Special Local Area Plan for Cork Airport

September 2010

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Section 1
Introduction to the Cork Airport Special Local Area Plan

1.1 The Need for this Special Local Area Plan

Overall Aim

1.1.1. This Special Local Area Plan (SLAP) has been prepared with the purpose of facilitating the development of Cork Airport by providing for, and where necessary, protecting land for the future operation and development needs of the Airport, looking forward to the year 2040. This Special Local Area Plan has identified the future aviation needs and associated infrastructural requirements of Cork Airport in the long term and will specify policy and objectives to safeguard the continuing growth of the Airport as a key economic driver for the region.

1.1.2. The need for a Special Local Area Plan for Cork Airport was highlighted in the Carrigaline Electoral Area Local Area Plan 2005, which recognised the importance of the airport to the county and the wider region. In that plan the Airport is dealt with as part of Cork City South Environs, which establishes a boundary around the airport to which the specific objective, X-03 - 'Cork International Airport', applies, and which covers an area of 248 hectares.

1.1.3. The need for a separate airport local area plan was again re-iterated in the County Development Plan 2009, which contains a specific objective, INF 4-3, for the preparation of a Special Local Area Plan and this plan is a fulfilment of this objective.

1.1.4. While the current statutory life of this Special Local Area Plan is six years (although proposals in the current Planning & Development Amendment Bill 2009 could see this extended to ten years), the Plan takes a long-term view of the development of Cork Airport in terms of land use, infrastructure and service requirements, looking forward to the horizon year 2040.

1.2 Main Planning Goals

1.2.1. The objective of the proposed Special Local Area Plan is to provide a framework for the optimal long-term development of the Airport as a response to the local and international demand for air travel, by;

a) Reserving sufficient suitable lands contiguous to the airport for its sustainable expansion and development and to accommodate necessary airport related uses in accordance with projected needs.
b) Identifying and making provision for the future public infrastructure /servicing needs of the airport.
c) Having regard to the impact of public safety zones on future airport operations and development.
d) Promoting and facilitating improved public transport links to the airport.
e) Protecting the amenities, biodiversity and environmental quality of the surrounding area.

Figure 1.1: Cork Airport – Regional Context

1.3 The Process That Has Been Followed

1.3.1. It has been the County Council's intention that this Special Local Area Plan be prepared in accordance with the Planning and Development Acts and in a spirit of openness and transparency so that there should be a broad consensus of support for the main objectives of the plan amongst the stakeholders.

1.3.2. A number of important background documents underpin the proposals of this plan.

Cork Airport Future Needs Study (December 2008)

1.3.3. Before commencing the formal procedures for Local Area Plans set out in the Planning and Development Acts, it was decided that, owing to the specialist and technical nature of some of the matters to be addressed in relation to the Airport, to retain specialist consultants, experienced in Airport planning issues to advise in relation to the future aviation and operational requirements of the Airport. The Cork Airport Future Needs Study was completed by Keith Simpson & Associates in December 2008.

1.3.4. The purpose of the Cork Airport Future Needs Study was to establish the future aviation and operational needs of the Airport over a 30+ year time horizon arising from forecasted growth in passenger and aircraft movements and make recommendations as to how to provide for this future growth and development. The Study involved a strategic assessment of past and future aviation related growth, analysis of the national, regional and local policy context and existing Airport studies, and determination of the future needs development strategy for the Airport. Environmental and public safety issues were also considered in the formulation of the development strategy. The undertaking of the study provided clear guidance and direction for Cork County Council in the preparation of the Special Local Area Plan for Cork Airport.

1.3.5. It was considered essential in the preparation of this study to undertake consultation with the key stakeholders. This consultation process allowed for the identification of the principal issues of the stakeholders, concerning the airport's existing and future development and operation at an early stage.

Cork Airport Surface Access Plan (December 2008)

1.3.6. Given the importance of Cork Airport as an access point for individuals and air-freight to the South-West Region and the level of forecasted growth especially in passenger numbers, it was considered necessary to develop a transportation strategy which would address surface access issues for Cork Airport, so as to ensure adequate and efficient road access with appropriate public transport facilities.

1.3.7. The scope of this project included the following:

- Develop a local transportation plan for Cork Airport with a view to achieving the relevant CASP transport targets, including consideration of accessibility, parking, public transport, mobility management and impacts on the national road network and interchanges.
- Appraisal of traffic impacts of the current Airport Authority development plans for the site.
- Appraisal of the traffic impacts of the emerging land use scenarios from the Airport Future Needs Study.
- Assessment of the current situation with regard to accessibility at Cork Airport, by means of road transport and by public transport.
- Consultation with key stakeholders.

1.3.8. Consequently, Cork County Council engaged the services of transport consultants, Faber Maunsell to develop a surface access plan for Cork Airport which has informed the preparation of the Special Local Area Plan.

1.3.9. The primary objective of the Cork Airport Surface Access Plan was to outline a strategy for future development of transport links to the airport based on projections for passenger and employee growth contained in the Future Needs Study. The Surface Access Plan involved an analysis of the existing situation in relation to access and mobility, an examination of the 'Do Nothing Scenario' and development of a surface access strategy based on identified objectives and targets, including the establishment of specific modal split targets for passengers and employees. A range of measures, underpinning the objectives of the strategy were then identified and an implementation plan developed.

1.3.10. As in the Future Needs Study, extensive consultation with key stakeholders was undertaken in the drafting of the Surface Access Plan.

Pre-draft Public Consultation

1.3.11. The Planning and Development Acts require planning authorities to take whatever steps necessary to consult the public before preparing a local area plan, including consultations with local residents, public sector agencies, non-governmental agencies, local community groups and commercial and business interests within the area.

1.3.12. In addition to the consultation with key stakeholders in relation to the preparation of the Future Needs Study and the Surface Access Plan, wider public consultation was undertaken in December 2008 - February 2009, based on the key issues facing the Airport that emerged during the completion of these background studies. An information leaflet was published providing information regarding the anticipated growth in passenger numbers and aircraft movements and outlining the likely infrastructure, including an extension to the main runway, that would be necessary to support that forecasted level of growth. A suggested development framework for the airport was included which, amongst other things, showed areas to the north and south of the main runway 17-35 as areas for consideration in a feasibility study on the proposed extension of this runway. In addition, a public exhibition (information evening), at which approximately 60 people attended, was held during the consultation period to encourage people to take part in the plan making process.

1.3.13. A total of 97 submissions were received in response to this public consultation, covering a wide range of issues. A Background Report summarising the submissions received, identifying the issues raised and providing a response to the issue, where relevant, has been prepared and has been published concurrently with this draft plan. The outcome of the public consultation, as reflected in the Background Report, has been significant in determining the matters to be addressed by the Plan.

1.3.14. The relevant submissions to the 2005 Carrigaline Electoral Area Local Area Plan and the review of the 2003 County Development Plan, were also examined prior to the preparation of this Draft Special Local Area Plan.

Impacts of Extension of Runway 17-35

1.3.15. It was clear from the submissions received during the public consultation period that uncertainty on the location and extent of the proposed runway extension was a major issue of concern. In order to provide more certainty on the issue, Cork Airport agreed to carry out a study to examine in more detail the options for the extension of the

runway, being all to the north, all to the south or a combination of both. It was considered important that this study be finalised in advance of the Draft Plan so that the Plan could be prepared setting out only the option that minimised the impacts from the runway extension.

1.3.16. A study entitled 'Impacts of Runway Extension to Main Runway 17-35 at Cork Airport', completed by Dublin Airport Authority/ Cork Airport, has examined the three options for the extension. This study identifies an extension of 247m at runway 17 end (northern end) as the preferred option. This option has emerged as the most favourable based on an assessment of approximately 12 categories of impacts, in which the northern extension was deemed advantageous in at least 6 categories and there was a neutral impact between north and south in 5 categories. Proposals for a northern extension to the main runway are discussed in more detail in Section 3.

1.4 The Form and Content of the Plan

1.4.1. This plan is a single document that consists of a written statement and relevant illustrative material including maps and diagrams. The written statement is divided into the following sections;

- Section 1 – Introduction to the Cork Airport Special Local Area Plan: This section outlines the overall aim of the plan, the main planning goals and the strategic planning policy context.

- Section 2 – Existing Situation: This section outlines a brief historical development of Cork Airport along with a description of the site area, the various components of an airport and the existing infrastructure in place at the airport. Drainage, utilities and energy issues are also discussed. The challenges in relation to natural and built heritage and biodiversity are outlined and the relationship of the airport to the surrounding area is explored.

- Section 3 – Future Airport Needs & Strategic Planning Issues: The various strategic future needs of the airport are outlined in this section, particularly in terms of aviation infrastructure and service requirements for the short-, medium-and long-term growth and development of Cork Airport up to 2040. This section also highlights the main strategic planning issues facing the airport if it is to grow in a co-ordinated, sustainable and well planned manner.

- Section 4 – Transportation: This section sets out the current situation in relation to access to the Airport, the existing provision in relation to public transport, car parking and pedestrians and cyclists and highlights issues that need to be addressed by the surface access strategy. A surface access strategy, including modal split targets for the airport and measures to achieve same, is explained.

- Section 5 – Landuse Proposals & Implementation: This section sets out the land use and planning proposals to accommodate the growth of the Airport as outlined in section 3. Appropriate airport uses are identified and zoning objectives are set out. A section on design criteria is also included in this section. In addition, a summary of the funding and implementation of key transport infrastructure is identified.

- Appendix – Maps: This section contains the zoning map, noise contours map and public safety areas map.

1.5 Planning Policy Framework

1.5.1. This Special Local Area Plan is set within the context of a number of national, regional and local policy documents which are briefly summarised below.

National Climate Change Strategy

1.5.2. The National Climate Change Strategy 2007 - 2012 sets out a programme of actions and measures, to achieve the necessary greenhouse gas emission reductions to protect the environment primarily through actions in the areas of energy, transport, housing, industry and commercial, agriculture and waste, as well as cross sectoral actions. The strategy both feeds into and is reinforced by other national level policies including the National Development Plan, Transport 21 and Smarter Travel.

1.5.3. Emissions from international aviation are not covered by the Kyoto protocol, however, the National Climate Change Strategy suggests that initiatives taken now to address the contribution that aviation makes to climate change will ensure that gains from other sectors are not cancelled out.

1.5.4. The Strategy also states that in principle, the Government supports the inclusion of aviation emissions in future restructuring of the EU Emissions Trading Scheme (ETS).

National Development Plan 2007 – 2013

1.5.5. The 2007-2013 National Development Plan (NDP) sets out a roadmap for Ireland until 2013 and envisages that Ireland will undergo a transformation in its economic and social composition with increased emphasis on high value added activities and industries. The Plan addresses infrastructural bottlenecks, improving skills and education, creating and sustaining high value economic opportunities. The goal of the National Development Plan is to integrate strategic development frameworks for regional development, for rural communities, for all-island co-operation, and for protection of the environment with common economic and social goals. Funding for projects will be almost entirely sourced from national resources. It is noted however that since the NDP was developed, the international and national fiscal situation has altered dramatically and it is envisaged that this will impact on the level of available funding for the projects, impacting on prioritisation and timing of delivery.

National Spatial Strategy

1.5.6. The National Spatial Strategy for Ireland (NSS) is a twenty year planning framework designed to achieve a better balance of social, economic, physical development and population growth between regions. The NSS identified Cork as a Gateway City for the South-West Region with Mallow town as a supporting Hub. The NSS recognises that strengthening the critical mass of the existing Gateway's, including Cork, offers the most immediate prospects of establishing more balanced patterns of development over the next few years, to complement Dublin's successful national spatial role.

1.5.7. The strategy proposes that the national spatial structure be supported by a national transport framework, providing an improved network of roads and public transport services, enhancing access and connections throughout the country. This framework will be internationally connected through key points such as Airports and Ports with links to Northern Ireland, the UK, EU and the broader global economy.

1.5.8. The National Spatial Strategy highlights the importance of good national and regional airports and their associated services for Ireland to have a globally competitive but regionally integrated economy. The Strategy recognises that Cork Airport is strategically located, close to a significant population base, serving particular functions. It is noted that Cork Airport will continue to have an important role in the future by facilitating linkages to as many commercially viable international destinations as possible, as well as linkages to Dublin.

1.5.9. The Strategy states that in the case of Cork Airport, expanding its range of air services will also require an enhancement of the population base they serve. This will also require effective public and private transport connections, in order to bring additional large centres of population within approximately one hour's travel time or less of the airport.

1.5.10. The provision and development of airport infrastructure is of vital importance to the successful implementation of the NSS, therefore, Cork Airport has a crucial role to play.

Atlantic Gateways Initiative

1.5.11. The Atlantic Gateways initiative is based on the NSS and aims to co-ordinate and focus development and infrastructure provision

in a corridor linking the Gateway cities of Galway, Limerick, Cork and Waterford, and, together with the Hub towns, develop a critical-mass of population capable of competing with the Greater Dublin Region for future investment and delivering an appropriate balance in the delivery of jobs, services and opportunities between Dublin and the regions.

1.5.12. The Atlantic Gateway Initiative aims to establish greater levels of connectivity and synergies between Cork, Galway, Limerick and Waterford across a number of different areas including economic development and physical infrastructure. The basic premise of the concept is that by co-operation in relevant areas, the development potential of all four gateways will be enhanced and the continued access improvements offers the Gateways potential to develop credible national level complementary facilities to those on offer in Dublin.

1.5.13. The key priority of the Atlantic Gateways Initiative 'Achieving Critical Mass' (2006) is the delivery of the Transport 21 programme of connectivity improvements between the Atlantic Gateways and Dublin and particularly between the Gateways themselves.

Transport 21

1.5.14. Transport 21 (2006-2015) forms part of the National Development Plan and comprises a capital investment programme for the development of the national road network, public transport and airports. It aims to expand capacity, increase public transport use, increase accessibility and integration, enhance quality and ensure sustainability.

1.5.15. There are a number of major infrastructure projects, funded under Transport 21 that will directly or indirectly benefit Cork Airport, for example;

- The N25 flyovers within Cork City.
- The remaining stages of the Cork Suburban Rail Network.
- The N28 servicing the major industrial developments at Ringaskiddy.
- Upgrading of the N25 Cork-Waterford road.

1.5.16. The implementation of some of these proposals plays an important role in providing efficient access to Cork Airport.

Smarter Travel: A Sustainable Transport Future

1.5.17. Smarter Travel is a policy document which sets out a broad vision for the future, and establishes objectives and targets, for transportation. The main objectives are to encourage smarter travel, i.e. to reduce overall travel demands, reduce dependency on car travel and long distance commuting, increase public transport modal share and encourage walking and cycling.

1.5.18. The document outlines a number of actions to deliver a move to alternative and more sustainable ways of travelling. The need for greater connectivity between various transport modes including airports is highlighted. The document re-affirms the commitment to reducing aviation emissions as introduced in the National Climate Change Strategy and states the intention to continue to work with the EU to progress the Single European Sky Initiative which seeks to re-structure the air navigation system in Europe in order to enhance capacity and promote efficiency.

1.5.19. The enhancement of public transportation is a key recommendation arising from this Airport Plan and it needs to be developed in tandem with the growth and development of the Airport in order to offer a real and sustainable alternative to private car use. The development of an integrated public transportation system between Cork Airport, Cork City and region is essential to the future growth of the airport as outlined in more detail in Sections 4 and 5.

Sustainable Development – A Strategy for Ireland

1.5.20. The principal goals and policies defined in "Sustainable Development – A Strategy for Ireland 1997" inform the development of policies in the area of environmental protection and sustainable development into the future. The strategy aims to make transport more sustainable and efficient with constant reviewing of policies, actions and lifestyles.

1.5.21. The Strategy also recognises that air transport is an increasing source of polluting emissions but highlights that a number of initiatives and actions have been undertaken to address this issue such as noise monitoring and limitation, improved aircraft technology and efficient and safe operation standards within airports and the environs to reduce noise impacts.

South-West Regional Planning Guidelines 2010 - 2022

1.5.22. The original 2004 guidelines have been reviewed in accordance with the requirements of the Planning and Development Act 2000 and the new adopted Guidelines cover the strategic planning period from 2010 to 2022. The Regional Planning Guidelines for the South West Region have been developed to implement the strategic planning frameworks set out in the National Spatial Strategy (NSS) 2002 and the National Development Plan 2007 - 2013. The Guidelines for the South West Region prepared by the South West Regional Authority provide clear integrated linkages from national to local level in terms of planning and development policy.

1.5.23. The guidelines have identified Cork Airport as a vital element of transport infrastructure providing national and international access and connectivity essential to the future development and prosperity of not only Cork, but the wider South West Region. They acknowledge the preparation of a Special Local Area Plan for the Airport, in recognition of the pivotal role of the Airport as a driver for socio-economic development and the need to protect the operational capacity and land use requirements of the Airport in the long term.

1.5.24. The Guidelines also acknowledge that adequate and efficient road and public transport are essential for the growth and expansion of the Airport and in this regard, the need to take steps to identify the preferred route option for a secondary road access to the Airport is highlighted.

Cork Area Strategic Plan 2001-2020

1.5.25. The Cork Area Strategic Plan (CASP) recognised that the development and expansion of Cork Airport is crucial to the development and future prosperity of Cork. The role of the airport in supporting the economic potential of the City-Region and enhancing the image of Cork has been identified as a key interest for the Cork Area Strategic Plan.

1.5.26. CASP states the economic development of the region will depend on inward investment and in-migration of labour. The Strategy indicates that continued improvements in air links and ease of access to the UK and European hubs is essential to fostering and promoting the Cork region as a high quality destination for inward investment and tourism.

1.5.27. The strategy recognises that air services to and from Cork Airport currently provide vital links for business and tourism, and play a key role in attracting and retaining inward investment. Air freight is important for high value and perishable products. Owing to increased local prosperity and the introduction of low-cost airlines, residents of the Cork area increasingly use the Airport to access a wider range of social, cultural and leisure opportunities.

1.5.28. CASP has acknowledged that the area immediately adjacent to the airport is a key location for employment uses that would depend upon the proximity of the airport for their viability. The strategy also states that a quality bus corridor from the airport to the city centre and Kent Station will be developed with a high frequency service. Swift journey times and reliability will be ensured by the introduction of priority measures along the length of the route.

CASP Update 2008

1.5.29. The update of the Cork Area Strategic Plan envisages the creation of an integrated transport system as one of the key challenges

facing the CASP area, to accommodate the significant additional population envisaged by NSS spatial targets for the area. The updated strategy recognises the Airport as a key transport hub. It is intended that this integrated transport system would result in a high quality road network including the completion of the ring road and its key interchanges in order to provide accessibility and connectivity to the Airport from all the CASP areas.

1.5.30. The CASP Update strategy has acknowledged that the accessibility of Cork Airport is a key issue for travelling passengers and key service providers. Access is currently predominantly by road including car drivers, car passengers (drop offs) and taxis. The airport has currently only one road access and this presents difficulties due to congestion and lack of alternative access routes. Access by road to the airport is dominated by the congestion and delay at Kinsale Road Roundabout. Although the recent completion of the Grade Separation scheme has brought some time savings, the key benefits were intended for the traffic on the N25 South Ring Road. The introduction of the Green Route corridor has improved the level of public transport service access, although the key areas of demand growth have been related to the nearby employment centre at the airport business park.

1.5.31. The strategy has further identified that a future rapid transit corridor linking the airport with the City Centre and Ballyvolane with an interchange at the City Centre would improve the accessibility of the airport by public transport from the wider CASP area.

Cork County Development Plan 2009

1.5.32. The policies on Transport and Infrastructure presented in the 2009 County Development Plan are based on several planning principles, which include the protection and development of the county's principal transportation assets including ports, airports and strategic road and rail corridors.

1.5.33. The 2009 County Development Plan recognises that Cork International Airport is a key gateway to the south of Ireland. The plan identifies the availability of convenient and frequent air services facilitating the business community as a key factor in successful economic growth. Likewise, it is recognised that regional tourism also benefits greatly from Cork Airport as an international access facility. Adequate and efficient road access with appropriate public transport facilities is also identified as a pre-requisite of the continued growth of airport-related activities.

1.5.34. The plan also envisages that during the County Development plan timeframe, traffic through Cork Airport would continue to grow steadily and it is also expected that cargo operations will increase significantly.

1.5.35. The planning objectives of the plan recognise the essential role of the airport in the economic and social development of the sub-region and also generally support Dublin Airport Authority's programme for the operation and development of Cork Airport. It is also an objective of the plan generally to consider any development of lands around the airport on safety and environmental grounds (including noise) and to safeguard the area from inappropriate uses that could compromise the long-term development and economic potential of the airport.

1.5.36. The policy and objectives of the plan for the County Metropolitan Strategic Planning Area are also based on the planning and sustainable goal of recognising the long-term importance of Cork International Airport and maintaining and enhancing the infrastructure and other resources likely to be required for its future development.

1.5.37. The 2009 County Development Plan re-iterates the planning policies for Cork International Airport outlined in the 2003 CDP, whilst also acknowledging that future development of lands in the vicinity of the airport will need to be carefully managed so as to ensure an appropriate balance between airport and non-airport related activity.

1.5.38. The 2009 County Development plan has outlined its objective for Cork International Airport under INF 4-3, which states that it is an objective to prepare a Special Local Area Plan for Cork Airport which will address, in greater detail, the particular land use requirements of the airport and its associated hinterland. This objective states that this Special Local Area Plan will:

- Identify land that may be required in the future to enhance the operational capacity of the airport,
- Identify land for transport improvements linking the Airport to the City Centre, including Light Rail and Bus Rapid Transit,
- Take account of the overall strategy in this Plan and identify appropriate land uses that would benefit from an airport location,
- Have regard to Public Safety Zones identified by the Airport Authority.

Carrigaline Electoral Area Local Area Plan 2005

1.5.39. The Carrigaline Electoral Area Local Area Plan 2005 has identified Cork International Airport as an important strategic asset to the Carrigaline Electoral Area and a key economic driver for the South West region. The local area plan states that the Airport and the associated developments in logistics, the Airport Business Park and hotel are all key elements in the development of the County and the South West region.

1.5.40. The Carrigaline Electoral Area Local Area Plan 2005 defines the boundary of the Airport as an area of 248 hectares (within the red box) which is the subject to the special zoning objective X-03 – 'Cork International Airport'.

1.5.41. The Local Area Plan stated that the Council would initiate a Special Local Area Plan to encompass the Cork International Airport site and its surrounding hinterland.

1.6 Strategic Environmental Assessment and Habitats Directive Assessment

Strategic Environmental Assessment

1.6.1. Under the Planning and Development Statutory (Strategic Environmental Assessment) Regulations 2004 it is required that a Strategic Environmental Assessment (SEA) be carried out for Local Area Plans for areas with a population of 10,000 persons or more.

1.6.2. This Special Local Area Plan relates to a population of less than 10,000 persons, therefore it is not a mandatory requirement to carry out a Strategic Environmental Assessment. However, in order to determine whether the plan would be likely to have significant environmental effects, the plan was firstly screened and following this process it was decided that, owing to the potential significance of the environmental effects that the plan would be likely to have, that an SEA should be prepared.

1.6.3. A scoping report was originally prepared in August 2008, however due to the completion of a number of background reports and

studies, it was considered appropriate to review this document before proceeding in the SEA process. An updated Scoping Report, identifying the key environmental issues of the Plan, was published in December 2009 and the public, stakeholders and statutory consultees were invited to make submissions up until the 13th January 2010. The comments received were considered and assessed and the findings were documented in the Environmental Report.

1.6.4. The Environmental Report, containing an assessment of the likely significant environmental effects of the Plan and including a Flood Risk Assessment, was published as a separate document, concurrent with the draft of this plan.

1.6.5. The final part of the requirements for the Strategic Environmental Assessment of the Plan requires that after the adoption of the plan, the plan making authority is required to make a statement available to the public and the competent environmental authorities referred to as an SEA Statement.

1.6.6. The SEA Statement is required to include information summarising:

(a) how environmental considerations have been integrated into the plan;

(b) how
- the Environmental Report,
- any submission or observation to the planning authority in response to a notice under section 12(1) or (7) of the Act, and
- any consultations under article 13(F) have been taken into account during the preparation of the plan,

(c) the reasons for choosing the plan, as adopted, in light of the other reasonable alternatives dealt with, and

(d) the measures decided upon to monitor, in accordance with Article 13(J), the significant environmental effects of implementation of the plan.

1.6.7. The Guidelines on the implementation of the SEA Directive state that the SEA Statement should summarise the issues and concisely address them. Each of the above points have been addressed and are included in the various sections of the SEA Statement in Appendix A of the Plan.

Habitats Directive Assessment

1.6.8. Habitats Directive Assessment (HDA), also known as Appropriate Assessment, is provided for under EU Habitats Directive 92/43/EEC as transposed into Irish Law through the European Communities (Natural Habitats) Regulations, 1997, SI no. 94 of 1997. The directive indicates the need for plans and projects to be subject to Habitats Directive Assessment if the plan or project is not directly connected with or necessary to the management of a Natura 2000 site, but is likely to have a significant effect either individually or in combination with other plans or projects on the site.

1.6.9. The Department of Environment, Heritage and Local Government have published guidelines “Appropriate Assessment of Plans and Projects in Ireland”, which provides guidance for local authorities.

1.6.10. The HDA screening of the SLAP was carried out in August 2008, and as a result of significant changes in the scope and content of the Plan, in November 2009 an updated screening was carried out and submitted to the NPWS, which took account of additional information as a result of studies completed in the interim. The screening concluded that the Plan would have no significant effects on Natura 2000 sites.

Section 2
Existing Situation

2.1 Site Area and Description

2.1.1. The site of Cork Airport is located on an elevated plateau within the Metropolitan Green Belt and approximately 5km south of the City Centre. The boundary of the Airport, as identified in the Carrigaline Electoral Area Local Area Plan 2005, consisted of 248 hectares. The site extends in an east – west direction from the N27 (Airport Road) / R600 to the east as to the local primary road (L 2455-30) to the west. The townland of Gortagoulane lies to the north of the northern perimeter of the airport and the southern perimeter in the townland of Ballygarvan extends to the Lios Cross roads. Access to the Airport site is located at the eastern site boundary via the Cork to Kinsale Road, which also links with the south ring road (N25) to the north. The new boundary established in this plan comprises an area of 281 hectares.

2.1.2. The long-term planning policies adopted by Cork County Council in the 1996, 2003 and 2009 Development Plans for the county have protected the approaches and lands in the vicinity of the airport from large-scale development. There are no major residential areas in close proximity to the Airport and the establishment of public safety areas in the vicinity of the airport has restricted the proliferation of individual rural dwellings on adjoining lands.

2.1.3. The spatial configuration and layout of Cork Airport is most easily considered as four quadrants which are divided by the north-south Runway 17-35 and the east-west Runway 07-25. The four quadrants are termed as North East (NE), North West (NW), South East (SE) and South West (SW) Quadrants and are illustrated in Figure 2.1.

2.1.4. For the purposes of addressing the future strategic needs of Cork Airport, this Special Local Area Plan has divided the Airport Complex into three distinct components, namely Airside, Terminal and Landside.

Airside

2.1.5. The main elements of the airside component are; runways, taxi-ways and aprons, including aircraft parking stands. Runways and their associated taxi-ways provide the physical infrastructure that allow aircraft to arrive and depart from the airport. A taxiway is a defined path within the airside component established for the taxiing of aircraft between runways and aircraft parking stands.

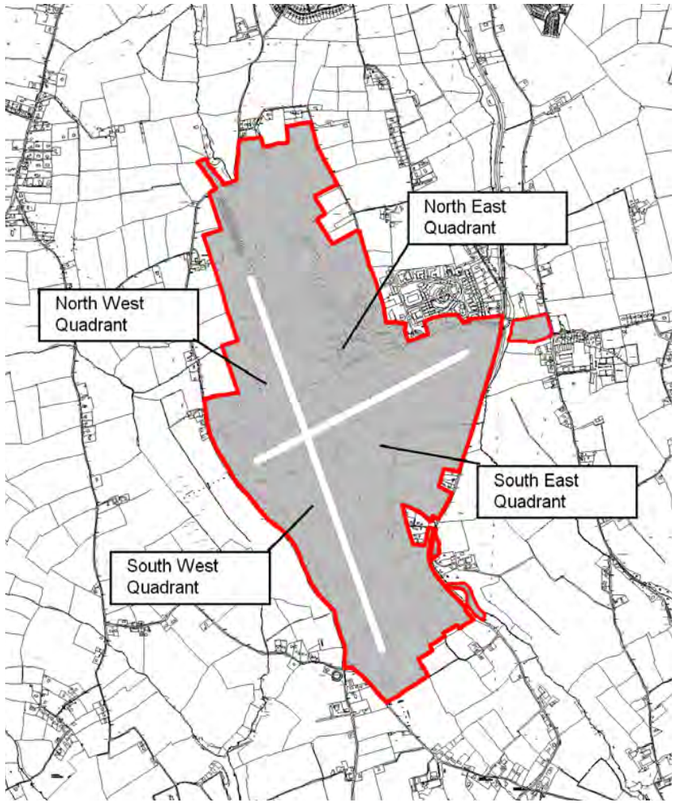


Figure 2.1: Airport Quadrants

2.1.6. In technical terms, the capacity of the runways is based on two sets of regulations. It has been estimated that the hourly capacity of a single runway in Visual Flight Rules (VFR)[1] is somewhere between 50 and 100 operations per hour, while in Instrument Flight Rules (IFR)[2] conditions this capacity is reduced to 50 to 70 operations per hour, depending on the composition of the aircraft mix i.e. light, medium, heavy, the sequencing of arrivals and departures and the navigational aids available. Most commercial flights operate under Instrument Flight Rules.

[1] Visual Flight Rules (VFR): these rules are in effect when visual meteorological conditions (VMC) prevail, i.e. when weather conditions are such that aircraft can maintain safe separation by visual means.
[2] Instrument Flight Rules (IFR): these rules are in effect when instrument meteorological conditions (IMC) prevail, i.e. when the visibility or cloud ceiling (the height of the dominant cloud base) falls below that prescribed under visual meteorological conditions.

2.1.7. Aprons accommodate aircraft for the purposes of loading and unloading passengers, baggage, and cargo, and in addition for aircraft parking, refuelling, and/or maintenance. The apron provides the connection between the terminal building and the runway system. It includes aircraft parking areas, termed ramps, and aircraft circulation and taxiing areas for access to these ramps.

2.1.8. On the ramp, aircraft park in areas designated as stands, which can be either terminal building/pier contact parking stands (commonly served by passenger loading bridges) or remote parking stands (served by passenger shuttle bus operation). Cork Airport currently has 19 operational aircraft parking stands, however only a maximum of 16 stands can be used at any one time. Of these stands only 8 are considered as being contact.

Terminal

2.1.9. The terminal component of an airport complex can be divided into passenger and cargo terminals. The airport passenger terminal is situated between the landside kerb set down/pick up area and the airside apron area. The terminal provides the linkage between the airside and landside components.

2.1.10. The operational area of a terminal building is divided into a series of passenger facilities, including check-in, catering services, security clearance areas, car hire desks etc. The new terminal building at Cork Airport opened in 2006 with a nominal design capacity of just over 3 million passengers per annum and a practical capacity of in excess of 4 million.

2.1.11. Air cargo operations are generally separated from passenger terminals at airports, primarily to reduce the level of congestion on the landside road system. A cargo terminal is linked to the airside component via a dedicated apron area, and to the landside component via access roads. The vast percentage of the consolidation and handling of air cargo can be performed ‘off airport’.

Landside

2.1.12. The landside component of an airport complex provides for the transition between air travel and the various land based modes of transportation. The landside facilities at Cork Airport consist of the following: access/egress road system, car parking for short-term, long-term, car-hire and staff, taxi rank, terminal forecourt and kerbside areas providing set down/pick up for private and rented car, taxi, bus, etc.

2.1.13. A number of differing and distinct user groups are processed by the landside access/egress component of the airport system on a regular basis, with the principal groups being passengers and air cargo users, airport/airline employees working within the airport perimeter, visitors, passenger escorts and airport user suppliers.

2.1.14. The following map illustrates the existing airport layout and configuration.

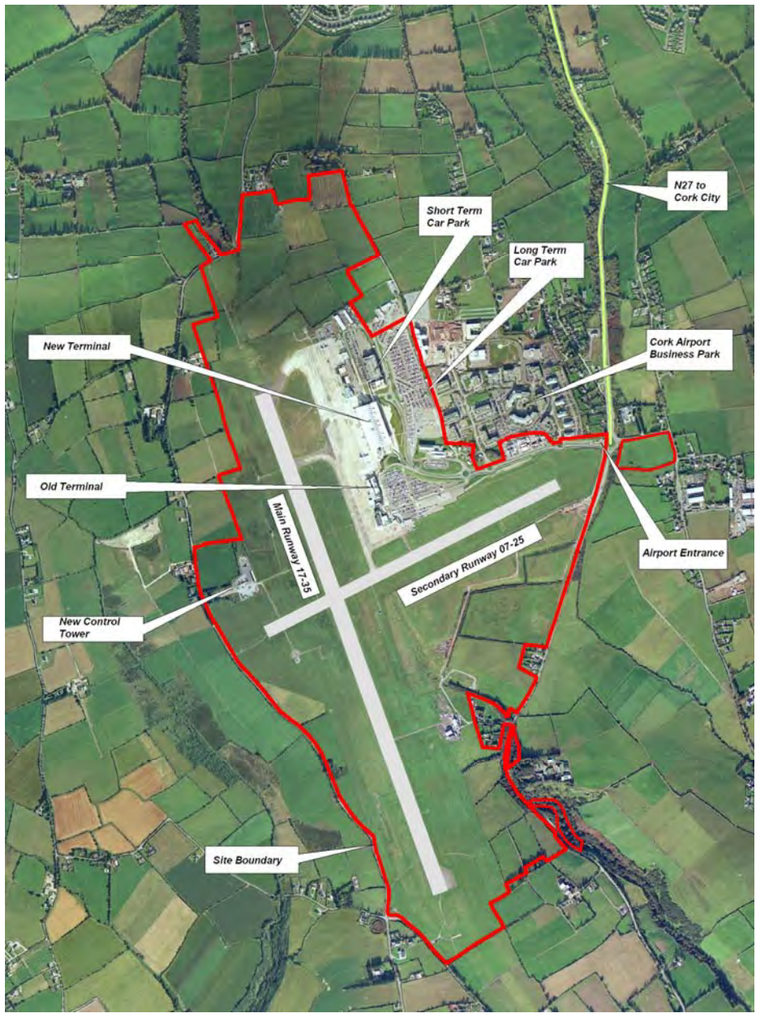


Figure 2.2: Airport Layout

2.2 Development of Cork Airport

2.2.1. In 1957, the government agreed in principle that Cork Airport should be built on a site in Ballygarvan, approximately 5km to the south of Cork City. The airport was officially opened on the 16th of October 1961.

2.2.2. Aer Rianta undertook a passenger terminal study in 1975 aimed at improving the terminal facilities at the airport. The findings of this study resulted in the provision, over the next couple of years, of new departure and arrival halls, check-in areas and various other facilities, to cater for the increase experienced in passenger traffic. The completed extensions and facilities were officially opened in 1978.

2.2.3. An increase in aircraft traffic necessitated the extension of the main apron, which was completed in 1981. By the mid 1980s, continued growth in passenger traffic resulted in Aer Rianta conducting a survey of the passenger terminal with the view to carrying out a major expansion and development programme.

2.2.4. By 1988, Phase 1 of Cork Airport's Terminal expansion and Development Plan was completed, with the main runway extension of 1000 feet formally opened the following year. Phase II of the Terminal expansion and Development Plan was completed in 1990, including an extension to the main ramp. By 1992, Phase III of the Terminal expansion and Development Plan was completed and officially opened. The Terminal expansion and Development Plan for Cork Airport was officially completed in 1994.

2.2.5. Continued growth in Cargo / Freight handling prompted the development of a new Freight Terminal and Freight Ramp which were officially opened in November 1995. By May 1998, two new freight buildings were also completed and further extensions to both main and freight ramps also commenced. In 2001, work commenced on an extension to the northern ramp and the taxiway of Runway 17-35. This year also marked the opening of the Cork Airport Great Southern Hotel at the north-eastern corner of the Airport site.

2.2.6. In 2003, work commenced in Cork Airport on the construction of a new Terminal and multi-storey car-park. The project was finally completed in 2006 and also marked the first year in the Airport's history where over 3 million passengers were catered for. A new air traffic control building was completed in 2009.

2.3 Existing Airport Infrastructure

2.3.1. In this section of the plan, the current existing airport infrastructure is outlined. Most of the existing facilities including the terminal building and main car parking areas are located in the Northeast quadrant.

Terminals

2.3.2. Cork Airport's new terminal building measuring about 28,300 sq. metres opened its doors on August 1, 2006 for arriving passengers and from August 15, 2006 for all passengers. Cork Airport had over 3.2 million passengers pass through its doors in 2007, making it the Republic of Ireland's third busiest airport. The new terminal has 30 check-in desks and 3 incoming and 2 outgoing baggage belts and its design capacity can be expanded to cater for up to 5 million passengers per annum.

2.3.3. Currently, there are three separate cargo warehouses at Cork Airport located north of the new passenger terminal all of which are operated by separate cargo handlers, namely, Servisair, TNT and DHL.

2.3.4. The old terminal building is currently not actively in use. It is not the intention of this plan to restrict the re-opening of the old terminal in the future should it be required.

Runways and Aprons

2.3.5. Currently there are 2 single (cross) runways serving Cork Airport, which are classified as follows:

Principal Runway Runway 17-35: Length - 2,133m, Orientation - North-South, Classification - ICAO Category II[3].

Secondary Runway Runway 07-25: Length - 1,310m, Orientation - East-West, Classification - ICAO Category I[4].

2.3.6. As outlined above, Cork Airport currently has 19 operational aircraft parking stands, however only a maximum of 16 stands can be used at any one time and only 8 are considered as being contact.

Car Parking

2.3.7. A new multi-storey car park with direct access to the terminal building via a covered walkway was completed in 2006. In total there are currently 3,780 long term and 632 short term car parking spaces with an additional 450 parking spaces for staff members. In addition there are also 240 car hire parking spaces.[5] The future provision of both proximate and remote car parking will be an important consideration for the future needs of the airport, given the high dependency on private car travel to and from the airport.

[3] ICAO (International Civil Aviation Organisation) Category II is a precision approach instrument runway served by an Instrument Landing System (ILS) and visual aids intended for aircraft operations with a decision height lower than 60m but not lower than 30m and a runway visual range not less than 350m.

[4] ICAO Category I is a precision approach instrument runway served by an ILS and visual aids intended for aircraft operations with a decision height not lower than 60m and either a visibility not less than 800m or a runway visual range not less than 550m.

[5] These figures are taken from the Cork Airport Future Needs Study Report 2008.

Hotels

2.3.8. The Cork International Airport Hotel and the Radisson Airport Hotel are located to the east of the existing terminal, though only the Radisson is within the airport boundary. The Cork International Airport Hotel opened in 2007 and has 150 rooms while the Radisson Airport Hotel, formerly part of the Great Southern Hotel Chain, has 81 rooms.

Flight School

2.3.9. The existing private flying school facility is currently located in the South East Quadrant. As with the other existing buildings on the airport campus it will be necessary to consider its future development potential and location in line with the overall requirements of the airport itself.

2.4 Drainage/ Utilities/ Energy Issues

Surface Water Drainage

2.4.1. Cork Airport and surrounding lands are drained by three river catchments. The Airport lies on the catchment divide between the Owenboy River catchment, the Tramore River catchment and the Glasheen River catchment.

2.4.2. The Owenboy River rises southwest of the Airport before flowing to Carrigaline to discharge into Cork Harbour. The Liberty stream is a tributary of the Owenboy River. There are two other tributaries of the Owenboy River in the vicinity of the airport which are referred to as the eastern and western tributary. It is noted that the Owenboy River is an important sea trout river and also has populations of salmon and brown trout.

2.4.3. The Tramore River rises to the north of the Airport and flows through the outskirts of Cork City before discharging into the Douglas River and Lough Mahon. The Corcoran's bridge stream is the headwater for the Tramore River. A tributary of the Tramore River rises to the north-east of the Airport.

2.4.4. The Glasheen River rises in the west of the Airport and flows northwards through the outskirts of Cork City before discharging into the River Lee at Glasheen. The Two Pot Stream is a tributary of the Glasheen River.

2.4.5. Storm water and surface water run-off from the Airport is discharged into a network of drains/storm water outfalls around the site. Storm water from the adjacent business park also discharges into this network. The impact of the new terminal development was to change the previous storm and surface water drainage system to a system which directs all storm water and surface water run-off generated by paved areas in the development area to a pipe under the Kinsale Road. The pipe discharges into the channel at the base of the Liberty Stream approximately 150 m from the confluence with the Owenboy River.

2.4.6. There is currently limited control of potential contaminants to the watercourses as there is no facility at the airport to contain / separate pollutants in the surface water runoff from airside pavements.

2.4.7. Development at the airport will have potential to affect surface water/ run-off quantity and quality in a number of ways, for example;

- Increased run-off from increased paved areas such as new aprons, runway extension, parking stands and taxi-ways.
- Expansion of built footprint of the airport in the form of terminal expansion, new cargo facilities and aircraft maintenance hangar.
- Expansion of fuel storage and handling areas.
- Intensification of usage of de-icing agents on paved areas and aircraft. Glycol and urea are typically used for de-icing purposes.
- Increased potential for spills or leaks from aviation fuel or other contaminants.

2.4.8. These increases in paved areas will need to be attenuated to prevent down-stream flooding and any additional development needs to incorporate appropriate attenuation measures. It will be a requirement of future development that a stormwater management system following the principles of Sustainable Urban Drainage be developed and implemented. This will include the need for on-going monitoring of attenuation areas and storm water retention facilities.

2.4.9. It will also be a requirement that appropriate measures are identified to prevent spillage or leakage from fuel storage and re-fuelling areas and that a programme for the treatment of contaminated surface water from de-icing agents, aviation fuel and other contaminants be implemented.

2.4.10. Any programme or measures developed will be required to consider the impacts on groundwater also.

Water Supply

2.4.11. The current airport demand is met from Cork County Councils public water supply which is fed through a series of reservoirs on the eastern side of the site and originating in Inniscarra.

2.4.12. The airport lands are presently supplied directly from Curraghconway Reservoir which is fed by the Mount Elma Reservoir and Carra Hill reservoir. There is limited storage capacity at Mount Elma which is restricted to a maximum of one day storage of 50,000 gallons (approx. 227 cubic metres) of water. However, there is ample storage capacity and supply available from Carra Hill which can store up to 2m gallons (approx. 10,000 cubic metres) to serve the airport lands and surrounding lands.

2.4.13. Historically, there was only one metre bill from the airport lands and the adjoining business park. The system was upgraded in the recent past with the airport and the individual businesses in the airport business park currently served by individual metering systems.

2.4.14. As part of the development for the airport terminal the required water was deemed to be capable of being supplied from the existing water supply systems as a new water main was laid to the airport gate to serve the future requirements of the airport and ancillary services at that time. Cork County Council intends to upgrade and increase the capacity of the Mount Elma reservoir to cater for the future need of the airport and the surrounding population centres.

2.4.15. Further investigation will be required by Cork County Council at individual planning application stage in order to determine whether or not this supply is capable of supporting the size and scale of any future development in the area.

2.4.16. Internal water conservation will be promoted within the Airport site.

Foul Drainage

2.4.17. There is a foul drainage agreement in place between Cork Airport and Cork County Council. This sewer, with a 9 inch diameter pipe, is presently servicing airport lands and the adjoining business park.

2.4.18. The sewer network drains to the north-western corner of the airport site and then to Corcoran's Bridge with connection into the Tramore Valley Sewer. It will be necessary to upgrade the existing foul sewer network to cater for future development.

Electricity

2.4.19. Significant investment has been made to improve the electricity infrastructure in Cork City over recent years, including the networks feeding Cork Airport.

2.4.20. A second 20MVA transformer has been installed at the ESB 110 kv / MV station at Trabeg and two strong 10kv cables run directly from this station to feed Cork Airport and the surrounding businesses. A third 10kv cable feeds a number of business and industrial parks in the Grange/Togher area and also links into the cables at Cork Airport.

2.4.21. The network improvements already carried out will serve existing customers and also cater for a level of anticipated future growth. The intensification and future development of operations at the

airport is not likely to increase demands for airside electricity to a point where it would be likely to have significant impact on the local supply network. New High Voltage electrical infrastructure, including high voltage transformer stations and new overhead transmission power lines may be required for reinforcement of the transmission network, related to growing electricity demand from existing customers, as well as connection of new generation and large demand customers.

2.4.22. ESB networks (a separate business unit with the ESB Group which serves all electricity customers in the Republic of Ireland) also has a site at Ballyduhig, south-east of Cork Airport, which could be developed should significant load be developed in the area in the short/medium term.

Telecommunications

2.4.23. Cork Airport's extensive IT network infrastructure and structured cabling system comprises a wide range of fibre-optic and copper cabling linking all of the Cork Airport buildings. The Airport also has antennae providing wireless connectivity covering the Airport's data, voice and video requirements. There is one main network provider providing the bulk of the services to the airport, with two other Wireless providers. Both copper and fibre-optic connectivity are provided from the Quaker road and Ballygarvan exchanges.

2.4.24. A fibre optic cable was laid to the Airport Business Park as part of the roll-out of high-speed, open access broadband under Phase 1 of the Metropolitan Area Networks (MANs) programme from the Department of Communications, Marine and Natural Resources. The Airport Authority are currently working on expanding the MANs 1 network to provide fibre-optic connectivity to the Airport campus, which will potentially increase the number of telecoms providers.

2.4.25. There is a need to continue to replace, upgrade, and develop assisting systems to cope with the future expansion of the Airport and the projected increase in passenger numbers.

Waste Management

2.4.26. The increase in passenger numbers forecast will require an appropriate response to effectively minimise and manage waste generated on site.

Summary

2.4.27. The intensification of aircraft movements to cater for the likely increase in passenger throughput will result in increased volumes of waste and waste water and of water supply and energy requirements throughout the airport's complex. These increases will need continuous evaluation into the future as part of continued environmental assessment or forming a part of any EIA carried out within the airport complex. It shall be necessary to follow good planning practice in the planning, design and implementation of projects so as to prevent wide–ranging constraints on development.

Surface Water Drainage & Waste Management	
Objective No.	**Specific Objective**
DRU 2-1	It is an objective that all new development within the Special Local Area Plan boundary incorporate Sustainable Urban Drainage Systems (SUDs) and is consistent with a comprehensive Surface Water Management Plan for the site, that is subject to approval by the County Council. The Surface Water Management Plan shall: a) Include proposals for the protection of both surface and groundwater through the development and implementation of a water quality management plan for all the Airport lands; b) incorporate appropriate on-site attenuation measures; c) include proposals to intercept and collect, for separate treatment and disposal, run-off contaminated with de-icing chemicals, aviation fuels and other contaminants; d) make provision for a surface water quality monitoring system and on-going monitoring of attenuation areas and storm water retention facilities; e) identify measures to prevent spillage or leakage from fuel storage and re-fuelling areas; f) incorporate a pollution contingency plan; g) consider the impacts on groundwater, and in particular on existing well water supplies that may be directly or indirectly impacted by Airport operations; and h) consider potential flooding impacts.
DRU 2-2	It is an objective of this Plan to require the submission of a Waste Management Plan for the Airport as part of any application for terminal expansion, that promotes recycling and includes measures for the minimisation of waste.

2.5 Heritage Issues

Natural Heritage

2.5.1. While there are no formally designated areas (of European or National significance) in the immediate vicinity of the plan area, in 2007 Cork County Council commissioned a habitat survey of the Carrigaline Electoral Area. An excerpt from the map generated by this study is presented in Figure 2.3. This figure shows the principle habitats within and adjacent to the plan area including dry meadows and grassy verges (yellow) around the runway and taxiways, improved agricultural grassland extending over much of the area (green), scrub to the south of east-west runway 07-25 (hatched green) and exposed land (hatched red) located near the buildings and other artificial surfaces.

2.5.2. The main areas of biodiversity value identified in the vicinity of the airport are two areas of (mixed) broadleaved woodland to the east and south east of the airport. The mixed broadleaved woodland to the east of the airport was identified to be locally important supporting sycamore, ash, hawthorn, alder and some oak. There is a well developed herb flora which includes species such as bramble, wood violet, hartstongue fern, herb robert and wood avens.

2.5.3. The woodland to the south-east of the site functions as an ecological corridor and was deemed to be of high local value. It consists of a steep wooded valley running northwest to southwest with a fast flowing stream. Gorse and bracken occur on the higher slopes. The woodland supports alder, sycamore and willow.

2.5.4. To the west of the airport is an area of wet grassland identified to be of local moderate value, supporting a range of species including compact rush, Yorkshire fog, timothy, creeping buttercup, common birds-foot trefoil and willowherbs.

2.5.5. Another area of woodland to the northeast of the airport was identified as an ecological corridor and was identified to be of high local value, functioning as a buffer to the stream running through the valley. This is a broadleaved woodland supporting sycamore, ash, hazel and alder with some recent planting of conifers (species not identified). The eastern side of the valley has been recently planted and it appears that the western side of the valley may have been cleared in the past but is re-colonising with gorse, bracken and bent grasses.

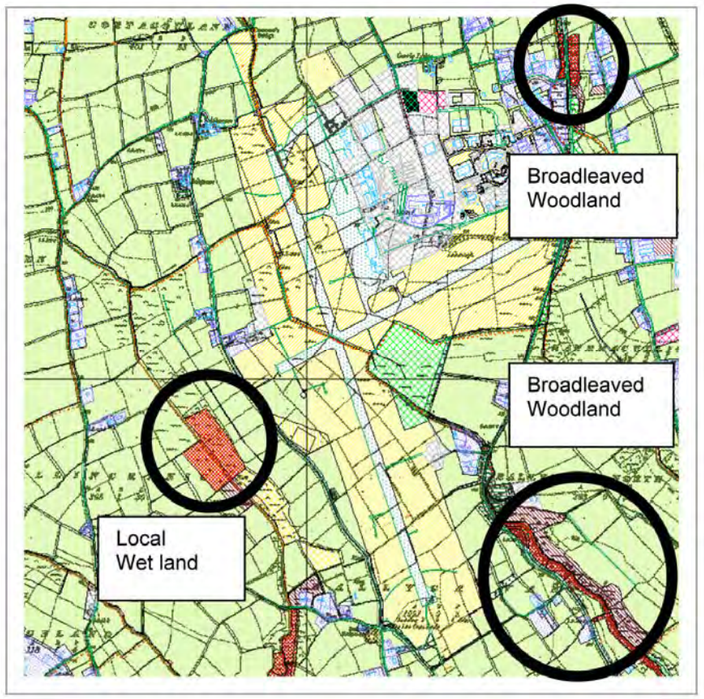


Figure 2.3: Extract from Carrigaline Electoral Area habitats map

Built Heritage

2.5.6. There are no buildings on the Record of Protected Structures in the vicinity of the airport nor are there any Architectural Conservation Areas (ACAs).

Archaeological Heritage

2.5.7. There are 24 archaeological sites within 2km of the development boundary of the Airport; all are Recorded Monuments which are subject to statutory protection in the Record of Monuments and Places, established under section 12 of the National Monuments (Amendment) Act 1994. These range in date from prehistoric to medieval times. The predominant monuments are Early Christian ringforts with a number of medieval churches which indicate a significant presence in the area in Medieval/ early medieval times.

2.5.8. There are three archaeological sites close to the airports lands;

1. The Recorded Monument CO086-03701 / CO086-03702 Ringfort/ Souterrain is located directly west of the airport development boundary to the south-western corner of the site and directly west of Lios Cross Roads.

2. Recorded Monument CO086 – 099 Late 18th /early 19th Century Dwelling is located directly north of the northern perimeter of the airports development boundary.

3. Recorded Monument CO086 – 009 circular enclosure (possible ringfort) is located north of the northern site boundary and within 1000m of the airports lands.

2.5.9. The remaining monuments are over 1000m away from the airport development boundary.

2.5.10. It is unlikely that the proposed extension of the development boundary and the potential expansion within these lands would be of detriment to the Recorded Monuments. However, any potential subsurface archaeology within the site and all archaeological sites and their setting shall be protected in line with the objectives for the protection of archaeological heritage listed in the Cork County Development Plan 2009.

2.6 Relationship to the Surrounding Area

2.6.1. The urban fringe of Cork lies approximately 2kms to the north of the airport. The majority of the nearest urban fringe land uses are light industrial/ commercial. The South Environs refers to the southern suburbs of Cork City, which lie outside the City Council area and includes areas such as Doughcloyne, Togher, Frankfield, Grange, Donnybrook, Douglas, Maryborough and Rochestown. The village of Ballygarvan to the south-east of the airport lands, Grange and Frankfield to the north-east and the Doughcloyne area to the north-west are the main population centres in closest proximity to the airport.

2.6.2. To the immediate east of the airport complex is the Airport Business Park, the first phase of which was developed in 1998. Developed as a joint venture between Cork Airport, Bank of Scotland (Ireland) and Michael McNamara & Co., the Business Park contains a number of international companies such as Pzifer, Bank of New York and Citco, with approximately 3,000 people employed in the Business Park. The Business Park also contains the Cork International Airport Hotel.

2.6.3. The Cork Area Strategic Plan (CASP) Update acknowledges the importance of the area immediately adjacent to the airport as a key location for employment uses that would depend upon the proximity of the Airport for their viability. In addition, CASP Update outlines a number of key priority transportation improvements (including public transport improvements) required for the optimum expansion of the airport itself and also for its role as a key employment centre. One of these improvements is a future rapid transit corridor linking the airport with the City Centre.

2.6.4. Due to its proximity to the Tramore Road, this area is considered to be an important economic corridor (both north and south of the South Link Road), which is identified as a centre for additional population and employment potential straddling both the city and county. This concept will be secured by changes in the existing types of employment and increased employment densities, as befits a location so close to the City Centre, with ease of access to the established Black Ash Park & Ride and the Airport itself.

2.6.5. There are two sports clubs to the north of the airport, namely Redmond's GAA Club and Everton Football Club.

Section 3
Future Airport Needs & Strategic Planning Issues

3.1 Introduction

3.1.1. This section sets out the projected strategic aviation and operational needs for the long-term growth and development of Cork Airport for a 30+ year horizon period to 2040 and outlines the main strategic planning issues facing the airport.

3.1.2. The role of this Special Local Area Plan is to facilitate the development of Cork Airport based on its future operational needs.

3.2 Future Growth Projections

3.2.1. In order to ensure that an appropriate amount of land in the vicinity of the airport is protected to ensure its long term growth, it is necessary to establish the airports infrastructural requirements and consequent land requirements, based on likely growth in passengers and cargo.

3.2.2. Comprehensive forecasting was carried out in advance of the preparation of this SLAP in the Cork Airport Future Needs Study, which projected annual growth in both passenger and commercial aircraft movements, together with annual cargo tonnage throughput increases. The growth scenario outlined was based on three strategic phases of development being short-term, medium-term and long-term, with 2040 as the horizon year. While a time line was included for indicative purposes, the infrastructure required in each phase is directly linked to passenger numbers and cargo throughput.

3.2.3. One of the principle drivers of passenger traffic is trends in both domestic GDP and the GDP of Ireland's major trading partners. As a general trend passenger growth tends to be in the order of 1.5 times GDP when viewed in terms of a long term trend. However, passenger growth is cyclical in nature and while a long term perspective considers long term average growth rates there can be huge differences year on year. For example, the growth rate in the 13 years, 1995 - 2008 has averaged out at 9.8% per annum, but within that same period growth of 21.1% was recorded in one year (2005) and there has been a fluctuation of as much as 17.8% between years (2004-2005).

3.2.4. The average annual growth rate since 1961 is 13.06%; however, figures in recent years indicate that there is an overall slowing trend in growth rates.

Passenger Growth

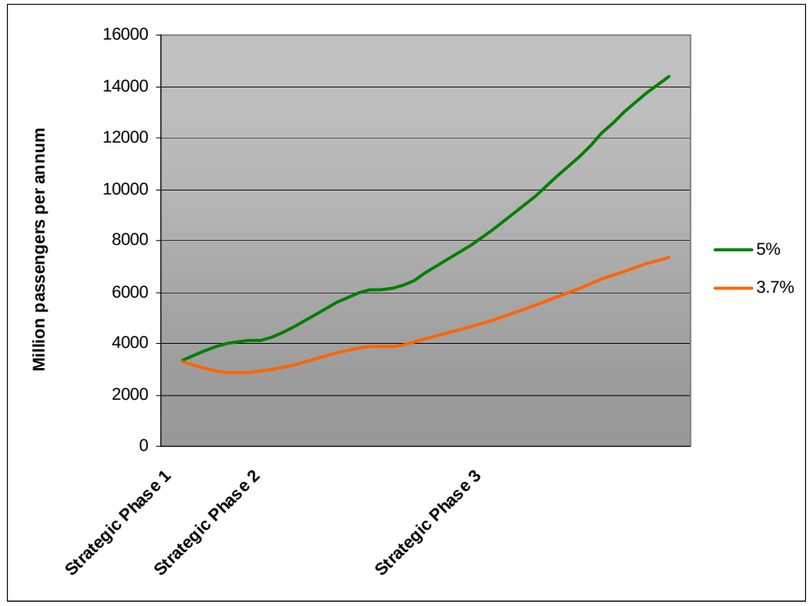
3.2.5. The total annual terminal passenger[1] throughput at Cork Airport has increased significantly from 1995 to 2008 from approximately 971,319 to 3,258,371, representing an annual percentage growth of almost 10% and an overall increase of more than 330%. In recent years, significant investment has taken place in airport infrastructure, particularly passenger service facilities such as the construction of a new passenger terminal building to cater for passenger growth, which opened for operation in 2006 and which is designed to cater for just over 3 million passengers per annum (mppa). This design capacity can be expanded to cater for up to 5mppa.

3.2.6. The strategic growth phases identified in the Future Needs Study, based on an average annual growth rate of 5%, identifies passenger throughput rates of 4 mppa and 6mppa as the trigger points for the medium and long term strategic phases, respectively and a total passenger figure for 2040 of 15.8mppa and 152,537 commercial aircraft movements.

3.2.7. Given the current economic circumstances, Cork Airport, in the summer of 2009, revised their forecast passenger demand, based on a lower annual average growth rate of 3.7%. Furthermore, the fall in passenger numbers in 2008, and the very modest growth in the immediate term, results in forecast demand pushing off a substantially lower passenger number. The compound effect of this lower push off point and lower average annual growth rate is to substantially reduce the passenger number in the horizon year of 2040 to 7.8mppa.

3.2.8. While the end figures in the two growth scenarios outlined are considerably different, the trigger points for the strategic phases of development of 4mppa and 6 mppa remain fixed and these thresholds are reached in both growth scenarios. The identified operational requirements for each strategic phase remain unchanged, although the timing of the provision of this infrastructure becomes more flexible.

3.2.9. A look at historic growth rates in Cork Airport since it began operating in 1961 shows an average annual growth rate of 13.06% up to 2008. Therefore, while the 5% growth rate scenario may appear overly optimistic in current economic conditions, taking a long term perspective, this growth scenario is a more appropriate forecast for the purposes of this plan, allowing for the flexibility required in the timing of the provision of infrastructure in each strategic phase but reserving sufficient suitable lands contiguous to the airport to allow for its expansion and development in the long term.



Graph 3.1: Future Growth Scenarios

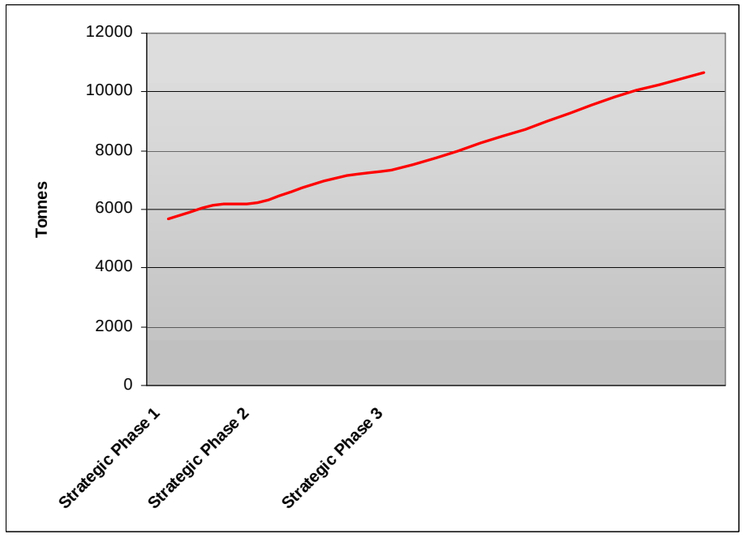
Cargo Growth

3.2.10. The throughput of cargo tonnage at Cork Airport has fluctuated quite significantly in the past. In 2007 cargo throughput was 5,546 tonnes, down 22.9% on the previous year. Forecasting studies project an increase in cargo tonnage throughput to approximately 7,174 tonnes by 2020 and a further increase to approx 10,660 tonnes by 2040, based on an average growth rate of 2% per annum.

3.2.11. Currently, there are three separate cargo warehouses at Cork Airport located north of the new passenger terminal, which are operated by three separate cargo handlers, namely, Servisair, TNT and DHL.

3.2.12. Air cargo operations are generally separated from passenger terminals at airports, primarily to reduce the level of congestion on the landside road system. The cargo terminal is linked to the airside component via a dedicated apron area, and to the landside component via access roads. The vast percentage of the consolidation and handling of air cargo can be performed 'off airport'. The current cargo operation is characterised as a collection of warehouses each with their own activity controlled by a different operator.

[1] Terminal passenger throughput will generally be slightly less than total passenger throughput as transit passengers, i.e. passenger who remain on arriving aircraft for a subsequent departure, are excluded as these passengers do not enter or use terminal facilities.



Graph 3.2: Future Cargo Growth

3.3 Aviation and Operational Infrastructure requirements

3.3.1. The land supply adjoining Cork Airport is not an infinite resource. Therefore, it is important both for the airport and for efficiency of land use that adequate protection is given to suitable lands contiguous to the airport boundary required for aviation and airport operational uses and a long-term strategic vision is established for the future development of the Airport Area.

3.3.2. The aim of this plan is to promote efficiency in operations providing sufficient space for all anticipated operational uses up to the 2040 horizon year, preventing the uneconomical spread of airport related activities, and maximising the opportunities for public transport.

3.3.3. It is acknowledged that some of these activities are very closely linked to the terminal gate or to each other, whilst others have more flexibility regarding their location. Some of these activities / facilities can only really expand in situ, while some require completely new provision and others can move elsewhere relatively easily.

3.3.4. The following table contains a summary of the indicative aviation and operational requirements of Cork Airport, based on three strategic phases of development aligned with growth in passenger numbers and cargo throughput. For the purpose of clarity, any aviation or operational infrastructure requirements outlined in this Plan provide an estimate of projected requirements, and no figures or infrastructure provision should be taken as absolute or exhaustive.

3.3.5. This may result in infrastructure being provided either before or after the three strategic phases identified in Table 3.1. This provides for flexibility in the manner in which the Airport Authority may respond to aviation or operational infrastructural requirements. All proposals for development will be assessed in the context of the land use policies outlined in Section 5 of this Plan.

Table 3.1: Indicative Infrastructural Requirements of Cork Airport to 2040

Strategic Phase	Total Annual Pax ('000)	Aviation and Operational Requirements
1	Current to 4,005	**<u>Airside</u>** 1. Contact Aircraft Parking Stands & associated Apron (NE Quadrant). 2. Remote Aircraft Parking Stands & associated Apron (SE Quadrant). 3. Passenger Bussing Facility between remote stands & passenger terminal. 4. Extension of parallel taxiway (Runway 17-35) into SE Quadrant. 5. Undertaking of detailed feasibility study on extension of runway 17-35. 6. Relocation of private flying school & ancillary aviation facilities from SE to SW Quadrant. 7. Development of common-user aircraft maintenance facility (SE Quadrant). **<u>Terminal</u>** 1. Extension to passenger terminal. 2. Development of separate cargo handling facility (SE Quadrant). **<u>Landside</u>** 1. Additional long-term car-parking spaces. 2. Additional car-hire parking spaces in NE Quadrant. Centralisation of car-hire activities. 3. Additional staff car parking spaces in NE Quadrant. 4. Provision of integrated public transport system. 5. Provision of secure access point to SE Quadrant.
2	4,216 to 5,976	**<u>Airside</u>** 1. Contact Aircraft Parking Stands & associated Apron (NE Quadrant). 2. Remote Aircraft Parking Stands & associated Apron (SE Quadrant). 3. Extension of main runway 17-35. 4. Relocation of Fire Station from NE to NW Quadrant. 5. Further general aviation facilities (SW Quadrant). 6. Further maintenance facilities (SE Quadrant). **<u>Terminal</u>** 1. Further extension to passenger terminal building. 2. Further development of cargo handling facility (SE Quadrant). **<u>Landside</u>** 1. Additional short / long term car-parking in NE Quadrant. 2. Additional car-hire parking spaces in NE Quadrant. 3. Additional staff car parking spaces in NE Quadrant. 4. Provision of secondary access through NE Quadrant. 5. Improvements to the existing bus services. 6. Improve accessibility.
3	6,274 to 15,855	**<u>Airside</u>** 1. Additional contact aircraft parking stands & associated apron (NE Quadrant). 2. Additional remote aircraft parking stands & associated Apron (SE Quadrant). 3. Further general aviation facilities (SW Quadrant). 4. Further development of maintenance facilities (SE Quadrant). **<u>Terminal</u>** 1. Further extension to passenger terminal building. 2. Further development of cargo handling facility (SE Quadrant). **<u>Landside</u>**

Table 3.1: Indicative Infrastructural Requirements of Cork Airport to 2040		
Strategic Phase	**Total Annual Pax ('000)**	**Aviation and Operational Requirements**
		1. Additional short / long term car-parking in NE Quadrant. 2. Additional car-hire parking spaces in NE Quadrant. 3. Additional staff car parking spaces in NE Quadrant. 4. Improvements to road infrastructure. 5. On-going development of an integrated public transport system between the Airport and the City. 6. Improve Accessibility.

3.4 Aircraft Noise

3.4.1. The future growth of aviation related activity and associated aircraft movements within the airport boundary are not limited by the existing national or local planning framework and this anticipated future growth has the potential to change the ground noise regime within Cork Airport. The number of aircraft movements is driven by national and international demand.

3.4.2. At the present time, Cork Airport has established three noise contours associated with aircraft operations at Cork Airport, namely, 57dB, 66dB and 72dB contours. These existing noise contours for Cork Airport are illustrated in Map2 in the Appendix of this plan.

3.4.3. The noise environment and contours around the airport are likely to change as a result of future growth and development. Increased operations, changes in aircraft type and mix, changes in the associated operations such as maintenance and construction activity during implementation of developments will all contribute to increased noise.

3.4.4. There is no regular noise monitoring programme currently in place at the airport, although the airport does carry out ad hoc noise monitoring.

3.4.5. The Environmental Noise Regulations 2006 transpose the EU Environmental Noise Directive into National Law. These require the preparation of a Strategic Noise Map and an Action Plan for airports where the number of aircraft movements exceeds 50,000 per annum. In 2008 there were 36,800 aircraft movements at Cork Airport and latest forecast demand suggest it is unlikely that the aircraft movements will exceed the 50,000 threshold in the current statutory lifetime of this Local Area Plan.

3.4.6. At present, noise is not a significant issue at Cork Airport, largely because established planning policies have kept the approaches to the airport free from development. Notwithstanding this, it is considered appropriate that a noise monitoring programme be established, requiring the periodic monitoring of aircraft noise and airport operations in relation to recognised noise criteria.

3.4.7. The anticipated future growth in aviation related activity and the proposed extension to the main runway will necessitate a review of the established noise contours. Once noise monitoring has been carried out, it will be necessary to develop appropriate policies in response.

Objective No.	**Specific Objective**
FAN 3-1	It is an objective of this plan to require the carrying out of quarterly aircraft and airport operations noise monitoring in relation to recognised noise criteria, precise details of which shall be agreed with the Council's Environment Section. The results of this monitoring shall be submitted to the Council's Environment Section annually.
FAN 3-2	Having considered the results of noise monitoring, it is an objective to promote appropriate controls on future development in the vicinity of the airport, if necessary through the amendment of this plan.

3.5 Air Quality

3.5.1. Air quality is generally good in County Cork as it is located in an area with a relatively mild climate and has an almost continuous movement of clean air. In order to protect human health, vegetation and ecosystems, EU Directives set down air quality standards in Ireland and the other Member States for a wide variety of pollutants. The principles to this European approach are set out under the Air Quality Framework Directive 1996 as transposed into Irish law under the Environmental Protection Agency Act 1992 (Ambient Air Quality Assessment and Management) Regulations 1999 (SI No. 33 of 1999). Four related Directives lay down limits or thresholds for specific pollutants. The first two of these directives cover sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter and lead; and carbon monoxide and benzene.

3.5.2. Air quality monitoring and assessments are undertaken at two locations within the administrative area of Cork County Council: Glashaboy and Cork Harbour. Recent air quality monitoring reports published by the EPA indicate that the air quality is good in these two locations.

3.5.3. The air quality aspect of the airside operations at Cork Airport have previously been assessed through a combination of a review of measured data and modelling of the dispersion of aircraft emissions. An air quality survey commissioned by Cork Airport in 2006 determined that concentrations of common pollutants in the vicinity of the airport were within air quality standards. The conclusion from the latest environmental assessment carried out at Cork Airport is that the air quality at residential locations in the vicinity of the airport is comfortably within current air quality standards and that future intensification of operations is unlikely to have a significant impact. The most likely scenario for the evolution of future air quality is that the effect of the increased aircraft movements will be offset by reductions in jet engine pollutant emissions. This would mean that air quality will remain essentially unchanged in the locality.

3.5.4. Growth in passenger numbers will similarly give rise to increased motor vehicle emissions but the plan sets out a strategy to achieve significantly increased use of public transport and other sustainable modes and this will help off set any rise in motor vehicle emissions. In addition, better passenger facilities at Cork airport will reduce any tendency towards increased passenger transport (either surface or air) to Dublin or Shannon Airports.

3.5.5. While air quality is not an issue at present, given the significant levels of growth forecast for the Airport, and the lack of on-going monitoring data, it is considered appropriate that an air quality monitoring programme be established.

Objective No.	**Specific Objective**
FAN 3-3	It is an objective of this plan to require the carrying out of quarterly monitoring of ambient air quality at the Airport and air borne emissions, against criteria to be agreed with the Council's Environment Section. The results of this monitoring shall be submitted to the Council's Environment Section annually.

3.6 Public Safety Designations

3.6.1. The nature of airports is such that there is a need to provide for adequate public safety areas in their vicinity. These public safety areas are to help protect the public from the small, but real, possibility of an air accident in a populated area, mainly by preventing inappropriate uses of land where the risk is the greatest.

Red Zones

3.6.2. The public safety regime at Cork Airport is based on the establishment of Red Zones. In 1979, the (then) Department of Transport and Power designated areas in the vicinity of Cork Airport to be subject to building restrictions for the purposes of, firstly, providing an obstacle clear surface to aid safe navigation of aircraft and secondly, protecting people on the ground. These areas are variously referred to as Red Zones, Safety Zones or Protection Zones and are detailed for Cork Airport in Map 3 in the appendix of this Plan.

3.6.3. Planning applications in the vicinity of these zones are referred to the Irish Aviation Authority (IAA) by Cork County Council's Planning Department to seek their observations as part of the statutory planning process under Section 28 of the Planning and Development Regulations, 2001. In preparing observations the IAA will, among other considerations, have regard to the proposed development's height and proximity to these zones.

3.6.4. The provision of the airport Red Zones has restricted development on adjoining lands, which might otherwise have occurred, and consequently these lands have remained primarily in agricultural / Greenbelt land use.

Public Safety Zones

3.6.5. Public Safety Zones (PSZs) for Cork Airport were proposed in a 2005 report commissioned by the Department of Transport and the Department of the Environment, Heritage and Local Government, prepared by ERM.

3.6.6. This report represents a very detailed and up-to-date assessment of the risks to the public due to aircraft accidents. The report proposes two PSZs (Inner and Outer Public Safety Zones) for Cork Airport and puts forward recommendations for existing and future development within these zones.

3.6.7. These Inner and Outer Public Safety Zones for Cork Airport are detailed in Map 3. in the appendix of the Plan.

3.6.8. The Department of the Environment, Heritage and Local Government are currently in the process of preparing Draft Guidelines for Planning Authorities to implement the Public Safety Zones, which will be subject to a period of public consultation before being finalised.

3.6.9. After the final guidelines are published, planning authorities will be bound, under Section 28 of the Planning and Development Regulations, 2001, to have regard to the guidelines when determining any planning applications that might interfere with the safety and/or efficiency of aircraft navigation.

3.6.10. When adopted, these Public Safety Zones will help protect the public, whilst the red zones will continue to aid safe navigation of aircraft. It is the policy of this Special Local Area Plan to implement the policies to be determined by Government in relation to Public Safety Zones for Cork Airport. Cork County Council will also continue to take advice from the Irish Aviation Authority on the implications that proposals might have for safe and efficient aircraft movement.

Objective No.	**Specific Objective**
FAN 3-4	It is an objective to promote appropriate land uses in the vicinity of the airport in a sustainable manner, having regard to the environmental and public safety impacts of aircraft movements, and the recommendations of the Irish Aviation Authority.
FAN 3-5	It is an objective of this Special Local Area Plan to implement in a sustainable manner, the policies to be determined by Government in relation to Public Safety Zones for Cork Airport.

3.7 Extension of Runway 17-35

3.7.1. It has been a long standing objective of Cork Airport to commence the operation of long haul and transatlantic flights, increasing the sectors served from Cork and enhancing the airport's competitive position and the realisation of this objective necessitates an extension to the main runway 17-35. IDA Ireland have emphasised the importance of the availability of long haul and transatlantic destinations from Cork to attracting Foreign Direct Investment and equally the potential benefit to the tourism industry in the South-West Region has been cited by Fáilte Ireland, amongst others.

3.7.2. As discussed in Section 1, a study on the impacts of the extension of runway 17-35 was undertaken in 2009 to bring more certainty to the location and extent of the proposed runway extension. Having examined the options available this study concludes that an extension to the northern end (runway 17 end) of 247m is the preferred option, having assessed a range of impacts including impacts on the local community, land fill requirements and runway navigational aids.

3.7.3. In order to accommodate the runway extension, there is a need for relatively minor alterations to the airport boundary primarily to accommodate a new Runway End Safety Area (RESA) and a parallel taxiway.

3.7.4. Although it is proposed to extend runway 17-35 by 247m at its northern end, it is not intended to relocate the theoretical touchdown point (i.e. the touchdown point to which the instrument landing system, or ILS, directs approaching aircraft). As a consequence, it will not be necessary to change the flight paths for approaching or departing aircraft and therefore the Public Safety Zones (PSZ's) proposed in the ERM report are not expected to require any modification. Cork Airport have confirmed that any runway extension would primarily facilitate increased take-off capacity and allow the airport to serve farther long haul destinations. It is envisaged that the current landing distance would be acceptable and that the current threshold locations could remain (subject to full operational study). The proposed Public Safety Zones would therefore be unchanged. (If the current Red Zones remain in operation then these will move in line with the runway extension as these are located relative to the runway ends).

3.7.5. In order to progress this proposal to construction stage, detailed topographical and geophysical surveys, noise analysis and other modelling studies would need to be carried out. Given the lead time in the provision of this key piece of airport infrastructure, commencement of the process for its provision has been identified in the first strategic phase of development as outlined earlier.

Objective No.	**Specific Objective – Runway Extension**
FAN 3-6	It is an objective of this plan to safeguard the lands necessary to provide in a sustainable manner for an extension to the northern end (17 end) of main runway 17-35 to facilitate long haul and transatlantic flights.

Section 4
Transportation

4.1 Introduction

4.1.1. This section sets out the existing transportation situation at Cork Airport and puts forward a surface access strategy including improvements to the existing infrastructure and network as well as mobility management and public transport measures to cater for the growth in passenger and cargo numbers to 2040. The first section provides an overview of the transportation related issues that currently face Cork Airport. This section is informed by the Cork Airport Surface Access Plan which was commissioned by Cork County Council and undertaken by Faber Maunsell and in turn, this study then informed the recommendations and future requirements of the Cork Airport Future Needs Study.

4.1.2. The measures posited in this section should be developed in three strategic phases linked to the continued future growth and development of the airport. Aligned with this, it is a key objective that high quality surface access is provided within the airport to ensure convenience and safety for all airport users. Fundamentally, a central tenet of the surface access strategy going forward will be implementation of measures to achieve a shift away from private car use to public transport modes in line with the vision set out in the DoEHLG publication "Smarter Travel".

4.2 Existing Situation: Roads

Existing Road Network (External)

4.2.1. The existing National and Non-National road network serving the Airport consists of the following:

National Route N27 Route (Cork City to Airport)

4.2.2. This national primary route is the main approach to the airport from Cork City and runs in a North-South direction to the east of the Airport Lands. This road connecting the Airport to Cork City climbs from the Kinsale Road Interchange to the Airport Road Roundabout (the main entrance to the airport) via 2 signalised junctions: the junction between the N27 and the Frankfield Road (to Grange Road); and the junction between the N27, Ballycurreen Road (Grange Road) and Forge Hill. The road is approximately 3-4 km in length and its width varies along its length. It predominantly consists of two lanes (single lane plus climbing lane) travelling southbound towards the airport and a single lane travelling northbound towards Cork City. There is also a short bus lane on the northbound section beginning after the Forge Hill junction and finishing just before the Kinsale road interchange.

4.2.3. According to recent traffic counts taken on this stretch of road the AADT[1] vehicle per day is 11,410 on the approach to the Airport Road Roundabout from Cork and 11,054 on the approach to Cork from the Airport Road Roundabout giving a total AADT (two-way) of about 22,500.

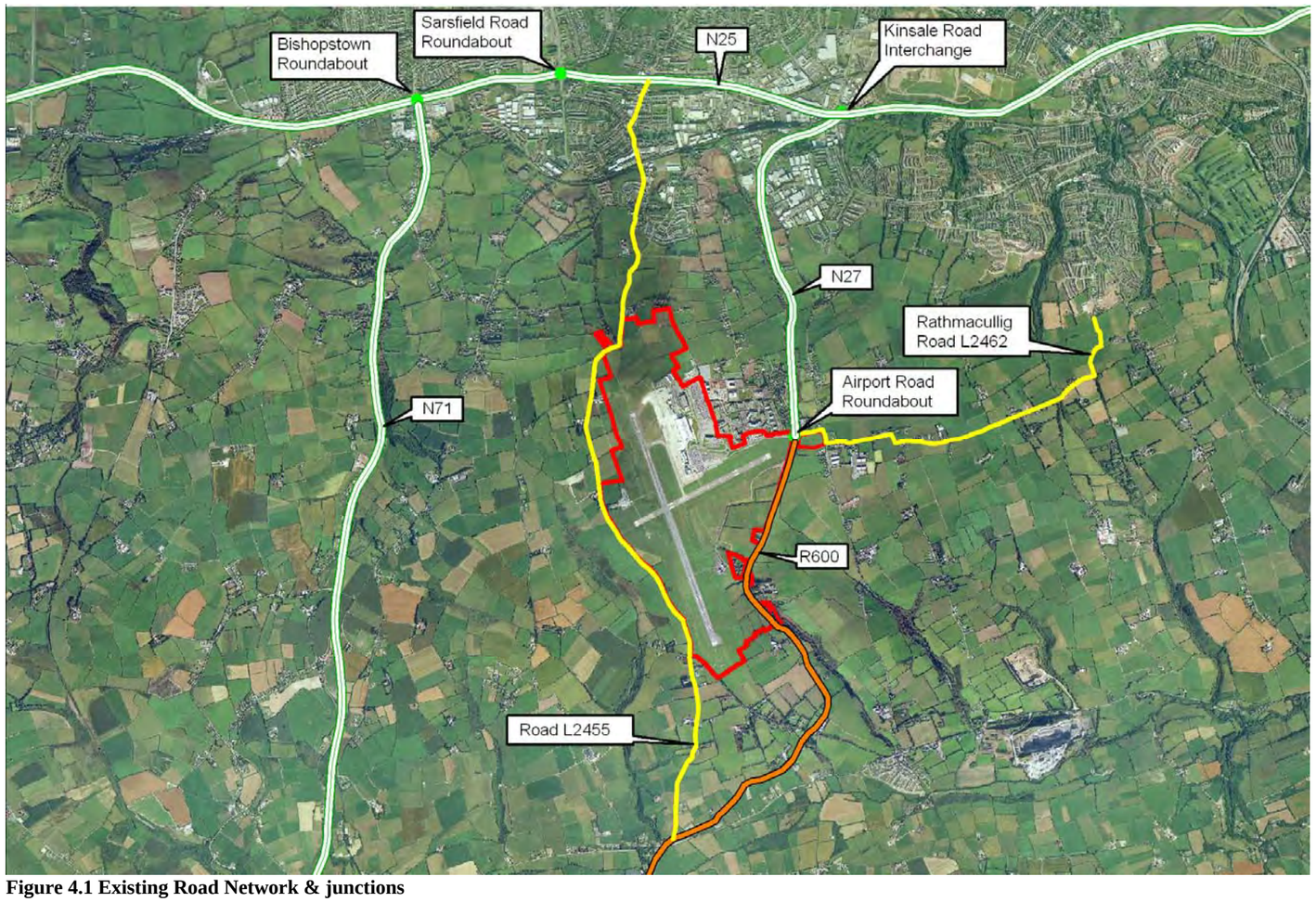


Figure 4.1 Existing Road Network & junctions

4.2.4. To the north of the Kinsale Road Interchange the road is a dual carriageway with limited access junctions serving Blackash and Turners Cross. The road then terminates at the intersection with Albert Street in the city centre. The route between the airport and city centre is intermittently served by limited segments of bus lane and limited bus priority measures.

4.2.5. In the north bound direction, bus lanes exist between the Ballycureen Road and Turners Cross junctions, and a 'bus gateway' operates at the Turners Cross junction. In the south bound direction, a

[1] AADT – Annual Average Daily Traffic. The total volume of vehicle traffic on a road for a year divided by 365.

bus lane is present on the approach to the Kinsale Road Interchange between the junction at Blackash Park & Ride and the Interchange. A bus only right turning lane is located at the Blackash junction to provide access for Park & Ride buses.

Regional and Local Routes: R600 and L-2462 Rathmacullig Road

4.2.6. The R600, a continuation of the N27, runs from the Airport Road Roundabout to Kinsale Town and beyond. The R600 connects with the R613 at Five Mile Bridge, which is approximately 5km south of the Airport Road Roundabout and serves Bandon, Ballinhassig and the N71 to the west and Carrigaline to the east. This road connects to the N71 Bandon Road, allowing access to the Airport from most of south and west Cork. The R600 is a single carriageway, with limited hard shoulder provision and areas of poor horizontal and vertical alignment. A programme of upgrades along the R600 is currently ongoing with significant improvements to sections of the existing road. The section of road south of the Airport Road Roundabout caters for on average 10,200 vehicles per day.

4.2.7. The L-2462 Rathmacullig Road runs east from the Airport Road Roundabout giving local access to areas such as Grange, Douglas, Donnybrook, Carrigaline and beyond. The section of road east of the Airport Road Roundabout caters for on average 5,700 vehicles per day.

Existing External Road Network Issues

4.2.8. A number of key issues affecting the external road network to the airport have been identified. These include the following in order of impact.

- Queuing and Delay at the Kinsale Road Interchange (N25/N27).
- The lack of bus priority results in buses queuing on N27 northbound at peak times.
- Capacity issues at a number of junctions during peak periods.
- At present only one main access road to the airport exists. This lack of alternative access routes to the airport results in significant queuing and delay at times of peak traffic activity, especially at both the Airport Road Roundabout and the Kinsale Road Interchange. This is an undesirable situation, particularly in the event of a major incident at the airport.

Existing Road Network (Internal)

4.2.9. The existing internal road network between the airport terminal and N27 / R600 junction is designed to a dual carriageway standard, with the roads into the Cork Airport Business Park, and one-way systems nearer the main terminal building being single carriageways. This road system is on Cork Airport lands with a 50 km/h assigned speed limit along the main Airport Road thoroughfare. There are a total of five roundabouts spaced at varying intervals along 1.5km of the internal road network, of which two provide access to the Business Park and the remaining three provide access to the Radisson Hotel, Long Term Car Parks and access from the 'Drop-off' area. The existing internal road network signage and road markings are of a high standard. Signage is provided at both eye level and in the form of gantry signs above road lanes.

Internal Road Issues

4.2.10. A number of key issues relating to the internal road network have been identified. These included the following in order of impact:

- Some vehicles approach the internal roundabouts at inappropriate speeds and also in the incorrect lane;
- Due to inadequate advanced signage for drivers, vehicles cross the diverging hatching where the inbound road splits giving access to the 'Drop-off' area.
- Road markings could complement the existing signage to give advanced clear direction to motorists; Due to the lack of road marking, vehicles use incorrect entry lanes to the roundabout junctions resulting in lane crossing
- Some eye-level signs are located ineffectively for drivers on the roundabout junctions. They are not directed at approaching vehicles and therefore do not offer sufficient advance warning to drivers;
- The width of the circulatory carriageway on the internal roundabouts was less than the width of the carriageway on interconnecting link roads. This results in a restriction at the junction and resulting in vehicles impeding on adjacent lanes. This issue is exacerbated by the lack of road markings on the circulatory carriageway.

Traffic Data

4.2.11. During the Cork Airport Business Park Extension project in 2006, a Traffic Impact Assessment (TIA) was prepared by Arup Consulting Engineers. The results of this assessment found that during the morning peak approximately 75% of the traffic entering the Airport Link Road from the roundabout accessed the Business Park with the remaining 25% accessing the Airport itself. In the PM peak the trend was similar for departing traffic with 72% from the Business Park and 28% from the Airport**.**

4.2.12. Clearly, the Business Park traffic has a significant impact on the capacity of the surrounding roads infrastructure during peak hours. A more detailed analysis of this is included in section 4.5 of this plan 'Travel to work patterns at Cork Airport' which examines the POWCAR data from the 2006 Census.

4.3 Existing Situation: Public Transport and Car Parking Provision

4.3.1. This section outlines the different types of public transport available at the Airport itself. The main options are two Bus Éireann routes, the Skylink bus and a taxi service.

Bus Eireann

4.3.2. Bus Éireann has two routes that serve the airport, the No 226, a dedicated bus service which serves both the Airport Business Park and the main Airport terminal building and the No. 249, which is the main Cork – Kinsale bus service which regularly serves the Airport.

4.3.3. The Bus Éireann travel time on services to and from the airport is on average 20 minutes. The public bus stop is located outside the departures entrance of the main terminal building with additional stops at and within the Business Park and the Airport Road Roundabout. Over the past number of years Bus Éireann has augmented the service to the airport by increasing the number of airport-bound departures from 16 in 1999 to 39 in 2006. Bus passenger numbers increased from 70,000 in 2000 to approximately 220,000 in 2006 (it should be noted that this patronage figure is a two-way total). The establishment of the green route to the airport has enhanced the service both in terms of attractiveness to patrons and improved reliability and trip times. The

overpass at the Kinsale Road Roundabout has also been of great benefit in improving reliability and trip times.

Skylink

4.3.4. Skylink are a private bus operator based in the Airport Business Park. They operate a service between the Airport and popular city centre hotels, B&B's, hostels and landmarks and the service now also provides the first direct link between Kent railway station in the City and the Airport. This service departs the airport for the city centre every thirty minutes between the hours of 05:20 and 00:45. The service runs via two routes, McCurtain St and Western Rd, stopping at most accommodation along the routes.

Taxis

4.3.5. Cork Airport is well serviced by a regular flow of taxis. The taxi waiting area is outside the main terminal in the 'drop-off' zone and offers space for twenty taxis. There is also an additional waiting area adjacent to the Radisson SAS hotel where taxis can wait until space becomes available in the 'drop-off' area. On average approximately sixty individual taxis frequent the airport on a daily basis. The majority of taxis who wait at the airport for a fare are freelance taxis which are unattached to any particular taxi company.

Existing Parking Provision

4.3.6. Provision of car parking at the airport has three categories, short and long term passenger related parking, car hire parking and airport staff parking. There are currently five public car parks at the airport, four long term car parks with a combined capacity of 3,780 and one short term car park with a capacity of 632. There is also a staff car park of 450 spaces, a car hire car park of 220 spaces and a cargo car park with a capacity of 34. The existing parking provision at Cork Airport is summarised in the following table:

Table 4.1: Available Car Parking Spaces

Car Park	Spaces Available
Short Term Car Park	*632*
Long Term Car Park	*3,780*
Sub Total Public Car Parks	**4,412**
Staff Car Park	*450*
Car Hire Car Park	*220*
Cargo Car Park	*34*
Sub Total Private Car Parks	**704**
Total Car Parks	**5,116**

Existing Public Transport and Car Parking Issues

4.3.7. A number of issues have emerged in relation to the current parking conditions at Cork Airport. These included the following:

- Although it is prohibited to leave your vehicle unattended in the existing 'drop off' area, this was not strictly enforced.
- The existing directional signage to the car parks for vehicles causes slight confusion for drivers on the approach to the terminal.
- Car parking is plentiful at the airport and business park. There is no disincentive to private vehicle trips at present. Airport parking is conveniently located near the terminal and is reasonably priced.
- Travel to the airport by both passengers and employees is dominated by single occupancy private vehicle journeys.
- Exisiting public transport service to the aiport does not adequately serve the needs of employees and passengers.

4.4 Existing Situation: Pedestrians and Cyclists

Existing Provision for Pedestrians

4.4.1. The existing pedestrian facilities in Cork Airport are of a relatively high standard. There is wide footpath provision and crossing points throughout the study area, allowing for easy manoeuvring of wheelchairs, trolleys and luggage and car parks are all conveniently located a short walk from the terminal. The existing pedestrian signage is plentiful at the exit to the short term car park and outside the terminal building, but some signs can be easily missed due to size and "flooding" of multiple signs. Existing facilities for the mobility impaired include ramps, dropped kerbs and tactile paving. Wheelchair ramps are provided wherever steps are encountered, and a lift service is available in the multi-storey car park.

Existing Provision for Cyclists

4.4.2. Current cycle facilities in the area of the airport consist of cycle lanes on both sides of the road from the Kinsale Road Roundabout to the Airport Road Roundabout, with internal facilities continuing into the airport as part of a combined footpath/cycle lane adjacent to and to the south of the main avenue.

4.4.3. A bicycle parking zone is located in the long term car park (No 2). This parking zone is covered, provides a locking bar separate to the wheel brace and can cater for up to 40 bikes.

Existing Issues for Pedestrians and Cyclists

4.4.4. There are some outstanding issues which need to be considered in order to improve the quality and safety of the operating environment for both cyclists and pedestrians including:

- Improved signals and duration of crossing times (green times) at junctions.
- Better linkages, improved signage and removal of unnecessary obstructions along some cycle routes.
- Clearer signage for pedestrians and cyclists with a removal of 'flooding' of multiple signs in general.

4.5 Travel to work patterns at Cork Airport

4.5.1. Much research and analysis has been undertaken following the publication of the 2006 Census which recorded the travel patterns of employees and their journey to work. Using the POWCAR (Place of Work Census of Anonymised Results) analysis, key information regarding existing employee travel to work patterns i.e. determining both the origin and destination can be observed. The following table outlines the origin zones of trips to the Airport by employees:

Table 4.2: Origin of Employees travelling to Cork Airport

Origin of Employees	Number of Employees	Percentage
Cork City	604	26%
Metropolitan Cork	1,163	50%
CASP Ring	371	16%
North SPA	41	2%
West SPA	53	3%
Out of County	80	3%
TOTAL	**2312**	**100%**

4.5.2. In addition, the modes of travel to the Airport by employees can also be examined. This information shows the over reliance on the private car for travel to the airport by employees. It also suggests that

the existing public transport options could be used more effectively. The top three means of travel are as follows:

Table 4.3: Most Popular Modes of Travel by Employees to Cork Airport

Means of Travel	Number of Employees	Percentage
Driving a Car	1892	85%
Passenger in a Car	108	5%
Bus, Minibus	142	1%

4.5.3. Finally, the POWCAR information also provides data on the commuting distances to the airport. It notes that the majority of people working at the airport do not commute long distances and that 73% of workers travel from a distance of less than 20km away.

4.6 Surface Access Strategy and Measures

Introduction

4.6.1. This section will promote a number of transport proposals and measures with the aim of resolving the various access issues outlined above, including the reduction of traffic congestion at the airports entrance roundabout and at the Kinsale road interchange as well as examining more sustainable modes of transport. Infrastructural improvements within the airport in line with passenger growth will also be assessed. There are four key strategic objectives underlying the initiatives:

- The modal share of transport trips by sustainable means shall be increased for both employees and passengers.

- There is a need to ensure that road access to the airport is not impacted by traffic congestion.

- Maximise the value of existing infrastructure.

- Ensure that future development of the transportation network is actively managed and monitored by all of the key stakeholders.

Modal Split Targets

4.6.2. The recent Department of Transport publication “Smarter Travel” sets out the national priorities with regard to the ambition to achieve a shift from 66% to 45% in work related car modal share by 2020.

4.6.3. Survey work was carried out by traffic consultants Faber Maunsell on behalf of Cork County Council at Cork Airport in 2008. It was identified that public transport was the means of travel to the airport for 11% of passengers and only 6% of employees. One of the key issues affecting the modal split in transport is the location of Cork Airport. The airport is not located in close proximity to any major residential developments. Walking and cycling to the airport accounts for only 2% of travel for passengers and employees. It is difficult to encourage a higher percentage of walking and cycling, given that passengers would have luggage and the remoteness of the airport from any major residential development.

4.6.4. Therefore, the focus must give weight to enhancing public transport initiatives in order to achieve a significant modal shift. Achieving a move towards the modal split targets requires the implementation of a range of integrated measures, including improving bus travel times, frequency, and the range of destinations served as well as the introduction of mobility management. In order to assess the success of the strategy in achieving this objective, the Surface Access Plan has established modal split targets. These are set out in the table 4.4 below.

Table 4.4: Modal Split Targets

Mode	Passengers			Employees		
	Existing	Phase 1 target	Phase 2 target	Existing	Phase 1 target	Phase 2 target
Drive	76%	73%	62%	92%	82%	72%
Bus	11%	15%	25%	6%	15%	25%
Taxi	11%	10%	10%	-	-	-
Cycle	-	-	-	1%	1%	1.5%
Walk	2%	2%	3%	1%	1%	1.5%

Public Transport

4.6.5. The successful implementation of an integrated and improved public transport strategy is key to the achievement of the targets set out in Table 4.4 above. At present the major issues relating to increased use of public transport are travel times, frequency and locations served.

4.6.6. For example, Bus Éireann allocates twenty minutes travel time in off peak hours to get from the main bus station in Parnell Place to the airport, and forty minutes travel time during peak hours. Although the bus travel time has already been cut with a partial bus lane on the N27 Northbound, (finishing before the Kinsale road interchange.), a full dedicated bus corridor northbound is required to improve travel time and reliability of the service as well as preventing northbound congestion on the N27 due to bus queuing.

4.6.7. In order to encourage increased use of public transport, measures must be taken to ensure that public transport is a viable and attractive alternative to private car use. Key to this concept is increasing connectivity with other means of public transport such as rail. The feasibility of integrated ticketing, with the possibility of extending the bus corridor to connect with rail services at Kent Station should be examined as outlined in the recommended strategy for the south of the City set out in the Cork Area Transit Study carried out for Cork City Council and which looked at the feasibility of providing a public transport system for the Cork Metropolitan Area. There are national connections through the main bus station at Parnell Place. Taking into consideration the dispersed passenger catchment, the employee catchment offers a more promising target if a successful modal shift is to be achieved, as 42% of the employees live within a 10km radius of the airport.

4.6.8. Additionally, existing services to the airport are generally limited to routes from the city centre. The possibility of introducing new routes from the business park employee catchment areas should be examined. From an analysis of POWCAR, the majority of employees in the business park come from 4 main areas; Ballincollig (10%), Carrigaline (12%), Cork City (33%) and Douglas/Grange (17%). These areas could be targeted for increased public transport provision at travel to work peak hours as a means of alleviating congestion.

4.6.9. The provision of private shuttle buses in place of additional public transport routes should be considered. With POWCAR analysis, shuttle bus routes could be developed to target areas with the highest percentages of grouped employees. It is envisaged that private shuttle buses would be owned/operated by either Cork Airport, or Cork Airport Business Park or both through the adoption of travel plans. A possible small charge on car parking could be introduced as a way of subsidising the shuttle bus system. However, without bus priority measures, discussed below, it is unlikely that sufficient journey time savings would be made to attract employees.

4.6.10. Bus priority measures are considered to be important in order to attract employees to use public transport. The provision of a complete bus lane northbound would increase the reliability of public transport, which is currently severely affected by delays along the N27. At present there is 350 metres of a dedicated bus lane operating northbound on the N27, terminating shortly before the Kinsale road

interchange. The dedicated bus lane should be extended south as far as the Airport entrance roundabout, which would complement other infrastructural measures along the route.

4.6.11. The traffic surveys conducted identified that the peak traffic hours at both the Airport entrance roundabout and the Kinsale road interchange occurs at 8-9am and 5-6pm. It is evident that traffic peak hours are caused by the employees accessing the Business Park. This time varies significantly to the passenger peak traffic hours of 5-7am and 8-10pm. As these hours are not peak traffic hours on the roundabouts, travel time by car tends to be swift with the majority of passengers using the private car to get to the airport. This ease of access by private car may pose some additional difficulty in trying to achieve a greater modal split in passenger numbers.

Road Network

4.6.12. Unless priority is given to public transport on the key corridors to the airport, achieving a shift to public transport use will be very difficult. Therefore, in addition to the measures outlined in relation to improved bus services, other hard infrastructural measures will be required to tackle bottlenecks on the road networks affecting private car users.

4.6.13. As outlined above, at peak traffic hours, Bus Éireann allocates a 40 minute travel time from Parnell Station to Cork Airport. This time is halved during off peak hours. In order to address this disparity, a number of infrastructural measures are proposed. It is essential that the external road network is developed to ensure a balanced response to the anticipated expansion. The development of the road network will have to be undertaken in a phased basis and based on passenger demand to ensure economic feasibility. Measures proposed include:

- **Geometric improvements to the Airport Road Roundabout:** This involves increasing the diameter of the roundabout, increasing the number of approach lanes and other improvements. Also required with the geometric revision of the roundabout are additional markings and signage regarding proper lane usage.
- **Left Turn Slip Lane from the Airport to N27 Northbound:** The dedicated left turn slip lane from the airport to the N27 Northbound would mean that the northbound traffic would not need to enter onto the Roundabout. This measure would free up capacity at the roundabout.
- **Rationalisation of the Junctions on the N27:** This involves examining the feasibility of amalgamation, rationalisation and possible closure of junctions along the N27. At the present time, the signalled junctions cause congestion by preventing the free flow of traffic in both north and southbound directions. The closure of the junctions would have significant benefits for all traffic using the N27. The removal of additional right turn lanes would free up existing carriageway for the provision of additional bus lanes, cycle lanes and traffic lanes.
- **Additional access to airport lands from the R600 south of the Airport Roundabout and south of the cross runway:** This access is intended to serve future cargo and maintenance facilities in the SE Quadrant of the airport and is likely to be a controlled/ secure access. If this access were opened and the lands were developed for airport uses as envisaged, then some of the pressure would be alleviated from the R600 and from the Airport Road roundabout entrance.
- **Upgrade the N27 to a Multi-lane Carriageway:** This measure would involve upgrading the entire length of the N27 carriageway to two traffic lanes and a bus lane, northbound. The addition of a bus lane would create bus priority measures at the existing signalled junctions. A land reservation of 10 metres adjacent to both North and Southbound carriageways off the existing N27 would be required for this measure.

4.6.14. A Habitats Directive Assessment, at least to screening stage, will be required in the case of a number of the infrastructure projects identified, as part of the separate planning and design processes for these projects.

Secondary Access

4.6.15. Currently there is only one point to access and egress the airport. In the event of a major safety incident, the emergency response time could be hindered due to pressure on this single access point. The provision of a secondary access from the North will enhance emergency responses in the event of a safety incident. Additionally, it will also alleviate traffic congestion at the Kinsale road interchange and provide an opportunity for an additional public transport loop.

4.6.16. It is considered that this northern relief road would connect the Airport to the N25 South Link road via the Sarsfield Road from the north east quadrant of the airport.

4.6.17. The aviation and operational needs of the airport require this road be provided in Strategic Phase 2 of the development of the airport, as set out in Table 3.1 of Section 3 of this plan. However, in the event that development, outside of the boundary but within the vicinity of the airport, gives rise to additional traffic demands on the existing N27, it may be necessary to deliver this road earlier than Phase 2. In any event, the route selection and design process can be initiated in the short term.

4.6.18. There is some unfavourable topography in the terrain north of the airport which would pose several design challenges, and a full examination of a route, including an economic and environmental analysis assessing the feasibility of the scheme would be required. Given that a significant portion of this road is likely to involve a new build, this secondary access would be subject to its own public consultation and route selection process independent of the Special Local Area Plan process.

4.6.19. The possible benefits of a new road have been examined and it has been estimated that up to 30% of employee and passengers trips could be removed from the N25 South Link, Kinsale Road Interchange and other key junctions on the N27 with the provision of the northern secondary access. Additionally, this secondary access could be used for improved public transport measures.

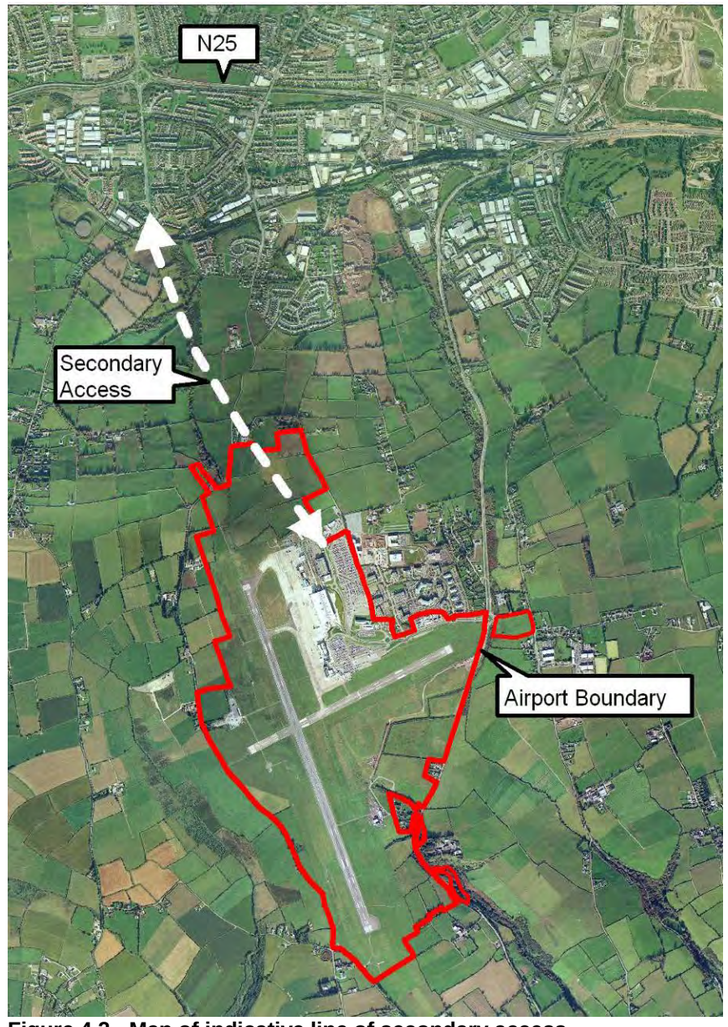


Figure 4.2 - Map of indicative line of secondary access

4.6.20. It is recognised that passengers are from diverse catchments and that sufficiently large numbers of long term car parking is required. It is imperative that anyone who arrives at an airport by car has the opportunity to park their car before leaving for a holiday. It is envisaged that it will be necessary to develop additional short term, long term, car hire and staff car parking facilities consequent to the projected growth in annual passenger throughput at the airport. At the present time there is no disincentive to parking at the airport, (it is plentiful and reasonably priced) or the business park, where parking is also readily available and free of charge.

4.6.21. Parking policy has a central role in managing travel modes and in achieving modal shift away from the private car. In this regard a number of parking policy measures are seen as necessary if modal split targets outlined above are to be achieved and if adequate parking is to be provided for future expansion of the airport. These measures should provide the basis for future provision of car parking facilities at the airport.

4.6.22. One of the existing issues with passenger car parking is the discrepancy between the utilisation of the short and long term car parks, with the long term car parks having high occupancy in the peak times while the short term car park has a 33% vacancy rate during the same peak periods. Clearly this situation provides the first opportunity for improving provision by maximising use of existing spaces before examining new options. Measures should ensure that this spare capacity in the multi storey car park is utilised especially at peak times. Potential measures could include;

- examination of parking charges
- introducing one floor of long term car parking in the multi storey car park
- improving signage to the multi storey car park.

4.6.23. In the medium to long term it is important to encourage a shift to public transport use and as a result modal shift targets for public transport use to the airport should be accounted for in future parking provision. Reflecting this shift, car parking projections have been revised. In total, by the end of Phase 2 projections for car parking provision are reduced by 14% for passengers and by 20% for employees. Table 4.5 below shows the revised parking provision projections and potential land savings due to reduced parking provision.

4.6.24. Notwithstanding modal shift targets, additional lands will be necessary to accommodate the car parking requirements generated in the future by increased passenger numbers. It is necessary that additional land is acquired to the north of the NE Quadrant to cater for long term parking provision in a sequential manner. Furthermore, car hire facilities which are presently dispersed within the NE Quadrant, need to be centralised.

Table 4.5: Revised Parking Provision

Type	2008	Phase 2 Projected Need	Phase 2 Revised Projections	No. of Reduced Spaces	Land area (m2) Saving
Short - term	632	900	774	126	3,150
Long - term	3,780	8,200	6,364	1,836	45,900
Staff Parking	450	700	560	140	3,500

Mobility Management

4.6.25. Further steps towards achieving the modal shift targets can be taken through softer measures such as travel plans and car pooling. Consideration shall be given to promoting and introducing Mobility Management Plans for employees of the Airport and the adjoining Business Park with the aim of reducing individual private vehicle trips. There are a number of measures which could be implemented through coordinated efforts by the Airport Authority and other stakeholders. There are advantages to both employer and employee (i.e. corporate social responsibility improvements, meeting environmental targets, releasing land under car parks for more productive use) as well as the more obvious advantages of reducing congestion and increasing sustainability. Measures under Mobility Management Plans could include:

- Workplace travel plans
- Personalised Travel Planning
- Car Pooling

Summary

4.6.26. The following table summarises the main traffic and transport measures proposed as part of the surface access strategy to cater for the growth envisaged in traffic as a result of airport expansion. The strategic phase in which each measure is intended to be delivered is also outlined.

Table 4.6: Main Transport Measures

Measure	Strategic Phase
A. Public Transport	
Improve existing network	1
Private Shuttle Buses	1
Northbound bus lane	2
B. Parking	
Improve existing utilisation	1
Parking Management	1 & 2
C. Mobility Management	
Mobility Management Plan	1 & 2
D. Infrastructure	
Local Network upgrades	1
Airport roundabout improvements	1
Left turn slip lane existing airport	1
Left turn slip lane entering airport from the south	1
Rationalisation of N27 junctions	1
Pedestrian, Cyclist and mobility impaired improvements	1
Signage Strategy	1
SE Quadrant Access	1
Secondary Access	2

4.7 Surface Access Objectives

4.7.1. The objectives for traffic and transport are as follows:

Surface Access Objectives	
Objective No.	**Specific Objective**
TRA 4-1	It is an objective of this Plan to; a) provide high quality surface access to Cork Airport to ensure convenience and safety for all airport users, b) maintain and protect accessibility to the airport as a priority,

Surface Access Objectives	
Objective No.	**Specific Objective**
	c) support the timely provision of additional roads, parking and public transport facilities and associated services in line with the sequential increase in passenger numbers and cargo handling as outlined in this Plan, and d) achieve the implementation of the transport measures outlined in Table 4.6. All of the above should be carried out in a sustainable manner having regard to biodiversity and the environmental quality of the concerned areas.
TRA 4-2	a) It is an objective of the Plan to encourage, with the co-operation of other agencies and stakeholders, a sustainable modal shift from the private car to public transport in line with the targets outlined in Table 4.4 and to support all necessary supporting measures. b) It is an objective to monitor the achievement of these modal split targets, at appropriate intervals, and in any event before the end of the statutory life of this plan.
TRA 4-3	It is an objective of this Plan to promote, in co-operation with other agencies, the implementation of measures to improve travel times to and from the airport, frequency of service and linkages to primary destination/origin locations.
TRA 4-4	It is an objective to work with Cork Airport to develop and implement a Parking Policy and Signage Strategy within each Strategic Phase of airport development in a sustainable manner.
TRA 4-5	It is an objective of the Plan to secure the provision of a new secondary access road to serve the airport during Strategic Phase 2, or earlier if required, linking the northern section of the airport with Sarsfield Road. Possible environmental impacts should be considered when identifying potential alternative routes during the route selection process.

Surface Access Objectives	
Objective No.	**Specific Objective**
TRA 4-6	It is an objective of this Plan to require the submission of a Mobility Management Plan for all of the plan area of Cork Airport as part of any application for terminal expansion, in order to help achieve a shift away from the private motor car in accordance with the targets set out in Table 4.4.
TRA 4-7	It is an objective of this Plan to secure the upgrading of the N27 to multi-lane carriageway in a northbound direction so as to provide two traffic lanes and a bus lane, in a sustainable manner.

Section 5
Landuse Proposals & Implementation

5.1 Introduction

5.1.1. This section of the plan sets out the main landuse objectives for Cork Airport, which should be read in conjunction with the zoning map in the appendix of this plan. This section also considers the funding and implementation of some of the major facilitating infrastructure needed to deliver the growth envisaged in the plan.

5.2 Determination of the Special Local Area Plan Boundary

5.2.1. In the Carrigaline Electoral Area Local Area Plan 2005, and prior to that in the 2003 County Development Plan, the airport complex was defined as those lands within the ownership of Cork Airport (Dublin Airport Authority). This comprised an area of approximately 248 hectares. Having established the aviation and operational infrastructure requirements of the airport up to 2040, this historic boundary was examined to determine whether it was sufficient to cater for the infrastructure and facilities that would be needed.

5.2.2. As highlighted in earlier sections of this plan, there are two infrastructure projects that require an alteration to the boundary to include additional land, namely, the provision of further long term car parking in the northeast quadrant and also the extension at the northern end of the main runway 17-35. The boundary as set out in the zoning map as part of this plan reflects these requirements.

5.2.3. In the South East quadrant, an area of land has been identified that is unlikely to be required for airport operations or aviation uses. The purpose of this Special Local Area Plan is to protect the lands necessary to ensure the continued growth of the airport. The consideration of the future role of lands in the South East quadrant, lands the subject of submissions to the draft of this Special Local Area Plan, or other areas within the surrounding hinterland of the airport, with potential for airport ancillary or related uses, is a matter for the review of the Carrigaline Electoral Area Local Area Plan.

5.3 Landuse components within the Airport Boundary

5.3.1. Section 2 of this Special Local Area plan has outlined the various components of the airport complex, being airside, terminal and landside. The following objective LUS 5-1 provides a breakdown of the indicative uses which would normally be permitted within each component.

Objective No.	**Appropriate uses in the airport complex**	
LUS 5-1	It is an objective of this plan to identify appropriate uses and activities for the airside, terminal and landside components of the airport complex, in a sustainable manner, as follows:	
Operational uses/ activities		**Ancillary activities**
Airside		
Aircraft areas: runways, taxiways, aprons, aircraft parking stands		Aviation fuel storage, parking for passenger buses
Aircraft routine maintenance facilities/ hangars / engineering shops.		
Air traffic control / meteorology.		Staff parking
Flying School / General Aviation aircraft base.		Passenger and employee parking
Security/ police, fire service etc.		Parking for vehicles
Airline and handling agents		
Terminal		
Cargo handling facilities.		Ancillary office space and staff parking
Passenger terminal: customs checkpoints, immigration, concessions (duty free shopping, cafés and restaurants, bar etc.), car hire front desks, tourist information counters.		Airline/ operator ancillary offices.
Air catering		
Landside		
Kerbside areas: set down/pick-up, taxis, buses, coaches.		
Short term multi-storey car park.		
Car hire holding areas		
Long term car parking		Kiosk, sheltered walkways, shuttle bus shelters.
Staff Car Parking		
Hotel, petrol filling station, local convenience retail		
Aviation Fuel storage		

5.3.2. The list of acceptable uses contained in objective LUS 5-1 is not exhaustive and it is not the intention of this plan to restrict airport related development within the airport complex, provided such development relates only to the aviation and operational requirements of the airport or is an ancillary activity that needs to be adjacent to the operational area by virtue of a functional association. Furthermore, the strategic phasing and infrastructure provision outlined in Table 3.1 is indicative only.

Objective No.	**Specific Objective**
LUS 5-2	It is an objective of this plan to facilitate and promote airport related development within the boundary of this Plan in a sustainable manner, generally in accordance with the strategic phases of development set out in Table 3.1. Development, other than that related to the core operations of the airport shall not be permitted on those lands subject of zoning objectives X-01, X-02 and X-03.

5.4 Special Zoning Objectives- Cork Airport

5.4.1. The special zoning objectives for Cork Airport are set out in the following table:

Objective No.	**Specific Objective**	*Approx Area (Ha)*
X-01	To be developed generally in accordance with the airside uses specified in objective LUS 5-1.	207.2
X-02	To be developed generally in accordance with the terminal uses specified in objective LUS 5-1.	12.0
X-03	To be developed generally in accordance with the landside uses specified in objective LUS 5-1.	45.6
X-04	Lands not required for core airport operations. Appropriate and sustainable uses shall be determined in the Carrigaline Electoral Area Local Area Plan.	15.8

5.5 Design Criteria

5.5.1. In August 2006 the new passenger terminal was opened and at its peak has catered for 3.2 million passengers. In addition a new multi storey car park with room for 630 cars was constructed with direct access to the new terminal building via a covered walkway. It is recognised that the terminal building will need to expand in the medium to long term to cater for increased passenger numbers in line with the Future Needs Study. It is envisaged that this will take the form of extensions to the northern and southern ends of the terminal building. Further buildings will also be required throughout the complex to cater for aviation requirements generally, including overnight stands, additional cargo and general aviation facilities.

5.5.2. The SLAP will promote a high quality environment within the airport lands. Terminal extensions should be designed to integrate with and complement the style of the existing building in order to ensure a cohesiveness of approach and a strong visual coherence. Furthermore new additions to the stock of buildings on the site should ensure that they adequately respond to the site characteristics as well as general aviation design standards, such as height, distance to runways and taxiways, aircraft stand sizes and apron layouts.

5.5.3. New or additional buildings within the site should be designed and constructed in accordance with the principles of sustainability. Energy efficiency and use of renewable energy should be central to any new design criteria.

5.5.4. All new proposals should be accompanied by a design statement, landscaping proposals and site appraisal.

Objective No.	**Specific Objective**
DES 5-1	It is an objective of this Plan to promote and encourage a high standard of design and environmental quality in any new development proposal at the airport. Planning applications for new developments shall be accompanied by a detailed design statement, landscaping proposals and site appraisal which shall be in accordance with the principles of sustainability.
DES 5-2	It is an objective of this Plan that within the area designated for future airport development, any new buildings shall be designed so as to promote the design principles of sustainability including energy efficiency, passive solar design measures, water conservation, use of renewable energy and reduced lighting demand.

5.6 Funding and Implementation

Background

5.6.1. The Planning and Development Act 2000 provides for the payment of contributions by developers towards the cost of public infrastructure and facilities benefiting development in the area of the planning authority that either is provided or will be provided by or on behalf of a local authority. The infrastructure and facilities to which these payments contribute are water, sewerage (including storm water drainage), roads and facilities for recreation and amenity.

5.6.2. Three types of contribution are provided for under the Act:

- ***A General Contribution****: Calculated in accordance with an approved scheme, non refundable and not subject to a general right of appeal;*
- ***A Supplementary Contribution****: Calculated in accordance with an approved scheme, refundable, not subject to a general right of appeal; and*
- ***A Special Contribution****: Payable in respect of particular development where specific exceptional costs exist, refundable, can be appealed to An Bord Pleanála.*

Funding Infrastructure in this Plan

5.6.3. The fund resulting from the payment of contributions under the general scheme is intended to fund infrastructure and facilities benefiting development generally in the area of the planning authority. The works and facilities funded in this way should be of broad benefit to an area as a whole, including both new and existing development.

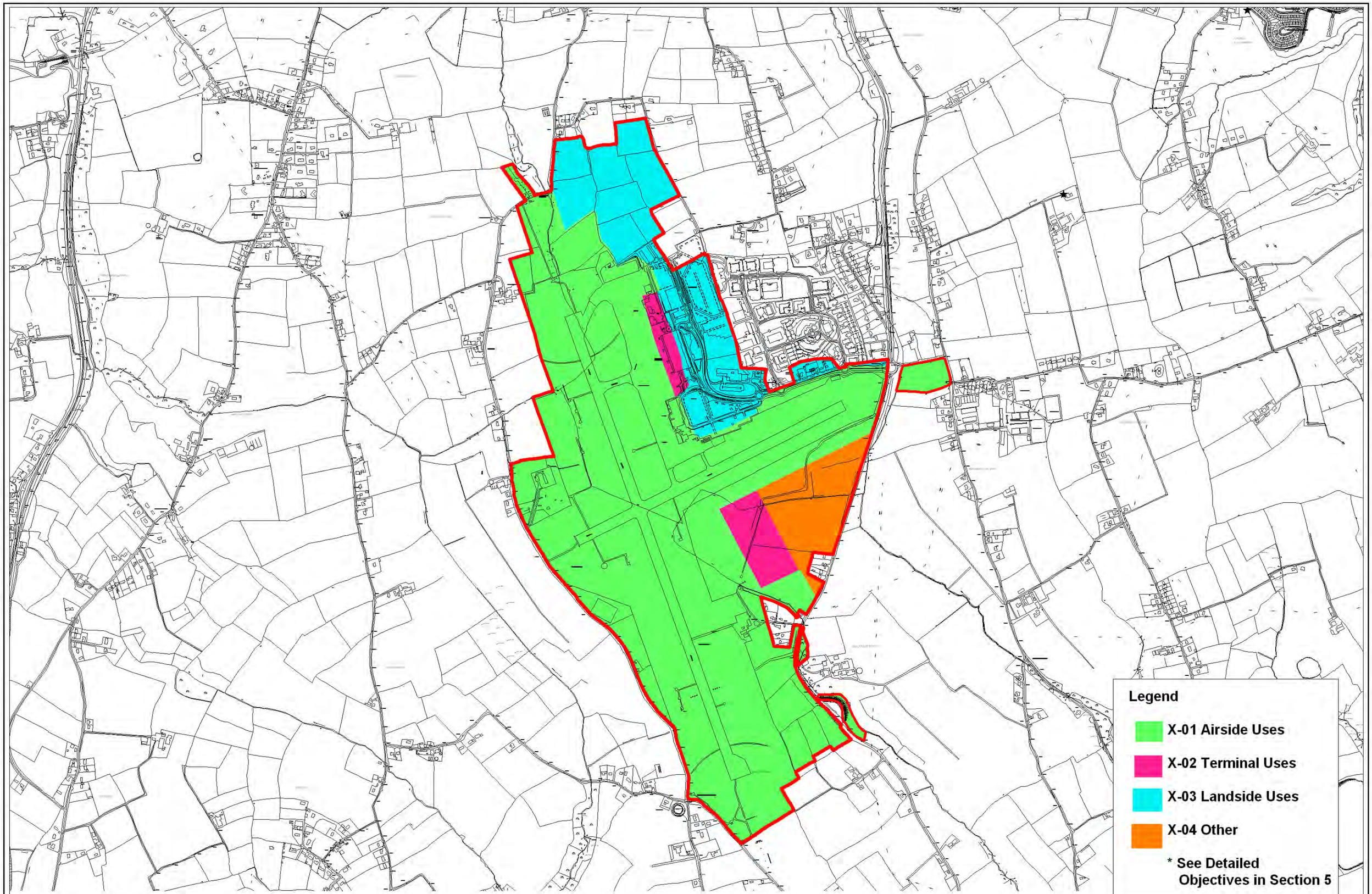
5.6.4. In this plan the large scale development proposed will, in many instances, require large scale infrastructure projects to be completed either before or at a given point in the development programme for a particular site or area. It is not the purpose of either the general or supplementary contribution fund to finance these largely site specific infrastructure projects.

5.6.5. These costs should be met, following the "polluter pays" principle, by the developer either through direct works or the payment of a supplementary or special contribution.

5.6.6. In this Special Local Area Plan a number of major infrastructural projects have been identified. A number of key road and junction improvements are proposed to accommodate the increase in future traffic demand that will result from the anticipated growth of the airport. For the avoidance of doubt, the following table lists the major transport infrastructure projects referred to in this plan and indicates the likely contribution source for the major element of their funding:

Cork Airport Special Local Area Plan: Key Infrastructure Works

Project	Comment	Contribution Fund
Northern (Secondary) Access Road to Airport	Provide a secondary access to the main airport terminal from the north of the airport lands to the N25 South Link Road via the Sarsfield Road.	Developer/ Special or Supplementary Contribution
SE Quadrant Access	Additional access from the R600 to serve future aviation related development.	Developer
Local network upgrades	1. Geometric improvements to the Airport Roundabout on the N27. 2. Provision of a left turn slip lane from the Airport to the N27 Northbound. 3. Rationalisation of junctions on the N27 between the Kinsale Road Interchange and the Airport entrance. 4. Pedestrian, cyclist and mobility impaired improvements.	Developer/ General Fund NRA
Upgrade N27 to Multi-Lane Carriageway	Upgrade the entire length of the N27 carriageway from the Airport Roundabout to the Kinsale Road Interchange (South Link N25) to two traffic lanes plus a bus lane in a northbound direction.	General Fund/ Special or Supplementary Contribution NRA



Cork Airport Special Local Area Plan

September 2010

1. Zoning Map

LEGEND

Airport Boundary

57 dB

66 dB

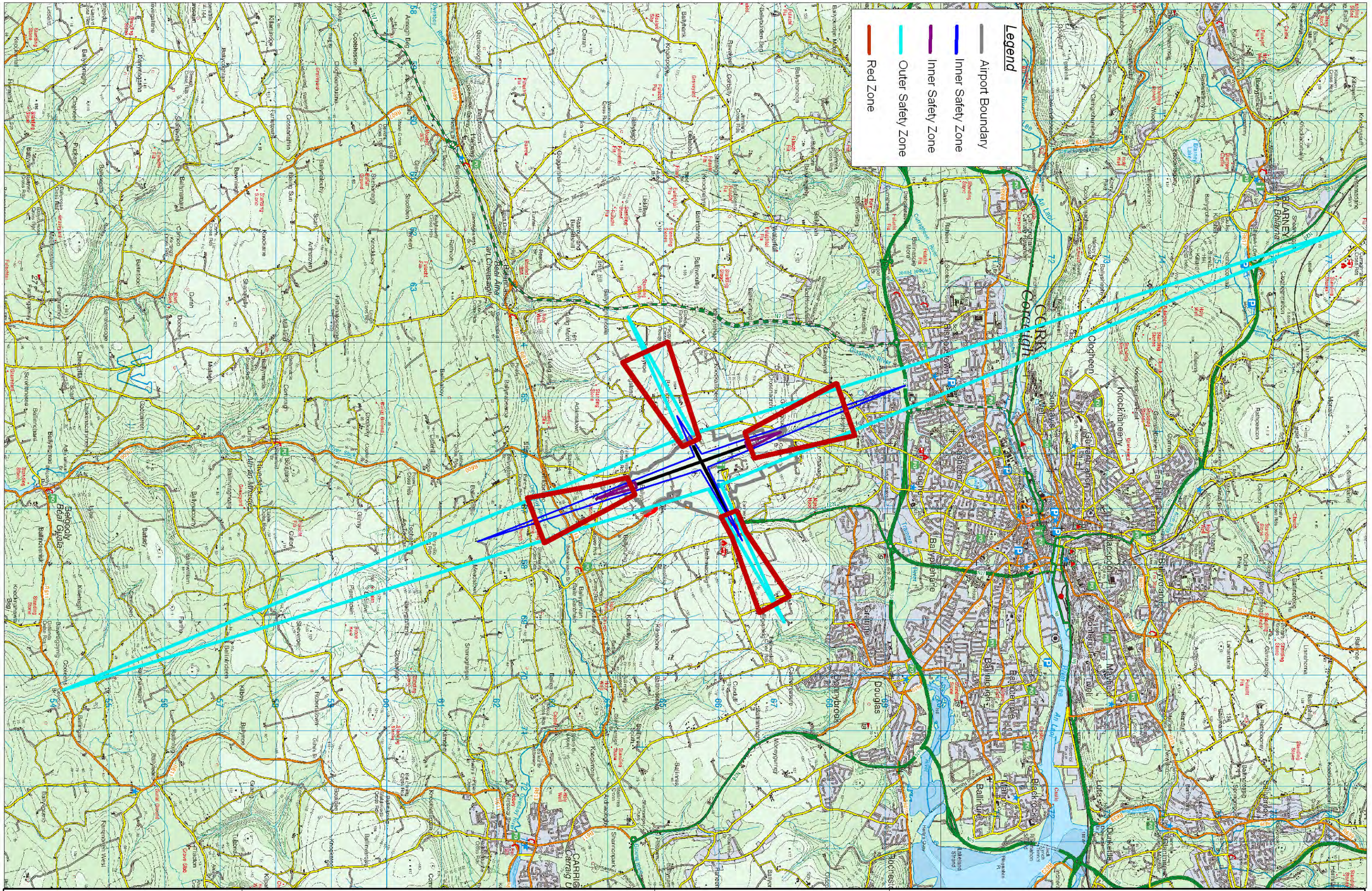
72 dB

Runway

Cork Airport Special Local Area Plan

September 2010

2.Current Noise Contours
(Source: Cork Airport)



Cork Airport Special Local Area Plan

September 2010

3a.Public Safety Zones and Red Zones

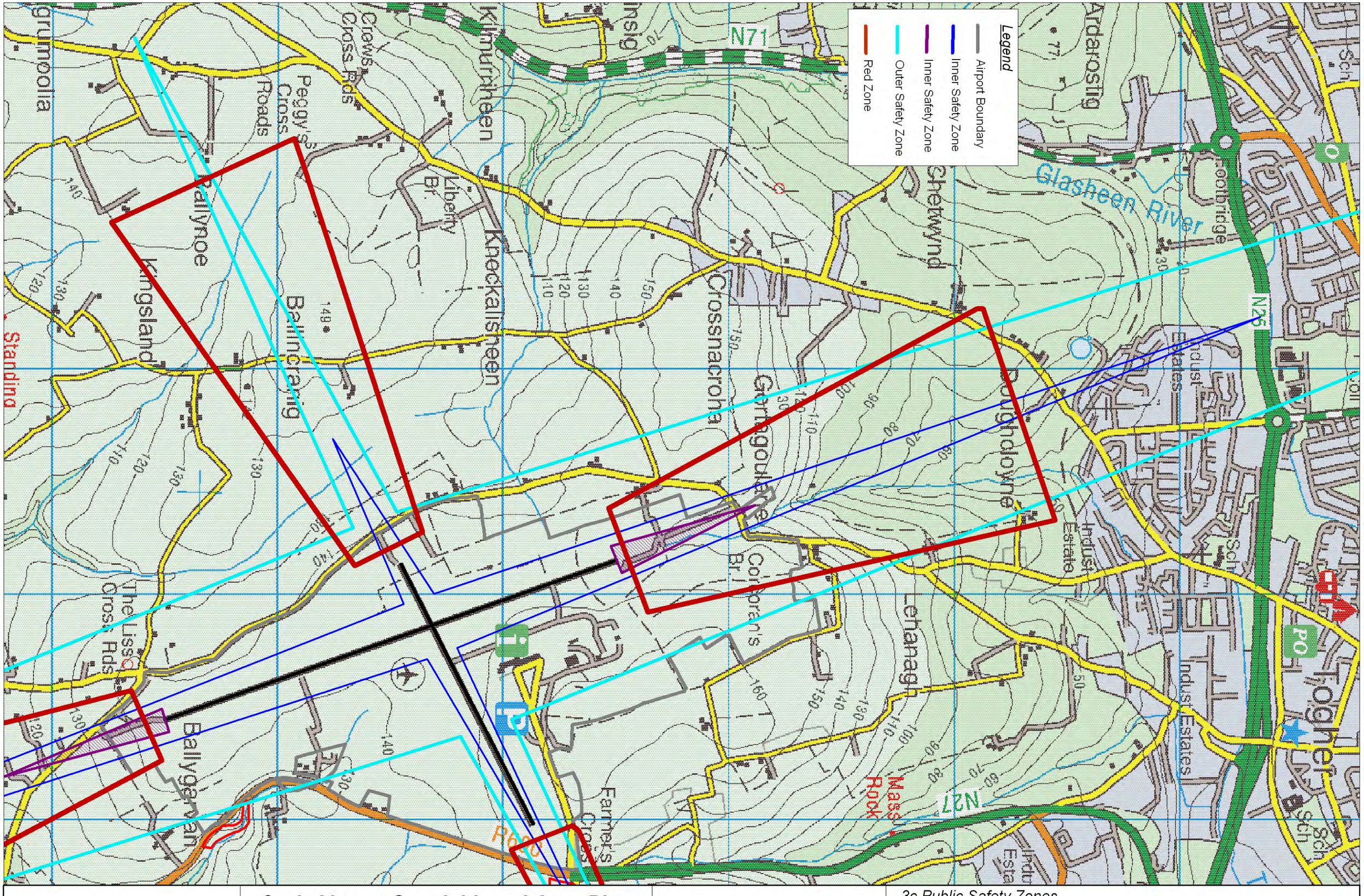
Legend

- Red Zone
- Outer Safety Zone
- Inner Safety Zone
- Inner Safety Zone
- Airport Boundary

Cork Airport Special Local Area Plan

September 2010

3b. Public Safety Zones and Red Zones



Cork Airport Special Local Area Plan

September 2010

3c.Public Safety Zones and Red Zones

Appendix A

Environmental Statement to the Cork Airport Special Local Area Plan

1.1 Introduction:

The Special Local Area Plan (SLAP) has been prepared with the purpose of facilitating the development of Cork Airport by providing for, and where necessary, protecting land for the future operation and development needs of the airport, looking forward to the year 2040. The SLAP will identify the future aviation needs and associated infrastructural requirements for Cork Airport in the long term and will specify policy and objectives to safeguard the continuing growth of the Airport as a key economic driver for the region.

The Process that has been followed

The SLAP has been prepared in accordance with the Planning and Development Acts in tandem with a number of important background documents

- Cork Airport Future Needs Study
- Cork Airport Surface Access Plan

In the Future Needs Study, extensive consultation with key stakeholders was undertaken in the drafting of the Surface Access Plan. Arising from these reports there was a need identified to extend Runway 17-35, however uncertainty on the location and extent of the proposed runway extension was a major issue of concern. A study entitled 'Impacts of Runway extension to Main Runway 17-35 at Cork Airport', completed by the Airport Authorities identified a northern extension as most advantageous.

Terms of Reference

This is the SEA Statement of the Cork Airport Special Local Area Plan (SLAP) and forms the final part of the requirements for the Strategic Environmental Assessment (SEA) of the Plan.

SEA Definition

SEA is a systematic process of predicting and evaluating the likely environmental effects of implementing a plan, or other strategic action, in order to ensure that these effects are appropriately addressed at the earliest stage of the decision-making process.

Legislative Context

Directive 2001/42/EC of the European Parliament and of the Council, of 27 June 2001, on the assessment of the effects of certain plans and programmes on the environment, referred to hereafter as the SEA Directive, introduced the requirement that SEA be carried out on plans and programmes which are prepared for a number of sectors, including land use planning. The SEA Directive was transposed into Irish Law through the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (SI No. 435 of 2004), and, the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (SI No. 436 of 2004). Both sets of regulations became operational on 21 July 2004. The SEA Directive and the instruments transposing it into Irish Law require that after the adoption of a plan or programme, the plan or programme making authority is required to make a Statement available to the public, the competent environmental authorities and, where relevant, neighbouring countries. This Statement is referred to as an SEA Statement.

Content of the SEA Statement

The SEA Statement is required to include information summarising:

a. how environmental considerations have been integrated into the plan,
b. how the environmental report, any submission or observation to the planning authority in response to a notice under section 12(1) or (7) of the Act, and any consultations under article 13(F) have been taken into account during preparation of the plan,
c. the reasons for choosing the plan, as adopted, in light of the other reasonable alternatives dealt with, and
d. the measures decided upon to monitor, in accordance with article 13(J), the significant environmental effects of implementation of the plan.

The Guidelines on the implementation of the SEA Directive state that the SEA statement should summarise the issues and concisely address them (see page 47 of guidelines). Each of the above points has been addressed and is included in the various sections of the SEA statement which follow.

Influence of Sea on the Airport SLAP – Making Process

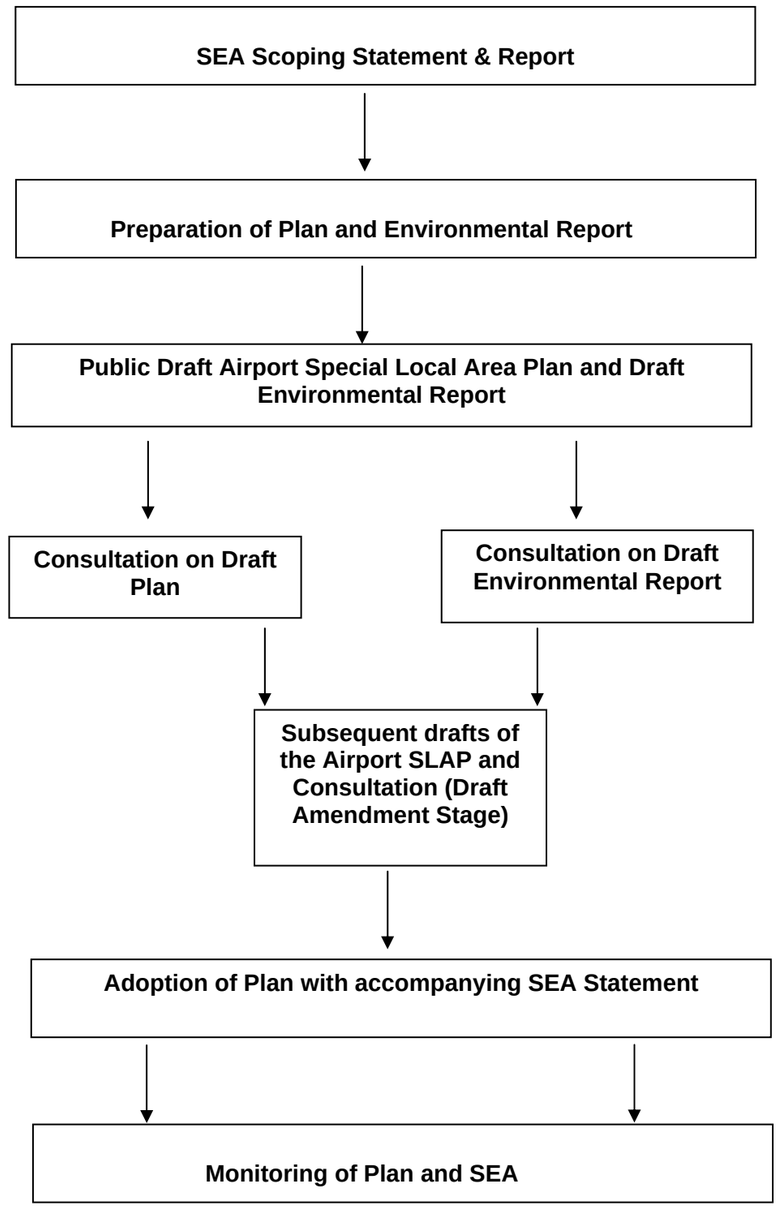


Diagram: SEA process and Cork Airport Special Local area Plan (SLAP) preparation.

The SEA statement tracks the progression of the plan as presented in the diagram above, highlights how environmental considerations have been taken into account and sets out the detailed monitoring for the plan in the final chapter which it is intended will be reviewed over the lifetime of the plan. A bibliography of the documents which informed and ran parallel to the various stages of the SEA have been included.

Appendix: List of published documents associated with relevance to the SEA:

- Manager's Report S.20(3)(c) and S.20(3)(f) – Submissions to Draft and proposed Amendment of the Public Consultation Draft.
- Manager's Report on Variation to CDP August 2010.
- Cork Airport SLAP HDA Screening.
- Environmental Report of Airport SLAP
- Airport SLAP Enabling Variation to CDP 14th June 2010.
- Strategic Environmental Assessment Environment Report February 2010.

1.2 How Environmental Considerations and the Environmental Report were factored into the plan:

Introduction

This Chapter outlines how the plan responds to environmental issues and how the Plan and SEA processes were integrated. The collection of baseline data identified the key environmental issues facing the airport.

Stage 1 – Preparation of the Draft Plan (Scoping and Environmental Report)
Stage 2 – Screening Matrix and Preliminary Evaluation of the Draft Plan Objectives
Stage 3 – Secondary Analysis of Matrix & Objectives and Recommendations
Stage 4 – The Amendment Stage (including Supplementary Environmental Report)

During each of the stages as outlined the SEA team were involved in the analysis of development options and were in a position to make suggestions throughout the process of the plan preparation to ensure that environmental considerations and environmental effects were considered in the formulation of strategic aims and development objectives.

Stage 1 – Preparation of the Draft Plan (Scoping and Environmental Report)

Screening

In August 2008, Cork County Council wrote to the EPA in relation to identifying the environmental effects of the Special Local Area Plan. Since that time the scope and content of the proposed plan had changed significantly, particularly with regard to the approach taken for the proposed runway extension. Following the initial screening/scoping exercise in August 2008, the County Council carried out extensive public consultation in December 2008/January 2009. These processes identified that the major environmental impact of the plan was likely to concern its effect on human beings through the construction of the proposed runway extension to bring aircraft movements closer to habitable dwellings near the airport site. A number of studies have been completed which have identified the Airport's future development needs. In November 2009 a screening statement for the proposed Special Local Area Plan incorporating the changes to the Airport's Plan was prepared and submitted to the EPA.

Scoping

The planning authority engaged in a scoping exercise to determine the range of environmental issues and the level of detail to be included in the Environmental Report which was decided upon, in consultation with the prescribed environmental authorities as a requirement of the Regulations and Guidelines. Three submissions on the Scoping Report were received from the following, the Department of Communications, Energy and Natural Resources, Cork City Council and the Development Applications Unit, Department of the Environment, Heritage and Local Government. Responses received were incorporated into the environmental assessment.

The key environmental issues relate to;

Air and Climatic Factors
- A high reliance on private transport with subsequent impacts on air quality and emissions.

Biodiversity
- The replacement and disturbance of natural habitats during runway construction phase.

Material Assets
- The development of the airport needs to take place in an orderly manner as unplanned development would lead to congestion and diminish the attractiveness and benefits that an airport the size and scale that Cork International Airport provides.

Noise
- Noise associated with aircraft movement.

Population and Human Health
- It is acknowledged that there is some potential for impact on individual dwellings in the area.

Soil
- Potential significant impacts on groundwater from airport activities related to the release of de-icing agents, hydrocarbons and other dangerous substances.

Water Resources
- To ensure adequate capacity to meet airport demand.

Flooding

In relation to flooding the expansion of the airport may result in increased surface water run-off. The existing attenuation tanks need to be retained and extended accordingly to accommodate any increase in surface water run-off from extended paved areas, runway extension and new buildings.

Appropriate Assessment

The SLAP will require environmental assessment and monitoring. Provided good practice is followed in the planning, design and implementation of projects, there would appear to be no direct or indirect impacts on the conservation objectives of any Natura 2000 site, and it is the Council's intention to finalise a Habitats Directive Assessment screening statement for the proposed Special Local Area Plan to this end.

Table 1 below summarises the SEA's recommendations to the Draft Plan.

Table 1: Table of Changes made to Airport SLAP as recommended by SEA

Airport SLAP Objective	SEA Recommendation	Plan Stage Recommen-dation Made	Stage Incorporated into Airport SLAP
DRU 2-1	Additional wording	Pre Draft	Amended Draft
FAN 3-3	Additional wording	Pre Draft	Pre Draft
FAN 3-3	Clarification sought on what is meant by appropriate land uses in the vicinity of the airport	Pre Draft	Resolved
FAN 3-4	Additional wording	Pre Draft	Pre Draft
FAN 3-5	Additional wording	Pre Draft	Amended Draft
TRA 4-1	Additional wording	Pre Draft	Amended Draft
TRA 4-2	Additional wording	Pre Draft	Pre Draft
TRA 4-2	Additional wording	Pre Draft	Not incorporated
TRA 4-4	Additional wording	Pre Draft	Pre Draft
TRA 4-5	Additional wording	Pre Draft	Amended Draft
TRA 4-7	Additional wording	Pre Draft	Amended Draft
LUS 5-1	Additional wording	Pre Draft	Pre Draft
LUS 5-2	Additional wording	Pre Draft	Pre Draft
X-04	Additional wording	Pre Draft	Amended Draft

Stage 2 Screening Matrix and Preliminary Evaluation of the Draft Plan Objectives:

Before the publication of the Special Local Area Plan for Cork Airport public Consultation Draft February 2010, the objectives it contained were evaluated against the Environmental Protection Objectives (EPOs) which were created for the SLAP SEA within a series of matrices included in Chapter 9 of the Environmental report.

A matrix approach is used to evaluate the environmental effects of implementing the Plan, which aids the understanding of the implications of each of the different strategies. Significant environmental effects of the plan have been predicted to determine whether the plan has negative, positive, uncertain or neutral effects. This exercise will set out any environmental problems that are likely to arise on implementation of the Airport SLAP. Arising from this analysis, the Environmental Report provides recommendations on what mitigation measure will be taken. Mitigation measures can take the form of:

- Changing the wording of an existing objective
- Deleting the objective
- Addition of a new objective

A column has been provided to show the Environmental Report recommendations and another has been inserted to display the resulting Airport SLAP action or response to these recommendations. The Airport SLAP action could be not to incorporate, accept or to partly accept the Environmental Reports recommendation. In the event that a recommendation is rejected or partly accepted, the onus is on the Airport SLAP to provide reasons for this course of action. It should be noted that in many cases no Environmental Report recommendation was made as it was not deemed necessary. In such instances the Environmental Report's recommendations column and the Airport SLAP action column remains unfilled.

A 'tick' was entered in the Airport SLAP action column when the Environmental Report's recommendation was accepted and changes made appropriately in the RPG document.

A 'cross' X was entered where the Environmental Report's recommendations were not incorporated into the Airport SLAP document.

A 'dash' - was entered where a part of the Environmental Report's recommendation was accepted and part was not incorporated into the Airport SLAP document.

This process would inform Stage 3 which is detailed below in which the objectives were examined further.

Stage 3 Secondary Analysis of the Matrix & Objectives and Recommendations

Following on from the public display of the Draft Plan and Environmental Report a number of submissions and observations were received. This informed the preparation of proposed amendments to the Draft Plan and in addition to issues from submissions received, a number of the amendments proposed included were required to address issues arising from the Strategic Environmental Assessment (SEA) of the Draft Plan. Table 2 below outlines the screening of proposed changes to the Draft Plan.

Following on from the screening of proposed changes to the Draft Plan a secondary analysis (Table 3) was carried out using the same method of assessment as outlined in Stage 2 above.

Table 2: Screening of Proposed Changes to the Draft Plan

Airport SLAP Objective	Form of Change made	Screening Conclusion	SEA Recommendation
DRU 2-1	Additional wording	Change had positive environmental effect	Agreed with change
DRU 2-2	New text and new objective	Change had positive environmental effect	Agreed with change
DRU 2-3	New text and new objective	Change had positive environmental effect	Agreed with change
FAN 3-1	Modification and additional wording	Change had positive environmental effect	Agreed with change
FAN 3-5	Additional wording	Change recommended by SEA	Agreed with change
TRA 4-1	Additional wording	Change recommended by SEA	Agreed with change
TRA 4-5	Additional wording	Change recommended by SEA	Agreed with change
TRA 4-6	Additional wording	Change minor in nature	Agreed with change
TRA 4-7	Additional wording	Change recommended by SEA	Agreed with change
X-04	Additional wording	Change recommended by SEA	Agreed with change
Key Infrastructure Works Table	Additional wording	Change minor in nature	Agreed with change
DES 5-2	New objective	Change had positive environmental effect	Agreed with change
Section 5.2.3	Delete wording of paragraph and replace with new wording	Change had neutral environmental effect	Agreed with change

Table 3 Secondary Analysis of the Matrix and Objectives and Recommendations

Development Objectives - **Chapter 2: Existing Situation**								
Objectives	No likely interaction with status of EPOs	Likely to improve status of EPOs	Probable Conflict with status of EPOs-unlikely to be mitigated	Potential Conflict with status of EPOs-likely to be mitigated	Uncertain interaction with status of EPOs	Neutral interaction with status of EPOs	**Environmental Report Recommendation**	**Airport SLAP Action**
DRU 2-1	PH1 S1 A1 N1 M1				W1 B1 C1		Additional wording	
DRU 2-2	S1 M1 C1 A1 N1	PH1 B1 W1						
DRU 2-3	S1 W1 C1 N1	B1 PH1 M1 A1						

Development Objectives - **Chapter 3: Future Airport Needs & Strategic Planning Issues**								
Objectives	No likely interaction with status of EPOs	Likely to improve status of EPOs	Probable Conflict with status of EPOs-unlikely to be mitigated	Potential Conflict with status of EPOs-likely to be mitigated	Uncertain interaction with status of EPOs	Neutral interaction with status of EPOs	**Environmental Report Recommendation**	**Airport SLAP Action**
FAN 3-1	S1 W1 A1 C1 M1	N1 PH1 B1						
FAN 3-2	S1 W1 A1 C1 M1	N1 PH1 B1						
FAN 3-3		PH1			B1 S1 W1 A1 C1 N1 M1		Additional wording	
FAN 3-4	S1 W1 A1 C1 M1				B1 PH1 N1		Additional wording	
FAN 3-5	B1 PH1 A1 C1 N1 M1				S1 W1		Additional wording	

Development Objectives - **Chapter 4: Transport**								
Objectives	No likely interaction with status of EPOs	Likely to improve status of EPOs	Probable Conflict with status of EPOs-unlikely to be mitigated	Potential Conflict with status of EPOs-likely to be mitigated	Uncertain interaction with status of EPOs	Neutral interaction with status of EPOs	**Environmental Report Recommendation**	**Airport SLAP Action**
TRA 4-1		M1			PH1 S1 W1 A1 C1 N1 B1		Additional wording	
TRA 4-2	B1 S1 W1 C1 N1	PH1 A1			M1		Additional wording	-
TRA 4-3	B1 S1 W1 C1 N1 A1 M1	PH1						
TRA 4-4	B1 W1 C1 N1 A1 M1	PH1			S1		Additional wording	
TRA 4-5				B1 PH1 S1 W1 A1 C1 N1 M1			Additional wording	
TRA 4-6	B1 W1 C1 N1	PH1 A1 M1						
TRA 4-7		PH1 M1			B1 S1 W1 A1 C1 N1		Additional wording	

Development Objectives - **Chapter 5: Landuse Proposals & Implementation**								
Objectives	No likely interaction with status of EPOs	Likely to improve status of EPOs	Probable Conflict with status of EPOs-unlikely to be mitigated	Potential Conflict with status of EPOs-likely to be mitigated	Uncertain interaction with status of EPOs	Neutral interaction with status of EPOs	**Environmental Report Recommendation**	**Airport SLAP Action**
LUS 5-1	PH1 C1 M1				B1 S1 W1 A1 N1		Additional wording	
LUS 5-2	PH1 C1 M1				B1 S1 W1 A1 N1		Additional wording	
X-01	PH1 C1 M1				B1 S1 W1 A1 N1		Additional wording to LUS 5-2	
X-02	PH1 C1 M1				B1 S1 W1, A1, N1		Additional wording to LUS 5-2	
X-03	PH1 C1 M1				B1 S1 W1 A1 N1		Additional wording to LUS 5-2	
X-04	PH1 C1 M1				B1 S1 W1 A1 N1		Additional wording	
DES 5-1	B1 S1 W1 A1 C1 N1 M1	PH1						
DES 5-2	PH1 S1 C1 M1 N1	A1 B1 W1						

Stage 4 The Amendment Stage

The recommended amendments as outlined in the Manager's Report 20 (3)(c) were assessed in order to ensure that significant effects on the environment were unlikely to occur as a result of the recommended amendments to the draft airport SLAP. Potential impacts on Natura 2000 sites have been considered in the HDA report while wider environmental issues have been considered within the context of the environmental protection objectives outlined in the Environmental Report. This screening exercise concluded that no significant effects were likely (either on Natura 2000 sites or on the environment).

Following on from the publication of the proposed amendments to the draft plan a number of submissions and observations were received. The recommended amendments outlined in the Managers Report 20(3)(f) as a result of these submissions and observations were assessed in order to ensure that significant effects on the environment were unlikely to occur as a result of the recommended amendments to the draft airport SLAP. Due to the minor nature of these changes overall this screening concluded that no significant effects were likely (either on Natura 2000 sites or on the environment). See Table 4 below.

Table 4: Screening Exercise of Recommended Amendments to the Draft Plan

Airport SLAP Objective	Form of Change made	Recommended Amendment	Screening Conclusion
DRU 2-1	Additional wording	Modification of wording to Proposed Amendment	Change had positive environmental effect
DRU 2-2	New text and new objective	Accept Proposed Change	No further Change to be considered
DRU 2-3	New text and new objective	Modification of wording to Proposed Amendment	Change had positive environmental effect
FAN 3-1	Modification and additional wording	Modification of wording to Proposed Amendment	Change had positive environmental effect
FAN 3-5	Additional wording	Accept Proposed Change	No further Change to be considered
TRA 4-1	Additional wording	Accept Proposed Change	No further Change to be considered
TRA 4-5	Additional wording	Accept Proposed Change	No further Change to be considered
TRA 4-6	Additional wording	Accept Proposed Change	No further Change to be considered
TRA 4-7	Additional wording	Accept Proposed Change	No further Change to be considered
X-04	Additional wording	Accept Proposed Change	No further Change to be considered
Key Infrastructure Works Table	Additional wording	Accept Proposed Change	No further Change to be considered
DES 5-2	New objective	Modification of wording to Proposed Amendment	Change had positive environmental effect
Section 5.2.3	Delete wording of paragraph and replace with new wording	Accept Proposed Change	No further Change to be considered

1.3 Summary of how submissions/consultations were taken into account:

Introduction

This section details how both the Environmental Report and submissions/observations made to the Airport SLAP on the Environmental Report and SEA process have been taken into account during the preparation of the plan.

SEA Scoping Consultations

Strategic Environmental Assessment scoping letters were sent to the Department of the Environment, Heritage and Local Government (DoEHLG), Department of Communications, Marine and Natural Resources (DCMNR) and the Environmental Protection Agency (EPA). The responses received were taken into account during the carrying out of the Strategic Environmental Assessment and the preparation of the Environmental Report on the Airport SLAP.

Submissions and Observations on draft SLAP and Environmental Report

Section 20(3) (c) of the Planning and Development Act 2000 requires a Manager's Report to be prepared on any submissions or observations received during the public display period. The Manager's report should indicate what action (if any) was taken in response to the submissions/ consultations. This was published in April 2010.

A total of 36 submissions were received during the public display period (1st February – 15th March 2010).

Submissions received related to surface water drainage, land uses in the vicinity of the airport, the runway extension, surface access, modal split, the secondary access, upgrading of the N27, zoning objectives, mobility management plans and noise monitoring. Two new objectives were recommended by the EPA and the DAA in relation to the requirement for a waste management plan and the need for a sustainable approach to the design/ energy use of future airport buildings.

Submissions and observations on amended draft SLAP

The SEA team responded to submissions and observations made after the various public display periods. Any changes necessitated as a result of the submissions received were reviewed by the SEA team and have been incorporated where appropriate into the amendments to the Plan and documented in Section 20(3) (f) of the Managers Reports produced during the preparation of the Plan.

A total of 5 submissions or observations have been received in response to the public consultation carried out regarding the proposed amendments and were incorporated into the plan.

1.4 Reasons for choosing the plan as adopted, in light of other reasonable alternatives considered:

Introduction

Article 5 of the SEA Directive requires the environmental report to consider 'reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme' and the significant environmental effects of the alternatives selected.

The SEA included two approaches for the consideration of the development of the Airport for the plan period. The approaches considered were both strategic and local.

Assessment of Alternatives

Increased use of other airports

This approach considered increased passenger numbers at other airport locations such as Waterford, Kerry and Shannon rather than Cork airport.

The reason for not choosing this option is that these airports are too peripherally located in the region to best serve the area of greatest population density.

Improved use of the existing infrastructure at Cork Airport

If the airport is left to accommodate additional growth without improving its infrastructure and expanding the runway it will not have the capacity to meet projected passenger growth.

The reason for not choosing this option is that it only allows for a limited increase in passenger numbers.

Reuse of the old Terminal Building

This could be a consideration to cater for the additional numbers proposed to use the airport facility.

The reason for not choosing this option as on its own it would not provide the requirement for extending the runway and other operational needs.

Strategic phasing of future development

This alternative takes the approach of phasing future development of the airport without the guidance of a plan for the airport.

The disadvantage is that non-intervention would result in uncoordinated growth, traffic and passenger congestion without maximizing the potential of the airport site.

Focus only on operational needs

The option to focus only on operational needs and without any structure to address infrastructure growth would result in extra pressure on the existing service infrastructure capacity on site, additional road traffic to and from the site as a result of an increase in aircraft movement.

In adopting this scenario, consideration must be given as to the how the airport will be able to meet on site water and sewerage demand and if there will be environmental issues arising

Plan led growth in conjunction with operational needs growth

This alternative is where the SLAP will provide a framework for the optimal long-term development of the Airport in response to local and international demand for air travel as outlined in paragraph 1.2.1. of the SLAP.

This is seen as the preferred option and with the Airport Authorities in conjunction with Cork County Council having prepared a Cork Airport Surface Access Plan and a Cork Airport Future Needs Study in addition with the SLAP indicates a high level of coordination between the stakeholders, which is critical for orderly growth.

Implementation

Strategic Phase 1 2008-2012

To cater for the short-term forecast passenger and aircraft movement growth 2008-2012 at Cork Airport there is an immediate requirement for additional aircraft parking stands, a parallel taxiway for Runway 17-35. An extension to the new terminal building in 2011/2012 will be required. The existing cargo facilities positioned to the north of the new terminal will need to be relocated. In tandem with this projected growth in annual passenger throughput at the airport, and the associated increase in private car demand, there is a need to develop additional car parking spaces. An immediate requirement is for the development of an integrated public transport system to serve the airport.

Strategic Phase 2 2013-2020

The airport requirements include the development of aircraft parking stands, extension of runway 17-35, relocation of the fire station and the further development of maintenance facilities.

Strategic Phase 3 2021-2040

Development of contact aircraft parking apron, development of remote aircraft parking, further development of general aviation facilities, further extension to passenger terminal building, cargo handling facility, provision of additional short and long term car parking spaces, car hire car parking spaces, improve road infrastructure and on going transport system between the airport and city.

1.5 Monitoring Measures:

Introduction

Article 10 of the SEA Directive requires that the significant environmental effects of the implementation of plans are monitored in order to identify at an early stage unforeseen adverse effects and to be able to undertake appropriate remedial action. The Environmental Report which was made available for public consultation has included proposals for monitoring of the plan. Monitoring can also be used to analyse whether the SLAP is achieving its environmental protection objectives and targets, whether such objectives need to be re-examined and whether the proposed mitigation measures are being implemented.

The primary purpose of monitoring is to cross check significant environmental impacts, which arise during the implementation stage against those, predicted during the plan preparation stage.

Monitoring Methodology:

The monitoring process assesses the progress of environmental components of the airport SLAP and environmental targets through monitoring indicators.

The Environmental objectives and targets are predominately linked to objectives contained in the Plan (Figure 1). The monitoring process system can be split into the following stages:

- Collection of data (acquisition)
- Processing the data (analysis of collected data)
- Evaluation and interpretation
- Consideration of consequences (review of Plan policies)

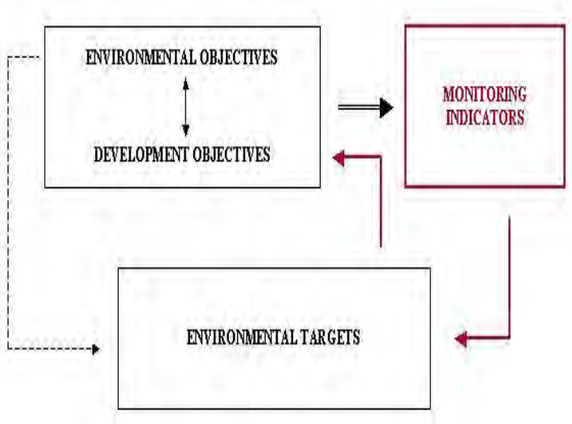


Figure 1

Table: EPO's and Targets

Environmental Protection Objectives (EPOs)	Targets	Monitoring Indicators	Data Source	Accessibility
Biodiversity				
B1: Conserve and enhance biodiversity	No decline in the population of protected species as a result of Airport activities	Number and extent of Protected Sites	The Heritage unit of Cork County Council, DoEHLG, NPWS.	Dependant on external information, some information available within the Local Authority.
Population and Human Health				
PH1: Improve people's quality of life based on the promotion of sustainable forms of transport to and from Cork Airport	Increase modal shift to sustainable transport including public transport, cycling and walking	% of employees/passengers using public transport; % of employees cycling to work, % of employees walking to work.	Cork County Council and the Airport Authorities	Internally available
Soils and Geology				
S1: Safeguard soil and geological quality and quantity	Re-use of Brownfield lands, rather than developing on Greenfield lands;	Rates of brownfield lands reused and developed; rates of Greenfield development within the airport site.	Cork County Council	Internally available
Water Resources				
W1: Improve water quality and the management of watercourses to comply with the standards of the Water Framework Directive and incorporate the objectives of the Floods Directive into sustainable planning and development;	No negative impacts on water quality in rivers, lakes, estuaries and groundwater as a result of Airport activities	Water supply and wastewater treatment capacities versus study areas needs; % of wastewater achieving tertiary treatment;	Cork County Council, EPA and SWRBD	Dependant on external and internal information.
	Management of surface water and reduce risk of flooding;	Annual costs of damage related to flood events.	Cork County Council, EPA and SWRBD	Dependant on external and internal information
Air and Climate				
A1: Maintain and promote continuing improvement in air quality through the reduction of emissions and promotion of renewable energy and energy efficiency	To remain within good air quality standards	Air quality shall be monitored and results shared with the relevant authorities.	EPA and Cork County Council	Dependant on external and internal information
	Minimise emissions of greenhouse gases	Reduction in greenhouse gas emissions	Cork County Council	Dependant on external information
	Reduce waste of energy, and maximise use of renewable energy sources	Number of energy/renewable energy production facilities;	EPA, Cork County Council	Cork County Council
	Reduction in car dependency and reduction in car based emissions	Public Transport to and from the airport	Cork County Council and transport providers.	Dependant on external and internal information
Cultural Heritage and Landscape				
C1: Promote the protection and conservation of protected structures, sites of archaeological value and the character of the landscape;	No negative impacts on protected structures, sites of archaeological value and the character of the landscape	Rate of loss of sites of archaeological value due to associated airport development or activities;	Cork County Council Heritage Unit	Internal Information

Environmental Protection Objectives (EPOs)	Targets	Monitoring Indicators	Data Source	Accessibility
Noise				
N1: Sustainably manage and minimise the impacts of noise	Develop the carrying out of annual aircraft and airport operations noise monitoring in relation to recognised noise criteria	Frequency of monitoring of noise	Cork County Council, Airport Authorities and the EPA	Dependant on external and internal information
	No increase in the number of noise complaints received	Rate of noise complaints received	Cork County Council, Airport Authorities and the EPA	Dependant on external and internal information
Material Assets				
M1: Support and improve sustainable transport to and from the airport, including public transport systems and infrastructure	Improve bus availability	Frequency of bus departures and arrivals	Bus Eireann, Cork Airport Authority	Dependent on external information.
	No decrease in peak traffic speed	Speed of traffic movement in peak hours.	Transport providers and Cork Airport Authority	Dependent on external information

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