no. supermarket (2748.6sqm) 8no. retail units (992.9sqm) 3no. food and beverage/non retail units (276sqm) 1no. high intensity employment unit (68.1sqm). Block B: 1no community facility (215sqm) 2no. high intensity employment units (488sqm) 2no food and beverage/non retail units (279.1sqm)	83	1.638	88	1.736
N/A	DZ17A/0417	HIE Temporary Car Park	DA 6 Bride's Glen	Permission Granted	Development of a temporary car park for a period of 5 years for approx. 740 cars	740 (Built)	3.936	-	-
N/A	DZ15A/0813	Recreation - Public Park	DA 2 Cherrywood	Permission Granted	Development of a Public Park consisting of passive and active open space, informal playing pitch, fitness and play trail, performance space/seating area, nature zone, woodland spaces, formal outdoor playground (0.46HA), park kiosk (125sqm)	56	4.341	90	6.977
N/A	DZ15A/0814	Recreation - Public Park, Sports Facilities	DA 8 Tully	Permission Granted	Development of a Public Park consisting of passive and active open space, all-weather sports pitch (106x66m), all-weather tennis courts, Multi-Use Games Area (MUGA), boules court, outdoor playground (400sqm), outdoor gym (500sqm), pavilion building (387 sqm)	52 (Built)	10.196	80	15.686
N/A	DZ20A/0478	Public Park Temporary Car Park	DA 7 Macnebury	Permission Granted	Development of a temporary car park for a period of up to 3 years for 75 cars, 3 coaches, 4 motorcycles site area (0.6HA)	75 (Built)	3.927	-	-
					Total Permitted Parking Provision	5765	-	3755	-
					Average Parking Ratio per 100sqm	-	3.401	-	3.905

3.5 Consideration of Relevant Studies

There are a number of current and future studies which are considered relevant to any potential amendment in relation to non-residential parking standards including:

- Amendment No.9 Residential Parking Standards.
- Town Centre and Environs Review.
- Smart Parking Study.

There is a need for the Planning Scheme to align all potential amendments in order to ensure a consistent approach for delivery of the SDZ.

3.5.1 Amendment No.9 Residential Parking Standards

DLRCC commissioned AECOM to undertake a review of residential parking standards within the SDZ. The purpose of this review was to determine if the set residential standards aligned with the shift in national, regional and local policy, promoted sustainable public and active travel modes and addressed climate change mitigation measures.

The study recommended that there was appropriate rationale to reduce residential parking standard requirements across all proposed housing typologies in Cherrywood on the basis of the following key themes:

- Policy
- Review of relevant CDPs
- Best Practice
- Planning Decisions
- Impact of Covid 19 Pandemic
- Costs of Living Crisis
- Travel Trends
- Car Ownership Trends

The revised standards are outlined below.

- Studio units (applicable in Town Centre, Village Centres and Res 1) – the current policy allows a lower standard in the range of 50-70% of the rate applied to 1-bed units. This policy is to be retained and therefore will be applicable to the 0.5 spaces per 1-bed unit, resulting in a parking standard range between 0.15 and 0.25 spaces per unit. Studio spaces to be unallocated and subject to a usage charge.
- Town Centre – revised standard of 0.5 unallocated spaces per unit which will be subject to a usage charge.
- Village Centres – revised standard of 0.5 unallocated spaces per unit which will be subject to a usage charge.
- RES 1, 2, 3 & 4
    - 1 bed units – revised standard of 0.5 unallocated spaces per unit and 0.25 unallocated spaces per studio which will be subject to a usage charge.
    - 2 bed units – revised standard of 0.75 unallocated spaces per unit which will be subject to a usage charge.
    - 2 bed houses – revised standard of 1.0 allocated i.e. in-curtilage space per house.
    - 3+ bed units – revised standards of 1.25/1.5 spaces per unit/house respectively
- Shared parking spaces –increase to 0.02 spaces per unit as a minimum requirement.

Assuming the proposed maximum standards outlined above results in a 32% reduction in spaces required in both the minimum and maximum unit scenarios. This equates to a reduction range of between ~2500 spaces and ~3600 spaces dependent on the minimum/maximum units delivered.

Translating this into potential additional public transport trips on the assumption of single occupancy for studios, 1.2 occupancy for 1 and 2-bed units and 1.4 occupancy for 3-bed units/houses the revised parking rates could yield in the range of 3,100 and 4,500 additional public transport trips.

It should be noted that consultations with the NTA confirmed that there are no anticipated issues with network capacity and as such this increased demand can and will be accommodated.

Figure 3.2 outlines the anticipated impact of the proposed revision in residential car parking standards in the SDZ.

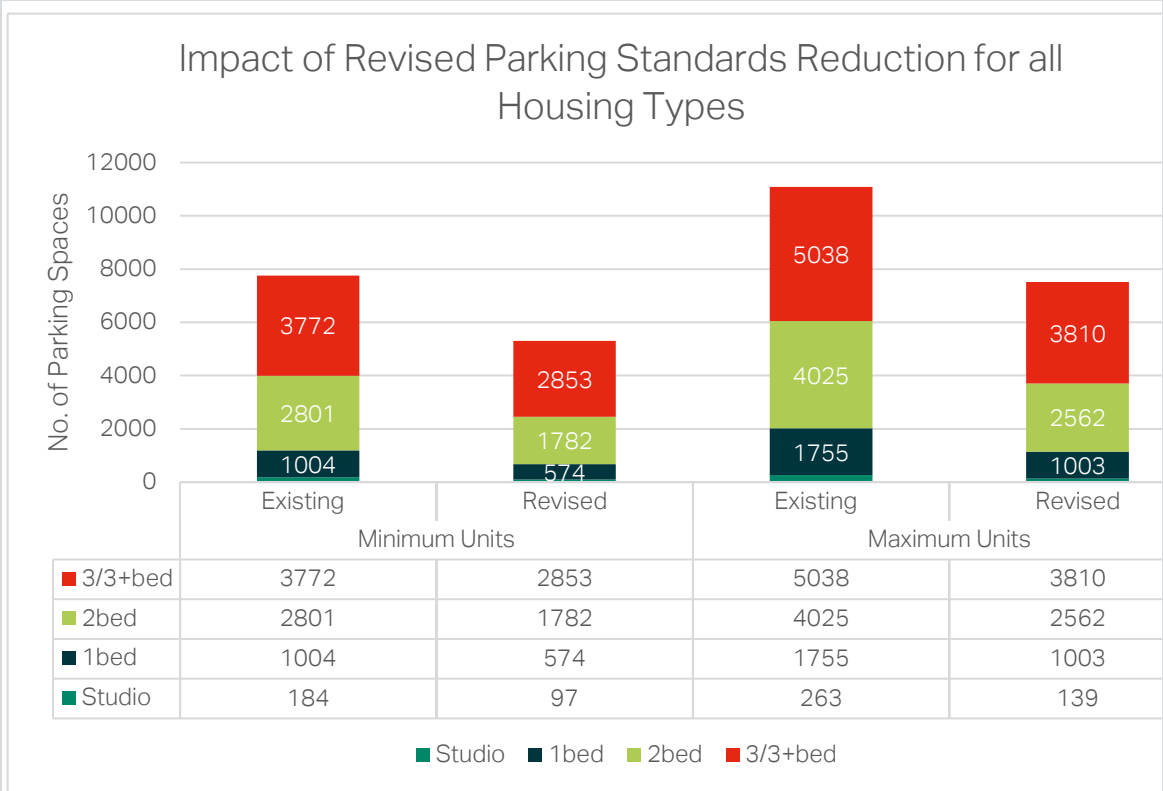


Figure 3.2 Impact of Revised Parking Standards – Cherrywood SDZ

DLRCC submitted the proposed amendment on 31st May 2023 to An Bord Pleanála with who the matter now rests with as the competent authority for determination, with an indicative date for the case to be decided in Q3 2024.

3.5.2 Town Centre & Environs Infrastructure Capacity Review

DLRCC recently commissioned a review and analysis of the existing infrastructure capacity in Cherrywood Town Centre (4No. plots) and Environs (specifically the HIE plots).

The study will also require consideration of impacts on infrastructure elements in relation to an adjusted land use mix, built form and spatial arrangement of uses and associated implications as well as recommendations regarding additional required upgrades including but not limited to:

- Road infrastructure
- Public transport network

- Pedestrian and cycle facilities
- Car parking
- Surface Water and Attenuation
- Water Supply
- Wastewater Drainage
- Other Utilities – Telecommunications, Electricity Supply, etc.

There are a number of initial emerging recommendations associated with the categorisation of land use types within the SDZ including the need to sub-categorise the HIE land use, in order to provide spatial context. Two sub-categories are proposed including:

- UrbComm

  UrbComm is still to be considered as office / employment but on a smaller scale with an adaptable spatial format. It is considered that this land use sub-category may focus on creative and knowledge intensive businesses. It is proposed that this land use type will predominantly be located in the Town Centre Quadrants (TCs) but may also be located on the more intensively developed edges of the HIE plots located in the environs area surrounding the town centre. It is also proposed to rename the TCs as the Town Centre Core (TCC).

- HIE Strategic Employment

  It is proposed that HIE Strategic Employment will be located in the environs area of the SDZ mainly on the HIE plots. It is envisaged that this land use sub-category will potentially be developed out in the medium to longer term and will accommodate larger scale or major HIE uses. It is also proposed rename these plots from HIE to Town Centre Environs.

It is considered that above land use sub-categories are still considered as HIE employment and as such additional parking standards are not applicable, therefore HIE parking standards will still apply. It should be noted that the above outlined sub-categories are subject to change as the Town Centre & Environs review develops further.

As the study develops, any revisions to the town centre should also be considered in the wider context of the SDZ and consider any amendments to parking standards in order to achieve the correct balance of parking provision in relation to all land use types.

3.5.3 Urban Regeneration and Development Fund (URDF) Smart Parking Study

DLRCC are preparing to tender for a bespoke Study, to include an integrated strategy and recommendations for Smart Parking within Cherrywood SDZ comprised of but not limited to:

- A comprehensive review of contemporary and emerging national and international best practice on parking management and provision.
- A review of relevant travel and parking-related trends.
- A comprehensive review of current and emerging sustainable parking solutions including under the categories of technology, services, design, management and behaviour.
- An integrated suite of options and recommendations as to potential measures to enhance and provide greater flexibility in the provision of required car parking within Cherrywood, including any required drawings, plans and images.
- Multi-criteria evaluation of proposed measures and interventions including as to why they are appropriate for Cherrywood given other options, and the reasons why recommendations are made.
- Preferred recommendations.
- Recommendation for new policies or amendments to existing policies in the Cherrywood Planning Scheme, with recommendations to have regard to planning legislation, spatial context and practical implementation.
- Site or location specific recommendations to be applied spatially to Cherrywood SDZ having regard to specific site and plot characteristics.

- Proposals for pilot measures at specific locations with Cherrywood SDZ.

It is considered that the recommendations of the smart parking study would add further support to any potential amendment to non-residential parking standards in Cherrywood emerging from this study. Furthermore, smart parking solutions would also complement any proposals being brought forward in conjunction with the NTA, in relation to destination parking standards and parking management at retail centres.

3.5.4 Conclusion

The proposed Amendment No.9 in relation to residential parking standards, upon approval from An Bord Pleanála will impact mixed use developments within all locations in the SDZ including already submitted applications currently seeking approval.

Any potential reduction in non-residential parking standards will also have to be accounted for in the ongoing Sequencing and Phasing Amendment Study and the Town Centre and Environs Study. It is noted that additional HIE land use sub-categories are being considered as part of the Sequencing and Phasing Amendment in order to differentiate in a spatial context. The sub-categories will still be considered as HIE overall and therefore relevant HIE parking standards will still apply.

It is considered that developers may apply for retrospective planning on the basis of the any potential reduction in non-residential parking standards. This would result in submission of revised layouts considering the amended car parking policies and potential re-purposing of space previously considered for parking provision.

This report sets out potential solutions including technology based solutions to complement any proposed amendment to non-residential parking standards in Section 8. It is therefore considered that the proposed URDF Smart Parking Study could further refine the proposed technology based solutions suggested for Cherrywood and determine specific locations for implementation.

4. Non-Residential Parking Standards Best Practice

4.1 Introduction

This chapter sets out a review of best practice in relation to non-residential parking standards. The purpose of this review will allow the current standards applied in Cherrywood to be benchmarked against other locations with similar land uses.

The best practice review includes consideration of cities in the UK, Republic of Ireland, and Europe as well as comparable SDZ locations in the Dublin locality.

4.2 UK and RoI Best Practice

This review has considered non- residential car and cycle parking guidelines as summarised in Tables 4.1 and 4.2 respectively overleaf, across a number of locations in both the UK and RoI including:

- Cork County
- Cork City
- Belfast
- York
- Birmingham
- Edinburgh
- Cardiff
- Manchester
- Bath

Table 4.1 Review of UK & RoI Car Parking Standards

Land Use		Cork City		Cork County	Belfast	
		Zone 1 - City Centre & Inner City	Zone 2 - Accessible to mass transit (existing/committed public transport)	Parking Provision for New Developments	Non-Operational Parking Space	Operational Parking Space
Civic, Community, and Religious	Library, Community Hall	1 per 250 sqm	1 per 150 sqm	1 per 25 sqm	1 per 3 staff, 1 space per 30 sqm	1 mobile library parking space
	Place of Worship	1 per 25 seats	1 per 15 seats	1 per 4 seats	1 per 3 seats	Minimum of 1 coach space
Education	Creches	1 per 6 children	1 per 6 children	1 per 3 staff + 1 per 10 children	1 per 3 staff + 1 per 10 children	1 lay-by or turning space as appropriate
	Primary	1 per 5 classrooms	1 per 2 classrooms	1 per teaching staff + 1 per 2 ancillary staff + additional 50% of staff provision for visitors	1 per teaching staff + 1 per 2 ancillary staff + 50% of total staff provision for visitors	Pick up and set down facilities + a minimum provision for bus spaces will be required with additional provision depending on the needs of the educational facility.
	Post-Primary/Secondary	1 per 5 classrooms	1 per 2 classrooms	1 per teaching staff + 1 per 2 ancillary staff + additional 30% of staff provision for visitors	1 per teaching staff + 1 per 2 ancillary staff + 1 per 10 pupils over age 17 + 33% of total staff provision for visitors	
	Universities, Colleges of Further Education	1 per classroom + 1 per 30 students	1 per classroom + 1 per 20 students	1 per classroom + 1 per 5 students	1 per teaching staff + 1 per 2 ancillary staff + 1 per 4 pupils over age 17 + 33% of total staff provision for visitors	
Medical	Medical Clinics, Primary Healthcare Centres	1 per Consulting Room	1 per Consulting Room	3 per consulting room + 1 per doctor/Consultant + 1 per 3 nursing and ancillary staff	1 per Doctor, Dentist or Vet + 1 per 2 other staff + 4 per consulting or treatment room + minimum of 1 ambulance space per Health Centre	Veterinary Surgeries must provide adequate turning and manoeuvring space for larger vehicles with trailers where large animal practice is involved
	Hospital	1 per 2 patient beds	1 per 2 patient beds	1.5 per 1 patient bed + 1 per doctor/Consultant + 1 per 3 nursing and ancillary staff	1 per doctor/consultant + 1 per 3 nursing/ancillary staff + 1 per 3 beds + 4 per outpatient consulting rooms	Parking for ambulances and service lorries
Retail	Convenience Retail	1 per 100 sqm	1 per 50 sqm	1 per 20 sqm	1 per 14 sqm	1 lorry space per 750 sqm
	Retail (Non-Food)	1 per 275 sqm	1 per 100 sqm	1 per 20 sqm + 1 Lorry space per 750 sqm	1 per 20 sqm	1 lorry space per 750 sqm
	Café, Restaurants, and Takeaways	1 per 150 sqm	1 per 100 sqm	1 per 5 (net sqm)	1 per 5 sqm	1 lorry space when >500 sqm
	Financial, Professional Services	-	-	-	1 per 20 sqm	1 per 3000 sqm for commercial vehicles
Employment	Offices	1 per 200 sqm	1 per 150 sqm	1 per 17 sqm + 10% of staff parking for visitors	1 per 20 sqm GFA <500sqm (1 per 30 sqm GFA >500 sqm) + 10% of staff parking for visitors	1 per 930 sqm + 1 commercial vehicle space per 3000 sqm
	Industry	1 per 200 sqm	1 per 140 sqm	1 per 50 sqm	1 per 25 sqm (<250 sqm)	1 space for commercial vehicles
Sports and Recreation	Leisure Centre/ Recreation Building	Dependent upon nature and location of use		1 per 25 sqm	1 per 3 staff + 1 per 3 players + 1 per 3 spectators	-
	Pitches, Courts			Dependent on nature and location of use	1 per 3 players	1 coach space per 4 pitches

Land Use		York		Birmingham		Edinburgh		
		City Centre and District Centres	Rest of District (excluding city centre and district centres)	Zone A	Zone B (Outside City Centre, High Public Transport)	Zone 1	Zone 2	Zone 3
Civic, Community, and Religious	Library, Community Hall	1 per 20 sqm	1 per 20 sqm	-	-	1 per 150 sqm	1 per 68 sqm	1 per 50 sqm
	Place of Worship	1 per 8 sqm	1 per 8 sqm	Disabled Parking Only	1 per 15 sqm	1 per 120 sqm	1 per 50 sqm	1 per 40 sqm
Education	Creches	2 per 3 staff (staff)+ 1 per 9 children (visitors)	2 per 3 staff (staff)+ 1 per 9 children (visitors)	1 per 4 staff (staff) + 20% of staff parking (visitors)	1 per 2 staff + 20% of staff parking (visitors)	1 per 150 pupils	1 per 30 pupils	1 per 20 pupils
	Primary	2 per 3 staff (staff) + 1 per 45 pupils (visitors) + 1 per 7 pupils aged 17+ (students)	2 per 3 staff (staff) + 1 per 45 pupils (visitors) + 1 per 7 pupils aged 17+ (students)	1 per 4 staff (staff) + 10% of staff parking (visitors)	1 per 2 staff + 10% of staff parking (visitors)	1 per 150 pupils	1 per 30 pupils	1 per 20 pupils
	Post-Primary/Secondary	2 per 3 staff (staff) + 1 per 45 pupils (visitors) + 1 per 7 pupils aged 17+ (students)	2 per 3 staff (staff) + 1 per 45 pupils (visitors) + 1 per 7 pupils aged 17+ (students)	1 per 4 staff (staff) + 10% of staff parking (visitors)	1 per 2 staff + 10% of staff parking (visitors)	1 per 150 pupils	1 per 30 pupils	1 per 20 pupils
	Universities, Colleges of Further Education	2 per 3 staff (staff) + 1 per 7 students (students/visitors)	2 per 3 staff (staff) + 1 per 7 students (students/visitors)	Disabled Parking Only	1 per 2 staff + 10% of staff parking (visitors)	1 per 150 pupils	1 per 30 pupils	1 per 20 pupils
Medical	Medical Clinics, Primary Healthcare Centres	1 per professional staff + 1 per 4 other staff (staff) + 2 per consulting room (patients)	1 per professional staff + 1 per 4 other staff (staff) + 2 per consulting room (patients)	4 per consulting room + 1 per treatment room	4 per consulting room + 1 per treatment room	Maximum 1 per 15 staff Patient parking - Up to 1 space per consulting room	Maximum 1 per 5 staff Patient parking - Up to 1 space per consulting room	Maximum 1 per 3 staff Patient parking - Up to 1.5 spaces per consulting room
	Hospital	1 per doctor + 1 per 4 other staff (staff) + 1 per 2 beds (visitors)	1 per doctor + 1 per 4 other staff (staff) + 1 per 2 beds (visitors)	-	-	Case by Case	Case by Case	Case by Case
Retail	Convenience Retail	1 per 70 sqm	1 per 100 sqm (staff) + 1 per 30 sqm (customers)	Disabled Parking Only	1 space per 28 sqm	1 per 100 sqm	1 per 50 sqm	1 per 25 sqm
	Retail (Non-Food)	1 per 70 sqm	1 per 100 sqm (staff) + 1 per 30 sqm (customers)	Disabled Parking Only	1 space per 40 sqm	1 per 150 sqm	1 per 70 sqm	1 per 40 sqm
	Café, Restaurants, and Takeaways	1 per 10 sqm customer floorspace	1 per 5 sqm customer floorspace	Disabled Parking Only	1 space per 20 sqm of public floor space	1 per 20 sqm	1 per 14 sqm	1 per 11 sqm
	Financial, Professional Services	1 per 70 sqm	1 per 70 sqm	Disabled Parking Only	1 space per 60 sqm	1 per 100 sqm	1 per 50 sqm	1 per 25 sqm
Employment	Offices	1 per 45 sqm	1 per 45 sqm	Disabled Parking Only	1 space per 60 sqm	1 per 3000 sqm	1 per 385 sqm	1 per 210 sqm
	Industry	1 per 75 sqm	1 per 75 sqm	Disabled Parking Only	1 space per 120 sqm	1 per 3000 sqm	1 per 385 sqm	1 per 210 sqm

Sports and Recreation	Leisure Centre/ Recreation Building	1 per 2 staff + 1 per 10 sqm of public floorspace	1 per 2 staff + 1 per 10 sqm of public floorspace	Disabled Parking Only	1 space per 35 sqm	1 per 240 sqm	1 per 100 sqm	1 per 60 sqm
	Pitches, Courts	1 per 2 staff + 1 per 2 players + 1 per 5 spectator seats + coach spaces as appropriate	1 per 2 staff + 1 per 2 players + 1 per 5 spectator seats + coach spaces as appropriate	-	-	-	-	-

Land Use		Cardiff		Manchester		Bath		
		Central	Non-Central	District Centre	Areas not within City or District Centre	Zone A: Bath City Centre	Zone B: Outer Bath, Keynsham and Saltford	Zone C: Towns and Villages
Civic, Community, and Religious	Library, Community Hall	-	1 per 75 sqm	-	-	0 spaces	Evidenced approach to be agreed with LHA	Evidenced approach to be agreed with LHA
	Place of Worship	-	1 per 10 capacity	-	-	0 spaces	Evidenced approach to be agreed with LHA	Evidenced approach to be agreed with LHA
Education	Creches	-	1 per 20 pupils	-	-	Refer to Section 4.7 of the Bath & North East Somerset Council Transport & Development Supplementary Planning Document		
	Primary	1 per 30 pupils	1 per 30 pupils	-	-			
	Post-Primary/Secondary	1 per 30 pupils	1 per 30 pupils	-	-			
	Universities, Colleges of Further Education	1 per 30 pupils	1 per 30 pupils	1 per 2 staff (included parking for students)	1 per 2 staff (included parking for students)	Applicants will be expected to propose and agree suitable parking provision based on evidence and in line with the parking standards Vision and Objectives.		
Medical	Medical Clinics, Primary Healthcare Centres	-	2 per consulting room	1 per 2 staff + 3 per consulting room	1 per 2 staff + 4 per consulting room	0 spaces	Evidenced approach to be agreed with LHA	Evidenced approach to be agreed with LHA
	Hospital	1 per bed	1 per bed	-	-	0 spaces	1 per 4 members of staff + 1 per 3 visitors	1 per 2 members of staff + 1 per 2 visitors
Retail	Convenience Retail	1 per 400 sqm	1 per 60 sqm	1 per 16 sqm	1 per 14 sqm	0 spaces	4 per 100 sqm	7 per 100 sqm
	Retail (Non-Food)	1 per 400 sqm	1 per 20 sqm (retail >1200 sqm, shopping malls addressed on individual unit size)	1 per 22 sqm	1 per 20 sqm	0 spaces	2 for <100 sqm units. 3 for 100-200 sqm units. 4 for 200-300 sqm units. 5 for 400-500 sqm units + 2.5 spaces per 100 sqm above 500 sqm	2 for <100 sqm units. 3 for 100-200 sqm units. 4 for 200-300 sqm units. 5 for 400-500 sqm units + 5 spaces per 100 sqm above 500 sqm
	Café, Restaurants, and Takeaways	0 spaces	1 per 10 sqm	1 per 7 sqm of public floor area	1 per 5 sqm of public floor area	0 spaces	2 for <100 sqm units. 3 for 100-200 sqm units. 4 for 200-300 sqm units. 5 for 400-500 sqm units + 2.5 spaces per 100 sqm above 500 sqm	2 for <100 sqm units. 3 for 100-200 sqm units. 4 for 200-300 sqm units. 5 for 400-500 sqm units + 5 spaces per 100 sqm above 500 sqm
	Financial, Professional Services	1 per 250 sqm	1 per 50 sqm	-	-	0 spaces	1 per 100 sqm (staff) + 1 per 200 sqm (visitors)	2 per 100 sqm (staff) + 1 per 200 sqm (visitors)
Employment	Offices	1 per 250 sqm	1 per 50 sqm	1 per 35 sqm	1 per 30 sqm	0 spaces	1 per 100 sqm	2 per 100 sqm
	Industry	1 per 1000 sqm	1 per 50 sqm	1 per 60 sqm	1 per 45 sqm	0 spaces	1 per 150 sqm	2 per 100 sqm
Sports and Recreation	Leisure Centre/ Recreation Building	-	1 per 20 sqm	1 per 25 sqm	1 per 22 sqm	0 spaces	Evidenced approach to be agreed with LHA	Evidenced approach to be agreed with LHA
	Pitches, Courts	-	-	-	-	0 spaces	Evidenced approach to be agreed with LHA	Evidenced approach to be agreed with LHA

Table 4.2 Review of UK & RoI Cycle Parking Standards

Land Use		Cork City	Cork County		Belfast	York	Birmingham (Minimum of 2 spaces)
			Short Stay	Long Stay			
Civic, Community, and Religious	Library, Community Hall	-	1 per 100 sqm	1 per 5 staff	10 per unit	1 per 30 sqm	-
	Place of Worship	1 per 50 seats	1 per 20 seats	1 per 5 staff	10 per unit	1 per 8 sqm	1 per 10 staff + 1 per 20 people expected to use the facility at any one time (visitor) (minimum of 2 spaces)
Education	Creches	1 per 25 children	1 per 10 children	1 per 5 staff	2 per unit	2 per 3 staff + 1 per 9 children	1 per 10 staff + 1 per 50 pupils (visitors) (minimum of 2 spaces)
	Primary	1 per 10 students	1 per 10 students	1 per 5 staff	1 per 10 students	2 per 3 staff + 1 per 10 pupils + 1 per 45 pupils (visitors)	1 per 10 staff + 1 per 10 pupils (minimum of 2 spaces)
	Post-Primary/Secondary	1 per 4 students	1 per 5 students	1 per 5 staff	1 per 10 students	2 per 3 staff + 1 per 3 pupils + 1 per 45 pupils (visitors)	1 per 10 staff + 1 per 10 pupils (minimum of 2 spaces)
	Universities, Colleges of Further Education	1 per 10 staff + 1 per 4 students	1 per 5 students	1 per 5 staff	1 per 10 students	2 per 3 staff + 1 per 3 students	1 per 10 staff + 1 per 10 pupils (minimum of 2 spaces)
Medical	Medical Clinics, Primary Healthcare Centres	1 per 2 consulting rooms	1 per 2 consulting rooms	1 per 5 staff	2 per unit	1 per 4 staff + 2 per consulting room	1 per 10 staff + 1 per 20 people expected to use the facility at any one time (visitor) (minimum of 2 spaces)
	Hospital	-	1 per 10 beds	1 per 5 staff	1 per 10 staff	1 per 2 staff + 1 per 3 beds	-
Retail	Convenience Retail	1 per 100 sqm	1 per 100 sqm	1 per 5 staff	1 per 500 sqm or 2 spaces (whichever is greater)	1 per 36 sqm	1 per 10 staff + 1 per 125 sqm (customer) (minimum 2 spaces)
	Retail (Non-Food)	1 per 250 sqm	1 per 100 sqm	1 per 5 staff	1 per 500 sqm or 2 spaces (whichever is greater)	1 per 36 sqm	1 per 10 staff + 1 per 250 sqm (customer) (minimum 2 spaces)
	Café, Restaurants, and Takeaways	1 per 200 sqm	1 per 100 sqm	1 per 5 staff	2 per unit	1 per 10 sqm customer floorspace	1 per 10 staff + 1 per 200 sqm (customer) (minimum 2 spaces)
	Financial, Professional Services	1 per 250 sqm	-	-	2 per unit	1 per 70 sqm	1 per 10 staff + 1 per 150 sqm (customer) (minimum 2 spaces)
Employment	Offices	1 per 150 sqm	1 per 200 sqm	1 per 200 sqm	1 per 20 staff or 2 spaces (whichever is greater)	1 per 60 sqm	1 per 10 staff + 1 per 400 sqm (visitor) (minimum 2 spaces)
	Industry	1 per 250 sqm	1 per 200 sqm	1 per 200 sqm	2 per unit	1 per 75 sqm	1 per 10 staff + 1 per 400 sqm (visitor) (minimum 2 spaces)
Sports and Recreation	Leisure Centre/ Recreation Building	1 per 150 sqm	1 per 100 sqm	1 per 5 staff	10 per unit	1 per 3 staff + 1 per 5 sqm of public floorspace	1 per 10 staff + 1 per 15 people expected to use the facility at any one time (visitor) (minimum of 2 spaces)
	Pitches, Courts	-	Dependent on nature and location of use		2 per pitch	1 per 3 staff + 1 per 2 players + 1 per 5 spectators	-

Land Use		Edinburgh		Cardiff (Non-Central)		Manchester (Minimum of 2 spaces)	Bath	
		Short Stay	Long Stay	Short Stay	Long Stay		Short Stay	Long Stay
Civic, Community, and Religious	Library, Community Hall	2 per 100 sqm		5 spaces + 1 per 50 sqm		-	1 per 4 staff	
	Place of Worship	1 per 67 sqm		5 spaces + 1 per 50 sqm		-	1 per 4 staff	
Education	Creches	1 per 9 pupils		1 per 4 long stay	1 per 10 children	-	Refer to Section 4.7 of the Bath & North East Somerset Council Transport & Development Supplementary Planning Document	
	Primary	1 per 9 pupils		1 per 4 long stay	1 per 10 pupils + 1 per 10 pupils scooter parking	-		
	Post-Primary/Secondary	1 per 9 pupils		1 per 4 long stay	1 per 10 pupils (staff) + 1 per 5 pupils (students)	-		
	Universities, Colleges of Further Education	1 per 9 pupils		1 per 4 long stay	1 per 10 pupils	1 per 5 staff + 1 per 3 students		
Medical	Medical Clinics, Primary Healthcare Centres	-	-	1 per consulting room	1 per consulting room	2 per consulting room	1 per 4 staff	
	Hospital	-	-	5 spaces + 1 per 20 beds		-	1 per 10 beds	1 per 4 staff
Retail	Convenience Retail	1 per 500 sqm	1 per 250 sqm	1 per 100 sqm	2 per 100 sqm	1 per 140 sqm	1 per 150 sqm	
	Retail (Non-Food)	1 per 500 sqm	1 per 250 sqm	1 per 200 sqm	2 per 100 sqm	1 per 200 sqm	1 per 150 sqm	
	Café, Restaurants, and Takeaways	1 per 75 sqm	1 per 75 sqm	1 per 100 sqm	2 per 100 sqm	1 per 50 sqm	1 per 100 sqm	
	Financial, Professional Services	1 per 500 sqm	1 per 250 sqm	4 spaces + 1 per 1000 sqm	2 per 100 sqm	-	1 per 500 sqm	1 per 100 sqm
Employment	Offices	1 per 1000 sqm	1 per 150 sqm	4 spaces + 1 per 1000 sqm	2 per 100 sqm	1 per 200 sqm	1 per 100 sqm	1 per 100 sqm
	Industry	1 per 1000 sqm	1 per 150 sqm	1 per 1000 sqm	2 per 100 sqm	1 per 450 sqm	1 per 500 sqm	1 per 300 sqm
Sports and Recreation	Leisure Centre/ Recreation Building	1 per 20 sqm		5 spaces + 1 per 20 sqm		1 per 140 sqm	10 spaces + 10% of vehicle spaces	
	Pitches, Courts	-	-	-	-	-	10 spaces + 10% of vehicle spaces	

Where Cherrywood parking standards are stated as higher, this concludes that a greater number of parking spaces are required based on pro rata floorspace in comparison to other reviewed standards.

In summary, Cherrywood's car parking standards are generally lower for all land use types than the UK and RoI standards presented in Table 4.1, with exception of Cork City and Edinburgh.

Compared to Cork City, Cherrywood has higher standards for library/community halls, places of worship, convenience retail, retail (non-food), industry and offices,

Compared to Edinburgh, Cherrywood has higher standards for convenience retail, retail (non-food), offices, industry, library/community halls, leisure centre/recreation buildings, and pitches/courts.

The above comparative summary has been further summarised in Table 4.3, with Cherrywood car parking standards compared to the other UK & RoI standards based on the following metrics:

- SH Significantly Higher
- H Higher
- = Equal
- L Lower
- SL Significantly Lower
- CBC Case by Case Basis
- - Not comparable due to differing metrics

Table 4.3 UK & RoI Non-Residential Car Parking Standards Comparison

Land Use Type	Cork City	Cork County	Belfast	York	Birmingham	Edinburgh	Cardiff	Manchester	Bath
HIE									
Office	SH	SL	SL	L	L	SH	L	SL	H
Industry	H	SL	SL	SL	H	SH	SL	SL	H
Retail									
Convenience	SH	=	L	H	H	SH	SH	L	H
Non-Food	SH	SL	SL	L	L	H	SL	SL	L
Cafes, Restaurants and Takeaways	SL	L	L	L	L	L	L	L	SL
Financial / Professional Services	-	-	L	SL	SL	SL	SL	-	SL
Education									
Primary	=	SL	SL	SL	L	L	L	-	CBC
Secondary	=	SL	SL	SL	-	L	L	-	CBC
Further Education	-	-	-	-	-	-	-	-	CBC
Creche	-	-	-	-	-	-	-	-	CBC
Medical									
Medical Clinics	H	SL	SL	SL	SL	-	=	SL	CBC
Hospitals	-	-	-	-	-	-	-	-	-
Civic, Community & Religious									
Library / Community Hall	H	SL	-	SL	-	H	H	-	CBC
Place of Worship	H	SL	SL	-	-	-	=	-	CBC
Sport & Recreation									
Leisure Centre	-	SL	-	SL	SL	H	SL	SL	CBC
Pitches	-	CBC	-	-	-	-	-	-	CBC

In comparing cycle parking standards, Cherrywood standards are generally higher for all considered land use types in comparison to Cork City, Belfast and Birmingham.

Cherrywood standards are considered directly comparable with those outlined for Cork County and lower when compared to York.

In relation to specific land use types:

- Civic, community, and religious - Cherrywood has lower standards than Edinburgh, Cardiff, and Bath,
- Education - Cherrywood has higher standards than Edinburgh, and lower standards than Cardiff,
- Medical clinics/primary healthcare centres - Cherrywood has lower standards than Cardiff and Manchester, and equal standards to Bath,
- Convenience retail and retail (non-food) - Cherrywood has higher standards than Edinburgh, Cardiff, and Manchester, and equal standards to Bath. Whereas for café/restaurants, Cherrywood standards are lower,

- Employment - parking standards are lower in Cherrywood than Birmingham, Edinburgh, Cardiff, and Bath, but higher than Manchester,
- Leisure centres/recreation buildings - Cherrywood standards are lower than Edinburgh and Cardiff, but higher than Manchester.

The above comparative summary has been further summarised in Table 4.4 overleaf, with Cherrywood cycle parking standards compared to the other UK and RoI standards based on the following metrics.

- SH Significantly Higher
- H Higher
- = Equal
- L Lower
- SL Significantly Lower
- CBC Case by Case Basis
- - Not comparable due to differing metrics

Again. it should be noted that whilst the metrics are similar to those used to summarise car parking standards in Table 4.3, there is a notable difference in the assigned colouring. Where Cherrywood standards are lower in comparison to other UK & RoI standards, this is considered a negative rather than a positive when considering cycle parking.

Table 4.4 UK & RoI Non-Residential Cycle Parking Standards Comparison

Landuse Type	Cork City	Cork County		Belfast	York	Birmingham	Edinburgh		Cardiff		Manchester	Bath	
		Short Stay	Long Stay				Short Stay	Long Stay	Short Stay	Long Stay		Short Stay	Long Stay
HIE													
Office	L	=	=	-	L	SH	SH	L	SH	SL	H	L	L
Industry	SL	=	=	-	L	SH	SH	L	SH	SL	SH	SH	SH
Retail													
Convenience	H	=	=	SH	SL	H	SH	-	=	-	=	=	
Non-Food	SH	=	=	SH	SL	SH	SH	-	SH	-	SH	=	
Cafes, Restaurants and Takeaways	SH	=	=	-	SL	SH	L	-	=	-	SL	L	
Financial / Professional Services	-	-	-	-	-	-	-	-	-	-	-	-	-
Education													
Primary	SH	SH	=	SH	L	SH	SH		H	L	-	CBC	
Secondary	SH	=	=	SH	L	H	SH		H	L	-	CBC	
Further Education	H	=	=	H	L	H	SH		H	L	L	CBC	
Creche	SH	=	=	-	L	H	H		H	L	-	CBC	
Medical													
Medical Clinics	H	=	=	-	SL	SH	-	-	L	-	SL	=	
Hospitals	-	=	=	H	SL	-	-	-	H		-	=	L
Civic, Community & Religious													
Library / Community Hall	-	SL	=	-	SL	-	SL		SL		-	L	
Place of Worship	SH	=	=	-	-	H	-		-		-	=	
Sport & Recreation													
Leisure Centre	H	=	=	-	SL	-	SL		SL		H	-	-
Pitches	-	CBC		-	-	-	-	-	-	-	-	-	-

4.2.1 Strategic Development Zones (SDZ)

SDZs were established in planning legislation in 2000, enabling the Irish Government to designate parcels of land to be fast tracked through the planning process due to strategic national importance. SDZ's are generally a mix of residential and non-residential developments located on major public transport corridors.

There are a number of designated Strategic Development Zones (SDZ) in the Greater Dublin Area other than Cherrywood including Adamstown, Hansfield, Clonburris, Grangegorman and Docklands.

Each of the SDZs are at varying stages of development, however a summary of implemented and / or proposed non-residential car and cycle parking standards are summarised below.

4.2.1.1 Adamstown

Adamstown is designed to accommodate, but not be dominated by private cars with shared on-street and communal car parking being optimised. Secure covered or semi-covered cycle parking is also proposed at transport interchanges, and throughout the Adamstown SDZ.

Table 4.3 outlines the non-residential car and minimum cycle parking standards applicable in Adamstown.

It should be noted that car parking standards for Civic and Education land uses are stated as minimum standards.

Table 4.5 Adamstown Parking Standards

Land Use		Car Parking Standards	Cycle Parking Standards (Minimum)
Civic	Community Centre	1 per 30 sqm (min)	1 per 30 sqm
Education	Creches	1 per 30 sqm (min)	1 per 100 sqm
	Primary	1 per 1.25 classrooms (min)	1 per 10 pupils
	Post Primary	1 per 1.25 classrooms (min)	1 per 2 pupils
Retail	Convenience Retail	1 per 15 sqm (max)	1 per 100 sqm
	Comparison retail/retail services	1 per 30 sqm (max)	1 per 100 sqm
Employment	Office/high tech industry	1 per 45 sqm (max)	1 per 100 sqm
Sports and Recreation	Major Parks	1 per 0.2 ha (max)	1 per 0.2 ha

Where car parking can be shared between complementary land uses, parking standards may be altered accordingly.

4.2.1.2 Hansfield

With the objective of providing commercial facilities that are accessible without use of a private car, there are no specific non-residential parking standards set within the Hansfield SDZ Planning Scheme.

4.2.1.3 Clonburris

Clonburris SDZ proposes that on-street parking shall not be allocated to individual dwellings, providing a more efficient turnover of spaces and in order to supplement park and ride facilities.

The car parking standards set out in the South Dublin CDP are applicable in Clonburris for key land uses, however these are not viewed as a target as they are maximums.

Secure cycle parking facilities are proposed specifically in the area of the village centre, and in the area of the rail halt when appropriate.

4.2.1.4 Grangegorman

To encourage the use of sustainable transport modes, car access will be limited in Grangegorman, with two main locations designated for parking facilities. The majority of parking will be provided underground, with a small number of surface car parking at key locations. On-street parking shall be provided in addition to existing residential car parking, with focus on disabled parking requirements.

An approximate total of 1,150 car parking spaces will serve a range of land uses including medical facilities, a primary school, higher education, offices, and retail.

Cycle parking facilities will be generous, with a provision of secure parking within the underground car parking structures for long stay necessity. On-street cycle parking shall also be provided in visible locations at non-residential destinations.

4.2.1.5 Docklands

The aim is to develop an integrated transport strategy for the entire Docklands area and to pro-actively promote sustainable smarter travel. A balance of restricted commuter car parking but sufficient short-term commercial parking and residential parking is required.

Parking standards for employment land uses should be in accordance with the Dublin City CDP, but in favour of promoting more sustainable modes of transport.

The SDZ aligns with Dublin City Council's ambition to promote cycling and walking, good quality cycle parking both on and off street should be provided.

4.2.1.6 Summary

In relation to non-residential car parking standards:

- Cherrywood standards are considerably lower than those set in Adamstown SDZ for comparable non-residential land uses.
- Hansfield SDZ sets no specific parking standards with the intention of minimising car use therefore standards can't be compared.
- Clonburris standards were set as per South Dublin CDP and are therefore, generally higher than Cherrywood's standards.
- Grangegorman SDZ plan to restrict car access, providing limited parking with designated mixed use parking facilities.
- Docklands SDZ has restricted parking for most land types, but for employment purposes Cherrywood standards are considered higher when compared to the Docklands standards which adhere to the Dublin City CDP.

Cycle parking standards set in Cherrywood are similar to the other SDZs due to the shared aim of promoting more sustainable travel modes. Compared to the standards for specific land use types set out in the Adamstown SDZ Planning Scheme, Cherrywood's standards are currently lower.

4.3 European Best Practice

In response to net zero targets, a number of European countries are reassessing transport development strategies. Globally, the transport sector contributes a quarter of carbon emissions. As new residential

neighbourhoods are developed, sustainable mobility within these areas and between towns and cities is vital in reducing transport related carbon emissions and achieving net zero commitments.

New neighbourhoods should be designed with non-residential destinations being accessible by walking, cycling, and use of public transport as preferred modes of travel over the car. Many countries are now reducing parking standards, using maximum standards over minimums, or abolishing them altogether in order to incentivise more sustainable transport.

4.3.1 Elephant Park - London, England

Elephant Park has set itself the high ambition of being among the most sustainable inner-city urban regeneration projects in the world and reaching net zero carbon emissions by 2025 and absolute zero by 2040.

The mixed use development will result in over 3,000 new homes, offices, leisure and community facilities, and shops. Significant investment shall also be placed in the improvement of the nearby public transport network and wider community facilities.

Due to its location in Central London, Elephant Park is designed to support and encourage green transport. Upon completion, there will be over 90 new cycle-hire bikes, over 3,000 bicycle spaces, a wealth of new pedestrian and cycle routes, access to dedicated bike maintenance and cleaning areas, and charging ports for electric vehicles. There will be no public access parking provided at the new development.

4.3.2 Stockholm – Sweden

To align with the Paris Agreement in reducing CO_2 emissions, Stockholm has implemented a Green Parking Index as a Smart parking solution. This is achieved by using flexible parking standards where focus is shifted from parking spaces, to providing better access to alternative modes of transport, including public transport and cycling. Whilst this Index targets the reduction of residential parking requirements, its success relies on the accessibility of non-residential destinations by public transport and active travel means.

Retail developments are being developed close to the public transport services and within walking/cycling distances from residential areas to encourage more sustainable travel modes for commercial activities.

Within the city centre, mixed use developments that are high traffic destinations are also located close to public transport with frequent services to reduce private car use. The improved public transport network has reduced the use of private cars by commuters originating in Sweden's larger urban regions. This expansion has been co-funded from road toll revenue and sales of land previously used as parking facilities.

Storstockholms Lokaltrafik (SL) is the organisation running all of the land based public transport systems in Stockholm. Much of SL's transport development plans centre around more sustainable modes, with the promise of a fossil-free Stockholm by 2040. Currently, all commuter trains, metros, and local lines run on 100% clean electricity from renewable sources, and all SL buses run on renewable fuels.

There is also 114 miles of cycle paths within Stockholm that connect to the wider regional network, as seen in Figure 4.1. To encourage cycling as a primary mode of transport, the city provides 60 pump stations that allow people to inflate their tyres for free when needed. The council also details cycling health and safety, and tips for winter cycling on their website to ensure cycling is a viable option throughout the year.

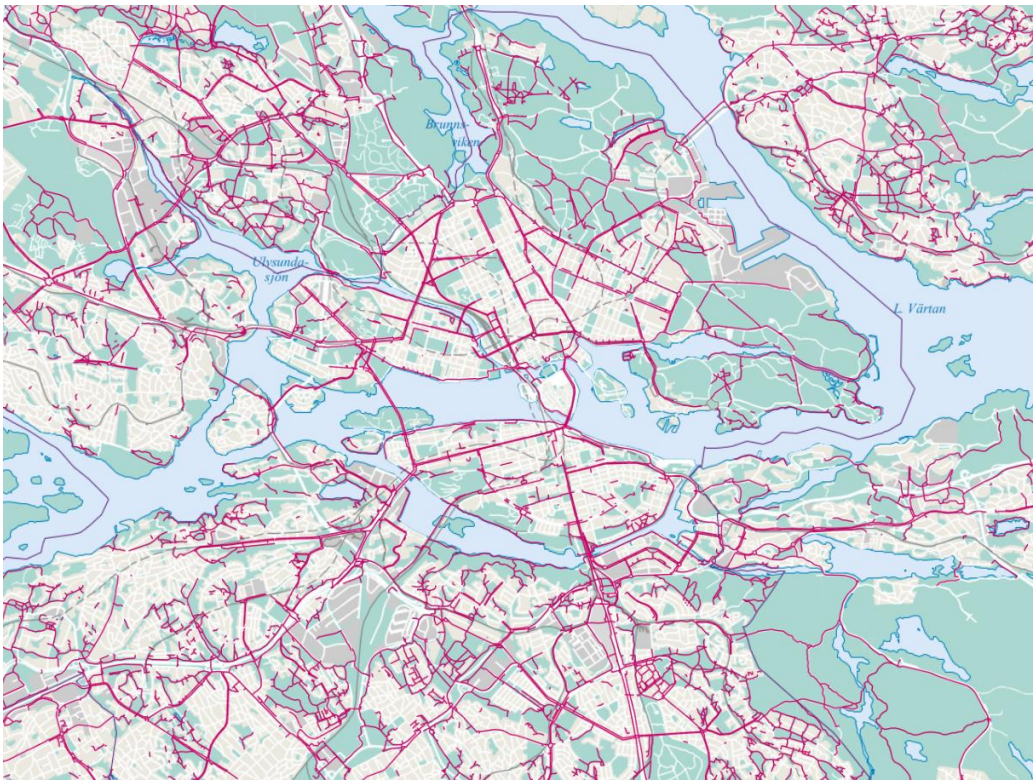


Figure 4.1 Stockholm Cycle Network

4.3.3 IKEA Westbahnhof - Austria

With shopping habits changing across the world, IKEA has begun to react with the development of their Westbahnhof store in the west of Vienna. Located next to Wien Westbahnhof train station, Underground station, and tram stop, the store doesn't provide any parking spaces due to its accessibility by public transport, and the adoption of car-free lifestyles across the city. There is also the provision of city hireable bicycles in the vicinity of the store, along with public Sheffield stands for personal bicycles.

Whilst the store reflects the typical IKEA shop with walk-through interior design spaces and the full range of products, only smaller items are purchasable at checkout, and larger items can be ordered for delivery from the logistics centre in Strebersdorf (north Vienna). This allows customers to browse and view products, and make use of Ikea's design specialist, as with most Ikea stores, but won't have the hassle of transporting furniture themselves.

4.3.4 Berlin - Germany

The city of Berlin has a multi-centred structure, with a dense transport network and efficient transport hubs that connect the national and international road and rail networks, making it a 'compact city'.

Residential areas have been developed with services and social infrastructure on main streets and nearby retail centres, allowing residents to carry out their day-to-day activities by walking, cycling, or using public transport. The residential neighbourhoods are also well connected to the business and administrative districts allowing a greater use of public transport amongst commuters.

Figures 4.2 and 4.3 demonstrate the extensive bus & ferry network, with the train & subway network supplementing access from the outer neighbourhoods to the city centre.

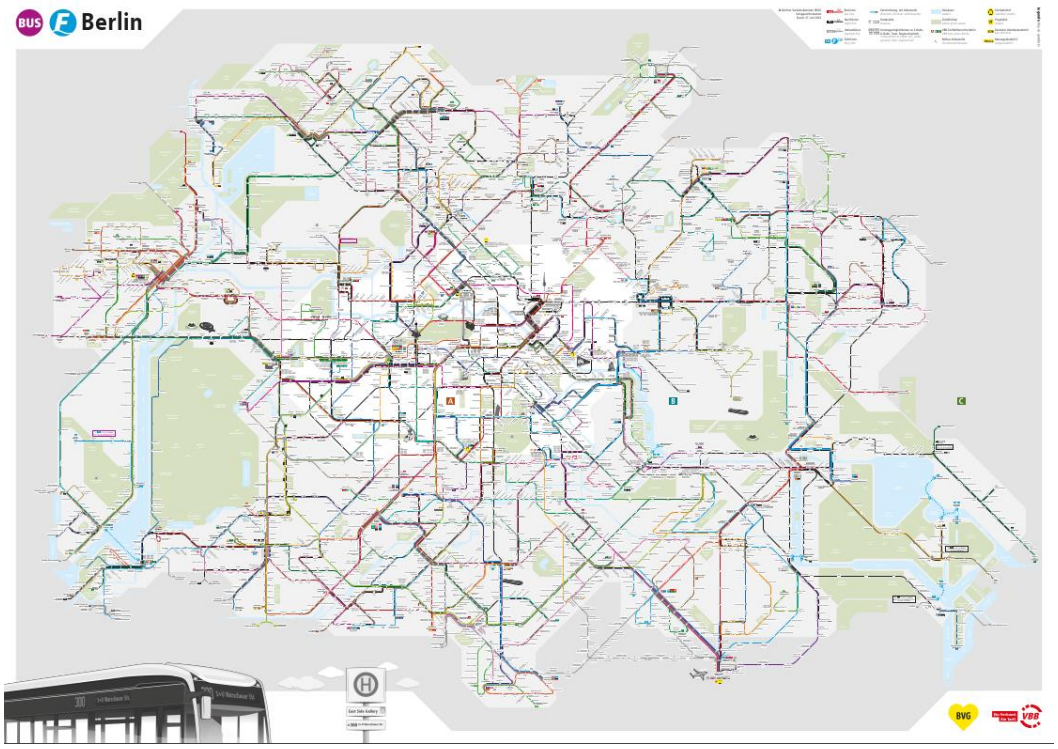


Figure 4.2 Berlin's Bus & Ferry Network

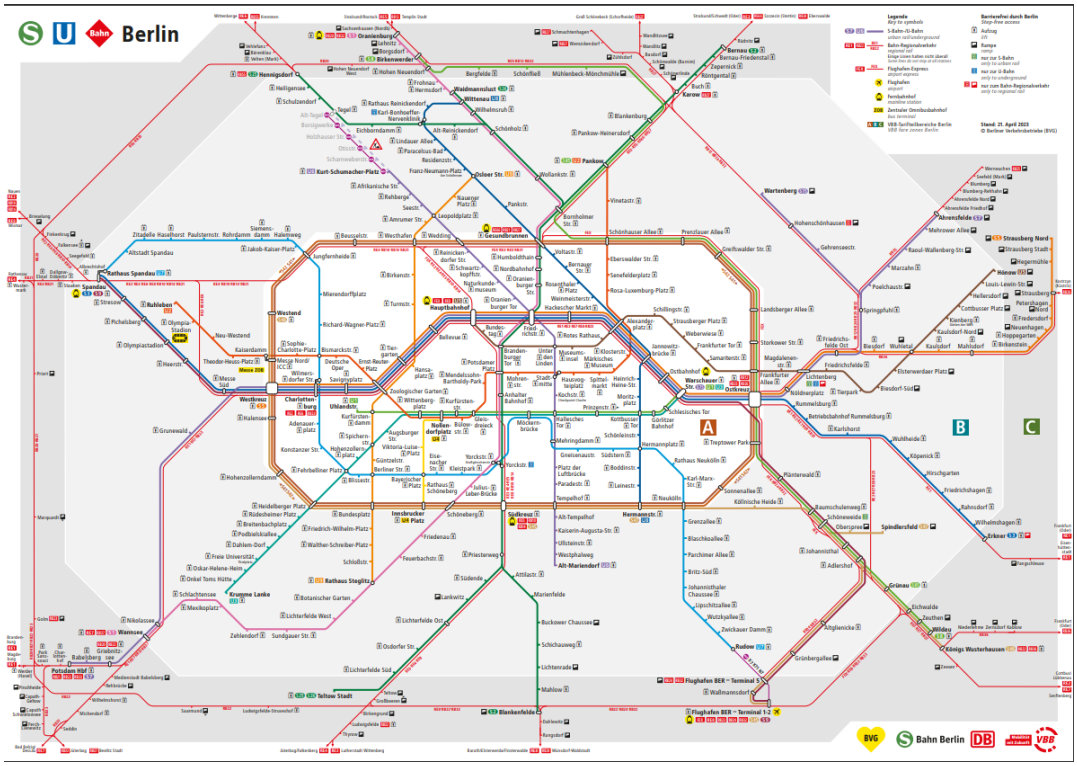


Figure 4.3 Berlin's Train & Subway Network

The compact city nature and efficient transport network has resulted in more journeys being taken on public transport (27%) and on foot (27%), than in private cars (25%). Whilst there are only 13% of journeys being taken by bicycle, this is a vast increase from 2004 and this percentage is expected to

increase further by 2030, with plans to expand the existing cycle network and cycle parking infrastructure.

Berlin's Urban Transportation Development Plan 2025 states the need for parking space management to support the shift from private car use to alternative means of transport into the inner city. Reducing commuting by car will decrease the demand for long term parking, allowing more parking for businesses, customers, and residents where necessary. For new building projects within the inner city, private parking will be limited in locations with excellent public transport links.

Berlin's Urban Development Concept has six focuses under its mobility strategy:

- Making public transport more attractive.
- Increasing bicycle and pedestrian traffic.
- Expanding and improving traffic infrastructure for the growing city.
- Promoting sustainable port-fossil fuel forms of mobility.
- Developing an integrated commercial transport plan.
- Strengthening international connections.
- All urban development plans have been established with the principles of a 'compact city' as their basis.

4.3.5 Paris – France

Paris outlines car parking standards for office spaces only within the 1st – 20th arrondissements (neighbourhoods) as shown in Figure 4.4. The 1st – 11th arrondissements allow 1 space per 500sqm, whereas the 12th – 20th arrondissements allow 1 space per 250sqm.

All parking facilities must comply with the regulatory requirements, particularly in regard to disabled parking and provision of infrastructure for electric or hybrid vehicles. There are currently no car parking standards for other land uses within these neighbourhoods.

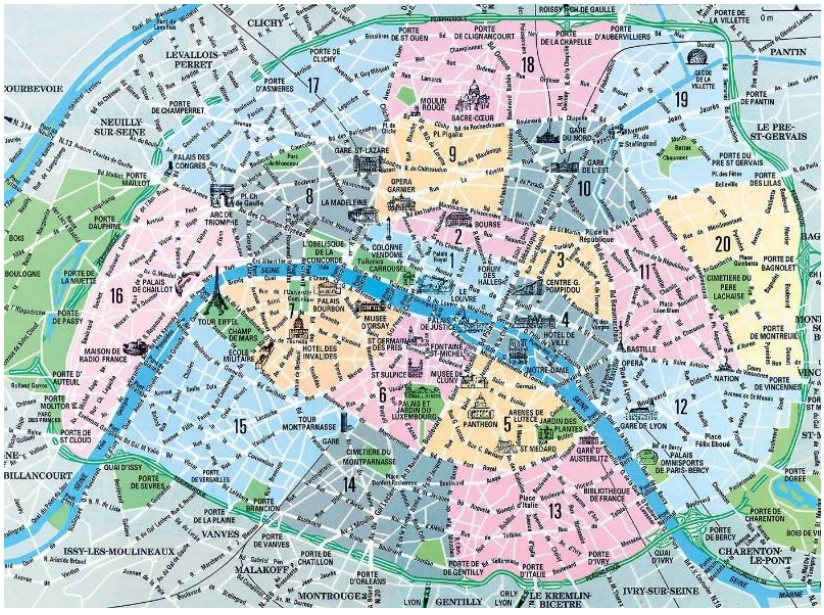


Figure 4.4 Paris Arrondissements

By abolishing all other parking standards, Paris aims to reduce dependence on the car and increase the use of more sustainable methods of transport. This is being achieved as evidenced by the rate of vehicles per household decreasing 7% from 1990 to 0.66 vehicles/household in 2017, and there being

35,000 less light vehicles registered in Metropole du Grand Paris between 2021-2022. However, this rate of decrease was not equally distributed through the metropolitan territory with areas with poor public transport having a much lower rate.

Cycle parking standards are stated for a number of non-residential land uses as outlined below:

- For premises with a floor area greater than 250sqm, a minimum of 10sqm of parking area is required provided for bicycles/pushchairs.
- For offices, either 3% of the floor area of the premises must accommodate cycle parking, or 1 space should be provided per 50sqm of floor area, with access provided to all stored bicycles at any time. Additionally, 50% of spaces must be within enclosed and covered premises.
- For retail businesses, cycle parking must meet the needs of staff and customers.

Whilst walking has been the main mode of transport in the city since 1976, with 48% of journeys made by metropolitan residents taken on foot, public transport became the second most used mode within the last twelve years, having overtaken cars, with private car ownership also dropping in the La Petite Couronne region.

By 2030, 169 new train stations and metro/tram stops will be operational, giving 98% of residents access to the public transport network within a 10-minute walking radius. The 2,800km cycle network shall also be extended by an additional 1,100km to encourage an uptake of cycling across the city.

In 2020, the Mayor of Paris, Anne Hidalgo announced new mobility plans which aims to transform all Parisian streets into a cycle friendly environment. To reach this goal, a new traffic plan will be implemented to promote active travel throughout the city.

An important part of this plan is the removal of 72% of on-street parking spaces to create more space for cyclists. Of the 83,500 on-street parking spaces available in Paris, 60,000 of these will be removed.

Scenarios have also been developed by policymakers and research institutes for the repurposing of 488,000 off-street parking spots, with recommendations including car sharing, bicycle parking, logistic space, urban farming, and sports infrastructure.

4.3.6 Merwede - The Netherlands

Car-free neighbourhoods are being developed across Europe to reduce transport related emissions and promote more sustainable lifestyles. Whilst car-free living doesn't prohibit residents from owning a personal vehicle, it does incentivise everyday mobility by bicycle, public transport, or walking.

It also reduces the need for on- and off-street parking within the town centre, allowing this space to be developed for cleaner, more environmental, and enjoyable community uses, with suitable parking provided on the outer edges of settlements.

On the west side of the Merwedekanal, a new sustainable urban quarter is being built in close proximity to Utrecht Central Station as part of a plan to redevelop existing industrial areas along the canal in the municipality of Utrecht. The development of 17 blocks will include residential flats, employment offices, retail, café/restaurants, schools, and sports and community facilities. Merwede will be a compact district that will encourage travel on-foot within the town, and residents shall be able to access Utrecht city by a short 1km bike ride.

Multimodal mobility hubs are being considered as an innovative solution for Merwede's limited transport network, with focus on:

- Car sharing.
- High quality public transport connections.
- On-call taxis.
- Self-service pick-up kiosks for parcels.

- Bicycle rental system.
- Availability of amenities for daily needs such as grocery stores or a coffee bar near the hub.

4.3.7 Summary

Cherrywood's aim of reducing car use by promoting walking, cycling, and public transport, aligns with the policy direction in Stockholm, Paris, and Berlin's transport strategies, however, the European approach is considered more aggressive through use of flexible parking standards or no parking standards at all.

Elephant Park and Merwede have more stringent strategies, than Cherrywood, at reducing private car use within the centre of the developments by providing limited road networks, instead focusing on pedestrian foot traffic, and cycling accessibility.

4.4 Conclusions

A best practice review across the UK, Republic of Ireland, and Europe provides mixed rationale for more restrictive non-residential car parking standards in Cherrywood. Whilst generally similar to other Strategic Development Zones, and lower than UK and RoI towns, Cherrywood's standards are considerably higher than those in Europe.

In contrast, Cherrywood's cycle parking standards as set out in the DLRCC Cycling Policy are generally higher than UK and RoI towns/cities, but lower than European cities, which provides rationale for consideration of an appropriate uplift in cycle parking in relation to land uses which may be subject to more restrictive parking standards as a result of this study.

5. Demand Analysis

5.1 Introduction

This chapter sets out analysis of the current and future demand for car travel to destinations in Cherrywood and considers the current and future supply of car parking within the SDZ. The analysis has been considered across three key data sets including:

- TRICS Database.
- Extant Planning Applications.
- Demand outputs from the NTA's Eastern Regional Model (ERM).

The purpose of the analysis is to determine whether the current and future demand and supply is in keeping with current policy and the ambitious sustainable travel targets of the Planning Scheme.

5.2 TRICS Analysis – Version 7.10.4

An integral part of transport assessments required for planning applications, TRICS is a comprehensive, industry standard database of traffic and multi-modal transport surveys, covering a wide range of development types. The system allows users to establish potential levels of trip generation for development scenarios using a series of database filtering processes.

As per the primary land uses set out in Chapter 2 of the Cherrywood SDZ Planning Scheme, TRICS was interrogated by AECOM in relation to education, retail, and HIE land use typologies (existing non-residential land use types within Cherrywood) in order to obtain typical parking accumulations. The purpose of this exercise was to understand the legacy of over-provision, when supply typically exceeds outturn demand for these specific land use types.

Specific parameters within the database were utilised in relation to each land use in order to provide more comparable results to Cherrywood in terms of size and locality.

A summary of the selected parameters is outlined below:

- For all land use types, all regions across the UK and RoI were selected except for Greater London and Southeast England (this is due to the densely populated nature of these areas which can skew trip rate results), and only surveys conducted on weekdays were included in the analysis.
- There were five main location type filters considered including: town centres, edge of town centre, suburban area, edge of town, and neighbourhood centre with additional subcategories also available for additional filtering.
- For analysis of educational land uses, town centres and the edge of town centres were excluded, as well as the sub-categories of industrial zones and high streets.
- For analysis of retail developments, industrial zones, and residential zones were not included in the analysis.
- For analysis of employment land uses, residential zones, villages, and high streets were not included in the analysis.

The filtered survey data for each land use type was then analysed in terms of parking capacity and accumulations in order to determine an average maximum occupancy rate throughout a typical day as outlined in Appendix B. Table 5.1 shows the calculated average maximum parking demand for each considered land use.

Table 5.1 TRICS Average Maximum Parking Demand Analysis

Land Use	No. of Sites Analysed	Average Maximum Occupancy
Education - Primary Schools	10	90%
Education - Post-primary/Secondary Schools	14	94%
Retail - Convenience Stores	5	77%
Retail - Discount Food Stores	10	49%
Retail - Supermarkets	10	53%
Employment - Offices	10	62%

The Chartered Institution of Highways and Transportation (CIHT) Parking Strategies and Management (2005) document outlines guidance which recommends that parking interventions should seek to ensure that demand does not utilise more than 85% of available capacity during peak periods.

If parking demand exceeds the 85% threshold, this indicates a lack of available spaces for users which may increase driver frustration and vehicles circulation in searching for an available space.

Analysis of the TRICS database in relation to HIE and retail land uses, shows that on average, maximum parking occupancies are significantly less than the 85% threshold, which suggests that parking is generally over-provided for these land uses.

The analysis also indicates that average maximum occupancies at both primary and secondary schools typically exceeds the 85% threshold which aligns to the fact that parking is generally only provided for staff and a small number of visitors.

5.3 Consideration of Extant Planning Documents

As previously outlined, DLRCC provided AECOM with an application tracker which detailed 22 planning applications relating to Cherrywood.

The planning documents were interrogated in order to determine current and future daily arrival demand by car as well as current and future supply of parking spaces as outlined in Appendix C.

It should be noted that where this information was not available within the planning documents, the TRICS database was utilised in order to estimate daily arrivals.

5.3.1 Current Demand Versus Supply

Five of the 22 applications are currently operational on site within the SDZ and therefore are considered as current demand and supply including:

- DZ17A/0122 - Office Blocks F1 & F2.
- DZ18A/0458 – Primary School.
- Carrickmines Park & Ride.
- DZ17A/0417 – HIE.
- DZ15A/0814 - Public Park, Sports Facilities.
- DZ20A/0478 – Public Park.

It should be noted that the planning application relating to a permanent Park & Ride at Carrickmines was previously granted permission which has since expired; therefore current demand for the temporary Park & Ride on site currently has been considered in this analysis.

Appendix C outlines that the current demand associated with the operational non-residential land uses is estimated as 2,303 daily arrivals with an associated parking supply of 1,578 spaces.

Whilst this would initially suggest that current demand does exceed supply, it should be noted that the arrivals are stated as daily and as such it is important to consider the typical daily profile associated with parking demand. It is the case that parking demand operates with peaks and troughs throughout the day i.e. not all demand arrives and departs at one time.

It should also be noted that typically when peak arrivals occur, parking occupancy is generally low, and it is unlikely that any ancillary overspill of car parking onto the surrounding network would occur.

Due to the nature of some of the existing non-residential land uses including public parks and sports facilities, the parking behaviour will be relatively short stay and a higher turnover of spaces will occur throughout the day.

It is also considered reasonable to assume that the demand associated with existing primary school is largely parents driving their children to school rather than trips by private car which require a parking space.

The current car parking supply is also further complemented by the provision of 474 cycle parking spaces therefore encouraging travel by sustainable modes.

5.3.2 Future Demand Versus Supply

The remainder of the applications have been considered as future demand and supply. As shown in Appendix C, it is anticipated that the future demand could be in the order of 12,209 daily arrivals with an associated car parking supply of 4,189, further complemented by 3,281 cycle parking spaces.

Again it should be noted that the arrivals are considered as daily values and as such the typical daily profile should be considered.

As discussed in the previous section, it is considered reasonable to assume that the majority of the demand associated with primary schools and creche facilities, is largely parents driving their children to school / creche rather than trips by private car which require a parking space; therefore the supply generally reflects provision for staff parking only.

In relation to retail, the associated parking supply will be used by multiple customers throughout the day and therefore a higher turnover of spaces is achieved.

It is common practice[4] in the preparation of Traffic Impact Assessments (TIAs) for developers and highway authorities to separate the total generation estimate for a new retail development into discrete trip types.

This acknowledges the fact that the number of trips to the store may not be comprised of entirely new trips. Many of the trips may occur anyway, albeit to another location, or where a visit to the store will be incorporated into an existing pattern of travel behaviour.

It is largely accepted that trips associated with retail include an element of pass-by and diverted trips as defined overleaf.

- Pass-by – A multi-purpose trip from a given origin and destination that passes retail without making a significant network diversion. The accepted industry standard is that 20% of retail trips are considered as pass-by.

[4] TRICS Research Report 95/2

- Diverted – A multi-purpose trip from a given origin and destination that passes retail by making a significant network diversion. The accepted industry standard is that 10% of retail trips are considered as diverted.

It is also considered that due to the nature of some of the non-residential land uses proposed in Cherrywood such as retail, community facilities, public parks etc, that the parking will be relatively short stay and that a turnover of spaces will occur throughout the day.

5.4 Consideration of Modelling Outputs

Demand information in relation to Cherrywood has also been considered from modelling outputs as outlined in the planning scheme and the Eastern Regional Model (ERM) as outlined below.

5.4.1 Planning Scheme - NTA 2030 Transport Strategy Model

Chapter 4 of the Cherrywood Planning Scheme includes information from the NTA's 2030 Transport Strategy Model and gives an indication of the mode share for 2030 for future work trips to and from the Cherrywood Zone during a three hour AM peak period as shown in Figure 5.1.

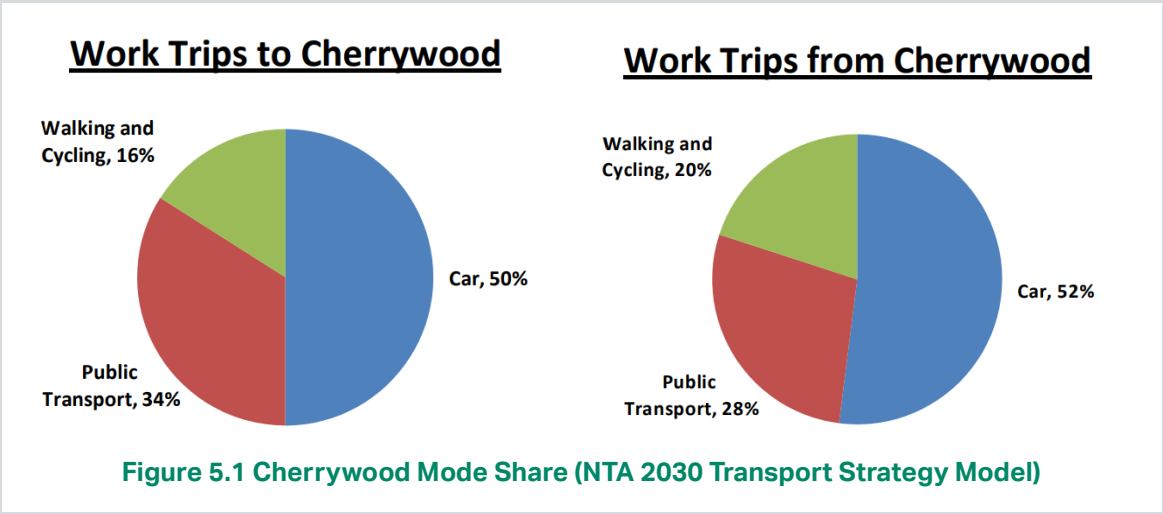


Figure 5.1 Cherrywood Mode Share (NTA 2030 Transport Strategy Model)

The overall potential for sustainable travel can be assessed by comparing the targets set in the Planning Scheme and data from the NTA 2030 Transport Strategy Model.

Car mode share to and from Cherrywood is estimated at 50% and 52% by the NTA 2030 Transport Strategy Model, which is slightly higher than the overall combined target of 48% for car drivers and car sharers. The public transport mode share at 28% to 34% aligns with Cherrywood's target of 32% and walking and cycling at 16% to 20% is estimated slightly lower than the target of 20%.

This data confirms that the target mode shares can be achieved if an excellent public transport network is implemented and attractive facilities for walk and cycling are provided, along with disincentives for the use of private cars.

5.4.2 Sequencing and Phasing Amendment - NTA Eastern Regional Model (ERM) 2028

DLRCC have commissioned AECOM to undertake a modelling exercise in relation to the sequencing and phasing in Cherrywood SDZ. The purpose of this study is to ascertain the feasibility of bringing forward the quantum of housing development earlier than is currently allowed in the Planning Scheme.

The study utilises the NTA Eastern Regional Model (ERM) and includes committed development up to 2028 for the purpose of the study. The Cherrywood zones considered in the modelling exercise are shown in Figure 5.2.

The land uses included as committed development up to 2028 include:

- Residential – 5,473 units
- HIE – 60,733sqm
- Retail – 41,590sqm
- Non-retail – 40,299sqm
- Creche – 3,809sqm
- Community – 2,758sqm
- School – 16,046sqm

Figure 5.2 Cherrywood ERM 2028 Model Zones

Initial findings from the study conclude that it may be possible to bring forward additional residential units for development in 2028 subject to:

- The implementation of measures (as outlined in the Planning Scheme) to ensure that the sustainable mode share target of 53% is achieved – this could allow for 1,000 additional units to be brought forward.
- The implementation of measures (as outlined in the Planning Scheme) to ensure that the sustainable mode share target of 53% is achieved plus the implementation of more restrictive parking standards in line with the proposed Amendment No.9 to the Planning Scheme (giving an overall sustainable mode share of 66%) - this could allow for 2,000 additional units to be brought forward.

The model outputs for anticipated daily demand as determined by the study are summarised in Table 5.2 below.

Table 5.2 ERM 2028 Daily Demand Outputs

Demand	Road	PT	Walk	Cycle	Total
Produced from	15,013	3,910	5,177	573	24,673

Attracted to	15,588	4,075	5,244	593	25,501

As shown in Table 5.2, by 2028 the ERM forecasts that 24,673 trips in total will be produced and 25,501 trips will be attracted to the considered Cherrywood zones.

The model cannot determine the parking supply associated with the anticipated demand and therefore no further comment can be provided at this time.

5.5 Conclusions

The TRICS analysis shows that typically parking supply associated with HIE, and retail land uses operates with ample spare capacity throughout the day, therefore suggesting a legacy approach of over provision. In comparison to the parking supply associated with educational land uses which generally shows limited or no spare capacity throughout the day. The analysis presents an opportunity to consider a reduction in parking standards in relation to HIE and retail land use types.

The review of 22 extant planning applications has determined current car based demand as 2,303 daily trips and current parking supply as 1,578 spaces, and future car based demand as 12,209 daily trips with a parking supply of 4,187.

As outlined in the Planning Scheme the NTAs 2030 Transport Strategy Model suggested that demand associated with work trips to and from Cherrywood could be accommodated in alignment with the SDZ's ambitious mode share targets if an excellent public transport network is implemented and attractive facilities for walk and cycling are provided, along with disincentives for the use of private cars.

The modelling outputs from the ongoing sequencing and phasing study shows that by 2028, the ERM forecasts 24,673 trips in total will be produced and 25,501 trips will be attracted to the considered Cherrywood zones. The model cannot determine the parking supply associated with the anticipated demand and therefore no further comment can be provided at this time.

The modelling exercise also suggests that the combination of sustainable transport measures and more restrictive parking standards could result in the sustainable mode share target for the Planning Scheme increasing from 53% to 66%.

There are a number of things to consider in relation to the forecast demand particularly that it doesn't require an equivalent parking supply including:

- The estimated numbers are considered as daily values.
- The typical daily profile associated with parking demand operates in peaks and troughs throughout the day as opposed to the total demand arriving and departing at the same time.
- It is considered reasonable to assume that the car demand associated with educational facilities is largely parents driving their children to school and dropping them off, rather than demand that would require a parking space.
- The short stay nature of some of the non-residential land uses proposed in the planning applications such as retail, public parks, sports facilities, will result in the same parking space being utilised several times throughout the day, with a higher turnover of spaces achieved.
- The element of pass by and diverted trips should be considered in specific relation to retail land uses as not all demand is considered as new on the network, rather the demand either passes by on the way to another destination or specifically diverts to the retail land use.

6. Potential Complementary Solutions

6.1 Introduction

This chapter considers potential parking solutions identified specifically for the Cherrywood SDZ based upon the findings of the analysis conducted within this report i.e. solutions that could complement any proposed amendment to non-residential parking standards.

It should be noted that these are potential solutions and that the proposed URDF Smart Parking Study, envisaged to be undertaken in Q3/Q4 2024, will consider alternative parking measures in detail, including implementation and consistency with the Cherrywood Planning Scheme.

6.2 Potential Complementary Solutions

6.2.1 15-Minute Neighbourhoods

The 15-minute neighbourhood is an emerging urban planning concept which is based on a number of policy actions to provide residents access to most if not all of their needs within a short distance from their home by accessible modes. Urban areas are divided into smaller neighbourhoods, where each neighbourhood can independently cover its residents' need and provides a high accessible network and a strong connection to the neighbourhood's centre by using sustainable transport modes within 15 minutes from the residents' homes. The concept is based on four pillars including proximity, diversity, density and ubiquity.

The consideration of 15-minute neighbourhoods is usually closely linked with Low Traffic Neighbourhoods (LTNs) as both aim to reduce car use and encourage active travel. Neighbourhoods can be enhanced with provision of mobility hubs including rapid electric vehicle charging points and bike hire (Section 6.3.2).

The provision of safe walking and cycling infrastructure and access to public transport is key to the success of 15-minute neighbourhoods as without these fundamentals in place, residents will continue to use their car. Reductions on carbon emissions due to the lower car use is considered an additional outcome of the 15-minute neighbourhoods.

As evidenced in Berlin (Section 4.3.4), 15-minute neighbourhoods can be realised. They require a strong public transport network, good quality road infrastructure to accommodate and promote walking and cycling, and accessibility to daily essentials within town/village centres.

The DLRCC CDP outlines in Section 4.2.1 Sustainable Communities and Neighbourhood Infrastructure that 10-minute settlement concepts should be promoted. The Cherrywood SDZ Planning Scheme proposes infrastructure to improve circulation and permeability within the area by prioritising walking and cycling.

The GDA Transport Strategy also considers the concept of 15-minute neighbourhoods and notes that whilst all services cannot be within 15 minutes of everyone, many daily requirements should be accessible within the local neighbourhood.

Therefore, the development and provision of an independent neighbourhood, able to cover residents' needs within a short distance from their homes, along with a strong connection to neighbourhood services accessible by sustainable modes can realistically be delivered within Cherrywood, further strengthening the commitment to the ambitious mode share targets for the SDZ.

6.2.2 Park & Ride Sites

A previous study conducted by Jacobs in 2015 assessed the role of Park and Ride in the Greater Dublin Area Transport Strategy. Cherrywood SDZ was identified as a key location for either a rail-based Park and Ride serving Metro South and Luas Green Line or a strategic bus Park & Ride to service the N11 Quality Bus Corridor.

The study proposed that a potential rail-based Park & Ride site could be located at the terminus station (Brides Glen). The proposed site is a brownfield site located beside the R118 and adjacent to the N11 and M50. The provided rationale for the site location includes:

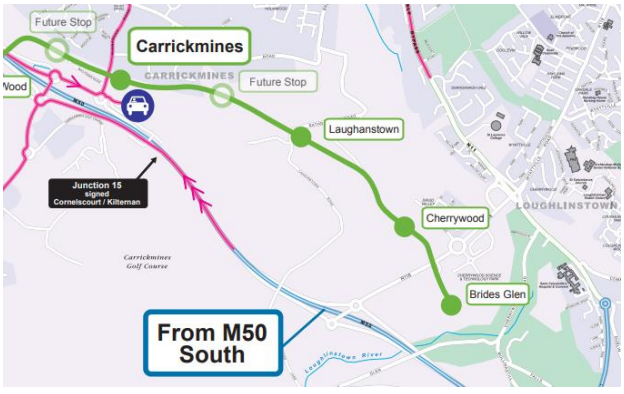
- Local site consistent with the community goals of Cherrywood SDZ relating to walking, cycling and public transport.
- Increasing congestion from motor vehicles generated outside of the local area is not encouraged. However, Park and Ride will provide convenient access for local trips within 5km.
- High level of Luas Green line segregation will create competitive journey times and a high level of connection which will be increased upon opening of Luas Cross City.

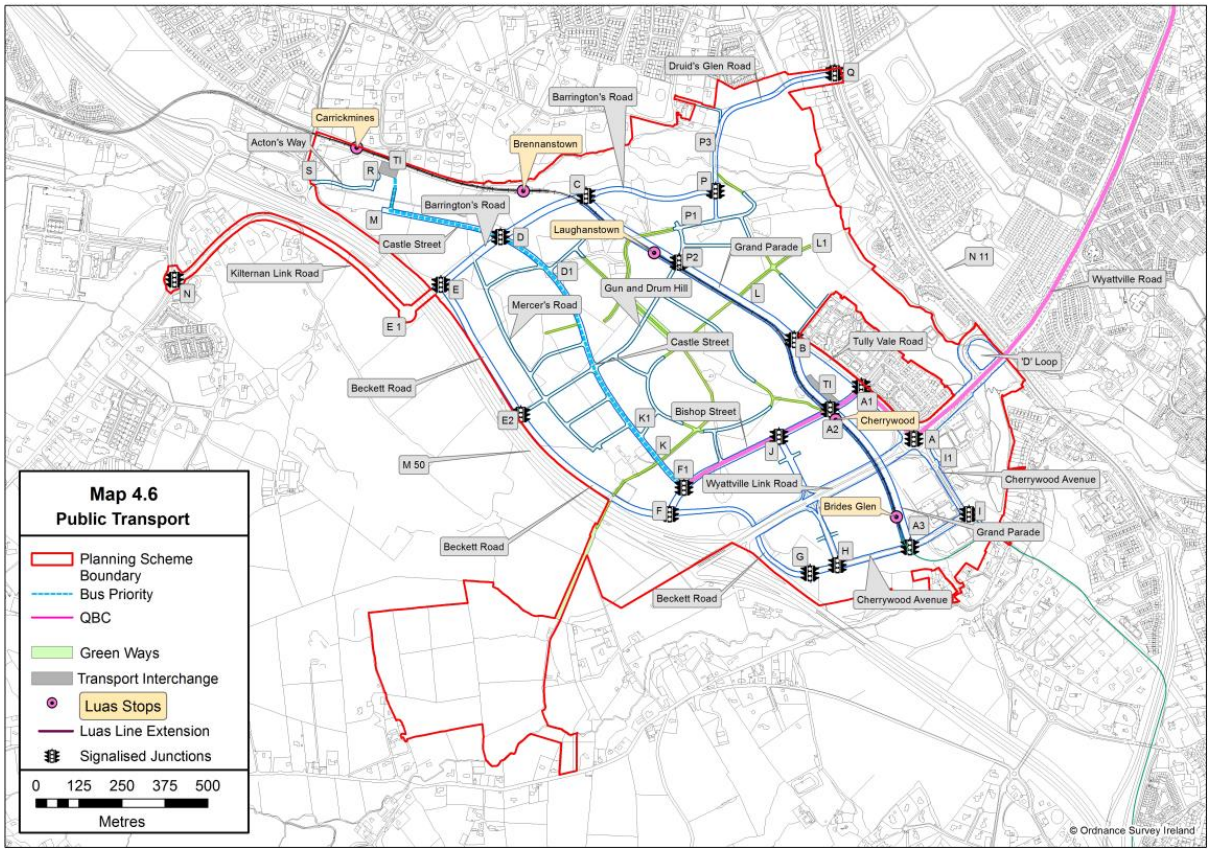
However, the study did note that this site should only be considered for inclusion as part of the Metro South scheme.

This rail-based proposal is consistent with the Cherrywood Planning Scheme, which states that a temporary surface cark park has been permitted close to Brides Glen. However, any long term provision of a park and ride in vicinity of the Town Centre will be dependent on the proposal according with the NTA Strategic Transport Plan for the Greater Dublin Area.

The study also proposed a strategic bus Park & Ride adjacent to the N11 radial route however a potential site was not identified and analysis of the viability of an express bus service had not been completed at the time.

The closest existing Park & Ride site to Cherrywood is Carrickmines Luas Park & Ride which is approximately 4.5km via the M50 from the Cherrywood Luas stop and is currently a temporary surface facility with an approved application for a permanent multi-storey parking facility (Ref DZ17A/0114). However, this permission has now expired and will require a re-application in order to provide a permanent structure.





Source – Cherrywood Planning Scheme Chapter 4 – Public Transport Proposals within the SDZ

The NTA Park and Ride Strategy (2021) identifies the Priorsland Development Area within Cherrywood as an existing location of Park & Ride within the SDZ (Figure 9.1 within the 2021 Strategy). It is however noted that the NTA are currently advising that caution should be exercised in the planning of Park and Ride facilities in locations such as Cherrywood to ensure unintended consequences do not arise.

The NTA and TII have recommended that consideration be given to the provision of a 'Local Parking' facility within Cherrywood as opposed to a Park and Ride facility.

A Park & Ride facility comprised of 194 spaces is proposed within Plot TC1 in the Town Centre of Cherrywood as part of the planning scheme which aligns with the SDZ sustainable mode targets. However, the proposed Park and Ride facility is now envisaged as basement level parking within TC1 and TC2, as proposed in an amendment application.

It is considered that Cherrywood residents should be encouraged to use active modes to access public transport from the town centre. Therefore, depending on usage levels once built, consideration could be given to re-purposing this basement level parking for active travel modes or as part of a mobility hub – as outlined in Section 6.2.2. It should be noted that change of use would require consultation with both NTA and TII and would be subject to future amendment permission.

6.2.3 Mobility Hubs/EHubs

A mobility hub is a location that offers different and connected modes of transport, each providing facilities and information to attract and benefit the user. When spread over an area, mobility hubs create a network of connected sustainable transport modes. Mobility hubs are most commonly located on key transport corridors in towns and cities.

Mobility hubs are a common feature of many European countries. Future mobility hubs should be designed following three key principles[5]:

Adaptability and Function. Hubs should be adaptable to spatial constraints and mobility requirements. Additional services can be added in the future to complement its core functions.

Identity and Integration. The hub should bring together multiple modes and services.

Sustainable Growth. Flexible and sustainable growth over time, supports the local community, and acts as a catalyst for inclusive growth.

There are several factors that affect the benefits and limitations of mobility hubs, including location, provided services, and degree of maintenance. Table 6.1 Mobility Hubs – Benefits and Limitationslists some of these benefits and limitations.

Table 6.1 Mobility Hubs – Benefits and Limitations

Benefits	Limitations/Risks
Tackles congestion, emissions, private car dominance, and social exclusion through encouragement of sustainable modes.	They require regular maintenance and development to ensure they are effective and maintain interest.
Makes multi-modal journeys more convenient through improved linkages.	Security risk. As mobility hubs are usually 'open plan', poor security measures could result in theft and vandalism of facilities.
Provides users a wider choice of transport modes.	
Can encourage sustainable modes of transport as a 'first and last mile' option.	
Potential for improved safety, for example through improved public realm.	
Promotes inclusivity through improved accessibility.	
They allow space to be reallocated and priority can be given over to cyclists, pedestrians, business owners etc, creating a better overall user experience.	
Mobility hubs create a 'home' for emerging services such as EV charging stations and E-Bikes and helps deal with the issue of street clutter.	

[5] ARUP, Future Mobility Hubs.

In order to provide real alternatives to the private car, eHubs provide different sustainable electric transport options for shared use including e-bikes, e-cargo bikes, e-scooter and/or e-cars. Sales of e-bikes have seen a significant increase prompted by the pandemic which has continued to accelerate, gaining more traction than EVs in Europe and North America[6].

EHubs can vary in size (minimalistic, small, medium or large), type of location, and type of offer. They can be small and located in residential areas, with just one or two parking bays, or bigger and positioned close to stations and major public transport interchanges with the key element being that they are located where supply and demand meet.

If combined with different active shared mobility programmes, outlined in Section 6.5.2, cycling (whether by a standard bicycle or an E bike)- can become more accessible to everyone, and provides a cleaner mode of transport than private car use. The development of bicycle hubs within Cherrywood's residential areas, town centre, and business park will promote reduced private car use for short journeys and aid the modal shift.

Currently, a transport interchange is located at surface level on Grand Parade within Cherrywood Town Centre (as approved in application DZ17A/0862), providing an area of transport mode interchange between buses, taxis and bicycles. To align with the GDA Transport Strategy: Measure INT5 – Major Interchanges and Mobility Hubs, consideration could be given to upgrading this site to a mobility hub / E Hub due to its location in the Town Centre and connectivity with various transport modes including public transport.

6.2.4 Technology Based Solutions

6.2.4.1 Automated Number Plate Recognition Technology

Automated Number Plate Recognition (ANPR) cameras can be installed for both on- and off-street parking facilities to track and monitor vehicles within the parking area. This can provide information to users, via an app, as to the availability of parking spaces, and provide a reminder as to the location they have parked themselves.

ANPR technology can also aid parking attendants in quickly identifying vehicles that have overstayed the allotted parking time, or the system can automatically issue a penalty notice if this technology is paired with a suitable app.

The following provides a very basic overview of the assumed mode of operation of the proposed ANPR system:

- ANPR camera takes a picture when it identifies a registration plate,
- ANPR camera isolates the plate, adjusts the brightness and contrast and segments it into characters,
- Software analyses the pattern of each character and converts the image into text,
- Data is sent over IP or over a serial connection to a central software system,
- Vehicles that have overstayed their allotted parking period will be identified for penalty actions to take place.

There are alternative applications of ANPR also, including as an access control system for secure parking areas, journey time monitoring, and bus lane enforcement. Along with the monitoring aspect of the system, a critical element for the software is to collect and process sufficient data to ensure that any violation of the parking regulations can be successfully issued and prosecuted by the local authority. This would require an image of a vehicle entering / exiting the car park, a close-up image of a vehicle's number plate, a date / time stamp on the image and details of the parking location (name / level / etc.).

[6] https://techhq.com/2022/04/why-e-bikes-are-fast-becoming-the-green-transport-of-choice/

Any software system would need to conform to the requirements of the Data Protection Act. This typically means the provision of a secure system and the appropriate level of data storage for any information retained by the local authority. However, it should be noted that open ANPR systems can have as low as 86% licence plate reliability.

6.2.4.2 Bay Monitoring System

There is limited on street parking proposed within Cherrywood, however parking bay vehicle detector sensors could be installed into individual parking spaces and therefore may be applicable to village/town centre locations.

Bay sensors use infrared and / or electromagnetic technology to record the presence of a vehicle. The vehicle's length of stay is also recorded. Both wired and wireless sensors are available, with wireless sensors having up to 10 years of battery life. Occupancy data is transmitted to a central software system for tracking and monitoring. This can alert nearby traffic attendants to parking infringements and provide users with real time information on the location of available spaces. If this data is paired with additional data, such as parking charges, drivers will be able to make more informed decisions as to their parking, whether looking for convenience, cost, or both. The data is utilised by management systems such as space and permit management, Variable Message Signage (VMS) and parking enforcement. Bay sensors have a greater than 99.7% vehicle detection rate.

In 2015, 225 Smart Parking RFID- equipped SmartEye vehicle detection sensors were installed in some of Cardiff's central parking hotspots. Cardiff drivers spend more time finding a space to park than in any other major UK city, resulting in increased stress on the local road network. The use of Smart Parking sensors allows drivers to view a current picture of parking spaces on the SmartApp and will be guided to the nearest available bay. Payment information is also supplied through the app, allowing quick and easy payment. This system also collates and analyses live information on how parking spaces are being used, giving the council the leading edge in day-to-day management and future planning.

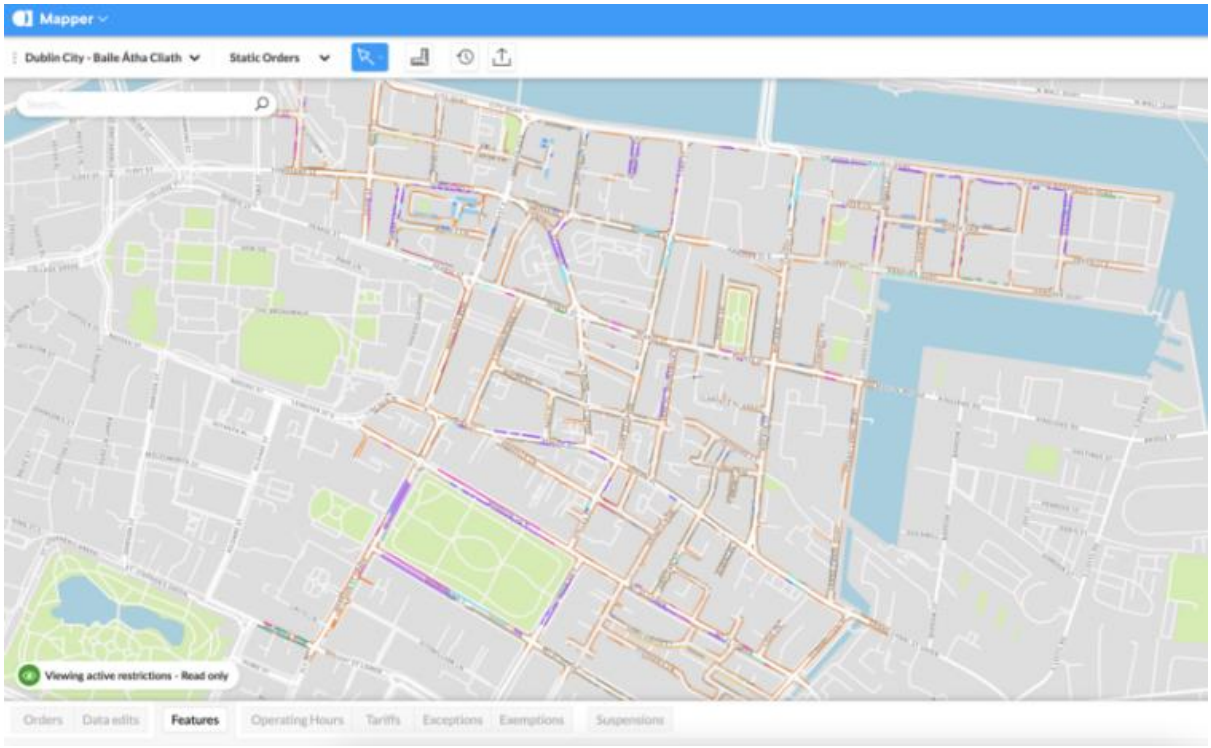
Although the priority is to encourage use of public transport, the council acknowledges that city centre parking is still needed, but with Smart Parking measures traffic emissions and congestion will be reduced due to the ease and efficiency of finding unoccupied spaces. There are however operational and maintenance issues in the installation of the technology on Cardiff's streets which may require spaces to be unavailable for short periods of time when necessary.

A similar trial scheme that took place in 2014 in Milton Keynes saw the installation of SmartEye vehicle detection sensors in a council owned car park, which allowed customers to check the number of available spaces, enter the barrier-less car park, and pay without need of displaying a ticket. Customers were required to input their bay number when paying to allow on-site parking attendants to quickly and efficiently check that occupied spaces have been validated. The aim of this trial was to highlight the value of Smart Parking technology in off-street car parking.

Following this study, a multi storey car park was developed for retail use with both ANPR and Smart Parking Bay Sensors, allowing regular customers to avail of automatic payment charges, and to provide information through an app as to the location of available bays.

6.2.4.3 Active Kerbside Management

Active kerbside management encompasses real time data of kerbside availability for loading/unloading, parking, etc., digital reservation services, and parking enforcement. Through the use of Smart technology, such as ANPR or bay sensors, the real time information can also be used by drivers. The information can also be analysed to better inform the management of on-street parking with consideration of parking habits, durations, and peak times.



Whilst it can be beneficial in any location, areas with limited on-street parking can see greater benefits than areas with more widely available kerbside parking. If loading/unloading bays are limited for retail developments, an understanding of delivery times and requirements will allow for more efficient use of the spaces and in turn, reduce congestion on the road network as vans/lorries wait for space to become available. Similarly, the management of restricted on-street parking reduces the time drivers are searching for a space, adding to congestion. It can also allow for street space to be used differently at different times of the day, such as peak school pick-up/drop-off times.

In an attempt to transform their restriction management process and aid in decarbonisation, Dublin City Council partnered with AppyWay to carry out a pilot project for kerbside mapping. After an extensive kerbside restriction survey was carried out, DCC used Traffic Suite and Mapper to map the data gathered. The benefits of digitised, map-based restriction management, include increased efficiencies with the management process and workflows, and improved accuracy of restriction records.

As a new development, with limited on-street parking, Cherrywood could benefit from active kerbside management as detailed records upon completion of sections of the SDZ can inform further development, and restrictions placed on kerbside parking and loading/unloading bays.

6.2.4.4 Demand Responsive Pricing of Car Parking

If a successful and efficient monitoring system is put in place, parking management can also include demand responsive pricing, where parking fees are adjusted for both on- and off-street facilities, dependent on the demand.

Parking costs for facilities with less demand are lowered to incentivize use, which reduces demand on overused areas, where the pricing is raised. This can be utilised during peak times to reduce congestion within town/village centres.

A pilot project on demand responsive pricing was carried out by San Francisco Municipal Transportation Agency (SFMTA) between 2011-2013 and included 7,000 metered spaces and 12,250 spaces in City owned parking garages. In 2014 an evaluation was carried out to see if the approach met the expected benefits. The results observed were as follows:

- Average parking rates were lower,

- Parking availability improved,
- Parking spaces were easier to find,
- It was easier to pay and avoid parking citations,
- Greenhouse gas emissions decreased,
- Vehicle miles travelled decreased.

Due to the multiple benefits, this pilot project was then expanded city wide in 2018.

Whilst difficult to implement on a larger scale, demand responsive pricing could play a vital role in the management of Cherrywood's on and off street parking facilities and encourage use of more sustainable modes.

6.2.4.5 Automated Barrier Access

Barrier access requires users to be held at the entrance whilst they either take a ticket/token or have a permit read before access can be gained.

Once within the site, the user can then pay for their parking at a separate pay station. They will only be able to leave upon this payment being validated.

Those with permits or season tickets can gain entry by either swiping a card electromagnetically, showing a barcode/QR code on a mobile phone app, or having their vehicle registration plate automatically read. In each case, entry is allowed upon the basis of a pre-agreed payment or account.

To operate such a system, barriers on the entrance and exit points are required in order to control access and egress. Payment machines are then also required within the site, although these can be provided at the entrance or exit itself.

Such systems typically operate autonomously and require little input or supervision. If problems do arise however, they can often remotely be dealt with (e.g. by remotely raising a barrier if required) but sometimes require physical intervention e.g. if a barrier is damaged or the hardware is faulty.

System providers typically offer to install the systems and can then provide ongoing maintenance, technical and user support. The physical equipment has a typical shelf life of ten years or so before it requires replacement.

There is a large degree of data intelligence with such systems as they fully collect user payment and duration information, which can be used to determine trends and undertake ongoing monitoring. The systems also require all users to have either paid or have pre-agreed access rights before they can leave the sites.

6.2.4.6 Behaviour Change Apps

Improvements and expansions to pedestrian areas, the cycle network and facilities, and to public transport are vital in encouraging a modal shift, however this shift can only be actualised if people are aware of them. For some people, the improvements alone are enough to convince them to change their behaviour, but for others they need incentives to make that initial change.

BetterPoints is an app-based platform that combines technology and data to motivate and measure behavioural change for health and wellbeing, transport and mobility, and climate change. It includes user interaction/messaging/survey responses, automatic trip detection and geofencing, and provision of relevant information. Programmes are tailor made for all clients, allowing focus to be placed on specific targets. As participants sign up to the app, a baseline of their behaviours is assessed so subsequent changes can be measured. This data is anonymised for client analysis and visualisation, and BetterPoints can provide more detailed reports for evaluating the programme impact.

City and county councils, educational institutions, and businesses can use the app to engage people in tracking their transport behaviours, setting goals, and provide a variety of challenges regarding transport choices, with a rewards system based on achievements.

One specific application of the platform targets the reduction of businesses' carbon footprints through its employees' transport choices, and subsequently reduce demand for parking. Carbon Crush allows individuals to set goals and challenges around active and sustainable travel, then rewards activity with BetterPoints – which can be accrued and exchanged for vouchers. The programme automatically identifies and tracks journeys, including walking, wheeling, cycling, bus, train, tram, car, and car-sharing. With the aim of reducing emissions, the app calculates the CO_2 and NO_2 emissions avoided because of participants behavioural changes, giving people real time evidence of their impact. If businesses provide hireable bicycles, QR codes on these vehicles can be scanned to provide additional rewards. Use of in-app messaging, push notifications, and email creates an open channel of communication between the business and participants, allowing businesses to better understand their employees' attitudes towards transport and how best to encourage behavioural changes.

Another application saw the use of BetterPoints' Choose How You Move programme in Leamington Spa, commissioned by Warwick District Council. The primary goal was to encourage the use of 'Park and Strides' on the outskirts of the town centre, instead of parking within the town centre. Rewards were given to participants who made use of these facilities and walked, cycled, or used public transport for the remainder of their journey, with an additional monthly 'Ditch the Car Star' prize of 10,000 BetterPoints. This programme resulted in 32,241 active or sustainable journeys, totalling 6,147 km and saving 3.3 tonnes of CO_2 emissions. Through the reward points, local charities saw benefit, and local businesses provided sponsored special offers, bringing benefits to them.

BetterPoints has proved to have a good track record across the UK, with programmes previously being used in Leicestershire, Reading, York, Cardiff University, London Borough of Hounslow, and Brighton & Hove to name a few.

BetterPoints is just one example of a behavioural change app. There are other apps available with differing functionality, but BetterPoints is particularly geared towards creating bespoke programmes, and may be more suited for area wide programmes than individual businesses due to their cost.

6.3 Other Measures

6.3.1 Shared Mobility

Shared mobility is commonly defined as transportation services or resources which are shared amongst users, either simultaneously or one after another. The UK Department for Transport[7] includes the following types of transport as shared mobility:

- Car clubs. Short-term car rental including roundtrips and 'flexible' one-way trips,
- Ridesharing. Arrange to share a journey using an app or website to find people who plan to travel a similar journey, with one of the users driving,
- Ride-pooling. This is similar to ridesharing, however neither of the users are driving and therefore a taxi-driver is present,

[7] UK Department for Transport, 2019. Shared Mobility Ipsos MORI report for the Department for Transport.

- Car-pooling. Usually arranged directly between individuals who know each other,
- Demand Responsive Transport (DRT). Shared transport such as community buses which are requested for specific locations and times. This service is usually for those with limited mobility,
- Shared Micromobility schemes. Shared transport solutions for a short-term use, available to multiple users (bikes, e-bikes, e-scooters).

There are a number of benefits of shared mobility schemes, including:

- Provides a greater range of mobility services for users as well as users with impaired mobility,
- Offers first and last mile transport solutions,
- Reduces traffic congestion,
- Mitigates against various forms of pollution,
- Reduces costs for the user,
- Improves efficiency,
- Improves the users' health when using the shared micro-mobility schemes.

However, there are barriers that may limit the uptake of shared mobility, and these include:

- Safety – concerns about sharing a vehicle with a stranger. The Covid-19 Pandemic also affected shared mobility, both positively and negatively. For example, some people partook in shared mobility such as bicycle hire to avoid other modes of shared mobility which includes close contact such as bus/trains. Whereas others refrained from using certain types of shared mobility such as carpooling or ridesharing, out of fear for their health or safety,
- Desire to travel alone – some people use their private time to unwind or prepare for a meeting on route to their destination, whilst others have concerns about having awkward conversations with strangers or being reliant on other users' timekeeping,
- Lack of availability – there may be a limited number of users in rural areas which often results in limited-service availability for all types of shared mobility; and,
- Awareness – lack of awareness and knowledge of different forms of shared mobility and how the services work can discourage people from using them.

6.3.1.1 Car Clubs

Car clubs are short-term car rental services that allow members access to locally parked cars and pay by the minute, hour, or day. They allow a reduction in private car ownership and a subsequent reduced need of parking spaces. There are different types of car clubs including 'back-to-base' returnable clubs, and flexible one-way clubs, with designated parking bays and areas.

One of the key benefits of car clubs is the potential reduction of car ownership. If individuals and businesses have access to a hired vehicle when required, the need for a private car is reduced. Consequently, this encourages more active travel as a primary mode for daily commuting and activities, improving health and wellbeing, and lowering carbon footprints.

Car clubs can provide vehicles that are often lower in emissions than affordable personal vehicles, making use of these vehicles cleaner and more attractive for business use. Similarly, many car clubs operate electric or hybrid vehicles that have zero emissions.

The provision of a car club in Cherrywood would encourage cycling and walking as part of daily routines, whilst allowing residents access to vehicles when necessary.

6.3.2 E-Cargo Bikes

An E-Cargo bike is a battery power assisted pedal bike with a large, aerodynamically designed, lidded box suitable with capacity of 350 litres.

To reduce business-based car travel, E-Cargo bikes can offer an alternative mode of transport for commercial delivery fleets. Where businesses offer a delivery service, whether a goods retailer, local pharmacy, or food retailer, use of an E-Cargo bike will reduce traffic congestion and emissions, is cost effective, and can allow a more efficient use of on-street parking/loading spaces. An E-Cargo bike also allows users to travel further distances than a standard bicycle due to its electric powered component.

A pilot scheme launched by Dublin City Council and Bleeper in 2021, saw businesses renting an E-Cargo bike for 6 months at a subsidised rate to trail in their delivery services. The bikes are equipped with a secure storage container to allow safe cycling and delivery of larger items if required. One pharmacy that signed up to the scheme provide the size of the E-cargo bike was adequate with the ability to deliver a wheelchair to a customer.

Following the success of this pilot scheme launch, Bleeper and Dublin City Council launched similar projects that provided electric cargo bikes to non-profit organisations for a 12-month period, with the full cost subsidised by DCC, and provided a Community Cargo Bike to the public which could be hired for free. Use of cargo bikes offer a climate-friendly mode of transport and align with Dublin City Council's Climate Action Plan and its Development Plan. These projects were launched to generate greater awareness of cargo bikes and their benefits to individuals, businesses, the city, and globally.

Fingal County Council have also partnered with Bleeper to provide the community with an E-Cargo bike to enable the switch from private car use to active travel. It costs €3 to unlock the secure 'bike bunker', located at Mountview Community Centre, and covers 120 minutes of use, after which a fee of €0.05 per minute is charged. The choice in supplying an E-Cargo bike, instead of a standard electric bicycle, allows residents to carry out a greater range of activities, including the ability to do a big grocery shop by bicycle instead of by car. It also provides non-car users with more efficient transport that allows them to carry out activities that may require use of a car's storage capacity.

6.3.3 Smart Cycle and E-Scooter Parking

There is a wide range of technologies available that can be paired with bicycle and E-Scooter parking facilities to improve the security and convenience of parking both personal and hired vehicles. These include:

- Hubs/Secure Enclosures: access-controlled, enclosed cycle parking hubs often provided at train stations, tram and bus stops, HIE offices etc. These can be available to the public with registration requirements,
- Smart Bike Racks: The Bikeep parking solution can allow users to lock their bike wheel and frame more easily and cleanly than standard locks, with use of an app or contactless card to unlock their bike. It also alerts local security in the event of an attempted theft. Provision of these permanent facilities do not require cyclists to carry their own locks.

- Smart E-Scooter Parking: docking based parking station with built in locking bar, (similar function to the Bikeep).
- Smart Lockers: storage lockers for secure parking of bicycles that allow users to find, unlock and pay for usage by smartphone. Sometimes used by community shared cargo bikes.

The main benefits of combing cycle/e-scooter parking with technology are increased security and peace of mind for users, reduces need of carrying personal locks (dependent on hub facilities), tidies up streets from clutter of inappropriately parked bikes/e-scooters, can facilitate charging for e-bikes/e-scooters, there is a variety of access control options available.

6.3.4 Workplace Parking Levy

A workplace parking levy (WPL) is a charge made by a local authority on larger employers for the number of parking spaces provided for employees. All money raised from a WPL must be ring-fenced for investment in local transport improvements.

The first and only city in the UK to introduce the scheme to date is Nottingham. Before 2012, approximately 70% of Nottingham's peak time traffic was accounted for by commuters, creating heavy congestion in the city. One of the aims of the levy is to reduce commuters travelling by car in order to reduce traffic congestion. The Nottingham model currently sees employers (who provide more than 10 parking spaces for their staff) pay £428 every year to the city council for each space, with the charge increasing each year in line with inflation. It is the choice of employers whether the company pays the bill, or whether their employees pay the bill themselves. Each year, the levy has raised £9m that is required to be spent on sustainable transport projects. Nottingham has been able to improve and extend its tram and bus services, improve its cycling and walking infrastructure, introduce an electric taxi fleet with over 200 electric charging points, and has reduced congestion and air pollution.

Leicester had planned to introduce a WPL in 2023, however, due to the cost-of-living crisis, the council decided that the strategy would not go ahead. Consequences of this decision include reduced funding for planned radical public transport improvements, and continued challenges to maintain the current level of services.

Other cities and council areas currently considering implementing WPLs include Glasgow, Edinburgh, Oxfordshire County Council, Great West Corridor of London Borough of Hounslow, and Sheffield. Glasgow and Edinburgh are already examining whether to introduce the levy - with Glasgow estimating that it could raise up to £30m a year if it is introduced across the whole city, or up to £6m if it is confined to the city centre.

There is also scope to extend the levy beyond workplace parking to other land use types, as evidenced in Australia. In 2006, the Melbourne Congestion Levy was introduced, where a charge on all long-stay parking spaces in the central business district and surrounding inner Melbourne area was imposed. This Levy includes private car parks serving workplaces and retail spaces.

The Sydney Parking Space Levy (1992) applies to off-street commercial (private parking for public use) and private non-residential (workplace) parking spaces. In Perth, a licence scheme applies a differential levy based on the types of use of parking spaces, with around 50,000 non-residential parking bays included in the scheme.

The inclusion of other types of parking could allow a levy scheme the option to apply a charge on spaces provided in public car parks and at retail centres for patrons. This would result in greater funds being generated - for use in improving local transport - through parking fees imposed on private car users when parking within the included areas.

The introduction of a Workplace Levy and potential extension to other land use parking such as retail aligns with the direction of the NTA's GDA Strategy regarding parking management at retail centres and the need to reduce the quantum of parking provided at destinations such as workplaces. Within Cherrywood it could incentivise active travel and use of the extended Luas line and local bus routes that provide good accessibility to the business park and town centre which are currently in construction. It

could also help fund further development of the public transport network in and around Cherrywood SDZ, potentially further encouraging modal shift.

6.3.5 Multi-Agency Measures

The delivery of the Planning Scheme relies on a multi-agency approach between DLRCC, the NTA and TII.

A number of the infrastructure proposals which will enable travel by sustainable modes to and within the SDZ are identified in the Planning Scheme as either the NTA or TII identified as the lead authority for delivery.

6.3.5.1 Cycling Infrastructure

The Planning Scheme details outputs from the NTA 2030 Transport Strategy Model which indicates that 23% of future trips to work originating in Cherrywood will be less than 5km and a further 27% will be less than 10km.

The proportion of future trips to work with a destination in the Cherrywood Town Centre will be 28% for travel less than 5km and a further 22% less than 10km, allowing significant potential for cycling and walking to and from external key locations such as Bray, Sandyford and Dun Laoghaire, therefore, it is considered crucial to provide a high-quality cycle and pedestrian network.

AECOM completed a Green Routes Network Study in May 2022, which identified greenway, cycle and pedestrian routes and connecting links within Cherrywood SDZ. In order to achieve the modal share targets of walking (30%) and cycling (45%), internal and external walking and cycling trips need to be direct and convenient, possibly at the expense of direct routes for local car trips.

Based on the Planning Scheme, the existing cycle facilities adjacent to Cherrywood are the following:

- Segregated one-way cycle lanes and footways on Wyattville Road, crossing the N11 to Wyattville Link Road as far as Cherrywood roundabout,
- Pedestrian phases in the various sets of traffic signals at the Wyattville interchange,
- Segregated one-way cycle lanes and footways along the majority of the N11,
- Pedestrian footbridges over the N11 at Johnstown Road and Loughlinstown roundabout,
- Two signalised pedestrian crossings of the N11 between the Wyattville interchange and the Johnstown Road junction (Kilbogget and Shanganagh Vale).

The proposed network of walking and cycling facilities in Cherrywood SDZ is shown in Figure 6.1 (Map 2.5 of the Planning Scheme). A hierarchy of streets has been designed within Cherrywood, where main vehicular traffic will be directed onto the major routes. The overall plan is based on 5 and 10 minute walking distances (400 – 800m) from public transport / district and neighbourhood centres, so it should be safe to walk and cycle between all principal nodes within the SDZ lands.

Pedestrians/cyclists are facilitated internally by:

- Segregated routes will give safe and direct access to principal nodes,
- Links will pass through parks and along green routes,
- Signalised toucan crossings at main roads,
- Grade separated links across the Wyattville Link Road,
- High standard of surfacing and continuity of routes,
- 30km/h speed limit for internal routes to slow traffic to the benefit of pedestrians/cyclists.

Links to the wider pedestrian/cyclist network will include:

- A greenway along the linear park from Cabinteely to Cherrywood and continuing towards Shankill,
- Proposed greenway along Carrickmines river and Ballyogan stream to Stepaside area,
- Proposed greenway along Carrickmines river and through Leopardstown Racecourse to Sandyford Business Estates,
- Pedestrian / cyclist links to Cherrywood Road and Brides Glen Road,
- Pedestrian / cyclist link from the Bride's Glen Luas stop along the old viaduct to Shankill via Loughlinstown hospital,
- A proposed walking route through the Carrickmines Valley from Carrickmines through to the linear park. This new wooded route will be developed in conjunction with park and open space development.

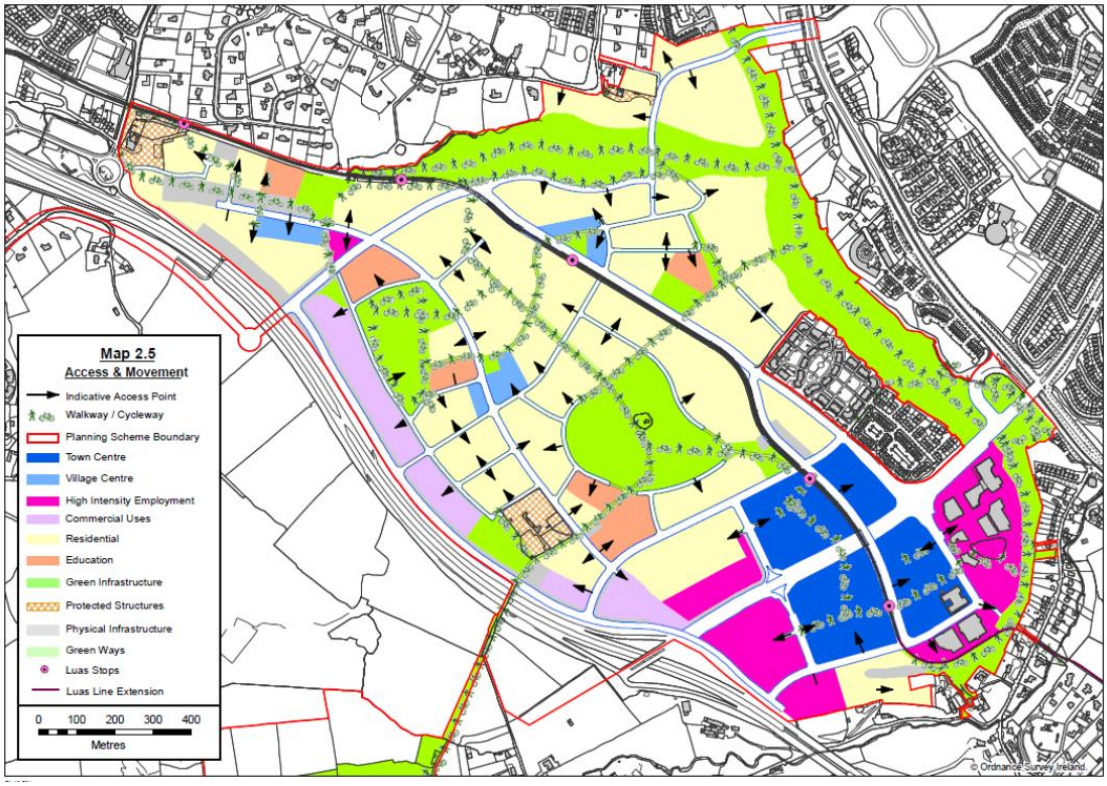


Figure 6.1 Access and Movement Strategy

Greenways and motorised traffic-free pedestrian and cycle links are a major element of the walking and cycling network in Cherrywood. These will be supplemented by the high-quality cycle and pedestrian facilities as part of the road network. Greenways are green infrastructure and have an important transport role in addition to their ecological benefits.

The Cherrywood Green Routes Network proposes the development of a cycle and pedestrian greenway network for the area within the Cherrywood SDZ, as shown in Figure 6.2.

The proposed Network is based on the preliminary routing indicated in the Cherrywood SDZ, extending for approximately 6.0km, and proposes links to improve active travel connections to key external desire lines, including links to the N11, Wyattville Link Road, and Brides Glen / Cherrywood Road in the south.

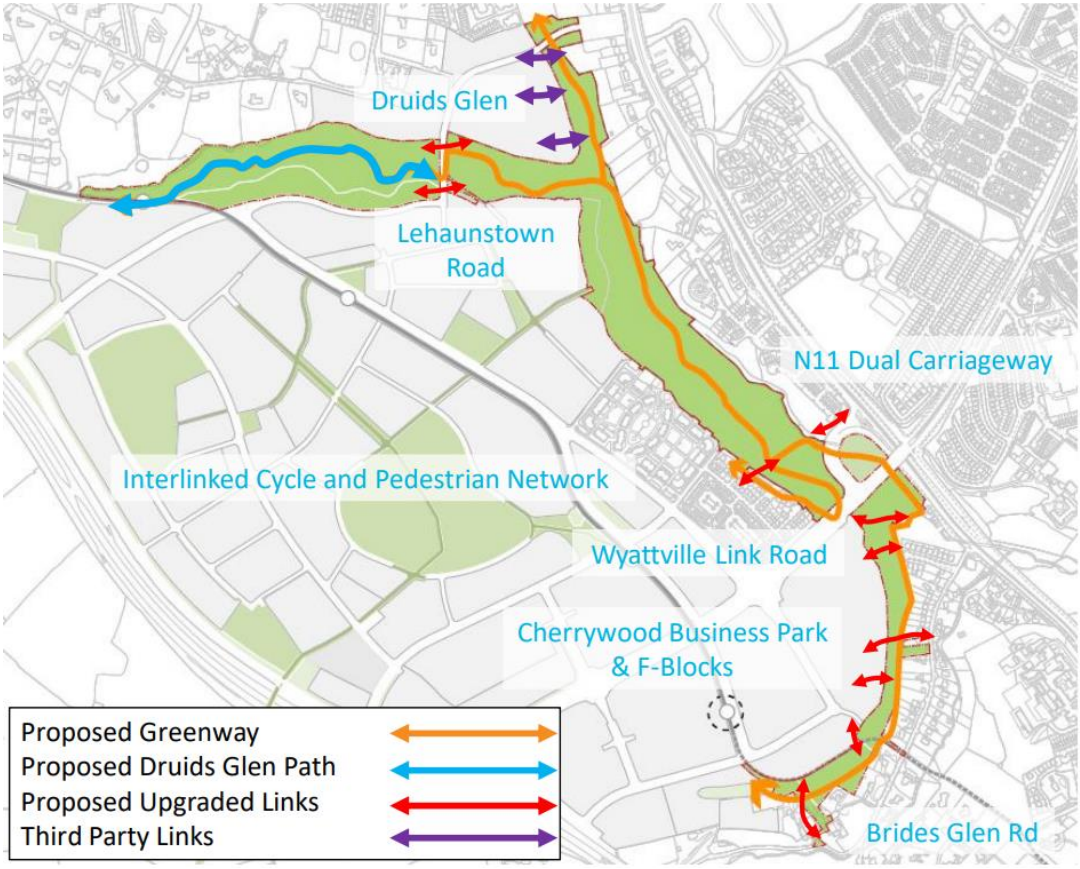


Figure 6.2 Proposed Green Routes Network

The proposed scheme will link into various existing and future pedestrian and cycle facilities, as set out in Figure 6.3.

- Priorsland to Glenamuck Road,
- Lehaunstown Lane,
- Druid's Glen Road to the N11,
- Proposed Cabinteely to Cherrywood Greenway,
- N11 Dual Carriageway,
- Wyattville Link Road,
- Proposed Carrickmines River Greenway,
- Cherrywood Road,
- Brides Glen Road; and
- Druid's Glen Viaduct.

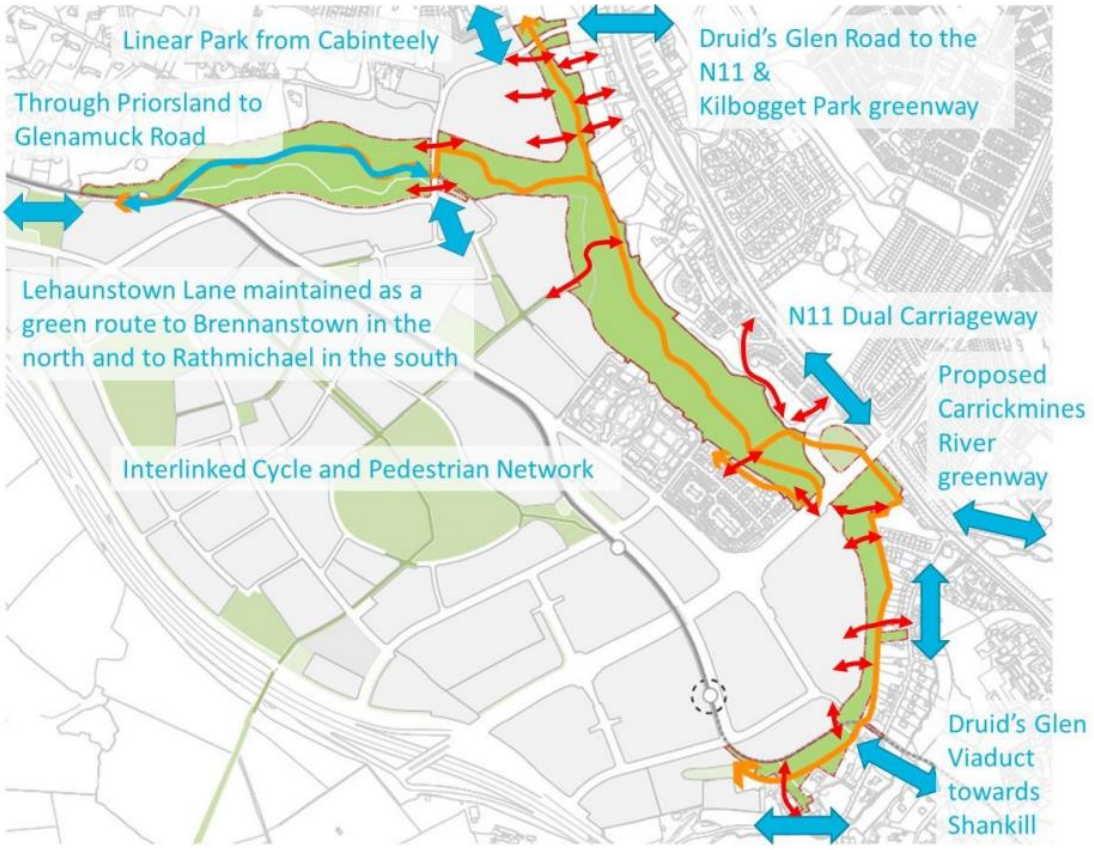


Figure 6.3 Proposed Green Routes Network - Linkages to Wider Active Mode Infrastructure

As part of the development of the NTA GDA Transport Strategy, the GDA cycle network plan has also been updated to align with the strategy.

As shown in Figure 6.4, the extensive proposed cycle network in and around Cherrywood is comprised of:

- Primary radial - N11 Bray Road, alongside M50 connecting to Glennamuck Road to the North, Tullyvale and R118,
- Primary orbital – Commons Road and Valley Avenue,
- Secondary – surround area of Tully Park with connections to radial routes,
- Utility Greenway – Tullyvale with connections to Cabinteely,
- Inter-urban – Brides Glen Road, Ballycorus Road and Rathmichael Road,
- Leisure Greenway – connection from Ballycorus Road to Tully Park via Lehaunstown Lane.

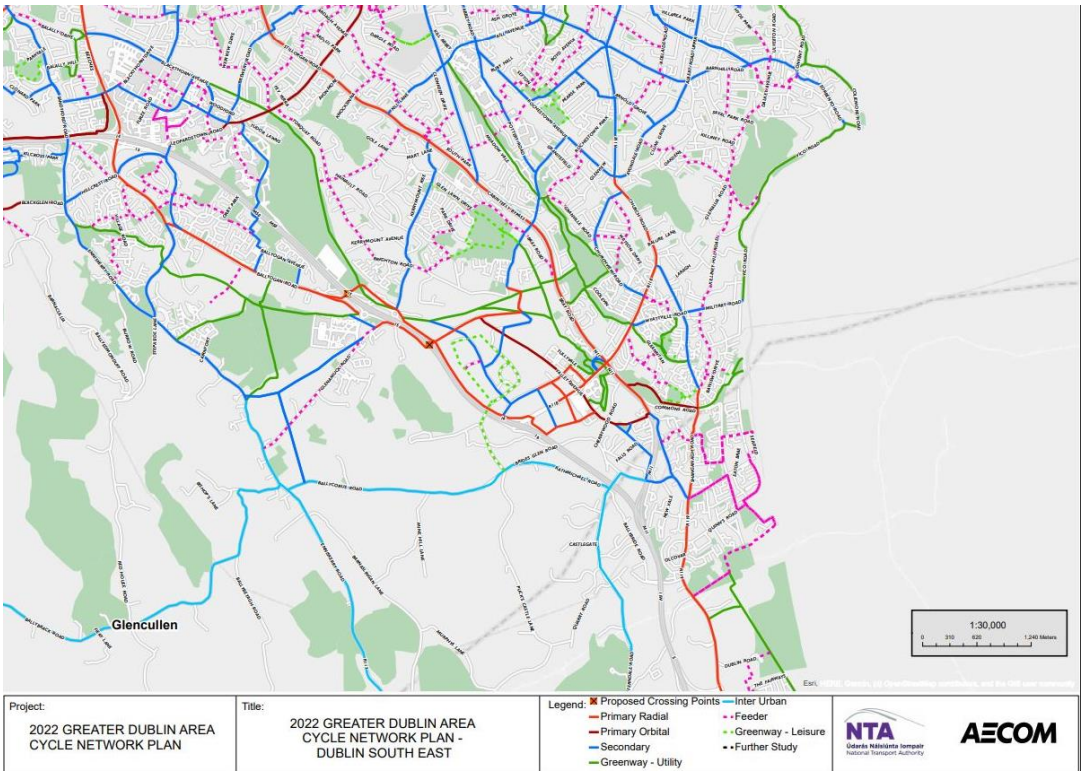


Figure 6.4 2022 GDA Cycle Network Plan

6.3.5.2 Bus Provision

The Cherrywood area is currently served by five different bus routes including No. 7, 45, 84, 145 and 155. During the AM peak hour, the No. 45, 145, and 155 operate on the N11 Core Bus Corridor (CBC) with frequencies between 10-20 minutes per service. The No. 84 operates three services in the AM peak and No.7 six services between Cherrywood and the Loughlinstown area as well as Dublin City Centre via Dun Laoghaire.

Bus services are expected to play an important role in providing public transport to the Cherrywood Planning Scheme. Based on the Cherrywood SDZ Planning Scheme by 2030 (NTA 2030 Transport Strategy Model), 49% of Cherrywood residents will travel to work in external centres not served by Luas and 64% of trips to employment in Cherrywood will come from external centres not served by Luas.

Specifically, according to the Cherrywood SDZ Planning Scheme, by 2030 approximately eight additional buses would be needed during the morning peak to meet the target of 12% of external trips by bus. Likewise, an estimated 13 extra buses would be required for inward demand.

The proposed Bray to City Centre Core Bus Corridor Scheme will support integrated sustainable transport usage through infrastructure improvements for active travel and the provision of enhanced bus priority measures. Whilst this CBC is outside of the Planning Scheme Area, the improved pedestrian and cycling infrastructure associated with the scheme will enhance connectivity to and from Cherrywood, therefore supporting integrated sustainable transport usage.

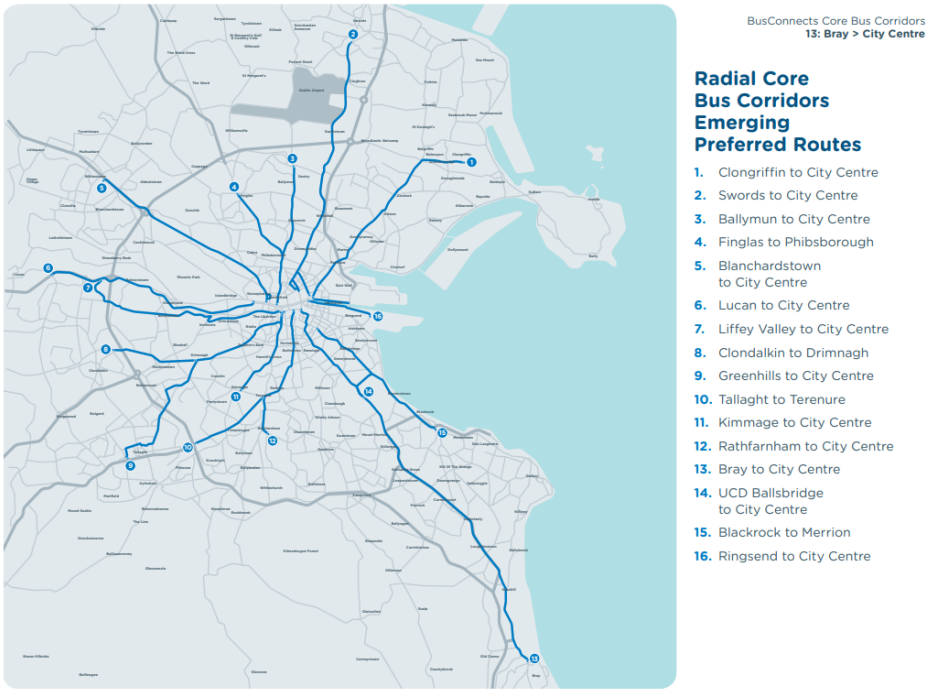


Figure 6.5 Radial Bus Corridor Preferred Routes

Bus Connects has proposed an updated public transport network with network redesign proposals relating to Cherrywood services X2 and L22 as shown in Figure 6.6

Figure 6.6 Bus Connects Network Redesign Proposals

6.3.5.3 Public Transport Walking Accessibility

In 2018, AECOM considered walking accessibility to bus and Luas stops within Cherrywood. The extent of the 1km walking catchment from the existing Luas stops (all existing stops assumed to be operational) is shown in Figure 6.7.

The majority of the Cherrywood SDZ is served by the Luas, and it provides a reliable, high frequency service to key destinations along the Luas system such as the city centre and Sandyford, with interchange services available to other transport systems.

Most of the public transport demand to the north of Cherrywood (41%) will be served by the Luas, however for areas outside of the Luas corridor, the bus network will be required to provide access to and from Cherrywood. Figure 6.8 shows the extent of the 1km walking catchment from the existing N11 bus stops (all combined with the 500m walking catchment from the proposed bus stops within Cherrywood). As shown, the combined buses serve the vast majority of the Cherrywood SDZ and will complement the Luas system to open up the areas in Dublin served by PT from Cherrywood.

Figure 6.7 Luas Stops 1km Catchment

Figure 6.8 Bus Stop Walking Catchment

6.4 Local Constraints

There are a number of local constraints which must also be considered in relation to this review of non-residential parking standards including:

Sequential Build-out of Cherrywood

Chapter 7 of Planning Scheme outlines the implementation sequencing and phasing of development for the Cherrywood SDZ. The Plan area is divided into eight development areas and three growth areas with thresholds of development permitted on the basis of delivery of various infrastructure requirements i.e. road and public transport provision,

This sequential build out approach can constrain development being brought forward due to lack of required infrastructure. As such, DLRCC have commissioned AECOM to undertake a review of the development sequencing thresholds.

It is currently envisaged that this study will not change the sequencing as outlined in the Planning Scheme but rather consider variations to the set thresholds in order to progress development further in advance of physical road and public transport infrastructure.

Private Land Owner Boundaries and Conflicting Commercial Interests

There are various over-arching private land owners in Cherrywood who may not necessarily have the same commercial interests as smaller developers who require consent to build on the land.

The phased delivery of road infrastructure can also constrain access requirements for developments. This can lead to ransom strips of land which cannot progress development until consensus is agreed. DLRCC facilitate consultation between developers and land owners however as the land is privately owned, cannot intervene in any ongoing disputes.

Taking In Charge of Physical Infrastructure and Public Relam

Taking in charge is a formal legal process by which responsibility for public areas, structures and services are transferred to, or put in the charge of, a local authority.

Upon completion of a development, the developer must submit a written request to the local authority in regard to taken in charge. Once the local authority is satisfied that the development has been completed in compliance with the planning conditions and technical requirements, then it is required to take control of the operation, maintenance and upkeep of infrastructure such as but not limited to roads / footpaths, public realm, lighting, sewers, water mains, playgrounds and car parks.

DLRCC have completed the Taken In Charge process for the following:

- Three public parks.
- Aspects of Town Centre public realm.
- Wyattville Link Road.
- Tullyvale Road – Bishop Street.
- Junction A – Wyattville Link Road
- Lehaunstown Lane.
- Cherrywood Avenue between Brides Glen Luas Terminal and Wyattville Link Road junction.

Depending on the timeframe of development completion, DLRCC can incur significant costs as a result of taking in charge due to the degradation of internal roads as a result of prolonged use by construction traffic etc.

7. Recommendations

7.1 Introduction

AECOM were commissioned by DLRCC to provide technical advice relating to non-residential parking standards within the Cherrywood SDZ. Development is ongoing at Cherrywood and the level of required parking provision is a key consideration as development continues, particularly to align to the shift in national and local policy, climate targets as well as the DLRC County Development Plan 2022 – 2028.

7.2 Consideration of Rationale

The information presented within this report has been collated into four over-arching categories including:

- Policy Context .
- County Development Plan Non-Residential Parking and Cycle Standards Review.
- Best Practice Review.
- Demand Analysis.

Each category has been assigned a score in order to assess to what extent each category either supports or does not support more restrictive non-residential parking standards as shown in Table 7.1.

The scoring system suggests:

- Strong rationale for more restrictive non- residential parking standards for certain land use types based on policy context, a review of comparable non-residential parking standards outlined in relevant County Development Plans and TRICS analysis.
- Mixed rationale for more restrictive non-residential parking standards based on the best practice review and demand versus supply review of extant planning applications.

Table 7.1 Consideration of Rationale

Aspects	Supportive of Potential Amendment	Not Supportive of Potential Amendment	Consideration	Score
Policy Context ▪ Project Ireland 2040 ▪ National Planning Framework ▪ National Sustainable Mobility Policy ▪ RSES - EMR ▪ Government of Ireland Climate Action Plan 2021 ▪ DLRCC Climate Change Action Plan 2019-2024 ▪ NTA GDA Transport Strategy 2022-2042 ▪ Sustainable and Compact Settlements Guidelines for Planning Authorities (included at the request of DLRCC)	National, regional and local policy includes a number of policy objectives relating to car parking and prioritising sustainable transport choices including: NPO 13, NPO 27, NPO 33 and RPO 5.3 as outlined in both Project Ireland 2040 and RSES EMR. The National Sustainable Mobility Plan outlines two high level goals relating to better integrated mobility including Goal 9. Better integrate land use and transport planning at all levels and Goal 10. Promote smart and integrated mobility through innovative technologies and development of appropriate regulation. The over-arching Government Climate Action Plan sets out a roadmap to halve emissions by 2030 and reach net zero no later than 2050. Core measures include a shift to transport modes with lower consumptions such as walking, cycling, active and public transport including 500,000 extra walking cycling and public transport trips enabling modal shift to reduce the overall fossil fuelled distance undertaken by car by 10%. The DLRCC Climate Action Plan outlines a number of actions across key themes including transport such as electrification of Council fleet, supporting sustainable travel and development of cycle routes and accessible footways. DLRCC currently budget for a number of transport related actions one of which is T2 – reduce parking to provide for sustainable travel alternatives. The NTA GDA Strategy sets out measures and priorities required to provide a sustainable, accessible and effective transport system for the GDA in order to meet climate change requirements and serve the needs of communities. The Strategy outlines a number of proposed measures in order to achieve objectives including: ▪ Measure PLAN5 – Retail Development ▪ Measure PLAN7 – Transit Orientated Development ▪ Measure PLAN8 – 15 minute City Concept ▪ Measure INT5 – Major Interchanges and Mobility Hubs ▪ Measure INT18 – Sustainable Transport Incentives ▪ Measure INT10 – Smarter Travel Workplaces and Campuses ▪ Measure CYC1 – GDA Cycle Network ▪ Measure CYC5 – Cycle Parking ▪ Measure CYC6 – Cycle Parking Strategies ▪ Measure ROAD13 – Road Space Reallocation ▪ Measure TM7 – Car Free Zones ▪ Measure TM9 – Safe Routes to School ▪ Measure TM14 – Destination Parking Standards ▪ Measure TM17 – Car Free Commercial Development at Major Interchanges ▪ Measure TM18 – Parking Management at Retail Centres	The National Planning Framework also states in NPO13 that car parking should be based on performance criteria that seek to achieve well designed high quality outcomes however this should not compromise people's safety or the built environment for example insufficient parking supply could lead to nuisance parking etc. **Caveat** - The Sustainable and Compact Settlements Guidelines for Planning Authorities is related to residential development therefore providing limited information in regard to mixed use development.	**On balance national, regional and local policy sets the scene that decreasing private car use and increasing sustainable mode share is essential in order to achieve net zero climate targets.** **The NTA is supportive of an approach that caps car parking on an area-wide basis in locations where the highest intensity of development occurs, or in areas which have high levels of accessibility by public transport, walking or cycling.**	✓✓

Aspects	Supportive of Potential Amendment	Not Supportive of Potential Amendment	Consideration	Score
	▪ Measure TM20 – Electric Cars Demand management and encouraging travel by sustainable modes is at the centre of the NTA GDA Transport Strategy. The Strategy outlines that car parking critically influences car ownership, mode choice, development densities, permeability, car-based congestion and public transport levels of service, therefore identifying that parking management is paramount in achieving modal shift and contributing to set climate targets. The Strategy outlines that car parking critically influences car ownership, mode choice, development densities, permeability, car-based congestion and public transport levels of service, therefore identifying that parking management is paramount in achieving modal shift and contributing to set climate targets. The Strategy outlines that parking standards should: ▪ Be set as maximums with the lowest level of provision set in areas with high sustainable mode accessibility. ▪ Consider the availability of amenities and accessibility to major town centres. ▪ Design for sustainable travel from the offset for new developments. ▪ Recognise the difference in central and less central areas in regard to trip distance. All of which can be directly associated with Cherrywood SDZ. The Strategy also considers destination car parking standards and acknowledges the complexity of developing standards for varying land use types. Measure TM14 detailed in the Strategy outlines that the NTA will work with local authorities to ensure that the quantum of parking provided at destinations (non-residential commercial developments) will be significantly reduced. In addition, the NTA intend to develop guidance on maximum parking standards for varying land-uses and locations in association with local authorities. The objective of which is to reduce the number of parking spaces permitted via the planning process.			
County Development Plan Review ▪ DLRCC CDP 2022-2028 ▪ Dublin City Development Plan 2022-2028 ▪ Fingal CDP 2023-2029 ▪ South Dublin CDP 2022-2028 ▪ Sandyford Urban Framework Plan	Cherrywood standards have been compared to other relevant CDPs as summarised in the table below.. DLRCC stndards are appliable to Cherrywood unless otherwise stated in the Planning Scheme.	Cherrywood standards for education are generally lower in comparison to other considered CDPs i.e. less than one per classroom. **Caveat** - Each CDP uses different criteria for determination of Zones under which the standards are applicable therefore comparison of standards is not directly like-for-like such as Fingal Zone 1 within 800m of BusConnects & 1600m of public transport and South Dublin Zone 2 within 400m of public transport.	On balance from review of other County Development Plans, rationale exists to restrict parking standards relating to some non-residential typologies which are generally higher in comparison to other CDPs. Fingal and South Dublin standards are generally lower i.e. less parking is provided on a pro-rata basis in comparison to Cherrywood standards Cherrywood standards for education are generally already lower than other CDPs. They are stated as < 1 per classroom (versus 1 per classroom in other CDPs) and require consultation with Department for Education and	✓✓

Aspects	Supportive of Potential Amendment	Not Supportive of Potential Amendment	Consideration	Score

- Cherrywood Planning Scheme

Land Use Type	DLRCC (Zone 2)	DLRCC (Zone 3)	Dublin City	Fingal	South Dublin
HIE					
Office	H	-	SH	L	L
Industry	-	=	SH	=	L
Retail					
Convenience	H	-	SH	H	H
Non-Food	H	-	SH	-	L
Shopping Centre	L	-	H	L	-
Cafes, Restaurants and Takeaways	=	-	L	-	L
Financial / Professional Services	=	-	SH	L	-
Education					
Primary	L	-	L	L	=
Secondary	L	-	L	L	=
Further Education	CBC	-	-	-	-
Creche	=	-	H	-	-
Medical					
Medical Clinics	=	-	=	H	H
Hospitals	=	-	H	-	H
Civic, Community & Religious					
Library / Community Hall	-	=	SH	H	=
Place of Worship	-	=	SH	=	H
Sport & Recreation					
Leisure Centre	=	-	CBC	L	L
Pitches	CBC	-	CBC	CBC	-

SH	**Significantly Higher**
H	**Higher**
=	**Equal**
L	**Lower**
SL	**Significantly Lower**
CBC	**Case By Base**

Cherrywood standards are generally higher in comparison to DLRCC and Dublin City for offices and some aspects of retail.

It is noted that Cherrywood standards are significantly higher than Dublin City in relation to offices, industry, convenience retail, non-food retail, financial and professional services and libraries / community halls.

Cherrywood Planning Scheme sets out ambitious mode share targets with 39% of trips by private car and therefore parking management must be utilised as a key tool to achieve set targets.

Skills therefore suggesting a case by case approach.

The GDA Strategy and the Planning Schemes ambitious mode share targets also present a strong rationale for parking restraint in relation destination parking.

Aspects	Supportive of Potential Amendment	Not Supportive of Potential Amendment	Consideration	Score
Best Practice Review ▪ European Examples ▪ Other RoI and UK Examples ▪ Other SDZ's	**Elephant Park Mixed Use Development (London)** – no public access parking provided. **IKEA Westbahnhof (Austria)** – zero parking provided, small items available for purchase and larger items home delivery. Close to tram, underground and public bike hire. **Paris** – Parking standards for offices only in arrondissements (neighbourhoods) 1 – 20. **Berlin** – Compact City allows residents to conduct day to day activities by sustainable modes. Larger PT mode share for commuters. **Wonderwoods Development (Netherlands)** – New mixed use urban tower development with mobility hub including e-bikes / scooters and parking for e-cars. Limited space rental for non-electric vehicles.	Current Cherrywood standards are generally lower than other RoI & UK examples considered. Current Cherrywood standards are also generally lower than other SDZ's including Adamstown.	On balance, the review of best practice provides mixed rationale for more restrictive parking standards as Cherrywood standards are generally lower than UK, RoI & other SDZs. However European examples show a shift towards more restrictive parking for non-residential land use types / destination parking locations and when considered with the presented strong policy context provides rationale for a reduction in standards for some typologies.	×/✓
Demand Analysis ▪ TRICS Analysis	TRICS analysis undertaken of existing land use types in Cherrywood to determine average maximum parking occupancies and consider whether supply typically exceeds demand.			
	Retail ▪ *Discount Food Store* Average max occupancy **~50%** ▪ *Supermarket* Average max occupancy **~50%** ▪ *Convenience Store* Average max occupancy **~80%** HIE ▪ *Office* Average max occupancy **~60%** The Chartered Institute of Highways and Transportation (CIHT) Parking Strategies and Management (2005) document outlines guidance which recommends that parking interventions should seek to ensure demand does not utilise more than 85% of available capacity during peak periods. If parking demand exceeds the 85% threshold, this indicates a lack of available spaces for users which may increase driver frustration and vehicles circulation in searching for an available space. Analysis of the TRICS database in relation to the existing land use types in Cherrywood including HIE, Retail and Education shows that on average, maximum parking occupancies are significantly less than the 85% threshold for retail and HIE, which suggests that parking is over-provided for these land uses. Convenience Store and HIE indicate instances of 100% capacity at certain times of the day however on average max occupancy is below 85%.	Education ▪ *Primary School* Average max occupancy ~90% ▪ *Secondary School* Average max occupancy ~90% 100% capacity is noted at both primary and secondary schools at peak times of the day. The analysis also indicates that average maximum occupancies at both primary and secondary schools typically exceeds the 85% threshold suggesting that users may have difficulty finding a space. At peak times, 100% capacity is reached.	On balance, the TRICS analysis presents rationale to restrict parking standards for retail and HIE on the basis that these land use types are associated with over provision.	✓

Aspects	Supportive of Potential Amendment	Not Supportive of Potential Amendment	Consideration	Score
▪ Extant Planning Applications	▪ Parking demand daily profile typically operates in peaks and troughs rather than all demand arriving at one point in the day. ▪ Not all daily retail trips should be considered as new trips, a proportion of trips will be either pass-by or diverted and as such not every trip requires a parking space. ▪ The nature of some of the proposed land-uses suggests short stay trips in relation to retail, community uses, public parks etc therefore suggesting that a higher turnover of spaces will occur.	**Caveat** – The analysis is based on extant planning applications only and therefore cannot account for future development not currently within the planning system. **Caveat** - Education and creche trips are considered to largely be drop off trips by private cars and therefore do not reflect the actual demand for all day parking spaces.	On balance, the review of demand and supply data from extant planning applications presents mixed rationale to restrict parking standards. It is considered that the anticipated demand and supply is appropriate in the context of the sustainable mode targets for the SDZ on the basis of typical daily profiles for parking demand and consideration that spaces will be used multiple times throughout the day due to the nature of the land uses. The current and future parking supply is also further complemented by the provision of a significant number of cycle parking spaces therefore encouraging travel by sustainable modes.	×/✓
▪ NTA ERM	▪ The Planning Scheme outlines outputs from the NTA 2030 Transport Strategy Model in relation to forecast work trips to and from Cherrywood. The outputs showed that the demand could be accommodated, and the desired mode share achieved with the provision of PT and active travel infrastructure as well as disincentives for private car use.	**Caveat** - The sequencing and phasing study provided forecast demand up to 2028 from the NTA ERM. The model demand output include residential land uses and also cannot account for consideration of parking supply,	It is considered that the modelling outputs do not provide rationale to further restrict parking standards as neither scenarios consider the demand in relation to the proposed supply. Therefore no conclusions could be determined.	×

7.3 Recommendations

The summary of rationale in relation to the potential amendment of non-residential parking standards as outlined in Table 7.1, results in varying degrees of conflict across the four themes of analysis: as shown by the mixed rationale from the best practice review and some aspects of the demand and supply analysis.

Despite this, on balance and to align with the strong rationale presented from the policy and CDP review and the TRICS analysis, it is considered that reasonable rationale exists for amendment to non-residential parking standards in relation to particular existing land use typologies including HIE and some aspects of retail.

The revised standards are considered as maximum standards, with no further reduction permitted unless a case is made for exceptional circumstances as outlined later in this section of the report. This will ensure that appropriate monitoring is undertaken in order to manage the impacts of the revised standards, in tandem with the delivery of sustainable infrastructure and public transport services.

The proposed revised maximum standards are outlined in Table 7.2.

Table 7.2 Proposed Amendments to Car Parking Standards

Land Use Type	Current Cherrywood Parking Standard	Proposed Maximum Parking Standard
HIE		
Office	1 per 100sqm	1 per 140sqm
Industry	1 per 200sqm	1 per 280sqm
Retail		
Food Retail	1 per 20sqm	1 per 35sqm
Non Food Retail	1 per 50sqm	1 per 85sqm

The rationale for the proposed amendments to these non-residential land use types includes:

- Current HIE and Retail land use standards are considered high in comparison to some other CDPs as more parking is provided on a pro-rata basis.
- The TRICS analysis shows that these land use types generally operate with a maximum parking occupancy of less than the acceptable occupancy level as stated by the CIHT (85%). Therefore the standards have been determined by assuming the maximum number of spaces that can maintain 85% occupancy.
- Parking provision for these land uses is generally provided on a large scale and as such a reduction can provide the push measure for employees and customers to consider more sustainable modes.
- The NTA GDA Transport Strategy considers that measures are required for destination parking and also parking management at retail centres.

It is considered that the proposed standards above in relation to HIE will replace those currently stated in the Planning Scheme as outlined in Chapter 4 Table 4.5. Therefore the methodology of reducing temporary car parking in line with quantum of HIE development delivered will instead be replaced with repurposing existing parking areas to facilitate sustainable mode infrastructure or consideration of dual use parking.

Similarly, the provision of a permanent MSCP facility within the SDZ is not now deemed appropriate. This is discussed in more detail below.

Commercial Land Use Parking Standards

Commercial land uses are generally defined as land uses which involve the buying or selling of goods and services. It is noted that the Planning Scheme does not currently permit any type of retail warehousing within the SDZ and therefore this presents a differing definition of commercial land uses compared to other relevant CDPs.

It is considered that retail warehousing may fall under the industry land use category however there are many other land use types that may also be considered as industry including workshops, science parks etc.

In relation to all other aspects of commercial land uses, the current standards (as per the DLR CDP) are generally comparable across the CDPs reviewed with the exception of retail as previously outlined, as such no amendment to parking standards is proposed at this time.

Commercial land uses are typically associated with short stay trips and as such will achieve a higher turnover of spaces by nature. Trips are typically linked to other trip purposes, considered as pass by and diverted trips as previously discussed and therefore one parking space is utilised for the duration of stay.

Education Land Use Parking Standards

The education land use parking standards are currently stated as less than 1 per classroom with consultation required with the Department of Education and Skills; therefore suggesting that standards are decided on a case by case basis.

The Cherrywood standards are currently lower than the majority of other reviewed County Development Plans which detail 1 space per classroom.

Parking provision at schools is generally only provided for staff and a small number of visitors. Consideration should be given to a drop off facility or parents going forward in order to ameliorate parking issues at peak school times. The current standards in Cherrywood already offer the flexibility to reduce parking provision on a case by case basis and therefore it is recommended that the standards remain as they are currently.

Medical Land Use Parking Standards

There is currently a cluster of medical land uses located within Cherrywood business park (HIE lands) which were permitted under change of use applications. Therefore usage at these locations could be monitored over time to verify the assumption that trips to medical land uses are typically short stay and therefore have a higher turnover of spaces throughout the day with peak occupancy at set visitor times.

The current standards (as per the DLR CDP) are generally comparable in relation to medical centres and considered high in comparison to some CDPs. However, Cherrywood SDZ is in close proximity to St Columcille's Hospital in Loughlinstown with additional hospital facilities available in Dún Laoghaire. Therefore it is not recommended that the standards are amended at this stage with potential to review if a hospital was proposed within the SDZ, subject to consultation with the Department of Health.

Civic, Community and Religious Land Use Parking Standards

Standards relating to civic, community and religious land uses are generally comparable or already lower than three of the four CDPs reviewed. Community and religious facilities are considered to have differing peak times (mainly weekends and evenings) in comparison to other non-residential land uses and as such availability of other forms of transport may be limited, such as public transport services may not be as frequent etc. As such it is considered that the current standards are retained.

Leisure and Recreation Land Use Parking Standards

The current leisure and recreation parking standards are considered as comparable or lower than other CDP standards and therefore no amendment is proposed at this time. Standards in relation to pitches are currently considered on a case by case basis and as such already offer the flexibility to restrict parking if required. These land uses are typically associated with short stay trips and as such will achieve a higher turnover of spaces by nature. Furthermore, trips to such land uses are typically linked to other trip purposes, considered as pass by and diverted trips as previously discussed and therefore one parking space is utilised for the duration of stay.

Cycle Parking Standards

The Cherrywood SDZ defers to the DLRCC Cycling Policy in regard to applicable cycle parking standards. The comparative review of cycle standards from other County Development Plans shows that Cherrywood standards are generally equal in comparison across the majority of land uses but are considered low for employment and retail uses.

In light of the proposed car parking standard reduction in relation to HIE and retail, it is considered that the cycle parking provision could also be uplifted on a case by case basis in order to ensure that over-provision does not occur. This also aligns with the CDP review which showed that cycle spaces provided were less per sqm for employment and retail land uses. As well as cycling parking, enhanced facilities and access arrangements should also be considered through cycle parking audits.

For the remainder of land uses, it is considered that cycle parking standards remain as they are currently with a commitment of ongoing monitoring to determine demand and use for such facilities.

It is the intention that DLRCC will review its Cycle Parking Policy in due course and as such the Planning Scheme will take cognisance of any proposed changes to cycle parking requirements when made available.

EV Parking Provision

The Planning Scheme outlines that all car parking spaces within the SDZ are to be future proofed for EVs or 'EV Ready' and the level of EV charging provision should be provided in line with current standards as outlined in the DLR CDP.

The purchase of electric vehicles in Ireland has continued to grow and is expected to grow at an annual rate of 14.59% between 2024 and 2028[8]. However, the non-residential EV demand for Cherrywood SDZ is still unknown, particularly as the scheme is largely undeveloped in terms of non-residential land use types.

Therefore it is considered that the current requirement to future proof all spaces in Cherrywood as set out in the Planning Scheme is considered appropriate and provides flexibility to convert standard parking spaces as and when the demand is realised.

Further Reduction to Proposed Maximum Standards on the basis of Exceptional Circumstances

It is considered that the proposed more restrictive maximum standards will be sought by developers. However, it is accepted that exceptional circumstances may arise where the developer and also DLRCC consider that there is a specific requirement for a lower number of spaces than outlined by the proposed maximum standards.

An example of this would be in instances where there are demonstrable benefits for the SDZ or wider strategic initiatives such as provision of large-scale mobility hubs etc.

Applications that are advocated as being under exceptional circumstances will be considered and will also be subject to the requirements of the Cherrywood Planning Scheme including consultation with the NTA and TII as outlined in Chapter 7 of the Planning Scheme if considered as strategically important.

[8] https://www.statista.com/outlook/mmo/electric-vehicles/ireland

Developers will be expected to outline the rationale for exceptional circumstances including robust evidence and consideration of impacts as well as complementary sustainable transport measures that may be required to support their application.

As such this may require collective delivery between numerous stakeholders including the NTA and TII, and as such will be subject to consultation with stakeholders in order to determine potential locations, programme, management responsibility and cost implications.

Future Further Reductions

As Cherrywood develops further, non-residential car parking standards will systematically be reviewed in order to align with ongoing monitoring undertaken by the NTA and TII. As future sustainable infrastructure and public transport provision is delivered in both Cherrywood SDZ and surrounding areas, DLRCC may consider further reductions to align with overarching policy.

Provision of a MSCP Facility

Since the development of the original Planning Scheme, there has been a shift towards more restrictive parking demand management and ensuring that sustainable travel choices are available in line with over-arching policy and legally binding climate change commitments. This has precipitated a review on the appropriateness of the provision of the proposed MSCP facility, as detailed within Appendix A and summarised as follows:

- The language used withing the current Planning Scheme generally does not align with current trends in parking behaviour.
- For HIE use, a MSCP facility would lend itself more to all day parking as opposed to facilitating turnover of spaces.
- Provision of a MSCP facility may impact the shift towards sustainable modes due to convenience and availability of parking provision.
- A MSCP facility may be misused as an unofficial Park & Ride for Luas users, which does not align with the current NTA GDA Strategy.
- Estimated construction costs for MSCPs are very significant.
- Responsibility for the cost of delivery and day to day operation and maintenance of the site would need to be considered.
- The potential for future repurposing of MSCP facilities is not considered reasonable for a new build MSCP.
- Delivery of a MSCP facility assumes there would be need for additional parking spaces without undertaking any assessment of that need.
- Delivery of a MSCP could potentially impact on development potential within HIE zoned lands.

On the basis of the above factors, the following way forward has been developed in regard to provision of additional car parking over and above the revised HIE parking standards i.e. 1 space per 140sqm.

The provision of additional parking within the SDZ works against the direction of the Planning Scheme going forward i.e. the shift towards travel by sustainable modes and increased sustainable mode share targets.

The revised HIE standard is a maximum standard and as such it is anticipated that developers may also apply for less than the maximum 1 space per 140sqm.

In instances where a HIE development seeks to provide additional car parking provision that exceeds the HIE car parking standard of 1 space per 140sqm floorspace, the applicant should contact DLRCC via the pre-planning process to discuss evidence-based assessments to be undertaken that would

support such proposals. Following this process, the Planning Authority will make a planning decision and may consider any such proposals, on a case-by-case basis, as part of any planning application.

It should be noted that submission of an evidence-based assessment in itself does not mean that additional parking will be approved. If need for additional parking is approved by DLRCC, the provision will be commensurate with the development plot allocations within the SDZ.

Based on the rationale provided above, and in order to align with the recommendations emerging from the non-residential parking study, it is proposed to:

- Remove reference to provision of a MSCP from the Planning Scheme.
- Remove and replace Table 4.5 of the Planning Scheme with the proposed revised HIE standard of 1 space per 140 sqm.
- Remove the methodology of reducing temporary car parking in line with quantum of HIE development delivered.
- Monitor parking usage with the potential to repurpose existing parking areas.

Complementary Solutions

Chapter 6 of this report outlines a number of potential solutions that are feasible for delivery in Cherrywood SDZ in order to complement the revised non-residential parking standards. These additional measures also act the enablers for change in order to achieve the Planning Scheme's mode targets and to contribute to the carbon targets set by wider government And therefore, it is expected that developers consider the delivery of complementary solutions as part of their planning submission. It is considered that multi-modal mobility hubs such as those outlined in the Best Practice section of this report align with over-arching policy and would provide Cherrywood with a variety of sustainable transport solutions in a central location such as the town / village centres, therefore providing realistic choices for residents, visitors and employees.

A number of the potential solutions are also be considered as part of Amendment No. 9 (currently being decided by An Bord Pleanála) in regard to the residential parking standards review. As such, it is considered that provision of mobility hubs, cycle hubs, smart cycle parking etc can act with dual usage for both residential and non-residential demand.

A number of potential Smart solutions are also identified and can provide the ability to collect data on usage and demand, which in turn will ensure that appropriate infrastructure is provided where necessary. DLRCC are currently preparing to tender for a bespoke Smart Parking Study and as such it is recommended that the Smart solutions identified in this report are considered further in the forthcoming study including terms of implementation (developer led / contribution and / or planning conditions) and consistency with the Planning Scheme.

Consideration may be given further to a work place parking levy including expansion to other land use types such as retail, potentially through a stand-alone feasibility study in conjunction with the NTA. It is considered that the expansion of a levy to land use types such as retail aligns with the NTA's current view on destination parking as outlined in the GDA Transport Strategy. It is noted that due to other levying schemes within Cherrywood including one linked to the Luas, that viability may be questionable, therefore an initial feasibility study will identify any potential conflicts from the outset.

Retrospective Planning

It is considered that developers may apply for retrospective planning on the basis of the now available reduced parking rate for HIE and some aspects of retail. This will require submission of revised layouts considering the amended non-residential car parking standards and subsequent repurposing of already provided parking as locations for sustainable mode infrastructure / alternative use.

Re-purposing of Space and Indicative Locations for Sustainable Infrastructure

There are a number of considerations relating to re-purposing of parking spaces following any potential amendment to non-residential parking standards, particularly in relation to developments which have completed construction or have approved planning permission.

Developers must clearly outline the potential usage for re-purposed parking to avoid provision of spaces which are not utilised based on evidence, with consideration given to active travel solutions / infrastructure.

It is considered that the parking proposed for a number of Town Centre quadrants could be re-proposed to provide a mobility hub facility following any amendment to parking standards. Consideration could also be given to a study of area based parking in order to identify potential locations within the SDZ such as areas zoned for HIE and commercial use which could provide additional parking solutions .

Mode Share Targets

Cherrywood aims to lead the way in terms of demand management and enabling travel by sustainable modes as reflected by the recommendations outlined within this report. More restrictive parking standards in relation to non-residential land uses (as well as residential standards as outlined in Amendment No.9) act as a push measure to encourage behavioural change.

It is therefore considered that the current mode share targets outlined within the Planning Scheme may need updated in order to reflect the shift towards more sustainable modes. This is reinforced by the findings from the sequencing and phasing amendment study which is currently ongoing. The study suggests that on the basis of more restrictive parking standards and provision of sustainable infrastructure that the non-car mode share target could potentially be adjusted to 66% compared to the current 53%.

Appendices

Appendix A Multi-Storey Parking Facility Technical Note

Technical Note

Project name	Client	Subject	Date
Cherrywood SDZ – Non Residential Parking Study	Dún Laoghaire Rathdown County Council (DLRCC)	HIE Multi-Storey Parking Considerations	20 September 2024
Prepared by	**Checked by**	**Approved by**	
Claire McComish	Peter Morrow	Peter Morrow	

1. Introduction

This Technical Note has been prepared to consider a solution in relation to the provision of additional permanent multi-storey parking (MSCP) within Cherrywood SDZ designated for High Intensity Employment (HIE) use.

The current Planning Scheme (Chapter 4 Table 4.5) outlines the commitment to provide an additional MSCP facility comprising of up to 1,800 car parking spaces as detailed in Table 1 below. The table outlines that multistorey parking will be provided on a cumulative basis depending on the development threshold reached; with 600 spaces initially provided for between 100-150,000sqm of HIE development and up to 1,800 spaces between 300,000 and 350,000sqm of HIE development.

This facility could provide up to an additional 1,800 spaces over and above parking provided in curtilage as per the current parking standard of 1 space per 100sqm. The Planning Scheme also states that the aim of providing this permanent facility is to enable turnover of spaces in keeping with the mixed-use nature of the SDZ.

Table 1 Cherrywood Planning Scheme Chapter 4 Table 4.5 - High Intensity Employment Parking Provision

Floorspace	Existing	Proposed Development m^2					
	65,000	**65,000 to 100,000**	**100,000 to 150,000**	**150,000 to 200,000**	**200,000 to 250,000**	**250,000 to 300,000**	**300,000 to 350,000**
Employees (est.)	3,250	5,000	7,500	10,000	12,500	15,000	17,500
On-site parking (Cumulative)	1,100	1,450	1,950	2,450	2,950	3,450	3,950
Multistorey (Cumulative)	-	-	**600**	**600**	**1,200**	**1,200**	**1,800**
Temporary Surface (Cumulative) – Flexible	700	1,050	1,200	1,200	600	600	-
Total Cumulative parking	1,800	2,500	3,750	4,250	4,750	5,250	5,750
Parking space to employee ratio Incl. temp. spaces Excl. temp. spaces	55% - 34%	50% - 29%	50% - 34%	43% - 31%	38% - 33%	35% - 31%	33%

2. Non-Residential Parking Study Recommendations

One of the key recommendations within the recently completed non-residential parking study outlines a change to both the applicable HIE parking standard of 1 space per 100sqm and also to the approach taken to the provision of temporary surface parking (as outlined in Table 1).

The study recommends the following:

- The HIE parking standard is revised to 1 space per 140sqm.
- Table 4.5 of the Planning Scheme is replaced with the revised standards, therefore removing the methodology of reducing temporary car parking in line with the quantum of HIE development delivered and replacing it with repurposing existing parking areas to facilitate sustainable mode infrastructure or consideration of dual use parking or to revert to the land use as defined in the Planning Scheme.

The above recommendations in relation to HIE were based on the strong rationale determined by the policy review as well as a review of County Development Plans and analysis of the TRICS database.

Recent discussions with DLRCC have determined that there is no longer an intention to provide a permanent standalone MSCP facility within the SDZ, rather the preference would be that additional HIE parking over and above the proposed revised standard would be provided in existing/proposed basement parking facilities if considered appropriate.

3. Consideration of the Provision of a MSCP Facility

On the basis that Table 4.5 of the Planning Scheme (as shown in Table 1 of this note) is to be replaced with the above recommendations, the provision of an additional permanent MSCP facility within the SDZ would subsequently be impacted.

Since the development of the original Planning Scheme, there has been a shift towards more restrictive parking demand management and ensuring that sustainable travel choices are available in line with over-arching policy and legally binding climate change commitments.

It is considered that the language used within the current Planning Scheme does not generally align with current trends in parking behaviour. The Planning Scheme states that provision of a MSCP facility would facilitate turnover of spaces in keeping with the mixed-use nature of the SDZ. However, it is considered that the nature of a MSCP facility for HIE lends itself more to all day parking i.e. upwards of 8 hours by HIE employees who may then also remain parked to avail of other land-uses nearby.

Furthermore, delivery of an MSCP facility may impact on the SDZ sustainable mode targets i.e. visitors to Cherrywood may not buy in to the shift towards sustainable modes and choose to drive as a MSCP is convenient and available for use. A MSCP may also experience misuse, for example used as an unofficial Park & Ride for Luas users, which does not align with the current NTA GDA Strategy which outlines that Park & Ride sites are not suitable for locations such as Cherrywood.

Another consideration is the associated cost of providing a MSCP parking facility within the SDZ. Currently ball-park costs for MSCPs are in the region of €30k per space[1]. Therefore, if the proposed MSCP facility was to be provided it could cost in excess of €50M to deliver based on 1,800 spaces.

The responsibility for the cost and operation of a MSCP is also a significant factor to consider in terms of who would be responsible for the cost of delivery, presumably via developer contributions and then who would be responsible for day to day operation and maintenance of the site.

The potential for future repurposing of such a site for alternative uses has also been discussed in the past, however the repurposing of MSCPs observed in other jurisdictions has predominantly been on the basis of preexisting MSCPs needing to be repurposed, rather new builds being subsequently repurposed. In any case, by definition there is inherent uncertainty in such decisions and this is considered to be undesirable.

[1] *Values do vary, but a sample of recent new construction MSCPs include a 907 no. spaces £17m facility in Belfast (£19k per space) and a 1,306 no. spaces £32m facility in Blackpool (£24k per space).*

Delivery of a MSCP facility within Cherrywood as per Table 4.5 of the Planning Scheme assumes that there is a need for additional parking spaces over and above those provided as per the proposed revised standard without undertaking any assessment of need.

As a final point, given the defined land use boundaries within the SDZ, delivery of an MSCP could potentially impact on development potential within HIE zoned lands.

4. Recommended Solution

On the basis of the above factors, the following way forward has been developed in regard to provision of additional car parking over and above the revised HIE parking standards i.e. 1 space per 140sqm.

The provision of additional parking within the SDZ works against the direction of the Planning Scheme going forward i.e. shift towards travel by sustainable modes and increased sustainable mode share targets.

The revised HIE standard is a maximum standard and as such it is anticipated that developers may also apply for less than the maximum 1 space per 140sqm.

In instances where a HIE development seeks to provide additional car parking provision that exceeds the HIE car parking standard of 1 space per 140sqm floorspace, the applicant should contact DLRCC via the pre-planning process to discuss evidence-based assessments to be undertaken that would support such proposals. Following this process, the Planning Authority will make a planning decision and may consider any such proposals, on a case-by-case basis, as part of any planning application.

It should be noted that submission of an evidence-based assessment in itself does not mean that additional parking will be approved. If need for additional parking is approved by DLRCC, the provision will be commensurate with the development plot allocations within the SDZ.

5. Conclusion

Based on the rationale outlined within this note, and in order to align with the recommendations emerging from the non-residential parking study, it is proposed to remove reference to provision of a MSCP from the Planning Scheme.

Table 4.5 of the Planning Scheme will be removed and replaced with the proposed revised HIE standard of 1 space per 140sqm.

The methodology of reducing temporary car parking in line with quantum of HIE development delivered will also be removed and parking usage will be monitored with the potential to repurpose existing parking areas to facilitate sustainable mode infrastructure, dual use parking or to revert to the land use as defined in the Planning Scheme.

Reference to provision of a MSCP will also be removed and replaced with the text outlined below.

In instances where a HIE development seeks to provide additional HIE car parking provision that exceeds the HIE car parking standard of 1 space per 140sqm floorspace, the applicant should contact DLRCC via the pre-planning process to discuss evidence-based assessments undertaken that would support such proposals. Following this process, the Planning Authority will make a planning decision and may consider any such proposals, on a case-by-case basis, as part of any planning application. It should be noted that submission of an evidence-based assessment in itself does not mean that additional parking will be approved.

Appendix B TRICS Analysis

Convenience Stores

Total Bays	Average Demand
32	51.46%
8	54.46%
7	77.31%
17	69.68%
12	6.11%
Average MAX	77.16%

Site reference:	AN-01-O-01	Survey date:	14/03/2019	Day of week:	Thursday
Description	Convenience Sto	Town	Lisburn	GFA (sqm)	400
Total Spaces	32	Parking Spaces per 100 sqn	8		

Survey type:	Manual Count				
AM weather:	Cold and Cloudy				
PM weather:	Cold and Clear				
Initial car park occupancy:	2	Final car park occupancy:	9		
BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE					
Parking Capacity	75%	(32 On-Site Spaces)			
Data proportions in %					
Motor cars	91	Motor cycles	0	Public service	0
Light goods	7	OGV (1)	1	OGV (2)	0
Taxis	1				
Servicing Vehicles count recorded	No				

Time	Arr 1367	Dep 1360	Totals 2727	Parking Accum	Arr	Dep	% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00	73	63	136	12	54%	46%	37.50%
08:00-09:00	109	105	214	16	51%	49%	50.00%
09:00-10:00	100	105	205	11	49%	51%	34.38%
10:00-11:00	74	68	142	17	52%	48%	53.13%
11:00-12:00	101	98	199	20	51%	49%	62.50%
12:00-13:00	115	111	226	24	51%	49%	75.00%
13:00-14:00	104	112	216	16	48%	52%	50.00%
14:00-15:00	107	101	208	22	51%	49%	68.75%
15:00-16:00	109	112	221	19	49%	51%	59.38%
16:00-17:00	119	114	233	24	51%	49%	75.00%
17:00-18:00	98	112	210	10	47%	53%	31.25%
18:00-19:00	82	77	159	15	52%	48%	46.88%
19:00-20:00	75	68	143	22	52%	48%	68.75%
20:00-21:00	53	65	118	10	45%	55%	31.25%
21:00-22:00	48	49	97	9	49%	51%	28.13%
22:00-23:00							
23:00-24:00							
Average Parking Usage							51.46%
						MAX	75.00%

Site reference:	AS-01-O-01	Survey date:	##########	Day of week:	Wednesday
Description	Convenience St	Town	Stonehaven	GFA (sqm)	275
Total Spaces	8	Parking Spaces per 100 sq	2.909		
Multi-Modal survey site					
Vehicles surveyed:	Total vehicles				
Survey type:	Manual Count				
AM weather:	Mild and Clear				
PM weather:	Mild and Clear				
Initial car park occupancy:	1	Final car park occupancy:	0		
Total People to Total Vehicles ratio (all time periods and directions): 1.40					
BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE					
Parking Capacity	138%	(8 On-Site Spaces)			
Data proportions in %					
Motor cars	92	Motor cycles	0	Public service	0
Light goods	6	OGV (1)	1	OGV (2)	1
Taxis	0				
Servicing Vehicles count recorded	Yes				

Servicing/Standard Vehicle percentages

	Vehicles	Servicing %	Standard %
OGV (1)	4	100	0
OGV (2)	4	100	0
Light Goods	43	0	100
Motor Car	648	0	100
Motor Cycle			

Time	Arr 350	Dep 351	Totals 701	Parking Accum	Arr	Dep	% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00	16	14	30	3	53%	47%	37.50%
08:00-09:00	17	20	37	0	46%	54%	0.00%
09:00-10:00	25	24	49	1	51%	49%	12.50%
10:00-11:00	23	20	43	4	53%	47%	50.00%
11:00-12:00	28	27	55	5	51%	49%	62.50%
12:00-13:00	32	29	61	8	52%	48%	100.00%
13:00-14:00	21	22	43	7	49%	51%	87.50%
14:00-15:00	30	30	60	7	50%	50%	87.50%
15:00-16:00	37	37	74	7	50%	50%	87.50%
16:00-17:00	42	38	80	11	53%	48%	100.00%
17:00-18:00	37	42	79	6	47%	53%	75.00%
18:00-19:00	20	23	43	3	47%	53%	37.50%
19:00-20:00	14	15	29	2	48%	52%	25.00%
20:00-21:00	8	10	18	0	44%	56%	0.00%
21:00-22:00							
22:00-23:00							
23:00-24:00							
Average Parking Usage							54.46%
						MAX	100.00%

Comments

No motorcycles PSV's or scooters visited the site during this survey.

The initial car park occupant was an LGV.

The maximum parking accumulation exceeding the number of parking spaces at the site is explained by the fact that off-site parking was also included in this survey.

Site reference:	BC-01-O-01	Survey date:	##########	Day of week:	Thursday
Description	Convenience St	Town	Bournemou	GFA (sqm)	550
Total Spaces	7	Parking Spaces per 100 sq	1.273		

Multi-Modal survey site

Vehicles surveyed:	Total vehicles
Survey type:	Manual Count
AM weather:	Mild and Cloudy
PM weather:	Mild and Cloudy

Initial car park occupancy:	0	Final car park occupancy:	0		

Total People to Total Vehicles ratio (all time periods and directions): 3.18

BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE

Parking Capacity	257%	(7 On-Site Spaces)			
Data proportions in %					0
Motor cars	59	Motor cycles	30	Public service	0
Light goods	7	OGV (1)	0	OGV (2)	0
Taxis	4				
Servicing Vehicles count recorded	Yes				

Servicing/Standard Vehicle percentages

	Vehicles	Servicing %	Standard %
OGV (1)	2	100	0
OGV (2)	0		
Light Goods	52	38	62
Motor Car	456	0	100
Motor Cycle	228	97	3

Time	Arr 384	Dep 384	Totals 768	Parking Accum	Arr	Dep	% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00	4	2	6	2	67%	33%	28.57%
07:00-08:00	6	3	9	5	67%	33%	71.43%
08:00-09:00	14	15	29	4	48%	52%	57.14%
09:00-10:00	26	20	46	10	57%	43%	100.00%
10:00-11:00	23	22	45	11	51%	49%	100.00%
11:00-12:00	28	27	55	12	51%	49%	100.00%
12:00-13:00	33	36	69	9	48%	52%	100.00%
13:00-14:00	37	28	65	18	57%	43%	100.00%
14:00-15:00	23	26	49	15	47%	53%	100.00%
15:00-16:00	25	28	53	12	47%	53%	100.00%
16:00-17:00	29	26	55	15	53%	47%	100.00%
17:00-18:00	33	31	64	17	52%	48%	100.00%
18:00-19:00	36	40	76	13	47%	53%	100.00%
19:00-20:00	30	32	62	11	48%	52%	100.00%
20:00-21:00	26	34	60	3	43%	57%	42.86%
21:00-22:00	10	12	22	1	45%	55%	14.29%
22:00-23:00	1	2	3	0	33%	67%	0.00%
23:00-24:00							
Average Parking Usage							77.31%
						MAX	100.00%

Comments

No PSVs visited the site during this survey.

The high proportion of motorcycles at this site is explained by which was in operation at the time of this survey (pedal cycles were also operating this service).

The maximum parking accumulation exceeding the number of available on-site parking spaces can be explained by the inclusion of off-site parking in this survey.

Site reference:	SD-01-O-01	Survey date:	23/09/2016	Day of week:	Friday				
Description	Convenience St	Town	Swindon	GFA (sqm)	292				
Total Spaces	17	Parking Spaces per 100 sqr	5.822						
Multi-Modal survey site									
Vehicles surveyed:	Total vehicles								
Survey type:	Manual Count								
AM weather:	Mild and Clear								
PM weather:	Mild and Clear								
Initial car park occupancy:	6	Final car park occupancy:	16						
Total People to Total Vehicles ratio (all time periods and directions): 2.25									
BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE									
Parking Capacity	94%	(17 On-Site Spaces)							
Data proportions in %									
Motor cars	82	Motor cycles	1	Public service	0				
Light goods	14	OGV (1)	1	OGV (2)	0				
Taxis	2								
Servicing Vehicles count recorded	No								

Time	Arr 604	Dep 594	Totals 1198	Parking Accum	Arr	Dep	% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00	46	45	91	7	51%	49%	41.18%
08:00-09:00	50	52	102	5	49%	51%	29.41%
09:00-10:00	41	35	76	11	54%	46%	64.71%
10:00-11:00	30	28	58	13	52%	48%	76.47%
11:00-12:00	37	39	76	11	49%	51%	64.71%
12:00-13:00	56	53	109	14	51%	49%	82.35%
13:00-14:00	29	32	61	11	48%	52%	64.71%
14:00-15:00	34	34	68	11	50%	50%	64.71%
15:00-16:00	42	40	82	13	51%	49%	76.47%
16:00-17:00	50	49	99	14	51%	49%	82.35%
17:00-18:00	50	51	101	13	50%	50%	76.47%
18:00-19:00	71	69	140	15	51%	49%	88.24%
19:00-20:00	68	67	135	16	50%	50%	94.12%
20:00-21:00							
21:00-22:00							
22:00-23:00							
23:00-24:00							
Average Parking Usage							69.68%
						MAX	94.12%

Site reference:	TW-01-O-02	Survey date:	07/04/2017	Day of week:	Friday
Description	Convenience St	Town	Sunderland	GFA (sqm)	330
Total Spaces	12	Parking Spaces per 100 sq	3.636		

Multi-Modal survey site

Vehicles surveyed:	Total vehicles
Survey type:	Manual Count
AM weather:	Cold and Cloudy
PM weather:	Cold and Clear
Initial car park occupancy:	Final car park occupancy:

Total People to Total Vehicles ratio (all time periods and directions): 5.08

BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE

Parking Capacity

Data proportions in %

Motor cars	87	Motor cycles	0	Public service	0
Light goods	0	OGV (1)	0	OGV (2)	0
Taxis	13				

Servicing Vehicles count recorded: No

Time	Arr 46	Dep 46	Totals 92	Parking Accum	Arr	Dep	% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00	6	4	10	-2	60%	40%	16.67%
08:00-09:00	2	4	6	0	33%	67%	0.00%
09:00-10:00	4	4	8	0	50%	50%	0.00%
10:00-11:00	3	4	7	-1	43%	57%	8.33%
11:00-12:00	4	5	9	-2	44%	56%	16.67%
12:00-13:00	3	3	6	-2	50%	50%	16.67%
13:00-14:00	4	2	6	0	67%	33%	0.00%
14:00-15:00	4	4	8	0	50%	50%	0.00%
15:00-16:00	4	5	9	-1	44%	56%	8.33%
16:00-17:00	3	3	6	-1	50%	50%	8.33%
17:00-18:00	3	2	5	0	60%	40%	0.00%
18:00-19:00	2	2	4	0	50%	50%	0.00%
19:00-20:00	2	1	3	-1	67%	33%	8.33%
20:00-21:00	2	2	4	-1	50%	50%	8.33%
21:00-22:00	0	1	1	0	0%	100%	0.00%
22:00-23:00							
23:00-24:00							
Average Parking Usage							6.11%
						MAX	16.67%

Comments

No OGV's PSV's LGV's motorcycles or pedal cycles visited the site during this survey.

Discount Food Stores

Total Bays	Average Demand
80	21.42%
96	34.11%
104	23.92%
134	30.15%
134	19.35%
115	40.17%
122	26.70%
164	17.11%
101	26.92%
95	39.67%
Average MAX	48.71%

Site reference:	AN-01-C-02	Survey date:	12/10/2016	Day of week:	Wednesday
Description	Discount Food St	Town	Carrickfergus	GFA (sqm)	1325
Total Spaces	80	Parking Spaces per 100 sqm	6.038		
Multi-Modal survey site					
Vehicles surveyed:	Total vehicles				
Survey type:	Manual Count				
AM weather:	Mild and Clear				
PM weather:	Cold and Clear				
Initial car park occupancy:	0	Final car park occupancy:	2		

Total People to Total Vehicles ratio (all time periods and directions): 1.26

BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE

Parking Capacity	40%	(80 On-Site Spaces)			
Data proportions in %					
Motor cars	96	Motor cycles	0	Public service	0
Light goods	3	OGV (1)	0	OGV (2)	0
Taxis	1				
Servicing Vehicles count recorded	No				

Time	Arr 836	Dep 834	Totals 1670	Parking Accum	Arr	Dep	% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00	7	4	11	3	64%	36%	3.75%
08:00-09:00	46	30	76	19	61%	39%	23.75%
09:00-10:00	46	41	87	24	53%	47%	30.00%
10:00-11:00	46	39	85	31	54%	46%	38.75%
11:00-12:00	70	69	139	32	50%	50%	40.00%
12:00-13:00	66	72	138	26	48%	52%	32.50%
13:00-14:00	77	82	159	21	48%	52%	26.25%
14:00-15:00	77	73	150	25	51%	49%	31.25%
15:00-16:00	101	96	197	30	51%	49%	37.50%
16:00-17:00	83	92	175	21	47%	53%	26.25%
17:00-18:00	81	90	171	12	47%	53%	15.00%
18:00-19:00	61	72	133	1	46%	54%	1.25%
19:00-20:00	46	39	85	8	54%	46%	10.00%
20:00-21:00	28	34	62	2	45%	55%	2.50%
21:00-22:00	1	1	2	2	50%	50%	2.50%
22:00-23:00							
23:00-24:00							
Average Parking Usage							21.42%

Comments	MAX	40.00%

No PSV's visited the site during this survey.

No public transport users visited the site during this survey.

Site reference:	CA-01-C-01	Survey date:	21/10/2016	Day of week:	Friday		
Description	Discount Food St	Town	Wisbech	GFA (sqm)	1466		
Total Spaces	96	Parking Spaces per 100 sqn	6.548				
Multi-Modal survey site							
Vehicles surveyed:	Total vehicles						
Survey type:	Manual Count						
AM weather:	Cold and Cloudy						
PM weather:	Cold and Cloudy						
Initial car park occupancy:	12	Final car park occupancy:	5				
Total People to Total Vehicles ratio (all time periods and directions): 1.78							
BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE							
Parking Capacity	59%	(96 On-Site Spaces)					
Data proportions in %							
Motor cars	94	Motor cycles	0	Public service	0		
Light goods	5	OGV (1)	1	OGV (2)	0		
Taxis	0						
Servicing Vehicles count recorded	No						

Time	Arr 900	Dep 907	Totals 1807	Parking Accum	Arr	Dep	% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00	15	9	24	18	63%	38%	18.75%
08:00-09:00	49	29	78	38	63%	37%	39.58%
09:00-10:00	59	60	119	37	50%	50%	38.54%
10:00-11:00	81	70	151	48	54%	46%	50.00%
11:00-12:00	79	84	163	43	48%	52%	44.79%
12:00-13:00	81	67	148	57	55%	45%	59.38%
13:00-14:00	75	83	158	49	47%	53%	51.04%
14:00-15:00	102	99	201	52	51%	49%	54.17%
15:00-16:00	77	92	169	37	46%	54%	38.54%
16:00-17:00	72	76	148	33	49%	51%	34.38%
17:00-18:00	70	71	141	32	50%	50%	33.33%
18:00-19:00	55	61	116	26	47%	53%	27.08%
19:00-20:00	47	49	96	24	49%	51%	25.00%
20:00-21:00	22	31	53	15	42%	58%	15.63%
21:00-22:00	12	17	29	10	41%	59%	10.42%
22:00-23:00	4	9	13	5	31%	69%	5.21%
23:00-24:00							
Average Parking Usage							34.11%
						MAX	59.38%

Comments

No taxis PSVs train passengers or coach passengers either entered or exited the site on the day of the survey.

At least two of the initial car park occupants were OGVs at least seven of them were cars and at least one of them was an LGV.

At least three of the final car park occupants were LGVs.

Site reference:	CF-01-C-01	Survey date:	29/06/2017	Day of week:	Thursday
Description	Discount Food St	Town	Cardiff	GFA (sqm)	2568
Total Spaces	104	Parking Spaces per 100 sqm	4.05		

Multi-Modal survey site

Vehicles surveyed:	Total vehicles
Survey type:	Manual Count
AM weather:	Mild and Cloudy
PM weather:	Mild and Cloudy

Initial car park occupancy:	4	Final car park occupancy:	0		

Total People to Total Vehicles ratio (all time periods and directions): 2.19

BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE

Parking Capacity	51%	(104 On-Site Spaces)			

Data proportions in %

Motor cars	90	Motor cycles	0	Public service	0
Light goods	7	OGV (1)	0	OGV (2)	0
Taxis	3				

Servicing Vehicles count recorded: Yes

Servicing/Standard Vehicle percentages

	Vehicles	Servicing %	Standard %
OGV (1)	8	25	75
OGV (2)	4	100	0
Light Goods	175	2	98
Motor Car	2201	0	100

Time	Arr 1227	Dep 1231	Totals 2458	Parking Accum	Arr	Dep	% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00	15	4	19	15	79%	21%	14.42%
08:00-09:00	97	89	186	23	52%	48%	22.12%
09:00-10:00	98	68	166	53	59%	41%	50.96%
10:00-11:00	93	117	210	29	44%	56%	27.88%
11:00-12:00	122	110	232	41	53%	47%	39.42%
12:00-13:00	115	122	237	34	49%	51%	32.69%
13:00-14:00	109	109	218	34	50%	50%	32.69%
14:00-15:00	100	103	203	31	49%	51%	29.81%
15:00-16:00	83	84	167	30	50%	50%	28.85%
16:00-17:00	95	89	184	36	52%	48%	34.62%
17:00-18:00	75	93	168	18	45%	55%	17.31%
18:00-19:00	107	101	208	24	51%	49%	23.08%
19:00-20:00	56	66	122	14	46%	54%	13.46%
20:00-21:00	33	34	67	13	49%	51%	12.50%
21:00-22:00	29	39	68	3	43%	57%	2.88%
22:00-23:00	0	3	3	0	0%	100%	0.00%
23:00-24:00							
Average Parking Usage							23.92%

Comments

MAX 50.96%

No PSV's visited the site during this survey.

Site reference:	DE-01-C-01	Survey date:	22/06/2021	Day of week:	Tuesday
Description	Discount Food St	Town	Magherafelt	GFA (sqm)	2114
Total Spaces	134	Parking Spaces per 100 sqm	6.339		

Multi-Modal survey site

Vehicles surveyed:	Total vehicles
Survey type:	Manual Count
AM weather:	Mild and Clear
PM weather:	Mild and Cloudy

Initial car park occupancy:	13	Final car park occupancy:	5		

Total People to Total Vehicles ratio (all time periods and directions): 1.43

BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE

Parking Capacity	54%	(134 On-Site Spaces)			

Data proportions in %

Motor cars	94	Motor cycles	0	Public service	0
Light goods	6	OGV (1)	0	OGV (2)	0
Taxis	0				

Covid-19 Restrictions	Yes	Survey was undertaken at a time of Covid-19 restrictions
Servicing Vehicles count recorded	Yes	

Servicing/Standard Vehicle percentages

	Vehicles	Servicing %	Standard %
OGV (1)	2	100	0
OGV (2)	2	100	0
Light Goods	149	0	100
Motor Car	2209	0	100
Motor Cycle	4	0	100

Time	Arr 1181	Dep 1189	Totals 2370	Parking Accum	Arr	Dep	% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00	9	0	9	22	100%	0%	16.42%
08:00-09:00	62	43	105	41	59%	41%	30.60%
09:00-10:00	72	76	148	37	49%	51%	27.61%
10:00-11:00	97	74	171	60	57%	43%	44.78%
11:00-12:00	99	99	198	60	50%	50%	44.78%
12:00-13:00	101	98	199	63	51%	49%	47.01%
13:00-14:00	115	106	221	72	52%	48%	53.73%
14:00-15:00	100	121	221	51	45%	55%	38.06%
15:00-16:00	118	118	236	51	50%	50%	38.06%
16:00-17:00	99	100	199	50	50%	50%	37.31%
17:00-18:00	109	119	228	40	48%	52%	29.85%
18:00-19:00	75	96	171	19	44%	56%	14.18%
19:00-20:00	76	70	146	25	52%	48%	18.66%
20:00-21:00	46	61	107	10	43%	57%	7.46%
21:00-22:00	3	8	11	5	27%	73%	3.73%
22:00-23:00							
23:00-24:00							
Average Parking Usage							30.15%
						MAX	53.73%

Comments

No PSVs or rail passengers arrived at or departed from the site during this survey.
The coach passengers recorded arriving at the site in the morning were school children disembarking school buses outside the site and visiting before walking on to school.
At least seven of the initial car park occupants were cars and at least one was an LGV.

Site reference:	DL-01-C-01	Survey date:	20/06/2018	Day of week:	Wednesday
Description	Discount Food St	Town	Dublin	GFA (sqm)	2163
Total Spaces	134	Parking Spaces per 100 sqm	6.195		

Multi-Modal survey site

Vehicles surveyed:	Total vehicles				
Survey type:	Manual Count				
AM weather:	Cold and Cloudy				
PM weather:	Cold and Clear				
Initial car park occupancy:	2	Final car park occupancy:	5		

Total People to Total Vehicles ratio (all time periods and directions): 1.67

BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE

Parking Capacity 35% (134 On-Site Spaces)

Data proportions in %

Motor cars	93	Motor cycles	0	Public service	0
Light goods	5	OGV (1)	1	OGV (2)	0
Taxis	1				

Servicing Vehicles count recorded: Yes

Servicing/Standard Vehicle percentages

	Vehicles	Servicing %	Standard %
OGV (1)	12	33	67
OGV (2)	8	75	25
Light Goods	110	0	100
Motor Car	2111	0	100

Time	Arr 1142	Dep 1139	Totals 2281	Parking Accum	Arr	Dep	% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00	6	2	8	6	75%	25%	4.48%
08:00-09:00	40	32	72	14	56%	44%	10.45%
09:00-10:00	70	56	126	28	56%	44%	20.90%
10:00-11:00	86	67	153	47	56%	44%	35.07%
11:00-12:00	83	99	182	31	46%	54%	23.13%
12:00-13:00	109	93	202	47	54%	46%	35.07%
13:00-14:00	106	120	226	33	47%	53%	24.63%
14:00-15:00	79	83	162	29	49%	51%	21.64%
15:00-16:00	99	93	192	35	52%	48%	26.12%
16:00-17:00	111	116	227	30	49%	51%	22.39%
17:00-18:00	93	97	190	26	49%	51%	19.40%
18:00-19:00	95	100	195	21	49%	51%	15.67%
19:00-20:00	73	74	147	20	50%	50%	14.93%
20:00-21:00	52	55	107	17	49%	51%	12.69%
21:00-22:00	40	52	92	5	43%	57%	3.73%
22:00-23:00							
23:00-24:00							
Average Parking Usage							19.35%

Comments MAX 35.07%

No rail passengers or coach passengers arrived at or departed from the site during this survey.

At least one of the final car park occupants was a car and at least two were motorcycles.

Site reference:	KE-01-C-01	Survey date:	17/10/2019	Day of week:	Thursday
Description	Discount Food St	Town	Killarney	GFA (sqm)	1354
Total Spaces	115	Parking Spaces per 100 sqm	8.493		

Multi-Modal survey site

Vehicles surveyed:	Total vehicles				
Survey type:	Manual Count				
AM weather:	Cold and Light Rain				
PM weather:	Cold and Light Rain				
Initial car park occupancy:	25	Final car park occupancy:	12		

Total People to Total Vehicles ratio (all time periods and directions): 1.44

BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE

Parking Capacity 65% (115 On-Site Spaces)

Data proportions in %

Motor cars	95	Motor cycles	0	Public service	0
Light goods	4	OGV (1)	0	OGV (2)	0
Taxis	1				

Servicing Vehicles count recorded: Yes

Servicing/Standard Vehicle percentages

	Vehicles	Servicing %	Standard %
OGV (1)	2	100	0
OGV (2)	0		
Light Goods	107	6	94
Motor Car	2382	0	100
Motor Cycle	2	0	100

Time	Arr 1251	Dep 1264	Totals 2515	Parking Accum	Arr	Dep	% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00							
08:00-09:00	16	6	22	35	73%	27%	30.43%
09:00-10:00	89	71	160	53	56%	44%	46.09%
10:00-11:00	108	94	202	67	53%	47%	58.26%
11:00-12:00	107	99	206	75	52%	48%	65.22%
12:00-13:00	105	122	227	58	46%	54%	50.43%
13:00-14:00	127	110	237	75	54%	46%	65.22%
14:00-15:00	107	122	229	60	47%	53%	52.17%
15:00-16:00	112	107	219	65	51%	49%	56.52%
16:00-17:00	131	143	274	53	48%	52%	46.09%
17:00-18:00	101	112	213	42	47%	53%	36.52%
18:00-19:00	99	105	204	36	49%	51%	31.30%
19:00-20:00	76	84	160	28	48%	53%	24.35%
20:00-21:00	55	62	117	21	47%	53%	18.26%
21:00-22:00	17	25	42	13	40%	60%	11.30%
22:00-23:00	1	2	3	12	33%	67%	10.43%
23:00-24:00							
Average Parking Usage							40.17%

Comments

MAX 65.22%

No PSV's visited the site during this survey.

No public transport users visited the site during this survey.

Site reference:	LU-01-C-02	Survey date:	22/09/2021	Day of week:	Wednesday
Description	Discount Food St	Town	Drogheda	GFA (sqm)	1745
Total Spaces	122	Parking Spaces per 100 sqn	6.991		

Multi-Modal survey site

Vehicles surveyed:	Total vehicles
Survey type:	Manual Count
AM weather:	Cold and Cloudy
PM weather:	Cold and Cloudy

Initial car park occupancy:	3	Final car park occupancy:	2		

Total People to Total Vehicles ratio (all time periods and directions): 1.33

BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE

Parking Capacity	43%	(122 On-Site Spaces)			
Data proportions in %					
Motor cars	95	Motor cycles	0	Public service	0
Light goods	4	OGV (1)	0	OGV (2)	0
Taxis	1				
Covid-19 Restrictions	Yes	Survey was undertaken at a time of Covid-19 restrictions			
Servicing Vehicles count recorded	No				

Time	Arr 987	Dep 988	Totals 1975	Parking Accum	Arr	Dep	% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00							
08:00-09:00	19	4	23	18	83%	17%	14.75%
09:00-10:00	49	36	85	31	58%	42%	25.41%
10:00-11:00	78	58	136	51	57%	43%	41.80%
11:00-12:00	101	109	210	43	48%	52%	35.25%
12:00-13:00	84	85	169	42	50%	50%	34.43%
13:00-14:00	70	72	142	40	49%	51%	32.79%
14:00-15:00	76	76	152	40	50%	50%	32.79%
15:00-16:00	98	86	184	52	53%	47%	42.62%
16:00-17:00	96	113	209	35	46%	54%	28.69%
17:00-18:00	100	93	193	42	52%	48%	34.43%
18:00-19:00	94	96	190	40	49%	51%	32.79%
19:00-20:00	62	86	148	16	42%	58%	13.11%
20:00-21:00	43	55	98	4	44%	56%	3.28%
21:00-22:00	17	19	36	2	47%	53%	1.64%
22:00-23:00							
23:00-24:00							
Average Parking Usage							26.70%

Comments					MAX	42.62%

No PSVs visited the site during this survey.

At least one of the initial car park occupants was a car.

Site reference:	NT-01-C-01	Survey date:	15/07/2016	Day of week:	Friday
Description	Discount Food St	Town	Bingham	GFA (sqm)	2440
Total Spaces	164	Parking Spaces per 100 sqm	6.721		

Multi-Modal survey site

Vehicles surveyed:	Total vehicles				
Survey type:	Manual Count				
AM weather:	Hot and Cloudy				
PM weather:	Hot and Cloudy				
Initial car park occupancy:	7	Final car park occupancy:	8		

Total People to Total Vehicles ratio (all time periods and directions): 1.46

BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE

Parking Capacity	27%	(164 On-Site Spaces)			
Data proportions in %					
Motor cars	96	Motor cycles	0	Public service	0
Light goods	4	OGV (1)	0	OGV (2)	0
Taxis	0				
Servicing Vehicles count recorded	No				

Time	Arr 1107	Dep 1106	Totals 2213	Parking Accum	Arr	Dep	% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00	0	0	0	7	0%	0%	4.27%
08:00-09:00	47	33	80	21	59%	41%	12.80%
09:00-10:00	86	70	156	37	55%	45%	22.56%
10:00-11:00	89	99	188	27	47%	53%	16.46%
11:00-12:00	96	86	182	37	53%	47%	22.56%
12:00-13:00	102	98	200	41	51%	49%	25.00%
13:00-14:00	112	122	234	31	48%	52%	18.90%
14:00-15:00	98	107	205	22	48%	52%	13.41%
15:00-16:00	111	112	223	21	50%	50%	12.80%
16:00-17:00	96	85	181	32	53%	47%	19.51%
17:00-18:00	95	82	177	45	54%	46%	27.44%
18:00-19:00	62	71	133	36	47%	53%	21.95%
19:00-20:00	62	61	123	37	50%	50%	22.56%
20:00-21:00	51	52	103	36	50%	50%	21.95%
21:00-22:00	0	25	25	11	0%	100%	6.71%
22:00-23:00	0	3	3	8	0%	100%	4.88%
23:00-24:00							
Average Parking Usage							17.11%

Comments						MAX	27.44%

No PSV's or taxis visited the site during this survey.

No public transport users visited the site during this survey.

Site reference:	SM-01-C-01	Survey date:	22/06/2017	Day of week:	Thursday
Description	Discount Food St	Town	Minehead	GFA (sqm)	2247
Total Spaces	101	Parking Spaces per 100 sqm	4.495		

Multi-Modal survey site

Vehicles surveyed:	Total vehicles				
Survey type:	Manual Count				
AM weather:	Mild and Cloudy				
PM weather:	Mild and Clear				
Initial car park occupancy:	2	Final car park occupancy:	2		

Total People to Total Vehicles ratio (all time periods and directions): 1.83

BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE

Parking Capacity 49% (101 On-Site Spaces)

Data proportions in %

Motor cars	94	Motor cycles	1	Public service	0
Light goods	5	OGV (1)	0	OGV (2)	0
Taxis	0				

Servicing Vehicles count recorded: Yes

Servicing/Standard Vehicle percentages

	Vehicles	Servicing %	Standard %
OGV (1)	2	100	0
OGV (2)	0		
Light Goods	110	0	100
Motor Car	2098	0	100

Time	Arr 1115	Dep 1115	Totals 2230	Parking Accum	Arr	Dep	% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00	6	1	7	7	86%	14%	6.93%
08:00-09:00	40	31	71	16	56%	44%	15.84%
09:00-10:00	79	61	140	34	56%	44%	33.66%
10:00-11:00	97	82	179	49	54%	46%	48.51%
11:00-12:00	120	128	248	41	48%	52%	40.59%
12:00-13:00	115	111	226	45	51%	49%	44.55%
13:00-14:00	101	107	208	39	49%	51%	38.61%
14:00-15:00	107	115	222	31	48%	52%	30.69%
15:00-16:00	108	102	210	37	51%	49%	36.63%
16:00-17:00	96	92	188	41	51%	49%	40.59%
17:00-18:00	101	103	204	39	50%	50%	38.61%
18:00-19:00	80	88	168	31	48%	52%	30.69%
19:00-20:00	40	53	93	18	43%	57%	17.82%
20:00-21:00	24	39	63	3	38%	62%	2.97%
21:00-22:00	1	2	3	2	33%	67%	1.98%
22:00-23:00	0	0	0	2	0%	0%	1.98%
23:00-24:00							
Average Parking Usage							26.92%

Comments

MAX 48.51%

No PSV's visited the site during this survey.

Site reference:	WM-01-C-01	Survey date:	12/07/2016	Day of week:	Tuesday
Description	Discount Food St	Town	Birmingham	GFA (sqm)	2085
Total Spaces	95	Parking Spaces per 100 sqn	4.556		

Multi-Modal survey site

Vehicles surveyed:	Total vehicles
Survey type:	Manual Count
AM weather:	Hot and Cloudy
PM weather:	Hot and Heavy Rain

Initial car park occupancy:	9	Final car park occupancy:	4		
Parking Capacity	64%	(95 On-Site Spaces)			
Motor cars	93	Motor cycles	0	Public service	0
Light goods	5	OGV (1)	0	OGV (2)	0
Taxis	2				

Total People to Total Vehicles ratio (all time periods and directions): 1.91

BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE

Data proportions in %

Servicing Vehicles count recorded: No

Time	Arr 1010	Dep 1015	Totals 2025	Parking Accum	Arr	Dep	% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00	4	0	4	13	100%	0%	13.68%
08:00-09:00	57	30	87	40	66%	34%	42.11%
09:00-10:00	85	68	153	57	56%	44%	60.00%
10:00-11:00	68	64	132	61	52%	48%	64.21%
11:00-12:00	65	65	130	61	50%	50%	64.21%
12:00-13:00	64	64	128	61	50%	50%	64.21%
13:00-14:00	90	95	185	56	49%	51%	58.95%
14:00-15:00	75	97	172	34	44%	56%	35.79%
15:00-16:00	124	109	233	49	53%	47%	51.58%
16:00-17:00	92	101	193	40	48%	52%	42.11%
17:00-18:00	113	109	222	44	51%	49%	46.32%
18:00-19:00	93	110	203	27	46%	54%	28.42%
19:00-20:00	56	53	109	30	51%	49%	31.58%
20:00-21:00	21	33	54	18	39%	61%	18.95%
21:00-22:00	3	13	16	8	19%	81%	8.42%
22:00-23:00	0	4	4	4	0%	100%	4.21%
23:00-24:00							
Average Parking Usage							39.67%
						MAX	64.21%

Comments

No PSV's or motorcycles visited the site during this survey.

When the OGV space at the site is occupied other OGV's parking at the site park in the general parking area.

Supermarkets

Total Bays	Average Demand
312	24.02%
141	35.06%
368	40.22%
811	19.53%
304	17.64%
228	22.46%
216	38.10%
241	31.66%
291	47.08%
302	35.54%

MAX Average	53.27%

Site reference:	CA-01-A-04	Survey date:	17/05/2023	Day of week:	Wednesday
Description	Supermarket	Town	Cambridge	Site area (sqm)	3231
Total Spaces	141	Parking Spaces per 100 sq	4.364		

Multi-Modal survey site

Vehicles surveyed:	Total vehicles
Survey type:	Manual Count
AM weather:	Mild and Cloudy
PM weather:	Mild and Cloudy

Initial car park occupancy:	4	Final car park occupancy:	7

Total People to Total Vehicles ratio (all time periods and directions): 3.62

BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE

Parking Capacity 55% (141 On-Site Spaces)

Data proportions in %

Motor cars	98	Motor cycles	0	Public service	0
Light goods	1	OGV (1)	0	OGV (2)	0
Taxis	1				

Servicing Vehicles count recorded: Yes

Servicing/Standard Vehicle percentages

	Vehicles	Servicing %	Standard %
OGV (1)	6	100	0
OGV (2)	3	100	0
Light Goods	14	29	71
Motor Car	1962	0	100
Motor Cycle	2	0	100

Time	Arr 1003	Dep 1000	Totals 2003	Parking Accum	Arr	Dep	% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00	19	1	20	22	95%	5%	15.60%
08:00-09:00	43	42	85	23	51%	49%	16.31%
09:00-10:00	62	33	95	52	65%	35%	36.88%
10:00-11:00	63	48	111	67	57%	43%	47.52%
11:00-12:00	67	66	133	68	50%	50%	48.23%
12:00-13:00	113	103	216	78	52%	48%	55.32%
13:00-14:00	78	82	160	74	49%	51%	52.48%
14:00-15:00	77	90	167	61	46%	54%	43.26%
15:00-16:00	113	110	223	64	51%	49%	45.39%
16:00-17:00	82	82	164	64	50%	50%	45.39%
17:00-18:00	101	97	198	68	51%	49%	48.23%
18:00-19:00	85	88	173	65	49%	51%	46.10%
19:00-20:00	60	89	149	36	40%	60%	25.53%
20:00-21:00	21	33	54	24	39%	61%	17.02%
21:00-22:00	19	25	44	18	43%	57%	12.77%
22:00-23:00	0	11	11	7	0%	100%	4.96%
23:00-24:00							
Average Parking Usage							35.06%
						MAX	55.32%

Comments

No PSV's visited the site during this survey.

Site reference:	AN-01-A-05	Survey date:	25/09/2015	Day of week:	Friday
Description	Supermarket	Town	Belfast	Site area (sqm)	2900
Total Spaces	312	Parking Spaces per 100 sq	10.759		

Survey type:	Manual Count						
AM weather:	Cold and Cloudy						
PM weather:	Mild and Light Rain						
Initial car park occupancy:	7	Final car park occupancy:	12				
BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE							
Parking Capacity	39%	(312 On-Site Spaces)					
Data proportions in %							
Motor cars	91	Motor cycles	1	Public service			
Light goods	3	OGV (1)	0	OGV (2)	0		
Taxis	5				0		
Servicing Vehicles count recorded	No						

Time	Arr 3504	Dep 3499	Totals 7003	Parking Accum			
00:00-01:00	2	6	8	12	Arr	Dep	% Spaces Filled
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00	34	23	57	18	60%	40%	5.77%
08:00-09:00	125	93	218	50	57%	43%	16.03%
09:00-10:00	195	161	356	84	55%	45%	26.92%
10:00-11:00	221	208	429	97	52%	48%	31.09%
11:00-12:00	225	199	424	123	53%	47%	39.42%
12:00-13:00	254	276	530	101	48%	52%	32.37%
13:00-14:00	256	266	522	91	49%	51%	29.17%
14:00-15:00	265	265	530	91	50%	50%	29.17%
15:00-16:00	329	309	638	111	52%	48%	35.58%
16:00-17:00	316	324	640	103	49%	51%	33.01%
17:00-18:00	307	306	613	104	50%	50%	33.33%
18:00-19:00	327	353	680	78	48%	52%	25.00%
19:00-20:00	280	315	595	43	47%	53%	13.78%
20:00-21:00	168	122	290	89	58%	42%	28.53%
21:00-22:00	122	155	277	56	44%	56%	17.95%
22:00-23:00	60	97	157	19	38%	62%	6.09%
23:00-24:00	18	21	39	16	46%	54%	5.13%
Average Parking Usage							24.02%
						MAX	39.42%

Site reference:	DY-01-A-01	Survey date:	26/06/2015	Day of week:	Friday
Description	Supermarket	Town	Derby	Site area (sqm)	9500
Total Spaces	368	Parking Spaces per 100 sq	3.874		

Survey type:	Manual Count				
AM weather:	Mild and Cloudy				
PM weather:	Mild and Light Rain				
Initial car park occupancy:	34	Final car park occupancy:	41		
BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE					
Parking Capacity	67%	(368 On-Site Spaces)			
Data proportions in %					
Motor cars	96	Motor cycles	0	Public service	0
Light goods	3	OGV (1)	0	OGV (2)	0
Taxis	1				
Servicing Vehicles count recorded	No				

Time	Arr 5315	Dep 5308	Totals 10623	Parking Accum	Arr	Dep	% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00	247	221	468	60	53%	47%	16.30%
08:00-09:00	318	290	608	88	52%	48%	23.91%
09:00-10:00	404	361	765	131	53%	47%	35.60%
10:00-11:00	408	400	808	139	50%	50%	37.77%
11:00-12:00	473	469	942	143	50%	50%	38.86%
12:00-13:00	527	466	993	204	53%	47%	55.43%
13:00-14:00	491	449	940	246	52%	48%	66.85%
14:00-15:00	413	418	831	241	50%	50%	65.49%
15:00-16:00	376	425	801	192	47%	53%	52.17%
16:00-17:00	349	345	694	196	50%	50%	53.26%
17:00-18:00	366	369	735	193	50%	50%	52.45%
18:00-19:00	329	383	712	139	46%	54%	37.77%
19:00-20:00	285	298	583	126	49%	51%	34.24%
20:00-21:00	189	234	423	81	45%	55%	22.01%
21:00-22:00	140	180	320	41	44%	56%	11.14%
22:00-23:00							
23:00-24:00							
Average Parking Usage							40.22%
						MAX	66.85%

Comments

No PSVs or motor cyclists entered the site on the day of the survey

Site reference:	EB-01-A-01	Survey date:	27/04/2018	Day of week:	Friday
Description	Supermarket	Town	Edinburgh	Site area (sqm)	15124
Total Spaces	811	Parking Spaces per 100 sq	5.362		

Multi-Modal survey site

Vehicles surveyed:	Total vehicles
Survey type:	Manual Count
AM weather:	Cold and Cloudy
PM weather:	Mild and Cloudy

Initial car park occupancy:	30	Final car park occupancy:	89		
Parking Capacity	31%	(811 On-Site Spaces)			
Motor cars	86	Motor cycles	1	Public service	0
Light goods	8	OGV (1)	1	OGV (2)	1
Taxis	3				

Total People to Total Vehicles ratio (all time periods and directions): 2.07

BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE

Data proportions in %

Servicing Vehicles count recorded	Yes

Servicing/Standard Vehicle percentages

	Vehicles	Servicing %	Standard %
OGV (1)	28	100	0
OGV (2)	16	100	0
Light Goods	228	8	92
Motor Car	2319	0	100

Time	Arr 1376	Dep 1317	Totals 2693	Parking Accum	Arr	Dep	% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00	49	19	68	60	72%	28%	7.40%
08:00-09:00	70	35	105	95	67%	33%	11.71%
09:00-10:00	92	57	149	130	62%	38%	16.03%
10:00-11:00	111	111	222	130	50%	50%	16.03%
11:00-12:00	108	92	200	146	54%	46%	18.00%
12:00-13:00	117	100	217	163	54%	46%	20.10%
13:00-14:00	85	86	171	162	50%	50%	19.98%
14:00-15:00	95	82	177	175	54%	46%	21.58%
15:00-16:00	148	116	264	207	56%	44%	25.52%
16:00-17:00	139	119	258	227	54%	46%	27.99%
17:00-18:00	122	98	220	251	55%	45%	30.95%
18:00-19:00	93	126	219	218	42%	58%	26.88%
19:00-20:00	69	98	167	189	41%	59%	23.30%
20:00-21:00	46	101	147	134	31%	69%	16.52%
21:00-22:00	32	77	109	89	29%	71%	10.97%
22:00-23:00							
23:00-24:00							
Average Parking Usage							19.53%
						MAX	30.95%

Comments

No PSVs or coach passengers arrived at or departed from the site during this survey.

At least 41 of the final car park occupants were cars at least two wer at least 14 were LGVs and at least two were OGVs.

There were at least three cycles present on site following the conclusion of the survey.

Site reference:	GM-01-A-27	Survey date:	20/04/2022	Day of week:	Wednesday
Description	Supermarket	Town	Manchester	Site area (sqm)	5600
Total Spaces	304	Parking Spaces per 100 sq	5.429		

Multi-Modal survey site

Vehicles surveyed:	Total vehicles
Survey type:	Manual Count
AM weather:	Mild and Cloudy
PM weather:	Mild and Cloudy

Initial car park occupancy:	8	Final car park occupancy:	9		
Total People to Total Vehicles ratio (all time periods and directions): 1.77					
BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE					
Parking Capacity	39%	(304 On-Site Spaces)			
Data proportions in %					
Motor cars	93	Motor cycles	0	Public service	0
Light goods	5	OGV (1)	0	OGV (2)	0
Taxis	2				
Servicing Vehicles count recorded	No				

Time	Arr 2607	Dep 2606	Totals 5213	Parking Accum	Arr	Dep	% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00	8	6	14	10	57%	43%	3.29%
06:00-07:00	34	26	60	18	57%	43%	5.92%
07:00-08:00	73	77	150	14	49%	51%	4.61%
08:00-09:00	84	77	161	21	52%	48%	6.91%
09:00-10:00	143	118	261	46	55%	45%	15.13%
10:00-11:00	164	138	302	72	54%	46%	23.68%
11:00-12:00	206	187	393	91	52%	48%	29.93%
12:00-13:00	238	249	487	80	49%	51%	26.32%
13:00-14:00	195	208	403	67	48%	52%	22.04%
14:00-15:00	188	168	356	87	53%	47%	28.62%
15:00-16:00	186	153	339	120	55%	45%	39.47%
16:00-17:00	187	204	391	103	48%	52%	33.88%
17:00-18:00	169	202	371	70	46%	54%	23.03%
18:00-19:00	223	238	461	55	48%	52%	18.09%
19:00-20:00	204	195	399	64	51%	49%	21.05%
20:00-21:00	122	147	269	39	45%	55%	12.83%
21:00-22:00	102	105	207	36	49%	51%	11.84%
22:00-23:00	58	77	135	17	43%	57%	5.59%
23:00-24:00	23	31	54	9	43%	57%	2.96%
Average Parking Usage							17.64%
						MAX	39.47%

Comments

No PSVs visited the site during this survey.

At least one of the initial car park occupants was an LGV.

At least one of the final car park occupants was a car and at least one was an LGV.

Site reference:	MA-01-A-02	Survey date:	09/10/2020	Day of week:	Friday
Description	Supermarket	Town	Ballinrobe	Site area (sqm)	3275
Total Spaces	228	Parking Spaces per 100 sq	6.962		

Survey type:	Manual Count				
AM weather:	Mild and Light Rain				
PM weather:	Mild and Clear				
Initial car park occupancy:	3	Final car park occupancy:	8		
BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE					
Parking Capacity	40%	(228 On-Site Spaces)			
Data proportions in %					
Motor cars	92	Motor cycles	0	Public service	0
Light goods	7	OGV (1)	1	OGV (2)	0
Taxis	0				
Covid-19 Restrictions	Yes	Survey was undertaken at a time of Covid-19 restrictions			
Servicing Vehicles count recorded	No				

Time	Arr 1520	Dep 1515	Totals 3035	Parking Accum	Arr	Dep	% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00	20	9	29	14	69%	31%	6.14%
08:00-09:00	59	37	96	36	61%	39%	15.79%
09:00-10:00	81	65	146	52	55%	45%	22.81%
10:00-11:00	82	78	160	56	51%	49%	24.56%
11:00-12:00	140	105	245	91	57%	43%	39.91%
12:00-13:00	134	155	289	70	46%	54%	30.70%
13:00-14:00	117	137	254	50	46%	54%	21.93%
14:00-15:00	140	119	259	71	54%	46%	31.14%
15:00-16:00	131	134	265	68	49%	51%	29.82%
16:00-17:00	151	145	296	74	51%	49%	32.46%
17:00-18:00	158	173	331	59	48%	52%	25.88%
18:00-19:00	119	120	239	58	50%	50%	25.44%
19:00-20:00	97	119	216	36	45%	55%	15.79%
20:00-21:00	60	71	131	25	46%	54%	10.96%
21:00-22:00	31	48	79	8	39%	61%	3.51%
22:00-23:00							
23:00-24:00							
Average Parking Usage							22.46%
						MAX	39.91%

Comments

No motorcycles or PSVs arrived at or departed from the site during this survey.
At least one of the initial car park occupants was an OGV.
At least four of the final car park occupants were cars and at least two were LGVs.

Site reference:	SF-01-A-03	Survey date:	25/09/2020	Day of week:	Friday
Description	Supermarket	Town	Ipswich	Site area (sqm)	4250
Total Spaces	216	Parking Spaces per 100 sq	5.082		

Survey type:	Manual Count				
AM weather:	Mild and Light Rain				
PM weather:	Mild and Light Rain				
Initial car park occupancy:	22	Final car park occupancy:	17		
BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE					
Parking Capacity	67%	(216 On-Site Spaces)			
Data proportions in %					
Motor cars	92	Motor cycles	0	Public service	0
Light goods	6	OGV (1)	1	OGV (2)	0
Taxis	1				
Covid-19 Restrictions	Yes	Survey was undertaken at a time of Covid-19 restrictions			
Servicing Vehicles count recorded	No				

Time	Arr 2560	Dep 2565	Totals 5125	Parking Accum	Arr	Dep	% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00	18	6	24	34	75%	25%	15.74%
07:00-08:00	92	56	148	70	62%	38%	32.41%
08:00-09:00	171	143	314	98	54%	46%	45.37%
09:00-10:00	193	177	370	114	52%	48%	52.78%
10:00-11:00	192	192	384	114	50%	50%	52.78%
11:00-12:00	195	191	386	118	51%	49%	54.63%
12:00-13:00	212	212	424	118	50%	50%	54.63%
13:00-14:00	193	206	399	105	48%	52%	48.61%
14:00-15:00	211	227	438	89	48%	52%	41.20%
15:00-16:00	241	185	426	145	57%	43%	67.13%
16:00-17:00	241	281	522	105	46%	54%	48.61%
17:00-18:00	205	232	437	78	47%	53%	36.11%
18:00-19:00	203	201	404	80	50%	50%	37.04%
19:00-20:00	117	141	258	56	45%	55%	25.93%
20:00-21:00	42	63	105	35	40%	60%	16.20%
21:00-22:00	32	44	76	23	42%	58%	10.65%
22:00-23:00	2	8	10	17	20%	80%	7.87%
23:00-24:00							
Average Parking Usage							38.10%
						MAX	67.13%

Comments

No PSVs arrived at or departed from the site during this survey.
At least 10 of the initial car park occupants were cars and at least two were OGVs.
At least seven of the final car park occupants were LGVs.

Site reference:	TI-01-A-01	Survey date:	27/05/2016	Day of week:	Friday
Description	Supermarket	Town	Munster	Site area (sqm)	7000
Total Spaces	241	Parking Spaces per 100 sq	3.443		

Survey type:	Manual Count				
AM weather:	Mild and Cloudy				
PM weather:	Mild and Cloudy				
Initial car park occupancy:	13	Final car park occupancy:	6		
BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE					
Parking Capacity	49%	(241 On-Site Spaces)			
Data proportions in %					
Motor cars	93	Motor cycles	0	Public service	0
Light goods	5	OGV (1)	1	OGV (2)	0
Taxis	1				
Servicing Vehicles count recorded	No				

Time	Arr 2487	Dep 2494	Totals 4981	Parking Accum	Arr	Dep	% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00	17	4	21	26	81%	19%	10.79%
08:00-09:00	102	64	166	64	61%	39%	26.56%
09:00-10:00	110	93	203	81	54%	46%	33.61%
10:00-11:00	156	131	287	106	54%	46%	43.98%
11:00-12:00	154	156	310	104	50%	50%	43.15%
12:00-13:00	183	169	352	118	52%	48%	48.96%
13:00-14:00	187	205	392	100	48%	52%	41.49%
14:00-15:00	153	168	321	85	48%	52%	35.27%
15:00-16:00	169	173	342	81	49%	51%	33.61%
16:00-17:00	195	183	378	93	52%	48%	38.59%
17:00-18:00	253	237	490	109	52%	48%	45.23%
18:00-19:00	215	237	452	87	48%	52%	36.10%
19:00-20:00	200	202	402	85	50%	50%	35.27%
20:00-21:00	197	197	394	85	50%	50%	35.27%
21:00-22:00	141	177	318	49	44%	56%	20.33%
22:00-23:00	54	85	139	18	39%	61%	7.47%
23:00-24:00	1	13	14	6	7%	93%	2.49%
Average Parking Usage							31.66%
						MAX	48.96%

Comments

No PSV's or motorcycles visited the site during this survey.

Site reference:	WM-01-A-04	Survey date:	26/11/2021	Day of week:	Friday
Description	Supermarket	Town	Birmingham	Site area (sqm)	7290
Total Spaces	291	Parking Spaces per 100 sq	3.992		

Survey type:	Manual Count				
AM weather:	Cold and Cloudy				
PM weather:	Cold and Cloudy				
Initial car park occupancy:	25	Final car park occupancy:	6		
BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE					
Parking Capacity	80%	(291 On-Site Spaces)			
Data proportions in %					
Motor cars	89	Motor cycles	1	Public service	0
Light goods	6	OGV (1)	1	OGV (2)	0
Taxis	3				
Servicing Vehicles count recorded	No				

Time	Arr 1176	Dep 1195	Totals 2371	Parking Accum	Arr	Dep	% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00	31	11	42	45	74%	26%	15.46%
07:00-08:00	53	23	76	75	70%	30%	25.77%
08:00-09:00	59	31	90	103	66%	34%	35.40%
09:00-10:00	69	36	105	136	66%	34%	46.74%
10:00-11:00	80	45	125	171	64%	36%	58.76%
11:00-12:00	85	47	132	209	64%	36%	71.82%
12:00-13:00	96	74	170	231	56%	44%	79.38%
13:00-14:00	100	98	198	233	51%	49%	80.07%
14:00-15:00	103	111	214	225	48%	52%	77.32%
15:00-16:00	102	105	207	222	49%	51%	76.29%
16:00-17:00	89	99	188	212	47%	53%	72.85%
17:00-18:00	77	108	185	181	42%	58%	62.20%
18:00-19:00	66	103	169	144	39%	61%	49.48%
19:00-20:00	55	80	135	119	41%	59%	40.89%
20:00-21:00	39	74	113	84	35%	65%	28.87%
21:00-22:00	35	67	102	52	34%	66%	17.87%
22:00-23:00	27	61	88	18	31%	69%	6.19%
23:00-24:00	10	22	32	6	31%	69%	2.06%
Average Parking Usage							47.08%
						MAX	80.07%

Comments

No PSVs visited the site during this survey.

At least 15 of the initial car park occupants were cars and at least four were LGVs.

Site reference:	WO-01-A-02	Survey date:	27/09/2019	Day of week:	Friday
Description	Supermarket	Town	Worcester	Site area (sqm)	4780
Total Spaces	302	Parking Spaces per 100 sq	6.318		

Multi-Modal survey site

Vehicles surveyed:	Total vehicles
Survey type:	Manual Count
AM weather:	Cold and Windy
PM weather:	Mild and Cloudy

Initial car park occupancy:	24	Final car park occupancy:	4		
Parking Capacity	65%	(302 On-Site Spaces)			

Total People to Total Vehicles ratio (all time periods and directions): 1.78

BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE

Data proportions in %

Motor cars	97	Motor cycles	0	Public service	0
Light goods	3	OGV (1)	0	OGV (2)	0
Taxis	0				

Servicing Vehicles count recorded: Yes

Servicing/Standard Vehicle percentages

	Vehicles	Servicing %	Standard %
OGV (1)	8	100	0
OGV (2)	5	100	0
Light Goods	146	3	97
Motor Car	4595	0	100
Motor Cycle	6	0	100

Time	Arr 2370	Dep 2390	Totals 4760	Parking Accum	Arr	Dep	% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00	51	41	92	34	55%	45%	11.26%
08:00-09:00	102	73	175	63	58%	42%	20.86%
09:00-10:00	152	109	261	106	58%	42%	35.10%
10:00-11:00	207	156	363	157	57%	43%	51.99%
11:00-12:00	205	190	395	172	52%	48%	56.95%
12:00-13:00	253	230	483	195	52%	48%	64.57%
13:00-14:00	242	268	510	169	47%	53%	55.96%
14:00-15:00	187	207	394	149	47%	53%	49.34%
15:00-16:00	183	220	403	112	45%	55%	37.09%
16:00-17:00	219	190	409	141	54%	46%	46.69%
17:00-18:00	226	225	451	142	50%	50%	47.02%
18:00-19:00	178	226	404	94	44%	56%	31.13%
19:00-20:00	109	152	261	51	42%	58%	16.89%
20:00-21:00	53	83	136	21	39%	61%	6.95%
21:00-22:00	3	20	23	4	13%	87%	1.32%
22:00-23:00							
23:00-24:00							
Average Parking Usage							35.54%
						MAX	64.57%

Comments

No PSV's or taxis visited the site during this survey.

HIE Offices

Total Bays	Average Demand
80	38.23%
320	58.37%
77	22.29%
178	32.02%
171	81.65%
155	34.84%
188	31.54%
382	10.13%
343	66.89%
140	74.22%
Average MAX	61.63%

Site reference:	LU-02-A-01	Survey date:	09/11/2020	Day of week:	Monday
Description	Offices	Town	Dundalk	Site area (sqm)	2052
Total Spaces	80	Parking Spaces per 100 sqn	3.899		

Survey type:	Manual Count				
AM weather:	Mild and Cloudy				
PM weather:	Mild and Cloudy				
Initial car park occupancy:	3	Final car park occupancy:	5		
BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE					
Parking Capacity	54%	(80 On-Site Spaces)			
Data proportions in %					
Motor cars	86	Motor cycles	0	Public service	
Light goods	12	OGV (1)	2	OGV (2)	0
Taxis	0				0
Covid-19 Restrictions	Yes	Survey was undertaken at a time of Covid-19 restrictions			
Servicing Vehicles count recorded	No				

Time	Arr 135	Dep 133	Totals 268	Parking Accum	Arr	Dep	% Spaces Filled
07:00-07:30	3	0	3	6	100%	0%	7.50%
07:30-08:00	10	4	14	12	71%	29%	15.00%
08:00-08:30	7	0	7	19	100%	0%	23.75%
08:30-09:00	17	5	22	31	77%	23%	38.75%
09:00-09:30	13	6	19	38	68%	32%	47.50%
09:30-10:00	5	3	8	40	63%	38%	50.00%
10:00-10:30	4	5	9	39	44%	56%	48.75%
10:30-11:00	5	3	8	41	63%	38%	51.25%
11:00-11:30	4	5	9	40	44%	56%	50.00%
11:30-12:00	5	4	9	41	56%	44%	51.25%
12:00-12:30	1	3	4	39	25%	75%	48.75%
12:30-13:00	8	9	17	38	47%	53%	47.50%
13:00-13:30	5	11	16	32	31%	69%	40.00%
13:30-14:00	12	5	17	39	71%	29%	48.75%
14:00-14:30	4	5	9	38	44%	56%	47.50%
14:30-15:00	5	0	5	43	100%	0%	53.75%
15:00-15:30	2	4	6	41	33%	67%	51.25%
15:30-16:00	5	6	11	40	45%	55%	50.00%
16:00-16:30	11	18	29	33	38%	62%	41.25%
16:30-17:00	3	9	12	27	25%	75%	33.75%
17:00-17:30	3	2	5	28	60%	40%	35.00%
17:30-18:00	0	14	14	14	0%	100%	17.50%
18:00-18:30	1	5	6	10	17%	83%	12.50%
18:30-19:00	2	7	9	5	22%	78%	6.25%
Average Parking Usage							38.23%
						MAX	53.75%

Comments

No taxis motorcycles or PSVs arrived at or departed from the site during this survey.

The three initial car park occupants were LGVs.

The five final car park occupants were cars.

There was at least one cycle present on site following the conclusion of the survey.

Site reference:	CO-02-A-01	Survey date:	28/03/2018	Day of week:	Wednesday
Description	Government Off Town		Llandudno Jt	Site area (sqm)	6186
Total Spaces	320	Parking Spaces per 100 sq	5.173		

Multi-Modal survey site

Vehicles surveyed:	Total vehicles
Survey type:	Manual Count
AM weather:	Mild and Heavy Rain
PM weather:	Cold and Light Rain

Initial car park occupancy:	16	Final car park occupancy:	26

Total People to Total Vehicles ratio (all time periods and directions): 2.98

BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE

Parking Capacity	82%	(320 On-Site Spaces)			
Data proportions in %					
Motor cars	84	Motor cycles	4	Public service	0
Light goods	7	OGV (1)	1	OGV (2)	0
Taxis	4				
Servicing Vehicles count recorded	Yes				

Servicing/Standard Vehicle percentages

	Vehicles	Servicing %	Standard %
OGV (1)	6	33	67
OGV (2)	0		
Light Goods	49	20	80
Motor Car	629	0	100

Time	Arr 376	Dep 366	Totals 742	Parking Accum	Arr	Dep	% Spaces Filled
07:00-07:30	5	0	5	21	100%	0%	6.56%
07:30-08:00	12	0	12	33	100%	0%	10.31%
08:00-08:30	38	2	40	69	95%	5%	21.56%
08:30-09:00	73	0	73	142	100%	0%	44.38%
09:00-09:30	50	2	52	190	96%	4%	59.38%
09:30-10:00	28	6	34	212	82%	18%	66.25%
10:00-10:30	15	3	18	224	83%	17%	70.00%
10:30-11:00	20	3	23	241	87%	13%	75.31%
11:00-11:30	11	4	15	248	73%	27%	77.50%
11:30-12:00	13	6	19	255	68%	32%	79.69%
12:00-12:30	11	14	25	252	44%	56%	78.75%
12:30-13:00	14	12	26	254	54%	46%	79.38%
13:00-13:30	17	12	29	259	59%	41%	80.94%
13:30-14:00	14	11	25	262	56%	44%	81.88%
14:00-14:30	8	13	21	257	38%	62%	80.31%
14:30-15:00	6	8	14	255	43%	57%	79.69%
15:00-15:30	8	12	20	251	40%	60%	78.44%
15:30-16:00	6	10	16	247	38%	63%	77.19%
16:00-16:30	5	12	17	240	29%	71%	75.00%
16:30-17:00	12	27	39	225	31%	69%	70.31%
17:00-17:30	6	61	67	170	9%	91%	53.13%
17:30-18:00	3	67	70	106	4%	96%	33.13%
18:00-18:30	1	63	64	44	2%	98%	13.75%
18:30-19:00	0	18	18	26	0%	100%	8.13%
Average Parking Usage							58.37%
						MAX	81.88%

Comments

No PSVs or coach passengers either entered or exited the site during the survey.

At least seven of the final car park occupants were cars and at least three were LGVs.

Site reference:	EC-02-A-04	Survey date:	04/05/2021	Day of week:	Tuesday
Description	Offices	Town	Macclesfield	Site area (sqm)	3000
Total Spaces	77	Parking Spaces per 100 sq	2.567		

Survey type:	Manual Count				
AM weather:	Mild and Light Rain				
PM weather:	Hot and Light Rain				
Initial car park occupancy:	1	Final car park occupancy:	1		
BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE					
Parking Capacity	32%	(77 On-Site Spaces)			
Data proportions in %					
Motor cars	81	Motor cycles	0	Public service	0
Light goods	13	OGV (1)	4	OGV (2)	0
Taxis	2				
Covid-19 Restrictions	Yes	Survey was undertaken at a time of Covid-19 restrictions			
Servicing Vehicles count recorded	No				

Time	Arr 55	Dep 55	Totals 110	Parking Accum	Arr	Dep	% Spaces Filled
07:00-07:30	1	0	1	2	100%	0%	2.60%
07:30-08:00	4	0	4	6	100%	0%	7.79%
08:00-08:30	3	0	3	9	100%	0%	11.69%
08:30-09:00	7	1	8	15	88%	13%	19.48%
09:00-09:30	4	1	5	18	80%	20%	23.38%
09:30-10:00	3	1	4	20	75%	25%	25.97%
10:00-10:30	5	2	7	23	71%	29%	29.87%
10:30-11:00	1	1	2	23	50%	50%	29.87%
11:00-11:30	1	2	3	22	33%	67%	28.57%
11:30-12:00	2	0	2	24	100%	0%	31.17%
12:00-12:30	2	1	3	25	67%	33%	32.47%
12:30-13:00	0	2	2	23	0%	100%	29.87%
13:00-13:30	0	3	3	20	0%	100%	25.97%
13:30-14:00	6	4	10	22	60%	40%	28.57%
14:00-14:30	6	3	9	25	67%	33%	32.47%
14:30-15:00	2	3	5	24	40%	60%	31.17%
15:00-15:30	1	0	1	25	100%	0%	32.47%
15:30-16:00	3	5	8	23	38%	63%	29.87%
16:00-16:30	3	3	6	23	50%	50%	29.87%
16:30-17:00	1	6	7	18	14%	86%	23.38%
17:00-17:30	0	6	6	12	0%	100%	15.58%
17:30-18:00	0	5	5	7	0%	100%	9.09%
18:00-18:30	0	5	5	2	0%	100%	2.60%
18:30-19:00	0	1	1	1	0%	100%	1.30%
Average Parking Usage							22.29%
						MAX	32.47%

Comments

No motorcycles or PSVs arrived at or departed from the site during this survey.

Site reference:	DA-02-A-02	Survey date:	18/10/2018	Day of week:	Thursday
Description	Engineering Con	Town	Darlington	Site area (sqm)	3530
Total Spaces	178	Parking Spaces per 100 sq	5.042		

Survey type:	Manual Count				
AM weather:	Mild and Clear				
PM weather:	Mild and Clear				
Initial car park occupancy:	7	Final car park occupancy:	0		
BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE					
Parking Capacity	46%	(178 On-Site Spaces)			
Data proportions in %					
Motor cars	89	Motor cycles	2	Public service	0
Light goods	7	OGV (1)	2	OGV (2)	0
Taxis	0				
Servicing Vehicles count recorded	No				

Time	Arr 98	Dep 105	Totals 203	Parking Accum Arr	Arr	Dep	% Spaces Filled
07:00-07:30	8	2	10	13	80%	20%	7.30%
07:30-08:00	21	1	22	33	95%	5%	18.54%
08:00-08:30	15	0	15	48	100%	0%	26.97%
08:30-09:00	16	0	16	64	100%	0%	35.96%
09:00-09:30	14	2	16	76	88%	13%	42.70%
09:30-10:00	4	0	4	80	100%	0%	44.94%
10:00-10:30	1	0	1	81	100%	0%	45.51%
10:30-11:00	1	2	3	80	33%	67%	44.94%
11:00-11:30	1	1	2	80	50%	50%	44.94%
11:30-12:00	1	1	2	80	50%	50%	44.94%
12:00-12:30	2	5	7	77	29%	71%	43.26%
12:30-13:00	4	4	8	77	50%	50%	43.26%
13:00-13:30	5	4	9	78	56%	44%	43.82%
13:30-14:00	0	0	0	78	0%	0%	43.82%
14:00-14:30	1	1	2	78	50%	50%	43.82%
14:30-15:00	1	3	4	76	25%	75%	42.70%
15:00-15:30	0	6	6	70	0%	100%	39.33%
15:30-16:00	0	7	7	63	0%	100%	35.39%
16:00-16:30	1	9	10	55	10%	90%	30.90%
16:30-17:00	1	18	19	38	5%	95%	21.35%
17:00-17:30	0	16	16	22	0%	100%	12.36%
17:30-18:00	1	7	8	16	13%	88%	8.99%
18:00-18:30	0	11	11	5	0%	100%	2.81%
18:30-19:00	0	5	5	0	0%	100%	0.00%
Average Parking Usage							32.02%
						MAX	45.51%

Comments

No taxis or PSVs arrived at or departed from the site during this survey.

Six of the initial car park occupants were cars and one was an LGV.

Site reference:	DL-02-A-07	Survey date:	20/06/2018	Day of week:	Wednesday
Description	Offices	Town	Dublin	Site area (sqm)	3230
Total Spaces	171	Parking Spaces per 100 sq	5.294		

Survey type:	Manual Count				
AM weather:	Mild and Clear				
PM weather:	Mild and Cloudy				
Initial car park occupancy:	8	Final car park occupancy:	32		
BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE					
Parking Capacity	111%	(171 On-Site Spaces)			
Data proportions in %					
Motor cars	94	Motor cycles	0	Public service	0
Light goods	4	OGV (1)	1	OGV (2)	0
Taxis	1				
Servicing Vehicles count recorded	No				

Time	Arr 268	Dep 244	Totals 512	Parking Accum	Arr	Dep	% Spaces Filled
07:00-07:30	18	0	18	26	100%	0%	15.20%
07:30-08:00	41	3	44	64	93%	7%	37.43%
08:00-08:30	61	0	61	125	100%	0%	73.10%
08:30-09:00	48	5	53	168	91%	9%	98.25%
09:00-09:30	17	2	19	183	89%	11%	100.00%
09:30-10:00	9	9	18	183	50%	50%	100.00%
10:00-10:30	11	5	16	189	69%	31%	100.00%
10:30-11:00	3	3	6	189	50%	50%	100.00%
11:00-11:30	4	5	9	188	44%	56%	100.00%
11:30-12:00	5	7	12	186	42%	58%	100.00%
12:00-12:30	4	5	9	185	44%	56%	100.00%
12:30-13:00	6	6	12	185	50%	50%	100.00%
13:00-13:30	4	7	11	182	36%	64%	100.00%
13:30-14:00	4	5	9	181	44%	56%	100.00%
14:00-14:30	1	7	8	175	13%	88%	100.00%
14:30-15:00	2	8	10	169	20%	80%	100.00%
15:00-15:30	7	6	13	170	54%	46%	99.42%
15:30-16:00	3	3	6	170	50%	50%	99.42%
16:00-16:30	0	14	14	156	0%	100%	91.23%
16:30-17:00	6	26	32	136	19%	81%	79.53%
17:00-17:30	7	24	31	119	23%	77%	69.59%
17:30-18:00	2	37	39	84	5%	95%	49.12%
18:00-18:30	1	36	37	49	3%	97%	28.65%
18:30-19:00	4	21	25	32	16%	84%	18.71%
Average Parking Usage							81.65%
						MAX	100.00%

Comments

No PSVs arrived at or departed from the site during this survey.
At least 22 of the final car park occupants were cars and at least two were LGVs.
There was at least one cycle present on site at the conclusion of the survey.

Site reference:	MG-02-A-02	Survey date:	16/11/2016	Day of week:	Wednesday
Description	Offices	Town	Monaghan	Site area (sqm)	3205
Total Spaces	155	Parking Spaces per 100 sqr	4.836		

Survey type:	Manual Count				
AM weather:	Cold and Light Rain				
PM weather:	Cold and Windy				
Initial car park occupancy:	0	Final car park occupancy:	5		
BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE					
Parking Capacity	54%	(155 On-Site Spaces)			
Data proportions in %					
Motor cars	87	Motor cycles	0	Public service	0
Light goods	12	OGV (1)	1	OGV (2)	0
Taxis	0				
Servicing Vehicles count recorded	No				

Time	Arr 198	Dep 193	Totals 391	Parking Accum	Arr	Dep	% Spaces Filled
07:00-07:30	1	1	2	0	50%	50%	0.00%
07:30-08:00	6	1	7	5	86%	14%	3.23%
08:00-08:30	26	3	29	28	90%	10%	18.06%
08:30-09:00	22	1	23	49	96%	4%	31.61%
09:00-09:30	27	3	30	73	90%	10%	47.10%
09:30-10:00	20	10	30	83	67%	33%	53.55%
10:00-10:30	5	9	14	79	36%	64%	50.97%
10:30-11:00	3	4	7	78	43%	57%	50.32%
11:00-11:30	7	3	10	82	70%	30%	52.90%
11:30-12:00	0	6	6	76	0%	100%	49.03%
12:00-12:30	5	7	12	74	42%	58%	47.74%
12:30-13:00	7	14	21	67	33%	67%	43.23%
13:00-13:30	6	14	20	59	30%	70%	38.06%
13:30-14:00	19	12	31	66	61%	39%	42.58%
14:00-14:30	12	1	13	77	92%	8%	49.68%
14:30-15:00	8	4	12	81	67%	33%	52.26%
15:00-15:30	5	8	13	78	38%	62%	50.32%
15:30-16:00	5	5	10	78	50%	50%	50.32%
16:00-16:30	5	20	25	63	20%	80%	40.65%
16:30-17:00	4	19	23	48	17%	83%	30.97%
17:00-17:30	1	22	23	27	4%	96%	17.42%
17:30-18:00	1	15	16	13	6%	94%	8.39%
18:00-18:30	1	7	8	7	13%	88%	4.52%
18:30-19:00	2	4	6	5	33%	67%	3.23%
Average Parking Usage							34.84%
						MAX	53.55%

Comments

No taxis motorcycles PSVs and cycles either entered or exited the site on the day of the survey.

Four of the final car park occupants were cars and one was an LGV.

Site reference:	NF-02-A-05	Survey date:	12/09/2022	Day of week:	Monday
Description	Council Offices	Town	Norwich	Site area (sqm)	3697
Total Spaces	188	Parking Spaces per 100 sq	5.085		

Multi-Modal survey site

Vehicles surveyed:	Total vehicles
Survey type:	Manual Count
AM weather:	Mild and Clear
PM weather:	Mild and Clear

Initial car park occupancy:	2	Final car park occupancy:	2		
Parking Capacity	45%	(188 On-Site Spaces)			
Data proportions in %					
Motor cars	88	Motor cycles	2	Public service	0
Light goods	4	OGV (1)	0	OGV (2)	0
Taxis	6				

Total People to Total Vehicles ratio (all time periods and directions): 1.28

BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE

Servicing Vehicles count recorded	No

Time	Arr 137	Dep 137	Totals 274	Parking Accum Arr		Dep	% Spaces Filled
07:00-07:30	5	0	5	7	100%	0%	3.72%
07:30-08:00	20	0	20	27	100%	0%	14.36%
08:00-08:30	38	0	38	65	100%	0%	34.57%
08:30-09:00	6	1	7	70	86%	14%	37.23%
09:00-09:30	11	1	12	80	92%	8%	42.55%
09:30-10:00	3	1	4	82	75%	25%	43.62%
10:00-10:30	5	5	10	82	50%	50%	43.62%
10:30-11:00	4	3	7	83	57%	43%	44.15%
11:00-11:30	4	2	6	85	67%	33%	45.21%
11:30-12:00	2	3	5	84	40%	60%	44.68%
12:00-12:30	4	9	13	79	31%	69%	42.02%
12:30-13:00	5	9	14	75	36%	64%	39.89%
13:00-13:30	6	5	11	76	55%	45%	40.43%
13:30-14:00	7	3	10	80	70%	30%	42.55%
14:00-14:30	4	7	11	77	36%	64%	40.96%
14:30-15:00	2	6	8	73	25%	75%	38.83%
15:00-15:30	2	6	8	69	25%	75%	36.70%
15:30-16:00	3	6	9	66	33%	67%	35.11%
16:00-16:30	3	5	8	64	38%	63%	34.04%
16:30-17:00	3	7	10	60	30%	70%	31.91%
17:00-17:30	0	34	34	26	0%	100%	13.83%
17:30-18:00	0	17	17	9	0%	100%	4.79%
18:00-18:30	0	7	7	2	0%	100%	1.06%
18:30-19:00	0	0	0	2	0%	0%	1.06%
Average Parking Usage							31.54%
						MAX	45.21%

Comments

No PSVs

OGVs or scooters visited the site during this survey.

Site reference:	NM-02-A-01	Survey date:	22/10/2020	Day of week:	Thursday
Description	Offices	Town	Northampto	Site area (sqm)	9225
Total Spaces	382	Parking Spaces per 100 sq	4.141		

Survey type:	Manual Count				
AM weather:	Mild and Clear				
PM weather:	Mild and Clear				
Initial car park occupancy:	24	Final car park occupancy:	18		
BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE					
Parking Capacity	14%	(382 On-Site Spaces)			
Data proportions in %					
Motor cars	67	Motor cycles	4	Public service	0
Light goods	29	OGV (1)	0	OGV (2)	0
Taxis	0				
Covid-19 Restrictions	Yes	Survey was undertaken at a time of Covid-19 restrictions			
Servicing Vehicles count recorded	No				

Time	Arr 53	Dep 59	Totals 112	Parking Accum	Arr	Dep	% Spaces Filled
07:00-07:30	8	0	8	32	100%	0%	8.38%
07:30-08:00	4	2	6	34	67%	33%	8.90%
08:00-08:30	12	1	13	45	92%	8%	11.78%
08:30-09:00	7	1	8	51	88%	13%	13.35%
09:00-09:30	2	1	3	52	67%	33%	13.61%
09:30-10:00	1	1	2	52	50%	50%	13.61%
10:00-10:30	2	1	3	53	67%	33%	13.87%
10:30-11:00	0	2	2	51	0%	100%	13.35%
11:00-11:30	2	0	2	53	100%	0%	13.87%
11:30-12:00	1	4	5	50	20%	80%	13.09%
12:00-12:30	1	7	8	44	13%	88%	11.52%
12:30-13:00	3	3	6	44	50%	50%	11.52%
13:00-13:30	1	3	4	42	25%	75%	10.99%
13:30-14:00	1	0	1	43	100%	0%	11.26%
14:00-14:30	1	0	1	44	100%	0%	11.52%
14:30-15:00	1	3	4	42	25%	75%	10.99%
15:00-15:30	2	4	6	40	33%	67%	10.47%
15:30-16:00	0	2	2	38	0%	100%	9.95%
16:00-16:30	1	12	13	27	8%	92%	7.07%
16:30-17:00	0	6	6	21	0%	100%	5.50%
17:00-17:30	1	4	5	18	20%	80%	4.71%
17:30-18:00	0	0	0	18	0%	0%	4.71%
18:00-18:30	0	1	1	17	0%	100%	4.45%
18:30-19:00	2	1	3	18	67%	33%	4.71%
Average Parking Usage							10.13%
						MAX	13.87%

Comments

No PSVs or OGVs arrived at or departed from the site during this survey.
At least two of the initial car park occupants were cars and at least five were LGVs.
At least one of the final car park occupants was an LGV.

Site reference:	PB-02-A-04	Survey date:	19/10/2016	Day of week:	Wednesday
Description	Offices	Town	Peterborou	Site area (sqm)	4040
Total Spaces	343	Parking Spaces per 100 sq	8.49		

Survey type:	Manual Count				
AM weather:	Mild and Clear				
PM weather:	Mild and Clear				
Initial car park occupancy:	12	Final car park occupancy:	7		
BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE					
Parking Capacity	97%	(343 On-Site Spaces)			
Data proportions in %					
Motor cars	95	Motor cycles	0	Public service	0
Light goods	4	OGV (1)	1	OGV (2)	0
Taxis	0				
Servicing Vehicles count recorded	No				

Time	Arr 467	Dep 472	Totals 939	Parking Accum Arr	Arr	Dep	% Spaces Filled
07:00-07:30	7	1	8	18	88%	13%	5.25%
07:30-08:00	64	3	67	79	96%	4%	23.03%
08:00-08:30	76	5	81	150	94%	6%	43.73%
08:30-09:00	114	9	123	255	93%	7%	74.34%
09:00-09:30	58	4	62	309	94%	6%	90.09%
09:30-10:00	22	7	29	324	76%	24%	94.46%
10:00-10:30	4	2	6	326	67%	33%	95.04%
10:30-11:00	2	3	5	325	40%	60%	94.75%
11:00-11:30	6	2	8	329	75%	25%	95.92%
11:30-12:00	6	4	10	331	60%	40%	96.50%
12:00-12:30	10	30	40	311	25%	75%	90.67%
12:30-13:00	16	15	31	312	52%	48%	90.96%
13:00-13:30	22	25	47	309	47%	53%	90.09%
13:30-14:00	18	7	25	320	72%	28%	93.29%
14:00-14:30	9	9	18	320	50%	50%	93.29%
14:30-15:00	7	25	32	302	22%	78%	88.05%
15:00-15:30	6	15	21	293	29%	71%	85.42%
15:30-16:00	1	13	14	281	7%	93%	81.92%
16:00-16:30	8	38	46	251	17%	83%	73.18%
16:30-17:00	2	35	37	218	5%	95%	63.56%
17:00-17:30	2	126	128	94	2%	98%	27.41%
17:30-18:00	4	65	69	33	6%	94%	9.62%
18:00-18:30	2	26	28	9	7%	93%	2.62%
18:30-19:00	1	3	4	7	25%	75%	2.04%
Average Parking Usage							66.89%
						MAX	96.50%

Comments

No PSVs or cycles either entered or exited the site on the day of the survey.

At least five of the initial car park occupants were cars.

Site reference:	WO-02-A-03	Survey date:	13/10/2020	Day of week:	Tuesday
Description	IT Services	Town	Kidderminst	Site area (sqm)	5945
Total Spaces	140	Parking Spaces per 100 sq	2.355		

Survey type:	Manual Count				
AM weather:	Cold and Light Rain				
PM weather:	Mild and Heavy Rain				
Initial car park occupancy:	46	Final car park occupancy:	24		
BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE					
Parking Capacity	94%	(140 On-Site Spaces)			
Data proportions in %					
Motor cars	93	Motor cycles	0	Public service	0
Light goods	4	OGV (1)	1	OGV (2)	0
Taxis	2				
Covid-19 Restrictions	Yes	Survey was undertaken at a time of Covid-19 restrictions			
Servicing Vehicles count recorded	No				

Time	Arr 114	Dep 136	Totals 250	Parking Accum	Arr	Dep	% Spaces Filled
08:30-09:00	27	0	27	73	100%	0%	52.14%
09:00-09:30	22	3	25	92	88%	12%	65.71%
09:30-10:00	19	1	20	110	95%	5%	78.57%
10:00-10:30	12	1	13	121	92%	8%	86.43%
10:30-11:00	8	2	10	127	80%	20%	90.71%
11:00-11:30	5	3	8	129	63%	38%	92.14%
11:30-12:00	2	0	2	131	100%	0%	93.57%
12:00-12:30	0	5	5	126	0%	100%	90.00%
12:30-13:00	3	8	11	121	27%	73%	86.43%
13:00-13:30	5	5	10	121	50%	50%	86.43%
13:30-14:00	4	1	5	124	80%	20%	88.57%
14:00-14:30	2	1	3	125	67%	33%	89.29%
14:30-15:00	1	1	2	125	50%	50%	89.29%
15:00-15:30	1	0	1	126	100%	0%	90.00%
15:30-16:00	0	2	2	124	0%	100%	88.57%
16:00-16:30	1	10	11	115	9%	91%	82.14%
16:30-17:00	1	11	12	105	8%	92%	75.00%
17:00-17:30	0	20	20	85	0%	100%	60.71%
17:30-18:00	1	32	33	54	3%	97%	38.57%
18:00-18:30	0	30	30	24	0%	100%	17.14%
18:30-19:00	0	0	0	24	0%	0%	17.14%
Average Parking Usage							74.22%
						MAX	93.57%

Comments

No motorcycles or PSVs arrived at or departed from the site during this survey.

At least 22 of the initial car park occupants were cars.

Primary Schools

Total Bays	Average Demand
13	80.77%
12	77.08%
15	21.67%
50	70.50%
32	58.33%
31	64.25%
34	40.44%
24	68.06%
161	22.65%
18	66.67%
Average MAX	89.63%

Site reference:	BR-04-A-01	Survey date:	##########	Day of week:	Tuesday		
Description	Primary School	Town	Bristol	Site area (sqm)	950	Number of	208
Total Spaces	13	Parking Spaces per 100 sq	1.368	Parking Spaces	0.063		

Survey type:	Manual Count				
AM weather:	Mild and Cloudy				
PM weather:	Mild and Clear				
Initial car park occupancy:	0	Final car park occupancy:	0		
BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE					
Parking Capacity	269%	(13 On-Site Spaces)			
Data proportions in %					
Motor cars	92	Motor cycles	0	Public service	0
Light goods	8	OGV (1)	0	OGV (2)	0
Taxis	0				
Servicing Vehicles count recorded	No				

Time	Arr 209	Dep 209	Totals 418	Parking Accum Arr	Dep	% Spaces Filled	
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00	17	6	23	11	74%	26%	84.62%
08:00-09:00	78	54	132	35	59%	41%	100.00%
09:00-10:00	8	19	27	24	30%	70%	100.00%
10:00-11:00	3	4	7	23	43%	57%	100.00%
11:00-12:00	6	6	12	23	50%	50%	100.00%
12:00-13:00	14	9	23	28	61%	39%	100.00%
13:00-14:00	11	17	28	22	39%	61%	100.00%
14:00-15:00	15	7	22	30	68%	32%	100.00%
15:00-16:00	44	63	107	11	41%	59%	84.62%
16:00-17:00	12	11	23	12	52%	48%	92.31%
17:00-18:00	1	12	13	1	8%	92%	7.69%
18:00-19:00	0	1	1	0	0%	100%	0.00%
19:00-20:00							
20:00-21:00							
21:00-22:00							
22:00-23:00							
23:00-24:00							
Average Parking Usage							80.77%
						MAX	100.00%

Comments

No PSV's	taxis or motorcycles visited the site during this survey.
OGV's visiting the site park	in the general p as there are no specific OGV parking spaces or loading bays at the site.

The maximum parking accumulation exceeding the number of parking spaces available can be explained by the fact that off-site parking was also included in this survey.

Site reference:	CF-04-A-01	Survey date:	##########	Day of week:	Friday		
Description	Primary School	Town	Cardiff	Site area (sqm)	1400	Number of	194
Total Spaces	12	Parking Spaces per 100 sq	0.857	Parking Spaces	0.062		

Survey type:	Manual Count		
AM weather:	Mild and Cloudy		
PM weather:	Mild and Cloudy		
Initial car park occupancy:	0	Final car park occupancy:	1
BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE			
Parking Capacity	342%	(12 On-Site Spaces)	
Data proportions in %			
Motor cars	97	Motor cycles	0
Light goods	3	OGV (1)	0
Taxis	0		
Servicing Vehicles count recorded	No		

Time	Arr 282	Dep 281	Totals 563	Parking Accum Arr	Dep	% Spaces Filled	
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00	2	2	4	0	50%	50%	0.00%
08:00-09:00	121	90	211	31	57%	43%	100.00%
09:00-10:00	11	29	40	13	28%	73%	100.00%
10:00-11:00	2	2	4	13	50%	50%	100.00%
11:00-12:00	2	1	3	14	67%	33%	100.00%
12:00-13:00	0	3	3	11	0%	100%	91.67%
13:00-14:00	2	5	7	8	29%	71%	66.67%
14:00-15:00	39	6	45	41	87%	13%	100.00%
15:00-16:00	91	120	211	12	43%	57%	100.00%
16:00-17:00	8	7	15	13	53%	47%	100.00%
17:00-18:00	2	8	10	7	20%	80%	58.33%
18:00-19:00	2	8	10	1	20%	80%	8.33%
19:00-20:00							
20:00-21:00							
21:00-22:00							
22:00-23:00							
23:00-24:00							
Average Parking Usage							77.08%
						MAX	100.00%

Comments

No taxis motorcycles PSVs OGVs or cycles either entered or exited the site on the day of the survey.

The final car park occupant was a car.

Site reference:	CL-04-A-01	Survey date:	12/10/2022	Day of week:	Wednesday		
Description	Primary School	Town	Killaloe	Site area (sqm)	880	Number of	119
Total Spaces	15	Parking Spaces per 100 sq	1.705	Parking Spaces	0.126		
Multi-Modal survey site							
Vehicles surveyed:	Total vehicles						
Survey type:	Manual Count						
AM weather:	Mild and Cloudy						
PM weather:	Cold and Cloudy						
Initial car park occupancy:	0	Final car park occupancy:	0				
Total People to Total Vehicles ratio (all time periods and directions): 2.79							
BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE							
Parking Capacity	73%	(15 On-Site Spaces)					
Data proportions in %							
Motor cars	94	Motor cycles	0	Public service	2		
Light goods	4	OGV (1)	0	OGV (2)	0		
Taxis	0						
Servicing Vehicles count recorded	Yes						

Servicing/Standard Vehicle percentages

	Vehicles	Servicing %	Standard %
OGV (1)			
OGV (2)			
Light Goods	10	80	20
Motor Car	226	0	100
Motor Cycle			

Time	Arr 120	Dep 120	Totals 240	Parking Accum	Arr	Dep	% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00	1	1	2	0	50%	50%	0.00%
08:00-09:00	22	11	33	11	67%	33%	73.33%
09:00-10:00	23	31	54	3	43%	57%	20.00%
10:00-11:00	6	6	12	3	50%	50%	20.00%
11:00-12:00	3	3	6	3	50%	50%	20.00%
12:00-13:00	2	1	3	4	67%	33%	26.67%
13:00-14:00	11	11	22	4	50%	50%	26.67%
14:00-15:00	17	17	34	4	50%	50%	26.67%
15:00-16:00	18	18	36	4	50%	50%	26.67%
16:00-17:00	14	15	29	3	48%	52%	20.00%
17:00-18:00	3	6	9	0	33%	67%	0.00%
18:00-19:00	0	0	0	0	0%	0%	0.00%
19:00-20:00							
20:00-21:00							
21:00-22:00							
22:00-23:00							
23:00-24:00							
Average Parking Usage							21.67%
						MAX	73.33%

Comments

No taxis motorcycles OGVs or scooters visited the site during this survey
The school day for junior and senior infants is 0900-1400 whilst for others it is 0900-1500.
It should be noted that some children are picked up by parent and this is reflected in the counts.

Site reference:	CW-04-A-03	Survey date:	##########	Day of week:	Thursday			
Description	Primary Acaden	Town	Penryn	Site area (sqm)	3900	Number of	440	
Total Spaces	50	Parking Spaces per 100 sq	1.282	Parking Spaces	0.114			
Multi-Modal survey site								
Vehicles surveyed:	Total vehicles							
Survey type:	Manual Count							
AM weather:	Mild and Cloudy							
PM weather:	Mild and Cloudy							
Initial car park occupancy:	2	Final car park occupancy:	8					
Total People to Total Vehicles ratio (all time periods and directions): 4.72								
BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE								
Parking Capacity	96%	(50 On-Site Spaces)						
Data proportions in %								
Motor cars	87	Motor cycles	0	Public service	0			
Light goods	13	OGV (1)	0	OGV (2)	0			
Taxis	0							
Servicing Vehicles count recorded	Yes							

Servicing/Standard Vehicle percentages

	Vehicles	Servicing %	Standard %
OGV (1)	2	100	0
OGV (2)	0		
Light Goods	56	7	93
Motor Car	370	0	100

Time	Arr 217	Dep 211	Totals 428	Parking Accum Arr	Dep		% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00	29	12	41	19	71%	29%	38.00%
08:00-09:00	50	23	73	46	68%	32%	92.00%
09:00-10:00	22	23	45	45	49%	51%	90.00%
10:00-11:00	6	11	17	40	35%	65%	80.00%
11:00-12:00	14	11	25	43	56%	44%	86.00%
12:00-13:00	13	13	26	43	50%	50%	86.00%
13:00-14:00	10	7	17	46	59%	41%	92.00%
14:00-15:00	21	19	40	48	53%	48%	96.00%
15:00-16:00	23	31	54	40	43%	57%	80.00%
16:00-17:00	22	33	55	29	40%	60%	58.00%
17:00-18:00	7	20	27	16	26%	74%	32.00%
18:00-19:00	0	8	8	8	0%	100%	16.00%
19:00-20:00							
20:00-21:00							
21:00-22:00							
22:00-23:00							
23:00-24:00							
Average Parking Usage							70.50%
						MAX	96.00%

Comments

No taxis motorcycles PSVs rail passengers or coach passengers either arrived at or departed from the site during this survey.
At least one of the initial car park occupants was an LGV.
At least six of the final car park occupants were cars and at least one was an LGV.

Site reference:	DL-04-A-02	Survey date:	##########	Day of week:	Monday		
Description	Primary School	Town	Dublin - Balç	Site area (sqm)	2400	Number of	702
Total Spaces	32	Parking Spaces per 100 sq	1.333	Parking Spaces	0.046		

Survey type:	Manual Count
AM weather:	Cold and Light Rain
PM weather:	Cold and Cloudy
Initial car park occupancy:	Final car park occupancy:
BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE	
Parking Capacity	
Data proportions in %	

Motor cars	99	Motor cycles	0	Public service	0
Light goods	1	OGV (1)	0	OGV (2)	0
Taxis	0				

Servicing Vehicles count recorded: No

Time	Arr 604	Dep 604	Totals 1208	Parking Accum Arr	Arr	Dep	% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00	7	2	9	-5	78%	22%	15.63%
08:00-09:00	289	254	543	-40	53%	47%	100.00%
09:00-10:00	14	23	37	-31	38%	62%	96.88%
10:00-11:00	9	10	19	-30	47%	53%	93.75%
11:00-12:00	10	5	15	-35	67%	33%	100.00%
12:00-13:00	2	7	9	-30	22%	78%	93.75%
13:00-14:00	119	125	244	-24	49%	51%	75.00%
14:00-15:00	122	121	243	-25	50%	50%	78.13%
15:00-16:00	4	18	22	-11	18%	82%	34.38%
16:00-17:00	10	17	27	-4	37%	63%	12.50%
17:00-18:00	16	20	36	0	44%	56%	0.00%
18:00-19:00	2	2	4	0	50%	50%	0.00%
19:00-20:00							
20:00-21:00							
21:00-22:00							
22:00-23:00							
23:00-24:00							
Average Parking Usage							58.33%
						MAX	100.00%

Comments

No PSV's or motorcycles visited the site during this survey.
The maximum parking accumulation exceeding the number of parking spaces available can be explained by the fact that off-site parking was also included in the survey.
OGV's park in the general parking area as there are no specified OGV parking spaces or loading bays.
The traffic activity after the normal school day ended can be explained by after school clubs taking place at the site.

Site reference:	DL-04-A-03	Survey date:	25/11/2022	Day of week:	Friday		
Description	Primary School	Town	Dublin - San	Site area (sqm)	2550	Number of	315
Total Spaces	31	Parking Spaces per 100 sq	1.216	Parking Spaces	0.098		

Survey type:	Manual Count						
AM weather:	Mild and Windy						
PM weather:	Mild and Windy						
Initial car park occupancy:	0	Final car park occupancy:	0				
BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE							
Parking Capacity	177%	(31 On-Site Spaces)					
Data proportions in %							
Motor cars	97	Motor cycles	0	Public service	0		
Light goods	1	OGV (1)	0	OGV (2)	0		
Taxis	2						
Servicing Vehicles count recorded	No						

Time	Arr 268	Dep 268	Totals 536	Parking Accum	Arr	Dep	% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00	32	0	32	32	100%	0%	100.00%
08:00-09:00	101	87	188	46	54%	46%	100.00%
09:00-10:00	6	24	30	28	20%	80%	90.32%
10:00-11:00	1	1	2	28	50%	50%	90.32%
11:00-12:00	0	0	0	28	0%	0%	90.32%
12:00-13:00	26	28	54	26	48%	52%	83.87%
13:00-14:00	8	8	16	26	50%	50%	83.87%
14:00-15:00	93	64	157	55	59%	41%	100.00%
15:00-16:00	0	50	50	5	0%	100%	16.13%
16:00-17:00	1	1	2	5	50%	50%	16.13%
17:00-18:00	0	5	5	0	0%	100%	0.00%
18:00-19:00	0	0	0	0	0%	0%	0.00%
19:00-20:00							
20:00-21:00							
21:00-22:00							
22:00-23:00							
23:00-24:00							
Average Parking Usage							64.25%
						MAX	100.00%

Comments

No motorcycles PSVs OGVs cycles or scooters visited the site during this survey.
The maximum parking accumulation exceeding the number of on-site parking spaces is explained by the inclusion of off-site parking in the survey.
Teaching ends at 1330 for juniors and senior infants and at 1430 for all other classes.

Site reference:	DY-04-A-01	Survey date:	25/06/2015	Day of week:	Thursday		
Description	Primary School	Town	Derby	Site area (sqm)	1600	Number of	387
Total Spaces	34	Parking Spaces per 100 sq	2.125	Parking Spaces	0.088		

Survey type:	Manual Count				
AM weather:	Mild and Cloudy				
PM weather:	Mild and Cloudy				
Initial car park occupancy:	0	Final car park occupancy:	1		
BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE					
Parking Capacity	74%	(34 On-Site Spaces)			
Data proportions in %					
Motor cars	95	Motor cycles	0	Public service	0
Light goods	3	OGV (1)	1	OGV (2)	0
Taxis	1				
Servicing Vehicles count recorded	No				

Time	Arr 153	Dep 152	Totals 305	Parking Accum	Arr	Dep	% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00	3	0	3	3	100%	0%	8.82%
08:00-09:00	61	46	107	18	57%	43%	52.94%
09:00-10:00	7	6	13	19	54%	46%	55.88%
10:00-11:00	3	2	5	20	60%	40%	58.82%
11:00-12:00	2	0	2	22	100%	0%	64.71%
12:00-13:00	5	3	8	24	63%	38%	70.59%
13:00-14:00	1	4	5	21	20%	80%	61.76%
14:00-15:00	16	12	28	25	57%	43%	73.53%
15:00-16:00	45	62	107	8	42%	58%	23.53%
16:00-17:00	8	12	20	4	40%	60%	11.76%
17:00-18:00	1	5	6	0	17%	83%	0.00%
18:00-19:00	1	0	1	1	100%	0%	2.94%
19:00-20:00							
20:00-21:00							
21:00-22:00							
22:00-23:00							
23:00-24:00							
Average Parking Usage							40.44%
						MAX	73.53%

Comments

No PSVs or motorcycles visited the site on the day of the survey.

OGVs visiting the site parked on the street.

Site reference:	EB-04-A-01	Survey date:	23/04/2018	Day of week:	Monday		
Description	Primary School	Town	Edinburgh	Site area (sqm)	4176	Number of	214
Total Spaces	24	Parking Spaces per 100 sq	0.575	Parking Spaces	0.112		

Survey type:	Manual Count						
AM weather:	Cold and Windy						
PM weather:	Mild and Cloudy						
Initial car park occupancy:	0	Final car park occupancy:	0				
BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE							
Parking Capacity	108%	(24 On-Site Spaces)					
Data proportions in %							
Motor cars	90	Motor cycles	1	Public service	0		
Light goods	5	OGV (1)	0	OGV (2)	0		
Taxis	4						
Servicing Vehicles count recorded	No						

Time	Arr 215	Dep 215	Totals 430	Parking Accum	Arr	Dep	% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00	3	0	3	3	100%	0%	12.50%
08:00-09:00	100	77	177	26	56%	44%	100.00%
09:00-10:00	10	11	21	25	48%	52%	100.00%
10:00-11:00	0	0	0	25	0%	0%	100.00%
11:00-12:00	0	0	0	25	0%	0%	100.00%
12:00-13:00	14	15	29	24	48%	52%	100.00%
13:00-14:00	5	3	8	26	63%	38%	100.00%
14:00-15:00	0	0	0	26	0%	0%	100.00%
15:00-16:00	74	74	148	26	50%	50%	100.00%
16:00-17:00	9	34	43	1	21%	79%	4.17%
17:00-18:00	0	1	1	0	0%	100%	0.00%
18:00-19:00	0	0	0	0	0%	0%	0.00%
19:00-20:00							
20:00-21:00							
21:00-22:00							
22:00-23:00							
23:00-24:00							
Average Parking Usage							68.06%
						MAX	100.00%

Comments

No PSVs or OGVs arrived at or departed from the site during this survey.

Site reference:	LU-04-A-02	Survey date:	19/06/2015	Day of week:	Friday		
Description	Primary School	Town	Drogheda	Site area (sqm)	6750	Number of	1020
Total Spaces	161	Parking Spaces per 100 sq	2.385	Parking Spaces	0.158		

Survey type:	Manual Count						
AM weather:	Mild and Cloudy						
PM weather:	Mild and Cloudy						
Initial car park occupancy:	0	Final car park occupancy:	0				
BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE							
Parking Capacity	53%	(161 On-Site Spaces)					
Data proportions in %							
Motor cars	96	Motor cycles	0	Public service	0		
Light goods	2	OGV (1)	0	OGV (2)	0		
Taxis	2						
Servicing Vehicles count recorded	No						

Time	Arr 421	Dep 421	Totals 842	Parking Accum	Arr	Dep	% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00	0	0	0	0	0%	0%	0.00%
08:00-09:00	127	50	177	77	72%	28%	47.83%
09:00-10:00	107	128	235	56	46%	54%	34.78%
10:00-11:00	10	11	21	55	48%	52%	34.16%
11:00-12:00	9	11	20	53	45%	55%	32.92%
12:00-13:00	18	13	31	58	58%	42%	36.02%
13:00-14:00	75	47	122	86	61%	39%	53.42%
14:00-15:00	73	84	157	75	46%	54%	46.58%
15:00-16:00	2	65	67	12	3%	97%	7.45%
16:00-17:00	0	10	10	2	0%	100%	1.24%
17:00-18:00	0	2	2	0	0%	100%	0.00%
18:00-19:00	0	0	0	0	0%	0%	0.00%
19:00-20:00	0	0	0	0	0%	0%	0.00%
20:00-21:00							
21:00-22:00							
22:00-23:00							
23:00-24:00							
Average Parking Usage							22.65%
						MAX	53.42%

Comments

No OGV's

PSV's or motorcycles visited the site during this survey.

Site reference:	WM-04-A-02	Survey date:	10/11/2015	Day of week:	Tuesday		
Description	Primary School	Town	Birmingham	Site area (sqm)	1375	Number of	234
Total Spaces	18	Parking Spaces per 100 sq	1.309	Parking Spaces	0.077		

Survey type:	Manual Count				
AM weather:	Cold and Cloudy				
PM weather:	Cold and Cloudy				
Initial car park occupancy:	0	Final car park occupancy:	0		
BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE					
Parking Capacity	233%	(18 On-Site Spaces)			
Data proportions in %					
Motor cars	95	Motor cycles	0	Public service	0
Light goods	2	OGV (1)	1	OGV (2)	0
Taxis	2				
Servicing Vehicles count recorded	No				

Time	Arr 192	Dep 192	Totals 384	Parking Accum	Arr	Dep	% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00	6	0	6	6	100%	0%	33.33%
08:00-09:00	54	42	96	18	56%	44%	100.00%
09:00-10:00	13	13	26	18	50%	50%	100.00%
10:00-11:00	4	3	7	19	57%	43%	100.00%
11:00-12:00	3	4	7	18	43%	57%	100.00%
12:00-13:00	5	9	14	14	36%	64%	77.78%
13:00-14:00	9	6	15	17	60%	40%	94.44%
14:00-15:00	30	5	35	42	86%	14%	100.00%
15:00-16:00	39	70	109	11	36%	64%	61.11%
16:00-17:00	20	25	45	6	44%	56%	33.33%
17:00-18:00	8	14	22	0	36%	64%	0.00%
18:00-19:00	1	1	2	0	50%	50%	0.00%
19:00-20:00							
20:00-21:00							
21:00-22:00							
22:00-23:00							
23:00-24:00							
Average Parking Usage							66.67%
						MAX	100.00%

Comments

No motorcycles

PSVs or cycles either entered or exited the site on the day of the survey.

Secondary Schools

Total Bays	Average Demand
123	50.68%
103	62.70%
33	86.87%
181	51.24%
50	73.83%
44	52.46%
38	91.89%
55	75.30%
90	66.30%
40	38.96%
65	61.79%
54	28.09%
35	75.71%
60	75.42%
Average MAX	91.41%

Site reference:	AN-04-B-02	Survey date:	23/11/2018	Day of week:	Friday			
Description	Secondary Schoc	Town	Belfast	Site area (sqm)	12275	Number of	850	
Total Spaces	123	Parking Spaces per 100 sqn	1.002	Parking Spaces	0.145			

Survey type:	Manual Count
AM weather:	Cold and Light Rain
PM weather:	Mild and Cloudy
Initial car park occupancy:	Final car park occupancy:
BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE	
Parking Capacity	
Data proportions in %	

Motor cars	92	Motor cycles	0	Public service	0
Light goods	4	OGV (1)	0	OGV (2)	0
Taxis	3				

Servicing Vehicles count recorded: No

Time	Arr 301	Dep 303	Totals 604	Parking Accum	Arr	Dep	% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00	25	3	28	-22	89%	11%	17.89%
08:00-09:00	155	79	234	-98	66%	34%	79.67%
09:00-10:00	4	6	10	-96	40%	60%	78.05%
10:00-11:00	1	2	3	-95	33%	67%	77.24%
11:00-12:00	3	2	5	-96	60%	40%	78.05%
12:00-13:00	6	5	11	-97	55%	45%	78.86%
13:00-14:00	7	7	14	-97	50%	50%	78.86%
14:00-15:00	82	0	82	-179	100%	0%	100.00%
15:00-16:00	18	177	195	-20	9%	91%	16.26%
16:00-17:00	0	20	20	0	0%	100%	0.00%
17:00-18:00	0	2	2	-2	0%	100%	1.63%
18:00-19:00	0	0	0	-2	#DIV/0!	#DIV/0!	1.63%
19:00-20:00							
20:00-21:00							
21:00-22:00							
22:00-23:00							
23:00-24:00							
Average Parking Usage							50.68%
						MAX	100.00%

Comments

No pedal cycles visited the site during this survey.

The maximum parking accumulation exceeding the number of parking spaces available can be explained by the fact that off-site parking was also included in this survey.

Site reference:	BH-04-B-01	Survey date:	27/09/2017	Day of week:	Wednesday		
Description	Secondary Scho	Town	Brighton	Site area (sqm)	18000	Number of	1596
Total Spaces	103	Parking Spaces per 100 sq	0.572	Parking Spaces	0.065		

Survey type:	Manual Count						
AM weather:	Hot and Cloudy						
PM weather:	Mild and Light Rain						
Initial car park occupancy:	25	Final car park occupancy:	17				
BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE							
Parking Capacity	90%	(103 On-Site Spaces)					
Data proportions in %							
Motor cars	90	Motor cycles	1	Public service	0		
Light goods	4	OGV (1)	1	OGV (2)	0		
Taxis	4						
Servicing Vehicles count recorded	No						

Time	Arr 390	Dep 398	Totals 788	Parking Accum	Arr	Dep	% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00	83	31	114	77	73%	27%	74.76%
08:00-09:00	76	62	138	91	55%	45%	88.35%
09:00-10:00	12	20	32	83	38%	63%	80.58%
10:00-11:00	14	12	26	85	54%	46%	82.52%
11:00-12:00	16	8	24	93	67%	33%	90.29%
12:00-13:00	6	12	18	87	33%	67%	84.47%
13:00-14:00	15	27	42	75	36%	64%	72.82%
14:00-15:00	33	24	57	84	58%	42%	81.55%
15:00-16:00	37	67	104	54	36%	64%	52.43%
16:00-17:00	36	69	105	21	34%	66%	20.39%
17:00-18:00	31	44	75	8	41%	59%	7.77%
18:00-19:00	31	22	53	17	58%	42%	16.50%
19:00-20:00							
20:00-21:00							
21:00-22:00							
22:00-23:00							
23:00-24:00							
Average Parking Usage							62.70%
						MAX	90.29%

Comments

No PSVs visited the site during this survey.

At least 13 of the initial car park occupants were cars at least two were motorcycles and at least three were LGVs.

At least ten of the final car park occupants were cars.

At least six cycles were present on site at the conclusion of the survey.

Site reference:	BR-04-B-01	Survey date:	21/09/2015	Day of week:	Monday		
Description	Secondary Scho	Town	Keynsham	Site area (sqm)	8650	Number of	435
Total Spaces	33	Parking Spaces per 100 sq	0.382	Parking Spaces	0.076		

Survey type:	Manual Count						
AM weather:	Mild and Light Rain						
PM weather:	Mild and Clear						
Initial car park occupancy:	0	Final car park occupancy:	17				
BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE							
Parking Capacity	170%	(33 On-Site Spaces)					
Data proportions in %							
Motor cars	84	Motor cycles	1	Public service	4		
Light goods	9	OGV (1)	0	OGV (2)	0		
Taxis	2						
Servicing Vehicles count recorded	No						

Time	Arr 188	Dep 171	Totals 359	Parking Accum	Arr	Dep	% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00	29	3	32	26	91%	9%	78.79%
08:00-09:00	56	35	91	47	62%	38%	100.00%
09:00-10:00	21	21	42	47	50%	50%	100.00%
10:00-11:00	5	2	7	50	71%	29%	100.00%
11:00-12:00	4	5	9	49	44%	56%	100.00%
12:00-13:00	4	3	7	50	57%	43%	100.00%
13:00-14:00	3	3	6	50	50%	50%	100.00%
14:00-15:00	8	2	10	56	80%	20%	100.00%
15:00-16:00	35	45	80	46	44%	56%	100.00%
16:00-17:00	7	30	37	23	19%	81%	69.70%
17:00-18:00	4	13	17	14	24%	76%	42.42%
18:00-19:00	12	9	21	17	57%	43%	51.52%
19:00-20:00							
20:00-21:00							
21:00-22:00							
22:00-23:00							
23:00-24:00							
Average Parking Usage							86.87%
						MAX	100.00%

Comments

No OGV's visited the site during this survey.

The maximum parking accumulation exceeding the number of parking spaces available can be explained by the fact that off-site parking was also included in this survey.

Site reference:	CF-04-B-01	Survey date:	07/10/2016	Day of week:	Friday		
Description	Secondary Scho	Town	Cardiff	Site area (sqm)	12200	Number of	1338
Total Spaces	181	Parking Spaces per 100 sq	1.484	Parking Spaces	0.135		

Survey type:	Manual Count						
AM weather:	Mild and Cloudy						
PM weather:	Mild and Cloudy						
Initial car park occupancy:	5	Final car park occupancy:	26				
BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE							
Parking Capacity	79%	(181 On-Site Spaces)					
Data proportions in %							
Motor cars	93	Motor cycles	0	Public service	3		
Light goods	3	OGV (1)	0	OGV (2)	0		
Taxis	1						
Servicing Vehicles count recorded	No						

Time	Arr 688	Dep 667	Totals 1355	Parking Accum	Arr	Dep	% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00	67	22	89	50	75%	25%	27.62%
08:00-09:00	317	240	557	127	57%	43%	70.17%
09:00-10:00	19	17	36	129	53%	47%	71.27%
10:00-11:00	22	20	42	131	52%	48%	72.38%
11:00-12:00	17	14	31	134	55%	45%	74.03%
12:00-13:00	45	58	103	121	44%	56%	66.85%
13:00-14:00	31	22	53	130	58%	42%	71.82%
14:00-15:00	74	61	135	143	55%	45%	79.01%
15:00-16:00	31	125	156	49	20%	80%	27.07%
16:00-17:00	44	45	89	48	49%	51%	26.52%
17:00-18:00	13	36	49	25	27%	73%	13.81%
18:00-19:00	8	7	15	26	53%	47%	14.36%
19:00-20:00							
20:00-21:00							
21:00-22:00							
22:00-23:00							
23:00-24:00							
Average Parking Usage							51.24%
						MAX	79.01%

Comments

No motorcycles either entered or exited the site on the day of the survey.

At least one of the initial car park occupants was a PSV.

At least 21 of the final car park occupants were cars and at least one was a PSV.

During the survey there were nine inbound servicing vehicle t eight of which v and nine outbound servic eight of which were LGVs and one was was an OGV.

Site reference:	DL-04-B-02	Survey date:	19/10/2015	Day of week:	Monday		
Description	Secondary Scho	Town	Dublin	Site area (sqm)	6296	Number of	726
Total Spaces	50	Parking Spaces per 100 sq	0.794	Parking Spaces	0.069		

Survey type:	Manual Count				
AM weather:	Cold and Light Rain				
PM weather:	Cold and Cloudy				
Initial car park occupancy:	1	Final car park occupancy:	18		
BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE					
Parking Capacity	120%	(50 On-Site Spaces)			
Data proportions in %					
Motor cars	96	Motor cycles	0	Public service	1
Light goods	2	OGV (1)	1	OGV (2)	0
Taxis	0				
Servicing Vehicles count recorded	No				

Time	Arr 670	Dep 653	Totals 1323	Parking Accum	Arr	Dep	% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00	7	6	13	2	54%	46%	4.00%
08:00-09:00	280	230	510	52	55%	45%	100.00%
09:00-10:00	19	14	33	57	58%	42%	100.00%
10:00-11:00	8	8	16	57	50%	50%	100.00%
11:00-12:00	19	16	35	60	54%	46%	100.00%
12:00-13:00	7	8	15	59	47%	53%	100.00%
13:00-14:00	7	6	13	60	54%	46%	100.00%
14:00-15:00	11	19	30	52	37%	63%	100.00%
15:00-16:00	193	201	394	44	49%	51%	88.00%
16:00-17:00	46	70	116	20	40%	60%	40.00%
17:00-18:00	50	61	111	9	45%	55%	18.00%
18:00-19:00	23	14	37	18	62%	38%	36.00%
19:00-20:00							
20:00-21:00							
21:00-22:00							
22:00-23:00							
23:00-24:00							
Average Parking Usage							73.83%
						MAX	100.00%

Comments

No taxis visited the site during this survey.

The maximum parking accumulation exceeding the number of spaces available can be explained by the fact that off-site parking was also included in the survey.

OGV's park within the general parking area as there are no specified OGV parking spaces or loading bays.

Site reference:	DN-04-B-02	Survey date:	10/10/2018	Day of week:	Wednesday		
Description	Secondary Scho	Town	Letterkenny	Site area (sqm)	6675	Number of	275
Total Spaces	44	Parking Spaces per 100 sq	0.659	Parking Spaces	0.16		

Survey type:	Manual Count				
AM weather:	Mild and Cloudy				
PM weather:	Mild and Clear				
Initial car park occupancy:	2	Final car park occupancy:	7		
BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE					
Parking Capacity	150%	(44 On-Site Spaces)			
Data proportions in %					
Motor cars	91	Motor cycles	0	Public service	2
Light goods	6	OGV (1)	0	OGV (2)	0
Taxis	1				
Servicing Vehicles count recorded	No				

Time	Arr 317	Dep 312	Totals 629	Parking Accum	Arr	Dep	% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00	1	0	1	3	100%	0%	6.82%
08:00-09:00	133	107	240	29	55%	45%	65.91%
09:00-10:00	28	31	59	26	47%	53%	59.09%
10:00-11:00	5	4	9	27	56%	44%	61.36%
11:00-12:00	7	4	11	30	64%	36%	68.18%
12:00-13:00	6	8	14	28	43%	57%	63.64%
13:00-14:00	14	15	29	27	48%	52%	61.36%
14:00-15:00	9	7	16	29	56%	44%	65.91%
15:00-16:00	47	10	57	66	82%	18%	100.00%
16:00-17:00	47	93	140	20	34%	66%	45.45%
17:00-18:00	19	32	51	7	37%	63%	15.91%
18:00-19:00	1	1	2	7	50%	50%	15.91%
19:00-20:00							
20:00-21:00							
21:00-22:00							
22:00-23:00							
23:00-24:00							
Average Parking Usage							52.46%
						MAX	100.00%

Comments

No OGV's or motorcycles visited the site during this survey.

Site reference:	GM-04-B-03	Survey date:	23/09/2016	Day of week:	Friday		
Description	Secondary Scho	Town	Rochdale	Site area (sqm)	9589	Number of	780
Total Spaces	38	Parking Spaces per 100 sq	0.396	Parking Spaces	0.049		

Survey type:	Manual Count						
AM weather:	Mild and Light Rain						
PM weather:	Mild and Light Rain						
Initial car park occupancy:	12	Final car park occupancy:	26				
BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE							
Parking Capacity	303%	(38 On-Site Spaces)					
Data proportions in %							
Motor cars	91	Motor cycles	0	Public service	6		
Light goods	2	OGV (1)	0	OGV (2)	0		
Taxis	1						
Servicing Vehicles count recorded	No						

Time	Arr 207	Dep 193	Totals 400	Parking Accum	Arr	Dep	% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00	32	0	32	44	100%	0%	100.00%
08:00-09:00	91	23	114	112	80%	20%	100.00%
09:00-10:00	6	3	9	115	67%	33%	100.00%
10:00-11:00	5	5	10	115	50%	50%	100.00%
11:00-12:00	5	7	12	113	42%	58%	100.00%
12:00-13:00	7	8	15	112	47%	53%	100.00%
13:00-14:00	5	7	12	110	42%	58%	100.00%
14:00-15:00	12	9	21	113	57%	43%	100.00%
15:00-16:00	15	73	88	55	17%	83%	100.00%
16:00-17:00	5	37	42	23	12%	88%	60.53%
17:00-18:00	22	17	39	28	56%	44%	73.68%
18:00-19:00	2	4	6	26	33%	67%	68.42%
19:00-20:00							
20:00-21:00							
21:00-22:00							
22:00-23:00							
23:00-24:00							
Average Parking Usage							91.89%
						MAX	100.00%

Comments

No OGV's or motorcycles visited the site during this survey.

The maximum accumulation of vehicles exceeding the number of parking spaces available can be explained by the fact that off-site parking was also included in this survey.

Site reference:	HG-04-B-01	Survey date:	17/11/2015	Day of week:	Tuesday			
Description	Secondary Scho	Town	Wood Greer	Site area (sqm)	12800	Number of	1091	
Total Spaces	55	Parking Spaces per 100 sq	0.43	Parking Spaces	0.05			

Survey type:	Manual Count							
AM weather:	Cold and Light Rain							
PM weather:	Cold and Light Rain							
Initial car park occupancy:	5	Final car park occupancy:	7					
BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE								
Parking Capacity	138%	(55 On-Site Spaces)						
Data proportions in %								
Motor cars	100	Motor cycles	0	Public service	0			
Light goods	0	OGV (1)	0	OGV (2)	0			
Taxis	0							
Servicing Vehicles count recorded	No							

Time	Arr 643	Dep 641	Totals 1284	Parking Accum	Arr	Dep	% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00	22	1	23	26	96%	4%	47.27%
08:00-09:00	289	259	548	56	53%	47%	100.00%
09:00-10:00	10	18	28	48	36%	64%	87.27%
10:00-11:00	5	3	8	50	63%	38%	90.91%
11:00-12:00	3	4	7	49	43%	57%	89.09%
12:00-13:00	4	3	7	50	57%	43%	90.91%
13:00-14:00	9	16	25	43	36%	64%	78.18%
14:00-15:00	38	5	43	76	88%	12%	100.00%
15:00-16:00	232	247	479	61	48%	52%	100.00%
16:00-17:00	13	35	48	39	27%	73%	70.91%
17:00-18:00	9	28	37	20	24%	76%	36.36%
18:00-19:00	9	22	31	7	29%	71%	12.73%
19:00-20:00							
20:00-21:00							
21:00-22:00							
22:00-23:00							
23:00-24:00							
Average Parking Usage							75.30%
						MAX	100.00%

Comments

No PSV's taxis or LGV's visited the site on the day of the survey.

The maximum parking accumulation exceeding the number of on-site parking spaces available is explained by the fact that off-site parking was included in this survey.

Site reference:	LC-04-B-02	Survey date:	06/11/2018	Day of week:	Tuesday		
Description	Secondary Acad	Town	Lostock Hall	Site area (sqm)	8300	Number of	560
Total Spaces	90	Parking Spaces per 100 sq	1.084	Parking Spaces	0.161		

Survey type:	Manual Count						
AM weather:	Mild and Cloudy						
PM weather:	Mild and Cloudy						
Initial car park occupancy:	19	Final car park occupancy:	8				
BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE							
Parking Capacity	97%	(90 On-Site Spaces)					
Data proportions in %							
Motor cars	89	Motor cycles	0	Public service	1		
Light goods	8	OGV (1)	1	OGV (2)	0		
Taxis	1						
Servicing Vehicles count recorded	No						

Time	Arr 308	Dep 319	Totals 627	Parking Accum	Arr	Dep	% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00	32	3	35	48	91%	9%	53.33%
08:00-09:00	122	84	206	86	59%	41%	95.56%
09:00-10:00	11	10	21	87	52%	48%	96.67%
10:00-11:00	9	10	19	86	47%	53%	95.56%
11:00-12:00	7	8	15	85	47%	53%	94.44%
12:00-13:00	7	8	15	84	47%	53%	93.33%
13:00-14:00	13	21	34	76	38%	62%	84.44%
14:00-15:00	26	16	42	86	62%	38%	95.56%
15:00-16:00	25	59	84	52	30%	70%	57.78%
16:00-17:00	8	55	63	5	13%	87%	5.56%
17:00-18:00	29	21	50	13	58%	42%	14.44%
18:00-19:00	19	24	43	8	44%	56%	8.89%
19:00-20:00							
20:00-21:00							
21:00-22:00							
22:00-23:00							
23:00-24:00							
Average Parking Usage							66.30%
						MAX	96.67%

Comments

No motorcycles visited the site during this survey.

Site reference:	NY-04-B-03	Survey date:	08/03/2019	Day of week:	Friday			
Description	Secondary Scho	Town	Skipton	Site area (sqm)	6884	Number of	800	
Total Spaces	40	Parking Spaces per 100 sq	0.581	Parking Spaces	0.05			

Multi-Modal survey site

Vehicles surveyed:	Total vehicles							
Survey type:	Manual Count							
AM weather:	Mild and Cloudy							
PM weather:	Mild and Cloudy							
Initial car park occupancy:	1	Final car park occupancy:	4					

Total People to Total Vehicles ratio (all time periods and directions): 1.45

BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE

Parking Capacity	68%	(40 On-Site Spaces)						
Data proportions in %								
Motor cars	97	Motor cycles	0	Public service	0			
Light goods	2	OGV (1)	1	OGV (2)	0			
Taxis	0							
Servicing Vehicles count recorded	Yes							

Servicing/Standard Vehicle percentages

	Vehicles	Servicing %	Standard %
OGV (1)	6	100	0
OGV (2)	0		
Light Goods	20	40	60
Motor Car	969	0	100

Time	Arr 499	Dep 496	Totals 995	Parking Accum Arr	Dep		% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00	40	29	69	12	58%	42%	30.00%
08:00-09:00	163	148	311	27	52%	48%	67.50%
09:00-10:00	18	18	36	27	50%	50%	67.50%
10:00-11:00	9	9	18	27	50%	50%	67.50%
11:00-12:00	5	6	11	26	45%	55%	65.00%
12:00-13:00	2	12	14	16	14%	86%	40.00%
13:00-14:00	9	11	20	14	45%	55%	35.00%
14:00-15:00	4	5	9	13	44%	56%	32.50%
15:00-16:00	53	56	109	10	49%	51%	25.00%
16:00-17:00	176	182	358	4	49%	51%	10.00%
17:00-18:00	16	13	29	7	55%	45%	17.50%
18:00-19:00	4	7	11	4	36%	64%	10.00%
19:00-20:00							
20:00-21:00							
21:00-22:00							
22:00-23:00							
23:00-24:00							
Average Parking Usage							38.96%
						MAX	67.50%

Comments

No taxis motorcycles PSVs rail passengers or coach passengers either arrived at or departed from the site during the survey.

The initial car park occupant was an LGV.

Three of the final car park occupants were cars and one was an LGV.

There was at least one cycle present on site following the conclusion of the survey.

Site reference:	TI-04-B-01	Survey date:	21/11/2017	Day of week:	Tuesday		
Description	Secondary Scho	Town	Thurles	Site area (sqm)	5200	Number of	400
Total Spaces	65	Parking Spaces per 100 sq	1.25	Parking Spaces	0.163		

Survey type:	Manual Count				
AM weather:	Cold and Cloudy				
PM weather:	Cold and Cloudy				
Initial car park occupancy:	0	Final car park occupancy:	0		
BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE					
Parking Capacity	171%	(65 On-Site Spaces)			
Data proportions in %					
Motor cars	93	Motor cycles	0	Public service	0
Light goods	6	OGV (1)	0	OGV (2)	0
Taxis	1				
Servicing Vehicles count recorded	No				

Time	Arr 426	Dep 426	Totals 852	Parking Accum	Arr	Dep	% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00	7	3	10	4	70%	30%	6.15%
08:00-09:00	165	115	280	54	59%	41%	83.08%
09:00-10:00	34	24	58	64	59%	41%	98.46%
10:00-11:00	11	9	20	66	55%	45%	100.00%
11:00-12:00	10	12	22	64	45%	55%	98.46%
12:00-13:00	13	22	35	55	37%	63%	84.62%
13:00-14:00	21	33	54	43	39%	61%	66.15%
14:00-15:00	27	22	49	48	55%	45%	73.85%
15:00-16:00	94	31	125	111	75%	25%	100.00%
16:00-17:00	21	118	139	14	15%	85%	21.54%
17:00-18:00	20	28	48	6	42%	58%	9.23%
18:00-19:00	3	9	12	0	25%	75%	0.00%
19:00-20:00							
20:00-21:00							
21:00-22:00							
22:00-23:00							
23:00-24:00							
Average Parking Usage							61.79%
						MAX	100.00%

Comments

No motorcycles or PSVs visited the site during this survey.

Three of the final car park occupants were cars and one was an LGV.

There was at least one cycle present on site following the conclusion of the survey.

Site reference:	WA-04-B-02	Survey date:	08/03/2023	Day of week:	Wednesday		
Description	Secondary Scho	Town	Waterford	Site area (sqm)	6452	Number of	494
Total Spaces	54	Parking Spaces per 100 sq	0.837	Parking Spaces	0.109		

Multi-Modal survey site

Vehicles surveyed:	Total vehicles
Survey type:	Manual Count
AM weather:	Freezing and Light Sn
PM weather:	Cold and Cloudy

Initial car park occupancy:	0	Final car park occupancy:	0

Total People to Total Vehicles ratio (all time periods and directions): 1.73

BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE

Parking Capacity 46% (54 On-Site Spaces)

Data proportions in %

Motor cars	96	Motor cycles	0	Public service	0
Light goods	1	OGV (1)	0	OGV (2)	0
Taxis	3				

Servicing Vehicles count recorded: Yes

Servicing/Standard Vehicle percentages

	Vehicles	Servicing %	Standard %
OGV (1)	2	100	0
OGV (2)	0		
Light Goods	6	33	67
Motor Car	776	0	100
Motor Cycle			

Time	Arr 404	Dep 404	Totals 808	Parking Accum	Arr	Dep	% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00	11	2	13	9	85%	15%	16.67%
08:00-09:00	175	166	341	18	51%	49%	33.33%
09:00-10:00	19	16	35	21	54%	46%	38.89%
10:00-11:00	1	1	2	21	50%	50%	38.89%
11:00-12:00	2	2	4	21	50%	50%	38.89%
12:00-13:00	1	4	5	18	20%	80%	33.33%
13:00-14:00	3	2	5	19	60%	40%	35.19%
14:00-15:00	4	5	9	18	44%	56%	33.33%
15:00-16:00	49	42	91	25	54%	46%	46.30%
16:00-17:00	123	138	261	10	47%	53%	18.52%
17:00-18:00	16	24	40	2	40%	60%	3.70%
18:00-19:00	0	2	2	0	0%	100%	0.00%
19:00-20:00							
20:00-21:00							
21:00-22:00							
22:00-23:00							
23:00-24:00							
Average Parking Usage							28.09%
						MAX	46.30%

Comments

No motorcycles	PSVs or scooters visited the site during this survey.
There are also after-school classes at the site	and the gym is a which explains some of the later activity recorded.
Pupils are allowed to leave the school during lunch time.	

Site reference:	WM-04-B-04	Survey date:	09/11/2015	Day of week:	Monday		
Description	Secondary Scho	Town	Birmingham	Site area (sqm)	8500	Number of	247
Total Spaces	35	Parking Spaces per 100 sq	0.412	Parking Spaces	0.142		

Survey type:	Manual Count				
AM weather:	Mild and Cloudy				
PM weather:	Mild and Cloudy				
Initial car park occupancy:	13	Final car park occupancy:	1		
BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE					
Parking Capacity	100%	(35 On-Site Spaces)			
Data proportions in %					
Motor cars	79	Motor cycles	0	Public service	1
Light goods	11	OGV (1)	5	OGV (2)	0
Taxis	4				
Servicing Vehicles count recorded	No				

Time	Arr 132	Dep 144	Totals 276	Parking Accum	Arr	Dep	% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00	26	11	37	28	70%	30%	80.00%
08:00-09:00	37	32	69	33	54%	46%	94.29%
09:00-10:00	4	3	7	34	57%	43%	97.14%
10:00-11:00	3	5	8	32	38%	63%	91.43%
11:00-12:00	8	6	14	34	57%	43%	97.14%
12:00-13:00	8	7	15	35	53%	47%	100.00%
13:00-14:00	3	3	6	35	50%	50%	100.00%
14:00-15:00	1	1	2	35	50%	50%	100.00%
15:00-16:00	35	38	73	32	48%	52%	91.43%
16:00-17:00	6	22	28	16	21%	79%	45.71%
17:00-18:00	0	13	13	3	0%	100%	8.57%
18:00-19:00	1	3	4	1	25%	75%	2.86%
19:00-20:00							
20:00-21:00							
21:00-22:00							
22:00-23:00							
23:00-24:00							
Average Parking Usage							75.71%
						MAX	100.00%

Comments

No motorcycles either entered or exited the site on the day of the survey.

One of the initial car park occupants was a PSV 10 of them were cars and two of them were LGVs.

The final car park occupant was a PSV.

Site reference:	WM-04-B-06	Survey date:	21/11/2017	Day of week:	Tuesday		
Description	Secondary Scho	Town	Stourbridge	Site area (sqm)	9420	Number of	840
Total Spaces	60	Parking Spaces per 100 sq	0.637	Parking Spaces	0.071		

Survey type:	Manual Count				
AM weather:	Cold and Cloudy				
PM weather:	Cold and Cloudy				
Initial car park occupancy:	2	Final car park occupancy:	5		
BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE					
Parking Capacity	127%	(60 On-Site Spaces)			
Data proportions in %					
Motor cars	88	Motor cycles	0	Public service	0
Light goods	8	OGV (1)	2	OGV (2)	0
Taxis	2				
Servicing Vehicles count recorded	No				

Time	Arr 260	Dep 257	Totals 517	Parking Accum	Arr	Dep	% Spaces Filled
00:00-01:00							
01:00-02:00							
02:00-03:00							
03:00-04:00							
04:00-05:00							
05:00-06:00							
06:00-07:00							
07:00-08:00	31	7	38	26	82%	18%	43.33%
08:00-09:00	97	56	153	67	63%	37%	100.00%
09:00-10:00	15	11	26	71	58%	42%	100.00%
10:00-11:00	10	9	19	72	53%	47%	100.00%
11:00-12:00	7	6	13	73	54%	46%	100.00%
12:00-13:00	5	7	12	71	42%	58%	100.00%
13:00-14:00	14	13	27	72	52%	48%	100.00%
14:00-15:00	26	22	48	76	54%	46%	100.00%
15:00-16:00	26	42	68	60	38%	62%	100.00%
16:00-17:00	13	49	62	24	21%	79%	40.00%
17:00-18:00	6	22	28	8	21%	79%	13.33%
18:00-19:00	10	13	23	5	43%	57%	8.33%
19:00-20:00							
20:00-21:00							
21:00-22:00							
22:00-23:00							
23:00-24:00							
Average Parking Usage							75.42%
						MAX	100.00%

Comments

No motorcycles visited the site during this survey.

At least one of the initial car park occupants was a PSV.

At least three of the final car park occupants were cars and at least one was a PSV.

Appendix C Consideration of Extant Planning Applications – Current and Future Demand

Development	Car Trips	Daily Arrivals 0700-1900 (taken from Planning Applications)	Estimated Daily Arrivals	Car Parking Spaces Provided	Cycle Parking Spaces Provided
DZ17A/0122 - Office Blocks F1 & F2	Current Demand	-	530	339	140
DZ18A/0458 - Primary School	Current Demand	-	500	20	192
Carrickmines Park & Ride	Current Demand	-	387	352	62
DZ17A/0417 - HIE	Current Demand	-	696	740	-
DZ15A/0814 - Public Park, Sports Facilities	Current Demand	-	40	52	80
DZ20A/0478 - Public Park	Current Demand	-	150	75	-
		Current Demand / Supply Total	**2,303**	**1,578**	**474**
DZ18A/1104 - Office Block F3	Future Demand	-	292	367	42
DZ17A/0731 - Office Block G3	Future Demand	-	96	28	30
DZ21A/0785 - TC3-1 Office Building	Future Demand	688	-	151	146
DZ21A/1038 - Post Primary School	Future Demand	-	418	29	220
DZ23A/0359 - Garden Centre	Future Demand	451	-	97[9]	-
DZ22A/0591 - Commercial	Future Demand	208	-	353	44
DZ22A/0591 - Non Retail	Future Demand	84	-		
DZ22A/0591 - Community	Future Demand	58	-		
DZ22A/0591 - Creche	Future Demand	150	-	7*	
DZ17A/0862 - TC1, TC2, TC4 (Retail)	Future Demand	-	1859	2,643	1865
DZ17A/0862 - TC1, TC2, TC4 (Non Retail)	Future Demand	-	3953		
DZ17A/0862 - TC1, TC2, TC4 (HIE)	Future Demand	-	849		
DZ17A/0862 - TC1, TC2, TC4 (Community)	Future Demand		80		
DZ22A/1021 - Creche	Future Demand	-	120	9	32
DZ20A/0052 - HIE	Future Demand	-	450	180	640
DZ20A/0052 - Non-retail commercial	Future Demand	-	182		
DZ17A/0714 - Creche	Future Demand	-	49	17	-
DZ23A/0005 - Creche	Future Demand	-	94	11	6
ABP31332222 - Supermarket	Future Demand	-	442	76	72
ABP31332222 - Retail	Future Demand	-	92		
ABP31332222 - Non Retail (Assumed Office)	Future Demand	-	8		
ABP31332222 - Creche	Future Demand	-	70		
ABP31332222 - Community Facilities	Future Demand	-	23		
ABP31332222 - HIE	Future Demand	-	26	7	6
DZ22A/0770 - Creche	Future Demand	-	55	75	-
DZ22A/0770 - Retail	Future Demand	-	134		
DZ22A/0770 - Community	Future Demand	-	11		
DZ22A/0770 - HIE	Future Demand	-	2		
DZ23A/0106 - Supermarket	Future Demand	-	931	83	88
DZ23A/0106 - Retail	Future Demand	-	128		
DZ23A/0106 - Non-Retail	Future Demand	-	71		
DZ23A/0106 - HIE	Future Demand	-	21		
DZ23A/0106 - Community	Future Demand	-	12		
DZ15A/0813 - Public Park	Future Demand	-	102	56	90
		Future Demand / Supply Total	12,209	**4,189**	**3,281**

*DZ22A/0591 – Creche – It should be noted that the planning documents associated with this application did not provide a breakdown of spaces allocated to each land use in the proposed mixed-use development of residential and associated creche. Within the development area, the creche has a 420 sqm floorspace therefore, it has been assumed that the required car parking spaces, based on the CDP car parking standards, for the creche is 7 spaces.

[9] DZ23A/0359 – Garden Centre – This application is live and has been amended from the initial proposal of 102 car parking spaces.