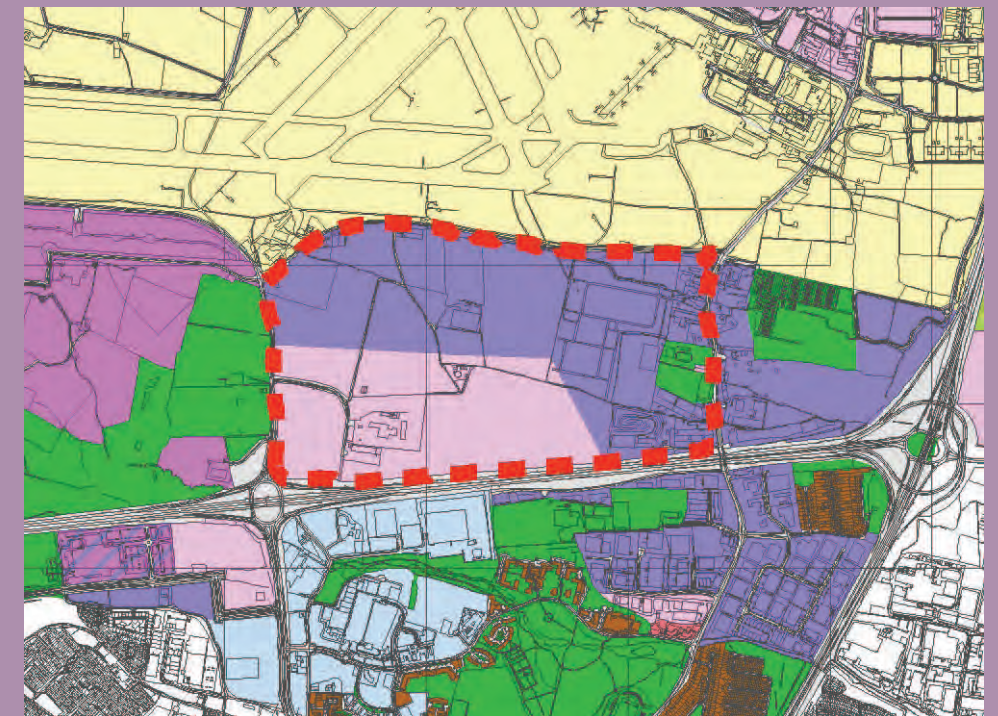
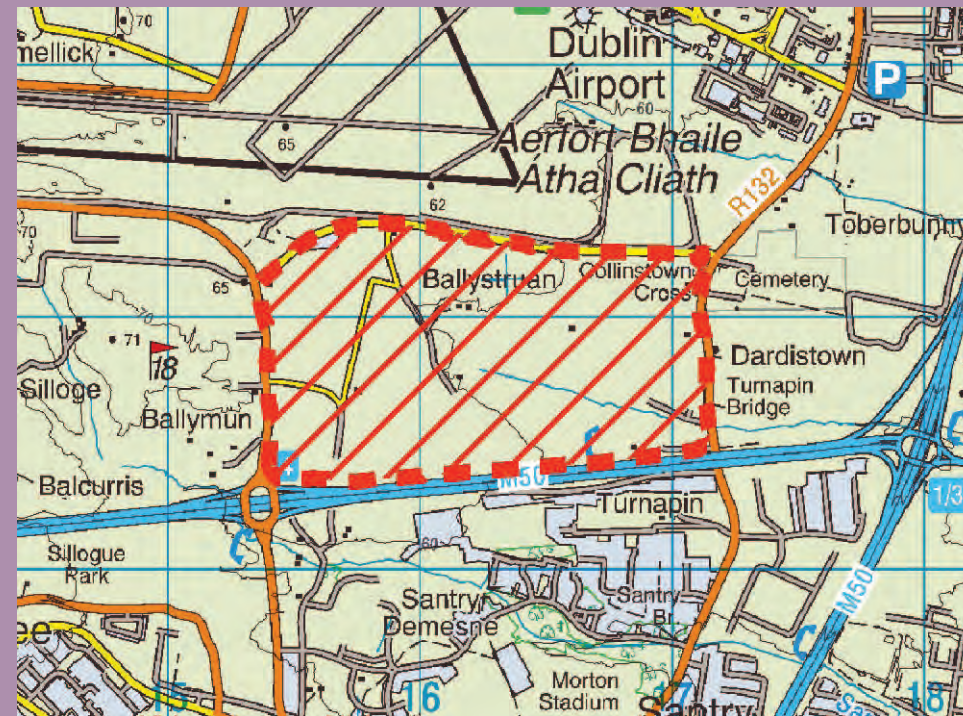


# DARDISTOWN

## Local Area Plan

January 2013





# DARDISTOWN

## Local Area Plan

**Adopted By Council**  
10 - 12 - 2012

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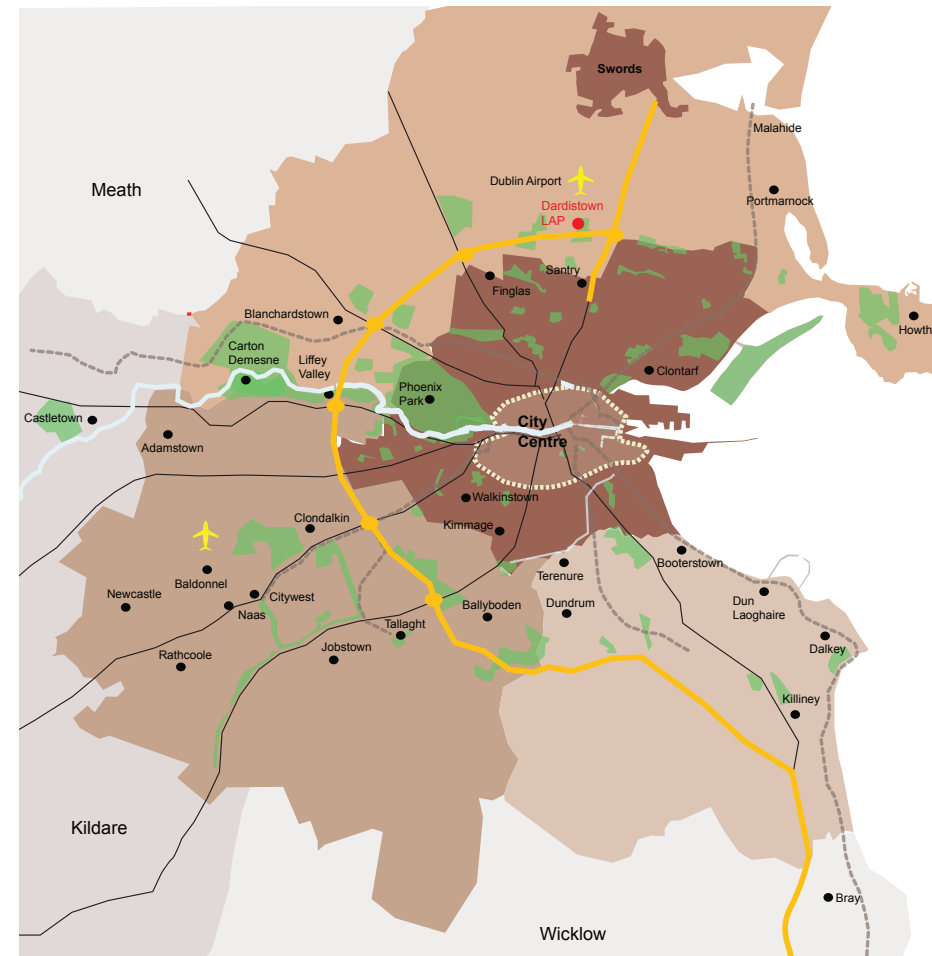


**EXECUTIVE SUMMARY**

**Introduction**

The Dardistown Local Area Plan (LAP) lands are an important strategic development landbank located between Dublin City Centre and Dublin Airport. The lands are bounded by Dublin Airport to the north, the M50 to the south, and the Naul and Swords Roads (R108 and R132) to the west and east, respectively. The LAP area extends to approximately 154 ha.

**Location map**



**Zoning**

Importantly, the LAP lands are comprised primarily of two specific employment zonings in the Fingal County Development Plan 2011-17:

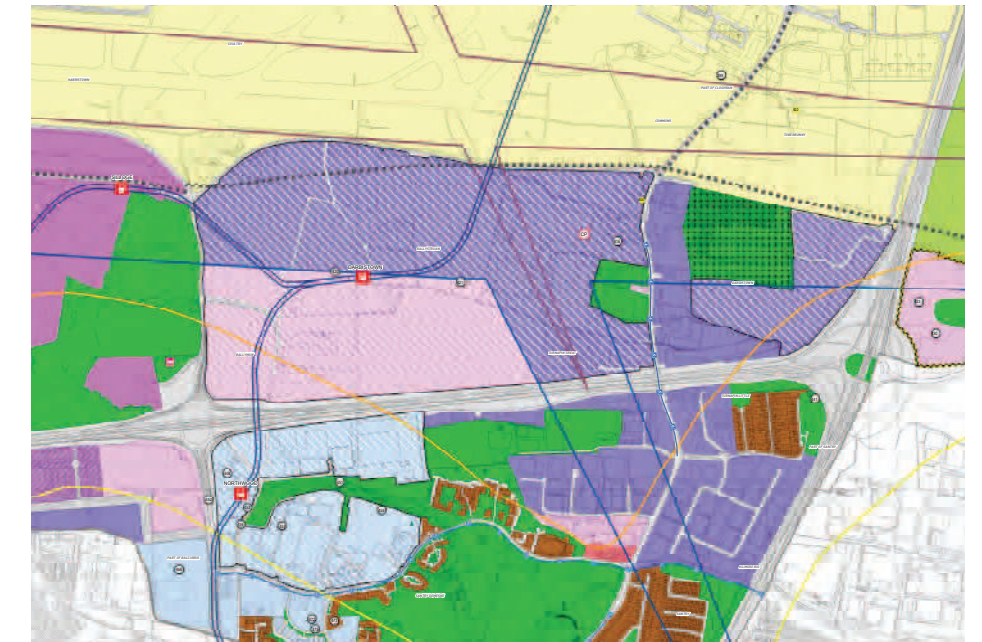
Objective GE - *‘Provide opportunities for general enterprise and employment’*

Objective HT - *‘Provide for office, research and development and high technology/high technology manufacturing type employment in a high quality built and landscaped environment’*

Strategically it is the policy of the Development Plan to facilitate and support the growth of the economy of Fingal. These specific zonings underpin the employment focus of the Dardistown LAP and their strategic importance to the economic growth

of the county and region. The majority of the lands are currently undeveloped and the LAP represents an opportunity for the planned sustainable integration of land use, transportation and economic development.

**Fingal County Development Plan 2011-17: Zoning Map**



**Strategic Vision**

The over arching vision for the LAP is:

*To provide for a strategic employment node, comprising inter alia, office, research and development and high technology manufacturing, maximising opportunities presented by the lands strategic location well served by air, existing and planned high capacity public transport and the national road network, and all within a high quality sustainable environment.*

**Key Guiding Principles**

The strategic location of the lands and accessibility to existing and planned transportation networks presents an opportunity to enhance the economic and employment base of the city-region based on mixed use, primarily employment generating development, integrated with, and supporting, the existing and planned investment in high quality transportation networks. The key principles which have guided the nature and extent of development and the framework into which it sits are as follows:

- To create a strategic employment node between Dublin Airport and the City Centre that will attract employment generating development and contribute to the economic growth of the region.
- To provide a safe and friendly sustainable environment where people can work and which is readily accessible by quality public transport, pedestrian and cycling routes.
- To preserve the Metro North, Depot and Metro West Schemes and to support the economic case for these schemes through the programmed development of the lands.

- To retain and strengthen established watercourses, trees, and hedgerows and to maximise opportunities for the enhancement of existing ecology and biodiversity. The internal movement strategy and urban structuring elements including roads, paths and cycleways are informed by this key objective.
- To identify and facilitate the provision of key enabling infrastructure, to allow development to occur in a planned and co-ordinated manner in tandem with the necessary physical infrastructure.

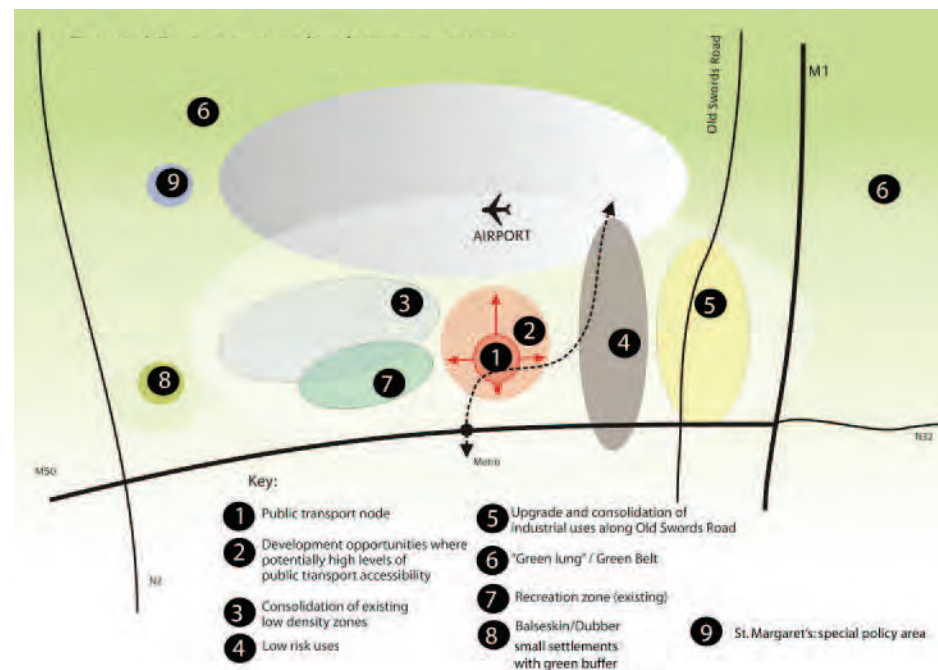
opportunity sites. The phasing programme will be implemented generally in accordance with the LAP. In the event of a material change in circumstances or if a major employment generating opportunity arises proposals will be considered on their merits

The LAP shall remain in force for a period of 6 years from the date of adoption,

### SEA and Habitats Directive

An Environmental Report, in accordance with the requirements of the Strategic Environmental Assessment (SEA) process, is published as a separate document, accompanying this LAP. In accordance with Article 6.3 of the Habitats Directive and Planning and Development Acts 2000-2010, the LAP was screened and it was determined by the planning authority that an Appropriate Assessment was not required. The screening for Appropriate Assessment is published in conjunction with this plan.

### Strategic Development Context for Dardistown



### Phasing

A phasing programme is set out as part of this LAP, which indicates the number of proposed phases, the amount of development in each phase, and the associated infrastructure (such as public transport, roads, water services infrastructure) required to facilitate new development.

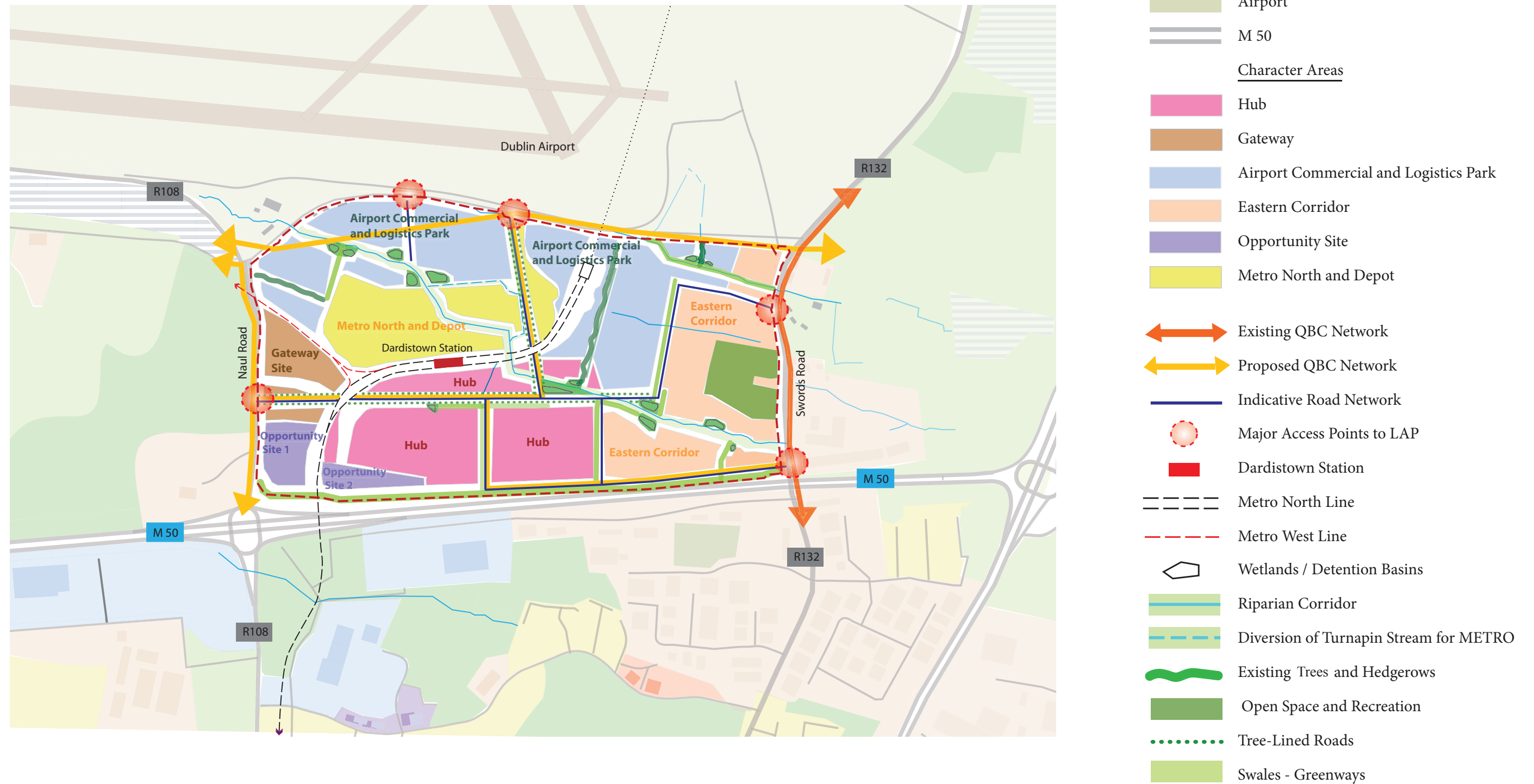
The Government's Infrastructure and Capital Investment Framework 2012-2016 (November 2011) prioritises the provision and upgrade of bus corridors and services in the Ballymun/ Airport/Swords area pending a decision to proceed with Metro North, which is reflected in the LAP phasing.

The LAP delivery and implementation strategy maximises flexibility to accommodate the diverse range of employment opportunities that may be attracted to Dardistown while ensuring that the necessary and appropriate movement, services and supporting infrastructure is in place to meet the needs of employees and visitors.

It is envisaged that only a portion of the LAP lands will be developed over the lifetime of the LAP, concentrating initially on the Naul and Swords Road frontages, and potentially the



Figure A: Dardistown LAP Strategy





**SECTION 1.0**  
**Introduction**

**1.1 Introduction**

The Dardistown LAP lands occupy a strategic location within the Dublin Region and provide an opportunity for the sustainable integration of land use, transportation and economic development.

Dardistown is situated between Dublin Airport and Dublin City whereby the lands are immediately accessible to the nationally significant routes of the M50, the M1 and the Dublin Port Tunnel, which provide high quality connections to the Dublin-Belfast corridor, Dublin Port and to all areas of Dublin. The LAP is bounded by the Swords Quality Bus Corridor (QBC) to the east, which provides a high quality public transport link to the city.

Importantly, the LAP lands include 28.6ha of lands within which the planned Metro North and West lines, the Dardistown Stop, the Metro North Depot and a Park and Ride facility will be located. Metro North will connect Dardistown with Dublin City Centre, Dublin Airport and Swords while Metro West will link Dardistown to Blanchardstown, Clondalkin and Tallaght.

The majority of the substantial 154ha site is undeveloped and greenfield in nature and it therefore represents an opportunity to plan for coherent new development which exploits the strategic advantages of the site. Dardistown is accessible to existing and planned transportation networks and has the potential to enhance the economic and employment base of the county and region.

The Fingal County Development Plan 2011-17 has identified the development potential of Dardistown to create an attractive urban employment precinct, emphasising sustainable transportation and environmentally sound development. The employment zonings of the site reflect this recognition and emphasise the employment focus of this future development area:

Objective GE - *‘Provide opportunities for general enterprise and employment’*

Objective HT - *‘Provide for office, research and development and high technology/high technology manufacturing type employment in a high quality built and landscaped environment’*

The zoning and local objectives in the Fingal County Development Plan 2011-17 associated with the lands are shown in Figure 1.1 below.

This LAP therefore provides a planning and development framework to facilitate a diverse range of employment opportunities that may be attracted to Dardistown. It seeks the delivery of a robust mix of employment generating and complementary uses, centred on a high density mixed use employment node. The LAP will reserve and protect the planned Metro facilities while simultaneously allowing for the phased development of the balance of the lands concerned. The LAP implementation strategy for the period of the LAP (2012-2018) also supports the established QBC on the Swords Road and the provision of an extension to the Ballymun QBC to serve the airport.

**1.2 Sustainability Framework**

The built environment both affects and is affected by the natural environment, the use of water, energy, land and materials, the provision of goods and services, and the generation of waste and emissions. Higher densities of urban development have the potential to offer economies of scale, and can achieve environmental, social and economic sustainability when reinforced by good planning centred on a mix of uses, the integration of land use and urban density with transportation, and the formulation of policies based on reduced consumption of natural resources and the preservation of cultural heritage.

This LAP has been prepared in the context of a Sustainability Framework with the underlying principle of maximising integration between land use planning and transport infrastructure provision. Details of the Sustainability Framework are set out in detail in Section 6 of the LAP, which has been developed to ensure that concepts of sustainable development underpin all elements of the Plan and that all development contributes to the promotion of an environmentally sustainable pattern and form of development which is sensitive and responsive to the local, national, international and global environmental implications of development.

**1.3 Layout of the Plan**

The Local Area Plan is set out in eight sections:

**Section 1** provides an introduction and the context of the LAP.

**Section 2** sets out the statutory planning context of the LAP from national to local level and identifies other plans that are relevant to development in the area.

**Section 3** sets out the key characteristics of the existing environment, including existing land uses and physical, economic and social infrastructure.

**Section 4** sets out the strategic vision and development framework of the LAP. This section establishes an LAP Vision and high level Objectives to be delivered through a development strategy.

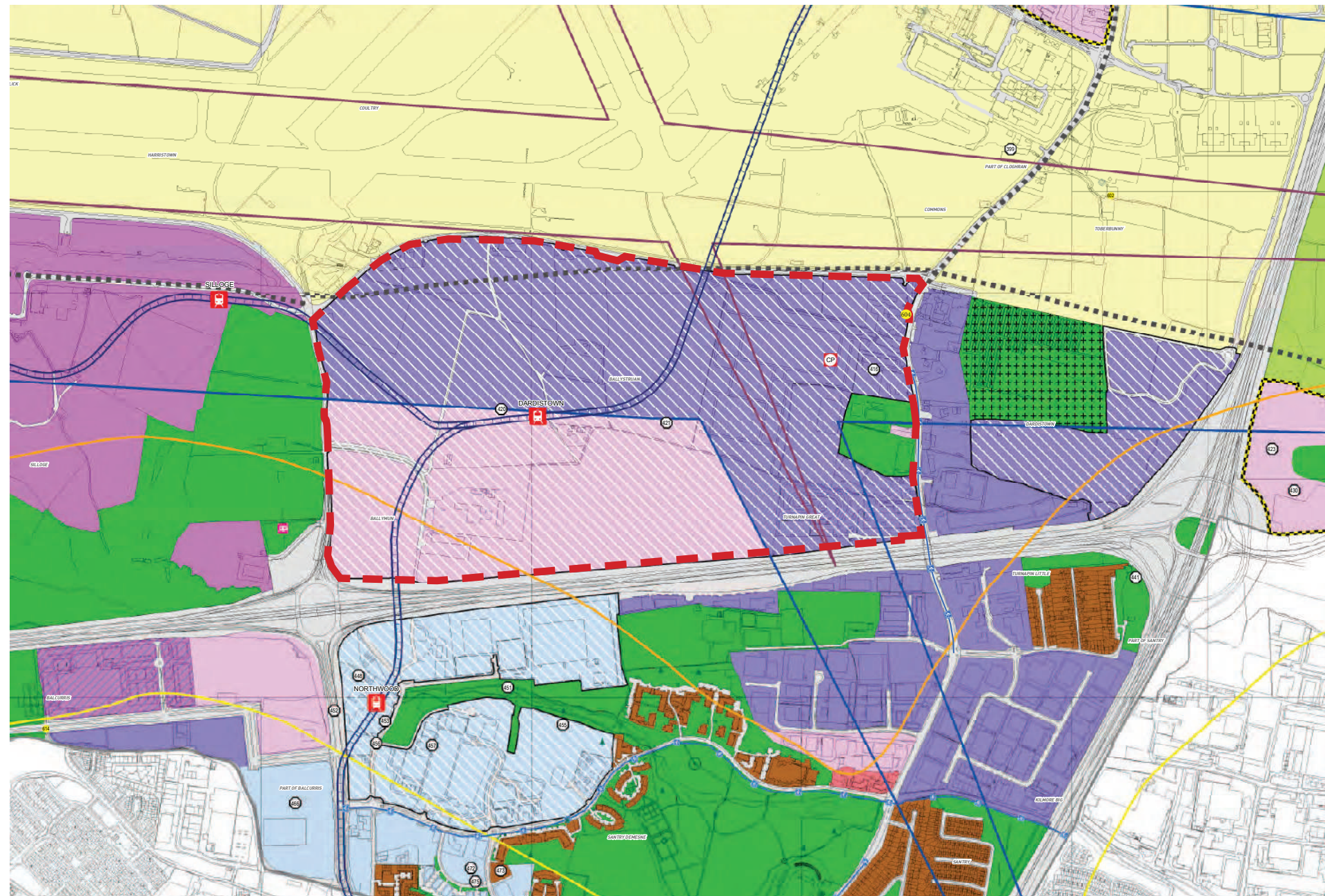
**Section 5** provides for the integration of land use and transportation objectives, focusing in particular on high quality bus corridor network improvements which support the development of the LAP lands over the initial LAP period.

**Section 6** provides a sustainability strategy and framework to ensure the highest level of environmental sustainability is achieved.

**Section 7** sets out the required services and utilities necessary to serve new development across the LAP area.

**Section 8** provides a delivery and implementation strategy for the lands that provides for the integrated delivery of employment generating development and supporting infrastructure.

Figure 1.1: Extract from Fingal County Development Plan 2011-17: Zoning Map



- Ensure efficient and effective operation and development of the Airport in accordance with the adopted Dublin Airport LAP
- Protect and provide for a Greenbelt
- Provide opportunities for general Enterprise and Employment
- Provide for office, R & D and High Technology/ High Technology manufacturing type employment in a high quality built and landscaped environment
- Protect, Provide and/or improve Local Centre Facilities
- Facilitate opportunities for high density mixed use employment generating activity and commercial development, and support the provision of an appropriate quantum of residential development within the Metro Economic Corridor
- Preserve and provide for Open Space and Recreational Amenities
- Provide for Residential Development and Protect and Improve Residential Amenity
- Provide for distribution, warehouse, storage and logistics facilities which require good access to a major network within a good quality environment
- Provide for Retail warehousing development
- + + + Protect and/or provide Burial Ground
- Masterplan Area
- Road Proposal
- Council Boundary Area
- Indicative Metro Stop
- Provide for Traveller Accommodation
- 604 Protected Structure
- CP Car Park
- 420 Local Objective
- Indicative Pedestrian/Cycle Route

  Draft Dardistown LAP Boundary

#### 1.4 Summary of Issues Arising from Public Consultation

As part of the preparation of the LAP, Fingal County Council carried out a pre-plan consultation exercise and invited submissions on the proposed future Dardistown LAP. Public notices dated the 7th of June 2011 were published in relevant newspapers and submissions from any interested parties were invited on the future Dardistown LAP until the 19th of July 2011.

A total of 6 submissions were received during this period and a range of issues were identified as follows:

##### Transport:

- Concern about impact of development on the existing National and Local road network.
- Potential need for road upgrades to facilitate additional traffic.
- Need to develop Dardistown as a key node in the regional transport network.
- Need for phased delivery of transport infrastructure and services in line with LAP.
- Support given for the proposed improvements to the R108 road which include foot and cycle paths.
- Support given for the development of land in conjunction with the development of the Metro North and Metro West.
- The preparation of the draft LAP should take into account the draft NTA Strategy.

##### Foul and Surface Water Drainage:

- There is a need for an improved foul drainage system.

##### Utility Provision:

- There is a need for an improved telecommunications network in the area.

##### Landownership:

- Landowner agreements have been drawn up with regard to proposed road, rail and other infrastructure in the area and these need to be reflected in the future LAP.

##### Rezoning:

- Concern expressed about potential impact on existing land and uses in the area as a result of this LAP.
- Requests made for the rezoning of lands within the Dardistown LAP area.
- Some existing zonings may be out of place with surrounding zonings.

##### General Local Area Plan Process:

- There is a need for flexibility throughout the LAP.
- Pre-development infrastructure requirements should be avoided as they may stifle future development of the area.
- There is a need for a flexible and responsive planning framework for development as this LAP is likely to be a platform for future LAPs considering the likely timeframe for development of these lands.
- Need for a plan led phasing and implementation framework for these lands.

- Important to set a sense of place, develop a gateway area on the Naul Road and to develop character/ hub areas as part of the Local Area Plan for Dardistown.
- There is a need to provide for a range of services, facilities, cycle-pedestrian routes and transport.

Following this initial consultation exercise, Fingal County Council had further detailed consultations with those who made submissions. A list of the consultees is included in Appendix A.



**SECTION 2.0**  
**Planning Context**

**2.0 Planning Context**

The Dardistown LAP is prepared in the context of national, regional and local planning policy and in accordance with the provisions of the Fingal County Development Plan 2011-2017.

**2.1 National and Regional Context**

Some of the key policy documents include the following:

**2.1.1 National Spatial Strategy 2002-2020**

The National Spatial Strategy (NSS) acknowledges the historic and future pivotal role that Dublin will continue to play in securing the country's economic prosperity.

It is envisaged that Dublin's future growth will be anchored through higher density development around a strengthened and efficient public transport grid.

**2.1.2 The National Development Plan (2007-2013)**

The National Development Plan 2007-2013 provides an integrated strategy for Ireland's future development and gives effect to the vision articulated within the NSS. The investment framework in the NDP seeks to assist and enhance physical and spatial planning. In order for Ireland's future spatial development to be structured in a manner that is internationally competitive, socially cohesive and environmentally sustainable, investment is provided to support five key elements of the Government's regional policy framework. One of these key elements is 'Creating a more efficient Greater Dublin Area' whereby support is given to ensure a strong and competitive Greater Dublin Area (GDA) in order that it continues to drive its own development and that of the State through improved public transport mobility, development of more compact and sustainable communities and high quality international and domestic transportation connections.

**2.1.3 Infrastructure and Capital Investment 2012 – 2016**

The Investment Plan was prepared to underpin the development of a dynamic competitive economy over the 4-year period 2012-2016.

With regard to Metro North the Plan states that Metro North is:

*“being postponed for consideration in advance of the next capital programme which will be drawn up in 2015 and will cover the period from 2016 onwards. These projects are being deferred, not cancelled: they remain key elements of the overall integrated transport strategy for the GDA and will be progressed when fiscal and market conditions improve.” Section 3.2 ‘Economic Infrastructure’.*

Pending the delivery of Metro North, a priority which is identified in the medium term will be;

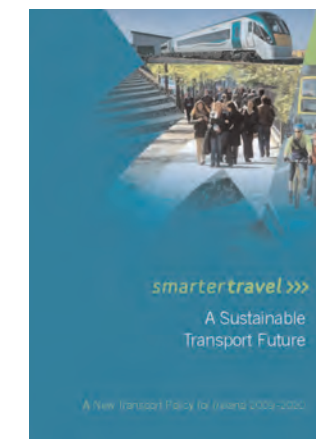
*{the} “Upgrade of existing quality bus corridors (with emphasis on Ballymun / Airport/ Swords corridor).” Section 3.2 ‘Economic Infrastructure’.*

The development of Metro West has also been deferred:

*“Metro West will also be deferred for consideration in 2015 in advance of the next Public Capital Programme.” Section 3.2 ‘Economic Infrastructure’.*

**2.1.4 Smarter Travel A Sustainable Transport Future – A New Transport Policy for Ireland 2009-2020**

'Smarter Travel, A Sustainable Transport Future', recognises the vital importance of continued investment in transport to ensure an efficient economy and continued social development.



**2.1.5 Regional Planning Guidelines for the Greater Dublin Area (2010 – 2022)**

Core principles from this strategic vision in the RPGs are:

- Dublin as the capital city of Ireland and a major European centre shall grow and progress, competing with other cities in the EU, and serving a wide range of international, national, regional and local needs.
- The Dublin and Mid-East Regions will be attractive, vibrant locations for industry, commerce, recreation and tourism and will be a major focus for economic growth within the Country.
- The GDA, through its ports and airport connection will continue to be the most important entry/exit point for the country as a whole, and a Gateway between the European Union and the rest of the World. Access to and through the GDA will continue to be a matter of national importance.
- Development in the GDA shall be directly related to investment in integrated high quality public transport services and focused on a compact urban form.
- Development within the existing urban footprint of the Metropolitan Area will be consolidated to achieve a more compact urban form, allowing for the accommodation of a greater population than at present, with a much-enhanced public transport system, with the expansion of the built up areas providing for well designed urban environments linked to high quality public transport networks, enhancing the quality of life for residents and workers alike.

**2.1.6 National Cycle Policy Framework 2009-2020**

This document aims to deliver a new culture of cycling in Ireland by 2020, with 10% of all trips to work being made by bicycle.

## 2.1.7 National Planning Guidelines

The LAP has had regard to best practice guidance. In particular, the following guidelines have been taken into account:

- Assessment of the Effects of Certain Plans and Programmes on the Environment – Guidelines for Planning Authorities, 2004.
- The Planning System and Flood Risk Management, Guidelines for Planning Authorities, 2009
- Childcare Facilities – Guidelines for Planning Authorities, 2001
- Draft LAP Guidelines for Planning Authorities, 2012

## 2.1.8 National Transport Authority's Greater Dublin Area Draft Transport Strategy

This draft document sets out the planned development of transport infrastructure in the GDA for the period up to 2030

## 2.2 Local Context - Fingal County Development Plan 2011 – 2017

The LAP has been prepared in the context of the Fingal County Development Plan 2011 – 2017. The key policies and objectives of the Development Plan with which the LAP must comply are set out hereunder.



### 2.2.1 Core Strategy

The Core Strategy sets out the Development Plan's objectives and demonstrates consistency with national and regional level planning policy guidance, as it provides a policy framework for the County at a local level.

Integration of public transport and land use is an integral part of the Core Strategy, as the strategy has been informed by 'Transport 21' and 'Smarter Travel'.

The Core Strategy identifies broadly that the location of employment activities is associated with the key settlement centres within the County, the Metro North Economic Corridor and the Dublin-Belfast Economic Corridor, in a manner that is consistent with the RPG strategy.

### 2.2.2 South Fingal Fringe

The LAP is located within the area described in the Fingal County Development Plan 2011-2017 (Development Plan) as the South Fingal Fringe (SFF). The SFF includes Charlestown, Meakstown, Ballymun, Santry, Clonshaugh, Belcamp, Balgriffin and lands between the Airport and M50, including the LAP lands.

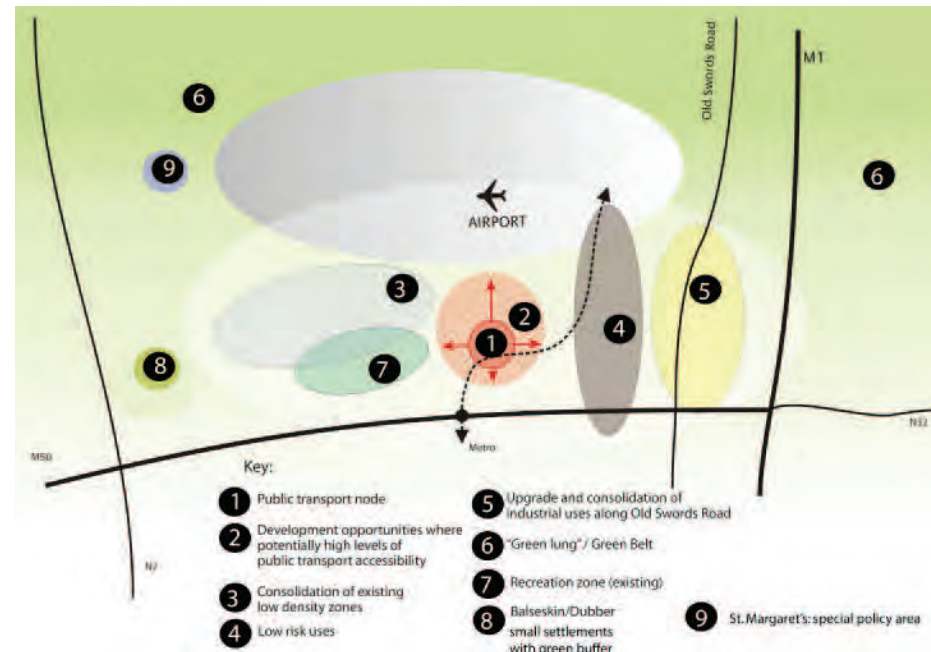


Figure 2.1: LAP Lands in the Context of the South Fingal Fringe

Image Source: Llewelyn Davies Yeang

The Development Plan states that the area is of national importance given its location south of Dublin Airport and proximity to the M50 and M1. At a county and local level the area is strategically important as it acts as a gateway entrance to Fingal and as a transition area between the City and the County. The context of the site within the South Fingal Fringe is identified in Figure 2.1 below.

### 2.2.3 Zoning and Development Objectives

The Development Plan map identifies the zoning and Specific Local Objectives attaching to the LAP lands (as illustrated in Figure 1.1, Section 1).

The majority of the LAP lands feature an employment zoning in the Fingal County Development Plan 2011-17. The zoned Objective GE 'General Enterprise' lands (93ha) coincide with the airport's designated Outer Public Safety Zone and also include a small parcel of land fronting the eastern boundary of the LAP zoned Objective OS. Lands outside the Outer Public Safety Zone have an Objective HT 'High Technology' zoning (57ha) which encourages denser and added-value employment development appropriate to exploit the planned Metro public transport infrastructure.

Table 2.1 below outlines the objectives and vision for the different zonings and details of the 4 no. Specific Local Objectives identified for the lands on the Development Plan Map.

### 2.2.4 Dublin Airport

The Development Plan states that Dublin Airport is the most significant single economic entity and the largest employer both within Fingal County and the region as a whole. The Development Plan contains policies and objectives for the protection and effective operation of the airport which are relevant to the LAP.

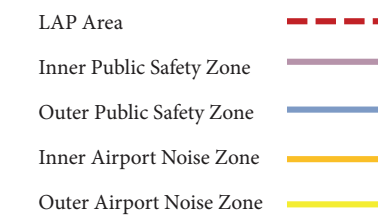
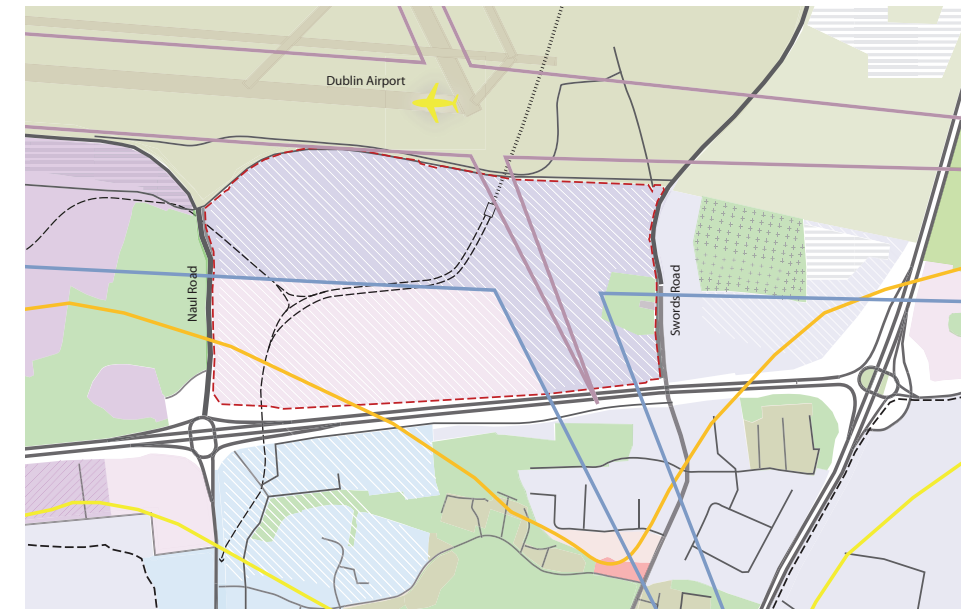


Figure 2.2: Extent of Safety and Noise Designations within the LAP Lands

### Airport Related Policy Objectives and Designations

The Development Plan contains two safety designations and two noise zones in the vicinity of the Airport within which development controls will be implemented. The location of these boundaries in the context of the LAP lands is identified in Figure 2.2.

### Safety Zones

The Red Safety Zone relates to aircraft safety and extends in a cone from the centre line of the runways. Public Safety Zones (PSZs) are identified running parallel to and extending from the extended centreline of the runways. These zones relate to the safety of persons on the ground and provide guidance in respect of appropriate land uses and the intensity of use within the PSZs. Three zones are identified for Dublin Airport – two Inner Public Safety Zones and One Outer Public Safety Zone, as shown in Figure 2.2.

The following planning policy objectives are relevant:

- Policy EE57** 'Promote appropriate land use patterns in the vicinity of the flight paths serving the Airport, having regard to the precautionary principle, based on existing and anticipated environmental and safety impacts of aircraft movements.'



**Table 2.1: Zoning and Specific Local Objectives for Dardistown LAP Lands**

<b>Zoning GE</b>	
<b>Objective</b>	‘to provide opportunities for general enterprise and employment.’
<b>Vision</b>	‘Facilitate opportunities for compatible industry and general employment uses, logistics and warehousing activity in a good quality physical environment. General employment areas should be highly accessible, well designed, permeable and legible.’
<b>Zoning HT</b>	
<b>Objective</b>	‘to provide for office, research and development and high technology / high technology manufacturing type employment in a high quality and landscaped environment.’
<b>Vision</b>	‘Facilitate opportunities for high technology, high technology and advanced manufacturing, major office and research and development based employment within high quality, highly accessible, campus style settings. The HT zoning is aimed at providing a location for high end, high quality, value added businesses and corporate headquarters. An emphasis on exemplar sustainable design and aesthetic quality will be promoted to enhance corporate image and identity.’
<b>Specific Local Objectives</b>	Objective 416: ‘Permit a hotel / conference centre subject to compliance with the recommendations of the ERM Report on Public Safety Zones.’ Objective 420: ‘Prepare a Local Area Plan for these lands and ensure that development is phased having regard to the capacity of the road network and the delivery of future road network improvements.’ Objective 421: ‘Facilitate within the Local Area Plan (Dardistown) appropriate uses to complement the high density employment generating activity with associated commercial development including hotels, professional services, medical, leisure, services ancillary to metro, appropriate retail at a level to serve the local population only, education - 3rd level, exhibition centre and conference centre.’ Specific Car Park Objectives: ‘The Southern Fringe Zoning Map of the Development Plan indicates a specific Car Park objective that is attached to the eastern LAP lands east of Local Objective 416.’
<b>Additional Objectives</b>	Objective EE30: ‘Encourage the development of corporate offices and knowledge based enterprise in the County on HT zoned lands and work with Government agencies, and other sectors to achieve such development.’

**Policy EE58** *‘Implement the policies to be determined by the Government in relation to Public Safety Zones for Dublin Airport.’*

**Policy EE59** *‘Continue to take account of the advice of the Irish Aviation Authority with regard to the effects of any development proposals on the safety of aircraft or the safe and efficient navigation thereof.’*

**Noise Zones**

The Development Plan acknowledges that aircraft noise can have a significant effect on the environment and on the quality of life enjoyed by individuals and communities. The Plan acknowledges that there is a need to minimise the adverse impact of noise without placing unreasonable restrictions on development, and to avoid future conflicts between the community and the operation of the airport.

Two noise zones are identified on the Development Plan Map – the Inner and Outer Zone. The LAP lands are located substantially within the Inner Airport Noise Zone with the south-western corner of the LAP lands falling outside the Inner Noise Zone but within the Outer Noise Zone.

The following policy Objectives are relevant:

**Policy EE51** *‘Strictly control inappropriate development and require noise insulation where appropriate within the Outer Noise Zone, and actively resist new provision for residential development and other noise sensitive uses within the Inner Noise Zone, as shown on the Development Plan maps, while recognising the housing needs of established families farming in the zone.’*

**Policy EE54** *‘Restrict development which would give rise to conflicts with aircraft movements on environmental or safety grounds on lands in the vicinity of the airport and on the main flight paths serving the airport, and in particular restrict residential development in areas likely to be affected by levels of noise inappropriate to residential use.’*

**Policy EE55** *‘Review the operation of the Noise Zones on an ongoing basis in light of the EU Directive on Environmental Noise, the ongoing programme of noise monitoring in the vicinity of the airport flight paths, and the availability of improved noise forecasts.’*

**Dublin Airport LAP, 2006 – 2015**

The Dublin Airport Local Area Plan provides the principal development management tool for the airport area and specifies the long-term disposition and mix of uses within the designated area together with infrastructural development necessary to support these uses. The Development Plan provides a specific zoning for the airport lands, namely Objective ‘DA’ - Designated Airport Area, ‘to ensure the efficient and effective operation and development of the airport in accordance with the adopted Dublin Airport Local Area Plan’.

**2.3 Metro**

The Fingal County Development Plan 2011 – 2017 supports Metro North and Metro West and includes policies and objectives to protect its alignments, to integrate the alignment and stops with established urban fabric and planned land uses, and to leverage the social and economic potential on the planned public and private investment.

**2.3.1 Metro North and Metro North Depot**

A Railway Order has been approved for Metro North (Ref: PL6F.NA0003) which traverses the LAP lands, and includes a stop, known as the Dardistown Stop, located centrally within the lands. The Railway Order includes a Park and Ride facility located to the north of the Dardistown Stop.

An additional Railway Order (Ref: PL6F.NA0007) has also been granted for the Metro North Depot within the LAP lands. Agreements have been reached between the RPA and the appropriate landowners affected by the alignment for 3 no. crossings to access the Objective HT lands.

The permanent and temporary land take associated with the approved Metro North scheme, including the Metro North Depot, and the indicative location of the approved and agreed Metro Crossings, are identified on Figure 2.3 .

**2.3.2 Metro West**

An application was made to An Bord Pleanála for Metro West to link Tallaght, Clondalkin, Lucan, Blanchardstown and Ballymun and connect to the Tallaght Luas line in the southwest and to Metro North on the Dardistown LAP lands. The application was withdrawn in September 2011. A decision on proceeding with the project has been deferred until the Infrastructure and Capital Investment Programme review in 2015.

**2.3.3 Metro Economic Corridor**

The ‘ME’ Zoning Objective of the County Development Plan provides for an area of compact, high intensity/density, employment generating activity within the Metro Economic Corridor. Metro North will provide a high capacity, high frequency and first class public transport link between Dublin City, Dublin Airport and Swords. It is envisaged that Metro will eventually integrate with an expanded Dublin Airport where, along with an improved road network and improved public transport network, it will create a multi-modal transport hub linking Dublin City, the Airport and the strategic expansion of Swords.

**2.4 Statutory Requirements**

The LAP is required to be consistent with the objectives of the Fingal Development Plan 2011-2017 and has been prepared in accordance with sections 18, 19 and 20 of the Planning and Development Acts 2000-2010, which set out the provisions for the preparation of Local Area Plans.

**Strategic Environmental Assessment**

A Strategic Environmental Assessment (SEA) has been carried out in compliance

with the requirements of Directive 2001/42/EC of the European Parliament, the objective of which is 'to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans'.

A Scoping Report was prepared and circulated to the relevant environmental authorities. This Scoping Report informed the level and detail of the information contained in the Environmental Report which in turn has informed the content of this LAP. The Environmental Report is published as a separate document accompanying this LAP.

### Habitats Directive Assessment

The requirement for Impact Assessment of plans or projects originates from Article 6(3) and (4) of European Union (EU) Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora, commonly known as the 'Habitats Directive'.

The purpose of an Appropriate Assessment of Local Authority plans is to ensure the protection of the integrity of European 'Natura 2000' sites and is included as an integral part of the planning process at a local level.

A Screening Report for Appropriate Assessment has been undertaken in accordance with Article 6.3 of the Habitats Directive, and Planning and Development Acts 2000-2010, and is published as a separate document accompanying this LAP

The Screening Report has concluded that there is no potential for significant effects on any Natura 2000 sites as a result of the LAP and therefore a stage 2 Appropriate Assessment is not required.

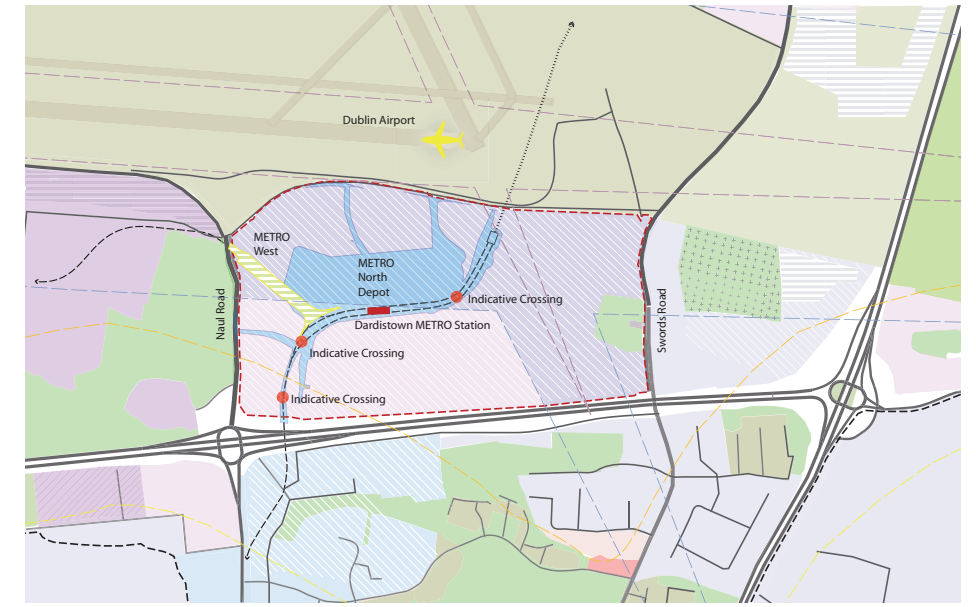


Figure 2.3: Reservations for Metro North, Dardistown Stop, Metro North Depot & Metro West

Site ID	Site Name	Direct impacts e.g. habitat loss	Indirect impacts e.g. alteration to the hydrological regime	Is there potential for:	
				Surface or ground water contamination	Disturbance to protected species (Habitats Directive Annex II or IV or Annex I bird species)
000205	Malahide Estuary	No	No	No	No
000199	Baldoyle Bay	No	Yes	Yes	No
000206	North Dublin Bay	No	No	Yes	No
000210	South Dublin Bay	No	No	Yes	No
000208	Rogerstown Estuary	No	No	No	No
002193	Ireland's Eye	No	No	No	No
000202	Howth Head	No	No	No	No

Table 2.4: Screened list of SAC sites located within 15km of Dardistown LAP boundary

Site ID	Site Name	Direct impacts e.g. habitat loss	Indirect impacts e.g. alteration to the hydrological regime	Is there potential for:	
				Surface or ground water contamination	Disturbance to protected species (Habitats Directive Annex II or IV or Annex I bird species)
004025	Broadmeadow/ Swords Estuary SPA	No	No	No	No
004016	Baldoyle Bay SPA	No	No	Yes	No
004006	North Bull Island SPA	No	No	Yes	No
004024	South Dublin Bay and River Tolka Estuary	No	No	Yes	No
004015	Rogerstown Estuary SPA	No	No	No	No
004117	Ireland's Eye SPA	No	No	No	No
004113	Howth Head Coast SPA	No	No	No	No

Table 2.5: Screened list of SPA sites located within 15km of Dardistown LAP boundary

**SECTION 3.0**

**Existing Environment and Context Appraisal**

**3.0 Existing Environment and Context Appraisal**

**3.1 Strategic Location**

The LAP lands are an important strategic development landbank located between Dublin City and Dublin Airport. The lands are bounded by Dublin Airport to the north, the M50 to the south and the Naul Road (R108) and the Swords Road (R132) to the west and east respectively. The LAP lands include the future Dardistown Stop on the Metro North line which will be the first southbound stop from the Airport.

The wider LAP context comprises the south fringe of Fingal County: Ballymun, Santry Demesne, the M50 corridor and Airport lands.

Ballymun Regeneration Area and Santry Demesne represent two ongoing significant mixed use projects. Ikea, Northwood Business Park and the new employment zone to the south west of the Ballymun Interchange represent future employment and retail attractions. Logistics uses are provided for to the south of the M50 on the eastern side of the Ballymun Interchange. The Dardistown LAP lies in the heart of this large area of transition (as illustrated in Figure 3.3)

**Figure 3.1: Regional Context**



**3.2 Site Description and Context**

The Dardistown LAP area comprises a rectangular shaped parcel of land that extends to approximately 154 ha.

A significant proportion of the LAP area is currently in agricultural use. Development that has occurred within the LAP boundary includes industrial, commercial and sports and recreational uses. Industrial and commercial uses include a meat processing plant and St. Anne’s Business Park accessed off the Naul Road and primarily frontage development along the Swords Road (R132) to the east including an airport related car park facility.

The lands also accommodate sports and recreational facilities provided by The Royal College of Surgeons, and several sporting clubs.

**3.2.1 Natural Environment**

The existing landscape has been directly and indirectly influenced by the Santry River which flows through the nearby Santry Demesne. Development has followed the East-West rhythm of this river in the hinterland surrounding the LAP lands. Lateral roads such as the M50, the Old Airport Road, Santry Avenue and Collins Avenue have been created alongside the lateral community spines of Ballymun and Glasnevin North.

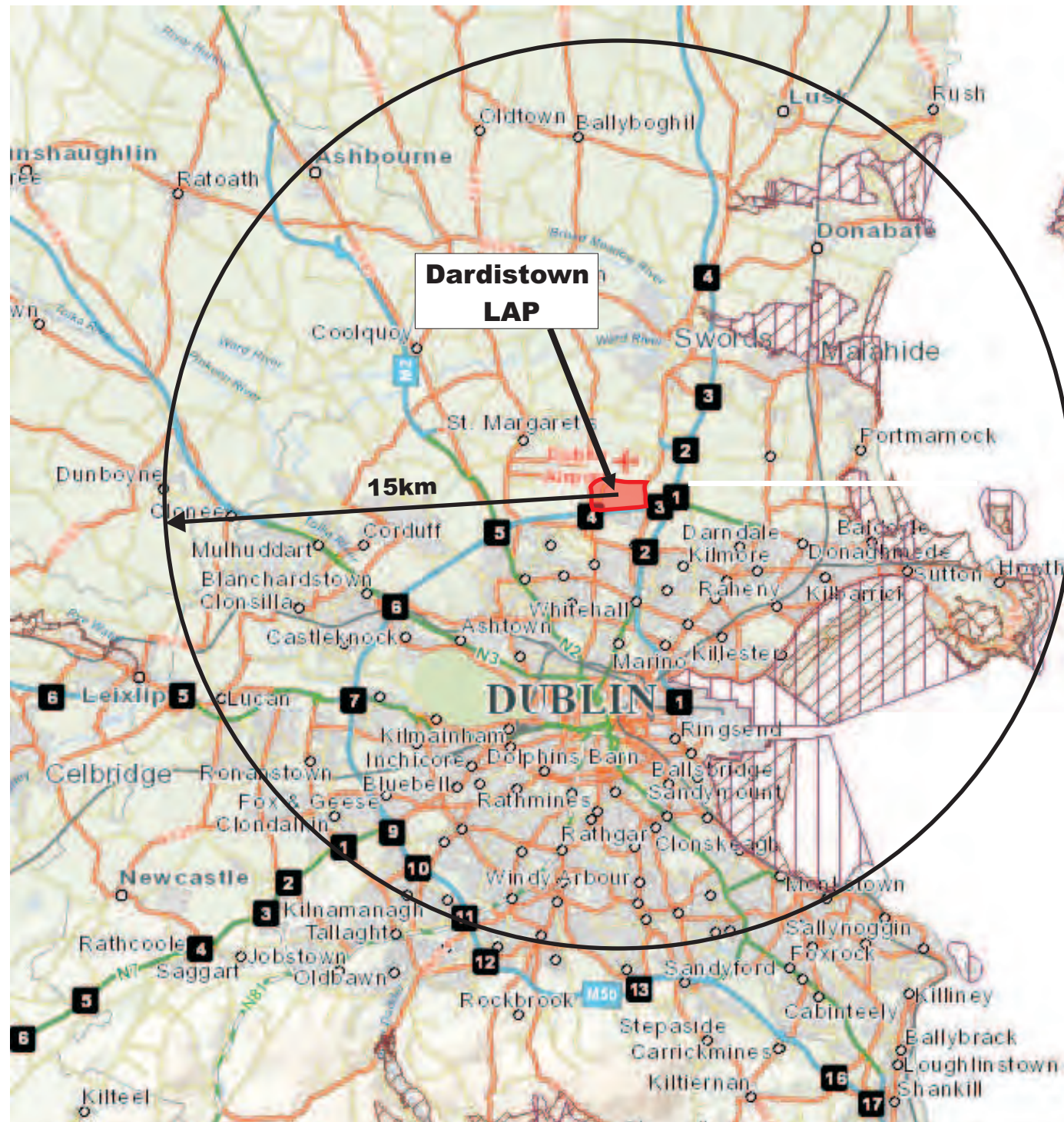
The topography of the LAP lands is generally flat, rising gently from the south east to the north-west. There are a few existing paths and hedgerows crossing from north to south, and a number of watercourses crossing from west to east. There is a verge of dense vegetation along the M50.

There are no Natura 2000 sites within or adjoining the LAP lands. The nearest site with an environmental designation is Santry Demesne (site code 000178) proposed Natural Heritage Area (pNHA), located approximately 1km to the south of the site.



The Santry River drains into the pNHA. However, the LAP lands lie within the catchment of the Mayne River, a separate catchment from the Santry River. The Turnapin stream, a tributary of the River Mayne, flows west to east through the area and drains a number of smaller channels running along field boundaries throughout the site.

There are no records in the National Parks and Wildlife Service rare plant database of protected plant species within the LAP area. The pNHA at Santry Demesne is the site of a rare plant species hairy St John’s Wort (*Hypericum hirsutum*) which is protected under the Flora Protection Order (1999). There is a record from 1991 of the rare plant species, cornflower (*Centaurea cyanus*) at Newtown Caroline and a scarce species, lesser chickweed (*Stellaria pallida*), at Dunsoghly Castle, both at least 5km to the west of the study area. Neither of these species has statutory protection under the Wildlife (Amendment) Act 2000. The Flora of County Dublin (Doogue et al., 1998) lists a number of uncommon plant species noted in the vicinity of Dunsoghly and St. Margaret’s but none in the vicinity of the LAP lands.

The main habitats recorded within the LAP lands are amenity grassland, wet grassland, dry calcareous and neutral grassland, broadleaved woodland, hedgerows, lowland depositing river, re-colonising bare ground, active quarries and mines, buildings and artificial surfaces and arable land. Common mammal species are found within the LAP but these are of no conservation significance or concern.



**Natura 2000 Sites**

-  Special Protection Areas
-  Special Areas of Conservation

**Figure 3.1A: Natura 2000 Sites within 15km radius of Dardistown LAP**  
(Reference: National Parks and Wildlife Services, 2012)

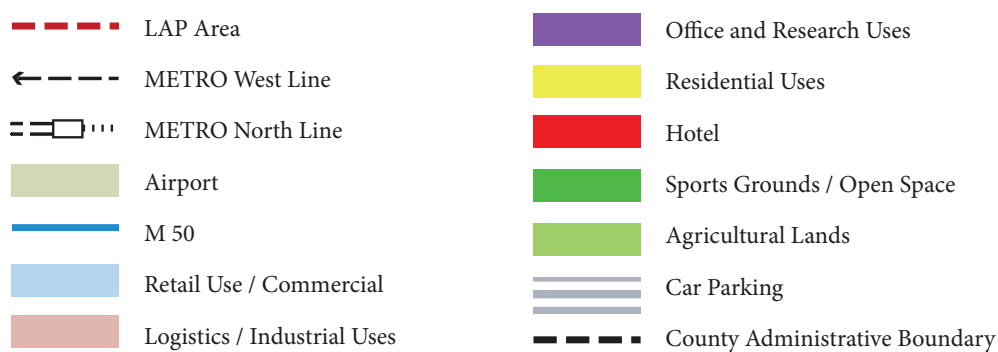
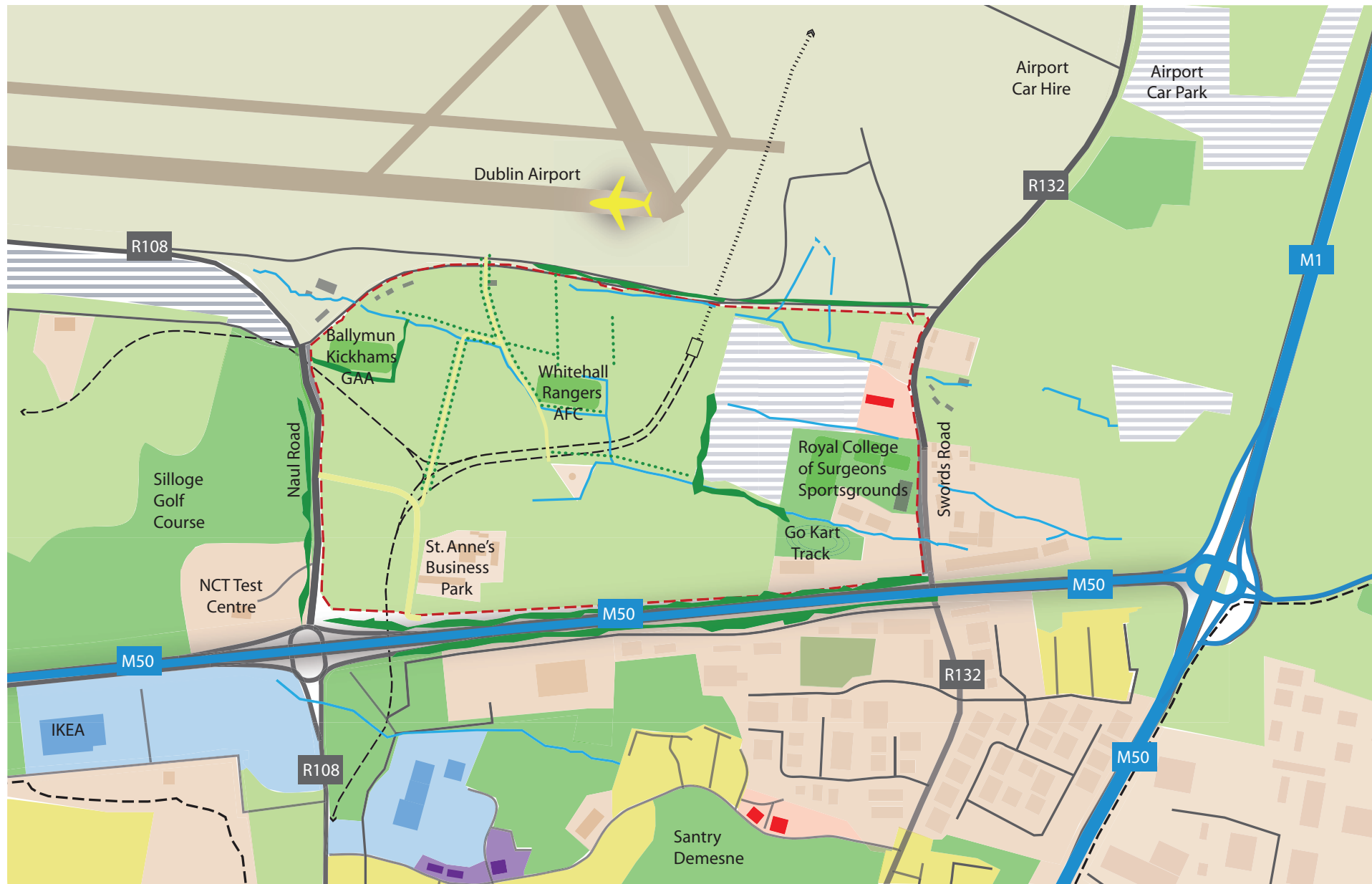


Figure 3.2: Local Context and Established Land Uses

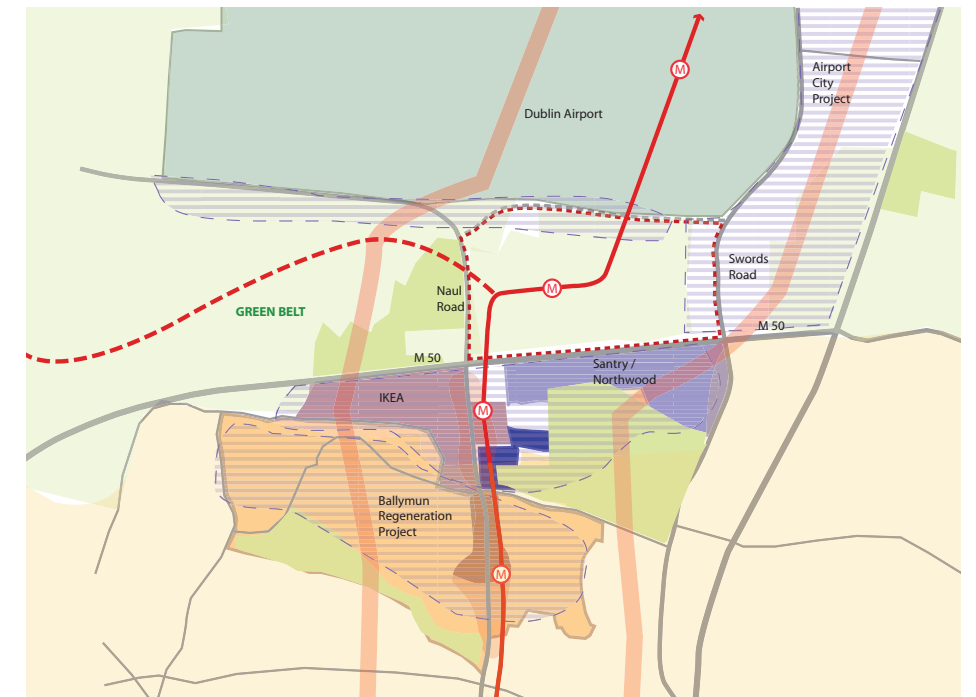


Figure 3.3: An Area in Transition

The LAP lands were inspected for potential bat roosts. While nothing of significance was discovered, a bat survey will need to be undertaken prior to the commencement of development to ensure any potential impacts are mitigated.

### 3.2.2 Cultural Heritage

No part of the LAP lands fall within any Architectural Conservation Area designations.

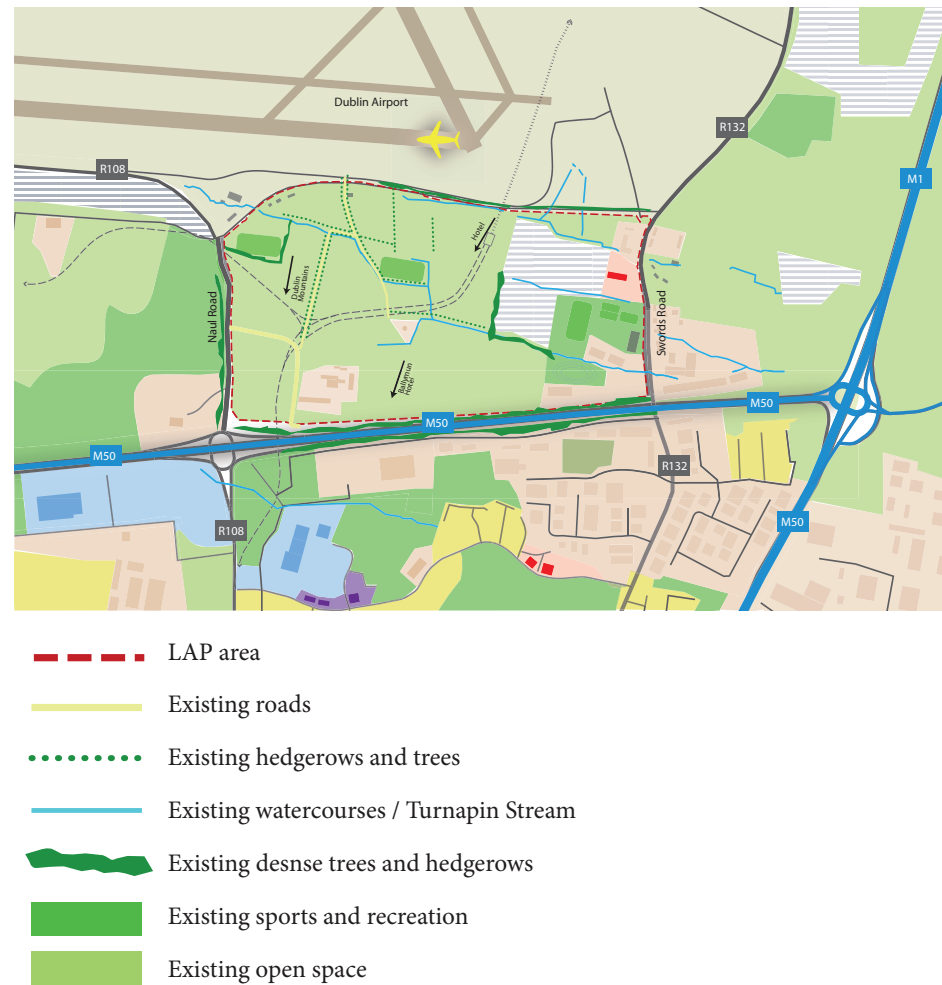
The Record of Protected Structures (RPS) appended to the Development Plan identifies one Protected Structure located within the LAP lands. RPS No. 604 is a thatched dwelling located along Swords Road within the town land of Collinstown.

The LAP lands have not been identified in the County Development Plan as an area with Historic Landscape Characterisations (HLC) and nor is any part designated as a Zone of Archaeological Potential.

### 3.3 General Access and Movement

#### 3.3.1 Pedestrian and Cycle Facilities

Pedestrian and cycle routes exist along the Swords Road (R132) that forms the eastern boundary of the LAP lands and along the southern section of the Naul Road (R108), which forms the western boundary of the LAP lands, where pedestrian and cycle facilities were incorporated as part of the M50 upgrade works to the Ballymun interchange.



**Figure 3.4: Natural Environment**

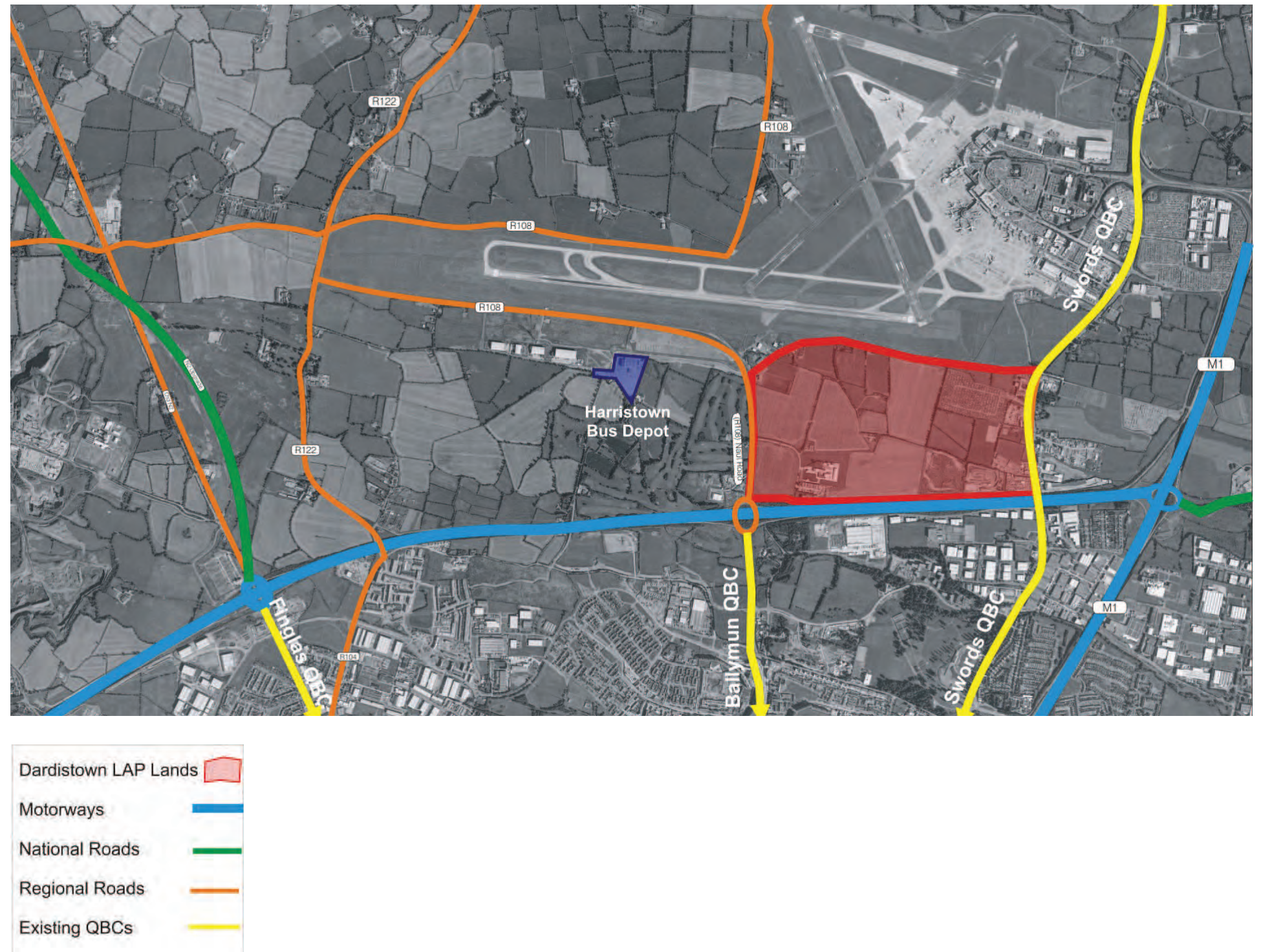
### 3.3.2 Bus Network

The lands are served by existing and planned QBCs. Figure 3.5 below shows the location of the LAP lands in context with existing QBCs serving the wider Dublin area. The Swords QBC is planned for significant upgrade works, including works within the DCC area. Currently, part of this route is being upgraded in the vicinity of Dublin Airport (R132 upgrade - Collinstown Cross to Airport Roundabout). The close proximity of Harristown Bus Depot also provides potential for new or realigned bus routes.

### 3.3.3 Road Network

The Dardistown LAP lands are strategically located to the immediate south of Dublin Airport with close links to the M1 and M50 motorways as well as the recently upgraded N2/M2. There are also national, regional and local roads in close proximity to the lands. There are plans to develop and upgrade a number of roads in the area which would improve accessibility to the LAP lands via lower order roads without relying significantly on the motorway network.

The LAP lands enjoy extensive road frontage onto the Naul Road (R108), the



**Figure 3.5: Location and existing QBC and bus routes**

Southern Parallel Road to the north and the Swords Road (R132). The established commercial land uses within the western part of the LAP lands share an access road with a single junction centrally located between the Ballymun Interchange and the Southern Parallel Road on the Naul Road (R108). Most businesses on the Southern Parallel Road and Swords Road have dedicated vehicular access points onto those roads.

The effective integration and development of the LAP lands requires enhanced vehicular access points and connectivity to the surrounding road network. Such an integrated road network will be essential to ensure appropriate levels of permeability and connectivity of the LAP lands as set out Section 4.

### 3.4 Existing Infrastructure and Utilities

#### 3.4.1 Water Quality

The majority of the LAP lands lie within the catchment of the Turnapin stream which traverses the LAP area from north-west to south-east. A small area in the south-west of the LAP lands lies within the natural catchment of the Santry stream, although it has been severed from the remainder of the catchment by the construction of the M50 motorway in cutting. The Dardistown LAP Lands are within the Santry Mayne Sluice Water Management Unit. The Mayne Catchment is designated as having “Poor” overall status by the EPA in the Water Framework Directive Report to Europe under the Water Framework Directive in July 2010. Macroinvertebrate Status was classed as poor and the physic-chemical status was classed as moderate. Maintaining and improving water quality to “Good” status is a key consideration in the development of the LAP lands.

Accordingly, any development proposal will need to comply with the requirements of the Water Framework Directive, Surface Water Regulations and the Greater Dublin Strategic Drainage Study (GSDSDS). In this regard the Council will require attenuation to Greenfield standards and the implementation of Sustainable Urban Drainage Systems (SuDS) principles / measures.

SuDS objectives are to minimise the impact of development on the quantity and quality of runoff and maximise amenity and biodiversity opportunities. The philosophy of SuDS is to replicate, as closely as possible, the natural drainage of the lands prior to development. Any development must also have regard to standards set in current legislation EU Directives and National Regulations including:

- Water Framework Directive 2000/60/EC;
- Surface Water Environmental Objectives Regulations SI No 272 of 2009;
- Groundwater Environmental Objectives Regulations SI 9 of 2010;
- Phosphorus Regulations SI No 258 of 1998; and
- The Water Quality/Dangerous Substances Regulations 2001 (SI No 12 of 2001).

#### 3.4.2 Turnapin Stream and Fingal East Meath Flood Risk Flood Risk Assessment and Management Study (FEM FRAMS)

The majority of the Dardistown LAP lands drain to the Turnapin Stream, which flows from northwest to southeast across the LAP lands with minor ditches running

through the plan lands. The Turnapin stream is a tributary of the Mayne River which eventually discharges to Portmarnock Estuary.

Fingal County Council has undertaken the Fingal East Meath Flood Risk Assessment and Management Study (FEM FRAMS) in conjunction with Meath County Council and the Office of Public Works. A draft Final report was published in Oct 2011. This is a catchment based flood risk assessment and management study of all rivers and streams within the county. As part of the FEM FRAMS, draft flood extent maps have been produced for the Mayne river including the Turnapin stream for 1% (1 in 100 year) and 0.1% (1 in 1000 year) probability of flooding. While there is limited flood risk predicted for properties in the Mayne River catchment for the 1% Annual Exceedence Probability (AEP) event, none of these properties are located within the Dardistown LAP.

The draft flood risk mapping identifies some flood risk along the Turnapin stream in the 0.1% AEP event within the plan area. A flood risk assessment of the proposed LAP plan has been undertaken in accordance with the “Planning System and Flood Risk - Guidelines for Planning Authorities” as published by the OPW and DoEHLG in November 2009.

The output of this Flood Risk Assessment is presented in the Strategic Environmental Assessment (SEA) Environmental Report and is summarised in Section 7.

#### 3.4.3 Surface Water Drainage

There are no significant surface water sewers located within the Dardistown LAP Area. The greater part of the plan area lies within the catchment of the Turnapin Stream, which rises north west of the site and drains an 1800 metre length of the Airport runway 10-28, the adjacent taxiway, part of the Dublin Airport Authority western long-term car park, and 850m of the access road to Horizon Logistics Park. The Turnapin stream is culverted beneath Collinstown Lane in two 750mm diameter culverts adjacent to the Irish Helicopters’ building. The stream flows along the northern boundary of the site for a distance of 250m from the northwest corner. It then flows southwards for 340m and eastwards for 580m, both lengths fully within the site, before flowing for a further 250m eastwards along the northern boundary of the site alongside the RCSI Sports Ground. The Turnapin stream crosses the Old Swords road at Turnapin Bridge and having crossed beneath the M1 motorway continues to flow eastwards through Clonshagh and Belcamp before joining the Mayne River at Balgriffin. The Mayne River flows into Portmarnock Estuary approximately 7.5km downstream of the site. The Rail Procurement Agency proposes to culvert the stream at two locations as part of the works associated with the provision of the Metro North rail line. Culverts are proposed beneath the rail line 130m east of the proposed Metro station and beneath the access road to the proposed Park & Ride car park. These culverts are proposed to be 1800mm wide box culverts.

This is outlined in Section 7.

#### 3.4.4 Wastewater

The LAP lands lie within the catchment of the North Fringe Sewer as delineated in the North Dublin Connection Study by RPSMCOS on behalf of Fingal County and Dublin City Councils. A 900mm diameter foul sewer connected to the North

Fringe Interceptor Sewer in the Swords Road (R108) south of the M50 extends north along the R108 to the Dardistown Junction. A 300mm diameter foul sewer located in the north side of Collinstown Lane is connected to the Swords Road branch sewer. The existing development on Collinstown Lane is not connected to this sewer. The existing industrial development in the south west of the LAP lands is served by a private treatment plant that is centrally located within the LAP lands. The effluent from this treatment plant is pumped via a rising main across the M50 to the Dublin City Council Sewerage System in Ballymun.

The North Fringe Interceptor Sewer discharges to Sutton Cross Pumping Station from where it is pumped via a submarine rising main to Ringsend Wastewater Treatment Plant. This plant currently has a capacity of 1.7million pe which is proposed to be increased to 2.1 million population equivalent on a seven-acre site within the curtilage of the current facility in conjunction with the construction of a 9km pipeline to bring the treated waste water outside Dublin Bay for disposal. The EPA’s licence for discharge of wastewater from Ringsend obliges Dublin City Council to complete this upgrade by 2015.

#### 3.4.5 Water Supply

The LAP lands are supplied with potable water from the Airport Water Supply Area via a 400mm diameter Swords Road watermain. This main extends along the Swords Rd to the M50 Underpass. A 300mm diameter main is located on the north side of the Collinstown Lane and is connected to the 400mm diameter main at Dardistown. The 300mm main in turn feeds a 100mm diameter main in the vicinity of Sillogue crossroads. A 100mm diameter main in the Naul Road feeds the existing industrial development in the south west of the subject lands.

The Airport area, including the subject lands, receives its potable water supply from the Leixlip Water Treatment Plant, adjacent to the river Liffey in Co Kildare. Construction of the substantial upgrade works to increase output from this water treatment plant are included in the Department of Environment Water Services Investment programme 2010 – 2012.

The proposed upgrade will provide the infrastructure necessary to treat an additional 80Mld (Megalitres/day) of raw water, providing a total volume of 225Mld. The new units will provide the necessary standby capacity to enable Fingal County Council to meet the demands of its customers in the Greater Dublin Region while maintaining the required treated water quality at all times.

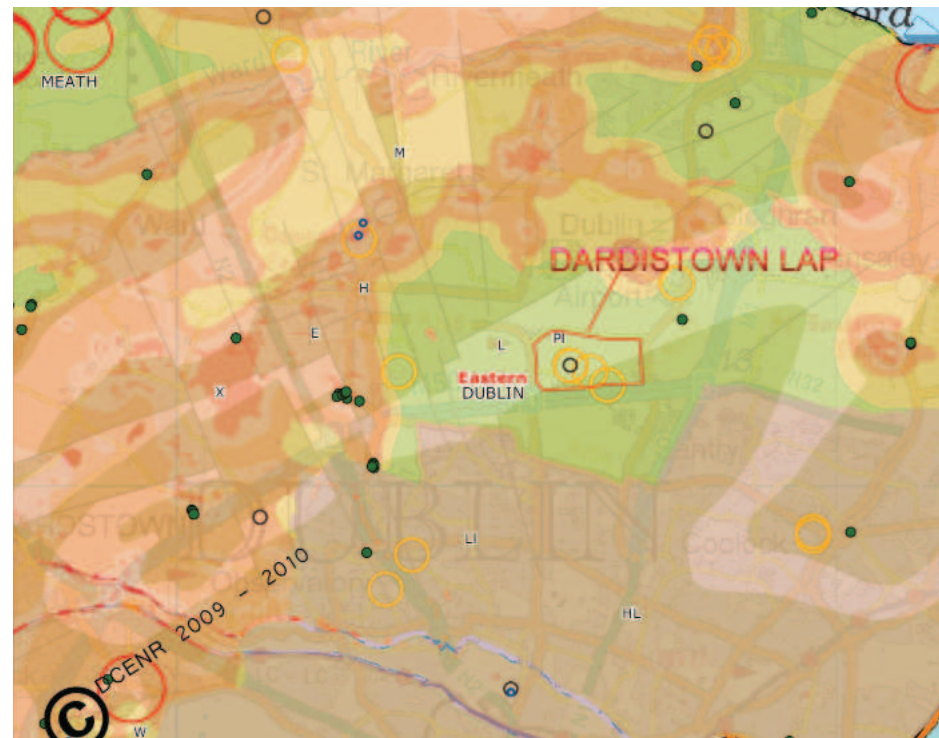


Fig 3.6: Groundwater Aquifers and Wells (courtesy of GSI)

### 3.4.6 Groundwater

The subject lands are predominantly underlain by carboniferous limestone. Glacial till in the form of brown and black boulder clay overlies the bedrock limestone. There are no significant groundwater abstractions within the subject lands. An agricultural abstraction is located in the middle of the LAP lands as shown at Figure 3.6 above. Any potentially significant impacts relating to shallow aquifers will be quantified and mitigation measures identified. The Geological Survey of Ireland has completed a Groundwater Protection Scheme for Fingal. Development in this area shall have regard to this scheme.

### 3.5 Utilities

There is an existing 250mm gas supply in the R108 Swords Road. A 180mm branch main also extends along Collinstown Lane to serve the Horizon Logistics Park a development west of the Naul Road at Harristown.

ESB records indicate that there is a 10 kV overhead network within the site. This network extends from the M50 in the south past the AIBP Meat Packing Plant as far as the Parnell's playing field adjacent to Collinstown Lane. LV overhead lines extend to the Aer Rianta Maintenance Depot in the west and Ballystruan in the east. A further overhead line extends alongside the AIBP Meat Packing Plant access road to Sillogue Golf Course. The nearest 38kv supplies are south of the M50 motorway in the Compass Lands and east of the Swords Road at Dardistown Cemetery.

- Wells accuracy within 10m to 50m
  - Wells accuracy within 100m
  - Wells accuracy within 200m
  - Wells accuracy within 500m
  - Wells accuracy within 1km
- National Draft Bedrock Aquifer Map*
- Rf - Regionally important aquifer - Fissured bedrock
  - Rk - Regionally important aquifer - Karstified
  - Rfkd - Regionally important aquifer - Karstified (diffuse)
  - Rkc - Regionally important aquifer - Karstified (conduit)
  - Lm - Locally important aquifer - bedrock which is generally moderately productive
  - Lk - Locally important aquifer - Karstified
  - Ll - Locally important aquifer - bedrock which is moderately productive only in local zones
  - PI - Poor Aquifer - bedrock which is generally unproductive except for local zones
  - Pu - Poor Aquifer - bedrock which is generally unproductive
  - Unclassified
- National Draft Gravel Aquifer Map*
- Rg - Regionally important, extensive sand/gravel aquifers
  - Lg - Locally important, sand/gravel aquifers
  - No gravel present
  - Not mapped
- Source Protection Areas*
- SI - Inner Protection Areas
  - SO - Outer Protection Area
- Vulnerability*
- X (rock near surface or karst)
  - E - Extreme
  - H - High
  - M - Moderate



## SECTION 4.0

### Strategic Vision and Development Framework

#### 4.0 Strategic Vision and Development Framework

##### 4.1 Vision

The LAP provides a planning and development framework for the phased delivery of a mix of employment generating and complementary uses, centred on a higher density mixed use employment node. The LAP delivery and implementation strategy maximises flexibility to accommodate the diverse range of employment opportunities that may be attracted to Dardistown while ensuring that the necessary and appropriate movement, services and green infrastructure is in place to meet the needs of employees and visitors.

The following Strategic Vision lies at the core of this LAP:

*To develop a sustainable, legible, high quality employment district supporting a broad mix of strategic employment and complementary uses integrated with high quality internal and external movement networks, centred on a higher-density node supported by existing and planned investment in transportation and services infrastructure including future public transportation provision (QBCs and Metro) and road network improvements, while enhancing and protecting surface access to the Airport.*

##### 4.2 Core Policies and Strategic Development Objectives

The vision for Dardistown is supported by a number of inter-related strategies grounded in the principles of sustainable development (including the integration of land use and transportation strategies).

These strategies relate to:

- Land Use
- Urban Design
- Movement
- Green Infrastructure
- Services Infrastructure

The context and objectives for each strategy are set out below.

##### 4.2.1 Land Use Strategy

Both the Urban Design and Land Use strategies have been informed by airport related constraints, particularly the presence of Airport Public Safety Zones, which inform the intensity and type of use and built form that is provided for within these zones.

The broad land use strategy envisages lower intensity uses to the north and east of the LAP lands within the Outer Public Airport Safety zone. Medium and higher intensity uses will be promoted outside the Outer Public Airport Safety Zone to the west and south of the proposed Metro North line; with a particular concentration of high intensity employment and complementary uses within easy walking distance to the south of the proposed internal bus corridor and public transportation hub.

Appendix C provides guidance on the range and intensity of uses that will be considered permissible within the Inner and Outer Public Safety Zones.

The land use and urban design strategy of the LAP seeks to encourage and facilitate the maximum use of the most accessible sites in close proximity to the public transportation corridor. Development generating a large number of worker and visitor trips will be located close to or adjacent to public transport while land uses with low employment yields and requiring large volumes of freight transport will be located on sites that facilitate easy access onto the local road network.

- **CPO1:** Facilitate and support sustainable economic growth and employment generation on the LAP lands, which integrate with, and maximise, the sustainable use of the surrounding transportation networks.
- **CPO2:** Establish a high density employment/activity node in close proximity to the Dardistown public transportation interchange, focused initially on the internal bus corridor.
- **CPO3:** To facilitate appropriate development proposals in tandem with the supporting transport, services and other required infrastructure.
- **CPO4:** To support the provision of airport related economic activities at appropriate locations, including car hire, airport related offices and logistics operations.

Having regard to the above Land Use Core Policy Objectives, the planning authority will have regard to the following Strategic Development Objectives in assessing any development proposals within the LAP area.

- **SDO1:** To encourage the appropriate development of a wide range of land uses consistent with Zoning Objectives ‘HT’ and ‘GE’ of the Fingal County Development Plan 2011-2017 and having regard to the accessibility of lands to public and private transportation networks, the Inner and Outer Noise and Public Safety Zones as identified on the Development Plan Maps, while maintaining and protecting the existing and future access and operational requirements of the airport.
- **SDO2:** To encourage the development of a high intensity employment node of activity and to focus high intensity, high employment yield land uses that are likely to attract a large number of trips in close proximity to the internal bus corridor and the future proposed Dardistown Stop.
- **SDO3:** To ensure that developments are of a scale and nature appropriate to the level of transport accessibility.
- **SDO4:** To ensure that adequate purpose built local services and retail floor space is provided at appropriate locations where it would best serve the needs of the local employment catchment. Retail facilities should be of a scale and nature to serve local needs without detracting from the viability and vitality of established retail centres elsewhere.
- **SDO5:** To encourage the provision of small scale, ‘walk to’ child care facilities at appropriate locations outside the Outer Public Safety Zone and Inner Noise Zone of Dublin Airport to serve the needs of local employees within the LAP lands.

## 4.2.1.1 Safeguarding the Effective and Continued Operation of Dublin Airport

The Airport safety and noise designations relevant to the development of the LAP lands are set out in Section 3. It is a core principle of the LAP to protect and facilitate the effective and continued operation of Dublin Airport.

- **CPO5:** To safeguard the current and future operational, safety, technical and development requirements of Dublin Airport while realising the optimal use of lands within the Dardistown LAP area.
- **CPO6:** To encourage and facilitate the provision of an integrated public transport network to serve Dublin Airport.
- **CPO7:** To protect and enhance the transportation capacity required to provide for the shared access needs of the airport.

Having regard to the above Core Policy Objectives, the Council will have regard to the following Strategic Development Objectives in assessing any development proposals within the LAP area.

- **Objective SDO6** - To promote appropriate land use patterns in the vicinity of the flight paths serving the Airport, having regard to the existing and anticipated environmental impacts of aircraft movements.
- **Objective SDO7** - To promote appropriate patterns of development having regard to the policies to be determined by Government in relation to Public Safety Zones and guidance contained within the County Development Plan.
- **Objective SDO8** - To resist and strictly control inappropriate development and to require noise insulation where appropriate within the Outer Noise Zone and along the M50 corridor. Buildings within these zones will incorporate appropriate sound insulation.
- **Objective SDO9** - To control the type and height of any structures that may be developed along the approaches to the existing and proposed runways in consultation with the Irish Aviation Authority in order to protect the clearways required in accordance with the ICAO Annex 14 Obstacle Limitation Requirements.
- **Objective SDO10** - The design of water features and open spaces will have particular regard to their potential to attract birds.

## 4.2.1.2 Established Non-conforming Uses

There are a number of established uses/developments within the Dardistown LAP which do not conform to the zoning of the Fingal County Development Plan 2011-17 in which they are situated. These are recognised with the LAP and the re-development/refurbishment/extension of these premises will be considered on their individual merits.

Satisfactory landscaping and urban design measures shall be taken to meet the design requirements of the LAP in all cases. This will ensure the overall environmental and visual qualities of the Dardistown LAP are not compromised.

## 4.2.2 Urban Design Strategy

Given the importance and visual prominence of the LAP lands as a gateway to Dublin Airport, County Fingal and Dublin City, it is imperative that the urban design strategy provides for the creation of a high quality, legible and coherent, green-urban environment for all employees and visitors.

- **CPO8:** Create a distinct environment with a unique sense of place having regard to the importance of public realm, leisure and reception that visitors and users alike relate to and identify with.
- **CPO9:** Provide a design and development framework that will stimulate and accommodate major new employment generating activities to capitalise on the site's unique characteristics, including its high visibility and accessibility and medium to high density development profile.

In addition to the above Urban Design Strategy Core Policy Objectives, the Council will have regard to the following Strategic Development Objectives:

- **Objective SDO11:** Ensure a high degree of permeability throughout the site through efficient site access coupled with the establishment of active facades, an evening economy, maximisation of the amount of natural light into the vicinity and an appropriate mix of ground level uses to aid in the enhancement of vibrancy and safety in the area.
- **Objective SDO12:** Promote a diversity of use, scale and density whilst achieving high quality contemporary designed buildings that will make a positive contribution towards the character and appearance of the area.
- **Objective SDO13:** Ensure development is of a sustainable nature and of high quality design that incorporates the use of high quality, attractive and durable materials and finishes.



Image 4.1: Gateway ~ Establish architectural character and legibility

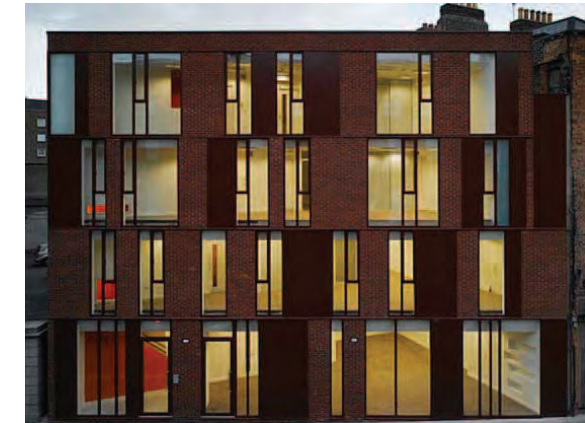


Image 4.2: High quality materials and design of facade treatment

## 4.2.3 Access and Movement Strategy

Sustainable development requires the effective integration of land use and transportation infrastructure objectives. The accessibility of jobs, services, public facilities, and opportunities for recreation and leisure, are key factors affecting quality of life. Close integration of transportation and land use is vital in order to ensure the provision of the most effective links, the minimisation of the demand for travel and the most efficient use of resources.

This LAP sets a sustainable approach to managing the transport demand whilst seeking to fully integrate land use with sustainable modes of transport. Bus and QBC based transport are of critical importance to achieve this aim in the short term and over the lifetime of this LAP. In the longer term, Metro North and Metro West can make a significant contribution to the permitted intensity of development on the Objective 'HT' zoned lands. The principles of Mobility Management providing for public, private, cycling and walking modes of transport will also be a key consideration.

The following are the Core Policy Objectives of the Access and Movement Strategy:

- **CPO10:** Ensure that the development supports and facilitates Metro North, in particular protecting the alignment and land take required for the Metro North line and Metro North Depot, as approved by An Bord Pleanála.
- **CPO11:** Provide for full integration of the LAP lands with existing and planned QBCs, the proposed internal high capacity bus corridor, and future Dardistown Metro Stop at an integrated public transport interchange at Dardistown, thereby reducing car dependency and supporting sustainable modes of transport/smarter travel.
- **CPO12:** Ensure development facilitates planned improvements to the surrounding road infrastructure to the west (Naul Road); to the north (Southern Parallel Road) and provides for potential future vehicular and pedestrian/cycle linkages to the east onto the Swords Road (R132)
- **CPO13:** Phase development in a sustainable way, in line with the availability of supporting infrastructure, including QBCs initially and Metro in subsequent LAPs, and necessary services and utilities provision.



**Image 4.3: Access and Movement for all**

Having regard to the above Core Policy Objectives of the Access and Movement Strategy, the Council will have regard to the following Strategic Development Objectives in assessing any development proposals within the LAP area.

- **Objective SDO14:** To assess new development proposals alongside the transport improvements and critical service infrastructure requirements needed to serve them;
- **Objective SDO15:** All development proposals shall demonstrate that access and connectivity to the Airport shall be maintained

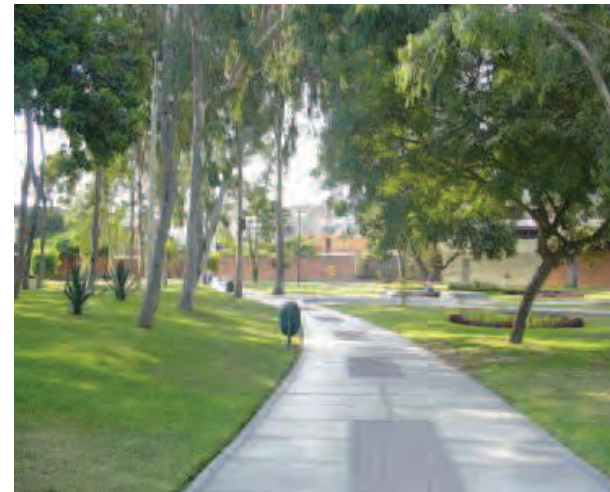
#### 4.2.4 Green Infrastructure Strategy

Fundamental to a vibrant and healthy urban area are permeability, movement and access. The LAP encourages and facilitates connectivity of the LAP lands with its wider context and open space network. Opportunities should be maximised for pedestrian and cycle links throughout the LAP lands through a series of green, landscaped links. It is advantageous that these pedestrian and cycle routes form part of the wider network of links throughout the immediate area, promoting enhanced opportunities for movement and connectivity to Dublin Airport and Dublin City Centre.

The urban landscape and open space strategy has been developed to set Dardistown apart as a distinct urban area by its network of green spaces and green links integrated through future developments and the Metro North line. In particular the existing watercourses will be retained where found and integrated into the design by forming the riparian corridor spine which will cross the site diagonally from north west to south east. This green spine will tie into additional north-south green access routes providing a green network across the entire LAP lands.

- **CPO14:** Conserve, protect and manage the existing natural resources, where appropriate, in a sustainable manner and develop measures and provide conditions to enhance bio-diversity where possible.
- **CPO15:** Provide for the protection, conservation and enhancement of wild life habitats and natural resources, including the existing water courses on site and features such as ecologically important hedgerows and mature trees within the LAP area.

- **CPO16:** Develop and enhance existing green infrastructure, create new habitat areas where any are lost, and develop a new high quality well landscaped public realm, connecting into the wider green network.
- **CPO17:** Ensure that all zones/phases of development provide a minimum of 10% of their site area towards public open space in the form of urban and pocket parks. This shall be co-ordinated across the LAP lands and integrated with the SuDS Strategy provision.



**Image 4.4: Green Infrastructure and Networks**

Chapter 3, Green Infrastructure of the Fingal Development Plan 2011-2017 sets out a strategy for the development of Green Infrastructure throughout the county. In addition to the EU Biodiversity Strategy which promotes green infrastructure it has produced a number of documents on this important issue and it is currently producing a green infrastructure strategy.

#### 4.2.5 Sustainability Strategy

This LAP promotes a holistic approach to sustainability to incorporate socio-economic aspects of sustainability as well as environmental sustainability concepts.

- Promoting a co-ordinated approach to transport and land-use planning in order to reduce the need to travel and to maximise access to public transport.
- Preservation of natural resources by encouraging energy efficient forms of development and the effective utilisation of renewable energy sources.
- Incorporation of renewable energy technologies within the built environment.

The development vision of the LAP lands is supported by the following Sustainability Strategy core objectives:

- **CPO18:** Ensure that all development contributes to the promotion of an environmentally sustainable pattern and form of development and as far as practicable, consider the local, national, international and global environmental implications of development.

- **CPO19:** Improve qualitative standards of sustainable design in accordance with the provisions of the Fingal County Development Plan 2011- 2017.
- **CPO20:** Ensure a holistic approach to sustainability in all developments through the incorporation of energy efficiency measures, renewable energy technologies, sustainable building practices and sustainable urban drainage systems / techniques in accordance with best practise guidance.

#### 4.2.6 Services and Utilities Strategy

The Services and Utilities Strategy is set out in detail in Section 8 of the LAP. In assessing development proposals, the Council will have regard to the following core policy objectives:

- **CPO21:** Ensure the implementation of a stormwater management system in the detailed design of the plan lands, following the principles of Sustainable Urban Drainage Systems (SuDS) undertaken for the LAP.
- **CPO22:** Ensure surface water wetlands, detention basins, swales and filter strips are well designed and incorporated as a design feature within landscaped areas, adjacent to the riparian corridor and elsewhere on the lands.
- **CPO23:** All development proposals shall ensure the incorporation of water conservation measures in the design of proposed developments.
- **CPO24:** A Trade Effluent Discharge Licence under the 1977 & 1990 Water Pollution Acts shall be obtained by all companies involved in development from Fingal Water Services Department to ensure all discharges to surface waters do not compromise water quality in the Turnapin Stream or any tributaries or drainage ditches discharging to the Turnapin Stream and subsequently the Baldoyle Bay.
- **CPO25:** A 15 meter riparian corridor shall be maintained along both sides of the Turnapin Stream in order to protect and manage this existing watercourse.
- **CPO26:** Ensure that strategic telecommunications including fiber optic broadband links and utilities (gas and electricity) infrastructure is provided for within the LAP area.
- **CPO27:** Promote the expansion of broadband, along with the concept of Wi-Fi and wireless technology. Ducting should be shared where possible and underground services should be placed where they create minimum disturbance to road users.

#### 4.3 Development Framework

This section provides a framework for the integration of the urban design, access and movement and landscape and services strategies.

The overall urban design concept for the lands of the LAP envisions a close integration between green and urban spaces that will give the Dardistown area a distinctive network of green spaces and green links, cycleways and internal bus routes integrated throughout the LAP. This will form the basis of a highly legible green-urban form and structure.

In turn these development principles have acted as a guide to the disposition of development within the LAP area and have facilitated the creation of distinctive character areas within the LAP lands. There is a strong correlation between the movement strategy, urban design, green infrastructure and airport related constraints and the nature and extent of uses envisaged for each of the character areas of the LAP.

#### 4.4 Urban Design Framework and Guidance

The aim of an urban design framework and associated urban design guidelines is to promote environmentally sustainable development and to encourage the design of future urban areas that interact positively with all elements of their local environment. Overall, it is about creating well designed areas with a strong sense of place that work with and respond to the needs of all users.

The design of each future phase of development should contribute to the making of an attractive and enjoyable place for people to work and visit. Each future development must be carefully considered and should be measured against its adherence in relation to the vision, policies and guidance of the LAP.

#### 4.5 Urban Design Principles

The Urban Design Principles are set under a series of specific themes:

- 4.5.1 Overriding Design Principles
- 4.5.2 Specific Structuring Elements
- 4.5.3 Parks and Green Links / Landscaping Strategy
- 4.5.4 Character Areas
- 4.5.5 Getting Around
- 4.5.6 Natural and Built Environment
- 4.5.7 Sustainable Design Considerations

##### 4.5.1 Overriding Design Principles

The overall aim of the Dardistown LAP is to create a positive urban environment utilising principles of best practice in urban design. To this end the following specific elements guide the arrangement of the design:

##### *Responding to the Topography and Landscape*

- Understanding and making the best use of the existing natural features of the LAP lands is the starting point for the development of the eventual layout of the LAP.

The landscape of the LAP area is defined by a number of hedgerows and watercourses. Each is significant in terms of the ecological and aesthetic value it holds. Accordingly, their retention, where possible, has the potential to add positively to the character and appearance of the area and so should be achieved with these natural elements incorporated into boundary treatment or site features where appropriate.

The topography of the Dardistown LAP lands is generally flat, rising gently from the south-east to the north-west. There are a limited number of existing paths and hedgerows crossing from north to south, and a number of watercourses crossing from west to east. In addition to retaining the natural form and character of the site, taking into consideration the fall of the land in the development helps to prevent the loss of soil and mature vegetation. It also prevents the possibility of undermining adjacent structures, land and trees. Accordingly, the applicants will need to demonstrate the following:

- Where possible, buildings, footpaths, streets, sewers and other watercourses should be aligned to follow slope contours. This allows building

profiles to grow out of the ground, 'minimise' the need for 'cut and fill' and enables natural gravity-flow drainage opportunities.

- Building design should minimize earthworks by designing to 'fit the slope'.

##### *Legibility and Permeability*

An important objective is the creation of a legible and permeable hierarchy of roads and pathways. The legibility of a development depends on the ability of a visitor to comprehend the logic of its layout and this in turn depends on the use of strong elements which can define the urban strategy pursued. In the Dardistown LAP lands, roads and green pathways should work together to achieve this clear layout, the maintenance and coherence of which reinforces the legibility across the site.



**Image 4.5: Legibility and permeability**

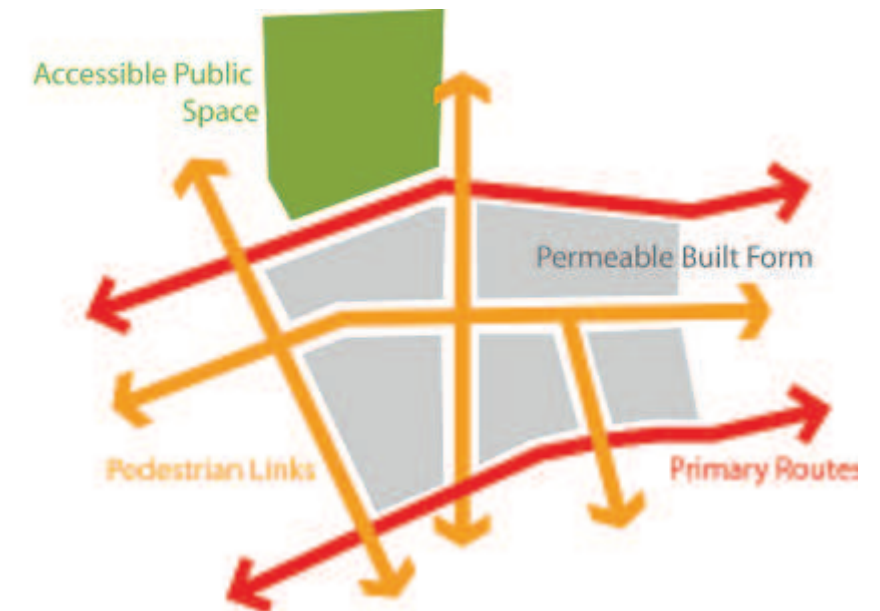
Another core urban design principle underlying the vision for the LAP lands is that of a permeable urban grain. A permeable urban grain describes urban areas where the buildings and private spaces are arranged in modestly sized blocks of development (typically 70-120 metres in the longest dimension), therefore creating a frequent and extensive network of routes as can be seen from the illustration below. This urban grain is adaptable and block size can vary in size depending on the densities and use types envisioned for each character area of the LAP lands.

Such a network will provide:

- A choice of routes on foot through the area.
- Avoids overly long routes for pedestrians and cyclists.
- Seeks to inter-connect as many places as possible.

In order to support this principle the following should generally apply to the design of developments:

- Development arranged along a network of long cul-de-sacs or dead end routes will be discouraged.
- Overly large development blocks of buildings and private space should be avoided in proximity to the Transport Hub.



**Figure 4.1: A Permeable Urban Grain**

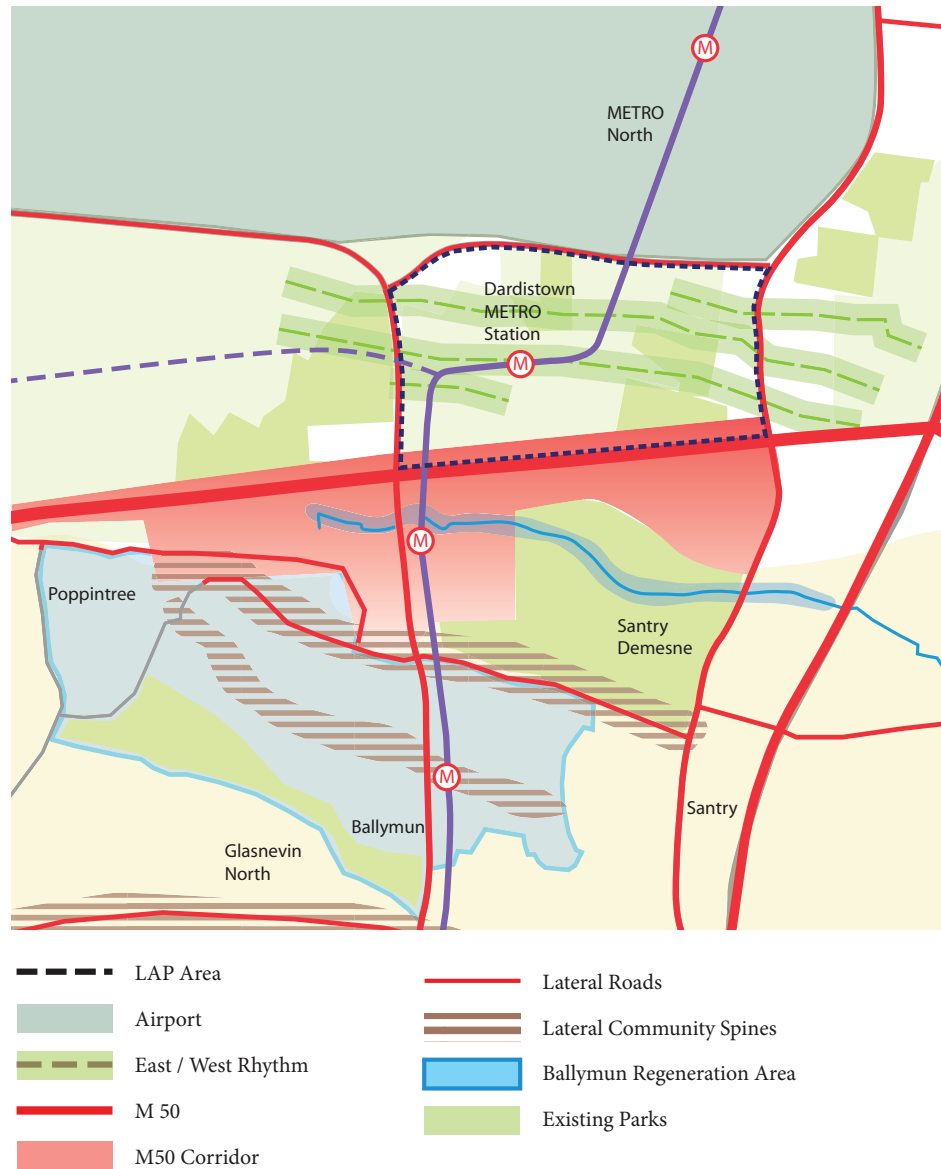
##### *Sense of Place and Character*

The vision for the LAP is led by the idea of the creation of a strong individual character which will develop a definite sense of place within the lands. This sense of place is achieved by the best use of existing features, the creation of an integrated structure of green-urban elements throughout the lands, and the development of distinct 'places' within the lands by the design of specific Character Areas, designated areas within the LAP lands with their own distinctive features and characteristics.

- The focal point for LAP lands will be the 'Hub' Character area which will be centred on the public transport interchange initially focused on the internal bus corridor and subsequently on the Metro. The remaining lands will be divided into 5 different Character Areas distinguished by different land uses, density, and connectivity as set out in Section 4.5.4

##### *Sustainability*

The achievement of sustainable development is a key objective on the LAP lands, both at the master planning level and at the level of detail design as set out in section 4.5.7. Best practice solutions should be sought in all aspects where sustainable aspects can be taken into consideration. This can include making the best use of the available renewable resources available on site, such as natural daylight, the sourcing of low embodied energy building materials, the efficient collection, storage and use of water, and the efficient management and reduction of waste.



**Figure 4.2: Existing East-West Rhythm**

### 4.5.2 Specific Structuring Elements

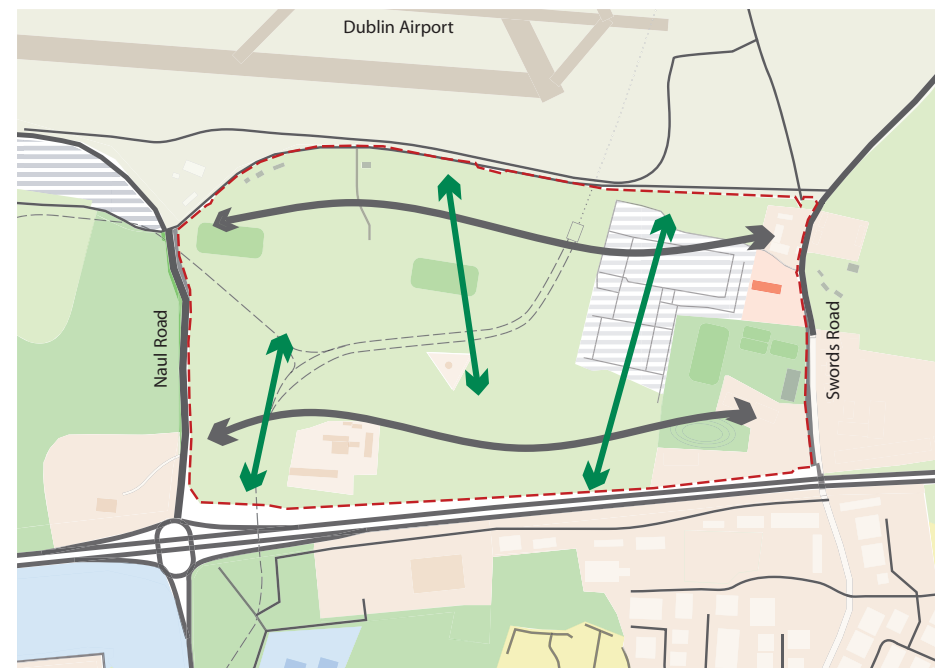
The east-west orientation of the LAP lands allow for good views of the Dublin Mountains in the distance and the Ballymun Hotel and Ikea development in the foreground. The site is very strongly bounded to the north, by the Airport, and to the south by the M50. This gives rise to desire lines of connection between the Swords Road to the east and the Naul Road to the west, which in turn would provide site-wide access.

These east-west desire lines running from the Swords Road to the Naul Road are further reinforced by the existing road network, which runs in a series of parallel lines from east to west. The north-south views open up opportunities for green links and pedestrian routes through the site.

A resulting network is formed with watercourses defining and providing a diagonal east-west rhythm through the site whilst proposed roads and existing hedgerows establish the north-south connections. These natural features are considered key structuring elements to provide for a green network of spaces within the LAP and environs, ensuring pedestrian and cycling movement through the site whilst utilising natural features to assist with drainage solutions thus ensuring the preservation of these elements.

The conceptual layout of the urban structure, as shown below has been informed by the following:

- The incorporation of the green links and line of watercourses, which connect the Naul Road to the Swords Road and connecting over the M50 to the Northwood stop.
- The vehicular network will be formed by the creation of two major axes – a east-west link off the Naul Road and a north-south route off the Southern Parallel Road to ensure a high level accessibility to the Hub. These are informed by the MN and Depot Schemes as approved by An Bord Pleanála.
- The vehicular routes work with the pedestrian system to ensure that the pivotal location of the public transportation hub is at the heart of the movement network.
- The existing green network will be reinforced by the extension of the existing axes on the site and the emphasis on existing watercourses to form a green network along which the pedestrian and cycling network will occur.



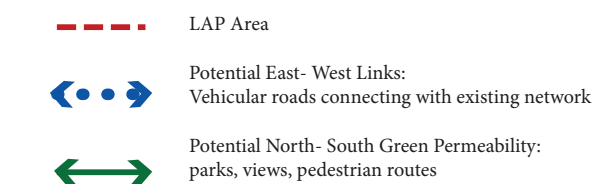
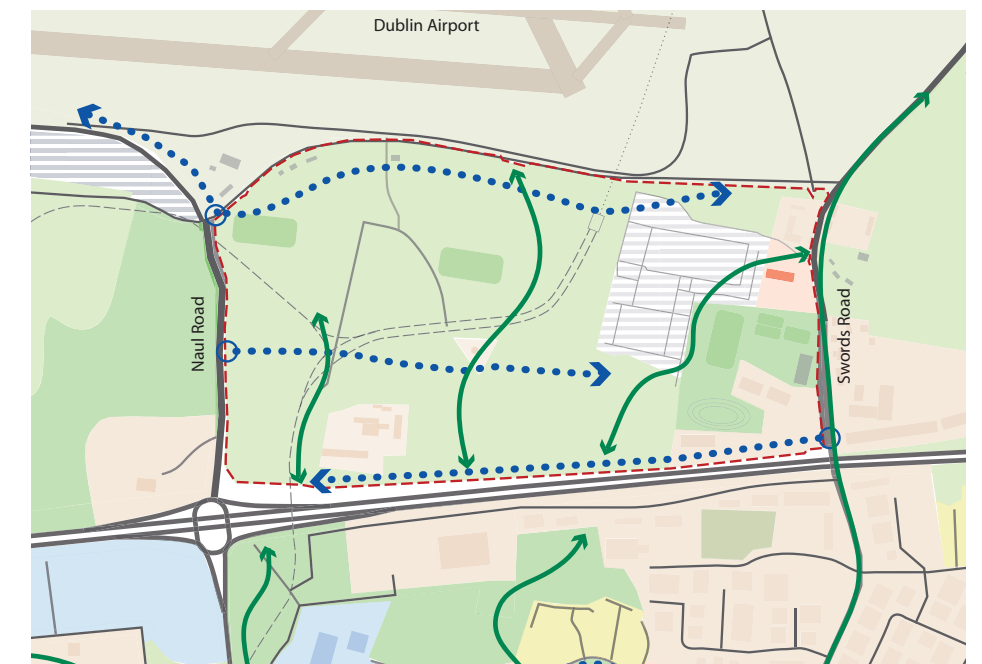
**Figure 4.3: Desire Lines**

### 4.5.3 Parks and Green Links / Landscaping Strategy

The consolidation of the existing green spaces and watercourses and the linking thereof establishes a framework for the development of the LAP lands. The LAP area will be set apart as a distinct urban area by its network of green spaces and green links integrated through future developments, the internal bus route, and the Metro North line.

An overall approach to the design of public open spaces, in general, is as follows:

- Provide open spaces along the green movement network that are usable, accessible, and appropriate to their setting.
- Open spaces shall comprise approx. 10% of an development site or area
- Open spaces should be designed and constructed to a high standard, making use of outdoor furniture, lighting and seating as appropriate.
- Provide safe spaces in central locations with a potential “evening economy” providing passive surveillance.
- Provide a public realm area that is pedestrian friendly and links Dardistown to the surrounding area.



**Figure 4.4: Potential Links and Views**

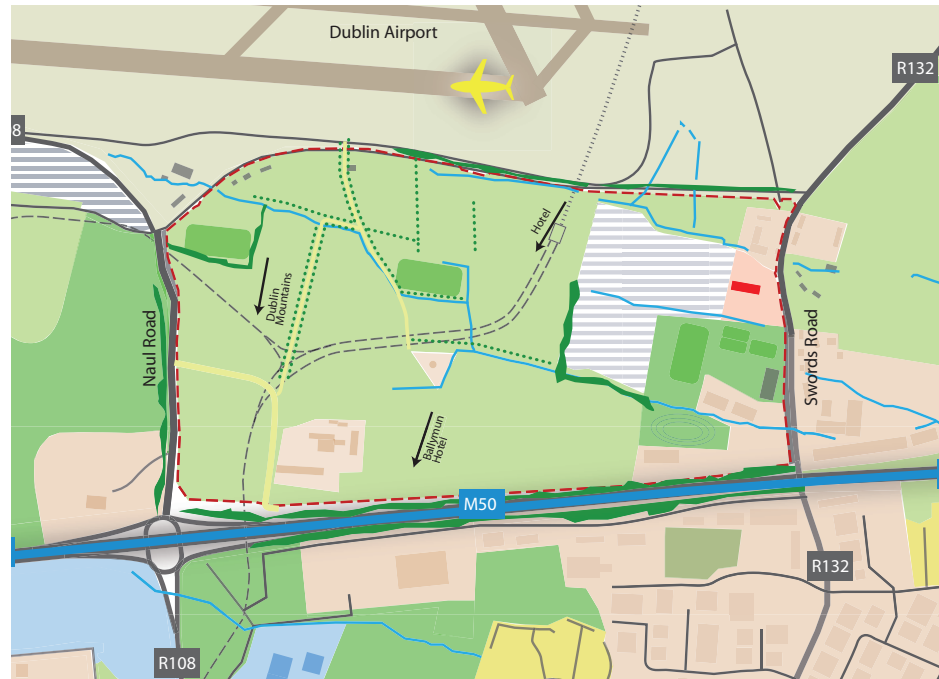


Figure 4.5: Existing landscape, topography and views

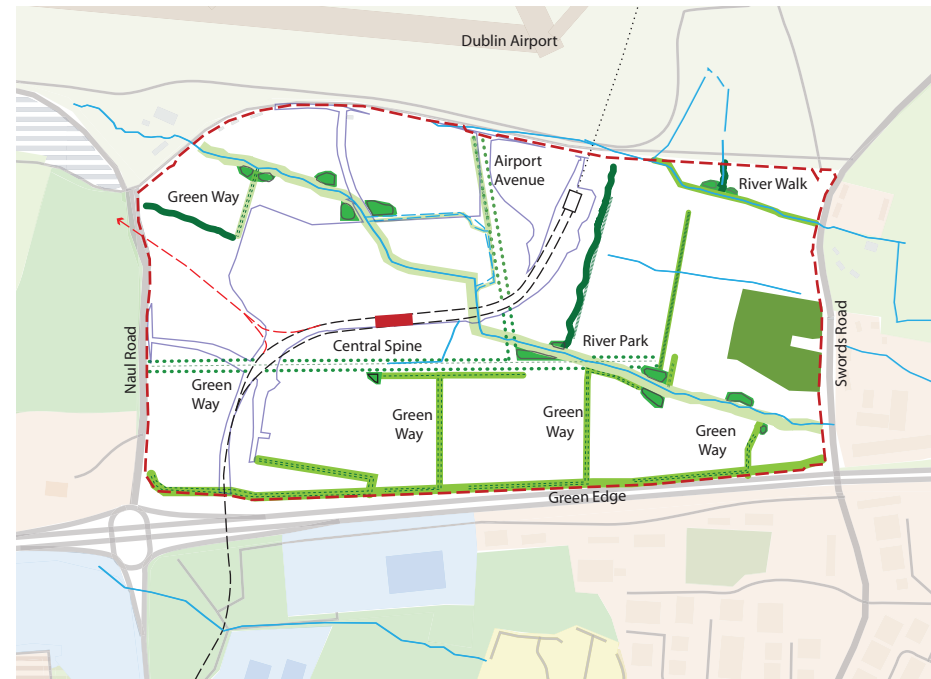


Figure 4.7: Landscaping Strategy

#### 4.5.4 Character Areas

The attributes, land use and urban design functions of these character areas are summarised as follows:

- **Gateway** – The principal entrance along the existing western site frontage and new internal bus corridor route. This area is of strategic importance and development on either side of the entrance will be characterised by buildings of a high standard of architectural design.
- **Opportunity Sites** – Prominent sites with frontages onto the M50, the Naul Road and the Metro North, which naturally accommodate land mark element(s) that could include taller more prominent buildings of high quality design.
- **Hub** - Forms the heart of the new business district with higher density commercial development and a finer urban grain with taller built forms. The development intensity will graduate the closer it is to the future transport interchange as a central reference point for the Dardistown LAP. The hub will be fully integrated with the movement and open space strategy which includes a high quality Central Spine running to the north with new buildings / blocks framing these designed green / open spaces. This area is suitable to accommodate a mix of commercial office, leisure, conference and retail facilities together with flexible space for entertainment and public events of a cultural and artistic nature. This zone could also potentially accommodate a Science & Technology Quarter with incubator facilities.
- **Metro** - Metro North and West facilities, Depot and Station. This area will contain the Metro North Dardistown Stop and so will be the key point for access to the site.
- **Airport Commercial and Logistics Park** - Gateway to the airport to be characterised by larger building plots resulting in a coarser urban

grain for low intensity / density uses including airport commercial and related uses, such as logistics and warehousing.

- **Eastern Corridor** – This character area comprises all lands within the crosswind flight path Inner Public Safety Zone and east thereof fronting onto the Swords Road (R132). This zone is characterised by established commercial, leisure and amenity uses. The majority of these lands fall both within the Inner and Outer Public Safety Zone, Uses will be appropriate to these designations and the zoning of the lands and could potentially include logistics, warehousing, commercial car parks and transport depot(s). These uses require larger building plots resulting in a coarser urban grain with limitations on building heights due to public safety zone constraints. Greater flexibility exists at the southern end of the corridor area where public safety zone restrictions do not apply to provide greater potential intensity employment / commercial type uses.

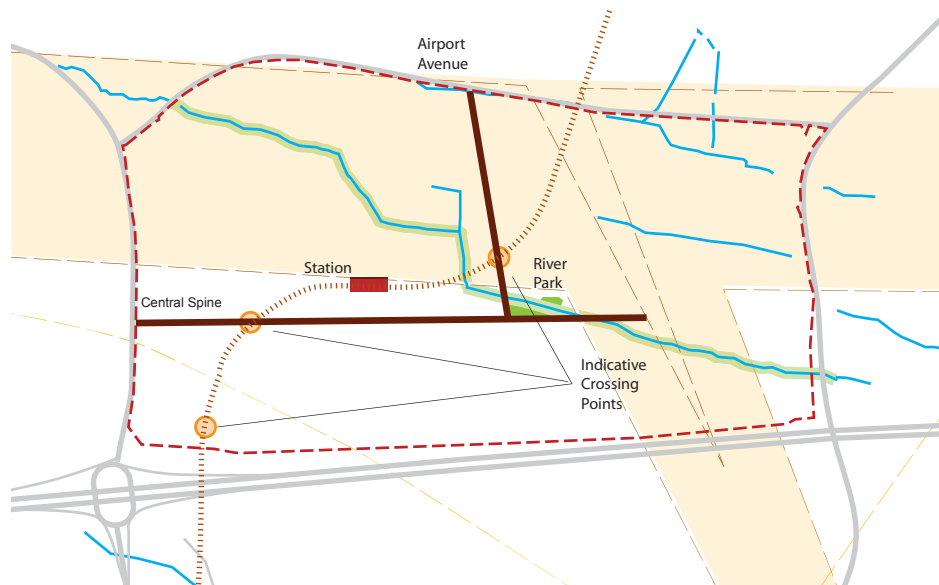


Figure 4.6: Two Main Roads

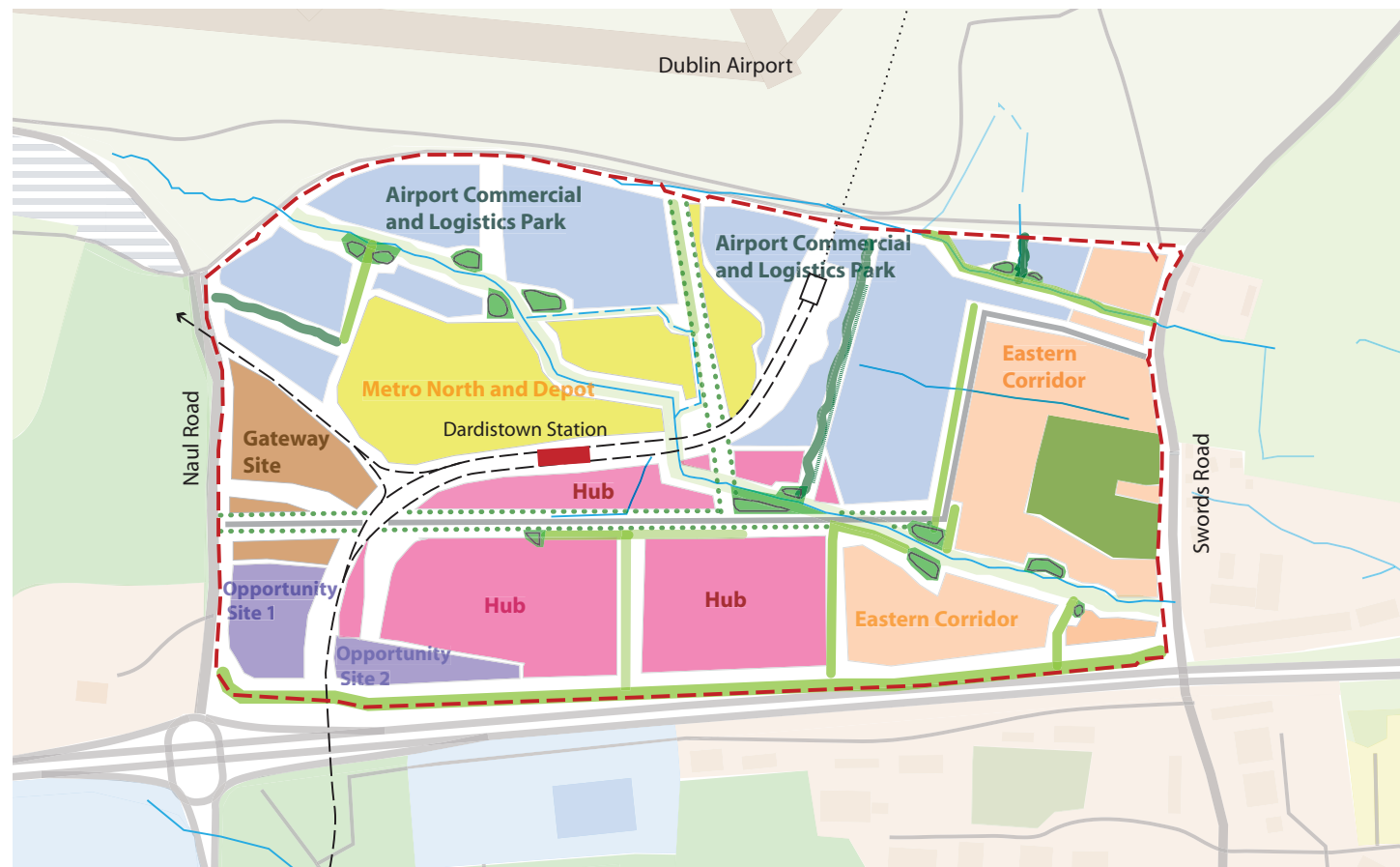


Figure 4.8: Overall Structure and Character Areas

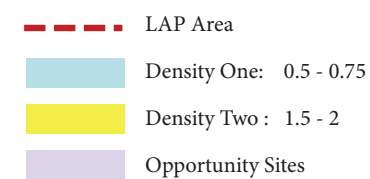
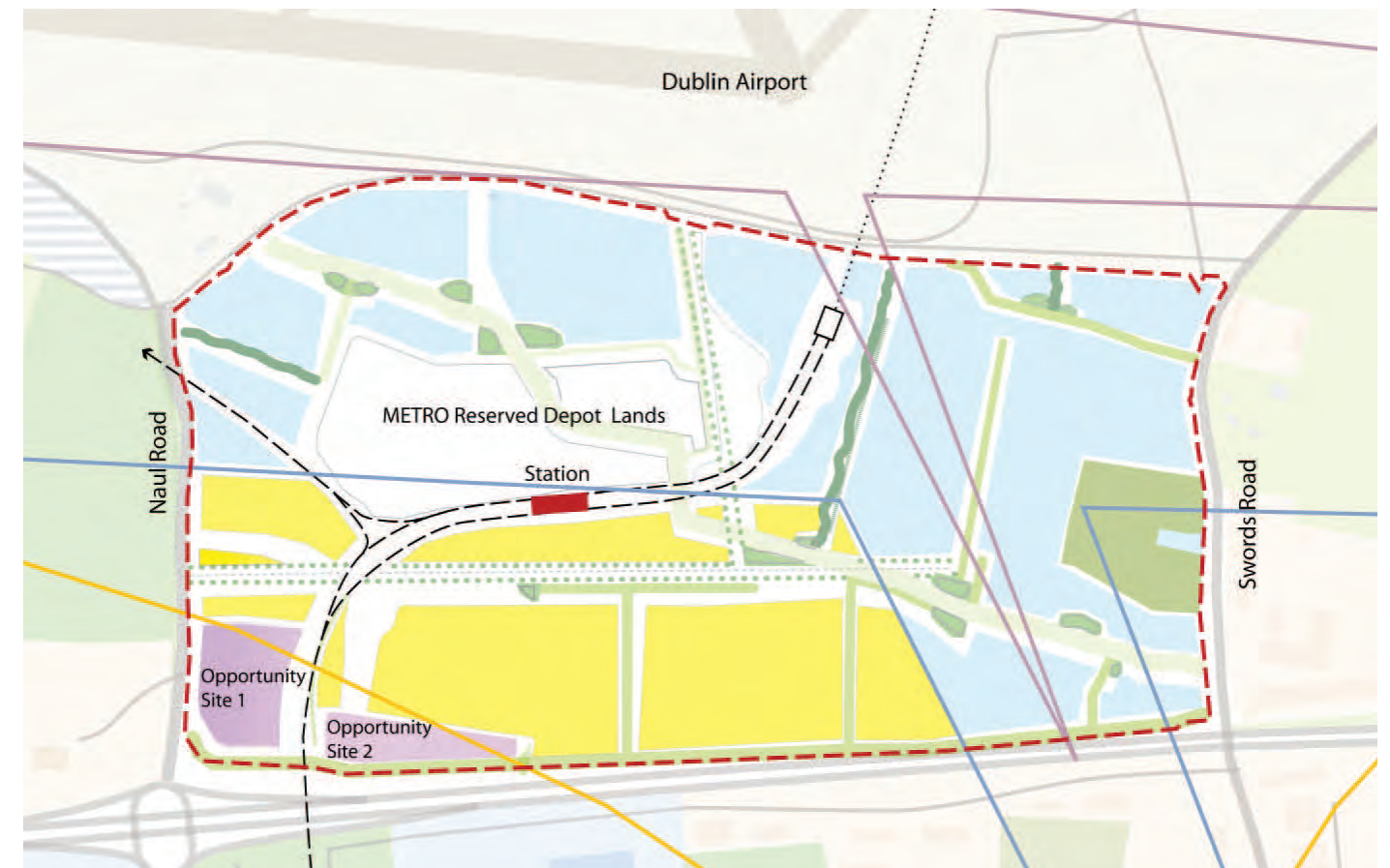


Figure 4.9: Indicative Plot Ratio's

### 4.5.5 Getting Around

The purpose of this section is to outline design guidance in relation to matters of movement, connectivity, and accessibility throughout the LAP area. In particular, this section outlines design guidance in regard to:

- Green Networks – Pedestrian and Cycle Routes
- Street Network and Design
- Car Parking

#### Green Networks:

Pedestrian and cycle routes are not only channels for circulation, they are also an integral part of green open-space network. The width and positioning of walking and cycle routes should not conform to a rigid standard, but should respond to their particular location and function.

Accordingly, where appropriate, developments should seek to establish and/or enhance the network of pedestrian and cycle ways throughout the LAP area. Adequate width should be ensured along paths for pedestrians and cyclists to pass one another safely and comfortably.

It is advantageous that pedestrian and cycle routes form part of the wider green network of the Dardistown area, promoting enhanced opportunities for biodiversity and supporting sustainable urban drainage systems where possible.



Image 4.6: Green Networks

#### Street Network and Design:

The initial and primary element of transport infrastructure serving the lands will be Quality Bus Corridors and a proposed road network linking the Southern Parallel Road to the Naul Road and the Swords Road. This network would be constructed to provide access to the developable lands, to allow for three vehicle crossing points of the Metro North line and to allow a number of safe pedestrian crossing points. In time this primary network will be augmented and enhanced by the public transportation hub at the centre of the site.

The inclusion of the vehicular network into the landscape strategy formalises the grid pattern created by the green links while the variation of depth of the grids sets up the density diversity that will be established on the site with lower density development in the northern and eastern parts of the LAP lands, medium densities to the south and west and higher densities clustered around the 'Hub / Metro Opportunity Site' central to the LAP lands.

Implementation of this grid development pattern requires at least three vehicular crossing points over the Metro North as indicated in Figure 4.10 below to provide an appropriate level of connectivity and permeability. It reinforces the crossing of Metro West and introduces three locations at which pedestrian (and potentially cycling) crossings could occur. The Dardistown Metro stop also connects the northern development with the southern core for pedestrians and cyclists. A second is created at the northern end of Metro North where the stream and its formalised green link will connect the site through to Swords Road along the River Park. A third crossing is established at the southern end of the railway line, connecting the greenway to the Central Spine that runs along the western side of the railway, and ultimately connecting to the Naul Road and Silloge Golf Course.

The internal circulatory system is designed to provide adequate access, connectivity and permeability to the LAP lands. It also ensures that unnecessary traffic travelling through the centre of the site is eliminated, as this is where the majority of pedestrian activity is likely to occur.

The main vehicular crossings of the Metro line will constitute the main distributor road layout with a two-lane carriageway with one reserved for QBC priority in each direction.

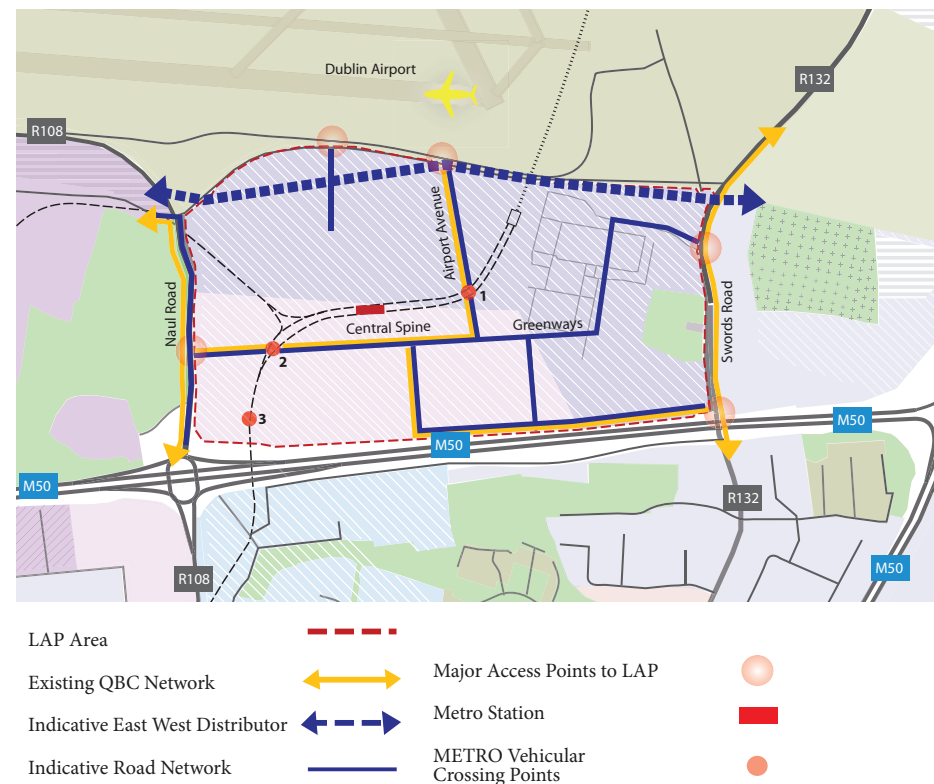


Figure 4.10: LAP Movement Hierarchy

In terms of design guidance, it is important to consider both the road capacity and the character of the road when designing new development areas. Road design should adhere to a proposed classification of street types which considers both character and capacity in the road design. Some of the various road types to be considered are inner relief roads, high streets, local access and shared surface streets.

The road carriageways within the LAP lands should form a coherent legible street network with adjacent high quality pedestrian and cycle routes.

#### a) The Central Spine

The proposed Central Spine is the spinal road that will initially act as the main distributor of traffic to, from, and through the LAP lands by providing a critical link between the Naul Road (R108) and the Swords Road. This road is defined by two-lane carriageways in both directions along its entire alignment.

In urban design terms this distributor road will also greatly influence the structure and form of the built development as it will require attractive and active frontage and potentially contain traffic-calmed zones in the centre. It is intended as a tree lined route where a clear separation between vehicular, pedestrian and cycle traffic is made in order to avoid any potential conflicts between these different road users whilst contributing towards the landscape qualities and general appearance of the LAP area.

Secondary roads which service individual blocks and character areas will be accordingly reduced in scale to reflect their relationship in the road hierarchy as a whole.

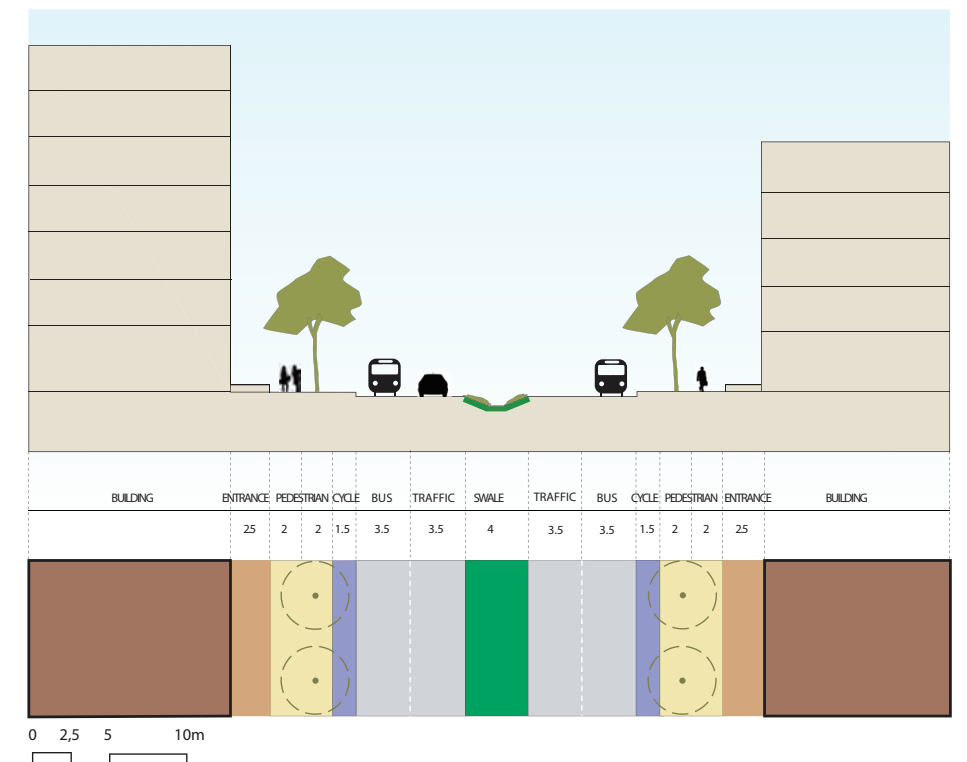


Figure 4.11: Indicative Cross Section of Central Spine and Frontages



## b) Airport Avenue

The Airport Avenue will continue the route established by the Central Spine in a north-south direction focusing on access to and from the airport from the LAP lands. It will have its own character as defined by its green elements and the views it will define towards the airport itself and the Dublin Mountains to the South. This route will also have a clear separation between vehicular, pedestrian, cycle, bus and general traffic and will continue the tree lined theme established by the Central Spine.

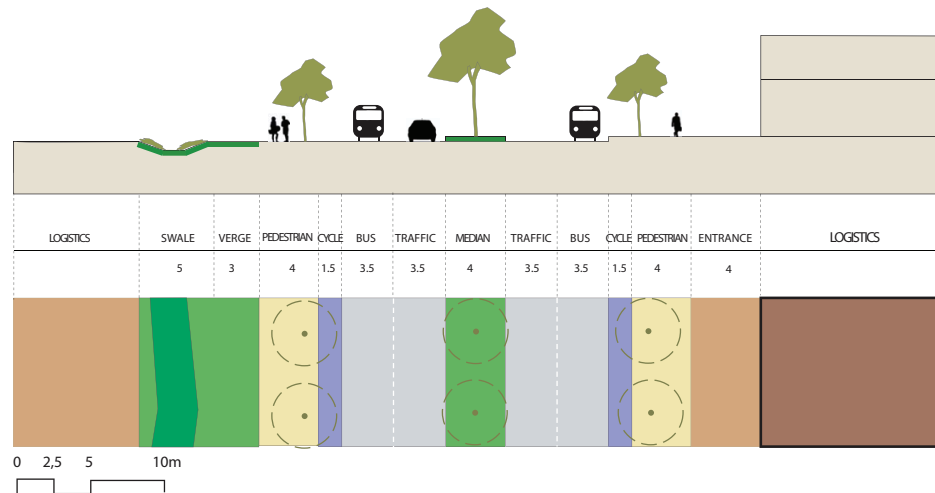


Figure 4.12: Cross Section of Airport Avenue and Frontages

## c) Greenways

As the River Park acts as the main green link for the development traversing the site diagonally, north-south Greenways connect into this element and the Central Spine.

These linear green links are envisioned as forming attractive settings for buildings and should contain high quality surfaces and recreational areas. The purpose of these links is not only to provide for views to the south and make use of existing natural features such as existing hedgerows, but to complete the green network throughout the site allowing green areas to be ever-present and highly visible. These green links will at the same time also provide for pedestrian and cycle connections to every point of the LAP lands. The area surrounding the links would be, where appropriate, accessed by a one or two lane road accommodating on-street car parking and a bus corridor where required.

### Car Parking

With regard to parking within commercial and mixed use areas, the Council's aim is to obtain a balance between the provision of cycle and car parking near all destinations within the LAP area, and the need to have commercial off-street car parking. A minimum level of on-street car parking can be maintained to allow quick access to services while simultaneously providing multi-use communal off-street car parking (underground where viable and appropriate) that can serve different needs at different times.

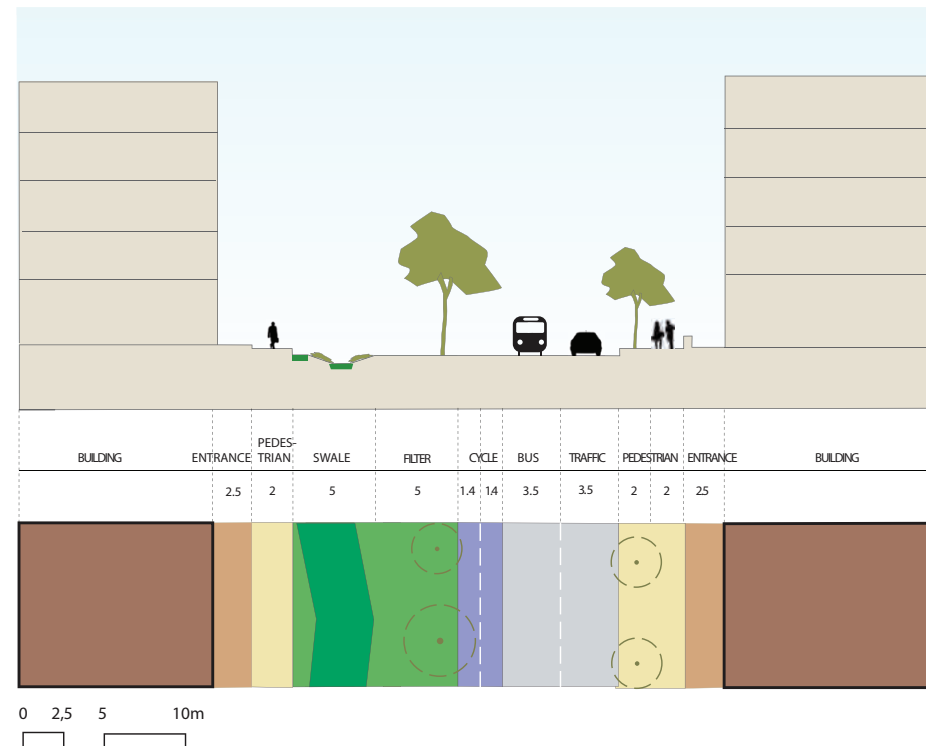


Figure 4.13: Indicative Cross Section of Greenway and Frontages

Because of the relatively flat topography of the site, underground parking will require deep excavations. The design of off-street car parks should be considered as spaces in their own right and visually integrated into the urban landscape.

### 4.5.6 The Natural and Built Environment

#### Public Space

The public open spaces (streets, parks and squares) within an urban area form a key part of the movement network and are a means of permeating the urban area with many green routes. The arrangement, scale and form of public open spaces should be a prime consideration in the layout and design of urban areas.

- Building heights and massing shall be considered in their role as potential landmarks and in their contributing role in creating a distinct sense of place within the character areas.
- Street widths and building heights shall be carefully considered to create enclosure without excessive overshadowing within a streetscape and to develop a quality public realm.

Personal security must be taken into consideration by way of orientating public space (roads, footpaths and open space) in relation to the surrounding built environment, while also allowing for a high degree of permeability for pedestrian, cyclists and vehicular traffic.

Active facades and orientation towards the street which provide for passive surveillance of public and semi-public areas is a desirable objective in the

approach to public spaces. The design of these spaces should clearly define and demarcate public, semi-public, and private spaces.

- Parking shall be sensitively provided so as not to dominate the street scene nor detract from the visual amenities of the locality.

#### Architectural Design Statement

All buildings in the LAP area will be expected to be of high architectural quality and display a clear design concept, to encourage outstanding and well-conceived architecture.

The following design principles shall apply to all buildings:

- Facades of buildings along streets shall be active facades which contribute to the animation of the street and aid in passive surveillance.
- Facades of buildings shall interact with the areas of open space, and green links where applicable, associated with the reserved lands to the south of Metro North line and lands surrounding the Metro West, irrespective of the timeline for both Metro lines.
- All buildings shall have well-designed, prominent entrances, to provide interest and assist way finding.
- As a general design principle, the Council shall encourage innovative and contemporary architectural design within the LAP area, particularly in the Objective HT area.
- Within developments it is recommended that a select limited palette of architectural materials and patterns should prevail to give visual coherency and in turn an identifiable character to the area, whilst still accommodating a degree of visual diversity.
- The external façade of buildings is a key determinant of successful urban environments. High quality new materials and natural salvaged materials shall be used in new developments and they may be combined to contribute to visual diversity and avoidance of monotonous facades.
- All materials should be durable and be suitable to withstand the climatic conditions. The use of natural and recovered, sustainably-sourced, safe and durable materials with low embodied energy will be promoted.

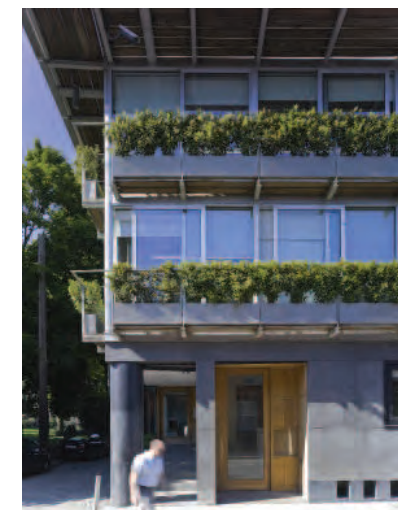


Image 4.7: High Architectural Quality Building



**Image 4.8: High Architectural Quality Business Park Building**

### *Co-ordination and Design of Public Realm*

A number of elements within the public realm and streetscape require coordination in order to promote visual coherence and avoid visual clutter. Detailed design of the public realm (including streets and public spaces) shall be addressed within planning applications. The following areas shall be addressed in detail:

- **Signage** – Signage shall be consistent and coordinated across the LAP lands. High quality information/orientation signage will be required throughout and shall be coordinated with street furniture and with information boards to avoid an over proliferation of signs that contribute towards visual clutter.
- **Lighting** – Streets and spaces shall encourage activity and provide safe and welcoming environments in the evening as well as during the day. Lighting can be effective in helping to create interesting environments by illuminating buildings or key routes and enhancing the setting of public spaces. Lighting shall be sensitively designed and coordinated to avoid clutter and reduce pollution.
- **Public Art** – Public art can create visual interest and encourage commercial and social activity, aiding in the creation of a sense of place and identity. A series of artwork and bespoke urban elements shall be encouraged throughout the development, in particular as part of the design of the urban squares and along the green movement network.
- **Paving finishes** – The continuation of a uniform quality paving material will reflect the character of the future development. The use of an agreed palette of materials will aid in defining the hierarchy of streets and spaces.

### *Micro-Climatic Design Considerations*

Ensuring adequate daylight and sunlight to new buildings and public and private open spaces is important in securing a high standard of amenity and design. In addition, development which takes into account good access to natural light will also reduce energy consumption and it is therefore an important element of sustainable building design. Good consideration of use of solar energy both passively and actively will be encouraged.

Consideration of wind impact is also important in ensuring a good quality local environment. Layouts and landscaping design shall be investigated to provide shelter from prevailing winds to ensure comfortable conditions are maintained for the proposed activity in each area.

### *4.5.7 Sustainable Design Considerations*

Buildings can be designed so as to respond intelligently to the existing topography and climate. For maximum effect and economy the aim should be for integration of appropriate design and technology into the overall building form and not simply to apply technology as an afterthought. All proposed buildings should demonstrate that sustainable building technologies and sustainable use of resources in their use and construction have been taken into consideration. In this manner, new developments should, where possible, seek to maximise energy efficiency through their location, layout, design and/or make appropriate use of energy conservation techniques.

Addressing the minimisation of heat loss, encouraging grey water recycling, minimisation of resources used to heat and light buildings, and the use of materials and construction processes that reduce the impact on environmental resources, will all assist in leading to greater sustainability and longevity.

Building design should be responsive to climatic factors in a manner that conserves the amount of energy used to light and heat buildings and creates sunlit and comfortable public open spaces. The design and arrangement of buildings on a site results in the creation of a microclimate, influencing the effects of temperature, sunlight and wind movement. Certain orientations and design can enhance comfort on exposed sites and maximise the potential for use of daylight and solar gain.

The incorporation and implementation of these sustainable design and construction techniques is central to the overall sustainability agenda for Dardistown. These matters are further set out in Section 6 of the LAP and all development proposals shall have due regard to these requirements.



**SECTION 5.0**  
**Movement Strategy**

**5.1 Introduction**

The movement strategy will promote pedestrian, cycling and public transport movement. It has the aim of maximising movement by sustainable transport modes and to ensure traffic volumes on the road network in the area are minimised. This approach ensures the lands are developed in accordance with the principles of the *Smarter Travel, A Sustainable Transport Future 2009-2020*.

The movement strategy for Dardistown has been assembled in conjunction with the analysis and proposals assembled in the ‘South Fingal Transport Study’ (May, 2012). This study has assessed the transport impacts of the planned growth areas of South Fingal encompassing areas such as Dublin Airport, Clongriffin, Baldoyle, Belcamp and Swords in light of population and employment growth expectations to 2025. The phased development of the Dardistown LAP lands in tandem with transport infrastructure (as detailed in Section 8) will ensure that new development is supported by the required transport provision.

Given that the development of the lands will take place over a time horizon spanning a number of successive LAP periods a phased approach to the improvement of the transport network and creation of an internal movement strategy has been developed.

The strategy seeks to facilitate and encourage pedestrian and cyclist movement, provide public transport options, first through the quality bus network and subsequently also via Metro North and ultimately deliver a sustainable strategic employment generating area.

**5.2 Mobility Management/Smarter Travel**

The high level of good quality public transport proposed for this area linking the existing and planned major residential areas with major employment within the Dardistown LAP lands, coupled with the high-density mix of uses, will ensure that a high modal split in favour of public and non-motorised transport can be realised.

It is an objective of this LAP to ensure maximum integration of land use and transportation to minimise trip generation, optimise the use of public transport and reduce travel by private cars.

The future modal split will develop over time and will alter as the lands and the transport infrastructure are provided. Below is the modal split target for the fully developed Dardistown LAP lands in accordance with Smarter Travel objectives.

Dardistown LAP Modal Split				
	Car Driver	Public Transport	Walk	Cycle
Mode Split Target	45%	40%	5%	10%

**Table 5.1: Dardistown Trip Patterns – Modal Splits (HT Zoned Lands)**

The GE zoned lands will primarily be used for the Depot, Warehousing & Distribution, Airport Car Parking and Park and Ride. The car parking elements are there to promote mode transfer to bus and Metro and therefore are regarded differently. These allow for the transfer of the driver on-to public transport modes to be transported to the airport and city centre. While they generate traffic locally they help reduce traffic at more

sensitive locations and help underpin sustainable travel modes. Therefore, this element of traffic generation should be regarded as supportive of Smarter Travel solutions and not as a traffic impact. The mode share targets for warehousing and distribution uses are applicable to employees only, due to the nature of their business. Travel Plans shall be developed to influence travel patterns so that they may become more efficient and sustainable. A Mobility Management Plan/Smarter Travel Plan shall be submitted with planning applications for proposed trip intensive developments, including retail and commercial proposals. The following are just some of the measures which a MMP/Smarter Travel Plan may contain:

*Travel Information and Journey Planning* - To promote the use of public transport, individuals will be provided with up-to-date travel information including timetables, real time information at public transport nodes, etc.

*Improve and Provide Non-Motorised Transport Facilities* - Provision of pedestrian and cyclist facilities, in particular parking, as well as shower and changing facilities will encourage employees to cycle/walk. Fitness campaigns would also promote the benefits of healthy transport.

*Flexible Working/Opening Hours* - To reduce the need to commute and or shop at peak hours, flexible working and opening hours will reduce peak traffic periods.

*Behavioural Transport Planning Initiatives* – For those individuals working within the scheme, the introduction of travel plans will be required to help improve mode split in favour of sustainable forms of transport.

*Monitoring* - In order to measure the success of the entire scheme as well as individual initiatives within the scheme, regular monitoring and evaluation will need to be undertaken,

*Formulation of independent initiatives* - The overall travel programme for the Dardistown LAP Lands will be a combination of a number of individual initiatives, as deemed appropriate to the local area. These may include all or some of the following:

- Cycle to work initiatives
- Walk to Public Transport initiatives
- Public Transport Incentive Schemes
- Car sharing/pooling initiatives
- Car hire

*Appointment of a Mobility Manager* - Most fundamental to the success of such a venture is the appointment of a mobility manager for the Dardistown Lands. This individual would be responsible for the delivery of the travel program and will act as a liaison figure between the various stakeholders, the council and the relevant service providers.

**5.3 Bus Network and Transport Hub**

There is currently a QBC in operation adjacent to the LAP Lands on the R132 to the east. As part of the M50 Upgrade, a condition attached to the grant of permission

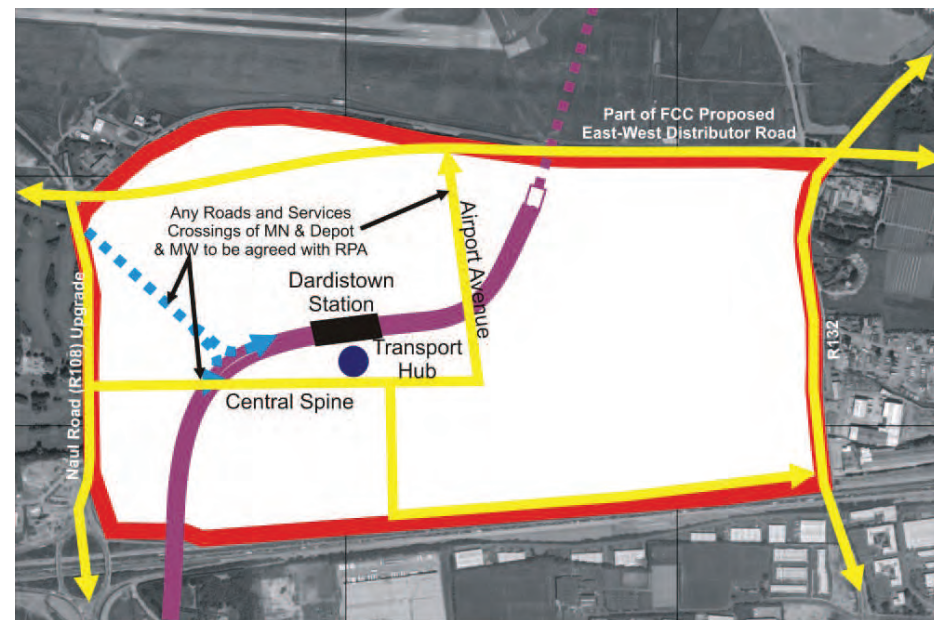
provided for a quality bus corridor on the Naul Road and the future development of lands adjoining the Naul Road. It is a government priority (Infrastructure and Capital Investment Plan 2012-2016) that additional QBC facilities be provided on the Swords – Airport – Ballymun corridor.

There is sufficient scope to extend and improve the QBC network through enhanced connectivity with the LAP lands with routes coming from the nearby Harristown Bus Depot. The provision of Metro North will be preceded by the provision of a high capacity QBC network as required. This will promote the use of public transport from the early stages of the development of the LAP lands and will ensure a comprehensive network of feeder bus services to Metro North and Dardistown hub.

The proposed Transport Hub will be developed over a number of phases initially focused on the QBC network extending to a fully integrated multi-modal interchange located in the centre of the LAP lands and adjacent to the Dardistown Metro Stop.

The following principal bus routes shall be developed to enhance the bus network:

- A QBC linking the Naul Road to the west and the Southern Parallel Road / East-West Distributor Road to the north via the Central Spine and Airport Avenue
- A QBC will also link the R108 to the Swords Road (R132) where there is an existing QBC via the Central Spine and link road



- Dardistown LAP
- Future QBC Network
- Proposed Metro North
- ⋯ Proposed Metro West
- Transport Hub

Figure 5.1: Proposed Internal & External QBC Network

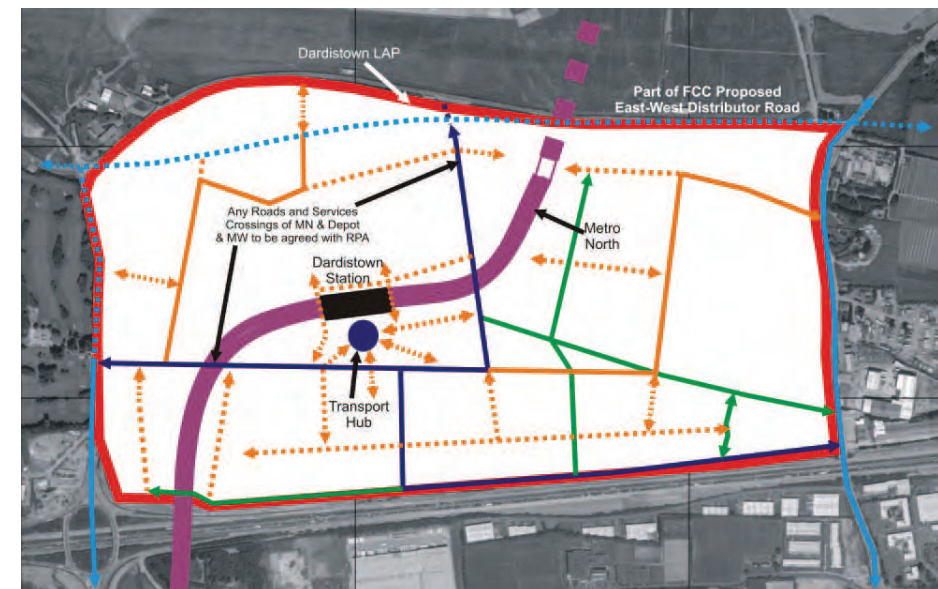
- The Naul Road will be upgraded to a Quality Bus Corridor
- A QBC provided on the East-West Distributor Road providing QBC connection from Dardistown LAP to Blanchardstown and Clongriffin Railway Station
- The development of a multi-modal Transport Hub in a phased manner

The proposed QBC network is shown in Figure 5.1. The QBC network will link with the proposed Metro network and a public transport interchange will be provided to the south of the Dardistown Metro Stop. This will support the sustainable transport needs of those working within the Dardistown lands.

A Park and Ride Facility adjacent to QBC could also be developed on the lands in order to promote sustainable travel patterns and promote multi modal travel patterns prior to the provision of Metro North.

#### 5.4 Pedestrians and Cyclists

Dardistown LAP shall accommodate a network of permeable, safe, secure and high quality pedestrian/cyclist routes, as well as additional connections to existing/proposed routes in the wider area. The cycle network will focus on the Transport Hub where secure sheltered bicycle parking will be provided. High quality cycle connections from the Transport Hub to all areas of the LAP lands will be provided.



- Dardistown LAP
- Proposed LAP Strategic Cycle and Pedestrian Routes
- Proposed LAP Greenway Cycle and Pedestrian Routes
- - - Proposed LAP finer grain Cycle and Pedestrian Routes
- External Cycle network
- - - FCC proposed East-West Distributor Road
- Proposed Metro North

Figure 5.2: Proposed Major Cycle & Pedestrian Routes

The network will include routes for the dedicated use of cyclists and pedestrians and also routes which are shared with motor vehicles. The cycle network be constructed to a high standard, which will promote this form of transport through the provision of a secure environment with passive surveillance from adjoining developments and a reduction in vehicular flows/slow movement of vehicles where possible. The development shall provide for adequate bicycle stands and shelters at secure and convenient locations and the integration with public transport.

Accordingly, a network of pedestrian and cycle ways throughout the Dardistown LAP lands shall be established. Adequate width will be ensured along paths/bridges for pedestrians and cyclists in accordance with the National Cycle Strategy. The major Cycle/Pedestrian Routes proposed within Dardistown LAP and existing cycle routes in direct vicinity of the LAP are shown in Figure 5.2.

The pedestrian and cycle routes within the Dardistown LAP lands will also form part of a green network within the site and will not merely be used for the purposes of circulation. In order to attract individuals to use the bicycle facilities it is important that they can travel to and from their destination safely and as directly as possible.

These cycle routes can take three different forms:

- Cycle paths / lanes,
- Cycle and pedestrian shared surface,
- Green Cycle Routes.

#### 5.5 Internal Street Network

A network and hierarchy of permeable and legible internal streets as shown in Figure 5.3 shall be constructed to serve Dardistown LAP. These streets shall provide safe direct routes suitable for use by pedestrians, bicycles, public transport and private motor vehicles. The network shall facilitate connectivity with adjoining areas.

The primary east west roadway 'Central Spine' will connect with the R108 to the west. The roadway, as a main gateway into the Dardistown LAP lands will constitute the main distributor road layout with a two-lane carriageway in each direction with one lane in each direction reserved for a QBC and pedestrian and cycle facilities. Access to the R132 from the Central Spine will be via a link road and will allow for site permeability and early development of bus routes through Quality Bus Corridors and cycleways. Airport Avenue will run north south and give access to the LAP lands off the Southern Parallel Road (East West Distributor Road) and connect with Central Spine. The roadway will include a QBC and pedestrian and cycle facilities. These roadways will be landscaped and finished appropriately to provide strong, formal linear elements.

The proposed internal road network will link the Dardistown lands with the R108, the R132 and the Southern Parallel Road/East-West Distributor Road. The proposed internal roads will with full development include 5 connections to the external road network as follows. Three of these are upgrades of existing accesses and access B and C are provided for in the Metro North Rail Order:

- A - Upgrade existing access to R108 at Ballystruan Lane

- B – Upgrade existing access to Southern Parallel Road/East-West Distributor Road at Ballystruan Lane
- C - Southern Parallel Road/East-West Distributor Road at location of Airport Viewing
- D - Upgrade existing access to R132 at Quickpark
- E – Upgrade existing access R132 immediately North of M50

The lower order internal road layout should be adaptable to permit development which will promote the employment generating capacity of the lands. Each of the internal streets is provisionally named as part of this LAP for ease of reference.

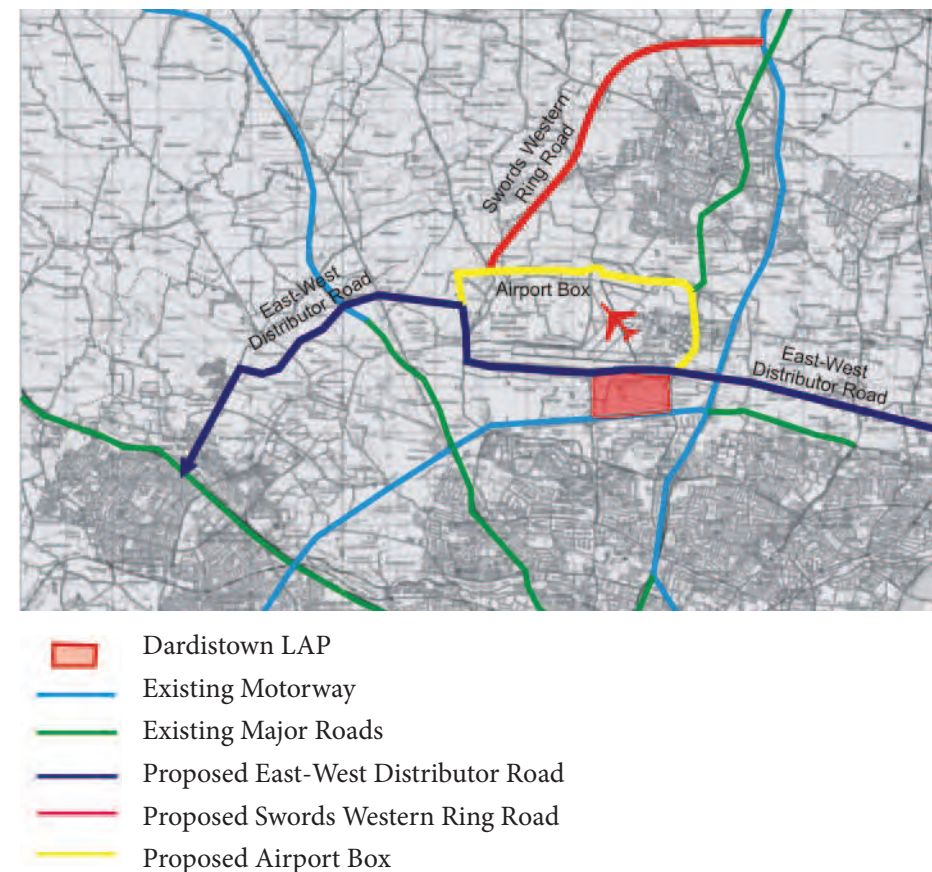
The development of these roads will be on a phased basis in order to provide access to the LAP lands as they are being developed and to allow for the early delivery of through routes for the QBC. This is detailed in the Delivery and Implementation Section of this LAP.



- Dardistown LAP
- Proposed LAP major roads
- FCC proposed East-West distributor roads
- Proposed Metro North

- Naul Road from the Ballymun Interchange to the junction with Collinstown Lane (Southern Parallel Road) including additional traffic lanes, a QBC and a signalised junction with right turning lanes into the Dardistown lands off the R108
- Upgrade of Airport Box to Dual Carriageway standard
- Provision of an East West road linking Baldoyle to Blanchardstown to Dual Carriageway standard including upgrading / re-alignment of Collinstown Lane.
- Provision of the Swords Western Ring Road (SWRR)

The provision of these roadways will significantly improve the local road network and remove traffic from the National Road Network. Figure 5.4 illustrates the proposed road upgrades in the wider area relating to the Dardistown LAP lands.



- Dardistown LAP
- Existing Motorway
- Existing Major Roads
- Proposed East-West Distributor Road
- Proposed Swords Western Ring Road
- Proposed Airport Box

Figure 5.4: Proposed Major Road Improvements in Proximity to Dardistown LAP

Where required the necessary reservations for these strategic road proposals shall be provided for in future development proposals / schemes within the Dardistown LAP lands.

### 5.7 Parking

Parking shall be provided in accordance with Fingal Development Plan standards, taking into account proximity to QBCs and Metro North. Due regard will also be given to the mode split targets established in the MMP, the impact upon the local

road network, the availability of public transport, and the parking use profile of the different uses proposed. Where practicable a Multi Functioning Car Parking (MFCP) strategy shall be developed, which will ensure the optimum use of parking provision by ensuring multiple use of the same parking spaces for different uses at different times.

### 5.8 Metro North

The Fingal Development Plan 2011-2017 provides for accommodation of the Metro North rail alignment from St. Stephen's Green to Estuary, in the north of Swords. A Station and a 300 vehicle Park & Ride Facility at Dardistown are shown in the Development Plan and it is stated that with the development of Metro North and Metro West "the area will become central in facilitating a significant public transport interchange." Pedestrian and cyclist networks will be developed as part of the development of the lands. An Bord Pleanála has granted permission for the re-location of the Metro Depot to lands at Dardistown (06S.NA0007).

#### (i) Park & Ride Facility

A 300 vehicle Park & Ride Facility will be developed on the Dardistown LAP Lands to the north of the Metro Station.

#### (ii) Metro North Alignment & Station

The Dardistown Metro Stop will be developed at-grade and will be the principal transport node serving the LAP. A multi-modal interchange will be created around the Dardistown Station. These facilities will allow transfer between Metro, bus, cyclists/pedestrians, taxi and private car. New connections to and from this interchange and the wider bus/road network in the area will be accommodated within the LAP. The provision of bus stops and facilities at appropriate locations, along with a high frequency and quality public transport system involving Metro North, will ensure and promote a high modal split in favour of public and non-motorised transport.

#### (iii) Metro Depot

The Metro Depot will occupy approximately 16 hectares of land to the north of the Dardistown Station. The Depot will be used for storage and maintenance of Metro vehicles.

### 5.9 Current Status of Metro North

The Metro North may not be delivered within the lifetime of this LAP and an objective of this LAP is to preserve the lands required for the development of the Metro North and facilitate and ensure integration of the Dardistown LAP with the Metro Stop, Metro Depot, Metro Park and Ride, Metro crossings and Metro infrastructure.

### 5.10 Metro North Crossings

There are agreements in place, attached to the Metro North Railway Order, between the RPA and the relevant landowner regarding the provision and location of crossings of Metro North. Therefore the development of roads and services can proceed in advance

of, in tandem with, or subsequent to the provision of the Metro Scheme. The details of the roads and services crossings are to be agreed in advance with the RPA.

These crossings will allow for the sustainable development of the lands prior to, in tandem with or subsequent to the development of Metro North and will ensure the permeability of the lands. The crossings are shown in Figure 5.5.

### 5.11 Provisions for Metro West

An application was made to An Bord Pleanála for Metro West. The application was withdrawn in September 2011. The alignment of the proposed Metro West will be kept free from development so that the project can be delivered in the future.

The current Dardistown LAP preserves the lands required for future development of Metro North Depot and Metro West and allows for the independent development of the lands in the vicinity of Metro North, as shown in Figure 5.6. The phased approach to the development of the Dardistown LAP lands ensures lands closest to the Dardistown Stop can be developed in tandem with and be integrated with Metro North. The early development of the LAP lands will strengthen the economic case for the Metro through the delivery of increased patronage.

### TR – Key Objectives

1. The provision of high capacity quality bus corridors within the LAP lands which are integrated with the pedestrian and cycle network, have real time information and high quality bus shelters.
2. Provide for the safe and easy movement of pedestrian and cyclists through the provision of direct high quality routes within the LAP lands.
3. Ensure the connection of LAP lands to the surrounding road network through new street and pedestrian/cyclist links,
4. Develop a Transport Hub over three phases to accommodate development and the roll out of Public Transport provision.
5. Facilitate and ensure integration of the development with the Metro North, Metro West, Metro Depot, Metro Park & Ride, Metro crossings and Metro infrastructure, as well as improved local and regional bus routes.
6. Require a Mobility Management Plan / Travel Plan to be submitted with planning applications for proposed trip intensive developments.
7. Ensure that transport infrastructure is appropriately phased and implemented in tandem with development of LAP lands, in accordance with Section 8 Phasing and Implementation of this document.
8. Require development proposals to provide for satisfactory land reservations to facilitate future strategic road and QBC schemes.

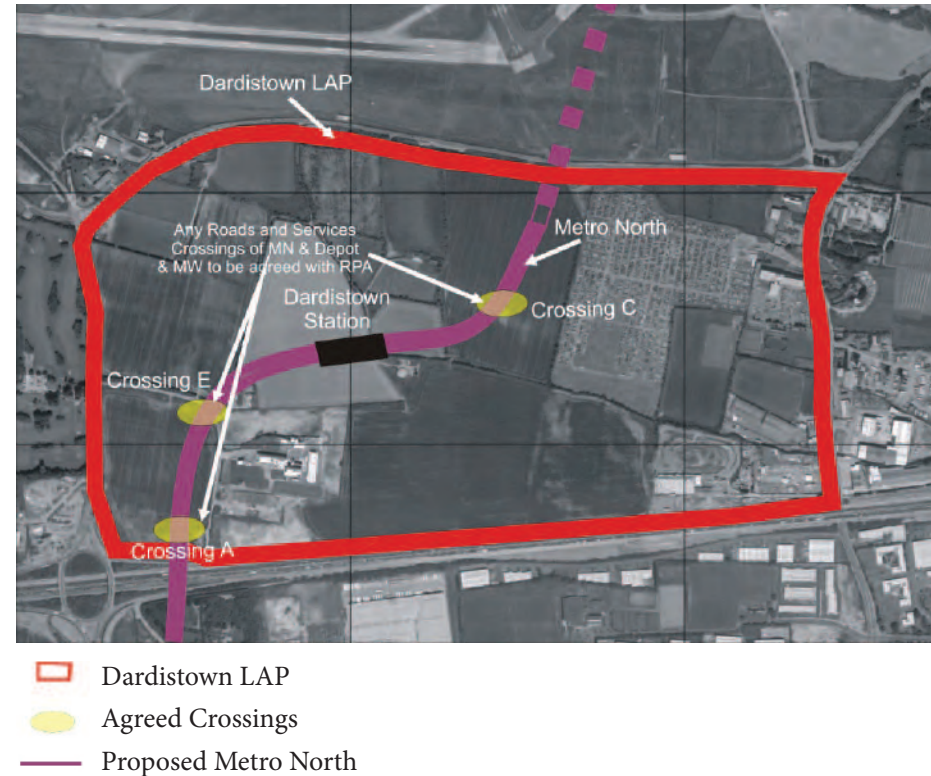


Figure 5.5: Agreed Crossing Locations of Metro North



Figure 5.6: Proposed Metro West Alignment to be Kept Free From Development

## SECTION 6.0 Sustainable Development Framework

### 6.0 Sustainable Development Framework

#### 6.1 Introduction

The built environment both affects and is affected by the natural environment through the use and reliance upon finite natural resources such as water, energy, land and materials, the provision of goods and services, and the generation of wastes and emissions.

Comprehensive urban redevelopment through ‘blueprint’ planning offers significant potential to achieve environmental, social and economic sustainability through good planning and design, and reduced use of natural resources whilst emphasising a shift in focus towards renewable sources of energy.

Sustainable urban development principles lie at the core of this LAP through the promotion of a sustainable mix of land uses that are fully integrated and supported by sustainable modes of transport infrastructure provision. The identified character areas are a direct response to the unique set of development opportunities and constraints associated with the LAP lands which encourage a highly integrated and responsive approach between built density, urban form, land use and transport infrastructure provision.

The promotion of sustainable urban design principles, design and construction techniques seeks to further reinforce the sustainability framework for the LAP lands.

This LAP has been prepared in the context of a Sustainability Framework which has been developed to ensure that concepts of sustainable development underpin all elements of the Plan. The Framework addresses economic, social and environmental sustainability for development in the LAP area in the following manner:

- **Urban Design** – Incorporates the principles of a Sustainable Urban Extension at a macro level whilst promoting sustainability at a micro level (urban precinct) by incorporating principles of walkability and connectivity.
- **Climate Change** – Ensure developments mitigate and are adapted to climate change impacts.
- **Buildings** – Ensure that buildings in their design, construction and operation contribute to the sustainability of the overall development.
- **Natural Resources** – Conserve natural resources and promote the preservation of water, energy, materials and waste, both in construction and operation. Incorporation of energy efficiency and renewable energy technology and techniques.
- **Natural Environment** – Preserve and enhance the ecological value of the lands.
- **Placemaking** – Develop a sense of place through incorporation of natural environmental features, layout, high quality urban design and good architecture.
- **Business** – Promote sustainable economic development.
- **Transport** – Promote a transport strategy which promotes the usage of sustainable modes of transport such as cycling, walking and public transport whilst minimising trip generation.

This LAP is committed to implementing sustainability at all levels of development. To further ensure that development within the Dardistown LAP lands achieves a

high level of sustainability, this section sets out guidelines for the design of any future development proposals.

#### 6.2 Urban Design - Sustainability Considerations

Buildings and urban areas can be designed so as to respond intelligently to the existing topography and climate. For maximum effect and economy the central aim should seek to integrate appropriate design and technology into the overall built and natural form of the LAP area.

##### 6.2.1 Macro and Micro Climatic Considerations

The design and arrangement of buildings on a site result in the creation of a microclimate, influencing the effects of temperature, sunlight and wind movement. Certain orientations and design can enhance comfort on exposed sites and maximise the potential of daylight and solar gain. The orientation, massing and landscaping aspects of buildings can contribute significantly to the overall energy budget of a building through conservation, heating and cooling.

- **Sunlighting:** Urban design should be responsive to climatic factors in a manner that conserves the amount of energy used to light and heat buildings and creates sunlit and comfortable public open spaces. As described in the building form, the urban block should be modelled to take account not only of positive orientation but the optimum aspect for day long passive sunlighting of spaces, streets and internal floor plates. Where possible design and layouts should seek to optimise the amount of solar gain in developments, whilst considering other urban design aspirations to provide ‘live’ frontage to all sides of a block, enabling active streets, supervised and well overlooked spaces particularly for zoned Objective ‘HT’ lands .
- **Daylighting:** Building design should be developed to ensure optimisation of daylighting performance, particularly on the zoned Objective ‘HT’ lands, through the avoidance of deep plan building blocks and the provision of wide separating boulevard spaces. Daylight performance should be demonstrated for development proposals on the zoned Objective ‘HT’ lands through the use of lighting simulation software to demonstrate Vertical Sky Component (VSC) and Daylight Factor (DF) components.
- **Natural Ventilation:** The building site layout should be developed to ensure natural ventilation availability for buildings throughout the development. Natural ventilation enables improved internal air quality, occupant control of the local environment and mitigates against “sick building syndrome”. The availability of natural ventilation for the site should be demonstrated through the use of wind analysis for the prevailing wind conditions utilising Computational Fluid Dynamics (CFD).

##### 6.2.2 Sustainable Design and Construction

Sustainable building technologies, reduced resource use in the construction of buildings and good urban design principles should be demonstrated within all new development proposals. New developments should, where possible, seek to maximise energy efficiency through their

location, layout, design and/or make appropriate use of energy conservation techniques.

In a building's life cycle, energy is used in a number of different ways:

- In design and construction
- In operation, for lighting, heating and power
- For demolition, recycling and disposal

Applications for new development shall be required to have regard to the provisions of the following sections.

#### a) Building Design and Construction

Fingal County Council is committed as a priority to encouraging more sustainable development through energy efficiency/reduction and increasing the use of renewable energy in all new building projects. This will be achieved by improving the requirements as set out in Part L of the Building Regulations 2007 (or any updated version) and application of Building Energy Rating (BER) standards. New development must comply with these standards, as set out in the Fingal County Development Plan - Development Plan standards.

Embodied energy is the energy consumed by all of the processes associated with the development of an area, from the acquisition of natural resources to product delivery, including mining, manufacturing of materials and equipment and transportation. The Council will promote the use of low embodied energy materials.

#### b) Energy Efficiency – Reducing Primary Energy and Carbon Footprint

The design of the buildings presents opportunities for energy saving throughout the life of the building by reducing primary energy needs and carbon emissions through the careful selection of plant, controls and management of services.

New development proposals shall be required to demonstrate reduced energy consumption in their design and construction and should incorporate where possible alternative energy technologies such as bio-energy, solar energy, heat pumps, heat recovery and wind energy. The following measures are examples which should be promoted to increase energy efficiency of buildings:

- Heat Recovery - Incorporation of heat recovery into ventilation systems to allow the reclamation of energy.
- Free cooling - Plant and equipment optimised for use of free cooling for air and water systems when suitable external conditions exist.
- Lighting - The lighting in the development will incorporate low energy lamps with lighting controls incorporating daylight saving.
- Variable speed pumping and fans - The air and water systems will be designed using variable speed drives.
- Condensing Boilers - The boiler plant providing low temperature hot water will include for flue gas reclaim by condensing the "latent" heat from the flue gas for use in these systems for space heating and air preconditioning.
- CO<sup>2</sup> monitoring - The car park ventilation will incorporate CO<sup>2</sup> monitoring to control the ventilation rate. The system uses less energy as the fans are set to operate at a lower extract rate using variable speed drives and only increase to full extract when the CO<sup>2</sup> levels exceed certain values.

- Building Management System - BMS will be used to efficiently control and monitor the services within the development. The systems will incorporate optimal routines, night set back and weather compensation.

#### c) Energy Conservation – Increase usage of Renewable Energy Technologies and Sources

The use of on-site renewable energy, such as solar water heating, photovoltaic (pv) or wind power, is a way to reduce reliance on fossil fuels and minimizing emissions of carbon dioxide and other greenhouse gases that contribute to global warming. Renewable energy systems of this nature are particularly suited for site-wide developments incorporating centralized plant, as power and heat generated can be diversified across the variance of building use and operation. In this manner, cost-effective systems can be achieved. Furthermore, the centralised nature of the energy plant would enable future technologies to be more readily implemented as a whole in comparison to individual building developments.

- Solar Hot Water: Solar panels to provide domestic hot water (sanitary ware) would be optimally positioned localised to individual buildings, and connected directly to nearby hot water storage cylinders. Solar panels should be installed at an inclination of between 20° and 45°, with an orientation between SE and SW in order to optimise performance. Panel installations should be sized to deliver, by renewable solar energy, a high percentage of the required annual hot water energy usage.
- Photovoltaics (PV): PV panels can be provided either on an individual building basis, or as a centralised bank with net export capabilities to the ESB grid to offset development carbon emissions and provide additional revenue. PV panels installed localised to buildings can be integrated either as facade elements or shading devices, thus offsetting installation capital costs. Panels should be located to the same inclination and orientation as described above for solar hot water panels for optimum performance.
- Deep-Bore Geothermal Heating: This technology would involve directly pumping heated water from a depth below ground of 2 km approx for building use. As the only associated energy requirements would be for water pumping, this technology would have the potential for significant primary energy and carbon savings, however, the viability for the site (availability of water) would have to be determined in advance.

#### 6.3 Conservation and Enhancement of Natural Resources and Features

Water conservation measures shall be incorporated into future developments. The amount of water used in the development will be limited through the use of water conserving devices such as low flush, dual flush systems and automatic cut off devices, in order to prevent continuous unattended drawing of water.

Other water conservation measures may include:

- Grey Water Recycling - Involves the reuse of waste water from sinks and showers
- Rainwater harvesting - Involves the collection of rainwater for reuse in WC's and watering of landscaping vegetation

In order to limit unnecessary water usage, leaks and excessive consumption of the water supply, developers shall be required to prepare Water Management and Conservation Plans, detailing how best practice in water conservation shall be applied in respect of the proposed development to include both mains water and internal plumbing. These plans should consider incorporating conservation measures including rainwater harvesting and grey water recycling.

Existing natural and landscape features, such as trees and hedgerows should be incorporated within development proposals and in accordance with the landscaping strategy for the LAP lands in order to enhance the ecological and biodiversity value of the lands whilst fostering a 'sense of place' whereby the natural landscape features are sensitively incorporated within the new urban environment.

**Objective NRF** - Suitable and appropriate management and landscaping of development sites by landowners shall include appropriate measures to combat and control noxious weeds and alien/invasive plant species.

#### 6.4 Recycling and Waste Management Strategies

##### 6.4.1 Construction Waste Management Strategies

Developer(s) shall be required to submit at planning application stage a construction and demolition waste management plan setting out a programme for the management/recovery/disposal of construction/demolition waste material generated at the site during the excavation and construction phases of development, in accordance with the relevant national waste management legislation.

In all instances developers must ensure that all waste is removed from the plan's lands by approved waste disposal contractors to approved waste disposal facilities.

Furthermore, the use of sustainable construction methodologies and material will be encouraged and developers will need to demonstrate that sustainable construction materials will be used that are sourced sustainably.

##### 6.4.2 Operational Waste Management Strategies

Waste Management strategies that promote the principle of recovery, recycle and re-use can make a significant contribution towards overall sustainability levels of development.

In this regard an integrated waste management strategy shall be undertaken to ensure that the development makes a positive contribution to the overall sustainability of any development. All new developments shall be required to comply with Fingal County Council Waste Management Plan. Alternative infrastructural systems which deliver an equivalent level of recycling, e.g. vacuum waste collection systems will also be encouraged.

A waste strategy shall accompany all applications for substantial development and shall address:

- Maximising the recovery of valuable resources, for reuse or recycling, before further treatment or disposal.
- Design and development of an integrated process which seeks to significantly reduce direct and indirect emissions, particularly CO<sup>2</sup>, methane and dioxins.





**SECTION 7.0**  
**Services and Utilities**

**7.0 Services and Utilities**

**7.1 Water Quality**

The Turnapin Stream, which discharges to Mayne River and in turn to the protected Portmarnock Estuary, is the main water body in the area of the LAP lands. This stream and the Dardistown Tributary in the north east part of the plan area are within the Santry Mayne Sluice Water Management Unit (WMU), for which there exists a Programme of Measures to facilitate a return to “good” status for these water bodies. In addition, Fingal County Council Water Pollution Control Section is the regulatory body who issue Trade Effluent Discharge Licences during the construction phase of a development, to ensure that discharges to surface waters do not compromise water quality.

All developments within the LAP lands shall be required to comply with the Programme of Measures for the Santry Mayne Sluice WMU and obtain Trade Effluent Discharge Licences from Fingal County Council Water Pollution Control Department.

**7.2 Turnapin Stream and FEMFRAMS**

As noted in section 3.4.2 the Turnapin Stream flows from north-west to south-east, across the plan lands. As part of the FEM FRAMS, draft flood extent maps have been produced for the Mayne River, including the Turnapin stream, for 1% (1 in 100 years) and 0.1% (1 in 1000 years) probability of flooding. While there is limited flood risk predicted for properties in the Mayne River catchment for the 1% Annual Exceedence Probability (AEP) event, none of these properties are located within the Dardistown LAP. The draft flood mapping predicts limited flood extents alongside the Turnapin Stream for 0.1% AEP events in the south eastern part of the LAP lands and very limited flood extent in the 1% AEP event affecting approximately 0.15hA in the middle of the LAP lands close to the existing AIBP wastewater treatment plant. The draft FEM FRAMS Final Report does not identify any Areas of Potential Significant Risk (ASPR's) or Individual Risk Receptors (IRR's) within the LAP area.

A flood risk screening has been undertaken as part of the SEA accompanying this LAP. Given the existing drainage of the lands and with the exception of the immediate area adjacent to the stream, the LAP lands are not within a flood risk area. The development of the LAP lands will not give rise to a risk of flooding and potential impacts on the Turnapin Stream will be mitigated with the implementation of a SuDS strategy.

As part of any future application on these lands, the results of FEM FRAMS shall be adhered to. Furthermore, the flood risk zones as defined in the “Planning System and Flood Risk - Guidelines for Planning Authorities”, published by the OPW and DoEHLG in Nov 2009, shall be applied in respect of 1 in 100 or 1 in 1000 flood probability, as defined by FEM FRAMS.

In order to protect, improve and enhance the natural character of the watercourses and rivers in the county, and promote access to walkways and other recreational uses of associated public open spaces, a 10-15 metre riparian corridor must be maintained either side of the Turnapin Stream, measured from the top of the bank. This corridor forms an integral part of both the landscape and SuDS strategies for the LAP lands and is further identified as CP025 in Section 4.

**7.3 Surface Water Drainage and SuDS**

The majority of the Dardistown LAP lands lie within the catchment of the Turnapin Stream which traverses the LAP area from northwest to south east. A small area in the south west of the LAP lands lies within the natural catchment of the Santry Stream, although it has been severed from the remainder of the catchment by the construction of the M50 motorway in cutting. The Turnapin Stream flows into the Mayne River which in turn discharges to Portmarnock Estuary at Mayne Bridge. The Santry Stream discharges to Dublin Bay at North Bull Island.

The EU Water Framework Directive (WFD) now incorporated into Irish Law, requires as an objective the achievement of “good ecological status” for surface waters by 2015. The Regional Drainage Policies of the Greater Dublin Strategic Drainage Study emphasises that the requirements of the WFD cannot be met unless sustainable drainage strategies and a commitment to best practice and continued improvements are implemented.

All development downstream of the LAP lands should be protected against flooding from rainfall events with return periods of at least once in 100 years. This would reduce the risk of flooding to existing development to less than a 1% chance in 100 years which is the adopted standard in the “Planning System and Flood Risk Management Planning Guidelines” as published by the OPW and DoEHLG (Nov 2009). These guidelines require the planning system at national, regional and local levels to:

- 1) Avoid development in areas at risk of flooding by not permitting development in flood risk areas, particularly floodplains, unless where it is fully justified that there are wider sustainability grounds for appropriate development and unless the flood risk can be managed to an acceptable level without increasing flood risk elsewhere and where possible, reducing flood risk overall
- 2) Adopt a sequential approach to flood risk management based on avoidance, reduction and then mitigation of flood risk as the overall framework for assessing the location of new development in the development planning processes
- 3) Incorporate flood risk assessment into the process of making decisions on planning applications and planning appeals

There is no history of significant flooding on the subject lands. However, the riparian corridor of the Turnapin Stream, which traverses the site, should be maintained free from development and incorporated within the design concept of the Green Infrastructure Strategy for the LAP lands, as set out in Section 4.2.4.

The Draft Final Report of the FEM FRAMS, attached as an Appendix to the SEA, includes a list of culverts identified for proactive maintenance by the Local Authorities. The Turnapin Bridge on the R132 is included in this list as it has been identified as being subject to blockage in the past. Proactive maintenance of this culvert should ensure that flooding incidents recorded in the past, prior to remedial works undertaken in 2004, can continue to be avoided.

The SuDS Strategy for the LAP lands incorporates a hierarchy of drainage solutions based on the principle of treatment at source where practical. On this basis, run

off from individual development plots should be attenuated using SuDS techniques within those plots. Distribution and access roads and other circulation routes and public realm areas will also require treatment and attenuation of runoff. Swales, detention basins, bio retention and stormwater wetlands are all considered potential solutions that will be considered, where practical, for incorporation in a Surface Water Treatment Train approach. The design of the surface water treatment systems within the LAP lands should include techniques of pollution prevention, source control, site control and regional control. A SUDS strategy has been outlined for the LAP lands to ensure surface water drainage resulting from development within the LAP lands can be dealt with adequately. A minimum of two components should be provided within each treatment train in order to ensure water quality in the receiving water is not compromised.

The configuration of the LAP lands allows development in individual phases, with each phase relying only in limited circumstances on preceding phases for delivery of surface water drainage infrastructure to facilitate subsequent phases. Connections across the route of the proposed Metro North and Metro West rail alignments will be required and the location of these will need to be agreed and coordinated with the Railway Procurement Agency (RPA) in order to avoid any future disruption of the construction or operation of Metro services.

#### Water Quality:

- A sustainable drainage system shall be provided incorporating a minimum of two elements in each surface water treatment train in order to ensure water quality in the receiving water is not compromised.
- The storm water flows from the proposed development will be retained in overground/exposed flood attenuation swales, detention basins or wetlands within or adjacent to the riparian corridor of the Turnapin stream. These areas will be incorporated within green landscaped/open space areas.
- Green roofs shall be used where practical as a construction/design method to reduce surface water run-off, the design of which will be determined at planning application stage. This will apply in particular to large scale proposals that include substantial buildings/roof cover and developments that incorporate podium levels.
- Within the surface car parks it is proposed to use a permeable paving system to collect, clean, attenuate and store rainwater before discharging to the development's sustainable drainage system.
- Rainwater harvesting systems will be required to be incorporated into the sustainable drainage design for developments within the LAP which will reduce the overall potable water demand for the development.
- All surface water discharge locations will have appropriate silt control, debris removal and petrol interception measures incorporated into the sustainable drainage system up stream of the discharge points to the receiving waters, where appropriate.

- Provision shall be made for long term storage in accordance with the Greater Dublin Strategic Drainage Study (GSDSDS) Code of Practice for Developers.

#### Water Quantity:

- Surface water attenuation will be provided in the locations previously identified. Design of surface water attenuation will be based on the requirements of the GSDSDS. Particular reference shall be made to GSDSDS Volume 2, Appendix E, Stormwater Storage which provides guidance on attenuation design.
- Culverting of watercourses shall generally not be permitted in accordance with the Fingal County Development Plan 2011 – 2017 which seeks to restrict the use of culverts on watercourses in the County. Section 50 of the Arterial Drainage Act 1945 requires that, any proposal to construct or alter any bridge over a watercourse must be submitted to the Office of Public Works for their approval. Any such proposal must be previously agreed with both the Water Services and Transportation Departments. It is important to note that drainage ditches (whether dry or not) are considered watercourses under the 1977 and 1990 Water Pollution Acts.

#### 7.4 Water Supply

The subject lands fall within the Ballycoolin reservoir supply area. Pressure and capacity have been improved by delivery of the Blanchardstown High Level Water Supply scheme which involved the construction of a new tower at Ballycoolin reservoir. Provision should be made for the projected development at regional level. It is envisaged that watermains provision will be incorporated in the existing and proposed road network.

In order to facilitate the supply of serviced land, in respect of water supply across the LAP lands, co-operation between land-owners may be required and, where appropriate, provision will be made to cater for adjacent development. Connections across the route of the proposed Metro North and Metro West rail alignments will be required and the location of these will be agreed and coordinated with the RPA in order to avoid any future disruption to the construction or operation of the Metro services.

The Fingal County Development Plan 2011 – 2017 requires the prudent use of water resources by promoting internal water conservation, as follows:

*'Provide a comprehensive water supply network to cater for development of the LAP lands.*

*'Provide water, sufficient in quantity and quality to serve all lands zoned for development in this plan.'*

It is planned that the development will interconnect these existing separate watermains to form a looped watermain network across the development lands.

#### 7.5 Wastewater

The LAP lands lie within the catchment area of the North Fringe Interceptor Sewer as delineated by the RPSMCOS North Dublin Connection Study for Fingal County and Dublin City Councils.

The nearest major public sewer in the vicinity of the LAP lands is a 900mm dia sewer along the Swords Road (R132) which discharges to the North Fringe Interceptor Sewer.

There is no existing public foul sewer within the LAP lands. The AIBP Meat Packing plant however has a private on-site pumping station and rising main that passes under the M50 and discharges to the North Fringe Sewer at Santry Demesne.

In order to facilitate the supply of serviced land, new sewer connections from the Swords Road to the LAP lands will be required. Such sewer connections can potentially be provided without recourse to third party wayleaves as their envisaged route alignment is entirely contained within a single land ownership. Where feasible it is envisaged that piped drainage will be incorporated in the proposed road network.

In order to facilitate the supply of serviced land, in respect of foul drainage, co-operation between land-owners will be required and where appropriate provision will need to be made to cater for upstream development. Connections across the route of the proposed Metro North and Metro West rail alignments will be required and the location of these should be agreed and coordinated with the RPA in order to avoid any future disruption of Metro services operation.

Any trade effluent arising from commercial / industrial type uses as may be permitted and shall be treated at source to ensure that the average strength of the resultant effluent does not exceed domestic effluent strength prior to discharging to the public sewer. The majority of the development envisaged with the LAP area comprises commercial type development, logistics and warehousing. Based on the envisaged phasing of the Dardistown Lands and indicative plot ratios for low and high development scenarios, the fully developed LAP Area will have a population equivalent (pe) in the range 8,560pe to 12,800pe with 1,920pe to 2,720pe of this occurring in the lifetime of the current LAP 2012 to 2018.

As stated in Section 3.4.4, wastewater from the North Fringe Interceptor Sewer discharges ultimately to Ringsend Wastewater Treatment Plant. This plant currently has a capacity of 1.7million pe which is proposed to be increased to 2.1 million population equivalent. Dublin City Council expects to complete this upgrade by 2015. Therefore, the upgraded facility will have capacity to cater for the development of these lands.

#### 7.6 Electricity

##### Existing Electrical Network

ESB records indicate 10kV overhead network within the site. These overhead lines will need to be relocated underground to facilitate the phased development of the LAP lands (see Section 8 for phasing details). It is likely that the ESB will use this existing 10kV network for connection of the initial phases of development. This cabling shall be routed in underground ducting and access chambers in the paved footpath areas of roads provided within the initial phases of development.

**Proposed Future Electrical Network**

All phases of the LAP development are intended to connect to the ESB network at either low volt (LV) or mega volt (MV) level depending on the import capacity required by each element of development. To facilitate this, an extensive ESB network of MV and LV underground cables and ESB substations will be required throughout LAP area. It is intended that the primary distribution routes of this would be installed at an early phase of the development of the LAP lands which would allow connections of these primary distribution routes to the ESB network as required as development phases progress. These primary distribution routes are intended to be located adjacent to the main road network crossing the site. The development of this network will need to be developed on a phase by phase basis with the ESB.

The ESB has indicated that the overall development of the LAP lands would be of a scale that would require a new ESB 110kV substation in order to support the electrical load demand. Whilst the early phases of development would not result in a sufficient load to require this 110kV substation, its design, location and delivery in subsequent phases of development when required would need to be considered and agreed with the ESB at an early stage.

The Metro North line crosses the site of the development and will require an 110kV connection to the RPA substation. It is intended that this connection point and associated Metro line transformers and switchgear will be positioned to be at the same location as the ESB 110kV substation. The Metro North Maintenance Depot will also have a requirement for an 110kV Substation. The RPA and ESB have indicated that that they are willing to review suitable adjacent locations for the location of the 110kV substations. Any RPA cables leaving their point of connection will be contained entirely within RPA lands.

**On Site Electrical Generation**

As part of the sustainability strategy, construction measures and techniques will be employed to seek to reduce the electricity demand that is imported from the grid.

**7.7 Gas****Existing Gas Network**

Bord Gáis records indicate that there is an existing 250mm gas supply along the Swords Road (R132). A 180mm branch main also extends along Collinstown Lane serving the Horizon Logistics Park development west of the Naul Road (R108) at Harristown.

**Proposed Future Gas Network**

Bord Gáis have an Above Ground Installation (AGI - pressure reducing/regulating station) located 700m north of the Swords Road - Collinstown Lane junction. Bord Gáis have advised that they are prepared to enter into negotiations to supply the longer term Dardistown needs from this location, as there is spare capacity within this AGI. The existing network shall be enhanced and upgraded in consultation with Bord Gáis.

The primary network distribution within the site will involve the installation of primary distribution routes adjacent to the main road network traversing the site, back toward the Above Ground Installation on the Swords Road (R108). This primary network infrastructure will allow the laying of a secondary pipework network to service individual sites and any centralised plant areas throughout the site. The distribution pipework shall be routed in line with the main infrastructure in the paved footpath areas or roadways dependent on the pressure of the mains.

**7.8 Telecommunications****Existing Telecommunications Infrastructure**

Existing telecommunications infrastructure in the area has been developed in recent years and is likely to be capable of supporting the initial LAP development phases. Any existing overhead lines on the site shall be placed in an underground network of ducts and incorporated with the new telecoms infrastructure to be installed on the site.

The Smart Telecom T50 fibre optic cable network is located along Collinstown Lane and the Swords Road. These cable ducts are available for lease to the full range of telecoms services providers and as such the site for the proposed development will have access to a wide range of telecoms providers and to the highest level of network.

**Proposed Future Telecommunications Infrastructure**

For the scale of development proposed it is likely that both Eircom and other independent telecoms providers will provide an improved ducted telecom cable network /connections to the site as part of their city wide infrastructure. It is intended that primary distribution routes within the site would be installed at an early LAP development phase which would allow future connections to be made, as required when development progresses.

These primary distribution routes would most likely be adjacent to the primary road network within the LAP lands and will allow telecommunications companies to extend their city wide infrastructure network to include the LAP lands. Adequate provision of ground ducts will allow any telecoms provider the full range of services to all elements of the development.

The development shall accommodate the provision of a universal ducting network to support telecommunications and broadband.

An underground ducting network shall be required to provide distribution to local exchanges and building located throughout the development. This distribution shall be routed within underground ducting and access chambers in the paved footpath areas to minimise future health and safety risks. Arrangement of exchange buildings, communications masts containing antennae, microwave dishes, etc., shall be agreed in advance such that their location, design and access thereto are compatible with the design strategy for the area.



## SECTION 8.0

### Phasing and Implementation Strategy

#### 8.0 Phasing and Implementation Strategy

##### 8.1 General Approach

The scale of the LAP lands, established patterns of development and economic development forecasts establish that the development of the LAP lands is a long term project that will span successive LAP periods.

The LAP delivery and implementation strategy maximises flexibility to accommodate the diverse range of employment opportunities that may be attracted to Dardistown while ensuring that the necessary and appropriate movement, services and quality of life support infrastructure is in place to meet the needs of employees and visitors.

The LAP provides for the phased delivery of a robust mix of employment generating and complementary uses, commencing along the established and proposed Quality Bus Corridors on the eastern and western boundaries of the site and creating a high profile and high quality mixed use gateway development to the LAP lands along the Naul Road (R108) during the initial phase of development. Subsequent phases will include for higher density mixed use employment opportunities generally to the south of an east-west movement axis centred initially on an internal bus corridor and transport hub parallel to the planned Metro North Dardistown Stop, with lower density employment uses to the north on the zoned Objective 'GE' lands.

The strategy includes for the development of the identified Opportunity Sites 1 and 2 which represent reserved strategic development sites which are immediately available to meet the needs of any exceptional employment or investment opportunity for the County. These sites can be released during the initial phase of development and will be subject to the overall maximum employment level of 1500 employees for that phase and will be assessed on their own merits in accordance with sustainable planning principles.

The phasing and implementation programme is a flexible and responsive strategy grounded in the principle that the phasing of development is related to the delivery of identified enabling infrastructure rather than a sequential or linear approach.

It is envisaged that only a portion of the LAP lands will be developed over the lifetime of the LAP, concentrating initially on the Naul and Swords Road frontages, and potentially the Opportunity Sites 1 & 2. The phasing programme will be implemented generally in accordance with the LAP. In the event of a major employment generating opportunity arising within the LAP lands however, such proposals will be considered on their merits and may be permitted by the Planning Authority in consultation and agreement with the National Transport Authority on the required public transport infrastructure.

The following Delivery and Implementation Objectives of the LAP will apply:

**DIMP1:** The initial development of the LAP lands shall deliver a high quality mixed use gateway development on the western parts of the LAP comprising Phase 1A in Figure 8.1 plus Opportunity Site 1 and Opportunity Site 2 fronting to and accessed from the Naul Road (R108), leveraging on the proposed QBC and subject to a maximum employment level of 1500 employees. This shall be paralleled by development sites fronting to the Swords Road (R132) comprising Phase 1c in Figure 8.1

**DIMP2:** Following the initial development (above), the phasing of development across the remainder of the LAP lands is not bound by sequential or linear considerations but shall be determined by the delivery of necessary enabling infrastructure provisions and physical connections being provided, generally in accordance with the strategy set out in the schedule and plans in Section 8.

**DIMP3:** Opportunity Sites 1 & 2 (Figure 8.1) represent strategic development opportunities with the potential to deliver significant economic and urban design benefits. The roll out of these sites shall be determined by market conditions and the delivery of enabling infrastructure to realise their full potential. The quantum of development delivered on these sites shall be subject to the overall maximum employment level of 1500 as per DIMP1 above.

**DIMP4:** The Planning Authority shall monitor infrastructural requirements and phasing of the LAP to ensure assumptions applied to the traffic modelling and analysis / allocation of development quanta remain valid in order to support economic growth and employment generation on the LAP lands, which integrate with, and maximise the sustainable use of public transport and roads infrastructure provision.

**DIMP5:** The ongoing use of playing fields and recreational lands will be supported and accommodated within the LAP. In the event that the playing fields on Objective GE lands are brought forward for development, the Planning Authority will support their relocation either within the LAP lands or on suitable sites in the wider area.

**DIMP 6:** The Planning Authority in its assessment of planning applications will prevent the creation of ransom strips.

##### 8.2 Phasing Programme

A phasing programme is set out in Table 8.1 and Figure 8.1 below. Table 8.1 identifies the land parcels associated with each phase of development, with the indicative boundaries and enabling infrastructure<sup>1</sup> for each phase of the completed development identified on Figure 8.1. Table 8.1 provides indicative low and high case development scenarios based on assumed minimum and maximum plot ratios. The indicative development quanta listed in Table 8.1 below are based on a net developable plot area of 75%, which assumes that 25% of the site area will be dedicated to open space provision, roads, services, etc.

<sup>1</sup> Figure 8.1 identifies road and green infrastructure only. Services infrastructure for each phase is identified on the phasing diagrams and associated tables at the end of Section 8.

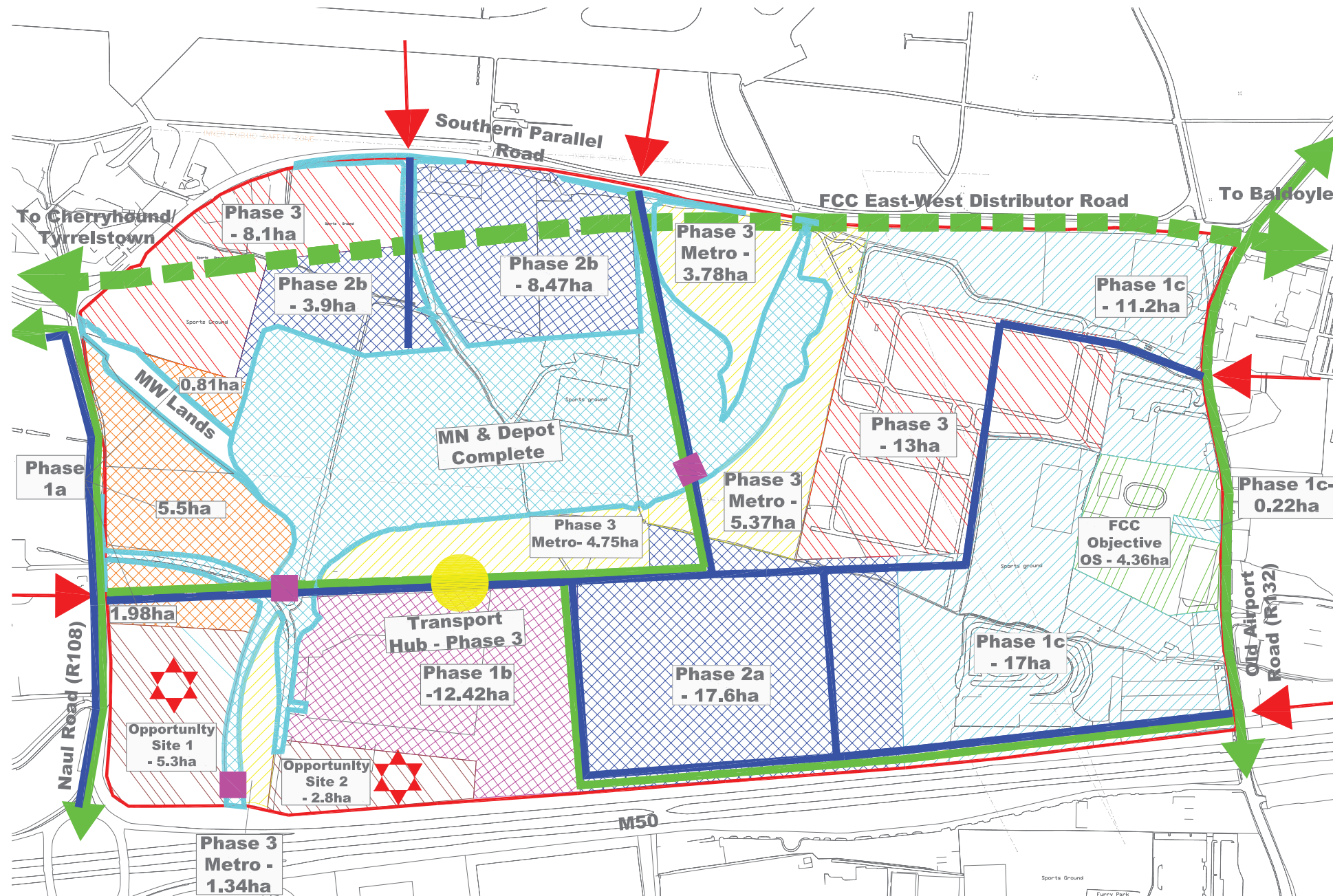
Table 8.1: Summary of Phasing Programme

Phase	Zoning Objective	Gross Extent of Land (ha)	Net Developable Area (ha)	Indicative Plot Ratios		Indicative Development Quanta	
				Min	Max	Min (sq.m)	Max (sq.m)
1A and 1B	GE	2.61	1.96	0.30	0.75	58723	14681
	HT	18.1	13.58	1.50	2.00	203625	271500
1C*	GE	26.22	19.67	0.30	0.75	58995	147488
Metro Reservation - Metro North, Metro West and Metro Depot	GE/HT	28.6	0	0.00	0.00	0	0
<b>Sub-total Phase 1</b>		<b>75.53</b>	<b>35.20</b>			<b>268493</b>	<b>433669</b>
2A	HT	17.6	13.2	1.50	2.00	198000	264000
2B	GE	12.37	9.28	0.30	0.75	27833	69581
3*	GE	17.5	13.13	0.30	0.75	39375	98438
	HT	0.65	0.49	1.5	2	7313	9750
<b>Sub-total Phase 2/3</b>		<b>53.84</b>	<b>36.09</b>			<b>272520</b>	<b>441769</b>
3 Metro*	HT	2.84	2.13	1.50	2.00	31950	42600
	HT	4.75	3.56	1.5	2.5	53438	89063
	GE	6.9	5.18	0.3	0.75	15525	38813
<b>Sub-total Metro Phase 3</b>		<b>14.49</b>	<b>10.87</b>			<b>100912.5</b>	<b>170475</b>
Opportunity Site No. 1	HT	5.3	3.98	1.50	3.00	59625	119250
Opportunity Site No. 2	HT	2.8	2.1	1.50	2.00	31500	42000
<b>Sub-total Opportunity Sites</b>		<b>8.10</b>	<b>6.08</b>			<b>91125</b>	<b>161250</b>
<b>Grand Totals</b>		<b>146.24</b>	<b>88.23</b>			<b>733050</b>	<b>1201069</b>

Note\* : Excludes area within the Inner Public Safety Zone

Phase 1A to be subject to an overall maximum employment level of 1500 as per DIMPI'

Figure 8.1: Phasing Diagram



- Dardistown LAP lands
- Lands reserved for Metro
- Major access points to LAP
- East West distributor road
- QBC's in place
- Transport Infrastructure
- Agreed crossings in MN
- Opportunity Site



**NOTE:**  
Any roads and services crossings of Metro North and Depot and Metro West lands to be carried out in accordance with the approved scheme or as otherwise agreed with the RPA

**Phasing Tables and Diagrams**

This section also provides detailed phasing tables and associated diagrams illustrating the individual development phases and the associated infrastructure to be provided in each phase. These provide a description of indicative areas and plot ratios, a summary and description of the type of development permitted, and the enabling infrastructure works to be delivered in each phase. These tables and figures are interpreted in accordance with the Delivery and Implementation Programme Objectives contained above in Section 8.1 of this LAP.



Table D1: Phase 1 (0 – 6 Years)

Plots	Gross Plot Areas (ha)	Indicative Plot Ratios	Zoning Objective	Inside Airport PSZ?	Supporting Development	Enabling Infrastructure	Utilities
1A	0.81	1:0.3 - 1:0.75	GE	Outer	Land uses that comply with Zoning Objective 'GE' of the County Development Plan, the majority of which is envisaged as logistics and general industry. Land uses that comply with Zoning Objective 'HT' of the County Development Plan, the majority of which is envisaged as commercial type development consistent with the delivery of the urban design vision of character area 'Gateway' which will provide the main frontage and principal entrance to the site and new internal bus corridor route. This area is of strategic importance in terms of a window to the quality and aspiration of the development. Development on either side of the western entrance onto the Naul Road must be carefully considered and will be characterised by buildings of a high standard of architectural design.	Phased provision of QBC on R108 from M50 interchange to Southern Parallel Road Junction. Phased provision of Access Road from R108 either by upgrading of the existing access road alignment or provision of a new alignment to the south - with access for existing businesses/road users maintained at all times. Phased provision of QBC on new Access Road. Surface water drainage incorporating SUDs to discharge to Turnapin Stream to north of Phase 1A lands. Gravity Foul Sewer and associated Interim pumping station and rising main to 900mm dia foul sewer in Old Swords Road. A foul sewer connection shall be facilitated to the Ballymun Kickhams Sports Club Watermain from existing 200mm main in Collinstown Lane.	<ul style="list-style-type: none"> <li>Existing Overhead lines to be undergrounded within Phase 1A lands.</li> <li>Telecoms from Ducts in Collinstown Lane.</li> <li>Gas Main from 180mm dia main in Collinstown Lane</li> </ul>
	1.8	1:0.3 - 1:0.75	GE	Outer			
	1.98	1:1.5 - 1:2	HT	No			
	3.7	1:1.5 - 1:2	HT	No			

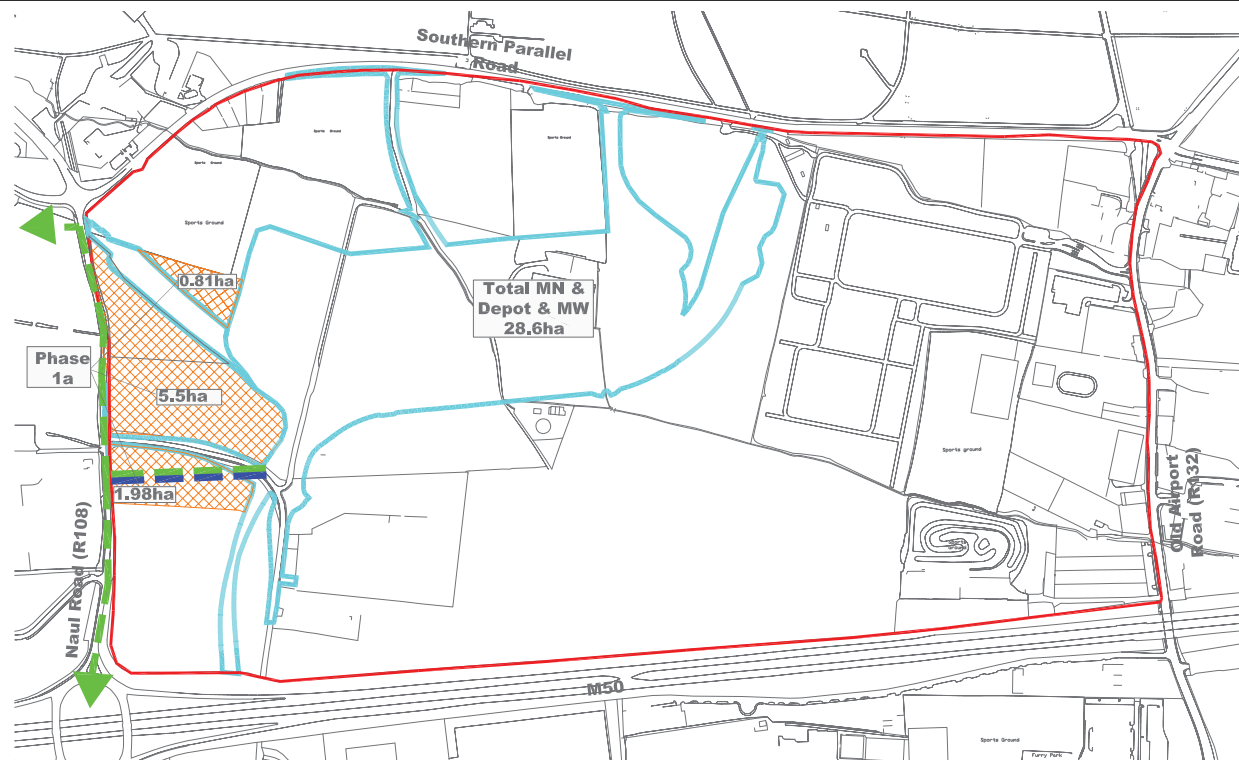


Figure 8.2: Phase 1A – Transport

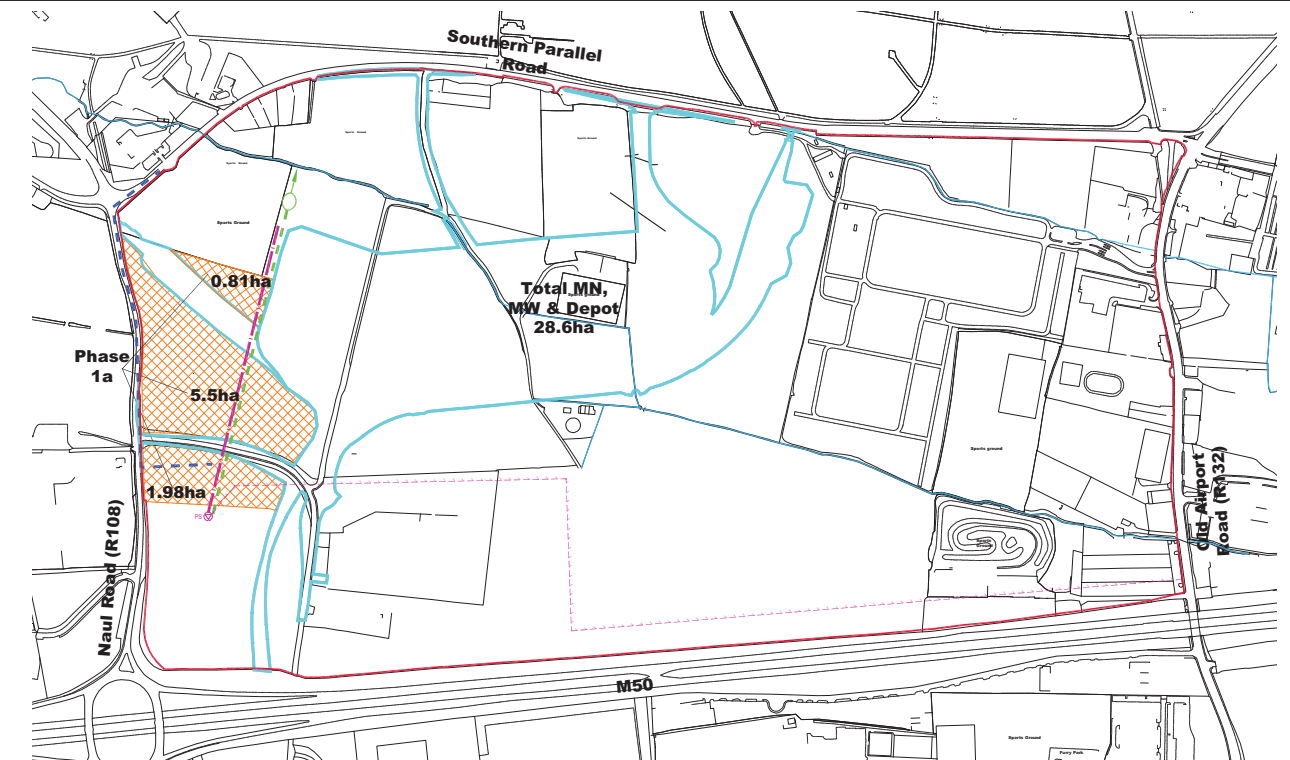


Figure 8.3: Phase 1A - Services

Table D1: Phase 1 (0 – 6 Years) (Continued)

Plots	Gross Plot Areas (ha)	Indicative Plot Ratios	Zoning Objective	Inside Airport PSZ?	Supporting Development	Enabling Infrastructure	Utilities
1B	12.42	1:1.5 - 1:2	HT	No	Land uses that comply with Zoning Objective 'HT' of the County Development Plan and consistent with Character Area described as the 'Hub'. The development intensity will graduate the closer it is to the principal internal movement axes. The hub will be fully integrated with the movement and open space strategy for the larger site with a high quality park and pedestrian spine running north/south of the hub and parkway running east/west with new buildings/blocks framing these high quality green/open spaces. This area is suitable to accommodate higher density mixed use developments comprising of a mix of commercial office, leisure, hotel, conference and retail facilities together with flexible space for entertainment and public events of a cultural and artistic nature.	Provision of QBC on R108 from M50 interchange to Southern Parallel Road Junction. Provision of Access Road from R108. Phased Provision of Transport Hub. Phased provision of Access Road. Phased Provision of QBC. Surface water drainage incorporating SuDS to discharge to Turnapin Stream to north of Phase 1B lands. Extend watermain from main provided in Phase 1A. Gravity foul sewer to 900mm dia foul sewer in Old Swords Rd along route of proposed LAP road. Intercept rising main from Phase 1A interim Pumping Station. Development in Phase 1B shall only be permitted by the Planning Authority in consultation and agreement with the National Transport Authority on the required public transport infrastructure	<ul style="list-style-type: none"> <li>Existing overhead lines to be buried underground within Phase 1B lands.</li> <li>Extend gas main from main provided in Phase 1A.</li> <li>Extend telecoms from ducts provided in Phase 1A</li> </ul>

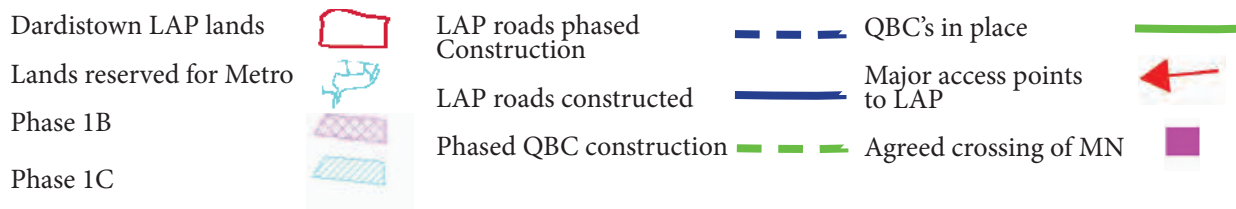
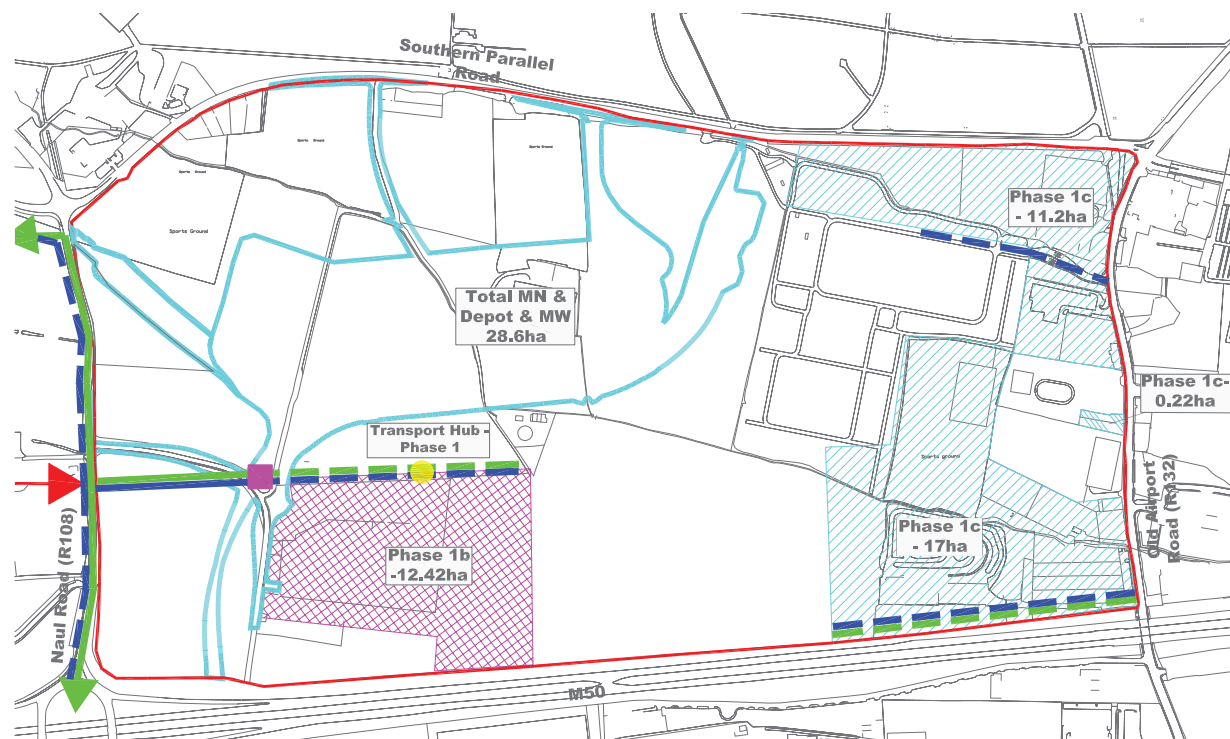


Figure 8.4: Phase 1B & 1C – Transport

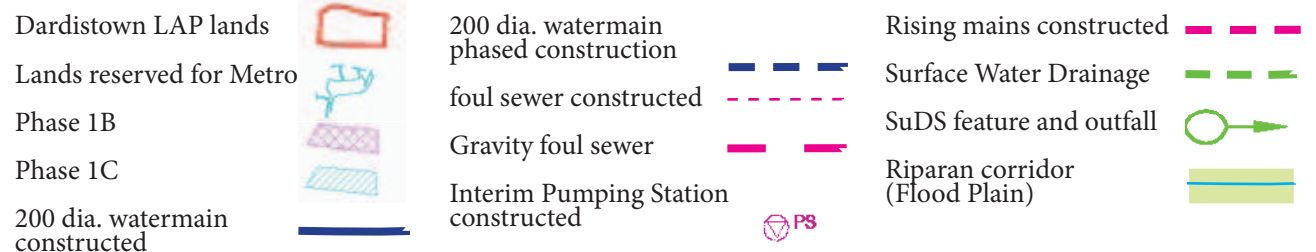
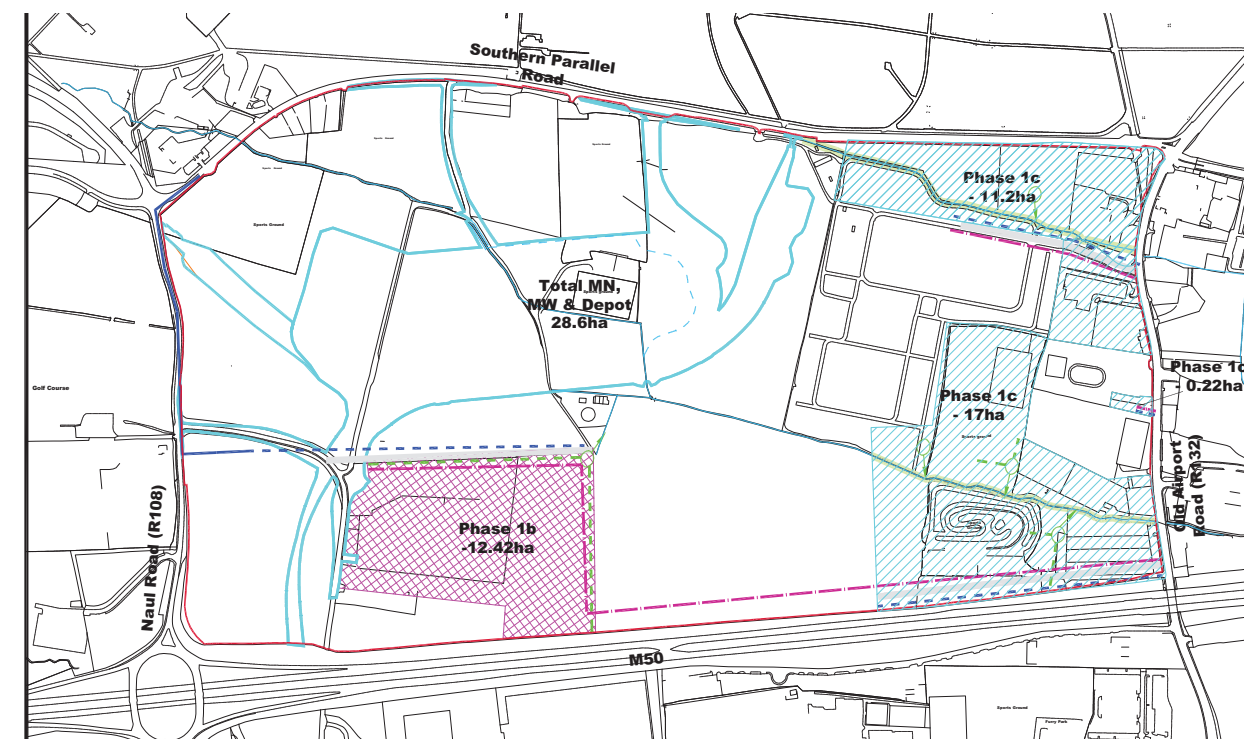


Figure 8.5: Phase 1B & 1C – Services

Table D1: Phase 1 (0 – 6 Years) (Continued)

Plots	Gross Plot Areas (ha)	Indicative Plot Ratios	Zoning Objective	Inside Airport PSZ?	Supporting Development	Enabling Infrastructure	Utilities
1C* (May commence as subsequent phase)	26.22	1:0.3 - 1:0.75	GE	Outer	Greater flexibility exists at the southern end of the corridor area where Public Safety Zone restrictions do not apply to provide greater intensity employment / commercial type uses, particularly those lands zoned Objective 'HT' which could be integrated with the character area described as 'Hub' immediately to the west.	Phased provision of northern access road from R132. Phased provision of southern access Road from R132. Phased provision of QBC on southern access road.  Surface water drainage incorporating SuDS to discharge to Turnapin Stream and Dardistown Tributary alongside Phase 1C lands. Riparian corridor/floodplain to be maintained.  Gravity Foul Sewer connections to existing foul sewer in Old Swords Rd and to sewer constructed in phase 1B.  Watermains extended into Phase 1C lands from existing 400mm main in Swords rd and 200mm dia. watermain in Collinstown Lane.	<ul style="list-style-type: none"> <li>Existing overhead lines to be buried underground within Phase 1C lands.</li> <li>Telecoms from Ducts in Collinstown Lane and Swords Road.</li> <li>Gas Main from 180mm dia. main in Collinstown Lane and existing 250mm main in Swords Road.</li> </ul>
	28.6	None	GE	Outer			
Metro Depot	28.6	None	GE / HT	Yes - Majority of land reservation	These lands should be kept free from development to safeguard the route alignment for Metro North and Metro West together with the delivery of the Metro North Depot facility.	No infrastructure required, other than that included for in the scheme.	
Total (1A + 1B + 1C)	75.53						

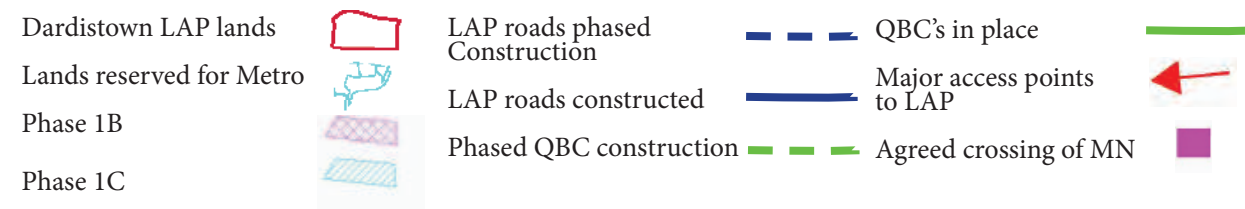
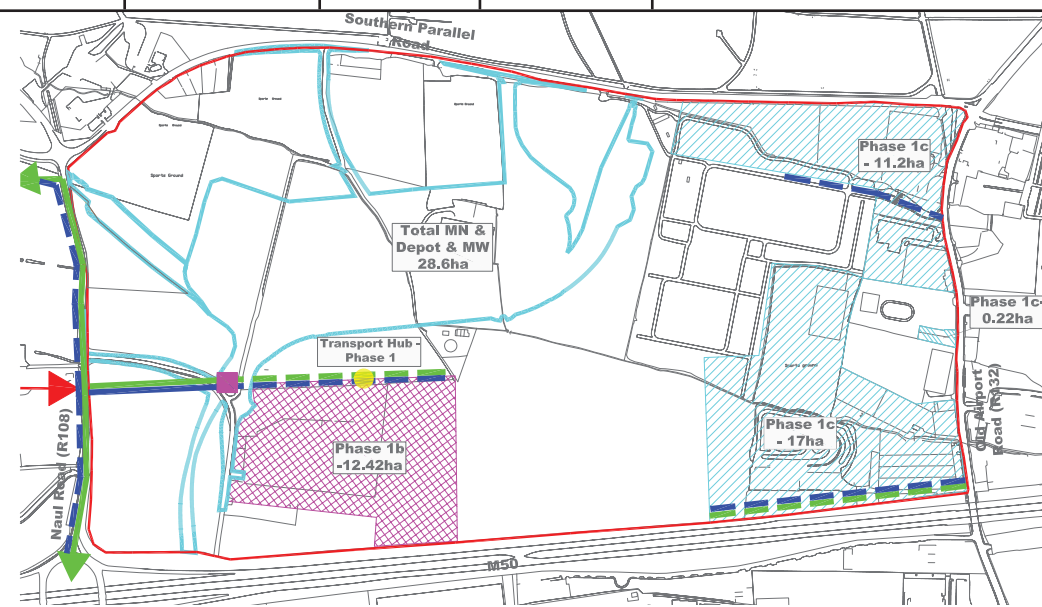


Figure 8.6: Phase 1B & 1C - Transport

Note\*: Excludes area within the Inner Public Safety Zone

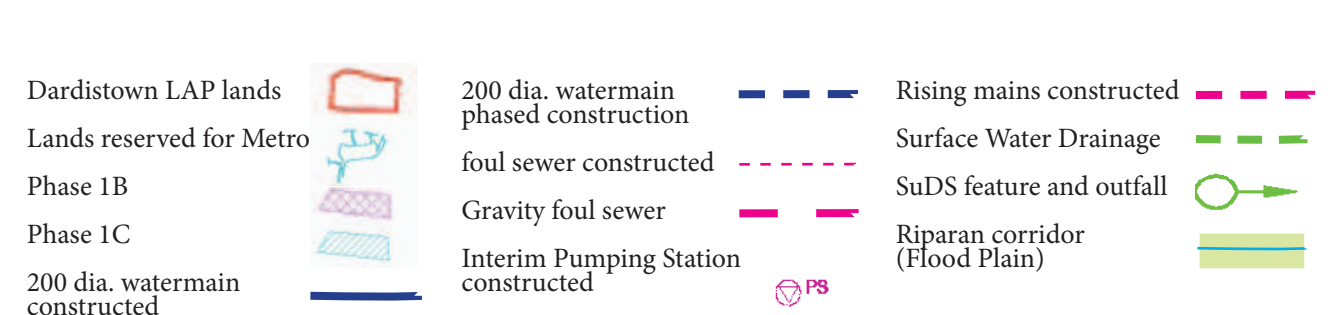
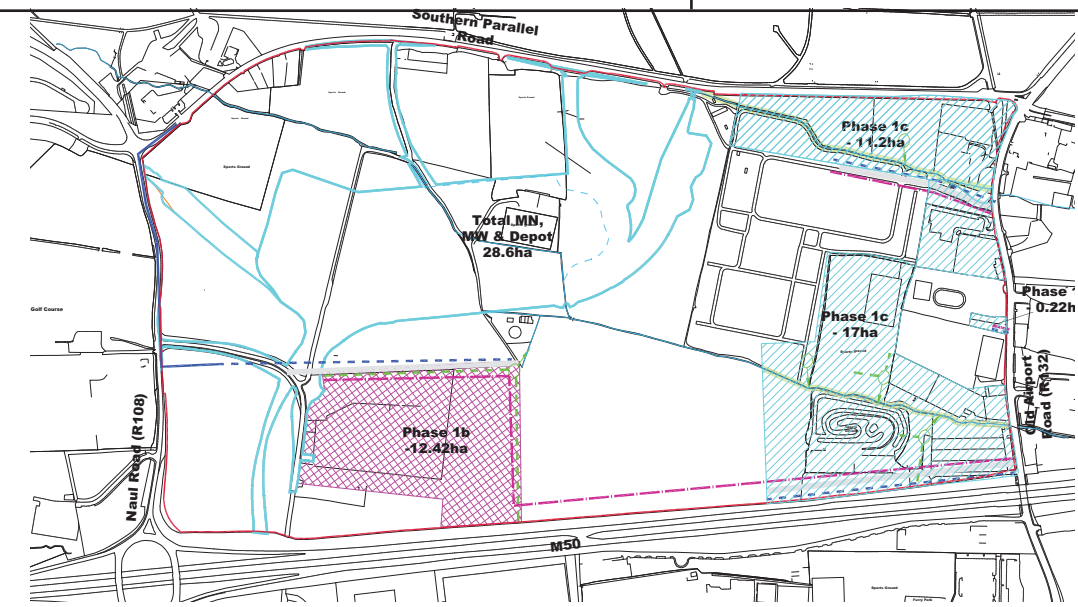


Figure 8.7: Phase 1B & 1C - Services

Table D2: Phase 2 (6-12 Years)

Plots	Gross Plot Areas (ha)	Indicative Plot Ratios	Zoning Objective	Inside Airport PSZ?	Supporting Development	Enabling Infrastructure	Utilities
2a	17.6	1:1.5 - 1:2	HT	Outer	Land uses that comply with Zoning Objective HT of the County Development Plan and consistent with Character Area described as the 'Hub'. The development intensity will graduate the closer it is to principal internal movement axes. The hub will be fully integrated with the movement and open space strategy for the larger site with a high quality park and pedestrian spine running north/south of the hub and parkway running east/west with new buildings / blocks framing these high quality green / open spaces. This area is suitable to accommodate higher density mixed use developments comprising of a mix of commercial office, leisure, hotel, conference and retail facilities together with flexible space for entertainment and public events of a cultural and artistic nature.	Phased provision of capacity upgrade on R108 from M50 interchange to Southern Parallel Road junction. Provision of Access Road from R108 across Metro lands to Southern Parallel Road including phased provision of QBC. Phased provision of Access Road from R108 to south and to meet up with southern access road from R132. Phased provision of QBC along this road. Phased provision of Access Road from R108 to the east and south to the southern access road from the R132. Phased provision of Transport Hub. Extend watermain from Phase 1B lands and connect into watermain in Phase 1C lands along route of proposed LAP roads. Development in Phase 2A shall only be permitted by the Planning Authority in consultation and agreement with the National Transport Authority on the required public transport infrastructure	<ul style="list-style-type: none"> <li>Existing Overhead lines to be buried underground within Phase 2A lands.</li> </ul>

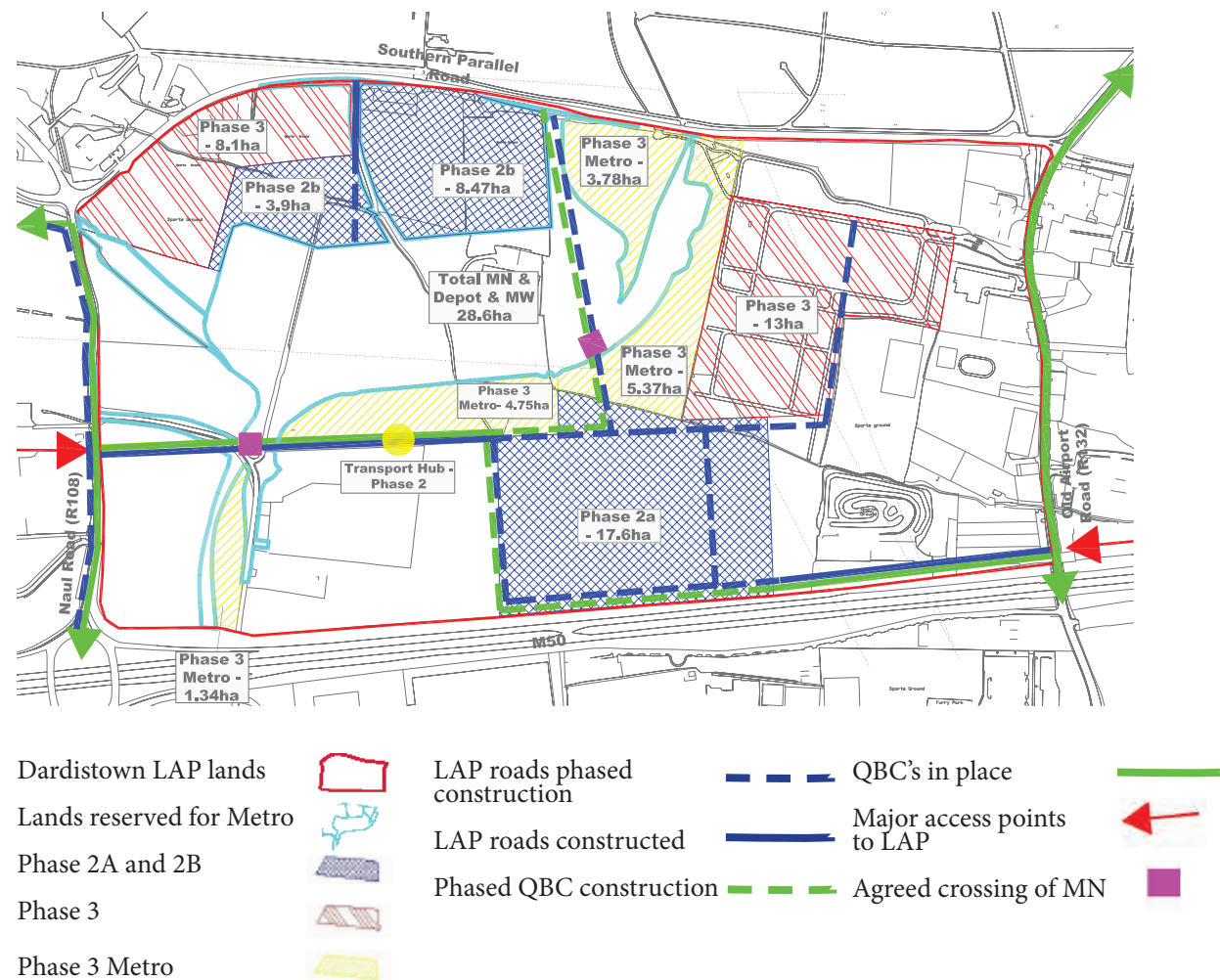


Figure 8.8: Phase 2 - Transport

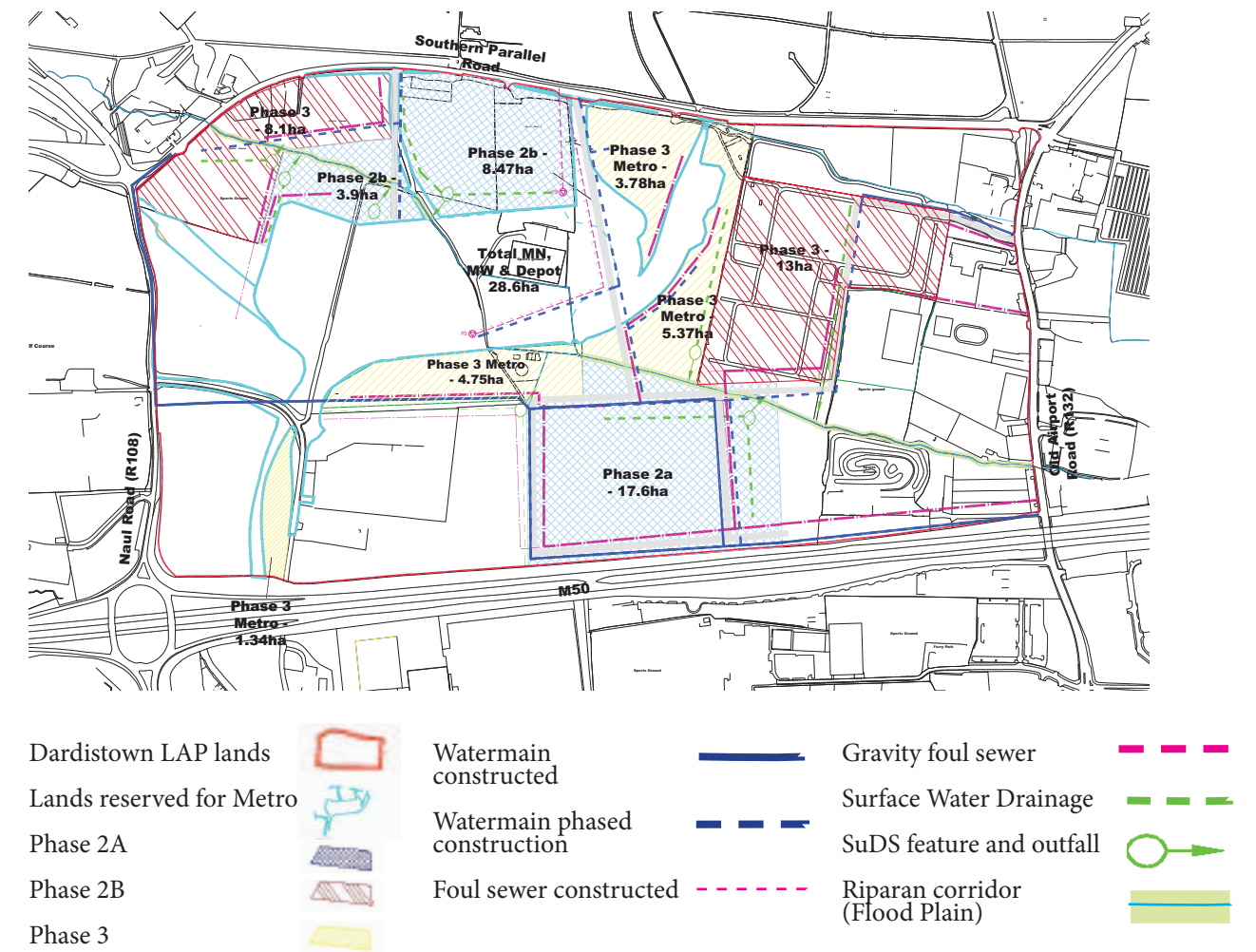


Figure 8.9: Phase 2 - Services

Table D2: Phase 2 (6-12 Years) (Continued)

Plots	Gross Plot Areas (ha)	Indicative Plot Ratios	Zoning Objective	Inside Airport PSZ?	Supporting Development	Enabling Infrastructure	Utilities
2b	3.9 8.47	1:0.3 - 1:0.75	GE	Outer	Land uses that comply with Zoning Objective GE of the County Development Plan, the majority of which is envisaged as logistics and warehousing type uses consistent with the character area 'Airport Logistics Park' - see Chapter 5	Phased provision of access road from the Southern Parallel Road into the lands. Design & agreement in place on location of FCC's East-West Distributor Road within the Dardistown LAP lands. Connect to foul sewer laid in Phase 1 B and extend to serve all of Phase 2A lands.  Surface water drainage incorporating SUDs to discharge to Turnapin Stream to north of Phase 2A lands. Riparian corridor/floodplain to be maintained.	<ul style="list-style-type: none"> <li>Extend Telecoms from Ducts in Phase 1B and 1C lands.</li> <li>Extend Gas Main from mains constructed in Phase 1B and 1C.</li> </ul>

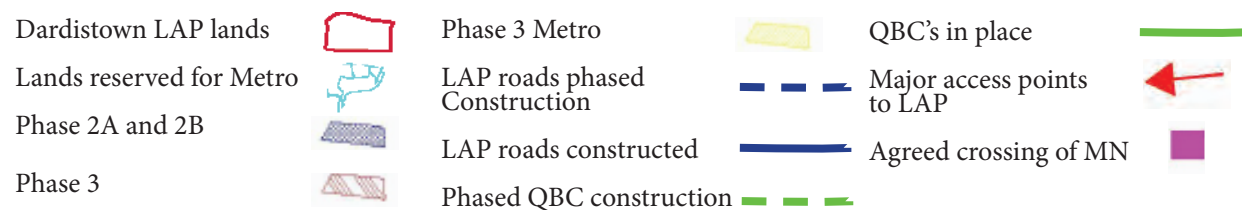
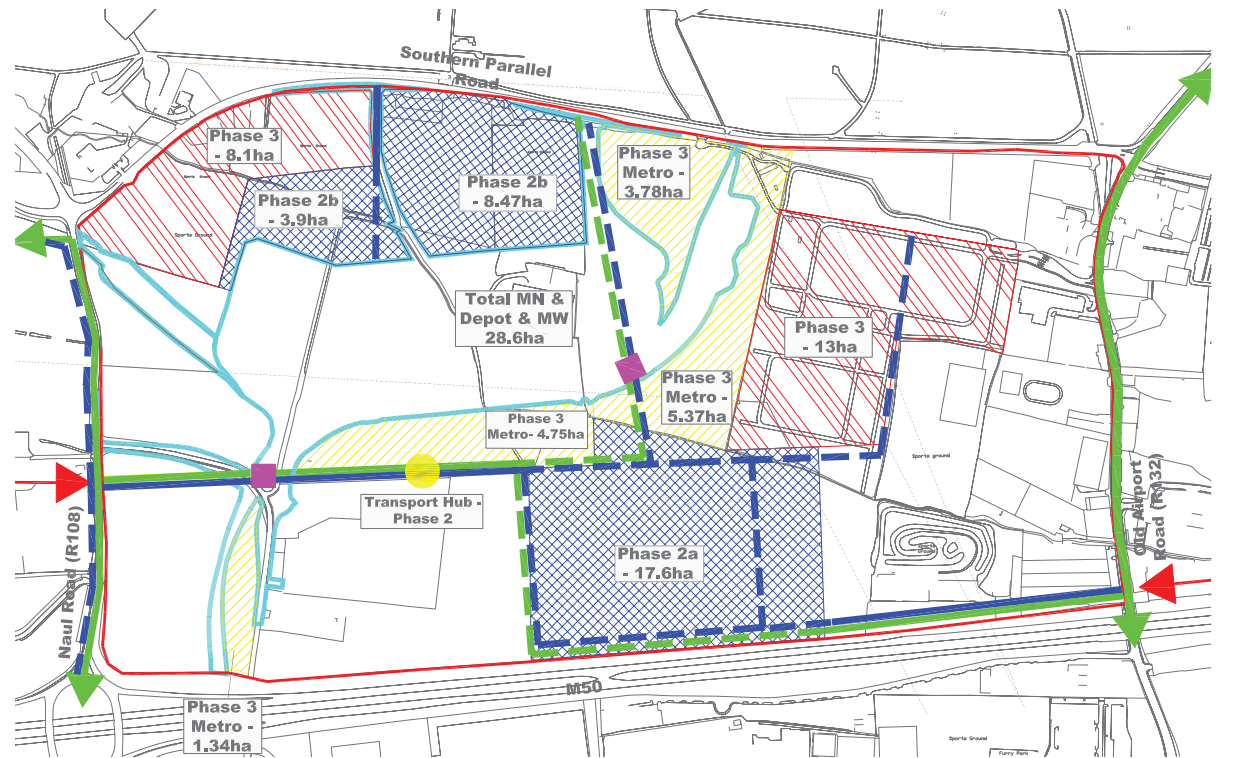


Figure 8.10: Phase 2 - Transport

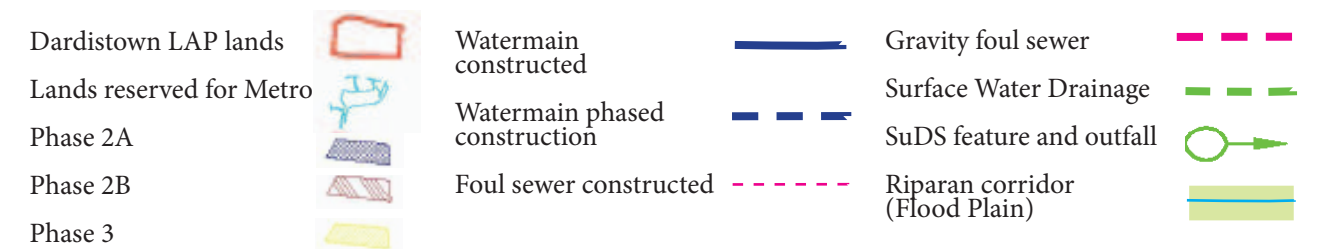
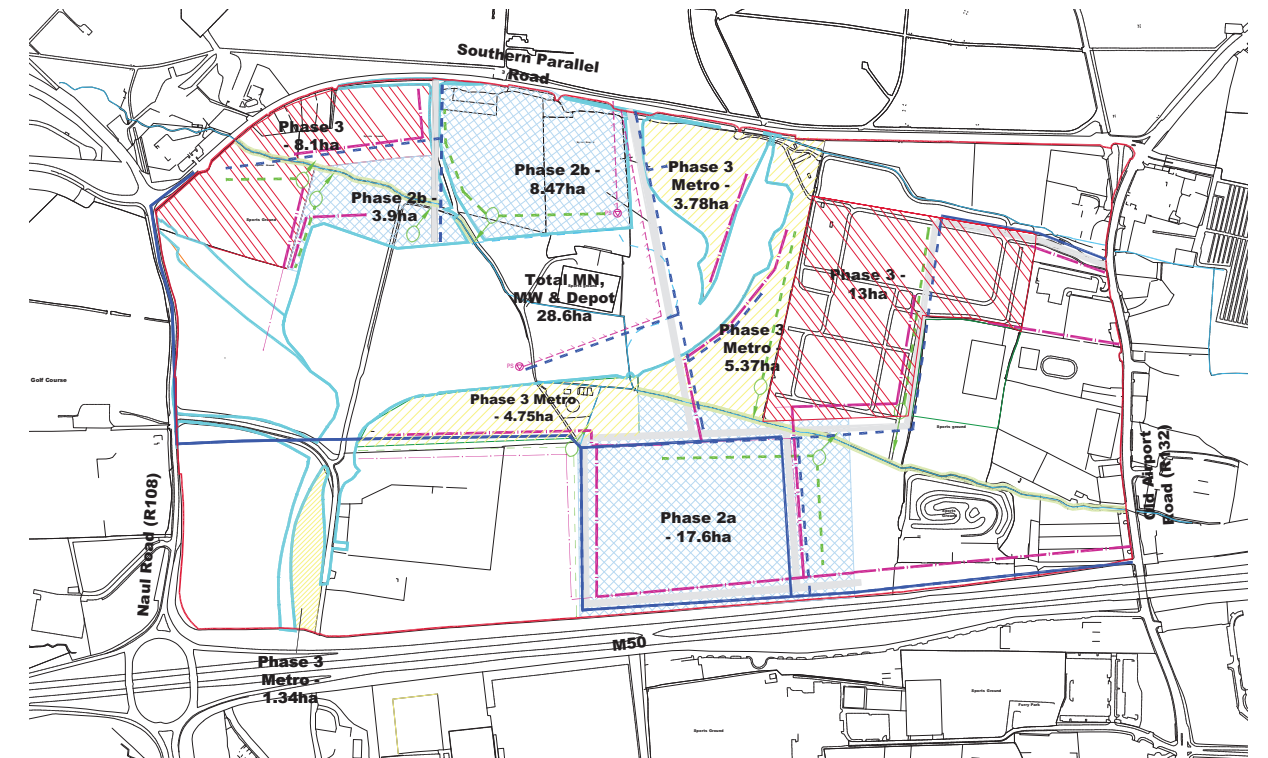


Figure 8.11: Phase 2 - Services

Table D2: Phase 2 (6-12 Years) (Continued)

Plots	Gross Plot Areas (ha)	Indicative Plot Ratios	Zoning Objective	Inside Airport PSZ?	Supporting Development	Enabling Infrastructure	Utilities
3*  (May commence in subsequent phase)	8.1	1:0.3 - 1:0.75	GE	Outer	Land uses that comply with Zoning Objective GE of the County Development Plan, the majority of which is envisaged as logistics and warehousing type uses consistent with the character area 'Airport Logistics Park' - see Section 4.	Provision of access road from the Southern Parallel Road into the lands. Design & agreement in place on location of FCC's East-West Distributor Road within the Dardistown LAP lands.	<ul style="list-style-type: none"> <li>Existing overhead power lines to be buried underground within Phase 2b Lands.</li> <li>Extend Telecoms from Ducts in Collinstown Lane and in Phase 1A lands.</li> <li>Extend gas mains from mains in Collinstown Lane and in Phase 1A lands.</li> </ul>
	9.4	1:0.3 - 1:0.75	GE	Outer	Land uses that comply with Zoning Objective GE of the County Development Plan and consistent with the vision for Character Areas described as 'Eastern Corridor' and Airport and Logistics Park lands. This area contains a number of established commercial, leisure and amenity uses. The majority of these lands fall both within the Inner and Outer Public Safety Zone, apart from the south-eastern corner immediately to the north of the M50 and fronting Swords Road. Uses will be appropriate to these designations and the zoning of the lands and could potentially include logistics, warehousing, commercial car parks and transport depots). These uses generally require larger building plots resulting in a coarser urban grain with limitations on building heights due to Public Safety Zone constraints which would give this area a more horizontal emphasis that is suitable for low intensity/density uses.	Extend watermain from Phase 1A lands along route of proposed LP roads and connect into watermain in Collinstown Lane. Connect to foul sewer laid in Phase 1 A and extend to serve all of Phase 2B lands.	
	0.65	1:1.5 - 1:2	HT	No		Surface water drainage incorporating SuDS to discharge to Turnapin Stream within Phase 2B lands. Riparian corridor/flood-plain to be maintained.	
Totals	48.12						

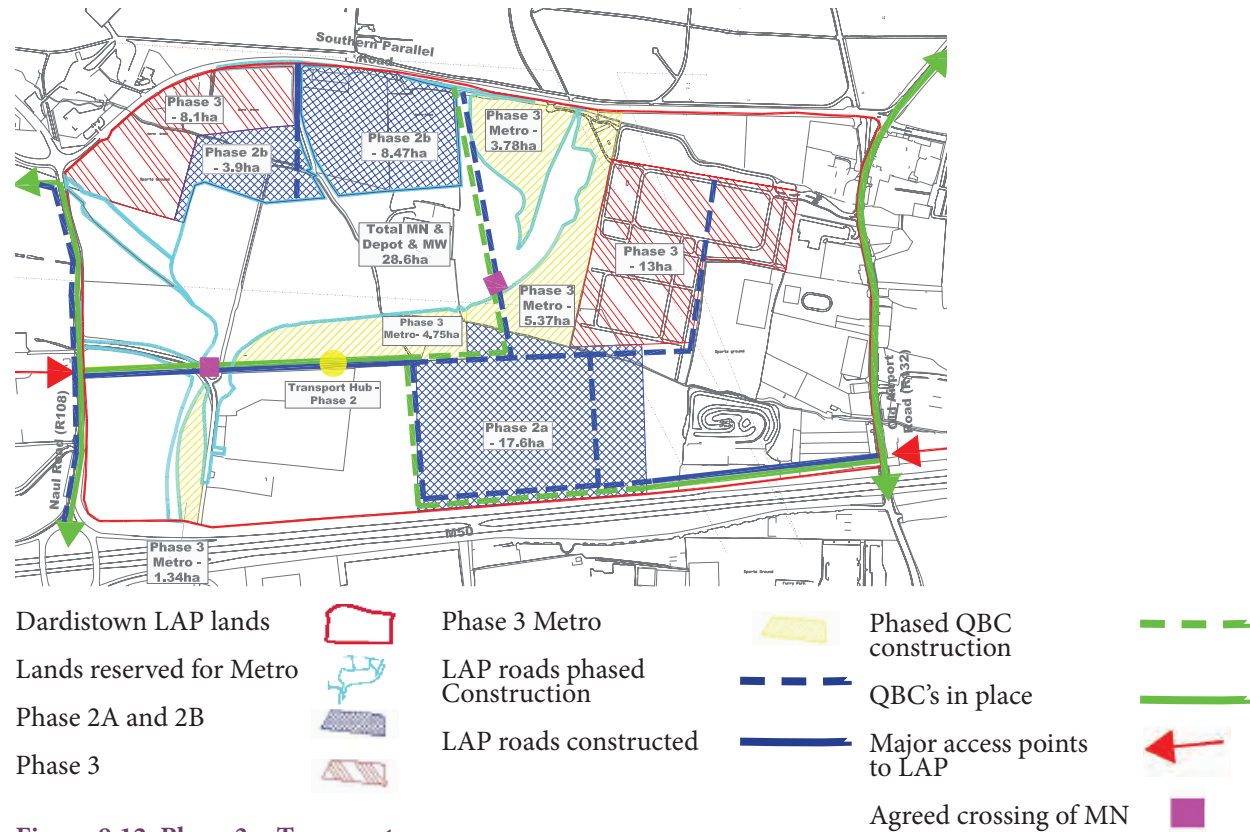


Figure 8.12: Phase 3 - Transport

Note\*: Excludes area within the Inner Public Safety Zone

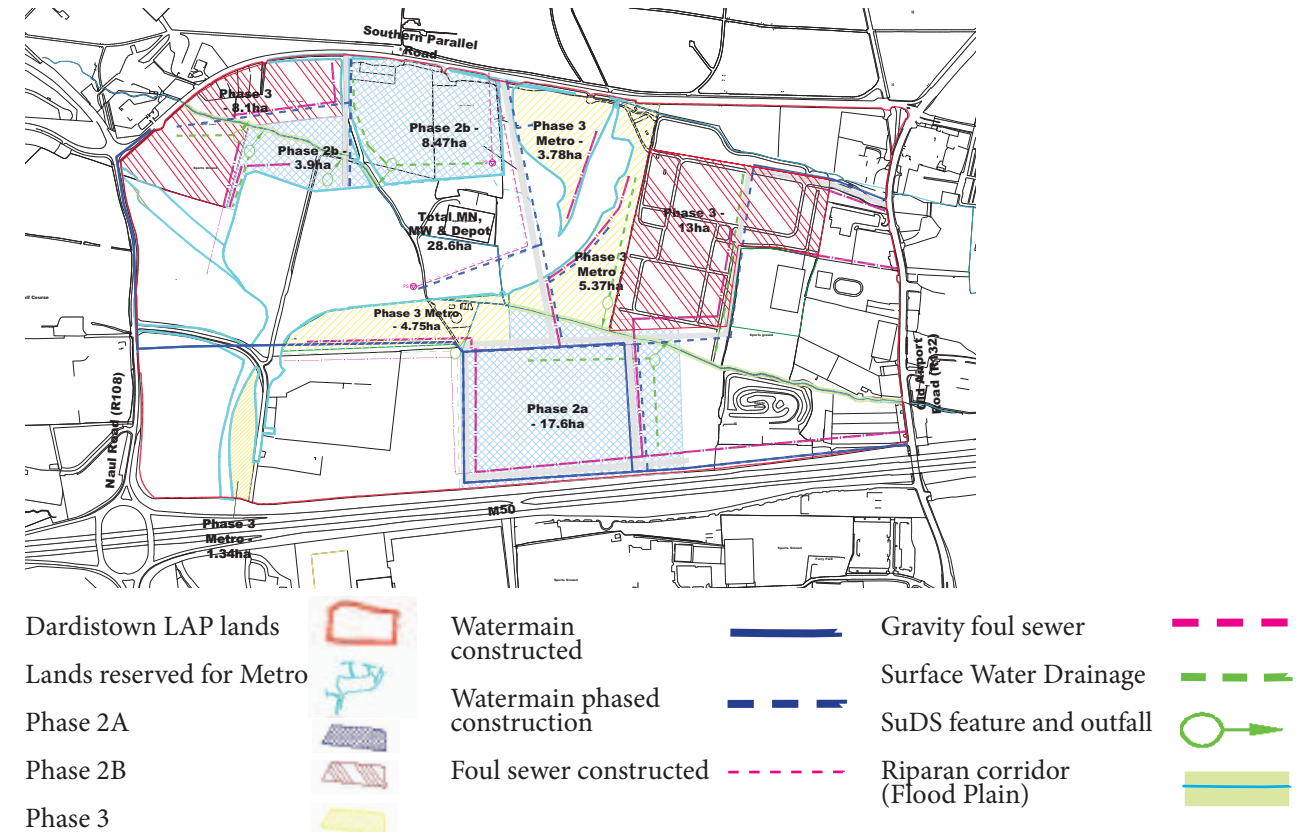


Figure 8.13: Phase 3 - Services

Table D3: Phase 3 (12+ Years)

Plots	Gross Plot Areas (ha)	Indicative Plot Ratios	Zoning Objective	Inside Airport PSZ?	Supporting Development	Enabling Infrastructure	Utilities
3-Metro *	1.34	1:1.5 - 1:2	HT	No	Land uses that comply with Zoning Objective HT of the County Development Plan and consistent with Character Area described as the 'Hub'. The development intensity will graduate the closer it is to the principal internal movement axes. The hub will be fully integrated with the movement and open space strategy for the larger site with a high quality park and pedestrian spine running north/south of the hub and parkway running east/west with new buildings / blocks framing these high quality green/open spaces. This area is suitable to accommodate higher density mixed use developments comprising of a mix of commercial office, leisure, hotel, conference and retail facilities together with flexible space for entertainment and public events of a cultural and artistic nature.	Provision of Metro North and/or hand back of temporary land takes from RPA. Provision of access road and QBC from Naul Road. Provision of access and QBC from Southern Parallel Road. Provision of capacity upgrade & provision of QBC on Naul Road. Design & agreement in place on location of FCC's East-West Distributor Road within the Dardistown LAP lands.  Surface water drainage incorporating SuDs to discharge to Turnapin Stream and Dardistown Tributary alongside Phase 3 lands. Riparian corridor/flood-plain to be maintained.  Gravity Foul Sewer connections to existing foul sewer in Old Swords Rd and to sewer constructed in phase 2B.  Watermains extended from Phase 1C and 2A lands and from existing 400mm main in Swords Road.	<ul style="list-style-type: none"> <li>Existing overhead lines to be under grounded within Phase 3 lands.</li> <li>Telecoms from existing Ducts in Swords Rd and from ducts provided in Phase 1C and 2A lands.</li> <li>Gas Main from existing 250mm main in Swords Rd and from mains provided in Phase 1C and 2B lands.</li> </ul>
	1.5	1:1.5 - 1:2	HT	No			
	3.1	1:0.3 - 1:0.75	GE	Outer			
	3.8	1:0.3 - 1:0.75	GE	Outer			
	4.75	1:1.5 - 1:2.5	HT	No			
Totals	14.49						

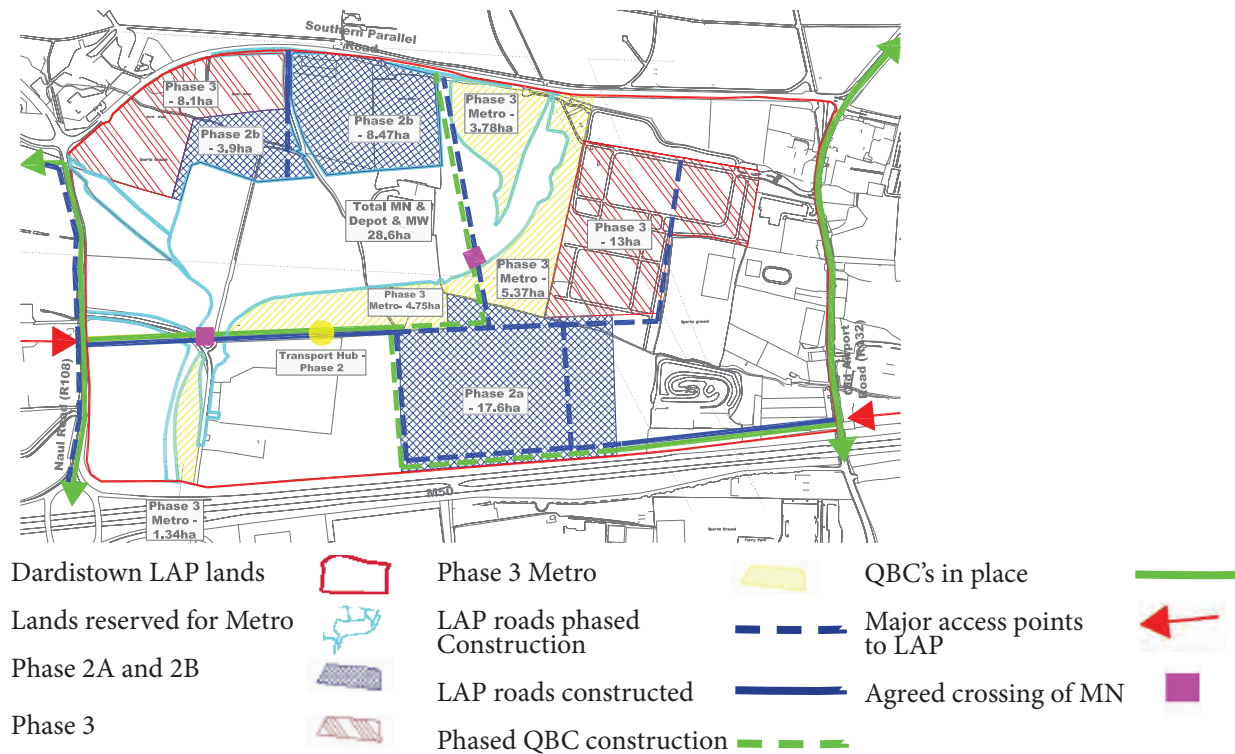


Figure 8.14: Phase 3 - Transport

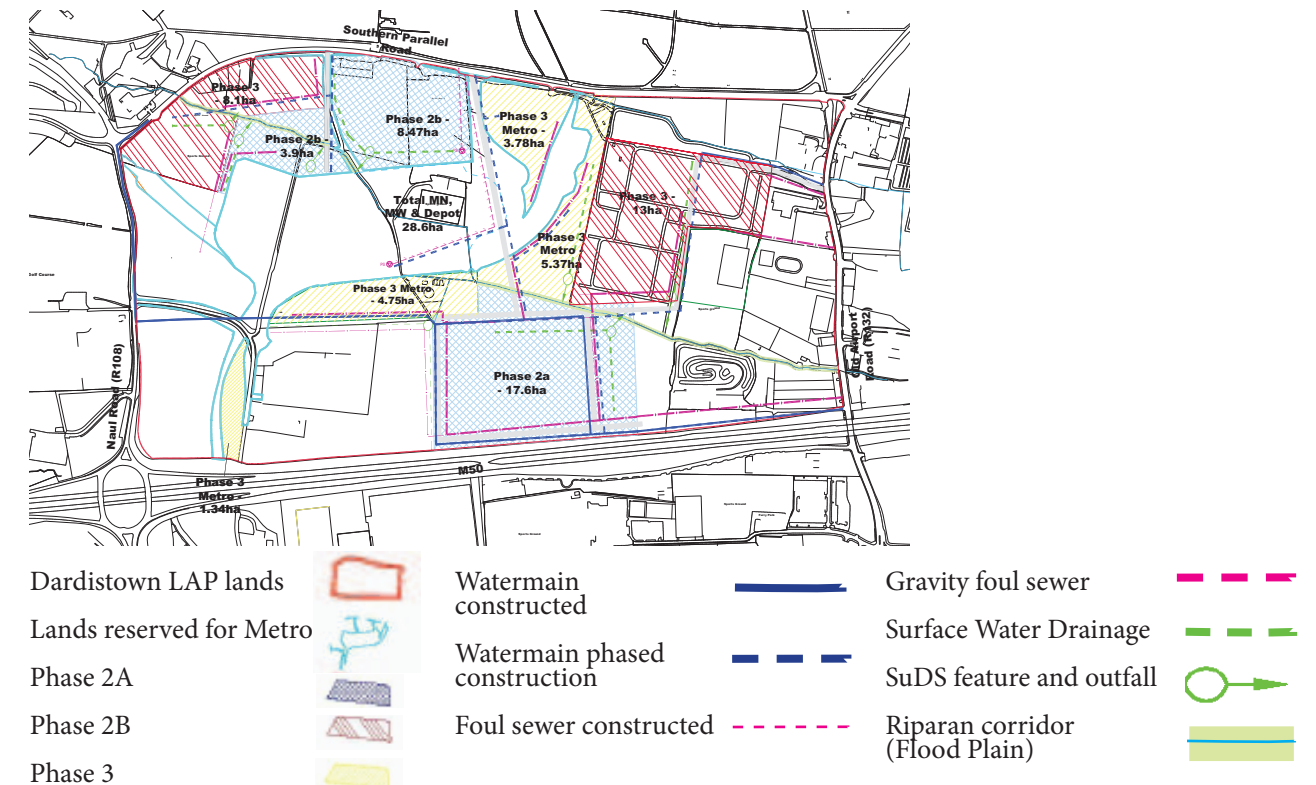


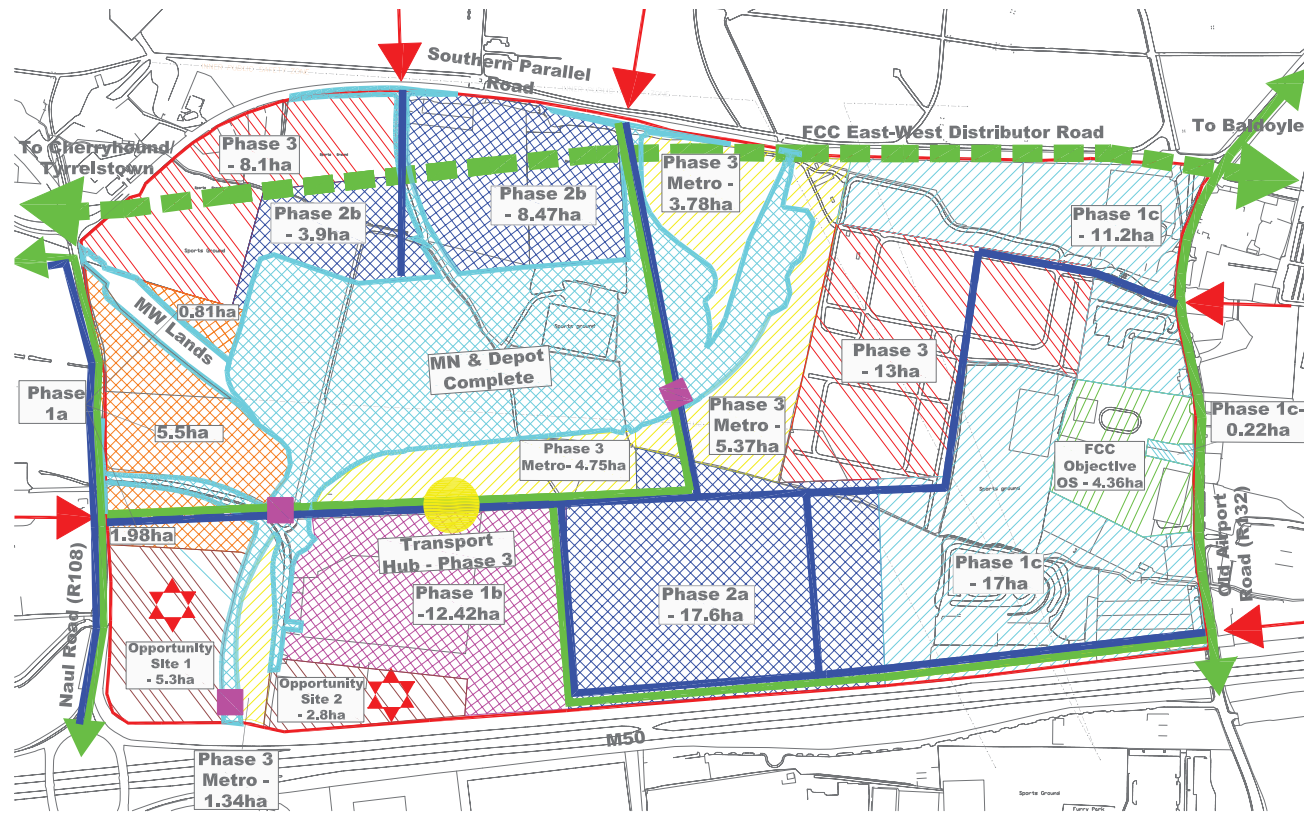
Figure 8.15: Phase 3 - Services

Note\*: Excludes area within the Inner Public Safety Zone

Table D4: Opportunity Sites

Phase	Plots	Gross Plot Areas (ha)	Indicative Plot Ratios	Zoning Objective	Inside Airport PSZ?	Supporting Development	Enabling Infrastructure	Utilities
Non Phase Specific Development - Refer to Phasing / Development Implementation Objective DIMP 3	OS1	5.3	1:1.5 - 1:3	HT	No	High visibility strategic sites with frontage onto the M50, the Naul Road and the Metro North, which naturally provide for landmark opportunities that could include high profile users or taller more prominent buildings of high quality design that would act as landmark buildings/visual markers signalling the site that could include or incorporate a hotel and/or other high profile leisure uses.	<p>Provision of access road &amp; QBC from Naul Road. Provision of capacity upgrade &amp; provision of QBC on Naul Road.</p> <p>Surface water drainage incorporating SuDS to discharge to surface water drainage provided in Phase 1B lands.</p> <p>Gravity Foul Sewer connections to foul sewer provided in Phase 1B.</p> <p>Watermains extended from Phase 1A and 1B lands.</p>	<ul style="list-style-type: none"> <li>Existing overhead lines to be buried be underground within OS1 lands.</li> <li>Telecoms from ducts provided in Phase 1A and 1B lands.</li> <li>Gas Main from mains provided in Phase 1A and 1B lands.</li> </ul>
	OS2	2.8	1:1.5 - 1:2.0	HT	No	Land uses that comply with Zoning Objective HT of the County Development Plan and consistent with Character Area described as the 'Hub'. This site forms the heart or core of the new business district. Due to its location outside the Public Safety Zone, centrally located on the lands and immediately to the south of the proposed Dardistown Stop and the internal bus corridor, it naturally lends itself to higher density commercial development with a finer urban grain and taller built forms. This area is suitable to accommodate higher density mixed use developments comprising of a mix of commercial office, leisure, hotel, conference and retail facilities in accordance with Zoning Objective HT of the County Development Plan.	<p>Provision of access road &amp; QBC from Naul Road. Provision of capacity upgrade &amp; provision of QBC on Naul Road. Provision of Transport Hub.</p> <p>Surface water drainage incorporating SuDS to discharge to surface water drainage provided in Phase 2A lands.</p> <p>Gravity Foul Sewer connections to foul sewer provided in Phase 1B and 2A.</p> <p>Watermains extended from Phase 1A, 1B and 2A lands.</p>	<ul style="list-style-type: none"> <li>Existing overhead lines to be buried underground within Metro OS lands.</li> <li>Telecoms from ducts provided in Phase 1A, 1B and 2A lands.</li> <li>Gas Main from mains provided in Phase 1A, 1B and 2A lands.</li> </ul>
Totals		8.10						





Dardistown LAP lands

Lands reserved for Metro

Major access points to LAP

East West distributor road

QBC's in place

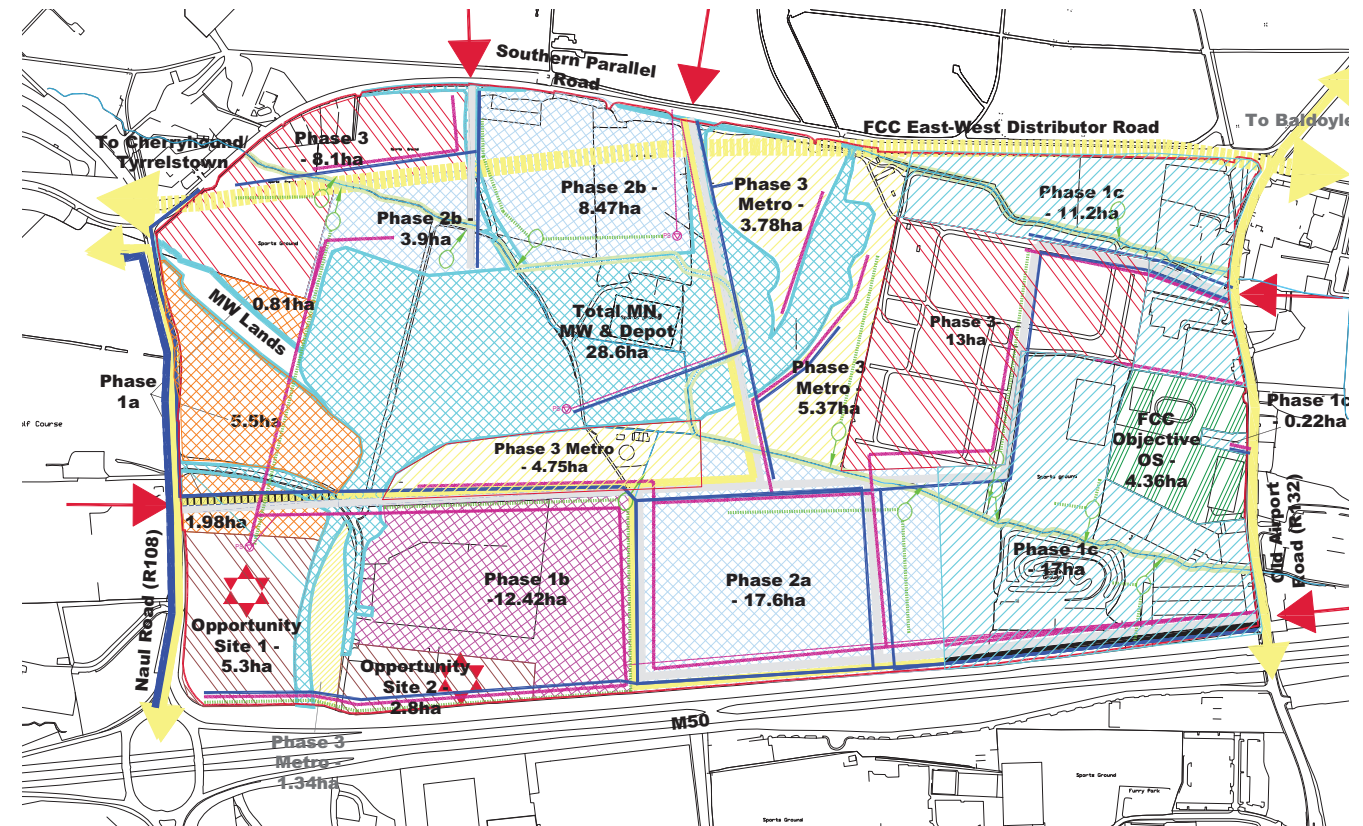
Transport Infrastructure

Agreed crossings in MN

Opportunity Site

Any roads and services crossings of Metro North and Depot and Metro West lands to be carried out in accordance with the approved scheme or as otherwise agreed with the RPA

**Figure 8.16: All Phasing – Transport**



Dardistown LAP

Lands reserved for Metro

Watermain

Gravity foul sewer

Interim pumping station

Rising Main

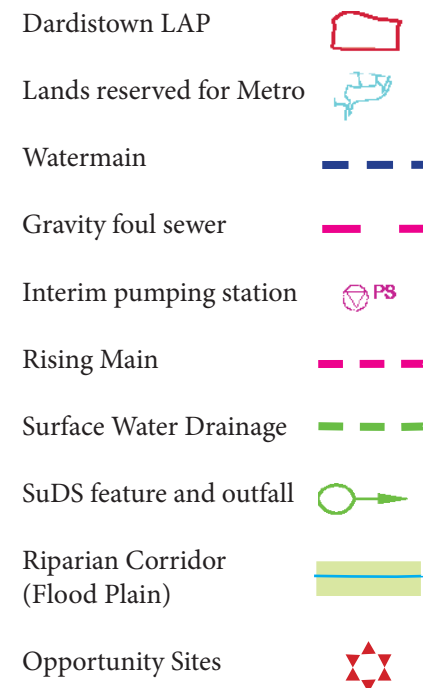
Surface Water Drainage

SuDS feature and outfall

Riparian Corridor  
(Flood Plain)

Opportunity Sites

**Figure 8.17: All Phasing - Services**





**Dardistown first round submissions – 7 June to 19th July 2011**

Six number submissions were received within the appropriate period.

Submission No.:	Organisation/ Landowner:	Agent:	Summary of issues:
1.	National Roads Authority	N/A	<ul style="list-style-type: none"> <li>a) Concern about impact of development on the M50.</li> <li>b) Potential need for road upgrades to facilitate additional traffic.</li> <li>c) Need to develop Dardistown as a key node in the regional transport network.</li> <li>d) Need for phased delivery of transport infrastructure and services in line with LAP.</li> </ul>
2.	Ballymun Kickhams GAA Club	N/A	<ul style="list-style-type: none"> <li>a) Concern about the impact of rezoned land and proposed road on GAA grounds.</li> <li>b) In support of improvements to R108 road to include foot and cycle paths.</li> <li>c) Need for improved foul drainage system.</li> <li>d) Need for improved telecommunications network.</li> </ul>
3.	Royal College of Surgeons	John Spain Associates	<ul style="list-style-type: none"> <li>a) Request that OS zoned land be zoned GE to facilitate R&amp;D.</li> <li>b) The OS zoning is out of place with the HT zoning and GE zoning in the area.</li> </ul>
4.	National Transport Authority	N/A	<ul style="list-style-type: none"> <li>a) Support given for the development of land in conjunction with the development of the Metro North and West.</li> <li>b) The preparation of the draft LAP should take into account the draft NTA Strategy.</li> <li>c) Reference is made to previous NTA submission on this area.</li> </ul>
5.	Parma Developments	Stephan Ward Ltd	<ul style="list-style-type: none"> <li>a) The existing abattoir/ food processing plant remain a key facility within the AIBP operational structure.</li> <li>b) Agreement has been drawn up with AIBP and the RPA with regard to road and infrastructure right of ways. No consent will be given for any changes to these.</li> <li>c) There is a need for flexibility throughout the LAP.</li> <li>d) Phased development should be encouraged.</li> <li>e) Predevelopment infrastructure requirements should be avoided as they may stifle future development of the area.</li> </ul>
6.	Byrne Family	ILTP	<ul style="list-style-type: none"> <li>a) There is a need for a flexible and responsive planning framework towards development as this LAP is likely to be a platform for future LAPs considering the likely framework for development of these lands.</li> <li>b) Need for a plan led phasing and implementation framework for these lands.</li> <li>c) Need for a phasing program that identifies key milestones for each stage of development and which are sequential rather than temporal.</li> <li>d) Important to set a sense of place, develop a gateway area on the Naul Road, develop character/ hub areas.</li> <li>e) Provide for a range of services, facilities, cycle/ pedestrian and transport.</li> </ul>



Appendix B –Land Use Matrix of Permissible and Non-Permissible Uses together with Indicative Intensity of Uses Permissible within Outer Public Safety Zone (persons normally present / site area)  
(Reference: ERM Report, ‘Public Safety Zones’, February 2005)

Permitted in Principle	Within Inner Public Safety Zone and within Zoning Objective GE	Within Outer Public Safety Zone and within Zoning Objective GE	Outside Outer Public Safety Zone and within Zoning Objective GE	Outside Outer Public Safety Zone and within Zoning Objective HT
Builders Provider / Yard	X	√	√	X
Car Park	Open for Consideration	Open for Consideration	Open for Consideration	X
Civic Waste Facility	X	√ (110p/0.5ha)	√	X
Enterprise Centre	X	√ (110p/0.5ha)	√	√
Food, Drink and Flower Preparation / Processing	X	√ (110p/0.5ha)	√	Open for Consideration
Fuel Depot / Storage	X	√ (110p/0.5ha)	√	X
High Technology / Manufacturing	X	√ (110p/0.5ha)	√	√
Hospital	X	X	X	√
Industry - General	X	√ (110p/0.5ha)	√	Open for Consideration
Industry - Light	X	√ (110p/0.5ha)	√	Open for Consideration
Logistics	X	√ (110p/0.5ha)	√	X
Ancillary Office	X	√ (110p/0.5ha)	√	√
Office	X	X	X	√
Open Space	√	√	√	√
Park and Ride	X	√	X	X
Petrol Station	X	X	√	Open for Consideration
Research and Development	X	√ (110p/0.5ha)	√	√
Restaurant / Café	X	√ (85p/0.5ha)	√	√
Retail Local (<150sq.m)	X	√ (85p/0.5ha)	√	√
Road Transport Depot	X	√ (110p/0.5ha)	√	X

Appendix B –Land Use Matrix of Permissible and Non-Permissible Uses together with Indicative Intensity of Uses Permissible within Outer Public Safety Zone (persons normally present / site area) (Continued)

Permitted in Principle	Within Inner Public Safety Zone and within Zoning Objective GE	Within Outer Public Safety Zone and within Zoning Objective GE	Outside Outer Public Safety Zone and within Zoning Objective GE	Outside Outer Public Safety Zone and within Zoning Objective HT
Sustainable Energy Installation	Open for Consideration	√	√	√
Telecommunications Structures	Open for Consideration	√	√	√
Training Centre	X	√ (110p/0.5ha)	√	√
Utility Installations	Open for Consideration	Open for Consideration	Open for Consideration	√
Vehicle Sales Outlet - Small Vehicles	X	√ (110p/0.5ha)	√	X
Vehicle Sales Outlet - Large Vehicles	X	√ (110p/0.5ha)	√	X
Vehicle Servicing / Maintenance Garage	X	√ (110p/0.5ha)	√	X
Warehousing	X	√ (110p/0.5ha)	√	X
Waste Disposal and Recovery Facility	X	√ (110p/0.5ha)	√	X
Wholesale	X	√ (85p/0.5ha)		X

*Note: The indicative quanta and range of uses are closely tied to the Urban Design Strategy which includes guidance in terms of development standards including plot ratios, site coverage and building heights to achieve sustainable land use patterns and forms of development to achieve the desired character and appearance of the identified character area.*

## MITIGATION MEASURES

Mitigation measures are measures envisaged to prevent, reduce and as fully as possible, offset any significant adverse impacts on the environment of implementing the proposed Local Area Plan.

Mitigation involves ameliorating significant negative effects. Where there are significant negative effects, consideration is given in the first instance to preventing such effects or, where this is not possible for stated reasons, to lessening or offsetting those effects. Mitigation measures can be roughly divided into those that: avoid effects; reduce the magnitude or extent, probability and/or severity of effect; repair effects after they have occurred, and; compensate for effects, balancing out negative impacts with other positive ones.

### Biodiversity / Flora & Fauna

The land use plan for the development of Dardistown may conflict with the conservation of non-designated species located within the Local Area Plan lands and on adjoining lands.

The development of a SUDS strategy to complement the existing riparian corridor of the Turnapin Stream and the Dardistown tributary will provide additional habitat for the range of species that currently are found along the corridor of the watercourses. This strategy has due regard to the proximity to the airport and recommendations have been made in respect of appropriate planting and habitat creation.

The landscaping plans for planning applications will be required to take into account the existing vegetation types present on site and where possible existing vegetation will be retained, in particular boundary vegetation.

A bat survey will be carried out, as part of the first planning application for development on the site. If bats are identified on site bat boxes will be required to be installed at an appropriate location, to encourage the bats to roost at an alternative location, while protecting their presence in the area.

Specifically, the following objectives are incorporated within the LAP:

**CPO24** - Develop and enhance existing green infrastructure, create new habitat areas where any are lost, and develop a new high quality well landscaped public realm, connecting into the wider green network.

**CPO25** - Ensure all new development has due regard to environmental and micro-climatic conditions.

**CP026** – Ensure that all development contributes to the promotion of an environmentally sustainable pattern and form of development, and as far as possible, will consider the local, national, international and global environmental implications of development.

### Soil

The soils have been determined to be generally uncontaminated. As much soil as possible will be reused on site for landscaping purposes. The construction management plan will address issue of re-use of soil, including storage. A waste management strategy and a construction waste management strategy shall be submitted with all applications for substantial development.

### Water

All planning applications will be required to adhere to the comprehensive SUDS strategy, addressing water quantity, quality, amenity and habitat enhancement aspects of natural drainage, and ensuring that no threat is posed to the water quality status of the Baldoyle Bay as a result of the development of the lands.

In order to limit unnecessary water usage, leaks and excessive consumption of the water supply a Water Management and Conservation Plan detailing how best practice in water conservation shall be applied will be required in all planning applications.

The LAP contains the following objectives to ensure mitigation of the above issues:

The LAP contains the following objectives to ensure mitigation of the above issues:

**CPO29** - Ensure the implementation of a Stormwater Management System in the detailed design of the plan lands, following the principles of the Sustainable Urban Drainage Systems (SUDS) undertaken for the LAP.

**CPO 30** - Ensure surface water attenuation ponds, swales and dry detention basins are well designed and incorporated as design features within open space areas, particularly along the Turnapin Stream in accordance with the LAP Landscaping Strategy.

**CPO 31** - A 10-15 metre wide riparian corridor shall be maintained along both sides of the Turnapin Stream in order to protect and manage this existing watercourse.

**CPO 32** – A Sediment and Water Pollution Control Plan shall be submitted in accordance with the Fingal Development Plan prior to the commencement of development for the formal consideration and agreement by the Planning Authority.

**CPO 33** – A Water Management and Conservation Plan shall be submitted in accordance with the Fingal Development Plan prior to the commencement of development for the formal consideration and agreement by the Planning Authority.

**CPO 34** – All development proposals shall ensure the incorporation of water conservation measures in the design of proposed developments.

**CPO 35** - The Eastern Regional Fisheries Board shall be consulted in relation to any works in relation to the diverting or crossing of a river/stream.

**CPO 36** - A Trade Effluent Discharge Licence under the 1977 & 1990 Water Pollution Acts shall be obtained by all companies involved in development from Fingal Water Services Department to ensure all discharges to surface waters do not compromise water quality.

**CPO 37** - Provide adequate water and waste water services capacity to serve all development lands.

### Sustainable Energy

Effective mitigation measures in terms of air quality will involve active mobility management to encourage high usage of walking, cycling and public transport through good traffic management plans. In addition, improvements in air quality are likely over the next few years as a result of the on-going comprehensive vehicle inspection and

maintenance program, fiscal measures to encourage the use of alternatively fuelled vehicles and the introduction of cleaner fuels. Recent EU legislation, based on the EU sponsored Auto-Oil programmes, has imposed stringent emission standards for key pollutants for passenger cars to be complied with in 2006 (Euro IV) and for diesel HGVs introduced in 2006 and 2008 (Euro IV and V). In relation to fuel quality, EU Fuel Directive (98/70/EC) has introduced significant reductions in both sulphur and benzene content of fuels. All of these measures should ensure improved air quality in future years.

All buildings will be required to achieve the appropriate BER Rating possible, which will result in low output in CO2 emissions. The LAP incorporates the following mitigation objectives:

**CPO3** - Focus activities attracting the largest numbers of trips in close proximity to the public transport corridor focused initially on the QBCs.

**CPO8** - Phase development in a sustainable way, in line with the availability of supporting infrastructure, including QBCs initially and Metro in subsequent LAPs, and necessary services and utilities provision.

**CPO9:** Facilitate and support economic growth and employment generation on the LAP lands, which integrate with, and maximises, the sustainable use of the surrounding transportation networks.

**CP026** – Ensure that all development contributes to the promotion of an environmentally sustainable pattern and form of development, and as far as possible, will consider the local, national, international and global environmental implications of development.

**CP027** - Improve qualitative standards of sustainable design in accordance with the Fingal County Development Plan 2011-2017.

**CP028** - Ensure a holistic approach to sustainability in all developments through the incorporation of energy efficiency measures, renewable energy technologies, sustainable building practices and sustainable urban drainage systems / techniques in accordance with best practise guidance.

### Noise

The noise baseline has identified that noise emanating from the M1 will have the greatest impact on the site. This is particularly relevant for residential units, which will be developed at the upper levels of the town centre buildings. The designers of the buildings will be required to design noise mitigation measures that will reduce the impact of road noise on the quality of life of the occupants of the residential units both internally and externally. All future developments must ensure that residential amenity is given high priority when considering design and noise mitigation.

**SDO9:** To control inappropriate development and to require noise insulation / mitigation measures where appropriate within the Outer Noise Zone, and to resist noise sensitive uses within the Inner Noise Zone, as identified on the Development Plan Maps.

**SDO16:** Ensure a high degree of permeability throughout the site through efficient site access coupled with the establishment of active

facades, an evening economy, maximisation of the amount of natural light into the vicinity and an appropriate mix of ground level uses to aid in the enhancement of vibrancy and safety in the area.

**Archaeology - NOF**

All planning applications which will have an impact or potential impact on a Recorded Monument will be required to have an archaeological test carried out on site prior to the commencement of construction. The results will be recorded and kept on record. The following mitigation measure will inform development of the lands:

Archaeological monitoring of topsoil stripping at site clearance stage of development shall be carried out by a suitably qualified archaeologist under licence to DoEHLG and the National Museum of Ireland.

**Landscape**

**Mitigation measures:**

There are a range of methods available to mitigate impacts on the landscape and visual environment. The installation of a high quality designed landscape masterplan with the integration of SuDS elements will be the primary mitigation on the LAP lands.

The LAP incorporates the following mitigation objectives:

**CPO 31** - A 10-15 metre wide riparian corridor shall be maintained along both sides of the Turnapin Stream in order to protect and manage this existing watercourse.

**CPO 41** - Ensure that energy and telecommunications infrastructure is adequately screened, integrated and /or landscaped so as to minimise any adverse visual impacts on the environment.

**SDO18:** Ensure development is of a sustainable nature and of high quality design that incorporates the use of high quality, attractive and durable materials and finishes

**Transportation**

The provision of additional roads will generate additional private car trips in area. To mitigate against this, several objectives in the Local Area Plan, encourage the use of public transport (Metro – Bus), walking and cycling. The LAP includes a phasing programme to ensure infrastructure is provided in tandem/prior to development.

The following objectives are incorporated within the LAP:

**CPO2** – Protect the alignment and land take required for the Metro North line and Metro North Depot, as approved by An Bord Pleanala.

**TR1** -The provision of high capacity quality bus corridors within the LAP lands which are integrated with the pedestrian and cycle network, have real time information and high quality bus shelters.

**TR2-** Provide for the safe and easy movement of pedestrian and

cyclists through the provision of direct high quality routes within the LAP lands.

**TR4-** Develop a Transport Hub over three phases to accommodate development and the roll out of Public Transport provision.

**TR5-** Facilitate and ensure integration of the development with the Metro North, Metro West, Metro Depot, Metro Park & Ride, Metro crossings and Metro infrastructure, as well as improved local and regional bus routes.

**TR7-** Require a Mobility Management Plan / Travel Plan to be submitted with planning applications for proposed trip intensive developments.

**TR8** – Require development proposals to provide satisfactory land reservations to facilitate future strategic road and QBC schemes.