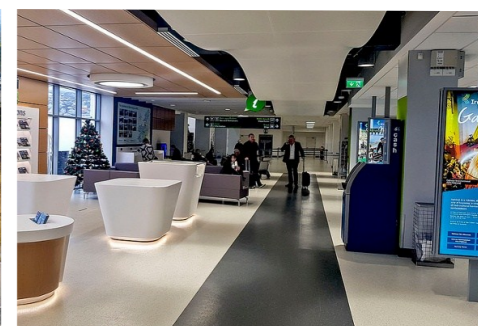


# Ireland West Airport Knock Strategic Development Zone

Planning Scheme 2019



REGIONAL AIRPORT



HANGERAGE & AVIATION



BUSINESS & INNOVATION



HOTEL & CONFERENCE



**MAYO.IE**



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# 1. Introduction

## 1.1 Purpose of the Planning Scheme

The purpose of the Planning Scheme is to set out an overall vision and set of guiding principles for the SDZ area which will give effect to the provisions set out in the SDZ Order by the Minister. It will serve as a design framework for the future development of the lands in and around Ireland West Airport Knock (IWAK).

The Planning Scheme consists of a written statement and plans indicating the type and extent of development to be permitted in the SDZ, together with proposals relating to the design of development, transportation, the provision of services, the minimisation of any adverse impacts on the environment and the provision of amenities, facilities and services for the area. It is accompanied by a Strategic Environmental Assessment (SEA) Environmental Report, an Appropriate Assessment Report (AA) and a Strategic Flood Risk Assessment (SFRA).

## 1.3 Background to Ireland West Airport Knock (IWAK)

Ireland West Airport Knock (IWAK) was developed in the 1980's as a community led operation in partnership with the Government. The brainchild of Monsignor James Horan, who envisioned the airport as a link to Rome, the Vatican and other places of pilgrimage, IWAK was established to get a foothold of the tourist industry and act to as a catalyst for the manufacturing industry and international services to boost the economy of the West of Ireland.

Opened in 1986, IWAK is one of four international airports in Ireland. In terms of transport infrastructure IWAK is strategically and locally important, facilitating travel and tourism and a significant part in the economic fabric of the West and North Western Region, and Mayo in particular.

Since the 1980's IWAK has grown significantly. Building on modest passenger numbers in its early years reaching an annual air passenger figure of 145,000 in 1989. With the introduction of low fare services and scheduled flights to the UK and Europe passenger numbers have grown steadily since 2003 with minor fluctuations. 2018 was its busiest year on record, handling over 770,000 passengers, representing a growth rate of 3% on the previous year. This represents an annual average number of passengers in excess of 729,000 per annum over the past 5 years. Such growth illustrates the important role of IWAK in terms of tourism, travel and business to and from the West of Ireland.

In 2008, Mayo County Council applied to the Minister (DoEHLG) to designate lands at Ireland West Airport Knock as a Strategic Development Zone (SDZ). In response, the Department recommended that a Local Area Plan (LAP) be prepared with the dual intention of identifying development issues which may require addressing prior to a Strategic Development proposal as well as guiding the immediate development of the area in a planned and coherent manner. IWAK Local Area Plan 2012-2018 was adopted by Mayo County Council in October 2012. The lifespan of the LAP was subsequently extended until June 2022 to ensure that the development objectives of the LAP remain in place until such time as the SDZ Planning Scheme is adopted. On the 30<sup>th</sup> May 2017 by order of the Government (S.I No 266 of 2017) Ireland West Airport Knock (IWAK) received approval for the designation of lands as an area for the establishment of a Strategic Development Zone.



### 1.3 IWAK Strategic Development Zone

The connectivity provided by the presence of an airport significantly broadens the region’s transport network capacity, providing catalytic as well as direct, in-direct and induced economic and social benefits. In addition, Ireland West Airport Knock plays a significant economic role in creating opportunities by attracting foreign direct investment to the region. In essence it acts as an economic driver for the region and has a major impact on the social and economic infrastructure of the surrounding area.

To date 10 areas within the State have been designated as SDZs most of which are located within the Dublin Metropolitan Region, usually along major transport corridors, and are aimed at providing new urban districts for mainly residential and /or mixed uses, including educational facilities .

The SDZ at IWAK marks a new departure in this regard, given its rural location and the strong economic focus of the designation - which is to facilitate enterprise and business development in tandem with the growing transport role and needs of the Airport. In this regard, IWAK SDZ demonstrates a strong commitment by Government in acknowledging the importance of IWAK as a critical driver of regional economic development in the North West Region (NWR).

As Ireland is in a renewed period of growth, IWAK is well placed to expand its share of economic development. The Planning Scheme provides a clear blueprint for development while offering certainty to potential applicants, developers or investors, providing an optimal route to harness the potential of IWAK as an economic driver for the region is through the fast-track planning framework of a Strategic Development Zone (SDZ).

The utilisation of the SDZ mechanism at IWAK is unique in that the Planning Scheme is for the dual purpose of providing for the development of the airport operations and aviation related development; and to provide for the creation of a new regional business and enterprise hub.

The Planning Scheme provides a medium and long term view for the future development in a logical and coherent manner and will ensure that future development adjoining the airport does not compromise or constrain its primary aviation function, particularly in relation to safety and operational issues.

### 1.4 Vision for IWAK

The vision for IWAK SDZ is that of a dynamic regional airport and business campus, that grows and promotes its established travel and tourism sectors in tandem with a vibrant and vital business and enterprise hub that in time will become an essential part of the business and economic environment of the West and North West.

IWAK has the potential to become a regionally focused business destination that is well connected both locally and internationally by means of air travel and ease of access to the national motorway network.

The development and expansion of the airport and its aviation related industries & education/training will be an important feature of IWAK. The growth of the Maintenance, Repair, Overhaul (MRO) sector and associated financing and leasing industries will be facilitated and promoted.

The airport location can become an exemplar of a new and distinctive regional airport business model that is easily accessed by local and international industry in a unique rural setting. It will provide a modern, spacious, strategically located business campus in a sublime landscape.

Quality of environment and sensitivity to the setting is a significant feature of the Planning Scheme. IWAK SDZ will provide green infrastructure, sustainable urban drainage (SUDs) and energy and climate change mitigation.

It will provide a new business and enterprise hub in the form of a campus in which to cultivate and establish new business and innovative industries that harnesses the benefits of living and doing business in the West of Ireland. It will provide hotel and conference facilities that compliments the business climate of the airport location .

The overall development of the Planning Scheme is expected to deliver the following gross floorspaces:

- Commercial, Business & Enterprise - 95,025sq.m
- Aviation Economic Development & Services - 44,000sq.m
- Hotel/Accommodation & Conference floorspace - 11,000sq.m



## 1.5 Plan Area & the SDZ Framework

### 1.5.1 Statutory Designation

Part IX of the Planning and Development Act 2000 (as amended) provides the legal framework to prepare a Strategic Development Zones (SDZ). The purpose of the Strategic Development Zone is to facilitate specified development of economic or social importance to the state. Approximately 284ha of the lands at Kilgarraff West, Ireland West Airport Knock, was designated as a Strategic Development Zone by Government Order (S.I. No 266 of 2017) on the 31st of May 2017. A draft Planning Scheme or masterplan must be prepared for the Strategic Development Zone within 2 years after the issue of the Order.

### 1.5.2 Scope of the Strategic Development Plan Order

The designation of an area as a Strategic Development Zone is of strategic National importance. The State, by Order of the Government sets out the type of development which may be included in the Planning Scheme. In the case of Ireland West Airport Knock SDZ the scope of order sets out the type of development as follows:

- *Commercial activities including the development of infrastructure to support aviation including air cargo logistics facilities, aircraft hangers, maintenance and repair facilities, and airline and flight services,*
- *The provision of hotel and conference facilities*
- *The development of any commercial or employment activity that, in the opinion of the first local authority having regard to the proper planning and sustainable development of its local authority area, requires to be located within the strategic development zone and cannot be reasonably accommodated at any other location in either the local authority area of the first local authority situated outside of the strategic development zone or the local authority area of any of the other local authorities in the Northern and Western Regional Assembly Area, and*
- *The provision of supporting transport infrastructure*

### 1.5.3 The Role of Mayo County Council

Mayo County Council is the specified Development Agency for IWAK SDZ as well as being the relevant Planning Authority for the area and has the responsibility of both drafting (executive function) and adopting the Planning Scheme (reserved function).

The Planning Scheme (or masterplan) is a spatial planning document has been prepared in collaboration with a range of stakeholders including landowners, the public, government agencies, statutory bodies, staff and elected members of the Council. This masterplan forms part of the County Development Plan in force in the area until such times as the Scheme is revoked. The provisions of the Planning Scheme supersedes that of the Development Plan.

### 1.5.4 Process

#### The Making of the Planning Scheme

A SDZ Planning Scheme is a detailed masterplan for a specified designated area. Under Part IX, Section 168 of the Planning and Development Act, a Planning Scheme must include a written statement and a plan indicating the manner in which it is intended that the site or part of the site to which the scheme relates is to be developed and in particular:-

- a. the type or types of development which may be permitted to establish on the site (subject to the order of the Government under section 166),
- b. the extent of any such proposed development,

- c. proposals in relation to the overall design of the proposed development, including the maximum heights, the external finishes of structures and the general appearance and design,
- d. proposals relating to transportation, including public transportation, the roads layout, the provision of parking spaces and traffic management,
- e. proposals relating to the provision of services on the site, including the provision of waste and sewerage facilities and water, electricity and telecommunications services, oil and gas pipelines, including storage facilities for oil or gas,
- f. proposals relating to minimising any adverse effects on the environment, including the natural and built environment, and on the amenities of the area

The IWAK Planning Scheme has been prepared in accordance with the above criteria as set out in the Act.

#### Public Display Period

A draft Planning Scheme is prepared by the development agency and is put on public display for a minimum of 6 weeks. Following the period of public display and the preparation of the Chief Executive's Report on submissions and observations received, the Elected Members vote to adopt the draft Planning Scheme. Once made, the Planning Scheme is subject to an appeal period (4 weeks). An Bord Pleanála considers any appeal made to the Scheme and can approve with or without modifications or can refuse to approve the Scheme. The Bord is limited in the modifications it can make to the Scheme i.e. it can impose minor changes that are not likely to have significant effects on the environment or adversely affect integrity of a NATURA 2000 site (SPA and SACs).

#### Planning Permission Process and the SDZ Planning Scheme

Development within the Planning Scheme area requires planning permission from Mayo County Council. Where development proposals are consistent with the provisions of the Planning Scheme, they can be granted planning permission. Once granted, permission takes effect immediately from the date of grant. Where proposals are not consistent with the Scheme, no permission will be granted. No party may appeal to An Bord Pleanála against a decision of Mayo County Council on any application for permission in respect of a development within the area subject to the IWAK Planning Scheme.

### 1.5.5 Connaught Airport Development Company (CADC) — Airport Master Plan 2009

Connaught Airport Development Company Ltd (CADC) is the owner of IWAK and is the overseer of the airport. CADC is responsible for the operations, running and development of the airport and had compiled a business and development master plan for the airport in 2009 - *The Ireland West Airport Knock Master Plan 2009*. The IWAK master plan sets out the future development aspirations for the airport up to 2030. The Master Plan is a non-statutory land use plan for the development of the airport, based on its medium to long range plans and associated needs. Its function is to serve as a structured plan for the future provision of capacity at the airport. In this regard, it is an important document in understanding the operational and future development needs of the airport. It takes into account the requirements of both Airside and Landside as well as the broader scope of the airport in terms of business and commercial development. The Master Plan provides a number of development options and scenarios for the expansion of the airport, indicating preferred options based on rationale derived from national and regional policy, planning context and socio-economic trends.

The balancing of technical and safety requirements of the airport with its plans for expansion and the development of a business and enterprise hub at this location is fundamental to the SDZ Planning Scheme. The Airport Master Plan 2009 has informed the Planning Scheme for the airport at IWAK which will progress the airport into a new phase of its evolution.

### 1.5.6 Consultation

Pre-draft public consultation is not a statutory requirement in the preparation of the Planning Scheme. However, to inform and assist in the preparation of this Planning Scheme a number of measures were taken, as follows

- (a) regard to the IWAK Local Area Plan, which involved public consultation and engagement as part of the LAP process;
- (b) Several interdepartmental multi-disciplinary meetings of Mayo County Council regarding the Planning Scheme;
- (c) a series of meetings were held with Connaught Airport Development Company; and
- (d) a peer review session consisting of departmental representatives from Mayo County Council and the Connaught Airport Development Company;

The above consultation measures have proved an invaluable aspect of the process which informed and guided this Planning Scheme.

In addition, statutory consultation with the Environmental Authorities was carried out by Mayo County Council to identify environmental issues and to establish the scope and level of detail to be included in the Environmental Report and which would require further consideration during the SEA process. A scoping consultation document was sent to the Environmental Authorities on the 12 October 2018. The document gave an outline of the geographic area involved; the nature of the Planning Scheme, the likely scale, nature and location of development within the Planning Scheme area and predicted significant environmental impacts. The Environmental Authorities were invited to make written submissions on the scope and level of detail of the information to be included in the Environmental Report.

### 1.5.7 Range of Studies

The SDZ Planning Scheme was also prepared following a comprehensive period of gathering an evidence base, research and analysis which is summarised as follows:

#### IWAK LAP (2012)

The LAP for IWAK was to act not only as a plan to guide development, but also as a precursor or parent document to the Strategic Development Zone and in doing so identify any major issues relating to development. The LAP set about providing for orderly development and a number of key measures for the development of the lands at IWAK.

#### Safety & Noise

In preparing the LAP, a rigorous set of studies were carried out relating to aerodrome safeguarding, noise contouring and public safety. Consultants Airport Planning and Development Ltd in Association with DNV Technology and Bickerdicke Allen Partnership devised a set of public safety zones around the airport which provide guidance on the height, set-backs and suggested types of compatible development that may be acceptable in the area of the airport.

#### Environment

A Strategic Environmental Assessment was carried out to inform the likely environmental effects of implementing the Planning Scheme. In addition, an Appropriate Assessment (AA) which is a mandatory requirement for the SDZ was carried in order to determine if the Planning Scheme would impact upon the conservation objectives of a Natura 2000 site or its catchment. Though no Natura 2000 sites are directly located within the SDZ lands, there are a number of Natura 2000 sites within a 15Km radius of the plan area, in particular the River Moy Complex SAC. A Strategic Environmental Assessment (SEA) and a Flood Risk Assessment (FRA) have been carried out and accompany this

document.

The range of studies carried out to update the context and to inform the master planning aspect of the Planning Scheme are summarised as follows.

- A Strategic Environmental Assessment (SEA), Environmental Report
- An Appropriate Assessment (AA)
- A Strategic Flood Risk Assessment (SFRA) was undertaken to ascertain the impact of the Planning Scheme on future requirements relating to flooding;
- An Economic Appraisal of the SDZ was undertaken by Future Analytics Consultants - *Ireland West Airport Knock Strategic Development Zone Preliminary Economic Study* - to appraise and inform the approach in the delivery and implementation of the Planning Scheme which is essential aspect in the creation of a new business district and expansive airport at IWAK;
- A range of in-house studies were carried to inform the master planning process as follows: - similar scaled regional airport business locations, use of renewable energy i.e. USSPV at airports, land uses & employment density scenario studies, etc.

### 1.5.8 Time Horizon and focus of the Planning Scheme

The SDZ Planning Scheme takes into account the underlying zoning objectives of the LAP - Landside Zone, Airside Zone, Airport Development Zone and Rural Character. The provisions of the IWAK Local Area Plan 2012, its zonings objectives together with and SDZ Order provides the basis for the development parameters and classes of use for the development within the SDZ.

The northern portion of lands i.e. those designated Airport Development Zone will form the main focus for the creation of a new business and enterprise campus, while the lands on the southern side of the R376 road will focus on the future development and expansion of the Airport, its operations and the creation of a MRO\* Campus which will compliment and extend the aviation business model of the airport.

Given the purpose and range of development within the IWAK, it is anticipated that development is likely to occur at varying paces. This is in recognition of the fact that each development area can grow at a pace that is mutually independent. In this regard, a flexible but practical approach will be taken where the four main functional/development areas within the SDZ (i.e. Airport, MRO Campus, Business & Enterprise Campus and Hotel & Conference facility) will be directly linked to the capacity of existing infrastructure to accommodate development and have regard to the provision of future infrastructural requirements and services improvements as is necessary to facilitate development, including road network; waters services capacities and improvements; transport services and provisions (public and private); energy sources; telecommunications, etc.

It is envisioned that the pace of development will vary over the lifetime of the Planning Scheme and that the various development zones may not finish out in a any linear order. Going forward, the economic context within which investment decisions are made will dictate the order in which the Planning Scheme is implemented. In this regard, a dynamic approach towards the phasing and delivery of development will be embraced which can accommodate and adapt to a changing economic, employment and tourism context.

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\* Maintenance, Repair and Overhaul of Aircraft - a subsidiary sector of the aviation industry



## 1.6 Policy Context

### 1.6.1 Introduction

The Planning Scheme falls within a hierarchy of planning and development guidance at national, regional and local level. It is also informed by other national policy frameworks which support the development and expansion of the airport at IWAK and the creation of a regionally focused economic hub. This section sets out an overview and context of spatial plans, policy guidance relevant to the Planning Scheme.

**Table 1.6.1(i)** provides the policy framework which has been taken into consideration in the preparation of the Planning Scheme. This schedule includes Planning, Fiscal and Aviation Policy context. **Figure 1.7.1(a)** shows the hierarchy of Statutory Plans that inform the Planning Scheme.

**Figure 1.6.1(a) Spatial Planning Policy Framework - National, Regional & Local**



**Table 1.6.1(i) Policy Framework**

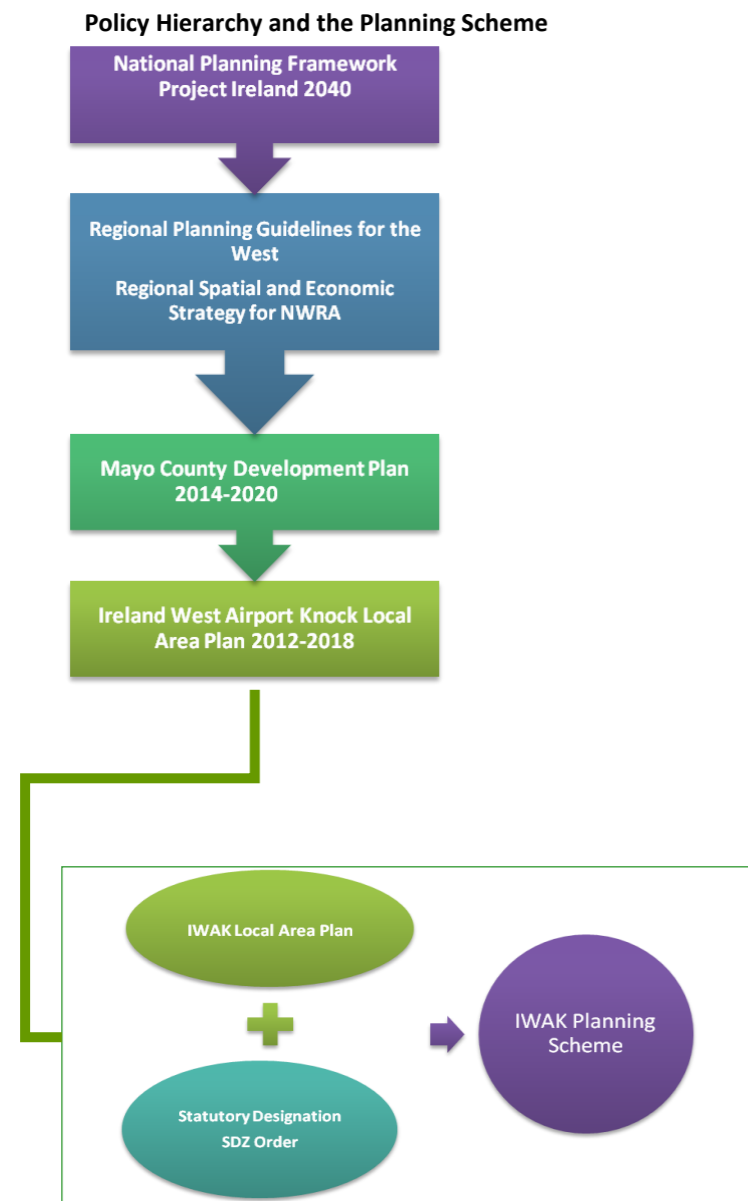
Policy Document	Main Considerations
<p><b>National Planning Framework Project Ireland 2040 (NPF)</b> IWAK has runway capability in handling large aircraft, such as Boeing 737s, 747s and the Airbus 330, enabling it to handle both transatlantic traffic and European Low Cost traffic. Unlike the other smaller regional airports, given its scale of operation the NPF regards IWAK as playing a more significant regional role in terms of international access because of its location in the North-West.</p>	<ul style="list-style-type: none"> <li>Emphasises the importance of high-quality international connectivity and an Island economy - including ports and airports</li> <li>Ireland West Airport Knock is regarded as a key piece of transport infrastructure for both national and regional development.</li> <li>Careful land-use management of landside areas to focus on current and future needs of our airports. For the West, IWAK is an important contributor to future development.</li> <li>Investment in Airports and Ports is highlighted as one of its Strategic Investment Priorities.</li> <li>IWAK has a significant role on tourism and enterprise development and potential for further growth because SDZ designation.</li> </ul>
<p><b>National Aviation Policy 2015 (NAP)</b> Policy is focused on three main goals: - to enhance Ireland’s connectivity; to foster the growth of aviation enterprise in Ireland, support job creation and position Ireland as a recognised global leader in aviation; and to maximise the contribution of the aviation sector to Ireland’s economic growth and development.</p>	<ul style="list-style-type: none"> <li>Encourages airports to attract new business, to achieve excellence in the delivery of service and value for passengers and airlines, and to make a sustainable contribution to their respective local economies and communities.</li> <li>IWAK is regarded as playing a more significant regional role than other smaller airports because of the access it provides to the West and North West region.</li> <li>Promotes the important supporting role of the MRO industry in the wider aviation sector as a key enabler for airlines, aircraft leasing companies and of growth in related technology and manufacturing sectors.</li> <li>The National Civil Aviation Development Forum* (NCADF) emphasises the need for regional airports to work together and create synergy in operational activity, promoting the overall role of regional airports as access points for both tourism (e.g. the Wild Atlantic Way) and business benefits.</li> <li>Lack of appropriate hangar infrastructure has been identified as a barrier for the expansion of MRO capability. NCADF recommends provision of suitable airside locations to develop facilities and activities; supporting infrastructure to attract new MRO capacity; and support the aviation industry in training aviation apprentices and trainees.</li> <li>Promote role of General Aviation and corporate aviation particularly in a regional context.</li> </ul>
<p><b>The National Development Plan 2018-2027 (NDP)</b> The National Development Plan (NDP) sets out the investment priorities that will underpin the implementation of the National Planning Framework and drive its implementation over the next ten years. The development of our ports and airports are regarded as one of the key strategic investment priorities.</p>	<ul style="list-style-type: none"> <li>Importance in improving accessibility and connectivity on the emerging Atlantic Economic Corridor that links major centres on the western seaboard.</li> <li>Investment Actions set out in the NDP offers continued Exchequer support for smaller regional airports under the Regional Airports Programme, including IWAK.</li> </ul>
<p><b>Regional Planning Guidelines 2010-2022 (RPG)</b> RPGs for the West recognises the strategic importance of Ireland West Airport both as an amenity and as an important transportation link that facilitates the growth and connectivity of the West region.</p> <p><b>Regional Spatial Economic Strategy 2019 (RSES)</b> The regional and international connectivity provided at IWAK broadens the transport network capacity and provides catalytic as well as direct, indirect and induced economic and social benefits to the Region, the potential of which has been enhanced by its designation as a SDZ. . In addition to , the potential to provide rail connectivity to IWAK and its associated SDZ, representing a value proposition for the region.</p>	<p>Stated policy objective of the RSES to support the development of IWAK SDZ as follows :</p> <ul style="list-style-type: none"> <li>To promote and support the strategic role of IWAK SDZ as a significant regional economic driver and to promote the SDZ location as regional economic business and enterprise hub.</li> <li>To support and promote the implementation of the approved Planning Scheme for the designated SDZ at IWAK which provides the framework for the expansion of the Airport in terms of its transport and business operations; and as a new business and enterprise destination</li> <li>To support the development of the SDZ in tandem with required infrastructure for both the expansion of the Airport and in the delivery of the regional business and enterprise hub.</li> </ul>
<p><b>Mayo County Development Plan 2014-2020 (CDP)</b> Mayo County Development Plan places emphasis on the important strategic role of Ireland West Airport Knock in terms of its tourism and travel. It supports the growth and development of the airport both for tourism/travel and as an economic driver for the County and wider region.</p>	<ul style="list-style-type: none"> <li>It is stated objective of the CDP to request the Minister of the Environment, Community and Local Government to designate the area within the Ireland West Airport Knock Local Area Plan as a Strategic Development Zone.</li> </ul>
<p><b>The Ireland West Airport Knock Local Area Plan 2012-2018 (IWAK LAP)</b> Ireland West Airport Knock Local Area Plan 2012-2018 was prepared to provide the basis for the planning and development considerations necessary for the designation of the lands at IWAK as an SDZ..</p>	<ul style="list-style-type: none"> <li>to request the Minister for Environment, Community and Local Government to designate the area of the Ireland West Airport Knock Local Area Plan as a Strategic Development Zone following the adoption of the LAP.</li> <li>to promote and support the development of IWAK as a strategically important international gateway to the Region through the continued growth of the Airport as a major transportation hub.</li> <li>to support and promote the development potential IWAK as a strategic economic /enterprise hub.</li> </ul>

\* The National Civil Aviation Development Forum (NCADF) was launched by the Minister for Transport, Tourism and Sport in February 2016. The establishment of the Forum is one of the specific actions of the National Aviation Policy for Ireland which was published in 2015. Its position is to “enhance arrangements for consulting with the industry on the development of national policy and on influencing the development of EU and international policy affecting aviation in Ireland”.

### 1.6.2 IWAK Local Area Plan

IWAK Local Area Plan is particularly important in the context of the Planning Scheme, as its principle purpose was to apply a best practice approach whereby development issues could be addressed prior to a SDZ designation proposal. In effect, the LAP is the parent document to the SDZ, which has set the principle framework in terms of land use zoning, safety, environmental, and other important objectives which has provided the foundation stone and essential guidance in preparing the Planning Scheme.

The IWAK LAP was adopted in 2012 and set out the plan for the future development of the Airport at Knock and its surrounding lands. It provided a set of objectives for the zoning of land for particular uses within and adjoining the airport, providing the framework against which proposals for development are assessed. The strategy of the LAP is consistent with national, regional and county policy guidance, including the objectives for the area as a SDZ.



The IWAK LAP was extended until 11th June 2022 in accordance with Sections 19 and 20 of the Planning & Development Act 2000 as amended, to ensure that the objectives of the LAP remained intact and until such time as the SDZ Planning Scheme is in place.

This Planning Scheme has been prepared based on the combined provisions of the SDZ Order and the Objectives of the LAP. The SDZ Order sets out the type of development that shall be incorporated into the Planning Scheme.

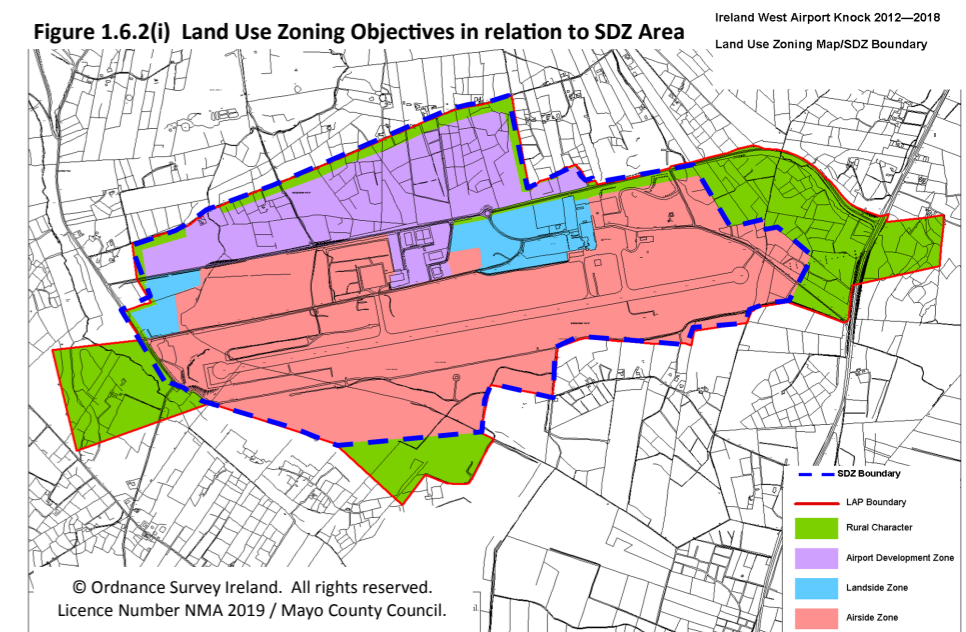
The development strategy and zoning objectives set out in the LAP has been incorporated into the Planning Scheme and underpins future growth and development of IWAK. The zoning objectives of the LAP are as follows:

- **Airside Zoning Objective:** *‘To protect, improve and develop the Airside Zone of IWAK to its full potential and to provide for all facilities necessary, incidental or ancillary to Airport Operations’*
- **Landside Zoning Objective:** *‘To protect, improve and develop the Landside Zone of IWAK to its full potential and to provide for all facilities necessary, incidental or ancillary to Airport Operations and to facilitate accessibility to the Airport Campus’*
- **Airport Development Zoning Objective:** *‘To facilitate appropriate development to strengthen the strategic role of Ireland West Airport Knock as a key economic /enterprise hub for the Region, whilst protecting the future operations of the Airport’*
- **Rural Character Zoning Objective:** *‘To protect the setting, character and environmental quality of Ireland West Airport Knock’*

The boundary of the SDZ, though broadly consistent with the main body of the LAP, does not encompass all of the LAP zoned lands, see **Figure 1.6.2(i)**. The larger areas zoned Rural Character to the South, East and West of the LAP lands were not included in the designated SDZ area. The Planning Scheme has incorporated the objectives of *Landside, Airside* and *Airport Development* zoning into its proposal. The perimeter areas zoned ‘Rural Character’ within the Planning Scheme have been incorporated in such a way as to ensure a green buffer area or transitional area is in place between proposed new development and the existing rural setting.

The SDZ Order accords with the zoning and policy objectives of the Local Area Plan, though the type and scope of development set out in the SDZ Order takes precedence over that stated in the LAP. Once adopted, the Planning Scheme will be the policy and guidance framework against which any future proposals for development will be assessed.

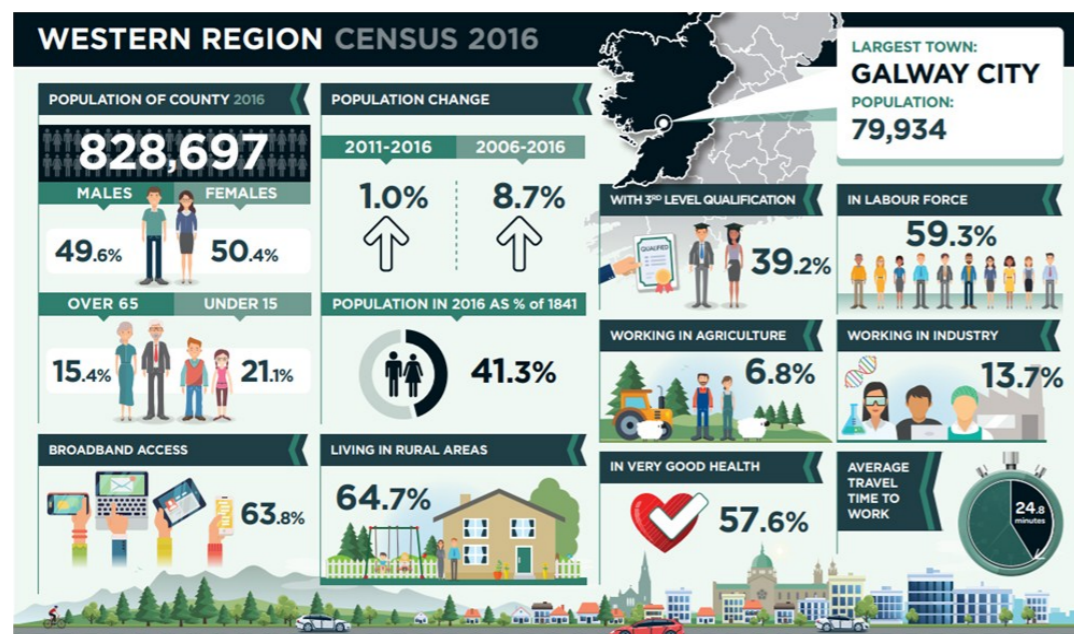
Strategic Development Policies & Objectives IWAK LAP 2012-2018	
<b>Policies</b>	<p>(SDP1) to promote and support the development of IWAK as a strategically important international gateway to the Region through the continued growth of the Airport as a major transportation hub.</p> <p>(SDP2) to support and promote the development potential IWAK as a strategic economic /enterprise hub.</p>
<b>Objectives</b>	<p>(SDO1) to facilitate the sustainable development of the LAP area as a transportation and economic/enterprise hub of strategic importance for the Region through the implementation of the policies; objectives and design standards/guidance of this LAP.</p> <p>(SDO2) to request the Minister for Environment, Community and Local Government to designate the area of the Ireland West Airport Knock Local Area Plan as a Strategic Development Zone following the adoption of this LAP.</p> <p>(SDO3) to ensure that there are sufficient appropriately zoned lands to facilitate the sustainable development of the Ireland West Airport Knock LAP area as a strategic transportation and economic/enterprise hub for the Region.</p> <p>(SDO4) to promote the orderly development of all lands zoned within the Ireland West Airport Knock LAP area by encouraging, where necessary, land assembly and shared access arrangements.</p> <p>(SDO5) to ensure that the development of all lands zoned as ‘Airport Development’ in Section 4 of this LAP are managed in a sustainable plan led manner.</p> <p>(SDO6) to promote a high quality working environment to ensure that the LAP area is an attractive place to work and visit.</p> <p>(SDO7) to promote the development of the Ireland West Airport Knock LAP area in terms of the ‘Green Economy’ through the policies; objectives and design standards relating to sustainability outlined throughout the LAP.</p> <p>(SDO8) to ensure that all development proposals comply with the design standards and guidance set out in Section 6 of the LAP.</p>



## 1.7 Demographic and Social Context

### 1.7.1 Conditions of the Region

In developing the masterplan for IWAK, a number of unique elements specific to the area and region have been borne in mind, in particular its strategic (rural) location in the heart of the West of Ireland and the wide regional catchment it embraces\*.



Source: Western Development Commission (June 2018) <https://www.wdc.ie/wp-content/uploads/WDC-Insights-Census-WR.pdf>

#### Population and Demographic Profile

The population within the regional catchment of IWAK SDZ is significant, representing 15% or one sixth of Ireland’s total population. The population and population change of the regional catchment of IWAK<sup>1</sup> has changed significantly over past 20 years. Since early 2002 the population of the region has grown by almost 110,000 people to 709,880. The census periods between 2002 and 2011 saw the fastest period of population growth in recent times with growth at 8% at each census period, on a par with the national growth average.

The 2016 Census figures indicate an overall marked decline in population growth since 2011, demonstrating a reduced growth rate of 3.8% nationally, compared to 8.2% in the previous two census periods. Population growth rate for the regional catchment of IWAK SDZ has experienced an even more pronounced rate of decline to less than 1%.

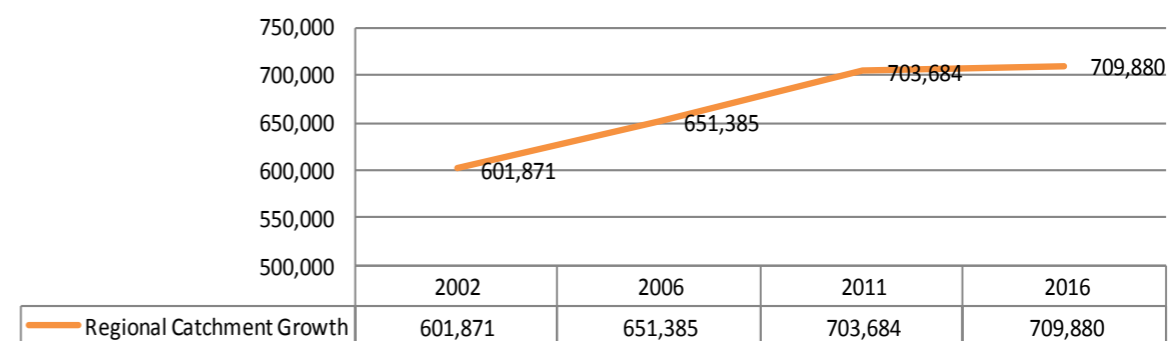
Growth rate for the counties within the region vary, some have experienced population growth above the national average, particularly Galway City and Galway County (city catchment) while other counties within the region have experienced substantial decline in growth rate i.e. Sligo (0.2%), Leitrim (0.8%) and Roscommon (0.7%) with counties Mayo and Donegal experiencing an overall population decline of -0.10% and -1.2% respectively. While the region has seen an overall slowdown in population growth since 2011, it is likely that the current period of economic recovery will see an accelerated population growth trend in the coming years.

\* The regional catchment of IWAK SDZ is taken to be the 7 Local Authority administrative areas – Donegal, Sligo, Leitrim, Mayo, Roscommon, Galway County and Galway City.

Table 1.7.1(i) Population growth within the SDZ Regional catchment area

County	2002	2006	% change	2011	% change	2016	% change
Mayo	117,446	123,839	5.4	130,638	5.5	130,507	-0.10
Donegal	137,575	147,264	7.0	161,137	9.4	159,192	-1.2
Galway City	65,832	72,414	10.0	75,529	4.3	78,668	4.2
Galway County	143,245	159,256	11.2	175,124	10.0	179,390	2.4
Roscommon	53,774	58,768	9.3	64,065	9.0	64,544	0.7
Leitrim	25,799	28,950	12.2	31,798	9.8	32,044	0.8
Sligo	58,200	60,894	4.6	65,393	7.4	65,535	0.2
	601,871	651,385	8.2%	703,684	8.0%	709,880	0.9%

Regional Catchment Growth



Source: Central Statistics Office, 2016



Westport, Co Mayo



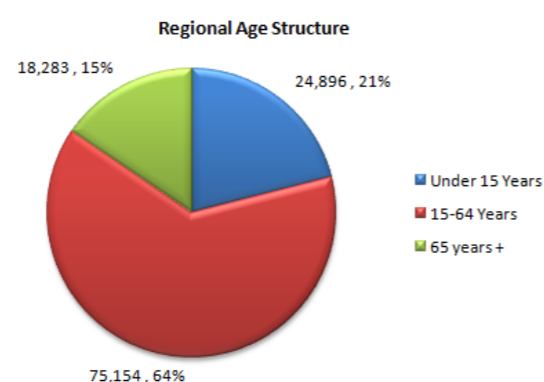
Ballina, Co Mayo

### Age Profile of the Region

Over 65% of the population is within the 15-64 age group in the regional catchment of IWAK. This equates to almost half a million people (465,098) in the working age group range which is on a par with the state average. Those in the 65+ age group account for 15% of the population in the region which is higher than the state average (13%) but this is balanced with a lower proportion of the population in the 0-14 age group, which is below the state average (23%).

**Table 1.7.1(ii) Age Structure of the Region by County, 2016 (%)**

County	Under 15 Years (%)	15-64 Years (%)	65 years + (%)
Donegal	16	62	16
Sligo	20	62	17
Mayo	20	62	18
Leitrim	22	61	17
Roscommon	21	62	17
Galway City & County	21	66	13
<b>Average total:</b>	<b>21</b>	<b>64</b>	<b>15</b>
<b>State:</b>	<b>23</b>	<b>64</b>	<b>13</b>



### Productivity and Disposable Income

In terms of the output of the region, the Gross Value Added (GVA) is the measure by which productivity is gauged. This is measured by the CSO at a regional level. In 2015 the GVA\* per person calculated for the West (Mayo, Roscommon and Galway) was measured at €29,677, an increase from 2014 figure of €27,173. The West Region accounted for 5.5% of the national GVA in 2015, falling from a 6.9% share the previous year. In terms of GVA per sector in the West, 54.8% is attributable to services, with manufacturing & construction accounting for 10.6% of regional output. Agriculture, fishing and forestry accounted for just 12.6% of output.

In the Border region (which includes, Donegal, Sligo and Leitrim) GVA was measured at €19,060 compared to €18,158 in 2014. The Border region represented a 4.1% share of the national GVA. Services represent a 70.1% share of the regions GVA, while agriculture, forestry and fishing account for 15.9% and manufacturing and construction at just 4.6%.

**Table 1.7.1(iii) GVA Productivity in**

Region	GVA per person at Basic Prices (€)	Productivity Index (State = 100)
West Region	27,173	70.8
Border Region	18,158	47.3
<b>State</b>	<b>52,461</b>	<b>100</b>

Productivity and primary income indicators of the productivity of the region, compared with the state average of €52,461 for 2015, GVA is lower particularly for the Border region. The levels of disposable income varies from county to county, on a regional level the influence of Sligo and Galway have a positive influence on disposable income per person with levels of 94.5 and 92.9 of the national average respectively.

**Table 1.7.1(iv) Disposable Income 2015**

	Disposable Income Per Person	Index of Disposable Income per Person (State = 100)
Mayo	€17,390	85.9
Sligo	€19,001	94.5
Leitrim	€18,285	91.7
Donegal	€15,705	78.1
Galway City & County	€18,991	92.9
Roscommon	€16,582	82
<b>Average total</b>	<b>€17,659</b>	<b>87.5</b>
<b>State</b>	<b>€20,334</b>	<b>100</b>

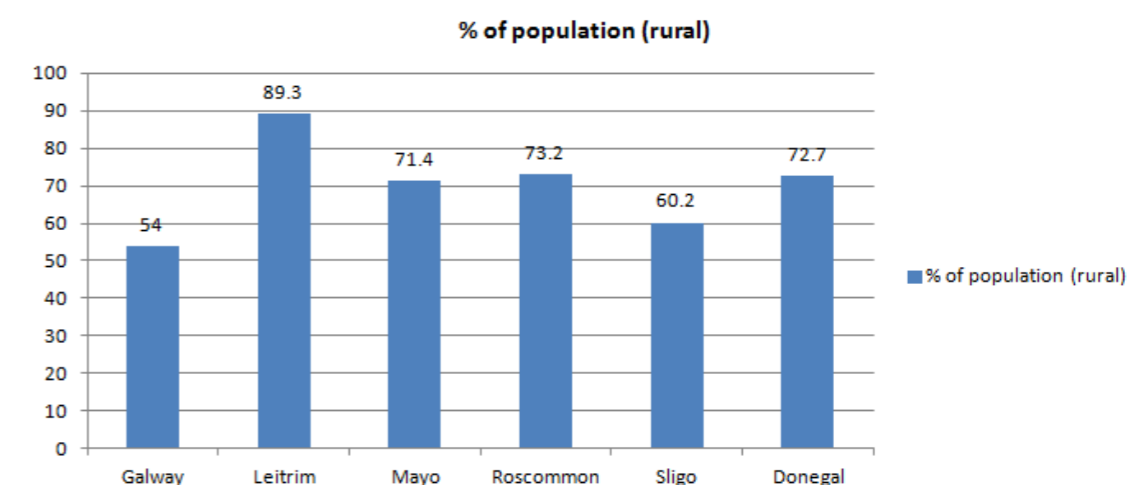
Source: CSO Estimates of Household Income by County and Region, Statistical Indicator and Year

### Distribution of people

The distribution of population throughout the North and West Region is unevenly spread and has a lower level of urbanisation compared to other regions. In the State, the majority of the population live in urban areas i.e. in cities or town greater than 1500 people; just over a third (37%) of the population live in rural areas i.e. rural areas and towns of 1,500 people or less. Despite the national trend towards urban concentrations of population, in the West and North West of Ireland there is a marked contrast, with c.65% of the population living in rural areas.

Outside of Galway City, the rural population rate of the seven county areas varies considerably, from almost 90% in Leitrim (with just one 'urban centre' - over 1,500) to 54% in Galway City which includes the largest settlement of the region<sup>2</sup>. Roscommon, Donegal and Mayo are the most rural of the Western Region counties, with Sligo slightly less rural, see **Figure 1.7.1(a)** below. The distribution of urban settlement within the region as well as the ratio of jobs to resident worker is very unevenly spread. Despite this, more people are now living in small towns and villages than in the rural countryside itself. There are 34 urban settlements within the regional catchment of IWAK of varying sizes, see **Table 1.7.1(v)** overleaf.

**Figure 1.7.1(a) Percentage distribution of Rural Population**



\* These are the most recent figures released to date by CSO on Gross Value Added, CSO 2015

<sup>2</sup> Western Development Commission (May 2017) Census 2016, Rurality, Population Density and the Urban Population of the Western Region.

**Table 1.7.1(v) CSO 2016: Population & Employment in Urban Settlements over 1500\***

Name of Settlement	County	Population 2016	Resident Workers	Total Jobs	Ratio job : workers
Ballybofey - Stranorlar	Donegal	4852	1530	1878	1.227
Ballyshannon		2299	787	875	1.112
Buncrana		6785	2327	1988	0.854
Bundoran		1963	723	588	0.813
Carndonagh		2471	791	1062	1.343
Donegal		2618	996	1673	1.680
Letterkenny		19274	7669	11395	1.486
Lifford		1626	453	766	1.691
Athenry		4445	1891	1450	0.767
Ballinasloe	Galway	6662	2205	3045	1.381
Bearna		1998	859	388	0.452
Clifden		1597	594	856	1.441
Galway City & Suburbs		79934	34085	44376	1.302
Gort		2994	1212	1127	0.930
Loughrea		5556	2295	2225	0.969
Maigh Cuillinn		1704	751	398	0.530
Oranmore		4990	2591	1134	0.438
Tuam		8767	3270	3700	1.131
Carrick-on-Shannon		Leitrim	4062	1701	2868
Ballina	Mayo	10171	3534	4810	1.361
Ballinrobe		2786	1112	1077	0.969
Ballyhaunis		2366	840	1226	1.460
Castlebar		12068	4710	9045	1.920
Claremorris		3687	1558	1411	0.906
Westport		6198	2515	4142	1.647
Castlerea	Roscommon	1992	674	918	1.362
Ballaghaderreen		1808	576	807	1.401
Boyle		2568	819	1049	1.281
Roscommon		5876	2210	3917	1.772
Ballymote	Sligo	1549	545	508	0.932
Collooney		1610	671	672	1.001
Sligo		19199	6876	13024	1.894
Strandhill		1753	793	281	0.354
Tubbercurry		1986	692	627	0.906
Totals and jobs to workers ratio		<b>240,214</b>	<b>94,855</b>	<b>125,3060</b>	<b>1.19</b>

\* Settlements with pop. over 1500 inhabitants considered urban settlements by CSO

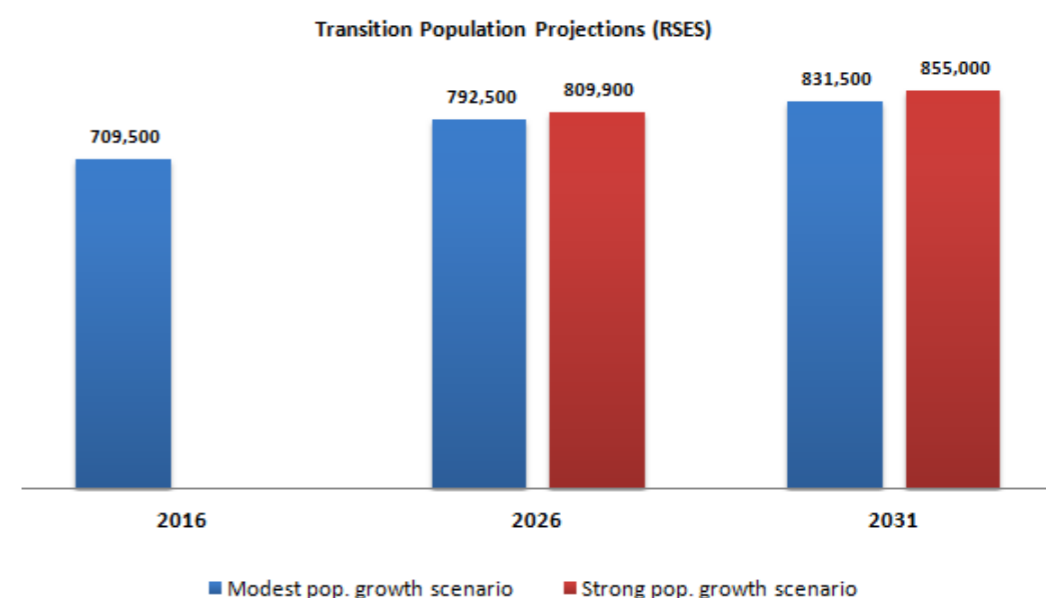
The ratio of jobs to workers is a good indicator of the roles each settlement plays in the provision of services for a wider area. A ratio of 1.0 means that there is one job for every resident worker in a settlement and suggests a balancing out, not a match of worker to job. A ratio of more than 1.0 indicate a net in-flow of workers and of less than 1.0, a net out-flow. The extent to which the ratio is greater or less than 1.0, is also generally indicative of the extent to which a town has a wider area service and employment role, rather than as a commuter settlement. Settlements with a high ratio of jobs to resident workforce are, by reason of accessibility, employment and local services, provide important local functions. Towns, particularly in the North West show a particularly significance in this regard.

**Regional Growth and Population Targets**

In terms of population growth and population targets for the region, the Regional Spatial and Economic Strategy (RSES) has set out transitional population projections for each county within the region to 2031, see **Figure 1.7.1(b)** below. Based on these figures, the projected population for the regional catchment of IWAK SDZ to 2026 is in the range of 792,500—809,900 persons. This represents a population growth of between 12 - 14% to 2026 (83,000 - 100,400 people). Projections to 2031 show a indicate a growth rate of between 5 - 6%.

It is anticipated that the growth of urban centres will continue, providing significant employment development of scale, with Galway City as the main city driver for the region.

**Figure 1.7.1(b) Transition Population Projections (RSES)**



**Transitional Regional and County Population Projections to 2031\***

	Current pop 2016	Pop growth to 2026	Pop growth to 2031	additional people to 2026	additional people to 2031
<b>Donegal</b>	159,000	173,500 - 176,500	179,500 - 183,500	14,500 - 17,500	20,500 - 24,500
<b>Sligo</b>	65,500	71,500 - 72,500	74,000 - 75,000	6,000 - 7,000	8,500 - 9,500
<b>Leitrim</b>	32,000	35,000 - 35,500	36,000 - 37,000	3,000 - 3,500	4,000 - 5,000
<b>Galway County</b>	258,000	300,000 - 308,500	322,000 - 334,500	42,000 - 50,500	64,000 - 76,500
<b>Mayo</b>	130,500	142,000 - 144,500	147,000 - 150,500	11,500 - 14,000	16,500 - 20,000
<b>Roscommon</b>	64,500	70,500 - 71,500	73,000 - 74,500	6,000 - 7,500	8,500 - 10,000
<b>Regional Catchment</b>	<b>709,500</b>	<b>792,500 - 809,900</b>	<b>831,500-855,000</b>	<b>83,000 - 100,400</b>	<b>122,000 - 145,500</b>

\* IWAK Regional Catchment figures are extracted from the RSES for NWRA projected figures

**Where do people in the regional catchment work?**

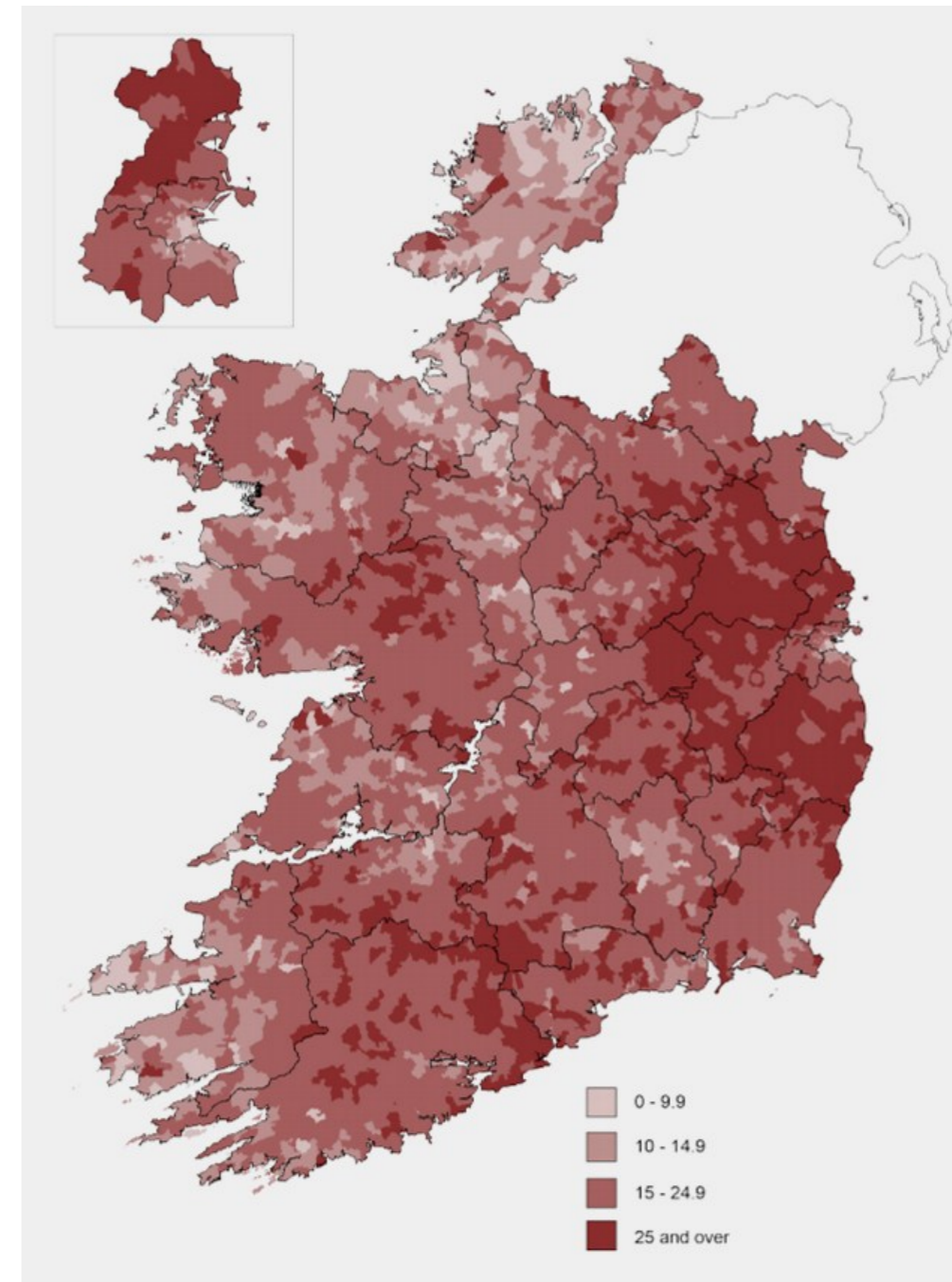
The region is highly dependent upon the private car for travel to work and education, with approximately 70% of the population having commuted by private car according to the Census 2016, up from 66% in 2011. The Census figures for 2016, indicate that 71.5% of workers living in the Region work within the Region\*.

Figures from the 2016 Census indicate that the region experienced a net loss of residents (-17,565) who work elsewhere. Compared to 2011, this is an increase of 2026 additional people leaving the Region to work (-14,939). The general trends suggest that while there is an increase in the numbers employed, a greater number are commuting for work to places beyond the Region.

In terms of projected population growth for the regional catchment of the SDZ, Regional Economic Spatial Strategy sets out in the transitional population projections which indicates a regional population growth of between 83,000 – 100,400 persons to 2026 and by the year 2031 of between 122,000 – 145,500. While a significant portion of such growth is expected to be concentrate in and around the Galway City catchment, other counties within the region are likely to expect significant population growth over the coming decade. Job opportunities and worker retention within the region is therefore a priority. The creation of a regional scale enterprise and business hub at IWA Knock SDZ will provide a significant opportunity for this economic goal.

Given the predictions for population growth IWAK SDZ will provide a key role as a location to facilitate industry and enterprise opportunities. Together with the expansion of the Airport at this location, it is anticipated that this will contribute to the direct and indirect economic benefits of the region.

**Percentage of commuters by electoral division leaving home before 7am to travel to work (2016)**



Source: CSO 2016 2016 Summary Results Part 2 Travel Patterns and car ownership

\* Western Development Commission (Dec 2017) *Where do Western Region Residents Work, Results CSO 2016*

**Level of Education and Workforce**

The overall regional catchment of IWAK SDZ has a reasonably well educated population, with over 39% of the population educated to third level. However, within the West and North West region there are significant educational attainment differences between counties. In terms of third level qualification, Galway City has the second highest share of residents (55.2%) with third level qualifications in the State. On a county level, the two largest urban centres - Galway and Sligo have the highest shares of third level graduates, illustrating the strong concentration around and influence of larger urban centres in attracting educated workers within the region.

In contrast, County Donegal has the highest population share (21.9%) within the State with no formal education or primary education only. The counties of Mayo, Leitrim and Roscommon have slightly higher than national average with no formal or primary education, partly due to greater reliance on sectors traditionally associated with lower qualifications but also attributable to fewer graduate employment opportunities, with many higher qualifications holders having left these areas. However, on average the West and North West Region has a 39.74 % share of third level graduates, albeit slightly below the national average (42.6%). While 44.72% of the population within the West and North West region have completed second level education, above the State average.

This presents a double challenge for the West and North West particularly in areas with a weaker educational profile, making it more difficult to attract new business start-ups, while the lack of suitable job opportunities makes the area less attractive to those with higher qualifications. The challenge therefore lies in providing opportunities for the retention and attraction of highly skilled and qualified staff.

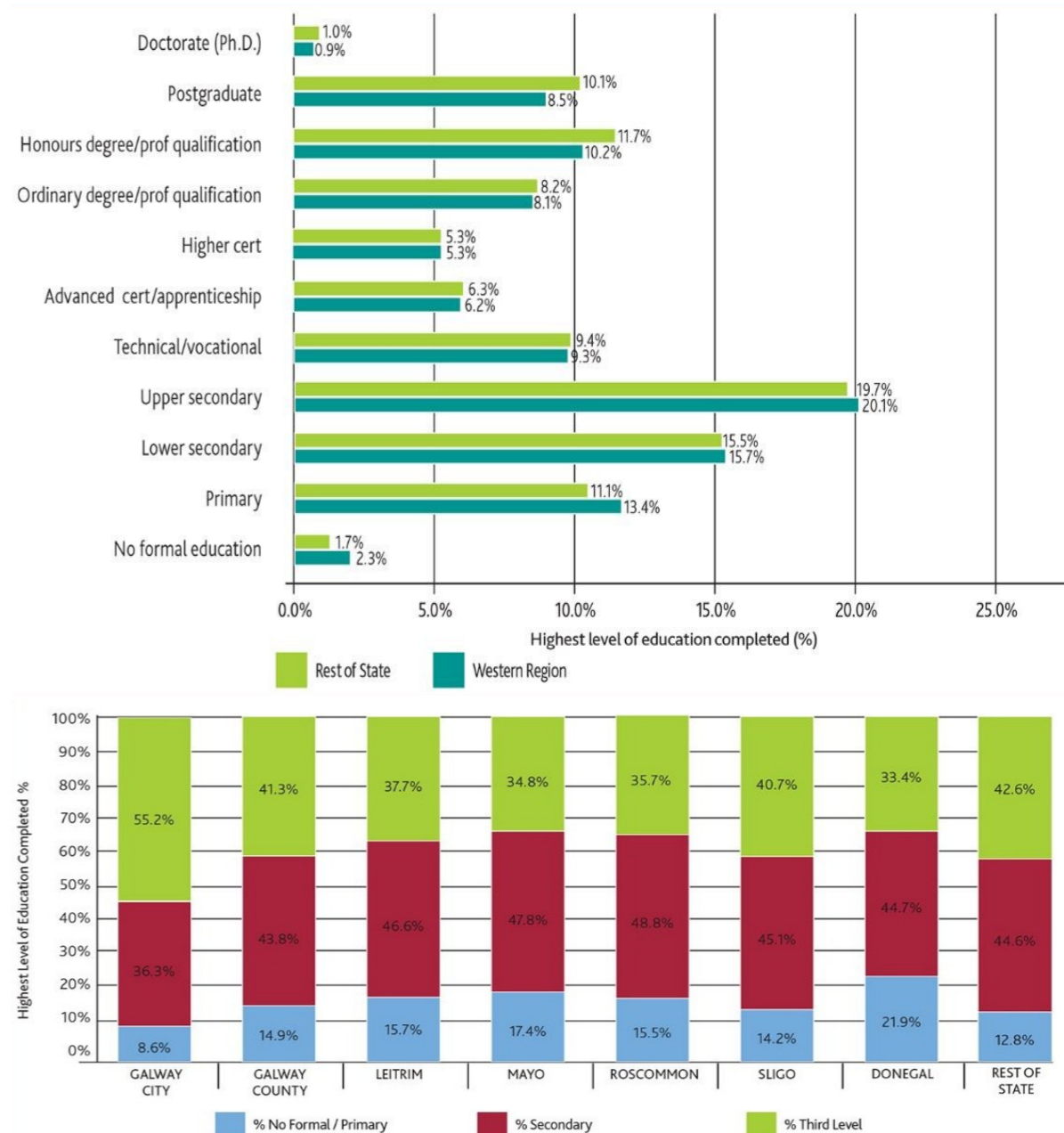
Research carried out by the ESRI in 2018\* has demonstrated a correlation between the level of educational attainment of a population catchment and the appropriate infrastructure, particularly access to broadband, in attracting almost all types of new businesses and firms. The appeal of an area is regarded as a significant contributing factor in attracting investment. In the case of high-tech firms both quality of life, educational attainment and skills retention as well as the availability of high-speed “middle mile” infrastructure (Metropolitan Area Networks) is particularly relevant. Such findings are in line with international research which demonstrates that broadband mainly benefits manufacturing and service activities which is performed by highly skilled staff. In addition, good accessibility i.e. road/motorway connectivity and airports are particularly important to attracting high-tech foreign-owned firms.

IWAK is strategically placed within the region, with the added advantage of a well established regional airport with pre-existing digital connectivity and good road infrastructure. The SDZ can assist in providing the framework by which to develop and capitalise on economic opportunities - retaining and attracting highly skilled workforce and investment to the region.



National University of Ireland Galway. (Image courtesy of NUIG)

**Figure 1.7.1(c) Percentage of population by the highest level of education completed in the Western Region and rest of State (2016)**



Source: Western Development Commission, Insights—Educational Attainment in the Western Regions. www.wdc.ie/.

\* ESRI Bulletin (March 2018) *The Local Factors that Affect Where New Businesses Are Set Up*

**Quality of Life**

The West of Ireland has first-class transport links. There is an excellent motorway system, and the Regional Airport IWAK, which provides international connectivity including transatlantic capability. The area is well serviced with electronic connectivity. The universally available broadband has revolutionised business and technology infrastructure capabilities, attracting many people to the region. In addition, the Government’s commitment to fund an extensive fibre rollout to regional and rural areas in the Western Region further reinforces the opportunities available for business in the West. The quality of life offered in the West of Ireland is considered one of its greatest advantages for economic growth, given the advancements in technology and the many business opportunities the West of Ireland is an excellent place in which to live, work and do business, with the average travel time to work in the region at 24 minutes.

In terms of economic development, the concept of “quality of life” is an important element in attracting inward investment. It includes a complex balance of indicators. While there is no universal standard for measuring quality of life, it is generally accepted that access to jobs, education, good health care, housing, pleasant and clean environment, low crime rates, a reasonable cost of living, access to recreation and amenities and a rich cultural climate contribute to a good standard of living.

**Conclusion**

Located within the heart of the Atlantic Economic Corridor, along the Wild Atlantic Way, the opportunities for economic development provided by IWAK SDZ is underpinned by the quality of life offering in the West of Ireland. The Planning Scheme is aimed at contributing to the regional aspects of business & enterprise development, that which is conducive and best suited to the strategic location and transport savvy clientele which require an airport location while also having the benefit of quality of life elements that prove attractive to investors and a young, skilled and educated workforce.



Keem Bay, Achill Co Mayo



Ballycroy National Park, Co Mayo



The Green, Castlebar, Co Mayo



Cycling along greenway to National Museum of Ireland Turlough, Castlebar, Co Mayo



Westport, Co Mayo



Beach Racing, Co Mayo



Surfing at Erris, Co Mayo



### 1.8 Development Context, Opportunities & Constraints



### 1.8.1 Historical Context

Ireland West Airport Knock was established in the 1980's by Monsignor James Horan as a direct transport link to Rome, the Vatican and other religious destinations. The airport enjoyed modest success during its early years. By 1989 total annual air passenger movements had reached 145,000. Passenger throughput remained at this level through 1990 but then fell by 30 percent to 101,000 in 1991. Passenger numbers increased steadily following the introduction of Ryanair's scheduled service to London Stansted in 1992 and by 1999 annual passenger throughput had reached 207,000. Following another period of instability between 1999 and 2002, air passenger movements began to rise rapidly following the introduction of low fares services to Birmingham in March 2003 and to Manchester in March 2004. The airport handled a total of 373,000 annual air passenger movements in 2004 (Source: Ireland West Airport EIS, 2010).

Thirty years on, in 2016 the airport celebrated its 30th anniversary with passenger numbers reaching 734,000. The year 2016 also saw the investment by seven local authorities of the West Region (Counties Donegal, Leitrim, Mayo, Galway, Roscommon, Sligo and Galway City Council) for an equity shareholding into the airport which set up the formation of a unique and positive collaboration with local government in the areas of tourism, economic development and diaspora engagement. In 2017 Ireland West Airport Knock facilitated over 750,000 passengers and welcomed its 10 millionth passenger\*.

### 1.8.2 Regional Context

IWAK occupies a strategic and pivotal position in the West of Ireland. Geographically it is centrally located along the National Primary Route (N17 Galway / Sligo) and close to the National Primary Road N5 linking Mayo to Dublin. The M17 motorway provides a significant boost to the airport as it brings the Galway market even closer by reducing journey time by 15 -20 minutes between Galway City and the airport, as well as providing easier access to the wider motorway network (M18 to Limerick and M6 to Dublin).

The location of IWAK is therefore instrumental in the transport network for the North West region serving the expansive hinterland of Mayo, Roscommon, Sligo, Leitrim, Galway and north into Donegal. Standing alone in the rural hinterland of east Mayo IWA Knock is c. 50 km from Castlebar, Ballina and Sligo and just 90km from Galway City.

In a regional context therefore, IWAK is strategically well placed. Its function as an airport is a critical driver within the region. The central location of the airport, removed from an urban setting provides a unique opportunity to cultivate airport oriented development whilst growing economic capabilities that compliment the strategic location and that dovetail with the established business of air transport and travel with the added advantage of limited disruption to existing communities.

### 1.8.3 The Airport - Connaught Airport Development Company: Ireland West Airport Knock Master Plan 2009

The Connaught Airport Development Company (CADC) is the owner of Ireland West Airport Knock. It is the main landowner, owning the majority of lands within the SDZ. CADC is a private limited company, and all shares have been placed in Trust. The airport and its expansion are critical to the growth of the area and therefore its presence and operations preside over activity and use on site.

CADC have prepared a Master Plan (2009) for the airport in which the medium term and long term strategic view of the development of the airport until 2030. The purpose of the Airport Master Plan is to provide a view of the future developments of the airport and how it can be developed in a logical and coherent manner. It is also aimed at addressing potential development on lands adjacent to the airport. Such development must be not constrain or compromise the operational and safety issues of the primary function of the Airport itself.

The SDZ Planning Scheme has been prepared having regard to the Master Plan prepared by The Connaught Airport Development Company and the type and nature of development highlighted therein for the Airport. Having regard to the airport's own business and expansion plan, the SDZ will provide the following:

- a framework for airport expansion in a manner that is consistent with local, regional and national planning guidelines.
- how best integrate with other related transport and utility infrastructure so that it enhances cohesion in local and regional planning.
- inclusion of the airport's preferred options for external infrastructure development in road, rail, transport and the utilities in particular.

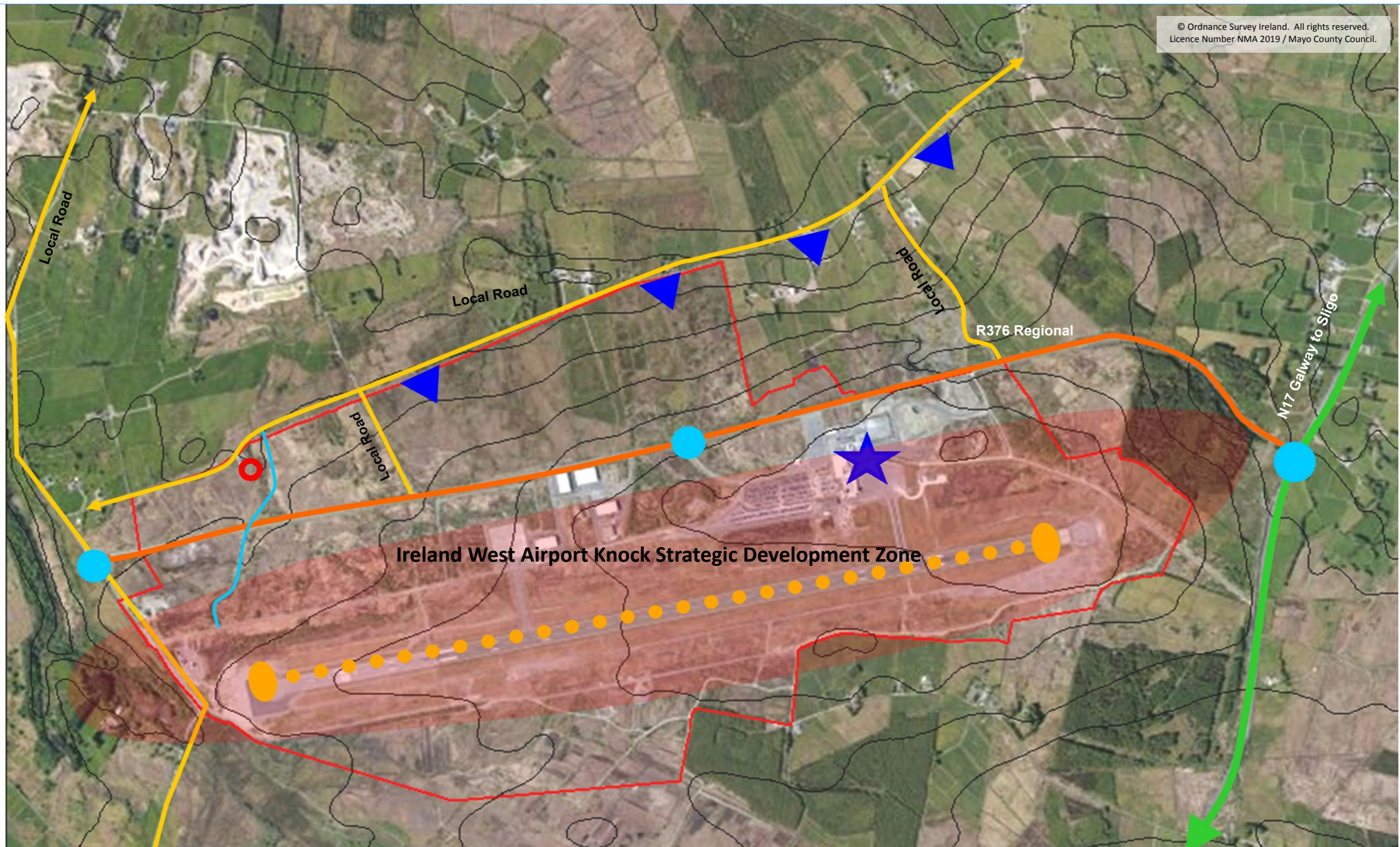
As well as CADC Airport's development plan, a number of categories were used to inform the analysis of the site for development. These are set out in the following sections and include the following categories :

- Physical Site – landscape, land use, topography, considerations, road network
- Planning History of the subject lands
- Tenure and land ownership
- Public Safety Zones
- Utility capacity and requirements
- Environment and heritage of the area












\* Source: Ireland West Airport Annual Review 2017, [www.irelandwestairport.com](http://www.irelandwestairport.com)

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**Key Constraints**

- |                  |   |                           |   |                    |   |
|------------------|---|---------------------------|---|--------------------|---|
| Runway           |  | Waste Water Treatment     |  | Stream/watercourse |  |
| Airport terminal |  | High degree of visibility |  | Public safety zone |  |
| Key Junctions    |  | Contour lines             |  | SDZ Boundary       |  |

### 1.8.4 Site Appraisal

#### Introduction to the site

Ireland West Airport Knock has the third longest runway in the country, after Shannon and Dublin, and is the only airport in the West and North West region capable of handling large jets, such as Boeing 737s, 747s and the Airbus 330. This enables IWA Knock, to handle transatlantic traffic and European Low Cost traffic. The location of IWA Knock SDZ is unusual given the rural setting and the considerable distance to the nearest town or urban setting.

#### Landscape

The SDZ site is located in a rural setting in the townland of Kilgarriff West approximately 8km south of Charlestown, 19km north of Knock village. The airport is a significant gateway to the West of Ireland, North West and Midlands and serves a wide catchment area. The site is accessed from the N17 (Galway to Sligo) National Primary Route. The SDZ site is intersected by the regional road R376. The road divides the site into two distinct areas. The southern portion of the site is partially developed containing the current extent of airport development and its operations. This southern area of the SDZ lands will provide for the expansion of the airport and associated operations as well as maintenance, services and facilities.

The site comprises of 284Ha of land located around Ireland West Airport Knock including the airport campus. The general area consists of elevated grassland and bogland with the gradient gently falling away to the north.

The northern portion of the SDZ lands is predominantly poor quality agricultural land, void of development. This section of the SDZ will concentrate on creating a new airport zone or enterprise district with a strong regional economic focus.

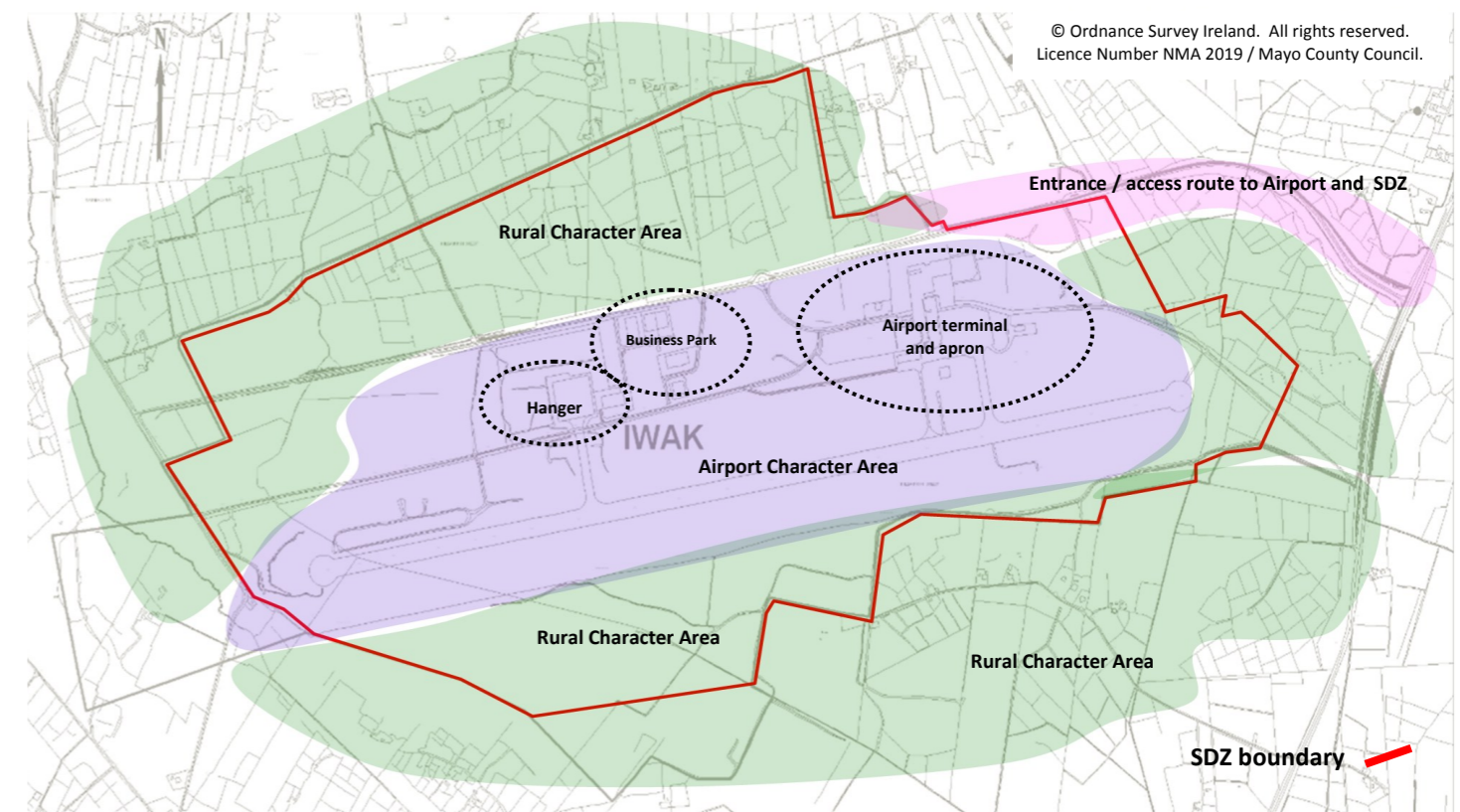
The Landscape Appraisal for County Mayo categorises the area as the East-Central Drumlin Spine (Area K). The landscape character of such areas are categorised by undulating topography represented by drumlins and low hills which provides the ability to both shelter and absorbs the visual impact of development. Such areas offer shelter vegetation - which has shielding and absorbing quality in landscape terms, providing a natural visual barrier while contributing to the complexity of a vista to provide scale and containment for built forms. Such landscapes also provide prominent ridge lines which can perform the important role of providing an area with its identity, acting as dominant landscape focal points, and defining the extent of visual catchments.

#### Existing Character Areas

There are three character zones identifiable within the IWAK SDZ—Rural area, Airport area and the entrance corridor from the N17 to the Airport and SDZ lands, see **Figure 1.8.4(a)**. These areas are determined by the current airport development on site and that of the surrounding natural rural setting. The airport and its associated development is in stark contrast to the unspoilt rural setting in which it is located.

The airport while not visible from the main National Route (N17) its presence dominates the character of area. The entrance route to the airport and SDZ lands, a gateway location, off the N17 is an important area in its own right. Given the rural setting, the character of the area is critical to crafting an identity of the SDZ. Together with the topography of the land at this location there is a real opportunity to create a unique gateway corridor into the SDZ which capitalises the setting.

Figure 1.8.4(a) Current Character Zones



\* Source: Ireland West Airport Annual Review 2017, [www.irelandwestairport.com](http://www.irelandwestairport.com)

## Land Use Zoning

The zoning of the IWAK Local Area Plan 2012 sets the context for the type of development that can occur on site, see **Figure 1.8.4(b)**. There are four zoning objectives relating to the SDZ lands—Airside and Landside zoning objectives centre around the airport terminal and runway accommodate the expansion in facilities, services and operations, and future development associated with the airport itself. While the Airport Development zoning objective relates to the northern portion of the site (north of the R376), and a small portion of land that includes Knock Business Park. The area zoned Rural Character relates to small areas along the fringes of the SDZ boundary.

A large portion of the site is zoned **Airside** the objective of which is to “Protect, improve and develop the Airside Zone of Ireland West Airport Knock to its full potential and to provide for all facilities necessary, incidental or ancillary to Airport Operations”.

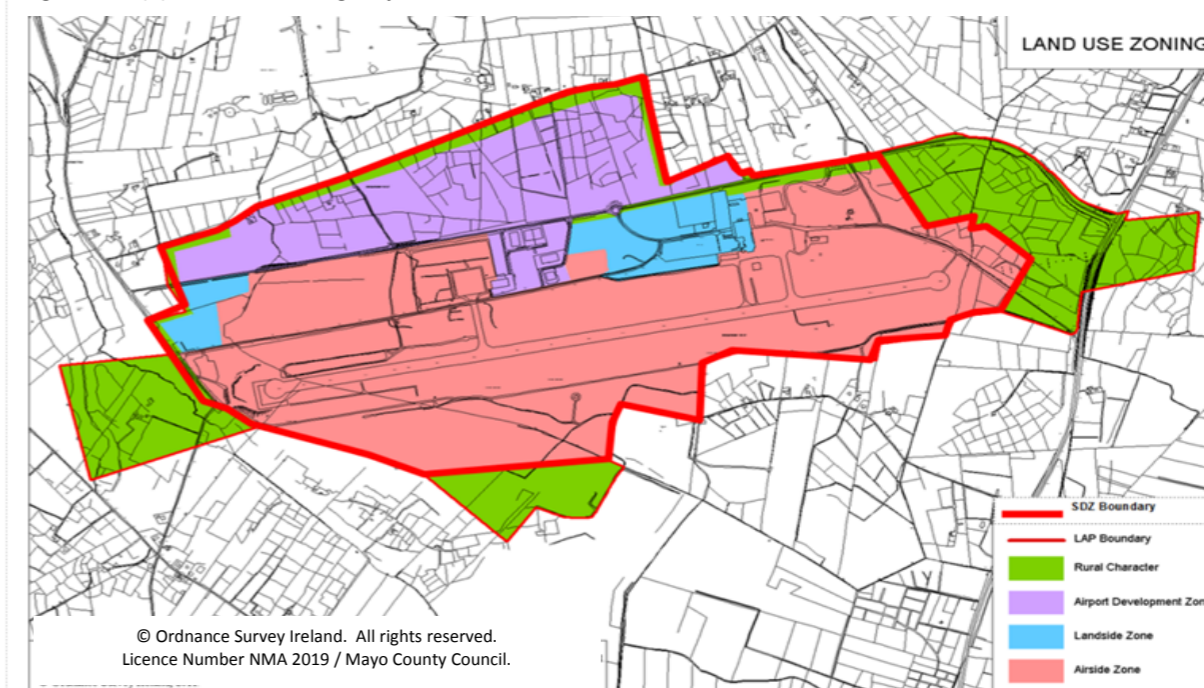
A smaller portion of the lands surrounding the airport are zoned **Landside** which is to “Protect, improve and develop the Landside Zone of Ireland West Airport Knock to its full potential and to provide for all facilities necessary, incidental or ancillary to Airport Operations and to facilitate accessibility to the Airport Campus”.

The lands to the north of the R376 are zoned **Airport Development** with the primary objective to “Facilitate appropriate development in order to strengthen the strategic role of Ireland West Airport Knock as a key economic/enterprise hub for the Region, whilst protecting the future operations of the Airport. This zone is to facilitate the provision of high quality enterprise/business park development.

Small strips of land on the site mainly surrounding the Airport Development Zone have the zoning Objective of **Rural Character**, which is to ‘Protect the setting, character and environmental quality of Ireland West Airport Knock.’

Permissible land uses are acceptable in principle but must comply with the requirements of the Public Safety Zones; Aerodrome Safeguarding and Noise Contours.

**Figure 1.8.4(b) Land Use Zoning Objectives for IWAK LAP**



<p>Under the <b>Airside</b> Zoning Objective, the following land uses permissible or open for consideration</p> <p><i>Permissible Uses:</i></p> <p>aircraft terminal buildings, aprons, and taxiways; aircraft maintenance, supply and manufacture, including modification, refurbishment and painting; airline, aircrew or pilot training centres/schools and accommodation; aviation and vehicle fuel storage facilities; avionics, engine or aircraft parts, maintenance supply or manufacture; airport equipment and operation infrastructure, maintenance, supply and manufacture; aircraft hangerage area; aircraft reclamation/dismantling facilities; cargo facilities; airport operations infrastructure, terminal services, and signage; flight packaging, provision services and supply units including ramp services; inflight hotel and terminal catering preparation and storage facilities; internal surface access and infrastructure including ancillary car parking; vehicle service maintenance; vehicle valeting operation; retail and other enterprises within the terminal consistent with the needs of passengers; appropriate renewable energy projects (must demonstrate they do not compromise or interfere with aircraft operations and /or safety)</p>	<p>Under the <b>Landside</b> Zone Objective, the following land uses permissible or open for consideration</p> <p><i>Permissible Uses:</i></p> <p>aircraft maintenance, supply and manufacture, including modification, refurbishment and painting; airline, aircrew or pilot training centres/schools and accommodation; aviation and vehicle fuel storage facilities; avionics, engine or aircraft parts, maintenance supply or manufacture; airport equipment and operation infrastructure, maintenance, supply and manufacture; airport operations infrastructure, terminal services, and signage; Car hire operations and associated car park requirements flight packaging, provision services and supply units including ramp services; internal surface access and infrastructure including car parking associated with the main activities of the Landside Zone; Service vehicle maintenance; vehicle valeting operation; passenger car parking; retail and other enterprises within the terminal consistent with the needs of passengers; appropriate renewal energy projects (must not compromise or interfere with aircraft operations and/or safety); infrastructure projects).</p>	<p>Under the <b>Airport Development</b> Zone Objective, the following land uses are permissible or open for consideration</p> <p><i>Permissible Uses:</i></p> <p>Airline sale reservation and booking office, including call/email centre; Airline, aircrew or pilot training centres/schools; avionics, engine or aircraft parts, maintenance, supply and manufacture; airport equipment and operational infrastructure, maintenance, supply and manufacture; car hire operations and associated car parking requirements; flight packaging provision services and supply units including ramp services; inflight hotel and catering preparation and food storage facilities; internal surface access and infrastructure including car parking associated with the main activities in the Airport Development Zone; offices; warehousing (non-retail uses associated with locating beside an airport), cold stores and offices for airfreight handlers, forwarders and agents including parcels or post services; businesses in sectors that contribute to regional employment eg. Life Sciences, ICT, Renewables, clean technology, light engineering, media and the arts; firms that are regular users of the airport; firms whom the airport is a prestigious location; retail and other enterprises serving only the daily needs of those employed in the Airport Development Zone.</p> <p>Tourist related activity where the need to locate beside the airport is demonstrated; Hotel; Business in sectors that contribute to regional employment, excluding retail; distribution services where it is demonstrated that suitable facilities are not available in the surrounding towns; utility infrastructure projects; appropriate renewable energy projects (must not compromise or interfere with aircraft operations and/or safety); infrastructure projects).</p>	<p>Under the <b>Rural Character</b> Zone Objective, the following land uses are open for consideration</p> <p><i>Permissible Uses:</i></p> <p>Aircraft navigation aids; appropriate recreational; agricultural uses; signage; appropriate renewable energy projects (must not compromise or interfere with aircraft operations and/or safety); infrastructure projects).</p>
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### Planning History

Planning history for relating to the SDZ lands is predominantly reflective of the airport development and expansion. The development to date on site is dominated by the current operations of the airport. The remaining lands within the SDZ boundary are undeveloped open fields, heath or bogland.

### Land Use Survey

Much of the land within the SDZ is undeveloped. The Airport itself makes up only a portion of the SDZ area. The extent of developed lands within the SDZ area comprises of the current landside and airside aspects of IWAK which includes the terminal buildings, the apron/runway, hanger, service areas, lighting, security areas, car parking, etc., see **Figure 1.8.4(c)**.

In addition to the airport, a small sized business park is established on lands west of the airport public car park area. The range of development currently at IWAK is confined mainly to airport uses operations and supportive ancillary uses.

### Topography and Landscape

The landscape and topography at IWA Knock is consists of elevated open country side comprising of blanket bog, grassland and heathland scrub, see **Figure 1.8.4(d)**. The airport, associated facilities and business park are located on a plateau that gently slopes to the west and more steeply to the north. The upper plateau consists of peat land with the various elements of the airport constructed on reclaimed lands. The runway is located on the upper platform at an Ordnance Datum of approximately 200m above sea level. The topography falls more steeply to the north and east of the SDZ area (north of the terminal area) with extensive views from the north and northeast available from the R376. The lands to the west of the airport have a much gentler gradient. Lands to the north of the SDZ area consists of steep sloping fields of poor grassland bounded by stone ditch and post/wire fencing.

The wider area of the airport SDZ and its surroundings is open and exposed with limited tree cover or terrestrial obstacles.

### Existing Mobility and Access

The current road network serving IWA Knock relies on the R376 access via the N17. Access to the IWAK is via the R376 Regional Road just off the National Primary Route (N17). The N17 links the Gateways of Galway and Sligo and intersects with the National Primary Route N5 Dublin to Westport approximately 7km to the north of the Airport.

The R376 Regional Road ends at the roundabout. Beyond the roundabout the road is a classified Local Primary Road. To the north of the R376/

primary local road are undeveloped lands, whilst the IWAK lands to the south contain the airport campus. The Airport is accessed off the R376 by a roundabout with a spur leading to the airport, see **Figure 1.8.4(e)**. Passenger circulation is through the existing car park. The situation is not ideal as the drop off and pick up areas are not separate from the airport parking area. The provision of a new access to the airport separating the car parking area from the drop off and pick up points would create a more effective circulation space for both vehicular and pedestrian movements within Airport Campus. A new road and street network will serve the wider SDZ planning scheme.

### Public Transport

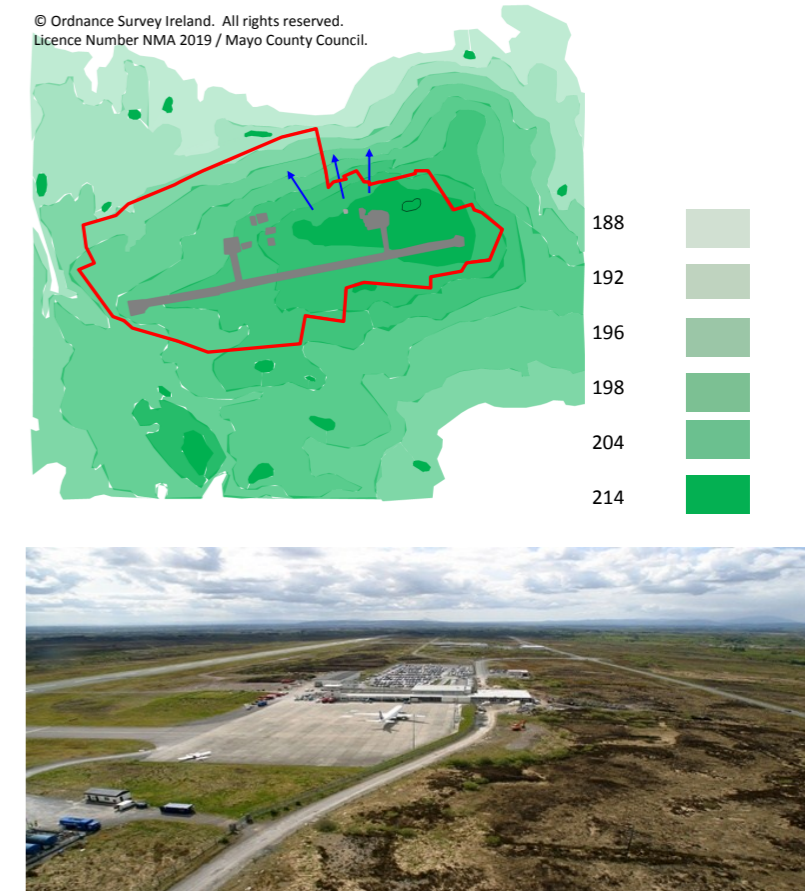
Ireland West Airport Knock is served directly by the Expressway Route 64 and Bus Eireann Route 440. These bus routes provide regular services throughout the day, seven days a week to Galway, Sligo, Donegal and Mayo, Athlone and Westport. Other bus options available include a shuttle bus for nearby Charlestown located outside the terminal exit. The bus terminal in Charlestown is well connected to the rest of the national bus network. Taxi service is available to and from the airport.

There is no operational train line available at IWAK. The Dublin to Westport/Ballina train is the closest available option to IWAK which is located c.30km south of the airport at Claremorris and offers 4 daily services in each direction.

**Figure 1.8.4(c) Existing Land Use Survey**



**Figure 1.8.4(d) Topography and Setting**



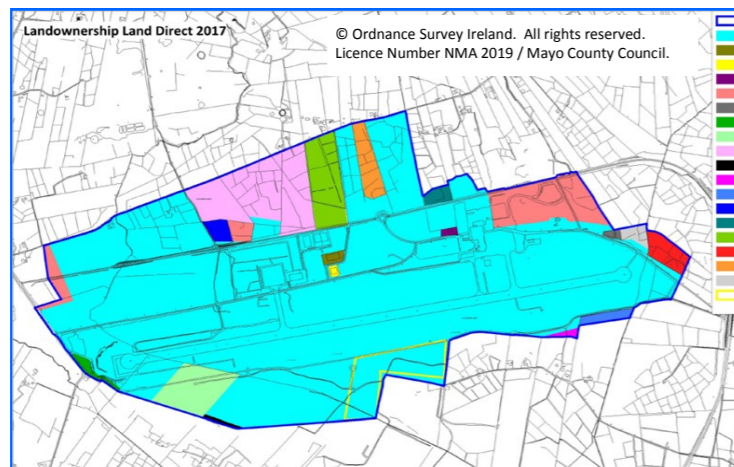
**Figure 1.8.4(e) Existing Roads Network**



### Land Ownership

There are 19 landowners within the SDZ area (see **Figure 1.8.4(f)**). The majority of the SDZ lands are in the ownership of Connaught Airport Development Ltd. The remaining lands consist of several small landowners with holdings of varying sizes - ranging from small holdings (buildings) within the developed airport area to medium sized holdings consisting of open fields.

**Figure 1.8.4(f) Land Ownership Survey**



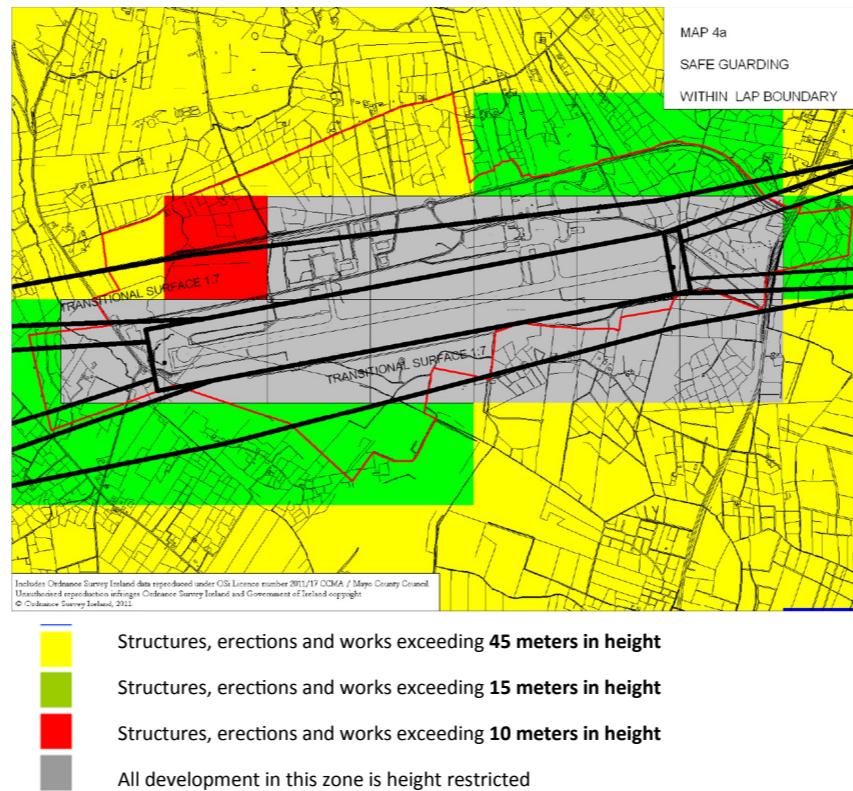
### Airport Safety Zones, Public Safety & Safeguarding Zones

A map of the Public Safety Zone has been produced for Ireland West Airport Knock as part of the LAP process. The public safety zones for IWA Knock was based on the same methodology as those prepared for Dublin, Shannon and Cork airports. These zones are established in order to guide the permissible uses to third party risk that could arise from the possibility of aircraft crashing near an airport. The extent of the Inner and Outer Public Safety Zones have been established for IWAK and extend beyond the boundary on the SDZ area. The Inner Zone is 96m wide and extends to 1325m from the runway threshold. The Outer Zone is 261m wide and extends 5,647m from the runway threshold. These zones are particularly important in determining the uses that are normally permitted in such sensitive areas. Both zones are important as they determine the extent of development (if any) as well as the type of compatible development for such zones. The nature and type of employment uses, associated employment densities as well as height and distance are particularly important considerations in these areas. Height restrictions are applicable to the airport and SDZ lands and must be taken into consideration, see **Figure 1.8.4(g)**.

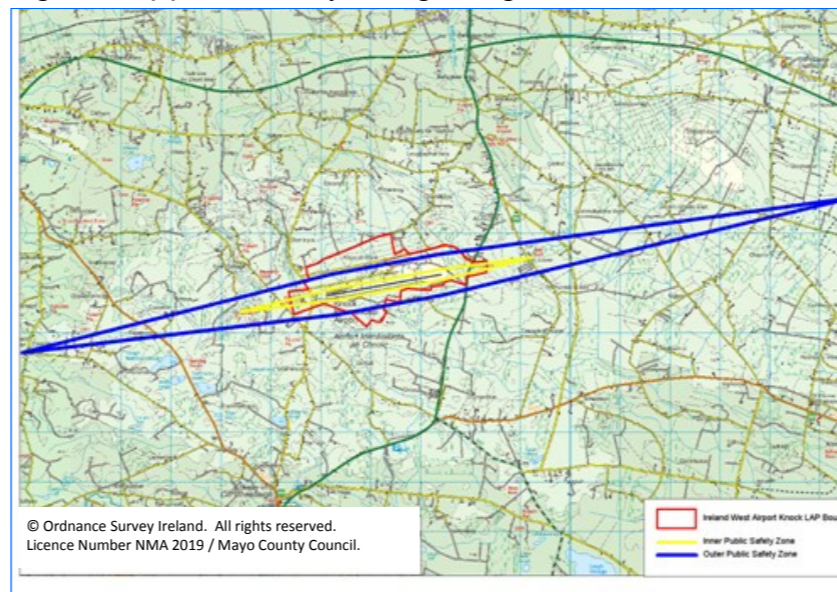
The safeguarding map produced for the LAP, see **Figure 1.8.4(h)** indicates the height limitations applicable to new development in and around the airport and SDZ lands. Such restrictions are in place to ensure that Mayo County Council consult with the airport licensee in relation to planning applications of any land within the outer safeguarding area.

**Figure 1.8.4(g) Aerodrome Safeguarding Map relating to Obstacle Limitation Surfaces**

Height limitations & public safety zones that affect uses, heights and densities



**Figure 1.8.4(h) Public Safety & Safeguarding Zones**

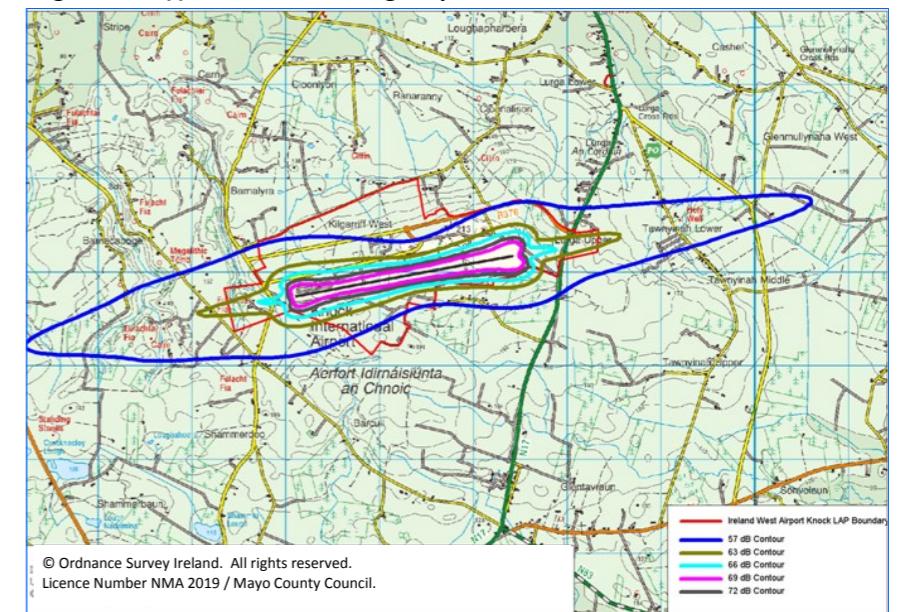


### Noise and Noise Zones

The predominant influences on the noise climate in this area include road traffic noise from the N17 and R367 road network and intermittent aircraft related noise from the airport. Noise from a gravel quarry which is located to the northwest of the complex may also contribute to the noise climate in the area due to movement of vehicles associated with the quarry. An assessment of the existing and predicted noise levels has shown that the impact on the receiving environment from the SDZ is likely to be high and could be considered significant. However, this must be considered in the context of the character of the existing rural receiving environment the established policies for the ongoing development of regional airports.

The level of noise surrounding the airport and the SDZ is an important consideration for the masterplan. A noise contour map was prepared for IWAK as part of the LAP and sets out the guidance in respect of development, see **Figure 1.8.4(i)**. The modelling and mapping is based on existing and future aircraft movements and includes forecast movements for predicted movements up to the year 2025.

**Figure 1.8.4(i) Noise Contouring Map**



### 1.8.5 Utilities/Infrastructure at IWAK

#### Water and pipe network at IWAK SDZ

The current water supply is sourced from a well, which is in the ownership of Mayo County Council. Tests on the supply indicate that the safe yield from the supply is 350m<sup>3</sup>/day, adequate capacity for c.5,833 people, see **Figure 1.8.5(a)**. The current usage from this supply is from two sources, the Airport 50m<sup>3</sup>/day and the Cloonlyan Group Water Scheme 14m<sup>3</sup>/day. Obtaining a water supply to service the Plan area from a local well is not a sustainable long term option. This supply will only facilitate development in the short term. In the intermediate term upgrading the Kilkelly Water Supply to provide a link to the area would yield an additional 300m<sup>3</sup>/day of water. The long term aim is to provide a link to the Lough Conn East Mayo Regional Water Supply Scheme which would guarantee a sufficient supply of water to the SDZ area.

#### Wastewater Treatment

The existing Waste Water Treatment Plan was commissioned in 2004 with a design population equivalent PE of 700 for domestic use equating to c.2,300 for dry employment use. It is currently operating at approximately half the existing capacity and discharges to the Sonnagh River, see **Figure 1.8.5(b)**. The existing treatment plant can easily be expanded to double the capacity to cater for a population equivalent PE of 1400. Any further expansion would require the construction of a completely new waste water treatment plant. If the Plan area was to develop to its full potential it is expected that the Area would require a Waste Water Treatment Plant capable of accommodating a population equivalent of at least a PE of 5000.

#### Surface Water

Surface water within the Plan area is disposed off to existing drains and water-courses. No flooding events recorded relating to the SDZ or its general area. However, local knowledge indicates the risk of flooding the form of water run-off and ponding arising from intense rainfall, particularly along the local road that forms the northern boundary of the SDZ and to the west of the runway. There is no public surface water system for the area. A Strategic Flood Risk Assessment was carried out indicating that localised flooding events are mainly from surface water runoff. The Flood Risk Management Guidelines indicates that type of development associated with airports are classified as fit for ‘highly vulnerable development’ but are considered appropriate at this location. The Planning Scheme will incorporate a sustainable urban drainage system (SUDS) to maintain greenfield rates of run-off to alleviate the risk of flood associated with surface water run-off.

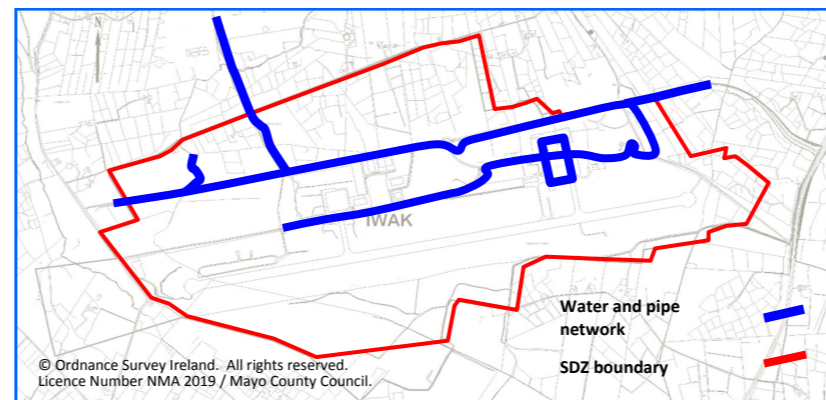
#### ICT/Telecommunications

Mayo County Council has provided a Metropolitan Area Networks (MANs) around the airport site offering a fast and efficient telecommunications network within the Planning Scheme area, see **Figure 1.8.5(c)**. MANs is a high capacity fibre optic system which is future proofed and offers virtually limitless capacity in terms of broadband and other telecommunication systems. IWAK has copper and wireless connectivity to broadband and has a LAN within the airport complex. Capabilities include - Westnet providing 3mb (synchronous) wireless link; 3G broadband link available with Hutchison 3G; and 7Mb ADSL provided by Eir.

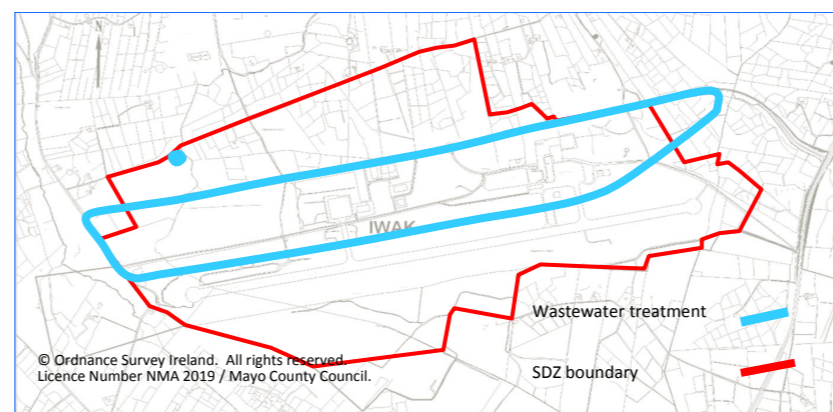
#### Electricity Supply

IWAK has a Maximum Import Capacity (MIC) agreement with ESB Networks for a supply of 600kVa and served by a transformer located in the Airport terminal. Upgrading of electricity supply will be required to meet the future needs of the expanding Airport and Business Campus. Dependent on the mix of enterprise the usage per square meter could range from 80 to 200 watts/sq.m with an additional MIC requirement range of between 500 to 1200kVa.

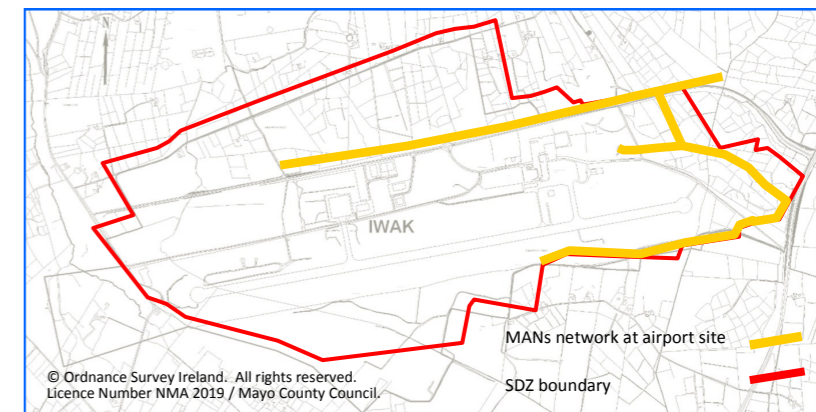
**Figure 1.8.5(a) Water and Pipe Network in SDZ area**



**Figure 1.8.5(b) Wastewater Treatment Services in SDZ area**



**Figure 1.8.5(c) ICT—Metropolitan Area Networks (MANs)**





### 1.8.6 Existing Environment and Heritage Context

#### Environmental Designation

There are no designated sites, Special Areas of Conservation (SAC) for flora or fauna, Special Protection Areas (SPA) for birds, or Natural Heritage Areas (NHA) within the SDZ lands. However, there are a number of designated sites close to the SDZ area.

Environmental designated sites closest to the SDZ lands include the River Moy SAC complex, located c.3km to the north and south. Within a 4 km radius of the SDZ there is Killaturly Turlough NHA to the northwest while Lough Gower NHA is to the south east. In a slightly wider geographical context there is Urlar Lakes SAC/NHA complex (6km) and Derrinea Bog NHA (c.10km) to the south east. The River Moy Special Area of Conservation straddles the SDZ area to the north and to the south. The River Moy system is a prime watercourse with Lough Conn and Cullin being some of the country's best trout and salmon fisheries.

#### Flora and Fauna (Habitats)

A small portion of the SDZ lands is taken up by the airport and its operations. This includes airside development, terminal buildings and associated landside facilities and Business Park. The remaining SDZ lands is undeveloped rural countryside consisting mainly of elevated bog and heath. This setting provides a number of local habitats including cutover bog, wet grassland, wet heath, dry humid acid grassland and improved grassland. It also contains eroding upland rivers, dry siliceous heath, exposed siliceous rock and few buildings.

There are a number of watercourses and streams located within the SDZ boundary which are tributaries of rivers in the general area, some of which feed into the River Moy complex. In addition, there are a number of designated Salmonid Rivers with tributaries extending into SDZ lands. Otter activity has been recorded in the River Moy catchment; its tributaries that drain the SDZ lands may support this species.

Birds recorded in the hinterland of the airport include common farmland birds. The wooded ravines of the Sonnagh River and agricultural land surrounding the site are likely to support good numbers of common and farmland bird species, however none of these birds are considered of high conservation value.

There are no mature trees within the study area which would provide suitable roosting sites for local bat populations. Bats have been recorded within the River Moy catchment but none at the airport location. Neighbouring old buildings, bridges and mature woodlands on the banks of the Sonnagh River may provide suitable roosting sites.

The SDZ lands do not encroach on environmentally sensitive designated sites.

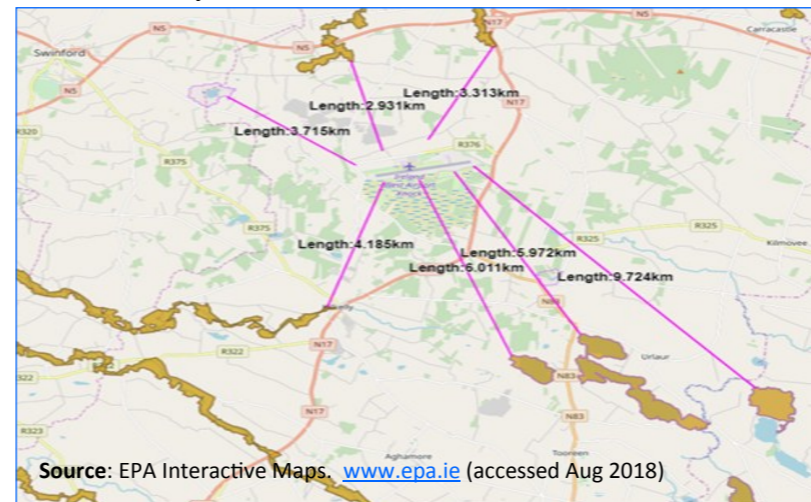
The aim of the masterplan for IWA Knock is to provide for the expansion of the airport and a establish a new business and enterprise campus at this location. Such development is urban in character and as such will transform the SDZ lands.

A consequence of the transformation will be a loss of some of the immediate local habitats. The masterplan takes into consideration the designated sites within the vicinity of the SDZ in particular the River Moy SAC, Urlar lakes SAC and the neighbouring NHAs.

#### Soils, Geology, Air Quality, Climate

The soil and geological environment within the SDZ site is varied. The airport largely comprises made ground. Much of the soil composition within the SDZ consists of blanket peat, bedrock exposure. There are no apparent existing environmental problems relating to soils and geology in the SDZ area. There have been no recorded landslides in the area, but peat is prone to saturation and when disturbed may become saturated and unstable.

#### Environmentally Sensitive Sites



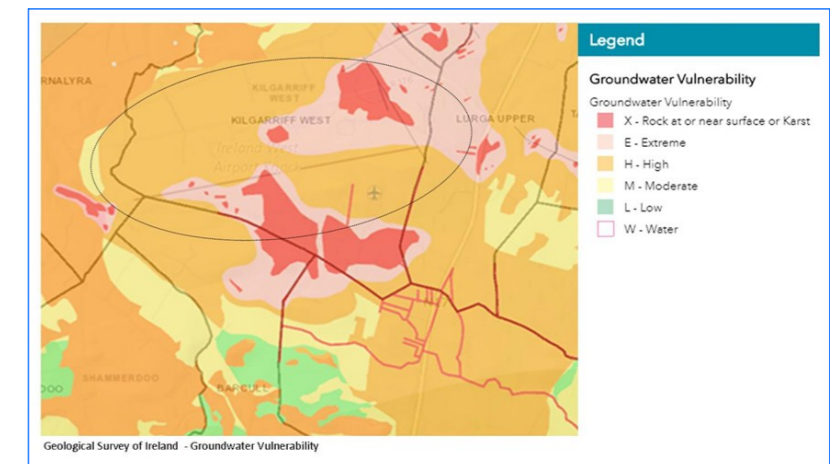
#### Water

In relation to hydrology, the SDZ is located within the mainly within the Western River Basin District, but a section of airport area and lands to the south-east of the SDZ form part of the Shannon River Basin District.

In terms of sensitive waters, there are no designations relating to such within the study area or bordering catchments. The first and second order streams in the SDZ area are tributaries of the River Moy, a designated Salmonid river under EC (Quality of Salmonid Waters). This aquatic pathway would indicate that the Salmonid species of the River Moy are potentially vulnerable to development in the vicinity of the SDZ. There are no lakes within or near the SDZ area, but there are turloughs (seasonal lakes), two of which are designated as proposed Natural Heritage Areas (pNHA) located a few kilometres north and south of the SDZ.

The aquifer beneath is category PI and classified as Poor Aquifer - Bedrock which is generally unproductive except for local zones<sup>1</sup>. The Groundwater vulnerability map for this area varies depending on the bedrock ranging from 'moderate' on northern

section of the SDZ to 'extreme' vulnerability on lands to the south at the location of the airport. As part of the Water Framework Directive's Groundwater Monitoring Programme, it was found that the groundwater status is good, while the risk category is at risk.



#### Climate

The development of the SDZ and the expansion of the airport will result in an increase in traffic and energy related emissions due to the anticipated increase of traffic and increased energy requirements in the area. Future air quality is likely to be effected by increased aircraft movements but will be offset by reductions in jet engine pollutant emissions meaning that air quality will remain essentially unchanged in the locality but will have an accumulative impact with regard to national air quality and climate change data.

Improvements in passenger facilities at IWAK may generate greater passenger volumes, thereby reducing numbers travelling to and using other Airports. Ultimately the effects of climate change will mean that more extreme weather patterns and may affect the operation and management of IWAK in the future.

#### Archaeology, Architecture and Cultural Heritage

Built development within the SDZ lands is confined mainly to the airport - consisting of the terminal building, operational structures, car park and business park warehouses. There are no buildings listed on the Record of Protected Structures (RPS) or National Inventory of Architectural Heritage (NIAH) relating to the SDZ lands or its vicinity.

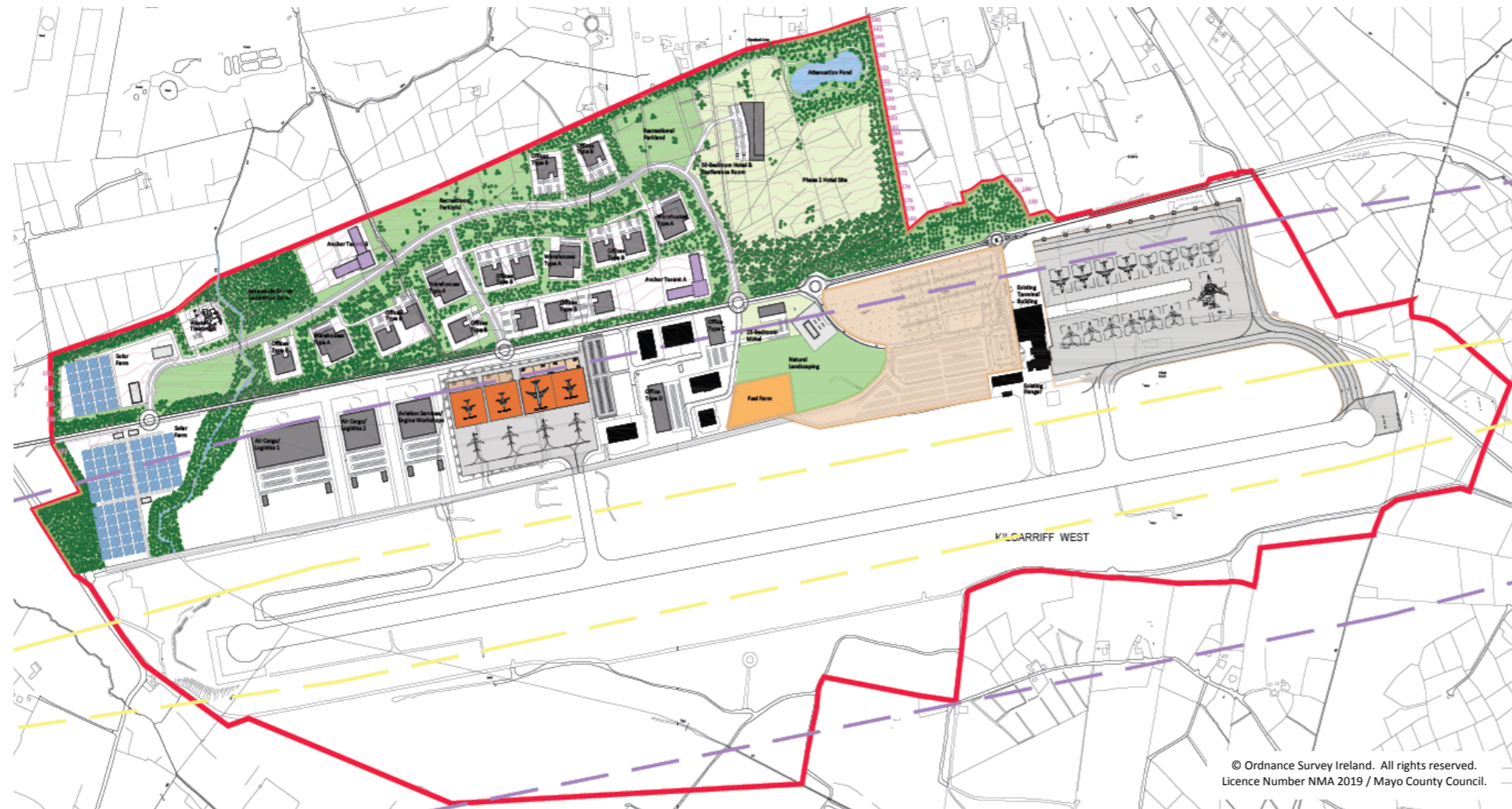
In terms of archaeology on site, there are a small number of sites listed in the Record of Monuments and Places (RMP). Specifically within the SDZ there are two sites listed in the RMP—Megalithic tome (ref.MA072-119) and Enclosure (ref. MA073-034). Both of these structures are situated in the area of the airport runway.

1.8.7 Constraints, Opportunities and Analysis of SDZ lands

	Strengths	Opportunities	Issue/analysis
<b>Planning &amp; Development</b>	<p>The strategic location of IWAK at the heart of the west/northwest is advantageous to both travel and tourism as well as strategic economic development in the form of this an economic hub at this location.</p> <p>The designation status of a SDZ at the IWAK regional airport location will assist in the further development of IWAK as a hub for travel &amp; tourism.</p> <p>The development of a business &amp; innovation hub will create significant economic and employment opportunities for Mayo and wider region.</p> <p>The rural and elevated location has reduced the multiplicity of issues that often arise in more built up environments.</p> <p>Good road network and connections to strategic routes.</p> <p>Substantial lands available</p>	<p>Creation of an place that focuses on becoming a strategic economic driver for the area and wider region.</p> <p>Introduction of the SDZ at IWAK is coming at a good time as we emerge from recession towards better economic stability.</p> <p>Capitalise on the opportunity to enhance aviation sector and related industry at IWAK.</p> <p>Capitalise on the opportunity to further promote IWAK as a travel and tourism hub for the region.</p> <p>To plan for the expansion of the airport and environs in a green and sustainable manner.</p> <p>To establish a hospitality sector with the creation of a hotel and conference facility suited to the airport location, which will enhance the overall development of IWAK as a new business district.</p>	<p>Limited zoning status, limited uses as defined by the SDZ order.</p> <p>A strategy of development and land uses must conform to the zoning objectives of the Local Area Plan and the parameters set out in the SDZ order.</p> <p>Rural location – removed from any urban context creates an isolated location in and of itself. The removed setting of the SDZ eliminates a number of large concerns such as disruption to established residential areas or urban settings. The rural setting requires consideration in terms of assimilation of new development into the landscape.</p>
<b>Land Use &amp; Function</b>	<p>Current development on the SDZ lands is confined mainly to the airport and related activities.</p> <p>Considerable lands available</p> <p>The land at this location is rural, poor agricultural and bog land.</p>	<p>To set the parameters for the planned expansion of the airport (airside and land-side) and related development.</p> <p>To maximise the potential of this bog land/heath by identifying suitable development options.</p> <p>To transform this rural setting into a series of new economic development districts appropriate to the airport location and regional position.</p> <p>To create a new identify for IWAK</p>	<p>The airport campus and its associated Landside uses is currently the only development on SDZ lands. The land use is split between airport and related use and poor agricultural/bogland.</p> <p>Little existing built development to define or guide development parameters.</p> <p>The restrictions associated with the airport (safeguarding zones, flight paths, etc) has implications on uses, location, type and design of development in the Planning Scheme.</p>
<b>Movement &amp; Transport</b>	<p>Good road access to the airport from the N17 and national road network.</p> <p>Severance provided by the R376 road through the SDZ lands creates a logical separation of land, distinguishing the airport area and its operational elements from the Development Zone area to the north.</p>	<p>To develop a new road and street hierarchy to serve the SDZ scheme.</p> <p>To incorporate a movement strategy that can facilitate a range of road users (trucks, airport related traffic, non-airport related traffic) including pedestrian and cyclist traffic and public transport.</p>	<p>Limited road network currently within the SDZ lands, particularly on the northern section of the site.</p> <p>Connectivity to and from the Airport and SDZ lands at present is <u>only</u> by means of he R376 accessed from the N17.</p> <p>There is no current rail connection. Long term view includes provisions for the Western Rail Corridor to connect to the SDZ lands.</p> <p>Limited public transport options available at present.</p> <p>High dependency on the car as main mode of transport.</p>
<b>Utilities and Services</b>	<p>Existing services and utilities on site</p> <p>Water – existing supply in place.</p> <p>Wastewater - Existing treatment plant can be upgraded to double the capacity</p> <p>Electricity - supplied by 10 kV line from the Charlestown 38kV/MV station.</p> <p>ICT/Telecommunications - Metropolitan Area Networks (MANs) around the airport site providing a fast and efficient IT network within area and offers virtually limitless capacity in terms of broadband and other telecommunication systems.</p>	<p>Upgrade the current water supply for IWAK and SDZ lands.</p> <p>Provide a surface water management system commiserate with the scale and type of development.</p> <p>To incorporate renewable and alternative sources for energy supply.</p> <p>To connect up with the existing Mayo-Galway Gas pipeline by which runs west of Claremorris.</p>	<p>Existing water supply has limited capacity. A more secure sustainable supply of water is needed for the area.</p> <p>No surface water drainage facility at present.</p> <p>Dependency on ESB for electricity supply. Scope for alternative sustainable forms of energy.</p>
<b>Environmental, landscape considerations</b>	<p>Given the elevated and remote location, there are few environmental issues for consideration.</p> <p>There are no environmental designations (SAC, NHA or SPA) within the SDZ.</p>	<p>There is potential for solar energy and renewable projects at this location.</p>	<p>Topography of the area is erratic with major fluctuations in the landscape.</p> <p>There are environmentally sensitive sites in proximity to the SDZ site. In particular the River Moy SAC. Watercourses and streams within the SDZ are likely to feed into this river catchment.</p> <p>The airport’s safety requirements require restrictions and curtailments to development.</p>

## 2 Planning Scheme Framework

### 2.0 Structure of the Planning Scheme



- TREE PLANTING
- ATTENUATION / PUBLIC AMENITY
- 1- TO 2- STOREY BUILDING
- 3- TO 4- STOREY BUILDING
- EXISTING BUILDING
- LEVEL CONTOUR
- LIMIT TO INNER PUBLIC SAFETY ZONE
- LIMIT TO OUTER PUBLIC SAFETY ZONE

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#### Section 2 : Planning Scheme Framework

The Planning Scheme for IWAK is built upon a number of approaches on which to deliver cohesive and compatible development. The Planning Scheme consists of the following development strategies :

Land Use & Development; Movement & Transport; Green Infrastructure, Biodiversity & Natural Heritage; Economic Development; Built Form & Design; Services, Infrastructure & Energy; Overall Proposal for Development

#### Section 3 : Development Districts & Development Areas

The Planning Scheme proposal sets out a series of Development Areas, each of which is developed in more detail. The potential extent of development is set out for each of the identified Development Areas. Development Areas include : - Airport Operational Area; Airport Terminal & General, Airport Service Station and Accommodation Area; Airport Landside Business Park Area; MRO Campus; Hotel & Conference Campus; Business Campus East; and Business Campus West

#### Section 4 : Phasing, Implementation & Monitoring

This section of the Planning Scheme document sets out the key infrastructure, services and facilities required to support the expansion of the airport and aviation sector, the new business and economic development and the associated business communities at IWAK. Phasing and priorities relating to the varied elements of the scheme are identified, together with requirements to match the demands of the Planning Scheme.

#### Section 5 : Minimising Adverse Affects on the Environment

- Strategic Environmental Assessment (SEA)
- Appropriate Assessment (AA)
- Strategic Flood Risk Assessment (SFRA)

## 2.1 Land Use & Development

### 2.1.1 Introduction

The lands and existing airport infrastructure provide a unique opportunity to create a new regionally focused commercial district that facilitates and promotes aviation, business and innovation in an airport setting at the heart of rural County Mayo and West/North Western Region. IWAK SDZ capitalises on its strategic airport location, with ease of access to the national roads network. The natural rural setting of IWAK provides a unique quality of development unlike any other regional airport business model within the State. As specified by the Government Guidance and the SDZ Order for IWAK (S.I. 266 of 2017), this development will involve the creation of four primary development districts each of which fulfilling differing commercial, economic and operational roles. This Planning Scheme has the challenge of creating a series of places or development areas which focus on business and economic development along side an expanding regional airport.

Each development area will be defined by a primary functional role which is underpinned by the land use policies and objectives relating to the airport as set out in the IWAK Local Area Plan 2012-2018, see below

Land Use, Airport Infrastructure and Operations Policies & Objectives— IWAK LAP 2012-2018	
<b>Policies</b>	<p>(LP1) to rationalise the use of lands within IWAK through appropriate land use zoning.</p> <p>(AP1) to support the current and future operational, safety, technical and development requirements of the Airport, as deemed appropriate</p> <p>(AP2) to promote appropriate land uses at IWAK by implementing the recommendations of the report 'Public Safety Zones and Noise Contour Maps for IWAK prepared for Mayo County Council by APD Ltd.</p>
<b>Objectives</b>	<p>(LO1) ensure all new development proposals comply with the land use zoning objectives outlined in the LAP. Other use may be considered where it is demonstrated that they do not conflict with the primary land use zoning objective.</p> <p>AO1 to support the extension to the existing runways and to safeguard the potential for future runway development, including additional runways as deemed appropriate.</p> <p>AO2 to support the development of new taxi-ways as deemed appropriate</p> <p>AO3 to support the orderly expansion of aircraft apron areas, to provide for improved aircraft facilities, as deemed appropriate</p> <p>AO4 to encourage the on-going augmentation and improvement of appropriate freight / cargo facilities at IWAK.</p> <p>AO5 to ensure that there are sufficient appropriately zoned lands on the airfield with good access to the aircraft apron area and to the road network to cater for freight/cargo and other aircraft apron facilities.</p> <p>AO6 to encourage the on-going development of terminal facilities at Ireland West Airport Knock, as appropriate.</p>

This section sets out the nature, type and extent of development that will be permitted in the Planning Scheme area, and establishes a framework for the layout and built form in the IWAK Planning Scheme. This is set out as follows:

- The character, nature and type of development which describes the Primary Land Uses and supporting land uses.
- The scale of development which sets out the overall quantum of different land uses and extent of development across the Planning Scheme.

#### Overarching Principle

To direct development and appropriate land-uses across the SDZ lands in a manner that creates a sustainable economic business district that is based on the integration of land-use, transport and aviation considerations.

#### Key Principles

- To coordinate aviation, commercial and employment uses that maximizes the best use of the existing airport location and its future expansion;
- To promote appropriate commercial development and the required infrastructure to support the expansion of the aviation and related sectors at IWAK.
- To incorporate business and enterprise development at IWAK in a sensitive and appropriate manner having regard to the operations of the airport and to the unique rural setting, its topography and surrounding landscape;
- To establish four distinct economically focused development areas that function independently and collectively compliment each other — airport/passenger terminal and associated operational area; MRO campus; hotel and conference campus; business & innovation hub;
- To support the development of a sustainable business and commercial district and to ensure that new development is carried out in accordance with Government Policy.

## 2.1.2 Development - Functional Areas

### 2.1.2(i) Nature of development

The types of development and uses which may take place have been informed by the land-use zoning designations set out in the IWAK LAP 2012 and the SDZ Order required the subject lands for the following:

- Commercial activities including the development of infrastructure to support aviation including air cargo logistics facilities, aircraft hangers, maintenance and repair facilities, and airline and flight services,
- provision of hotel and conference facilities
- development of any commercial or employment activity that, in the opinion of the first local authority having regard to the proper planning and sustainable development of its local authority area, requires to be located within the strategic development zone and cannot be reasonably accommodated at any other location in either the local authority area of the first local authority situated outside of the strategic development zone or the local authority area of any of the other local authorities in the Northern and Western Regional Assembly Area, and
- The provision of supporting transport infrastructure

IWAK will be a travel, aviation and business district in the heart of the West of Ireland. Air travel and hospitality will provide the backdrop a vibrant new business district which focuses on aviation related industries and other complimentary business uses and models that distinguish IWAK from other regional airports. The lands at IWAK primarily serve two distinct purposes — that of travel/aviation and of business/commercial activity. It is therefore divided into two primary functional areas - Development Area 1/Airport - its travel and aviation development; and Development Area 2/ Business & Commercial activity of the Planning Scheme. These primary development areas subdivide to provide for four distinct development locations or Character Areas, each of which provide for a specific development aspect of the scheme and which subscribe to the underlying development objectives of the Local Area Plan and the provisions of the SDZ Order. These areas are:

- Area 1a** Airport - passenger terminal, runway/taxiway and airport related development;
- Area 1b** MRO Campus - focusing on the expansion of the aviation development /business expansion of the airport;
- Area 2a** Hotel and Conference Campus
- Area 2b** Business & Innovation Campus

The distribution of development will be guided by the Planning Scheme and guidance set out in this document.

Figure 2.1.2(a) Functional Areas

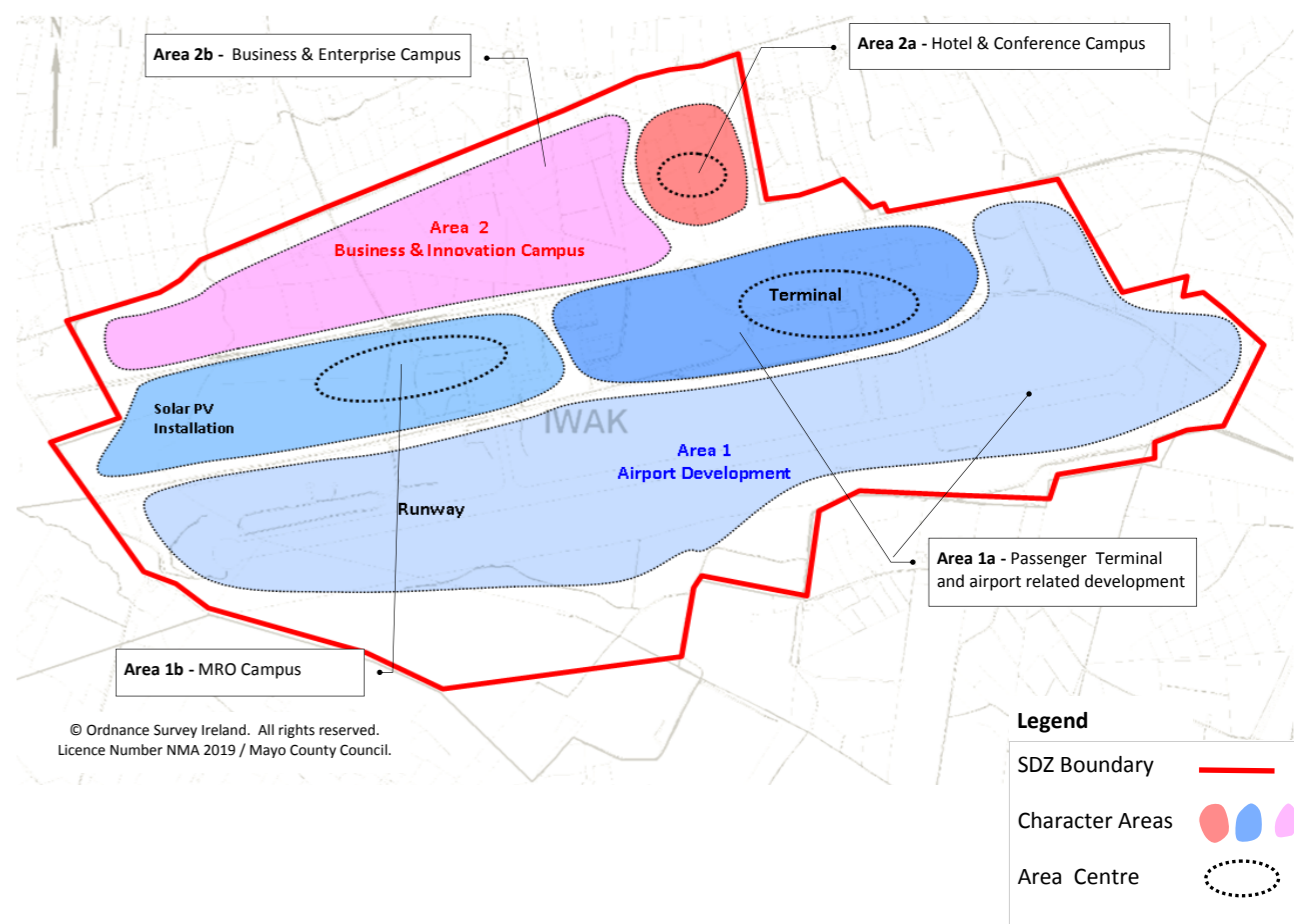


Table 2.1.2(i) Character Areas

Key Area	Functional Area	Description	Core Development Aim
Area 1 Airport Expansion & Development	Airport Development & Expansion Area (Area 1a)	The area comprises of the passenger terminal building, taxiway, runway and associated operational areas i.e. mainly Airside functionality, with Land-side facilities and operations relating to passenger and travel demands. This area will continue to provide for the operational, business and passenger needs of the airport as it expands and grows into the future. No new floor space is identified for this area. While most of this area consists of the existing airport - runway/apron/taxiways, terminal building, ancillary structures and car par, a small portion including undeveloped plots within the existing Knock Business Park area is identified for future development.	To support, facilitate and promote the growth & future demands of the airport for both passenger travel and aviation related activity.
	MRO Campus & USSPV Installation (Area 1b)	Consists of a campus type development that provides for Maintenance, Repair & Overhaul aspects of aviation development, including hangerage, engineering shops, as well as cargo and logistics etc., in addition a portion of lands along the western boundary of the site will include a Utility Scale Solar Photovoltaic (USSPV) installation that will contribute to the power supply for the airport.  Directly abutting the airfield, the MRO campus provides employment floor space to cater for the growing branch of the aviation industry at IWAK. This area is distinguished from the general airport area as its requirements are primarily industry focused. Development in this area should be designed to accommodate the needs of this sector with cognisance of the safety and height restrictions required for its airside location	To accommodate the clustering of aviation related industrial and engineering development, logistics and related activity that will complement the economic expansion of the airport while promoting the growing aviation sector.
Area 2 Airport Business & Enterprise Campus	Hotel & Conference Campus (Area 2a)	This area consists of hotel and conference facilities, parking and ancillary facilities. It can include associated amenity areas and facilities ancillary to the primary use of the Hotel.	To provide a quality hotel and conference facility that can accommodate both the tourist traveller as well as provide for the business & enterprise sectors.
	Business & Enterprise Campus (Area 2b)	This area comprises a large campus for new business, commercial and innovative industries that will benefit from or have need of an airport location	To provide a new business and enterprise district that capitalises on the strategic benefits of the airport and the quality of space offered by the ample scale and unspoilt rural setting.

### 2.1.2(ii) Structured Assessment Criteria

In order to ensure that development at IWAK is appropriate to the airport location and to safeguard the sustainable development of other settlements within the region, a set of structured assessment criteria or ‘test’ will apply to all proposals for development within the Scheme. This is to ensure that the development and uses are appropriate to the airport location and the vision of the Planning Scheme.

In this regard, all development proposals must demonstrate an airport-related need to locate within the SDZ based on the key function of the area, as outlined in **Table 2.1.2(i)** and **Figure 2.1.2(a)**.

**Table 2.1.2(ii)a Assessment Criteria for Airport Development & Expansion (Area 1a)**

SDZ Order Ref	Targets
<p>3(a) Commercial activities including the development of infrastructure to support aviation including air cargo logistics facilities, aircraft hangers, maintenance and repair facilities, and airline and flight services</p> <p>3(b) The provision of hotel and conference facilities</p>	<p><b>Net developable land</b></p> <ul style="list-style-type: none"> <li>Airport Terminal &amp; General – 0 ha</li> <li>Airport Service Station &amp; Accommodation – 1.54 ha</li> <li>Airport Landside Business Park – 2.42 ha</li> </ul> <p><b>Land Use Targets</b> - Gross floor space – 9,425 sq.m  <b>Hotel / Accommodation</b> – 1,000 sq.m  <b>Commercial, Business &amp; Enterprise</b> – 8,425 sq.m</p> <p><b>Height (Maximum Permissible)</b>                      Maximum of 40 meters</p> <p><b>Airport Location Criteria</b>                      All proposed development within the Airport Development &amp; Expansion Area must ensure that development within this area is justified) within this area at the outset.</p>
Objective	<p>The reasons for the locating (a) the airport location, and (b) within the Airport Development &amp; Expansion area must be clearly indicated at the outset.</p> <p><b>Considerations shall include:</b></p> <ul style="list-style-type: none"> <li>Nature of proposed development and its compatibility with the airport location and permitted uses set out in this Planning scheme</li> <li>Scale of proposed development</li> <li>Business or functional relationship to the airport including, business operations, logistics considerations.</li> </ul>
Key Principle (s)	Means of Assessment
<ul style="list-style-type: none"> <li>To establish four economically focused development areas that function independently and collectively compliment each other – airport/passenger terminal and associated operational area; MRO Campus; Hotel and Conference Campus; Business &amp; Innovation hub</li> <li>To promote appropriate commercial development and required infrastructure to support the current needs of the existing airport and its future expansion.</li> </ul>	<p>Information demonstrating how proposed development addresses the targets listed above must be submitted as part of all applications.</p>

**Table 2.1.2(ii)b Assessment Criteria for MRO Campus & USSPV Installation (Area 1b)**

SDZ Order Ref	Targets
<p>3(a) Commercial activities including the development of infrastructure to support aviation including air cargo logistics facilities, aircraft hangers, maintenance and repair facilities, and airline and flight services</p>	<p><b>Net developable land</b></p> <ul style="list-style-type: none"> <li>Airport MRO Campus – 22.94 ha</li> <li>USSPV Solar Farm – 5.36 ha</li> </ul> <p><b>Land Use Targets</b> - Gross Floor Space - 44,400 sq.m  <b>Aviation Economic Development &amp; Services</b> – 44,400sq.m  <b>Solar farm</b> – 3.25 mw</p>
Objective (s)	<p><b>Height (Maximum Permissible)</b>                      maximum of 40 meters</p> <p><b>Airport Location Criteria</b>                      All proposed development within the MRO Campus must have a justified reason directly relating to the MRO industry including hangerage, air freight and logistics, aircraft maintenance and repair, and other MRO related services.</p> <p>The reason for the locating within the MRO Campus area must be clearly indicated at the outset</p> <p><b>Considerations shall include:</b></p> <ul style="list-style-type: none"> <li>Aviation focus of proposed development, the aims of the development area and permitted uses set out in this Planning scheme</li> <li>Requirement of business/service for direct access to runway</li> </ul>
Key Principle (s)	Means of Assessment
<ul style="list-style-type: none"> <li>To ensure that commercial activities related to the growing needs of the airport, including cargo logistics, aviation hangers, maintenance and repair facilities, airline and flight services and related development is accommodated appropriately.</li> <li>To provide a ground mounted utility scale solar photovoltaic (USSPV) installation (solar farm) to contribute to the energy needs of the IWAK SDZ area.</li> </ul>	<p>Information demonstrating how proposed development addresses the targets listed above must be submitted as part of all applications.</p>
<ul style="list-style-type: none"> <li>To establish four economically focused development areas that function independently and collectively compliment each other – airport/passenger terminal and associated operational area; MRO Campus; Hotel and Conference Campus; Business &amp; Innovation hub</li> <li>To co-ordinate aviation, commercial and employment uses that maximise the best use of the existing airport location and its future expansion.</li> <li>To promote appropriate commercial development and the required infrastructure to support the expansion of the aviation and related sectors at IWAK.</li> <li>To establish a MRO campus to facilitate the growing branch of the aviation industry in a sustainable manner.</li> </ul>	

Table 2.1.2(ii)c Assessment Criteria for Hotel & Conference Campus (Area 2a)

SDZ Order Ref	Targets
3(b) <i>The provision of hotel and conference facilities</i>	<p><b>Net developable land</b></p> <ul style="list-style-type: none"> <li>Hotel &amp; Conference campus - 12.87 ha</li> </ul> <p><b>Land Use Targets - Gross Floor Space - 10,000 sq.m</b></p> <ul style="list-style-type: none"> <li>Hotel / Accommodation – 10,000 sq.m</li> </ul> <p><b>Height (Maximum Permissible)</b> maximum of 40 meters</p> <p><b>Airport Location Criteria</b> Development to provide a hotel and conference facility suited to the airport location.</p>
Objective	<p>Additional business development/enterprise uses will only be considered within the Hotel &amp; Conference campus where it is demonstrated that there is:</p> <ol style="list-style-type: none"> <li>a justifiable reason for locating at the airport, and</li> <li>the proposed development is complimentary to the hotel setting and does not impede the amenity required for the primary use of the campus,</li> <li>any development other than the hotel facility and its ancillary uses will only be considered where the business and employment campus has reached capacity.</li> </ol>
Key Principle	Means of Assessment
<ul style="list-style-type: none"> <li>To establish four economically focused development areas that function independently and collectively compliment each other – airport/passenger terminal and associated operational area; MRO Campus; Hotel and Conference Campus; Business &amp; Innovation hub.</li> </ul>	<p>Information demonstrating how proposed development addresses the targets listed above must be submitted as part of all applications.</p>

Table 2.1.2(ii)d Assessment Criteria for Airport Business & Enterprise Campus (Area 2b)

SDZ Order Ref	Targets
3(c) <i>development of any commercial or employment activity that, in the opinion of the first local authority having regard to the proper planning and sustainable development of its local authority area, requires to be located within the strategic development zone and cannot be reasonably accommodated at any other location in either the local authority area of the first local authority situated outside of the strategic development zone or the local authority area of any of the other local authorities in the Northern and Western Regional Assembly Area.</i>	<p><b>Net developable land</b></p> <ul style="list-style-type: none"> <li>Business Campus East - 17.09 ha</li> <li>Business Campus West - 9.80 ha</li> <li>USSPV Solar Farm – 2.87 ha</li> </ul> <p><b>Business &amp; Enterprise related Land Use Targets - Gross floor space – 86,600sq.m</b> Business Campus East (53,000sq.m) Business Campus West (32,000sq.m) Solar farm/utility buildings – 1.75 mw (1,600sq.m )</p> <p><b>Height (Maximum Permissible)</b> maximum of 40 meters</p> <p><b>Airport Location Criteria</b> An airport location is an integral requirement of any development seeking to locate within the Airport Business &amp; Enterprise Campus. Any proposed business/enterprise development must demonstrate how the airport location fits into their business model, in terms of their input/outputs/process, and how proposed development cannot be reasonably located within any urban settlement within the county and wider region. The justifiable reason for the airport location must be clearly indicated at the outset.</p> <p><b>Considerations shall include:</b></p> <ul style="list-style-type: none"> <li>Consideration of alternative locations i.e. would development be best suited to a City or urban location.</li> <li>Scale of proposed development</li> <li>Nature of proposed development and its compatibility with the airport location and permitted uses set out in this Planning scheme</li> <li>Considerations surrounding relationship of business model and air travel relationship.</li> <li>Transport and logistics consideration in terms of access to national and international destinations provide by the airport and the national road network</li> </ul>
Objective	<ul style="list-style-type: none"> <li>To ensure that any commercial and/or employment related development demonstrate reasonable and justifiable grounds to locate in the Business &amp; Enterprise Campus at IWAK.</li> </ul>
Key Principle (s)	Means of Assessment
<ul style="list-style-type: none"> <li>To establish four economically focused development areas that function independently and collectively compliment each other – airport/passenger terminal and associated operational area; MRO Campus; Hotel and Conference Campus; Business &amp; Innovation hub</li> <li>To incorporate business and enterprise development at IWAK in a sensitive and appropriate manner having regard to the operations of the airport and to the unique rural setting, topography and landscape</li> <li>To support the development of a sustainable business and commercial airport-located district and to ensure that new development is carried out in accordance with Government Policy.</li> </ul>	<p>Information demonstrating how proposed development addresses the targets listed above must be submitted as part of all applications.</p>

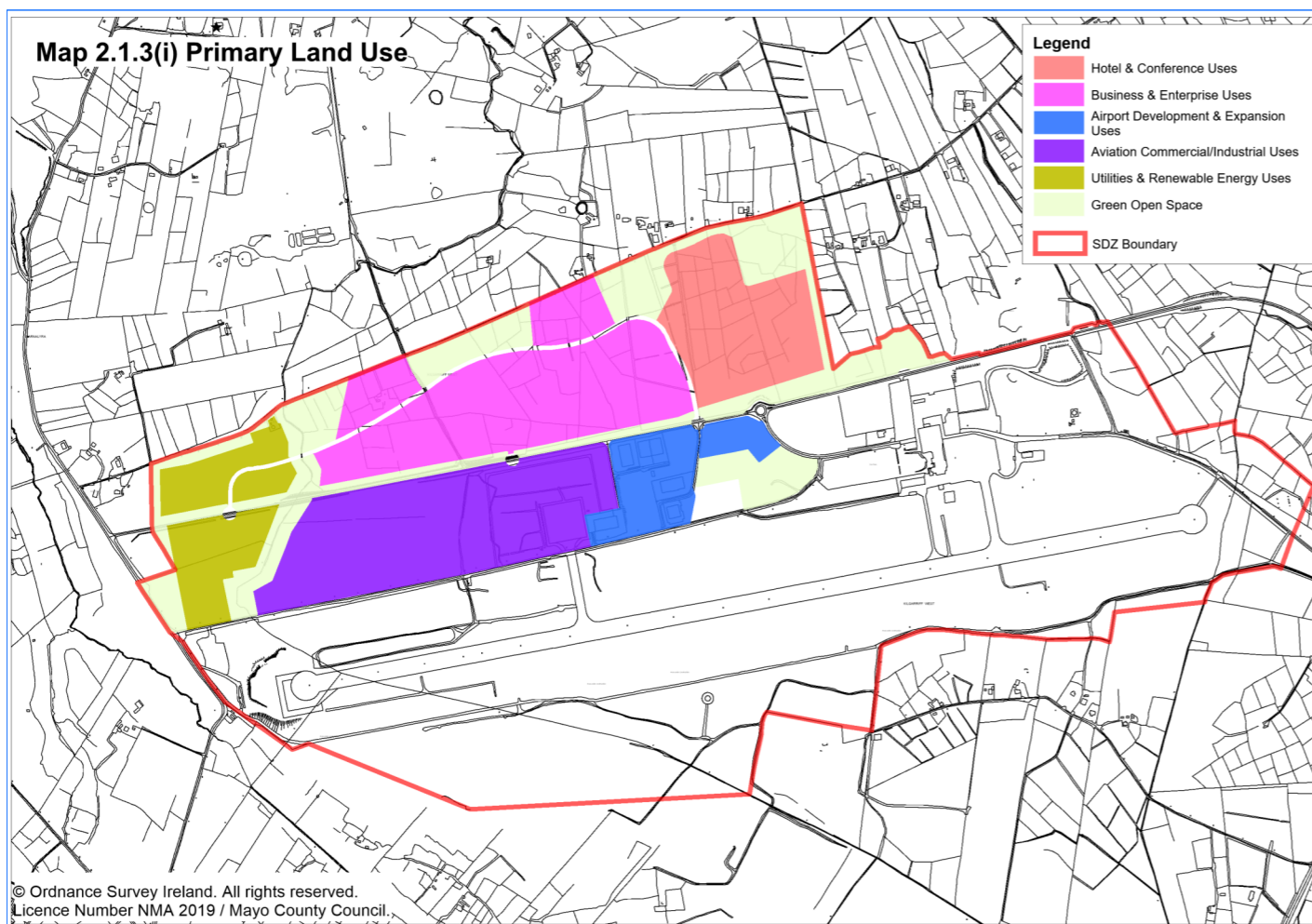
### 2.1.3 Land Uses

Map 2.1.3(i) shows the overall distribution of general land uses of the Planning Scheme. Primary Land Uses are demonstrated in Table 2.1.3(i) along with the net area of development land\*. Land use within this Planning Scheme has been informed by the land zoning objectives set down by the IWAK LAP 2012 in conjunction with the requirements of the SDZ order.

In accordance with the requirements of the Planning and Development Act 2000 (as amended), the types of development that will be ‘permissible in principle’ in the land-use areas are set out in this section in Tables - 2.1.3(ii), 2.1.3(iii), 2.1.3(iv) and 2.1.4(v). These tables represent the general nature of the uses for each of the areas. The type of uses permitted within the various development sub-areas as detailed in Chapter 3.

Land uses that are listed as ‘permitted in principle’ in the land use tables are generally considered to be acceptable subject to further assessment against the relevant requirements set out in this Planning Scheme.

Uses not listed under the land use tables will be considered in respect to their conformity with the requirements of this Planning Scheme, particularly in relation to the impact on the coherent development of the SDZ lands and the delivery of this Planning Scheme.



There may be instances on the SDZ lands where land uses do not conform with the land use tables, such as uses that:

- (a) have valid permission, or
- (b) have no permission and may or may not be the subject of enforcement proceedings.

In such instances, development proposals that relate to uses referred to above, particularly those that would intensify non-conforming uses, will be permitted only where the proposed development would not be prejudicial to the operational aspects of the airport, the visual amenity of the surrounding area and the realisation of this Planning Scheme.

#### Prohibited and Restricted Uses:

Residential or community uses do not form part of the development brief for the SDZ and as such will not be considered in any proposal for development or referred to within the Planning Scheme proposal.

Retail use within the planning scheme is regarded as a restricted use, considered only as an ancillary activity to the main purposes of the Planning Scheme. A limited amount of retail will be permitted only where it is demonstrated that it provides for the immediate needs of airport users or those employed within the SDZ.

#### Extant Permissions:

Extensions of duration of permission for development granted within the SDZ lands prior to the making of this Planning Scheme should only be granted where such development is fully consistent with the requirements of this Planning Scheme.

Table 2.1.3 (i) Primary Land Use Area / Net Development Land

Primary Land Use	Primary Land Use Area (ha)	Net Development Land Area (ha)
Airport Development & Expansion Uses	7.37 ha	3.96 ha
Aviation Commercial/Industrial Uses	22.94ha	22.94 ha
USSPV Farm/Utilities	10.23 ha	1.14 ha
Business & Enterprise Campus	24.57 ha	24.57ha
Hotel & Conference Campus	12.87 ha	12.87 ha
Green Infrastructure	25.26	25.26 ha
<b>Total</b>	<b>103.24 ha</b>	<b>90.74 ha</b>

\* The net site area is taken as the development plots set out in Map 2.1.4



**Area 1a : Airport development and expansion area**

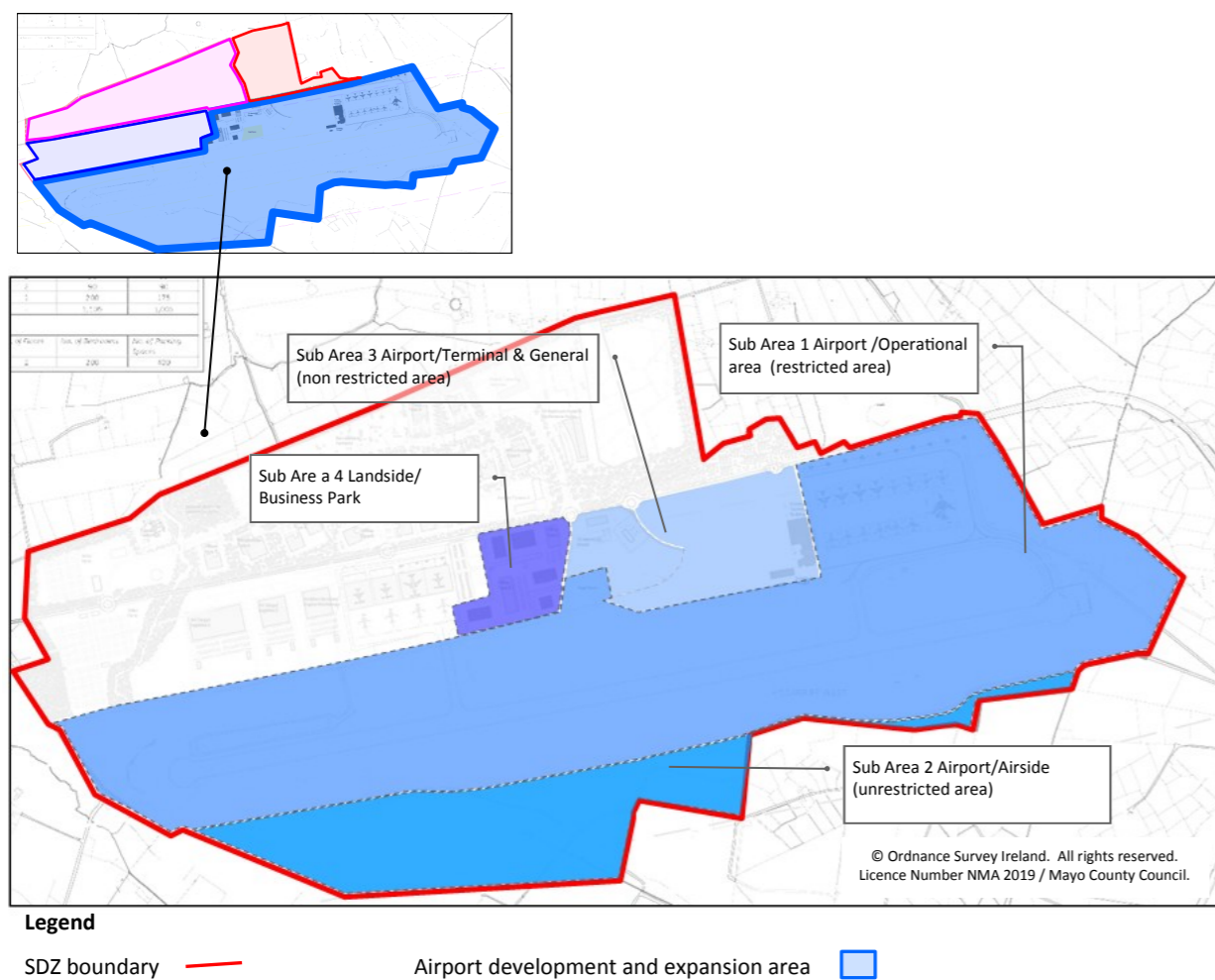
Area 1a consists of the entire Airport operational area and provides for the future expansion of the airport - including passenger/air travel, aviation industry, related commercial enterprises and ancillary activity. The airport forms the largest character area within the Planning Scheme.

Given the scale of the airport area, the scope for development is varied, being underpinned by specific development objectives, security restrictions along with safety and operational requirements. Because of these considerations, the airport area is subdivided into 4 sub-sections each of which having a functional airport-related use. These sub-areas are:

1. Aircraft/operational area which is subject to security restrictions;
2. Airport unrestricted area which consists of lands outside of the restricted area but forms part of the operation zone of the airport complex.
3. Airport Landside, providing passenger facilities, parking and travel related activity to the public;
4. Landside business park, providing a landside airport-based business park.

See **Figure 2.1.3(a) & Tables 2.1.3(ii)**.

**Figure 2.1.3(a) Area 1a Airport development and expansion area**



**Table 2.1.3(ii) Uses Permitted in principle in Area 1a— Airport development and expansion area**

Sub Area 1	Permitted in Principle
Aircraft Operational Area (restricted area)	<b>Aircraft Area</b> : Apron, taxiway, runway, aircraft parking stands, passenger boarding bridge and associated development. <b>Airport Terminal</b> : Terminal building, retail & other enterprises within the terminal consistent with the needs of passengers. <b>General</b> : air traffic control, meteorology, security, Gardaí, fire service, health services, etc.; in flight hotel and terminal catering preparation & storage facilities; flight packaging, provision services & supply units including ramp services; avionics, engine or aircraft parts, aircraft maintenance supply or manufacture; customs checkpoints, immigration, concessions; airline, aircrew or pilot training centre; airline and handling agents / cargo facilities and service facilities; specialist distributors/logistics, infrastructure projects /utility Installations. <b>Ancillary</b> : aviation and vehicle fuel storage facilities; airport equipment and operation infrastructure, terminal services and signage; airport equipment and operations infrastructure, maintenance, supply and manufacture; internal surface access and infrastructure including ancillary car parking; ancillary office space; service vehicle maintenance; vehicle valeting operation; appropriate renewal energy projects.
Sub Area 2	<b>Permitted in Principle</b>
Airport/Airside (unrestricted area)	meteorology, security, Gardaí, fire service, health services, etc.; airport equipment and operation infrastructure, airport services and signage, internal surface access and infrastructure including ancillary car parking.
Sub Area 3	<b>Permitted in Principle</b>
Airport/Terminal & General (non restricted area)	car hire front desks, hotel booking/general tourist information counters; airport related accommodation (max 25-bed low density); airline, aircrew or pilot training centres/schools and accommodation; avionics, engine or aircraft parts, maintenance supply or manufacture; retail and other enterprises within the terminal consistent with the needs of passengers; car hire operations and associated car park requirements; internal surface access and infrastructure including public car, bus and staff parking associated with the main activities of the Landside area. filling station (fl/area not exceeding 425sq.m including retail/cafe/deli of up to a net sales floor area of 100sq.m).  <b>Ancillary</b> : retail within the terminal serving the needs of passengers and staff; airline operator/ancillary offices, staff facilities; aviation and vehicle fuel storage facilities; airport equipment and operation infrastructure, terminal services and signage; airport equipment and operations infrastructure maintenance, supply and manufacture; service vehicle maintenance; vehicle valeting operation; kiosk, sheltered walkways, shuttle-bus shelters; retail /cafe/restaurant providing for needs of airport employees; appropriate renewal energy projects.
Sub Area 4	<b>Permitted in Principle</b>
Landside Business Park	airline sale reservation and booking office including call/email centre; airline, aircrew or pilot training centres/schools and accommodation; avionics, engine or aircraft parts, maintenance, supply and manufacture; flight packaging provision services and supply units including ramp services; in flight hotel and catering preparation and food storage facilities; warehousing (non-retail); cold stores and offices for airfreight handlers, forwarders and agents; distribution services where it is demonstrated that suitable facilities are not available in the surrounding towns; businesses in sectors that contribute to regional employment eg. Life Sciences, ICT, Renewables, Clean Technology, light engineering, media and the arts; firms - regular users of the airport (low employment density); firms whom the airport is a prestigious location (low employment density); tourist related activity (non residential) requiring airport location; Non-retail business that contribute to regional employment (low employment density).  <b>Ancillary</b> : ancillary office, staff facilities; airport equipment and operational infrastructure, maintenance, supply and manufacture; car hire operations and associated car park requirements; internal surface access and infrastructure; including car parking associated with the main activities within the business campus; retail serving only the daily needs of those employed in the business campus; utility infrastructure projects; appropriate renewal energy projects; aircraft navigation aids; signage; infrastructure projects.

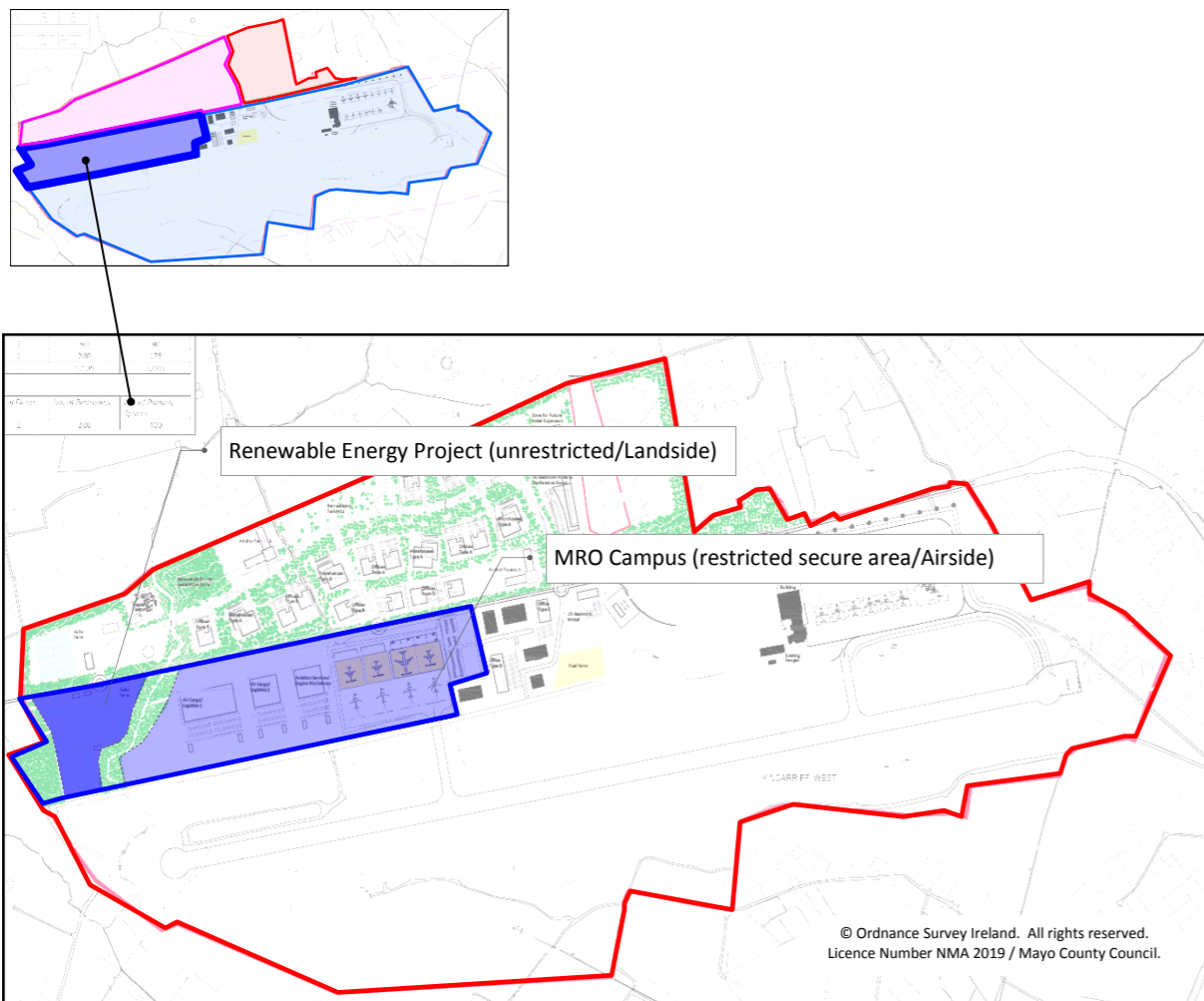
### Area 1b : MRO Campus & USSPV Installation

Area 1b consists of two sub-areas, a campus for the purposes of Maintenance, Repair and Overhaul of aircraft (MRO) and a large scale Renewable Energy Installation.

The MRO Campus will form part of the economic expansion of the airport, broadening the scope of airport related development into other sectors of the aviation industry, which focuses on the maintenance, engineering and servicing of aircraft as well as aviation finance and leasing. Such aviation related development will form part of the physical and economic development of the aviation sector at IWAK. Such development has the capability of growing at a pace dictated by demand, while at the same time independent of the passenger travel and tourism aspects of IWAK.

In addition to the MRO Campus, the Airport lands within the SDZ will incorporate a significant renewable energy project. This will comprise of a utility scale solar photo voltaic installation. See **Figure 2.1.3(b)** and **Table 2.1.3(iii)**.

**Figure 2.1.3(b) Area 1b MRO & USSPV**



**Table 2.1.3(iii) Permissible development in Area 1b - MRO Campus & USSPV Installation**

Sub Area	Permitted in Principle
MRO Campus (restricted secure area/Airside)	<p>aircraft hangerage area; aircraft maintenance, supply and manufacture including modification, refurbishment and painting; avionics, engine or aircraft parts maintenance supply or manufacture; aircraft reclamation/dismantling facilities; runway, apron &amp; taxiway; airport equipment, operation infrastructure and signage; airline, aircrew or pilot training centres/schools and accommodation; aviation and vehicle fuel storage facilities; airport equipment and operation infrastructure supply and maintenance, terminal services and signage; airport equipment and operations infrastructure maintenance, supply and manufacture; flight packaging, provision services and supply units including ramp; inflight hotel and terminal catering preparation and storage facilities; cargo handling, warehouse and facilities.</p> <p><b>Ancillary</b> : ancillary office, staff facilities, car-parking; internal surface access and infrastructure including car parking associated with the main activities of Landside; airport equipment and operational infrastructure, maintenance, supply and manufacture; service vehicle maintenance, vehicle valeting operations.</p>

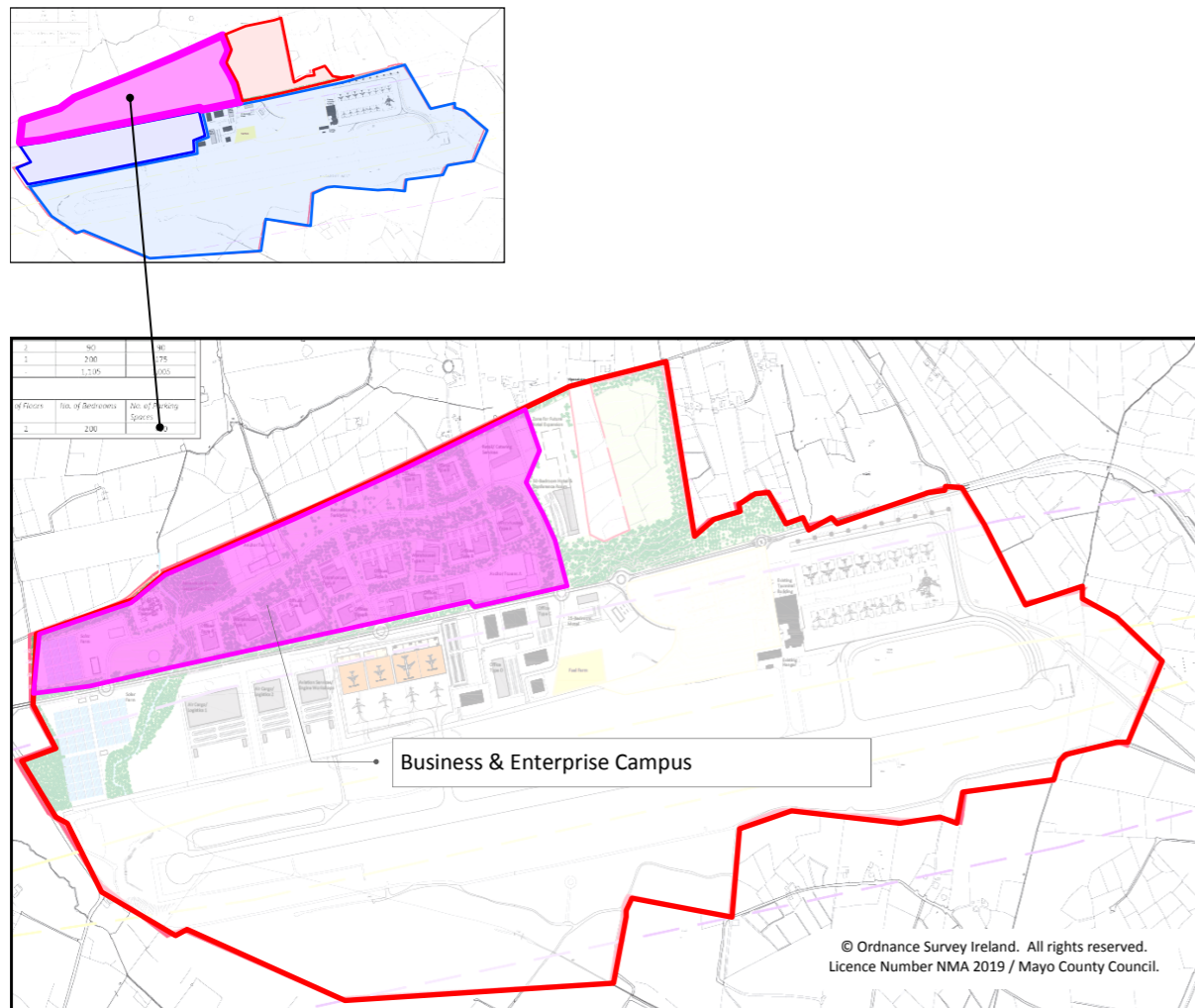
Sub Area	Permitted in Principle
Renewable Energy Installation (unrestricted/ Landside)	<p>appropriate renewal energy projects; infrastructure projects.</p> <p><b>Ancillary</b> : internal surface access and infrastructure including ancillary car parking associated with the main activities of the airport as demand arises</p>

**Area 2a : Business & Enterprise Campus**

Area 2a consist of the business & enterprise campus which provides for development that cultivates an economic climate complimentary to and compatible with the airport and its strategic location. Such uses include those that focus on commercial development that supports the aviation industry as well as business and enterprises that generates employment, business and industry that require an airport location.

See **Figure 2.1.3(c)** and **Table 2.1.3(iv)**.

**Figure 2.1.3(c) Area 2a Business & Enterprise Campus**



**Legend**

SDZ boundary — Business & Innovation Campus

**Table 2.1.3(iv) Permissible development in Area 2a - Business & Enterprise Campus**

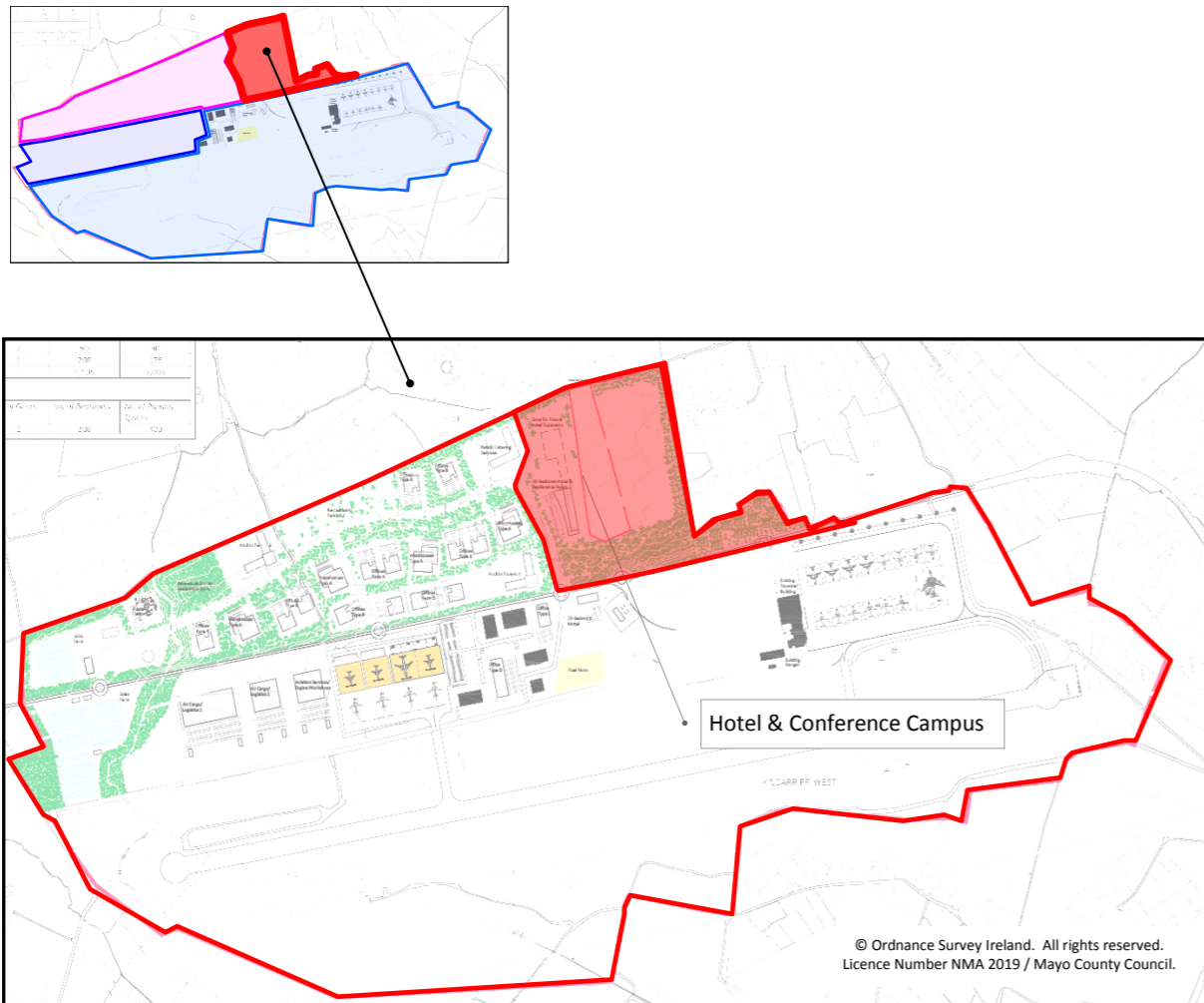
Permitted in Principle
<p>airline, aircrew or pilot training centres/schools; avionics, engine or aircraft parts, maintenance, supply and manufacture; flight packaging provision services and supply units including ramp services; inflight hotel and catering preparation and food storage facilities; airline sale reservation and booking office, including call/email centre; car hire operations and associated car parking requirements.</p> <p>high-tech, corporate, aviation leasing &amp; finance, service, high-value office; high-tech manufacturing, specialist manufacturing/packaging; research and development, science &amp; tech industry, incubator and laboratory; warehousing (non-retail uses with a requirement for airport location); cold stores and offices for airfreight handlers, forwarders and agents including parcels or post services; data centre, call/email centre; non-retail based business and commercial operations in sectors that contribute to regional employment eg. Life Sciences, ICT, Renewables, clean technology, light engineering, media and the arts; firms that are regular users of the airport and/or for whom the airport is a preferred optimal location; tourist related activity where the need to locate beside the airport is demonstrated; car hire operations and associated car park requirements; distribution services where it is demonstrated that suitable facilities are not available in the surrounding towns; utility infrastructure projects; appropriate renewable energy projects; infrastructure projects</p> <p><b>Ancillary</b> : airport equipment and operational infrastructure, maintenance, supply and manufacture; airport equipment and operational infrastructure, maintenance, supply and manufacture; service vehicle maintenance internal surface access and infrastructure including car parking (incl. staff car parking) associated with the main activities in the business &amp; enterprise campus; utility infrastructure projects; appropriate renewal energy projects; aircraft navigation aids; ancillary storage, signage; ancillary office, childcare facilities that serve the needs of those employed in IWAK SDZ area; open storage/service areas; staff facilities.</p>
Open For Consideration
<p>retail/cafe/restaurant /deli serving day to day needs of those employed in the planning scheme area (up to a net sales floor area of 100sq.m).</p>

**Area 2b : Hotel & Conference Campus**

The Planning Scheme provides for hotel and conference facilities in accordance with the SDZ Order. In addition to the hotel, the campus will provide for associated amenities and ancillary uses.

See **Figure 2.1.3(d)** and **Table 2.1.3(v)**.

**Figure 2.1.3(d) Area 2b Hotel & Conference Campus**



**Legend**

SDZ boundary — Business & Innovation Campus

**Table 2.1.3(v) Permissible development in Area 2a - Hotel & Conference Campus**

Permitted in Principle
<p>hotel and associated leisure facilities (including spa, gym); conference facilities; tourist related uses where necessity of airport location is demonstrated; airline sale reservation and booking office; car hire operations and associated car parking requirements; internal surface access and infrastructure including car parking (staff and guest) associated with the main activities of the hotel and conference facility and hospitality related activity.</p> <p><b>Ancillary</b> : amenity areas associated with hotel and conference facility; non-convenience retail (up to a net sales floor area of 100sq.m) and other enterprises ancillary to the main activity of the hotel and conference facility; ancillary storage, utility/service facilities; ancillary office and staff facilities; signage; appropriate renewable energy projects; infrastructure projects; utility infrastructure; airport equipment and operational infrastructure, aircraft navigation aids.</p>
Open for Consideration
<p>High-value office, commercial or other business uses complimentary to a hotel complex setting.</p>

### 2.1.4 Extent of Development

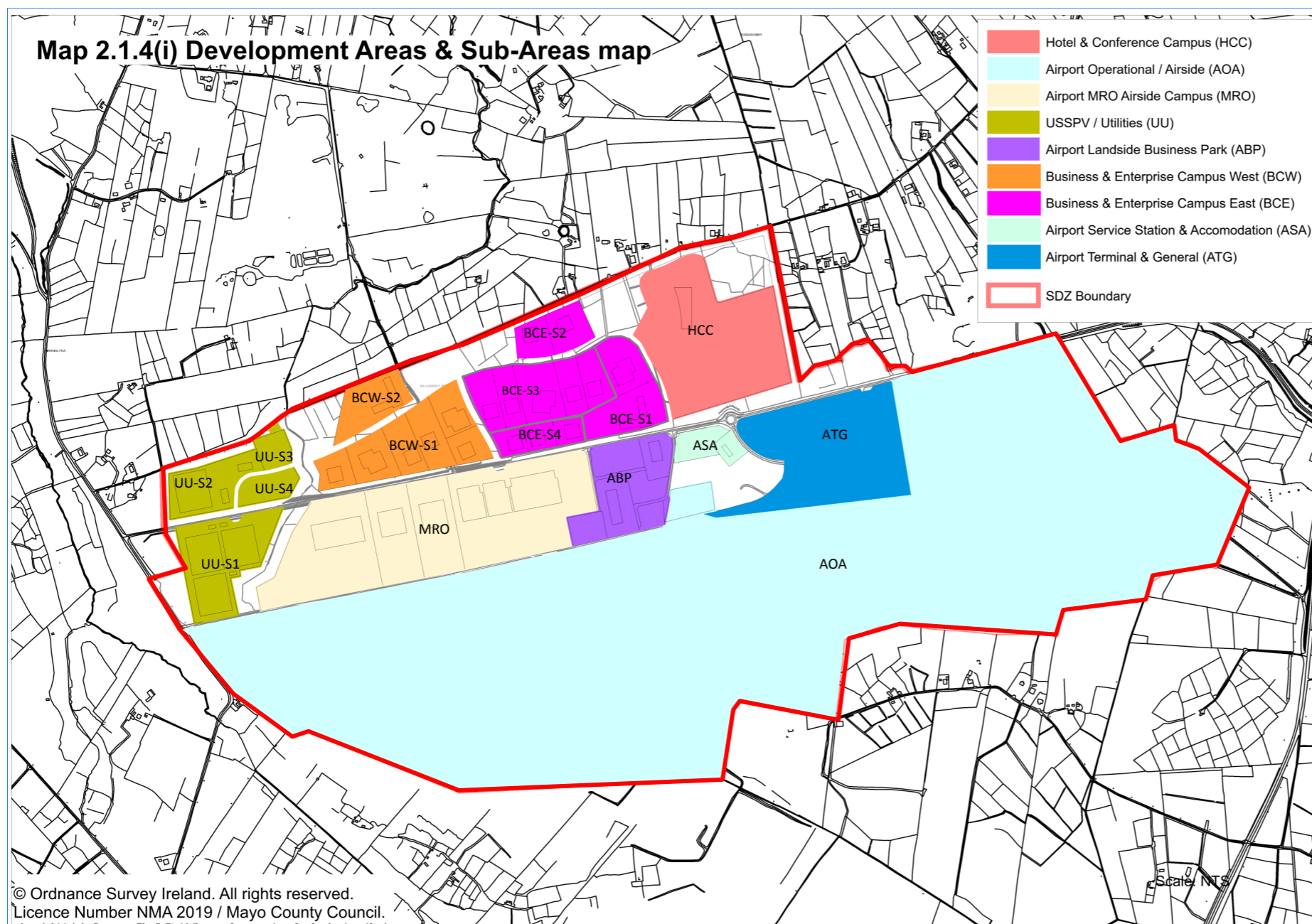
The range of development within the Planning Scheme is based on the appropriate allocation and nature of the stated development in the SDZ Order for the lands at IWAK. The location and distribution of development across the SDZ lands is underpinned by the provisions of the *IWAK Local Area Plan 2012*, which is consistent with the *Mayo County Development Plan 2014-2020*, the *Regional Planning Guidelines (RPGs)*, the *Regional Spatial and Economic Strategy for the NWRA 2019 (RSES)* the *National Planning Framework Ireland 2040*; *The IWAK Masterplan 2009* (Airport Masterplan), together with the *Ireland West Airport Knock Strategic Development Zone Preliminary Economic Study* (2019) prepared for IWAK SDZ by Future Analytics planning consultants.

In addition to the SDZ Order, the underlying land use zoning objectives of the *IWAK Local Area Plan 2012* has specifically guided the location, type and scope of development which can take place throughout the designated IWAK lands.

The SDZ consists of 284 hectares of land. The Gross Development Area (excluding the runway area, road infrastructure, the stream, stream buffer area and green open space) is 65.5 hectares. The Net Development Area of each of the Development Areas within this Planning Scheme is detailed in **Table 2.1.4(i)**.

There is a total of nine development areas within the Planning Scheme. Seven of the development areas provide greenfield land for the provision of new employment and hospitality development. The remaining two areas are earmarked for development directly associated with the expansion and operational requirements of the airport, which for the purposes of the Planning Scheme is not calculated in terms of development land.

Further to the primary land use map and tables presented in this section, the general distribution of land uses across the SDZ lands is more precisely set out in Chapter 3 (Development Areas) where the development areas (and associated sub-areas) identified in this section are subject to development parameters and standards (See **Map 2.1.4(i)** for development areas and sub areas).



**Table 2.1.4(i) Development Areas**

Development Area	Net Area (ha)
Hotel & Conference Campus (HCC)	12.87 ha
Airport Terminal & General (ATG)	-
Airport Service Station & Accommodation (ASA)	1.54 ha
Airport Landside Business Park (ABP)	2.42 ha
USSPV / Utilities (UU)	1.14. ha
Airport Operational /Airside (AOA)	-
Business & Enterprise Campus East (BCE)	14.77 ha
Business & Enterprise Campus West (BCW)	9.80 ha
Airport MRO Campus (MRO)	22.94 ha
<b>Total</b>	<b>65.5 ha</b>

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### 2.1.5 Scale of Development

#### Type and distribution of floor space

This Planning Scheme aims to ensure that appropriate types of employment and economic floor space is appropriately located and distributed across the SDZ lands in a manner that adheres to the operational, functional and safety aspects of the airport. The creation of an economic and business location at IWAK is the primary purpose of the SDZ which promotes the development of innovation and enterprise related development, while making efficient use of its strategic location and transport infrastructure.

Development floorspace within the Planning Scheme is considered to be that which generates employment, business and industry. In this regard, development floor space is focused on employment related uses which promotes the growing aviation business sectors at IWAK alongside a new business/commercial/enterprise hub and hotel & conference facilities.

The nature and scale of development floor space as set out in this the Planning Scheme is all employment focused. In the interest of clarity and to differentiate between the types of employment floor space within the Planning Scheme the following categories will apply:

- Hotel/Airport Accommodation
- Aviation Economic Development and Services
- Commercial, Business & Enterprise Development

Each of these three broad floor space categories are distributed throughout the development areas, see **Map 2.1.5(i)**. To ensure the management of development proportionately and to facilitate height/safety considerations, floor space densities are prescribed according to the Development/sub-development areas under this Planning Scheme, see **Map 2.1.4(i)**. **Table 2.1.5(i)** indicates the net amount of development land within each development area, nature and quantum of employment floorspace within the planning Scheme.

#### Planning Scheme overall development quantum

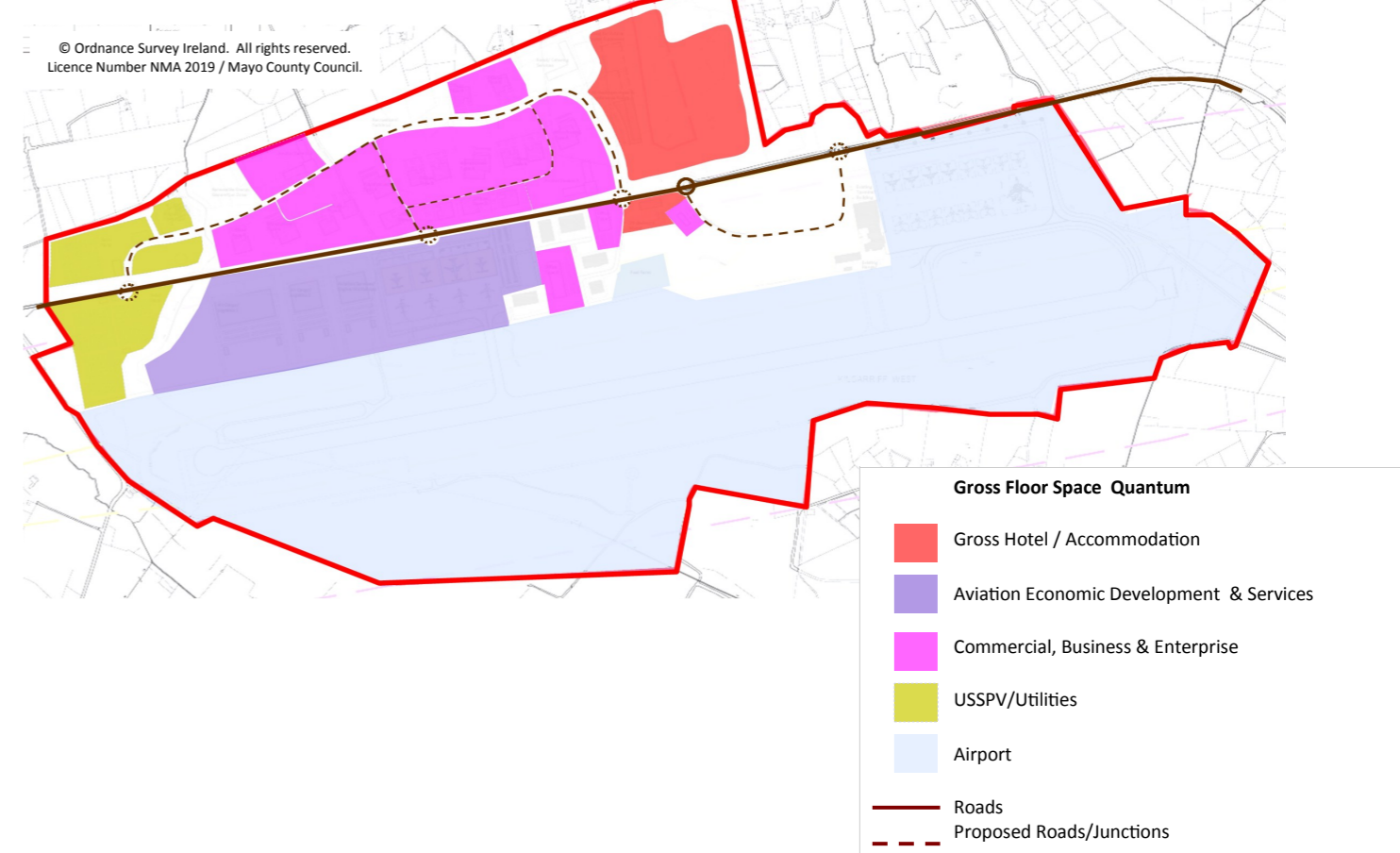
##### Approach - Scale and Flexibility

The IWAK Planning Scheme is designed to accommodate a series of campus style developments. Given the rural setting and extent of greenfield lands within the SDZ, cultivating an appropriate scale of development is one of the overall challenges of the Planning Scheme.

In this regard, the full delivery of the Planning Scheme is likely to occur over a relatively long period of time, which will span the lifetime of a number of County Development Plans and will be subject to an ever changing economic climate. For this reason, a level of flexibility has been built into the plan.

Because of the airport location and the provisions of the SDZ Order, it is anticipated that potential development in IWAK will consist of unconventional and unusual types of development that may require unpredictable sizes, spaces and heights. The Planning Scheme sets out a baseline quantum of development for the lands at IWAK, which provides an estimated target of employment floor space (150,425sq.m) spread across the three main employment categories, see **Table 2.1.5(i)** opposite. These figures are based on estimates derived from applied uses and employment type scenarios for each of the development areas. The quantum indicated should therefore be treated as a gross target figure in the context of the overall scheme and will be subject to monitoring and review.

**Map 2.1.5(i) Quantum of Development**



**Table 2.1.5(i) Quantum/range of development floor space (Gross sq.m)**

Development area	Net Site Area (ha)	Gross Hotel/ Accommodation Floorspace Sq.m	Gross Aviation Economic Development & Services Floorspace Sq.m	Gross Commercial, Business & Enterprise Floorspace Sq.m
Hotel & Conference Campus (HCC)	12.88ha	10,000 sq.m	-	-
Airport Terminal & General (ATG)	-	-	-	-
Airport Accommodation & Service Station (ASA)	1.54 Ha	1,000 sq.m	-	425 sq.m
Airport Landside Business Park (ABP)	2.42 Ha	-	-	8,000 sq.m
USSPV / Utilities Buildings (UU)	1.14 Ha	-	-	1,600 sq.m
Airport Operational/Airside (AOA)	-	-	-	-
Business & Enterprise Campus East (BCE)	17.09 Ha	-	-	53,000 sq.m
Business & Enterprise Campus West (BCW)	9.80 Ha	-	-	32,000 sq.m
Airport MRO Campus (MRO)	22.94 ha	-	44,400 sq.m	-
<b>Total</b>	<b>65.50ha</b>	<b>11,000 sq.m</b>	<b>44,400 sq.m</b>	<b>95,025 sq.m</b>

### Employment Density, Intensity and Development

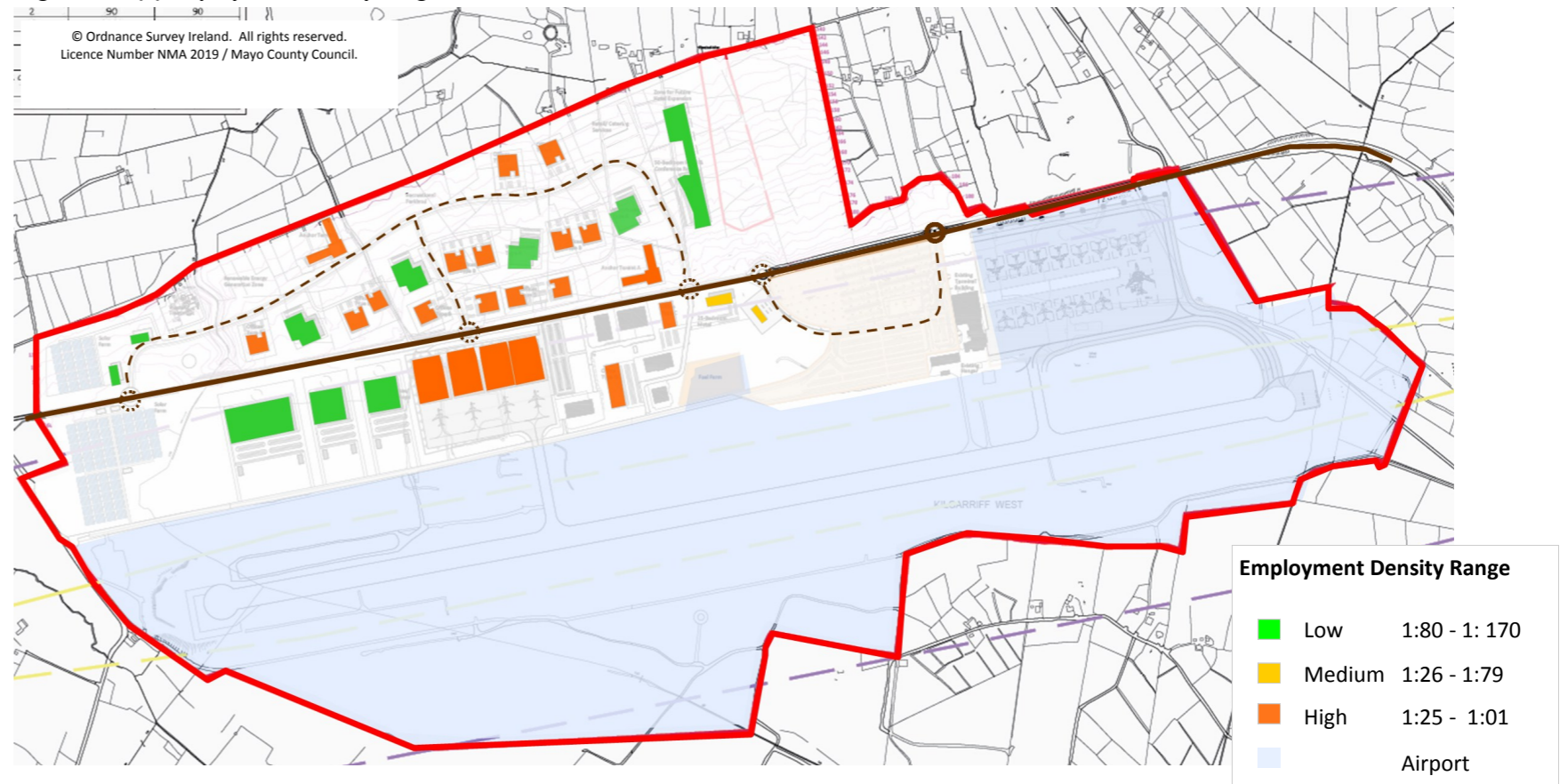
Employment density within the Planning Scheme ranges depending on the location of permitted development and proximity of development to the airport’s public safety zones. Employment Density indicates the levels of full time equivalent jobs potential yield per square meter of space - based on development type.

The higher employment density types in this Planning Scheme has an employee to floor area ratio of c.1 per 25sq.m. These employment types are based on scenarios which include but are not confined to office and anchor tenant type scenarios and hotel & conference.

**Figure 2.1.5(a)** shows the location and employment density, location of development within the Planning Scheme. **Table 2.1.5(ii)** below sets out floor space type, its distribution, quantum, and intensity throughout the Planning Scheme.

The higher concentrations of employment floor space is located mainly in the Business and Enterprise area of the Planning Scheme.

**Figure 2.1.5(a) Employment Density Range**



**Table 2.1.5(ii) Employment Density Ratio & Intensity of employment floor space (scenarios)**

Development Area Area	Sub Area Name	Floor space type														Total fl.sp
		WTA	OTB	OTC	OTD	ATA	ATB	SS	SCB	ACL1	ACL2	ASW	AH	HC	AA	
Business & Enterprise Campus	BCW S1	10,000	12,000													22,000
Business & Enterprise Campus	BCW S2							10,000								10,000
Business & Enterprise Campus	BCE S1	5,000				16,000										21,000
Business & Enterprise Campus	BCE S2		6,000													6,000
Business & Enterprise Campus	BCE S3	5,000	12,000													17,000
Business & Enterprise Campus	BCE S4		9,000													9,000
Hotel & Conference Campus	HCC													10,000		10,000
Airport MRO Campus	MRO								10,000	7,200	7,200	20,000				44,400
Airport Landside Business Prk	ABP			3,000	5,000											8,000
Airport Service Stn & Accom.	ASA							425						1,000		1,425
USSPV/Utility	UU2								1,600							1,600
<b>Total Floor Space</b>		<b>20,000</b>	<b>39,000</b>	<b>3,000</b>	<b>5,000</b>	<b>16,000</b>	<b>10,000</b>	<b>425</b>	<b>1,600</b>	<b>10,000</b>	<b>7,200</b>	<b>7,200</b>	<b>20,000</b>	<b>10,000</b>	<b>1,000</b>	<b>150,425</b>
Sq.m per employee		166	25	25	25	25	25	43	80	80	80	80	100	25	200	
Employment Density		low	high	high	high	high	high	medium	low	low	low	low	high	low	low	
Est. No of Employees		120	1560	120	200	640	400	10	20	125	90	90	800	17	5	
<b>Est. total no of employees</b>		<b>4,197</b>														

Floor space type	Key	unit/sq.m	Employment Density	Sq.m per employee
Warehouse Type A	WTA	5000	30	167
Office Type B	OTB	3000	120	25
Office Type C	OTC	3000	120	25
Office Type D	OTD	5000	200	25
Anchor Tenant Offices A	ATA	16000	640	25
Anchor Tenant Offices B	ATB	10000	400	25
Service Station	SS	425	10	43
Solar Farm Control Buildings	SCB	800	10	80
Air Cargo/Logistics1	ACL1	10000	125	80
Air Cargo/Logistics2	ACL2	7200	90	80
Aviation Services/Workshops	ASW	7200	90	80
Aircraft Hangers	AH	5000	200	25
Hotel & Conference	HC	5000	17	
Airport Accommodation	AA	1000	5	

## 2.2 Movement & Transport

### 2.2.1 Introduction

The Mayo County Development Plan and Local Area Plan for IWAK recognise the continued growth of Ireland West Airport as a strategically important transportation hub for the Region. The development of IWAK as a Business and Enterprise location in tandem with the expansion of the airport will evolve over the coming years. Unlike other airports that are attached to an existing urban fabric where public transport options are more readily available, the rural setting of IWAK currently necessitates providing for car based travel as the main mode of transport. It is envisaged that the growth of IWAK as an employment location and a travel hub will in the long term foster the use of public transport as a more favourable mode of transport.

A strategic transport policy objective of the County Development Plan is to reinstate the Western Rail Corridor, the route of which runs immediately outside the western boundary of the SDZ lands. It is anticipated that the Western Rail Corridor will potentially serve some of transport needs of Planning Scheme in the long term.

In line with the policy set out in the County Development Plan and IWAK Local Area Plan 2012-2018, this Planning Scheme seeks to provide an overall framework for development and transport that facilitates access including road, public transport and sustainable modes of transport including walking and cycling routes throughout the Planning Scheme area. The policies and objectives pertaining to transport and movement of the IWAK LAP 2012-2018 as detailed below, have been incorporated as the main informants guiding the Planning Scheme. The principles set out in this section have taken the policy and objectives provided by the IWAK LAP and transposed these objectives directly into the Planning Scheme design framework.

Transport & Sustainable Travel Policies & Objectives— IWAK LAP 2012-2018	
<b>Policies</b>	(TP1) To encourage and support the use of sustainable modes of transport to, from and within the lands at WAK including public transport, walking, cycling. All new development must include considerations for sustainable modes. (TP2) Support improvement in accessibility and vehicular movements to, from and within the IWAK lands. (TP3) Ensure implementation of the N17 Charlestown Bypass.
<b>Objectives</b>	(TO1) to protect the adjoining the route of the proposed N17 Charlestown Bypass within IWAK from unsuitable / inappropriate development which could jeopardise the project. (TO2) to comply with the requirements of the National Roads Authority in relation to National Roads in the Plan area. (TO3) to review as needs arise the circulation of traffic within the plan area and to support the provision of any alterations to provide for the safe and efficient movement of vehicular and/or pedestrian traffic and to implement appropriate traffic management measures as required. (TO4) to assess the adequacy of the roads network in the IWAK LAP area as needs arise - in terms of capacity, width, alignment or surface condition in order to cater for increased traffic. Any deficiencies should be addressed within a reasonable timeframe by the relevant authority. (TO5) to encourage the use of shared access points onto the public road network. <b>(Public Transport)</b> (TO7) to support the reinstatement of the Western Rail Corridor <b>(Accessibility)</b> (TO8) to support the provision of car parking facilities as the need arises in IWAK (TO9) to identify, support and secure a footpath and cycle path network for the IWAK LAP area. <b>Sustainability</b> (SO4) Layout/design: to encourage a high quality design and layout of all development proposals to reduce the reliance on the motor car, support movements by pedestrian and cyclists, provide adequate and conven-

#### Overarching Principle

To develop the SDZ lands in a manner that supports a range of sustainable modes of transport to, from and within the lands at IWAK and to maximise existing and potential public transport opportunities, mainly bus services and support such opportunities with an integrated network of roads and routes with a clear hierarchy that promotes walking and cycling.

#### Key Principles

- To develop a roads network hierarchy within the Planning Scheme that facilitates access and movement appropriate to needs.
- To link the Development Areas within the IWAK SDZ lands with each other in a clear hierarchy of roads and dedicated pedestrian and cycle routes.
- To develop a transport framework that facilitates a range of transport options and appropriate access within the Planning Scheme area by means of walking, cycling and public transport.
- To make adequate provision for car and bicycle parking.



## 2.2.2 Roads Network and Vehicular Movements

IWAK is located in the heartland of rural County Mayo in, removed from any physical urban structure or related activity, including urban public transport. Access to the airport and SDZ lands at present and into the medium/long-term future is likely to rely on car based transport. While it is part of the vision for IWAK to encourage and promote the sustainable forms of transport including public transport, walking and cycling, it is a long-term goal given the rural location and until such time as a critical mass of workers and airport users can sustain and justify other modes. In this regard, the following considerations underpin the preparation of the Planning Scheme:

The existing road network serving the IWAK lands is limited. The Airport and adjoining Knock Business Park is accessed via Regional Road R376 which joins the N17 (Sligo to Galway route) c.1 km east of the SDZ lands. The remaining land within the Planning Scheme is sparsely served along its fringes by narrow, lightly trafficked local roads.

In the immediate to medium term, a primary consideration is transport by road. Currently, there is a limited public transport service (bus) operational to the airport, which provides services to facilitate airport users. Car based travel is the predominant mode of transport serving IWAK.

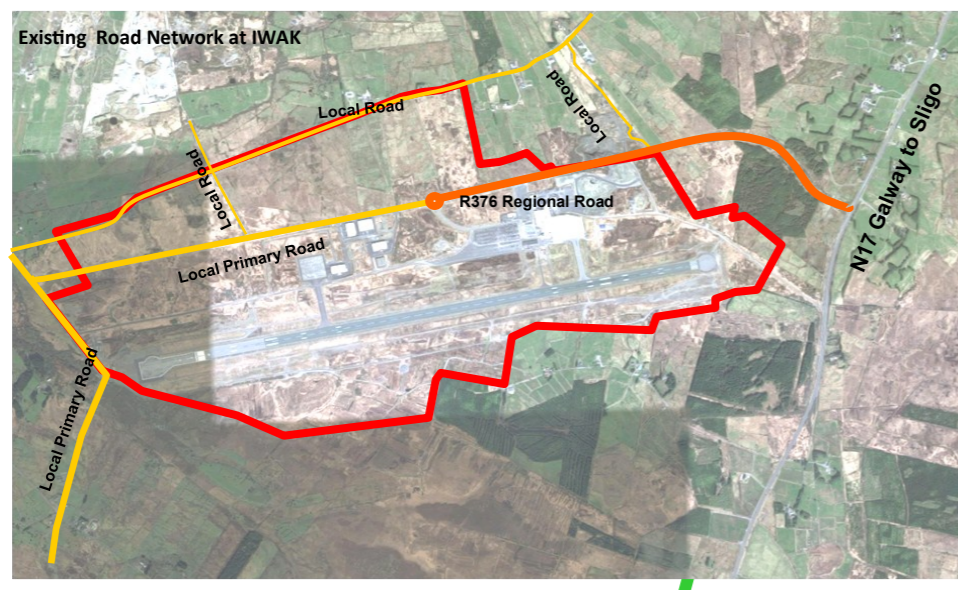
### National Road Network

The Planning Scheme does not directly adjoin the N17 and as such no additional new access points will result from the proposed development. In terms of new access arising from proposed development, the new Charlestown N5-N17 By-Pass will not generate new access arrangements directly onto the National Primary Route. Traffic volumes are likely to increase as development within the Planning Scheme occurs and the upgrading along the N17 and N5 close to IWAK will provide additional road capacity.

The Traffic Impact Assessment may influence the phasing of the implementation of the Planning Scheme as well as inform the future improvements or upgrades on the N17.

### Local Road Network

The purpose of the proposed local road network is to adequately serve the maximum extent of development permitted in IWAK. Mayo County Council encourages shared access points to promote good road access practice and road safety. To ensure that development is facilitated properly and in accordance with the Mayo County Development Plan, a road network strategy had been devised to ensure that number of main access points on to regional road (R376) and primary local road are shared as much as possible.



## Roads Proposal

The current road network at IWAK is of a regional and local scale. The context for new roads therefore differs from other SDZs as the area does not have existing streets and does link into an existing urban roads network.

The roads requirement for the IWAK Planning Scheme is therefore approached in terms of its rural location and to the campus style layout of the Scheme. The road strategy for the Planning Scheme consists of a fixed road network including a central access distributor road, with a small number of fixed internal roads. The Planning Scheme allows for flexibility in relation to most internal roads, providing access points as markers to determine preferred road access points, see Roads Hierarchy **Map 2.2.2(i) overleaf**.

### New junctions/roundabouts

A series of new roads and junctions are required to facilitate development and movement requirements within the scheme. A total of four new roundabout/junctions will be located along the current access road (R376 & Primary Local Road).

A new roundabout (Junction 1) along the R376 will create a new access arrangement that filters airport traffic directly to the airport terminal area. This junction/roundabout will facilitate a preferred one-way traffic system for air passenger and terminal users.

In addition, three new junctions/roundabouts (Junction 2, 3 and 4) connect the existing R376 & Primary Local Road with the new Access Distributor road with the existing primary local road.

The new road network will incorporate provisions for the safe segregated route to facilitate usage by pedestrians and cyclists and to encourage sustainable transport alternatives within the scheme.

## 2.2.3 Parking

The Planning Scheme for IWAK provides for a significant quantum of business and enterprise development which will result in significant employment numbers at this location. It is anticipated that reliance on the car as the main mode of transport will remain for the medium term. As such, parking is an essential consideration for all development proposals within the development areas.

All new development proposals will be required to meet the minimum car parking standards as set out in the *Metric Handbook Planning and Design Data*\*. In addition to car parking standards, sufficient space will be required within the curtilage of the site for all service vehicles involved with the proposed development.

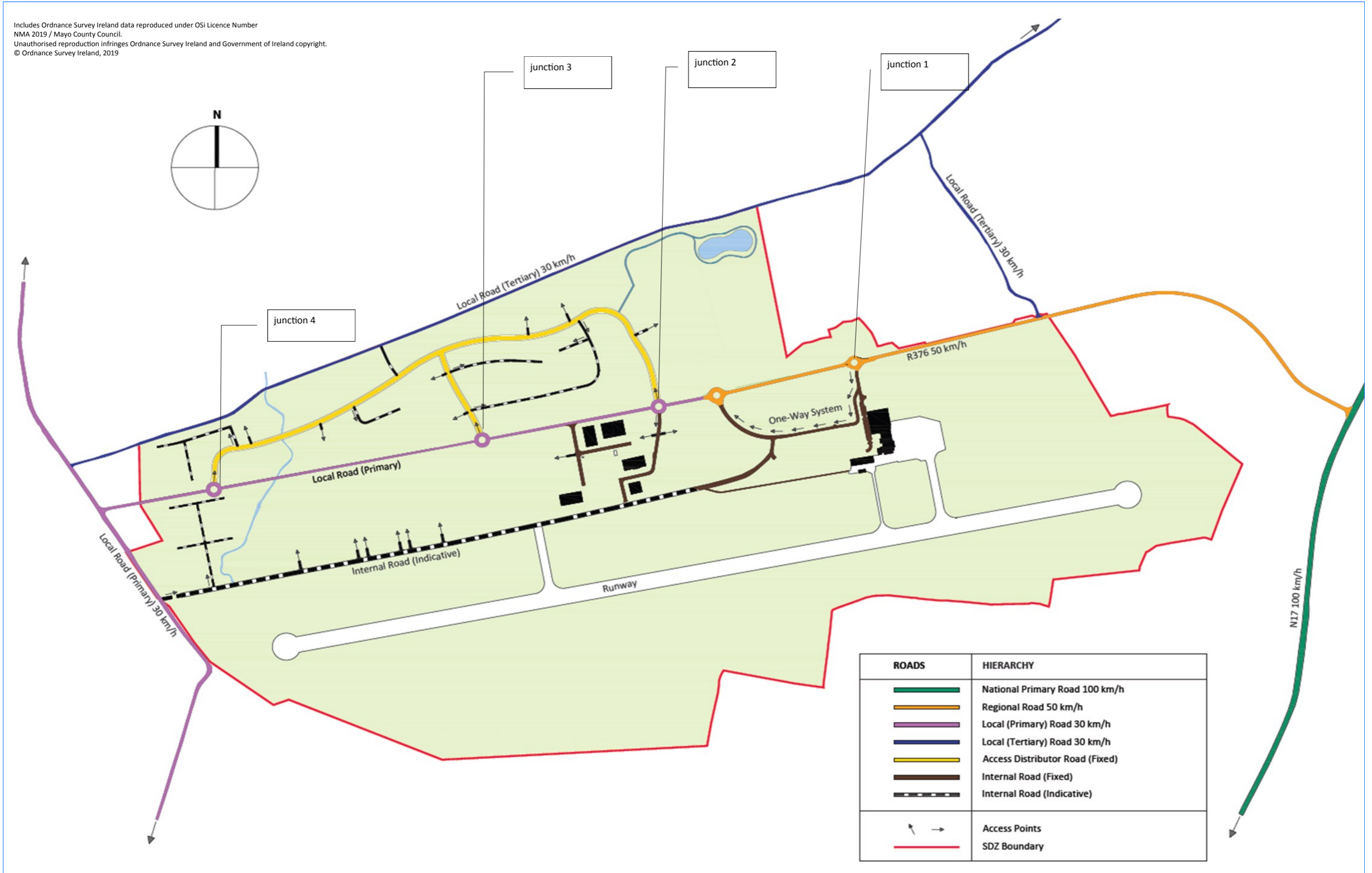
Adequate provision for on-site parking for employees and visitors shall be provided, based on the nature and scale of planned development. Visitor parking shall be located convenient to administration and office areas. HGV parking areas shall be separate from car parking areas. Vehicle parking areas should not be a dominant feature.

Mayo County Council may require the submission of a Mobility Management Plan where proposals for development include substantial parking requirements. Complimentary or shared usage of parking will be encouraged, especially where hours of use are at variance with each other.

\**Metric Handbook Planning and Design Data (1999), Second Ed, Adler D. (editor) Architectural Press*

Map 2.2.2(i) Proposed Roads & Hierarchy

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### 2.2.4 Public Transport

Existing public transport options is currently limited at IWAK. As critical mass evolves, it is anticipated that demand for public transport infrastructure and services will be become an essential transport option for IWAK. Traffic and public transport provision will be monitored and reviewed at each phase of development.

#### Rail

In terms of strategic transport, the County Development Plan supports the development of the Western Rail Corridor which, if and when it is realised, will connect directly to the IWAK Planning Scheme area. This would make IWAK the only airport in Ireland with a direct rail connection to the national rail network. Such a strategic connection to the rail network would contribute significantly to a more integrated and sustainable form of travel for IWAK and the Region. In terms of strategic integrated sustainable travel, the Planning Scheme at IWAK compliments the long term goal to reinstate the Western Rail Corridor.

#### Bus/Taxi

Currently there is bus and taxi services available to the public at Airport. The national bus provider, Bus Eireann, operated a bus service to and from Ireland West Airport. Regular connections are available connecting the airport to towns and villages in Donegal, Galway Sligo and Mayo with additional connecting services servicing Leitrim, Roscommon and counties in the Midlands region. In addition Bus Éireann offers a range of tourist passes designed to provide maximum value and flexibility for the independent traveller.

In terms of options for workers or commuters, public transport is not yet a viable alternative to the car. Mobility Plans will be encouraged and promoted as part of the ongoing development of IWAK SDZ. Mayo County Council will work with airport authority and both public and private transport operators to promote a viable public transport service that could accommodate both the airport user and a commuter workforce.

### 2.2.5 Pedestrian and Cyclists

The Planning Scheme promotes a walking and cycling friendly environment at IWAK through the integration of segregated walking and cycling routes. These routes are incorporated into green network and along the main roads, see **Figure 2.2.5(a)**.

#### Bicycle Parking

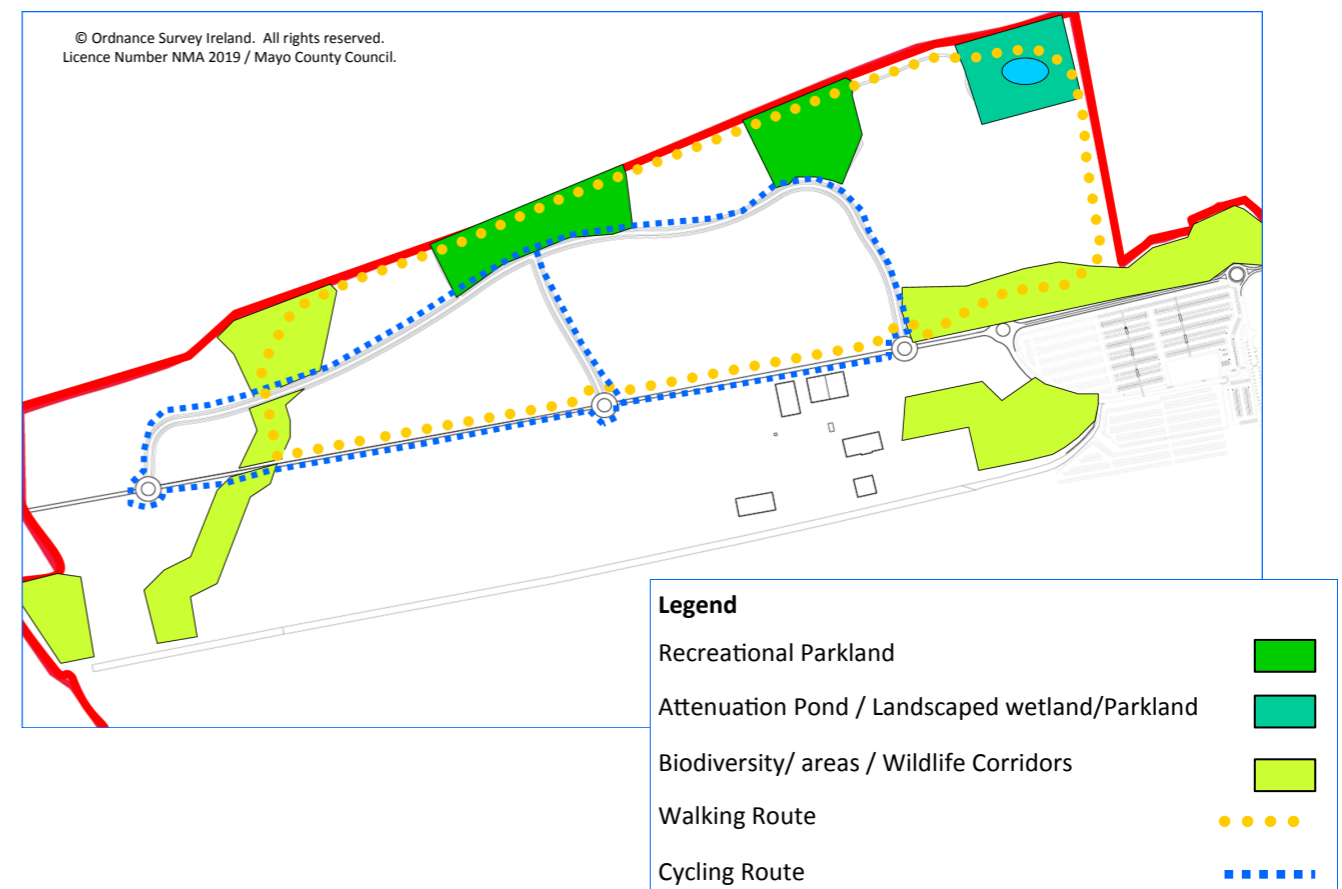
The provision of a minimum level of bicycle parking facilities will be required for all new development proposals within the scheme. Standards relating to bicycle parking are set out in the County Development Plan - Planning Guidance and Standards for Development in County Mayo (Volume 2) Section 39 and Appendix 3, Table 14 .

#### Sustainable Travel / Smarter Travel

Smarter travel promotes the use of sustainable forms of travel such as cycling, walking and public transport. It is anticipated that as IWAK Business and Enterprise Campus grows that walking cycling and public transport will become a central part of business life. Sustainable modes of transport will be promoted and encouraged by the inclusion of services and facilities that support sustainable travel options and solutions.

The Mayo County Development Plan 2014-2020 requires the provision of Smarter Travel considerations in all non-residential developments. In this regard, development proposals within the Planning Scheme must conform to and be assessed under the standards set out in Section 37 of the County Development Plan 2014-2020 (Planning Guidance and Standards for Development in County Mayo Volume 2). Such standards include criteria determining the provisions required; public transport provisions; and Workplace Travel Plans.

**Figure 2.2.5(a) IWAK Pedestrian and Cycle Network**



## 2.3 Green Infrastructure, Biodiversity, Built & Natural Heritage

### 2.3.1 Introduction

Green Infrastructure is the phrase used to describe interconnected network of green spaces, habitats and ecosystems within a defined geographic area. It is based on the principle of protecting and enhancing nature and the natural process, put simply to the provision of green spaces. It refers to ‘infrastructure’ as it is considered to be as important as the other infrastructure types such as roads, utilities, etc. In general is taken to mean all green space of value to the public.

Green infrastructure is vital to allow for nature, biodiversity and natural systems to grow and there is need to plan for its protection and creation within the SDZ lands.

A challenge in the preparation of the Planning Scheme is to achieve a balance between the environment, sustainable water management and the protection and the enhancement of the key natural assets of the lands in order to provide the planned networks of green infrastructure.

The policies and objectives pertaining to Heritage, Landscape and the Environment of the IWAK LAP 2012-2018 as detailed below, are main informants guiding the Planning Scheme. The principles set out in this section have taken the policy and objectives provided by the IWAK LAP and transposed these objectives directly into the Planning Scheme design framework.

Heritage, Landscape and Environment Policies & Objectives— IWAK LAP 2012-2018	
<b>Policies</b>	<p>(HP1) to preserve, protect and enhance the character of the LAP area as defined by its natural heritage and biodiversity, its built environment, landscape and cultural heritage.</p> <p>(HP2) to support and encourage a high standard of environmental awareness.</p> <p>(HP3) to preserve, enhance and conserve designated sites (SACs and SPAs through the implementation of article 6(3) of the Habitats directive.</p> <p>(HP4) have regard to the Convention Biological Diversity and support the halting of biodiversity loss in accordance with the 2006 EU Biodiversity Action Plan.</p> <p>(HP5) to prevent the spread of aquatic and terrestrial, invasive and alien species</p>
<b>Objectives</b>	<p><b>(Archaeology )</b></p> <p>(HO1) to protect the archaeological heritage and especially sites identified in the Record of Monuments and Places, National Monuments in the ownership or guardianship of the State and National Monuments that are subject to Preservation Orders and to safeguard the integrity of the archaeological sites in their setting.</p> <p>(HO2) to require that planning applications within the zones of archaeological potential as outlined on the Record of Monuments and Places include an archaeological assessment set out in accordance with the requirements of the Mayo County Council. Any archaeological assessment shall also have regard to natural heritage legislation.</p> <p>(HO3) to require that all significant planning applications (i.e. development of lands on 0.5ha. or more and 1km. or more in length) include an appropriate archaeological assessment in accordance with the requirements of the Council. Any archaeological assessment shall also have regard to natural heritage legislation.</p> <p>(HO4) to require an ecological assessment to inform decision making of all proposed significant planning applications, where it is considered that the proposed development may have an adverse impact on the environment of a designated site.</p> <p>(HO5) to ensure that any development proposal, alone or in combination with other developments, do not have an adverse impact on any Natura 2000 site in the wider area. i.e. AA may be required.</p> <p><b>(Water)</b></p> <p>(HO6) to continue to protect all waters, including rivers, lakes and ground water. Development adjacent or close to such waters shall be carefully addressed to ensure that there is no adverse impacts.</p> <p>(HO7) to implement the relevant policies of the Western River Basin District Mgmt Plan.</p>

<b>Objectives</b>	<p><b>(Water continued)</b></p> <p>(HO8) to prevent the deterioration of water bodies of good status and to improve water bodies of at least good as per EU legislation.</p> <p>(HO12) to promote the retention, where possible, of features of historic, architectural or natural interest i.e. Stone walls, hedgerows and / or bridges of other features as appropriate.</p> <p><b>(Flooding)</b></p> <p>(HO9) comply with EU floods directive</p> <p>(HO10) to protect areas prone to flooding from inappropriate development. To ensure new developments to result in an increased risk of flooding on site. All new developments must submit a flood risk assessment which should incorporate flood protection and mitigation measures as appropriate.</p> <p>(HO11) to ensure all new development is absorbed into the surrounding landscape (i.e. Does not significantly impinge on the character, integrity or uniformity of the landscape. Proposals for development must consider access, permeability and open space in relation to key landforms features and rural setting.</p> <p>(HO12) to promote the retention, where possible, of features of historic, architectural or natural interest i.e. Stone walls, hedgerows and / or bridges of other features as appropriate.</p>
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#### Overarching Principle

To deliver a network of green infrastructure and spaces throughout the Planning Scheme while protecting, enhancing and sensitively accommodating the natural assets of the lands and surrounding countryside.

#### Key Principles

- To protect, enhance and develop an interconnected green infrastructure network incorporating hedgerows, streams and open space for amenity and well being, protection of biodiversity, flood management and adaption for climate change ensuring adherence to the requirements of the Water Framework directive and Floods Directive.
- To ensure the protection of existing habitats and species and safeguarding of archaeological and built heritage.
- To incorporate the use of appropriate new green infrastructure such as planting, natural open spaces and sustainable urban drainage systems.
- To seek to protect existing and enhance natural, built and cultural heritage features such as hedgerows, stone walls, bridges and river corridors to support native plant and animal species.
- To connect areas of open space with ecological and recreational corridors to aid the movement of biodiversity and people and to strengthen the overall green infrastructure network.
- Incorporate biodiversity and natural heritage into new developments.
- To require the use of native planting, shrubs and grasses in landscape proposals and promote the re-use of existing topsoil and subsoils within landscaping plans for open space areas to allow the preservation of the native seed bank within landscaping schemes.
- To require all proposals for open space and landscape design to include biodiversity conservation and enhancement measures.

### 2.3.2 Green Infrastructure Network

“Green infrastructure is an inter-connected network of green open spaces that provide a range of ecosystem services - from clean air and water to wildlife habitat” (Mayo County Development Plan 2014-2020). In the context of the Planning Scheme it is a strategically planned and managed network featuring areas with high quality biodiversity and other green spaces which provide essential services to society .

The Planning Scheme aims to create a viable green infrastructure network that conserves, maintains and enhances the unique character, heritage and distinctiveness of the IWAK area and enables workers and visitors to enjoy a high quality environment. The green infrastructure strategy for IWAK aims to create a network of green routes that link the principal planned open spaces.

Central to the green network at IWAK is the linkage of development areas by corridors of native planting, hedgerows and native species.

IWAK Green Infrastructure network will create the following :

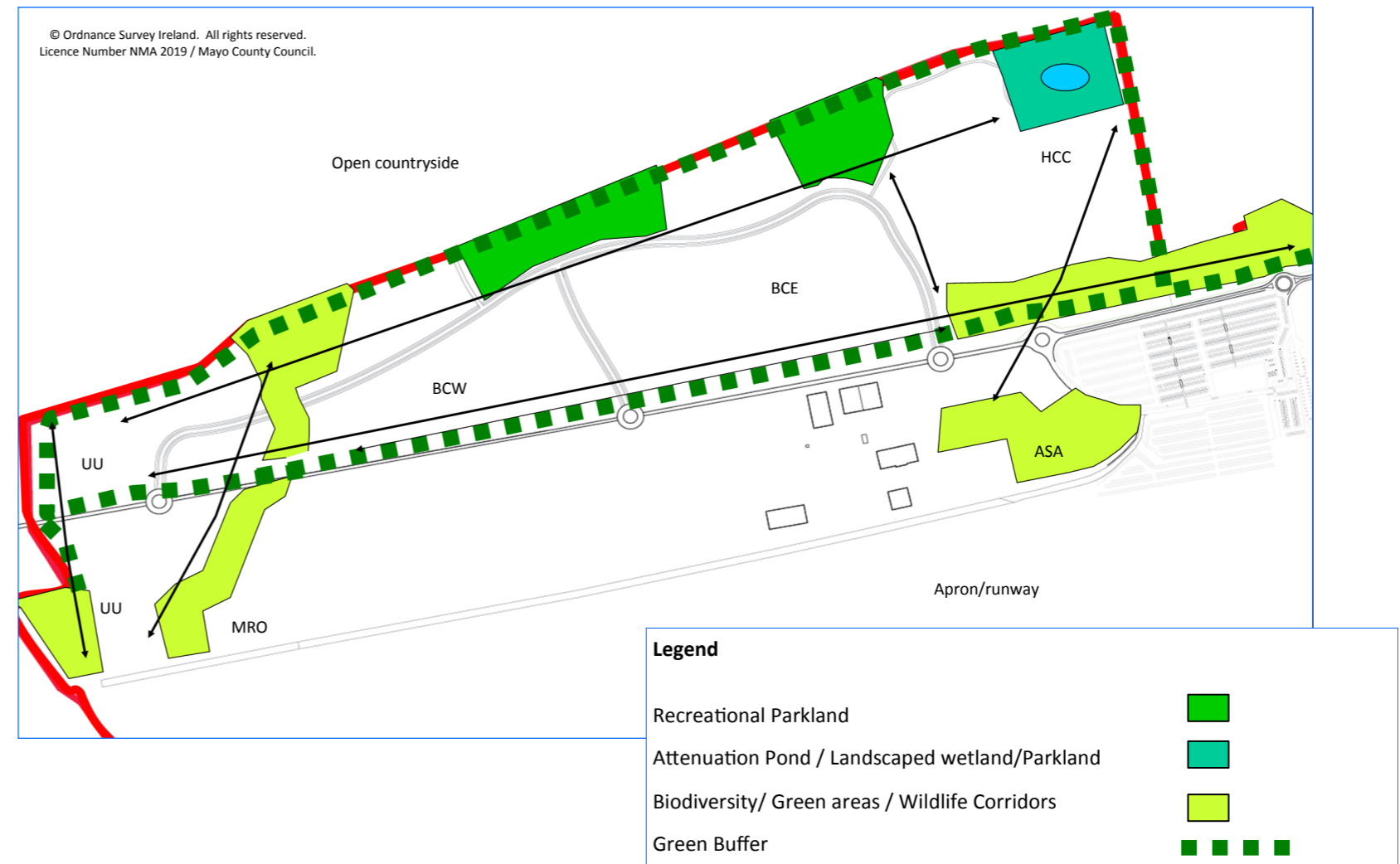
- Sense of place and quality environment
- Accessibility - to a variety of users
- Legibility – legible routes and clear delineation of space
- Connectivity/ Permeability – throughout the Planning Scheme area
- Preservation of important heritage features
- Balance – heritage, development, wildlife
- Biodiversity - habitat conservation and creation, wildlife corridors
- Landscape improvements, amenity and integration with the surrounding natural settings

A green network is threaded throughout the Planning Scheme consisting of open parkland areas, green corridors & buffer areas recreational parkland and attenuation pond /landscaped wetland feature, see **Figure 2.3.2(a)**.

The Planning Scheme provides a green network of over 25 hectares throughout the area. In addition, new development particularly within the Business & Enterprise and Hotel & Conference areas must provide a minimum of 20% landscaping which will further contribute to the green network and promotion of biodiversity of the area.

**Map 2.3.2(i)** overleaf sets out the Green Infrastructure proposal for the planning scheme.

Figure 2.3.2(a) IWAK Green Network



Development Area	Green Infrastructure Type	Quantum in hectares
ASA	Natural Landscaping	2.97
MRO	Natural Landscaping Wildlife Corridor/ watercourse	1.03
UU	(USSPV Farm) Native planting to western edge	1.3
UU/BCW	(USSPV Farm) Native planting to western edge plus part of Wildlife corridor along watercourse	3.65
BCW	Native planting along main airport road (along plots 6 - 12) plus part of wildlife corridor along watercourse	1.99
BCE	Native planting along main road (plots 22- 19	0.83
BCE/BCW	Recreational parkland 1 (east of plot 5)	2.67
BCW	Recreational parkland 2 (east of plot 3)	2.04
BCE	Native planting linking recreational parkland areas (north of plots 3 & 4)	0.82
HCC	Native planting - north, south and east edges (plots 1 & 2)	3.05
HCC	Native planting to east of plot 1	2.22
HCC	attenuation pond/wetlands & parkland	2.69
<b>Total:</b>		<b>25.26 ha</b>

Map 2.3.2(i) Green Infrastructure Map



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### Green Infrastructure

In order to develop viable green infrastructure that complies with the above vision, the following green infrastructure and open space provision within the Planning Scheme shall apply :

- Public green space shall include a range of natural habitats which facilitates preservation of flora and fauna where consistent with recreational requirements, landscape improvement and visual amenity.
- A straightforward, high-quality approach to all green infrastructure is encouraged by which to create inviting places whilst protecting and enhancing the character of IWAK. Retained features shall be in a manner that facilitates easy maintenance.
- All green infrastructure provision being implemented shall be in agreement with Mayo County Council.
- New development will promote the retention, protection and improvement of distinctive landscape features by, for example, incorporating them into development, adjacent to open space, SUDS provision, boundary features.
- SUDS corridors alongside roads shall incorporate wildlife habitat, pedestrian links and planting where appropriate.
- The ecological buffer area along the tributary of the Sonnagh river, shall include a pedestrian route and enhanced native planting.

### 2.3.3 Biodiversity and Natural Heritage

The lands within the Planning Scheme and its surrounding area consists of a bogland habitat that is important to defining the character of the area. There are no environmental designations specifically within the SDZ lands. There are many positive attributes to protecting the native features within the Planning Scheme as it balances the protection of the natural heritage with new development proposals. The extent of proposed development within the Planning Scheme requires the promotion, retention, enhancement of existing planting in order to minimise adverse effects of the development in the context of the rural natural setting in which it is located. Additional trees and hedgerow cover is encouraged to protect visual amenity as well as supporting and promoting the existing biodiversity of the area. Careful consideration will be required regarding tree types and planting in regard to the attraction of bird colonies that may contribute to the risk of bird strikes in the context of aviation activity at IWAK.

#### Green Corridors

The Planning Scheme supports the incorporation of trees and native vegetation that can contribute to wildlife linkages, visual screening and perceived noise attenuation.

A landscaped (natural or man-made) green strip shall be maintained alongside the R376 and along the primary local road running along the northern boundary of the Business and Enterprise campus to create a visual buffer between the business campus, the airport and the surrounding rural countryside.



### Trees & Hedgerows

To protect visual amenity and biodiversity of the area, the following shall apply to all development proposals:

- Retention and protection of hedgerows which are of particular significance to the amenity and biodiversity of the area.
- All roads include an appropriate level of tree planting in accordance with the following principles:
  - Where there are SuDS swales or open spaces adjacent to roads, it is preferable for tree planting to be located within these areas.
  - Establish a minimum density of tree planting within development plots throughout the Planning Scheme Area to provide shelter, noise mitigation, mitigation of particulate pollution.
  - Tree planting provision must be agreed at application stage.

Based on a countywide survey of Mayo's native hedgerows, Mayo County Council's document entitled *Mayo's Hedgerows* will provide guidance on management and protection of hedgerows within the Planning Scheme area.

#### Requirement for further Assessment

The following shall apply to the Planning Scheme in order to minimise adverse impacts on biodiversity:

- The involvement of a suitably qualified Ecologist prior to and when undertaking ecologically sensitive, or ecologically related works or proposals e.g. ecological surveys, reports, proposals, site supervision.
- Development must be consistent with the provisions of the current County Council's Biodiversity Policy.
- Liaise with National Parks and Wildlife Service during the development design, construction, monitoring and management stages will be promoted.
- The design and function of green infrastructure must ensure the movement of species across the Planning Scheme lands and to maintain connectivity between ecological corridors.
- To ensure the best practice measures in relation to peat management which is aimed at minimising peat loss, restoration, and proper recovery, development and works on SDZ lands shall have regard to the Peat Management Plan as detailed in Appendix 4 of the SEA document.

## 2.4 Economics

### 2.4.1 Introduction

IWAK SDZ presents a unique opportunity to develop a strategic destination for business and enterprise as well as the expansion of its travel and tourist related activities. The economic opportunities presented by IWAK in its rural location, with connections to Galway, Sligo, Donegal and Roscommon within an easy commute plays to its strategic strengths.

In comparison with other regional airports in the State, IWAK is underdeveloped from an economic and business perspective. To capitalise on the opportunity presented by the SDZ, development of the airport and its current economic activity must diversify and broaden in scope. This is done by growing existing and embracing other forms of business and enterprise that is compatible with the primary function of the Airport and which serves a regional economic catchment. In this regard, the expansion and development of IWAK in tandem with the new business and enterprise campus will provide an even stronger economic footing for the region. This approach provides for a mutually beneficial economic environment which facilitates travel/tourism sectors as well as business and investment sectors.

The development of IWAK will build on its established aviation and travel industries while pursuing new business and enterprise models that will cultivate a modern and dynamic Airport & Business campus. It will be a destination for innovation and enterprise providing a business hub that facilitates the expanding aviation and tourism market while also providing a modern campus that facilitates enterprise and business in the heart of the West of Ireland. In addition, the airport will expand its MRO capabilities tapping into the expanding aviation sector in Ireland.

In line with the policy set out in the County Development Plan and IWAK Local Area Plan 2012-2018, this Planning Scheme aims to provide for development of lands and uses that promote economic investment. The policies and objectives promoting and supporting the economic development of the SDZ have been established in the IWAK LAP 2012-2018, as detailed below. These policies and objectives provide the economic strategy of the Planning Scheme. The principles set out in this section have taken the policy and objectives provided by IWAK LAP and incorporated them directly into the Planning Scheme design framework.

Economic Policies & Objectives— IWAK LAP 2012-2018	
<b>Policies</b>	(EP1) to promote and support the development of the LAP area as an attractive location for economic investment as well as a desirable place to work and visit.
<b>Objectives</b>	(EO1) to support the development of appropriate activities within the LAP area in accordance with the land use objectives set out in Section 4 of the LAP. (EO2) to support the location of tourist related activities, where it is demonstrated that such an activity would be appropriate to an airport location. (EO3) to protect the core function of LAP area as an airport and that future economic development is compatible with this aim.

#### Overarching Principle

To promote the development of the SDZ lands at IWAK as a new dynamic location for economic investment for tourism, travel, business and enterprise.

#### Key Principles

- To provide for the expansion of IWAK and its associated activities as a travel and tourism hub for the West and North West Region;
- To provide the development of the Maintenance Repair Overhaul (MRO) sector at IWAK;
- To provide for a range of business and employment accommodation types compatible with the airport location;
- To create a new regional scale business and innovation destination that will generate employment and enterprise and act as a regional economic driver;
- To create a unique identity and sense of place as a desired business location for key market and employment sectors;
- To support and facilitate the provision of additional strategic infrastructure to enhance the attractiveness of the SDZ lands as a location for economic development;
- To provide an appropriate and sustainable provision of development that is demand-led.
- Identify and attract appropriate tenants and investors to IWAK SDZ, whilst not competing with employment locations within the regional catchment.
- To support and facilitate the provision of additional key infrastructure to enhance the attractiveness of the SDZ lands as a location for economic development.



### 2.4.2 Conditions Associated with Airport Development

A considerable part of an airports' economic impact is associated with the industries, specialism and manufacturing sectors of the aviation industry and its wider supply chains. In this regard, it is the wider catalytic impacts which set aviation apart from other industries. These are the wider economic activities which occur beyond the aviation sector, but which are facilitated and supported by the connectivity that aviation delivers between localities, countries and world regions. Tourists can spend money in previously unreachable locations. Businesses can produce goods to be supplied and consumed across the world. Investors can set up new offices, call centres and factories exactly where they are needed. These impacts have been proven empirically.

In terms of airport business and development, best practice suggests that there are five critical factors necessary to create successful developments or projects close to or associated with airport locations. The balancing of these elements is critical in realising the most favourable economic outcome and planning framework for development at IWAK. There are three core factors which are fundamental to the process: –

- A strong economic synergy between the airport and the region;
- Good connectivity and inter-modality;
- Developing quality and value creation - this incorporates spatial planning which focuses on the non-operational development with a view towards long-term value creation i.e. Integration of economic development for the optimal potential outcome..

Two further conditional factors include –

- Governance and strategy;
- Location and opportunities.

### 2.4.3 Economic Impact of Airport Development

According to the Airport Council International (ACI) a regional airport is considered regional if it (a) primarily serves short and medium range routes and (b) primarily serves point-to-point destinations. In this regard IWAK falls into this category of airport. The aviation industry recognises the vital role of regional airports, having grown and evolved in recent years as being vital as essential transport nodes facilitating markets by connecting people, products and services but also in a wider capacity enabling economic activity and growth.

Research carried out by ACI\* confirms the importance of regional airports in terms of the contribution to local, regional and the wider economy, as well as essential links in the European aviation network. Traffic growth and diversification of regional airports demonstrate the relevance for the mobility of businesses and citizens. Providing direct connectivity to a wider range of destinations within Europe and beyond has become a key competitive asset for any region. The impact of aviation liberalisation and new airline models has been critical, allowing for trans-regional connectivity through the opening of new direct air routes. The industry reflects this evolution in traditional network airlines diversifying from the classic hub and spoke model. As a result, airports in the regions play a key role in defining the economies of their communities, not only as a tourism driver but as a catalyst for economic regeneration and growth.

Regional airports are considered prime assets by regional and local authorities. As such, they are not only an essential part of the national and European transport network, they are a vital part of any region's strategy to attract and retain investment and growth. While regional airports have a positive impact for already established businesses, they

are essential to attracting new business and diversifying economic activity. Research by ACI indicates that the vicinity of an airport is one of the key company location factors and there are successful examples of regional airports having developed business parks or hosting research centres, with many successful examples across Europe of business parks or research centres developed at regional airports locations.

In more specific terms, the economic impact of an airport and associated activity comprises the following :

**Direct Economic Impact:** The employment, income and GDP associated with the operation and management of activities at the airports including firms on-site at the airport and airport-related businesses located elsewhere near the airport. This includes activities by the airport operator, the airlines, airport air traffic control, general aviation, ground handlers, airport security, immigration and customs, aircraft maintenance, and other activities at the airport.

**Indirect Economic Impact:** The employment, income and GDP generated by down-stream industries that supply and support activity at the airport, e.g. wholesalers providing food for in-flight catering, oil refining activities for jet fuel, companies providing accounting and legal services to airlines, travel agents booking flights, etc.

**Induced Economic Impact:** This captures the economic activity generated by the employees of firms directly or indirectly connected to the airport spending their income in the national economy, e.g. income spent on groceries, restaurants, child care, dental services, home renovations and other items which, in turn, generate employment in a wide range of sectors of the general economy.

**Catalytic Impact:** The catalytic impacts or wider economic benefits capture the way in which the airport facilitates the business of other sectors of the economy. As such, air transportation facilitates employment and economic development in the economy through a number of mechanisms:

- Trade* – air transport provides connections to export markets for both goods and services.
- Investment* – a key factor many companies take into account when making decisions about the location of offices, manufacturing plants or warehouses in proximity of an airport.
- Tourism* - air service facilitates larger numbers of tourists. This includes business as well as leisure tourists. The spend generated from tourism can support a wide range of related businesses such as hotels, restaurants, entertainment and recreation, car rentals etc.
- Productivity* - air transportation offers access to new markets which in turn enables businesses to achieve greater economies of scale. Air access also enables companies to attract and retain high quality employees.



\* Source: ACI, Regional Airports Forum Series (2015). European Regional Airports Connecting people, places and products.

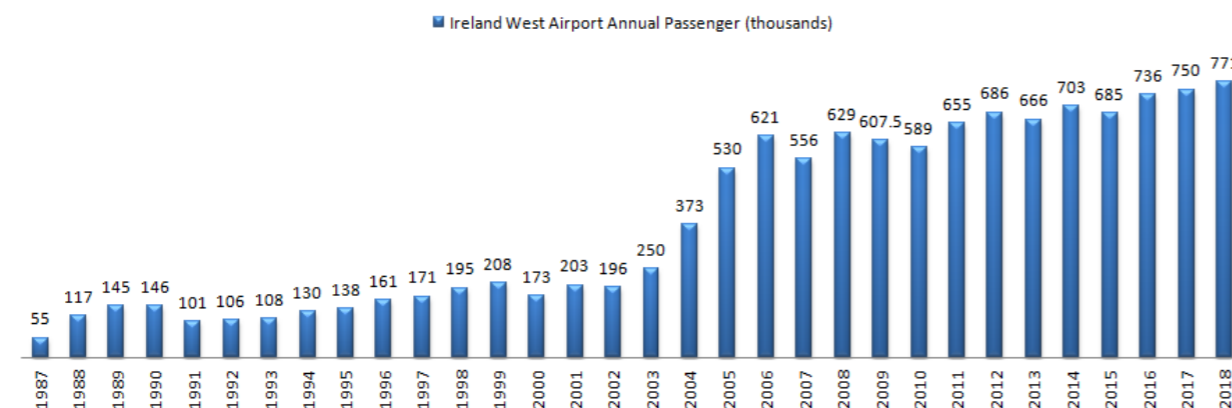
### 2.4.4 Significance of a Locally Based Airline

A strong locally based airline is also seen as conducive to a successful regional aviation economy as it has the potential to leverage the local economy. This is positive as in IWAK’s case, it has the benefit of Ryanair. It is also essential to consider that hubs can not be created in a void, they are dependant on a clustering objective within a catchment with potential for economic growth.

As described the main airline using IWAK is the Low-Cost Carrier (LCC), Ryanair. LCCs are dependent on routes that attract a high level and frequency of passengers. Passenger numbers are required to be at 85-90% of the total capacity for the business model to be profitable. The number of passengers allows translating the low profit per seat into a high overall profitability for the airline. Therefore, the attractiveness and potential for new routes at IWAK is dependant on a stable and sustainable provision of a high quantity of passengers.

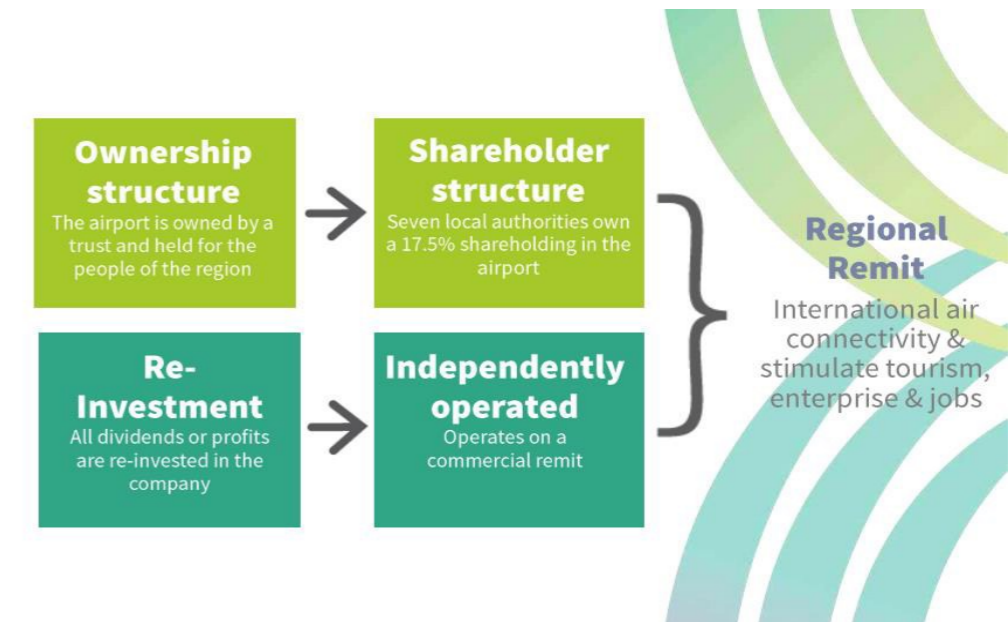
Also, one of the key drivers for having low unit cost is high asset utilisation in terms of the airline’s fleet, meaning that several jets are required. What low cost airlines have done is to attract travellers that are searching for the cheapest available rates and fly to that destination based on price rather than the express wish to go there. Local authorities, Regions and airports can leverage this to inspire inherent demand by making a destination more attractive and also making the airport charges more competitive, thus driving this particular type of passenger to that destination.

Ireland West Airport Annual Passenger (thousands)



### 2.4.5 Corporate Structure

- In July 2016 seven local authorities approved to invest €7.3m in the airport for a 17.5% shareholding.
- The business objectives are to expand the route network and double numbers, tourism bed nights and visitors to the region over the next 10 years.



### 2.4.6 IWAKs Economic Potential

#### Considerations for an Economic Model

Founded on an assessment of successful regional economic aviation models, the successful development of the IWAK SDZ will be dependent on meeting the wider socio-economic needs of the surrounding catchment and region, with regard to employment, business and industry investment, assets and economic attributes of the region. The success of the IWAK SDZ scheme will depend on a broader economic model, which should take into account the current state of play and opportunities for establishing further regional synergies and efficiencies.

#### Employment

Ireland’s Tech regions are evolving and integral to their development is the establishment of regional hubs. Relevant to IWAK, Galway is one location that has been striving due to its activity and connectivity. The emergence of regional digital hubs should not be overlooked. Galway is seen as a catalyst for future job creation and innovation among indigenous firms. As an ingredient to the economic clustering concept, a central hub or physical building provides the sense of innovation required for the development of an entrepreneurial ecosystem - elements that IWAK can cluster in collaboration with its aviation services.

Connectivity and partnership with Donegal , which has 16 active tech companies, could also be established. Such an initiative would come in line with the NWRA’s One Region One Vision initiative, with neighbouring counties coming together to develop their ecosystems, knowledge and networks in collaborative and shared approach. IWAK should establish itself as a key component of this vision and offer its services in a reciprocal and strategic approach.

The Atlantic Economic Corridor initiative seeks to build on this potential, supported by developments such as the emerging Connacht-Ulster Alliance Technological University (Galway-Mayo IT, IT Sligo and Letterkenny IT).

**Tourism**

Ireland West-Knock Airport has a significant role in tourism and enterprise development, with potential for further growth taking particular account of its designation as a Strategic Development Zone (SDZ). Aside from religious tourism at Knock, the West of Ireland has numerous strong selling points in terms of its attractiveness as a holiday destination, including spectacular scenery, attractive and accessible coastline, and the availability of outdoor activities, such as niche tourism products like fishing and golf.

To maximise the number of overseas visitors using the Airport, all of the tourism stakeholders and Airport interests in the region could work in partnership, to grow airport usage and consequently tourism business in the medium to long term.

**Developing an Economic Gateway**

The success of IWAK SDZ will be dependant on the aerodrome taking responsibility as a driver for the North West Regional economy within its wider regional strategy. Landside development will require the diversification of the airport’s landbank and expansion into a number of complementary types of enterprise including:

- technology development;
- research;
- tourism; and
- maintenance operations.

Balanced investment in these areas will allow for the optimal utilisation of the landbank, leveraging the airport and its infrastructure to its maximum available potential without government investment. The potential for shared services and infrastructure should be seen as an opportunity to anchor investment and development of the land bank, with a smart economy at its core.

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**Economic Impact – Aircraft Leasing/MRO – Aviation Expanding Sectors at IWAK**

Aircraft Leasing & Finance is a significant industry in Ireland, experiencing sustained upward growth over the past number of decades, particularly the last 10 years. It is a significant contributor to the economy, with an estimated total of €660m and 4,970 FTE supported jobs in 2016\*. These jobs are provided directly through leasing companies, and indirectly through Maintenance Repair & Overhaul, legal, tax, audit and other professional services. The CSO estimates that direct employment in the industry grew by 275% between 2007 and 2016, while total pay has increased by just under 500%..

Broadening aviation-related activities requires significant investment and so thorough understanding of market opportunities and assurance on underlying commercial feasibility is paramount. The existence of Eirtrade at IWAK shows that there are opportunities for Maintenance, Repair and Overhaul (MRO) related businesses to locate there.

Eirtrade specialise in the tear down of an aircraft into parts for recycling and resale. As IWAK is remote in terms of airline networks, it will have to remain competitive in order to attract an MRO that can maintain the level of flexibility and adaptability required from companies carrying out lease transitions. Airport management report that there is a significant pool of skilled labour in the catchment. This message will need to be strongly conveyed to the MRO market.

Construction of required facilities such as hangars and other infrastructure would be costly, however, options in this category may be worth taking forward at a later stage.

**Figure 2.4.6(a) Aircraft Leasing in Ireland 2007—2016 : Employment and Remuneration**



Source: Central Statistics Office. www.cso.ie. Statistics, Aircraft & Leasing

**Hotel and Hospitality and Conference**

Greater passenger numbers through the Airport directly leads to additional hotel and B&B bookings, fuller restaurants and a busier and more vibrant retail sector in the towns and villages of the West. For the export-oriented segments of the enterprise base, swift access to the IWAK as compared with Dublin Airport could mean enhanced efficiency in getting goods to market or time savings for busy executives in making overseas trips. Increased efficiencies here could lead to higher demand for a hotel and conference campus with the inclusion of office space or other complimentary commercial floor space where it is demonstrated that there is enough land available.

\* Central Statistics Office 'Aircraft Leasing in Ireland 2007 - 2016' and PwC 'Taking Flight - 2018 '

\*\* [www.aircraftleasingireland.ie](http://www.aircraftleasingireland.ie) (Accessed 14-Jan-2019) 'Irish Advantage - reasons for choosing Ireland as a destination'

## 2.5. Built Form and Design

### 2.5.1 Introduction

IWAK SDZ presents an unusual opportunity to create an urban type of development in a rural setting. Stitching the existing build fabric of the airport with commercial, business and enterprise focused development presents a number of considerations with regard to layout, built form and design.

Integrating a business district at IWAK with the surrounding landscape presents an opportunity to create a series of interlinked campus style developments. This requires guidance in relation to configuration of development, buildings, landscaping and the road network.

This Planning Scheme provides guidance relating to the Built Form and Design by which to detail the structure and layout for the SDZ lands. It is intended that this guidance will facilitate an integrated airport business district of coherent development areas. This takes into consideration the provision of the Planning Scheme in relation to land use, movement, green infrastructure by setting out key development parameters regarding layout & form, building height, topography, boundary treatment, parking and sustainability.

#### Key Principles

- To ensure that development is in accordance with best practice that adheres to its primary function while promoting identity between development areas;
- To ensure that development is laid out in a series of coherent development areas facilitated by plots that are functional, legible, with appropriate topography responses, building heights and landscaping.
- To design a roads network appropriate to the area, incorporating provisions for pedestrian, cyclist and vehicular movement.

### 2.5.2 Design Criteria

#### Coherency and Quality of Design

To ensure a coherent approach to design of development in the SDZ Planning Scheme lands shall be designed so that they:

- Demonstrate compliance with this SDZ Planning Scheme including its various requirements that relate to (inter alia) green infrastructure, movement, transport, land use, density, built form and design;
- Demonstrate proposed and future integration with the development of surrounding sites including vehicular, pedestrian, cycle and public transport connections;
- Include street cross sections and plans that demonstrate compliance with DMURS (2013) in terms of 'Movement, Place and Speed', 'Streetscape', 'Pedestrian and Cyclist Environment' and 'Carriageway Conditions' etc.;
- Include cross sections that demonstrates appropriate design responses to existing and proposed site levels including those that relate to streets, spaces, building frontages, services and SUDS;
- Are accompanied by a detailed Landscape Plan that is consistent with the Green Network and Landscape & Planting Section of this document for the SDZ lands; and which specifies and illustrates the proposed treatment of streets and spaces including parking, street furniture, lighting, planting, and surface treatment; and
- To promote a tangible identity within the SDZ area, consistency in finishes and detailing that relate to streets/roads and spaces is promoted.

Within the context of the above, permission should only be granted for development on the SDZ lands where its design is of good quality and would not result in a sub-standard environment.

#### Junctions shall be designed in accordance with:

- DMURS (2013);
- The National Cycle Manual (2011); and
- The Guidelines for Setting and Managing Speed Limits in Ireland (2015).

#### Building Design

Orientation of buildings should minimise glare and excessive solar gain. Buildings should be of architectural appearance and allow for some transparency to the activities of the interior so as to afford more visual interest. Buildings should respond to the context of the airport, available infrastructure and topography. Materials and finish to be of a high quality. Architectural diversity and a vibrant mix of finishes, colour and detailing is promoted in the SDZ area. Individual architectural design approaches by different design practices are therefore promoted together with innovation of design and construction. Contemporary building design will be encouraged, with consistency in terms of height and scale across the Planning Scheme area. A mix of building types is encouraged to facilitate incubator units to larger units. Use of green building products and sustainable energy technologies is encouraged.

### External Finishes and Appearance

To facilitate placemaking and an attractive campus and way-finding, careful consideration should be paid to materials and design to ensure that each development makes a positive contribution to its locality. Diversity in finishes and detailing will be encouraged between Development Areas in order to emphasise identity.

Building finishes shall be durable and of a high quality and should adhere to the principles of sustainability and energy efficiency. Materials such as limestone stone, granite, native Irish hardwood species, metal and glass should be utilised throughout the SDZ area including its buildings, streets, and spaces which connect place and tradition. Consideration should be given, where possible, to reusing and recycling materials to promote the circular economy and reduce construction and demolition waste.

### Signage - Airport Development

One identification sign only shall be located at each entrance to the respective development areas within the Business & Enterprise Campus and Hotel & Conference campus area in order to list all business/companies at this location. Colour, form and finish of the sign shall be compatible with colours and materials used in the buildings.

Building facades should incorporate an area for sign placement. All proposals for signage (advertisement, corporate and public information) shall be designed in accordance with the standards set out in the Mayo County Development Plan.

### Lighting

Lighting of buildings, signs and landscaping will be incorporated into the structure or landscaping so that the lighting is discreet. Light standards and bollards shall be a contemporary style. All car parking and access ways shall be illuminated.

In terms of public lighting, light pollution is caused by any adverse effect of artificial light, including light trespass, sky glow and glare. All can be eliminated or minimised by good practice lighting design, selecting well designed lanterns and ensuring effective maintenance. The following good practice should be considered for all development proposals to:

- adequately light the area or object without using more light than necessary
- provide safety for all users, whether motorists, services, pedestrians or cyclists
- eliminate or minimise glare and excessive lighting,
- prevent light trespass
- minimise sky glow
- flexibility in the choice of light fixtures to allow for aesthetic considerations
- use of energy efficiency.
- all lighting should not impact on the aircraft safety.
- signage should be lit in a downward direction to avoid upward direct lights

### Roofscapes

The roofscape of the SDZ area is the first indication of the character and scale from a distance. Roofs are a key element within the overall built area and rooflines should be uncomplicated and simple in form.

Ensure that new developments respect this principle by:

- Promoting roofs that span the shortest plan dimension to avoid excessively large roof spans;
- Encouraging a variety of roof types, including flat roofs and barrel vaults;
- Discouraging the use of gambrel/mansard or bonnet type roof profiles;
- Avoiding the typical modern deep aluminium projecting fascias;
- Promoting the use of flat roofs for roof gardens and patio spaces, and where provided must include provision for planting and greening the roof space;
- On flat roofs, the parapet capping material should be robust to ensure a clean edge on the cornice line;
- If roof terraces are proposed, balustrades should be hidden behind the cornice line and not visible from the street space;
- To avoid visual clutter television, radio antennae, aerials and satellite dishes should be located as to avoid detracting from the public realm.

### Landmark Buildings

Sensitively designed landmarks enhance the urban quality of an area, adding interest and points of reference that aid orientation. Low buildings can function as landmark buildings. They may be considered as landmarks due to their special architectural quality in terms of material finish or their special land use function. Tall landmark buildings proposed in key strategic sites should be appropriate in terms of proportion, composition and their visual impact.

As such, the tall portion of the building should be slender and have a recommended width to height ratio (slenderness ratio) of between 1:3 and 1:4. The slenderness ratio adopted is to ensure the height is in proportion to its context and responds to the role of the building as a local landmark.

### 2.5.3 Form & Layout

Current development within the SDZ lands is confined to the southern side of the R376/main access road and consists of the airport terminal, runway, car park and associated activities; and the Knock Business Park. The remaining area consists of expansive greenfield rural land. The rural setting along with significant topographical differences required a less urban approach towards the built form and layout of the area.

#### Methodology:

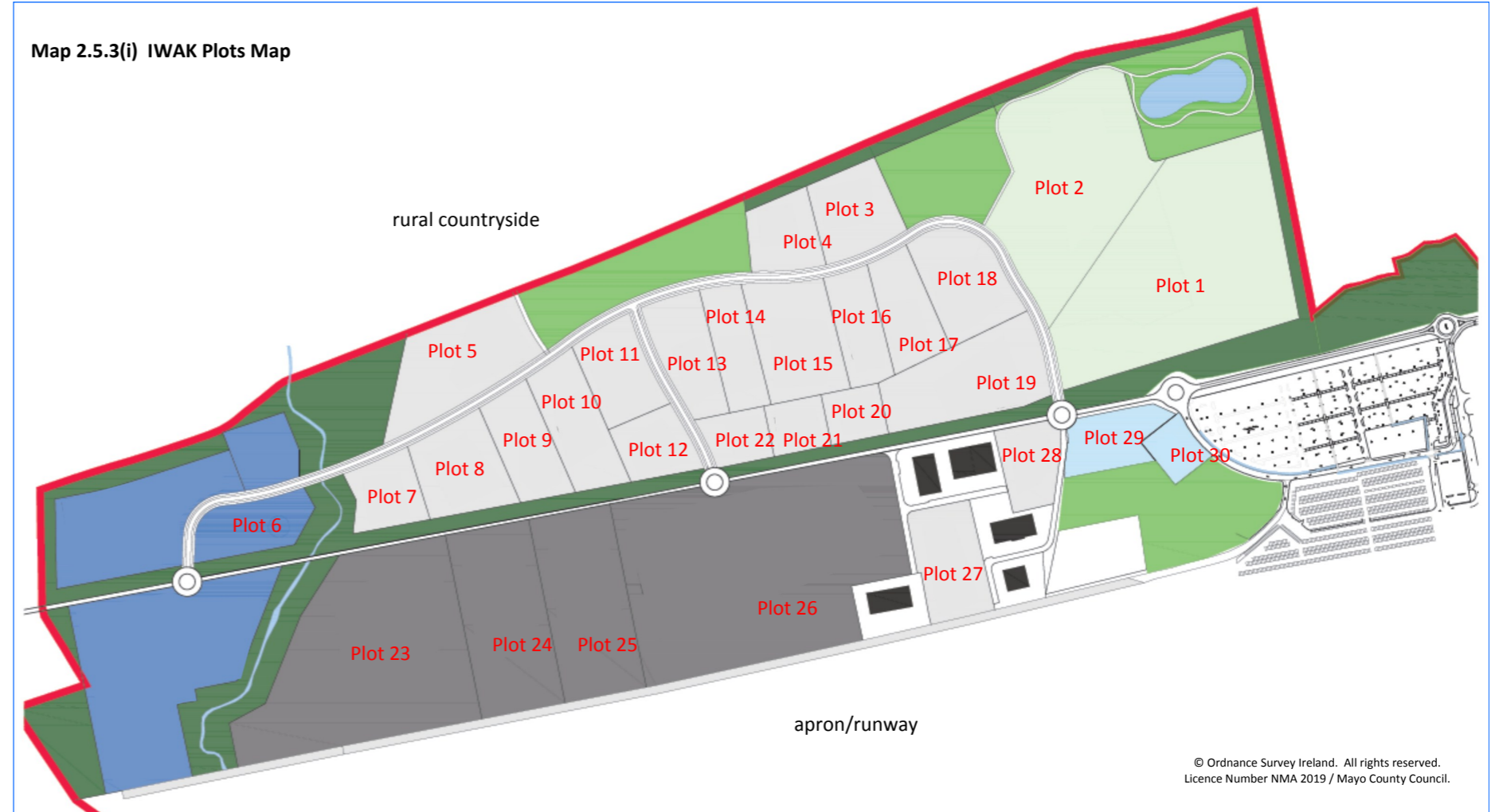
The form and layout strategy taken for the IWAK Planning is that of a campus style which allows for the creation of specific functional places while also providing a soft-edged approach for the assimilation of large scale developments into the surrounding rural countryside. In addition, level and gradient differences throughout the site necessitated consideration in terms of the provision of new roads and the safety, ease of access and circulation requirement for the Scheme. Rather than a series of urban style roads and streets which dictate urban block formations, built edges with clear definition, the campus style configuration for the IWAK takes a more organic approach, which in turn sets the tone for the layout of the Planning Scheme.

The proposed new road network prescribed under the Movement and Transport section of this Planning Scheme provides a number of fixed elements and indicative elements on which the layout and the built form is based. Development across the SDZ lands shall be shaped by this road network where the lands within each respective development area is divided into a series of plots which in turn can be incorporated into a landscaped setting via the campus style arrangement.

#### Plots

The Planning Scheme sets the area out in development plots. The purpose of this is to (a) provide for organised and sequential development approach and (b) to provide a framework to accommodate large scale and unusual developments where necessary.

The Planning Scheme allows for a degree of flexibility with regard to plot sizes and plot amalgamation. To allow for adaptability by which to accommodate unpredictable scales of development in a coordinated manner, the Planning Scheme set out the areas into development plots, see **Map 2.5.3(i) IWAK Plots Map**.



#### Plot Amalgamation

Plot amalgamation will be permitted within the sub-development areas (**Map 2.1.4(i) Development Areas & Sub-Areas map**) where there is a shared contiguous boundary between development plots. The main development parameters such as maximum height/height equivalent, minimum landscaping provision of 20% per development site, will accommodate a quantum of development relative to the site/plot size. This is to allow flexibility with regard to size and scale as may be necessary. Details of development parameters for development areas is detailed in Section 3 - *Development Areas*.

Campus Area	No. of Plots	Site area (Ha)
Hotel and Conference Facility	2	12.88
Business Campus West	7	9.798
Business Campus East	12	14.773
MRO	4	22.94
USSPV/ Utilities	1	1.140
Airport Landside Business Park	2	2.42
Airport Service Station and Accommodation	2	1.54
	<b>30</b>	<b>65.49</b>

## 2.5.4 Roads & Access

### Design/Width

The Access Distributor road forms the main spine of the new road network which opens up the lands to the Business & Enterprise and Hotel & Conference development areas. It consists of a 24 meter carriageway including swales, planting belts, parking lane, cycle lane and low energy public lighting. see **Figure 2.5.4(a)**.

### Circulation of Traffic

The Planning Scheme will review as needs arise the circulation of traffic within the plan area and to support the provision of any alterations to provide for the safe and efficient movement of vehicular and/or pedestrian traffic and to implement appropriate traffic management measures as required. Continuous assessment of the adequacy of the roads network in terms of capacity, width, alignment or surface condition will be carried out in order to cater for increased traffic demands. Deficiencies should be addressed within a reasonable timeframe by the relevant authority.

### Road Access and Safety

Mayo County Council encourages shared road access points where possible. The road network strategy for within the Planning Scheme had been devised to ensure that number of main access points on to regional road (R376) and primary local road are shared as much as possible.

To ensure that new access points do not cause a road safety problem or that the increase in traffic does not cause a deterioration in environmental quality, the following requirements shall be submitted with a planning proposal, where applicable:

- A *Road Safety Audit* shall be carried out in respect of all proposed significant developments and submitted as part of a planning application. A significant development would be a development which generated 40 traffic movements per day.
- A *traffic Impact Assessment* shall be carried out in respect of a proposed development whereby traffic generated by the development exceeds 10% of the existing traffic level on the road, of 5% where the road is already congested.
- *No development will be permitted within the public right of way* that would compromise road safety i.e. Memorials, concrete bollards, large boulders and signs.

### Road Standards

The County Development Plan sets out the standards and requirements for *Roads* within the County. Non-residential standards relating to *Vehicular Access and Permeability* are set out Section 38 of the Planning Guidance and Standards for Development in County Mayo (Volume 2). All development within the Planning Scheme shall have regard to these standards. A network of internal minor roads will provide access to new development. Given the uniqueness of the IWAK Planning Scheme i.e. an urban style development in a rural context and its campus style approach the Roads Standards being applied will conform to these design standards and requirements.

In addition, the Planning Scheme will refer to DMURS (2013); The National Cycle Manual (2011); and The Guidelines for Setting and Managing Speed Limits in Ireland (2015) in terms of 'Movement, Place and Speed', 'Streetscape', 'Pedestrian and Cyclist Environment' and 'Carriageway Conditions' etc.

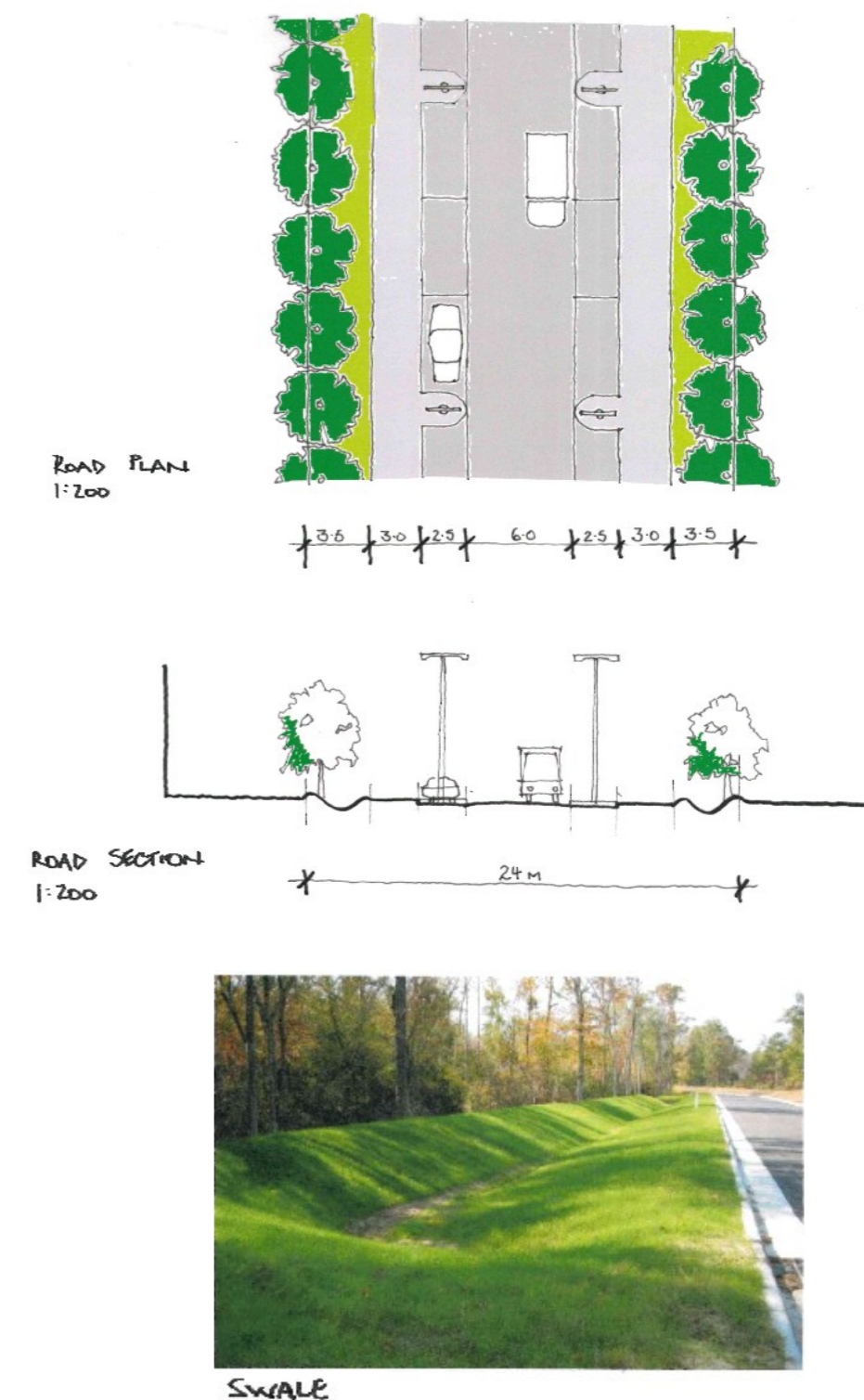
### Noise

Development proposals within the zone of influence of existing national roads or of planned new national roads must identify and implement noise mitigation measures where additional traffic generated by the development would be in breach of noise design goals on national roads for sensitive receptors exposed to traffic noise in line with the European Communities (Environmental Noise) Regulations 2018 (S.I. No. 549 of 2018). Cost of implementing mitigation measures shall be borne by the developer.

### Access

The layout and design of any proposed development will give consideration to the needs of the aged, people with disabilities and people with children. Footpath and public areas should be accessible to all by means of footpaths, location of crossings, etc.

Figure 2.5.4(a) Access Distributor Road



### 2.5.5 Heights & Landmark Buildings

Height considerations in the context of IWAK SDZ are considered in terms of the safeguarding requirements for the aerodrome and the requirements of the type of development that potentially will locate here. High density of development is not regarded a priority of the Planning Scheme where height standards allow for the provision of more floor space.

To ensure that obstacles to aviation activity is limited accordingly, safeguarding measures are in place that potentially limit the heights of structures throughout the Planning Scheme area. In addition to the safety aspects, consideration is given to height in the context of (a) the undulating topography within the Planning Scheme lands and (b) in the context of the surrounding rural landscape.

In this regard, building height in IWAK will reflect the safeguarding parameters set out in the LAP, the topography of the area, location and context of the type of development within the site and the scale and use of buildings.

Permissible heights vary at specific locations. Full details relating to permissible heights within individual development areas in set out in Chapter 3. Additional height will be considered in specific locations, where the safeguarding height range is greater and can accommodate more height if required. This is to allow for flexibility with regard to floor space and/or internal height requirements and to provide for a number of landmark buildings within the Planning Scheme area.

In the case of the MRO Campus development area height parameters are not specified. Having regard to the location of the MRO campus and the type of aviation related activity/development which will occur at this location, building height for new development proposals will be considered on an individual case bases.

The Mayo County Development Plan 2014-2020 sets out the standards in relation to Public Safety, Aerodrome Safeguarding and Noise Contours. Proposals for development at IWAK are subject to the provisions of the County Development Plan and the Standards set out in *Volume 2 Planning Guidance and Standards for Development in County Mayo, Appendix 6 – Public Safety Zones, Aerodrome Safe Guarding & Noise Contours.*

**Table 2.5.5(i) Building Height Range**

A maximum permissible height is set at 40 meters within the Planning Scheme area.

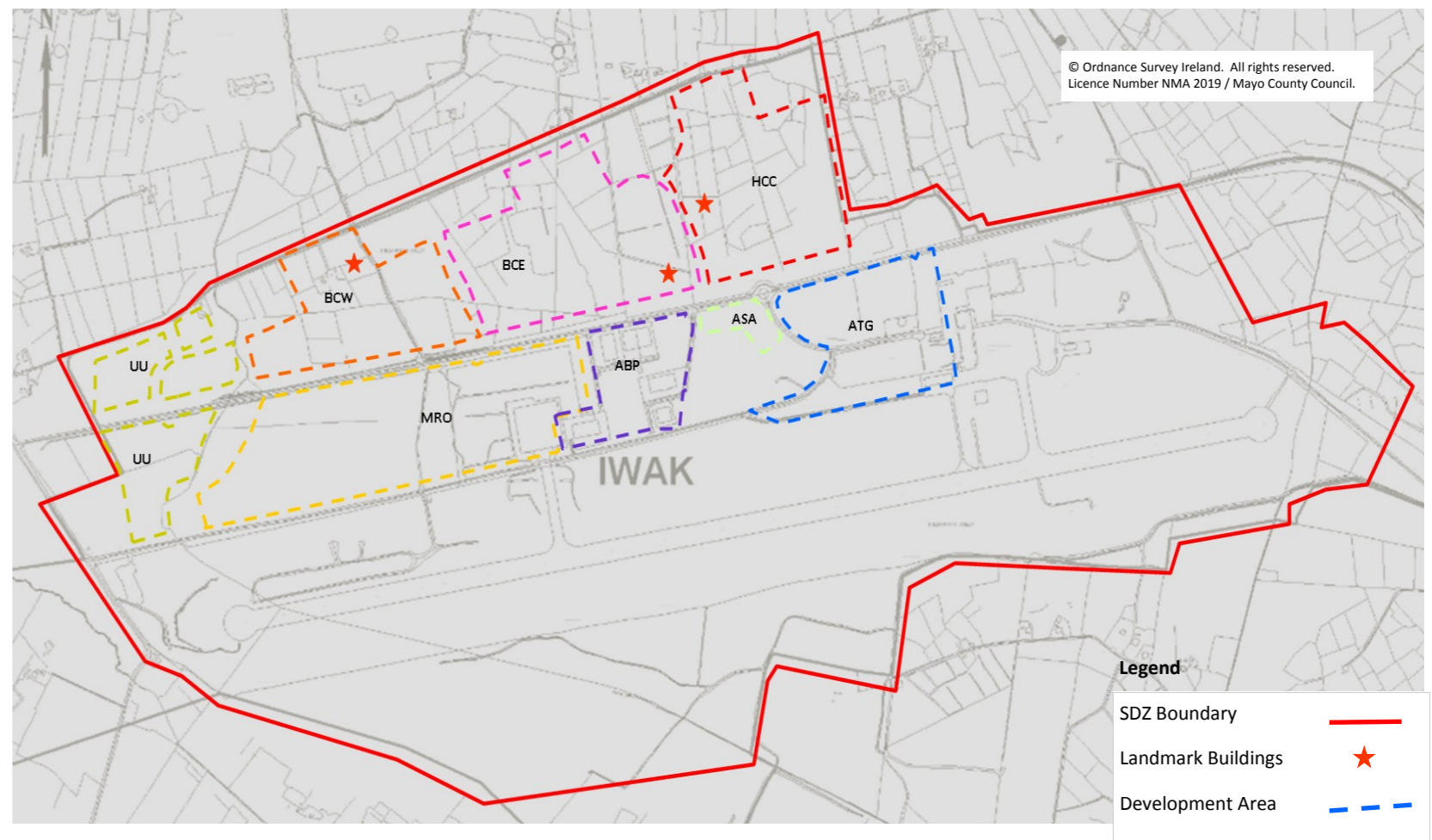
Development Area	Storey Range *storey height equivalent		Additional height modifier
	Min storey height	Max storey height	
Hotel & Conference Campus (HCC)	2	4	Plots 1 & 2 - 2 storeys
Airport Accommodation (ASA) (Plot 29)	2	2	Plot 29 - 1 storey
Service Station (ASA)** (Plot 30)	1	2	-
Airport Landside Business Park (ABP)	2	2	-
USSPV / Utilities Buildings (UU)	1	2	-
Business & Enterprise Campus East (BCE)	2	4	Plot 19 - 1 storey
Business & Enterprise Campus West (BCW)	2	4	Plot 5 - 1 storey
Airport MRO Campus	***	***	-

\* height equivalent or optimum storey height (i.e. distance from finished floor level of one storey to the finished floor level of the next storey) for business/enterprise orientated development is considered 4 to 4.5 metres for the purposes of this Planning Scheme. This allows maximum flexibility and good visual comfort.

\*\* service station height, refers to a maximum height equivalent of double height only. Two storeys of floor space will not be permitted.

\*\*\* a maximum height equivalent is not indicated for the MRO Campus to ensure that undue restrictions are not imposed on aviation related development that may require specific height requirements.

**Map 2.5.5(i) Building Height & Landmark Buildings**





### Landmark Buildings

In the interest of place making and improving legibility landmark buildings are permissible at key locations that will give definition to areas within the Planning Scheme area. Buildings that exceed the prescribed general building heights shall be provided at these designated landmark locations, see **Map 2.5.5(i)** and **Table 2.5.5(i)**.

Additional storeys are permissible for landmark buildings where indicated, subject to a specified maximum height equivalent.

Building design rather than building height is the key determinant in producing an acceptable landmark building and as such proposals for development at landmark locations will require an agreed design with the Planning Authority prior to planning application.

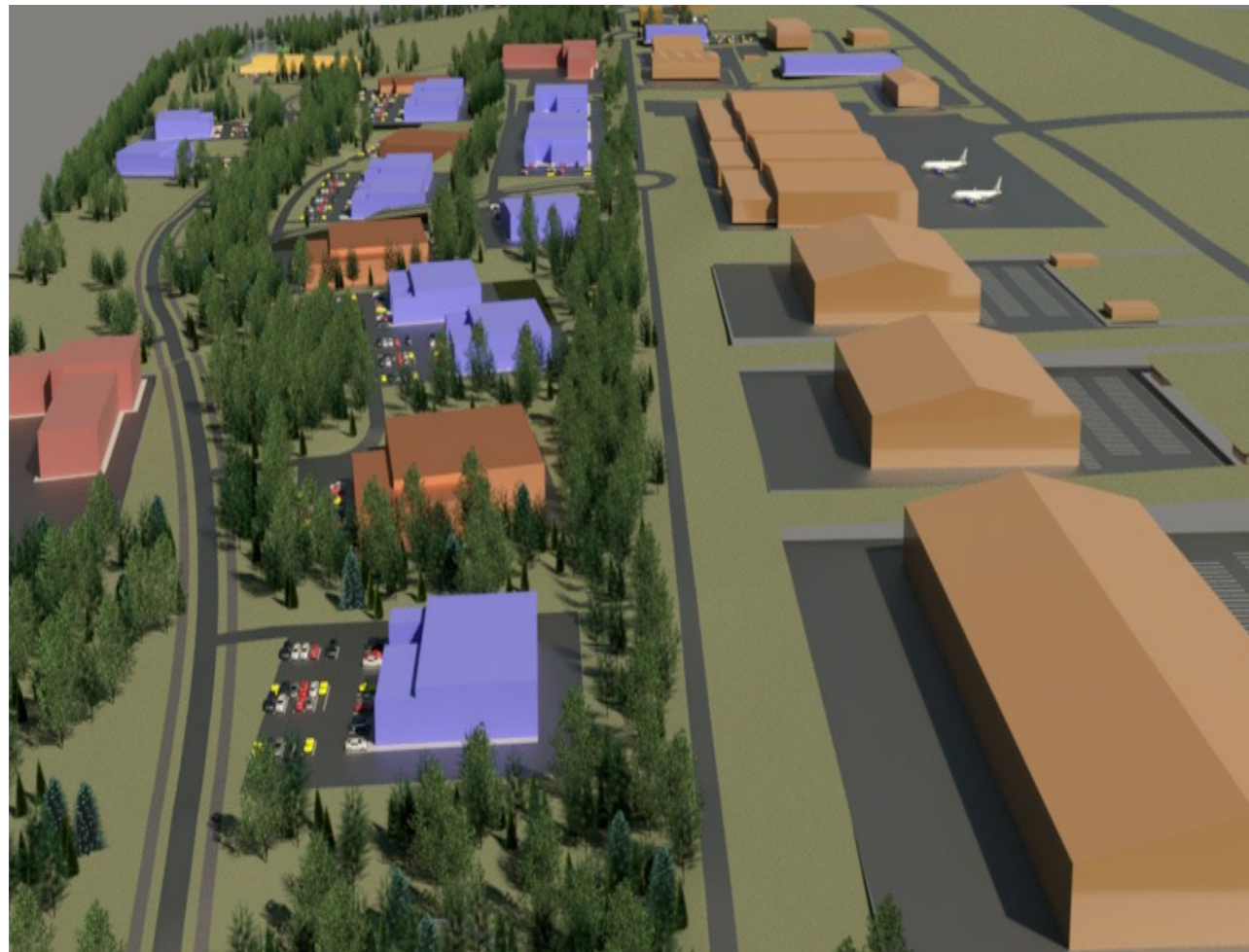
Landmark buildings should therefore be designed in a manner that is distinctive from surrounding buildings both in terms of architectural treatment and use of materials. The design of such buildings shall therefore be based on a coherent design concept that is clearly communicated via a Design Statement and accompanying landscape plan.

In the case of Business Campus East which identifies Plot 19 as a location for a key landmark building. Given its location proximate to the airport's outer public safety zone, development proposals will be subject to referral and agreement with the Connaught Airport Development Company, the Irish Aviation Authority and/or relevant agency as appropriate in relation to its height in accordance with the **Figure 1.8.4(g) Aerodrome Safeguarding Map relating to Obstacle Limitation Surfaces**, see Section 1.8.4.

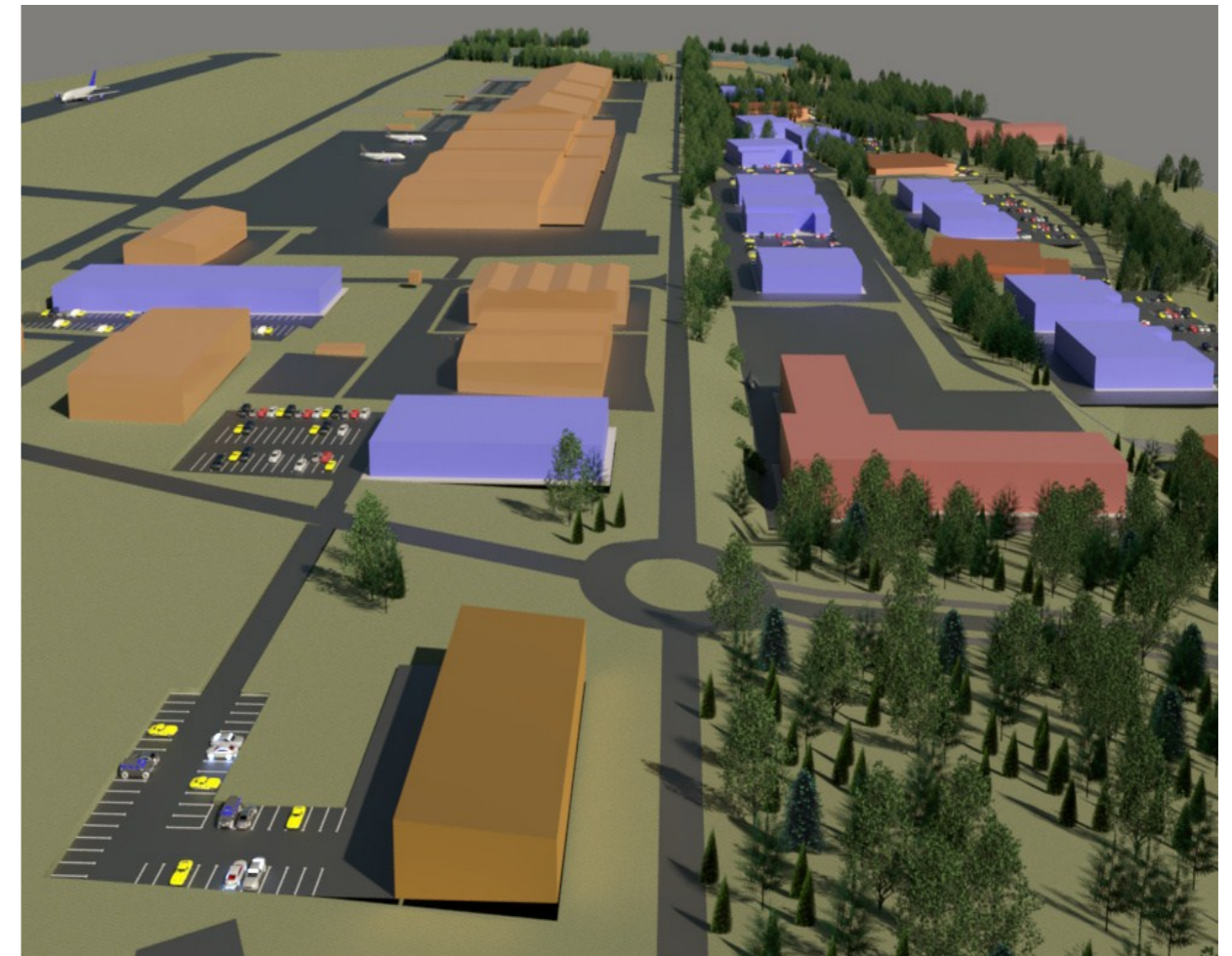




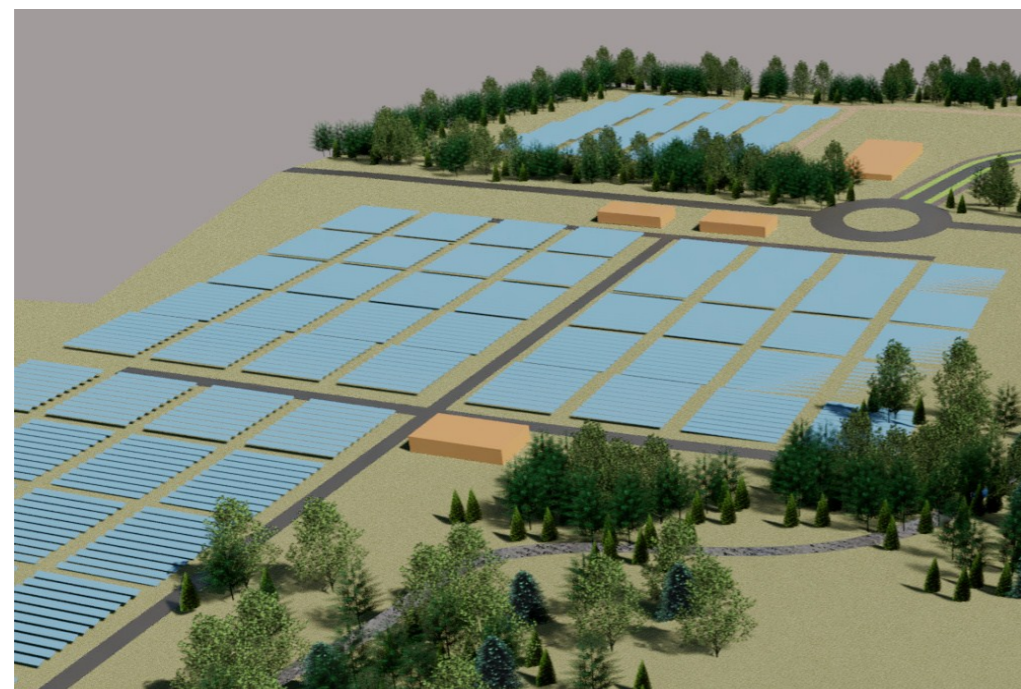
View of the Planning Scheme area from the Hotel & Conference Campus facing South West



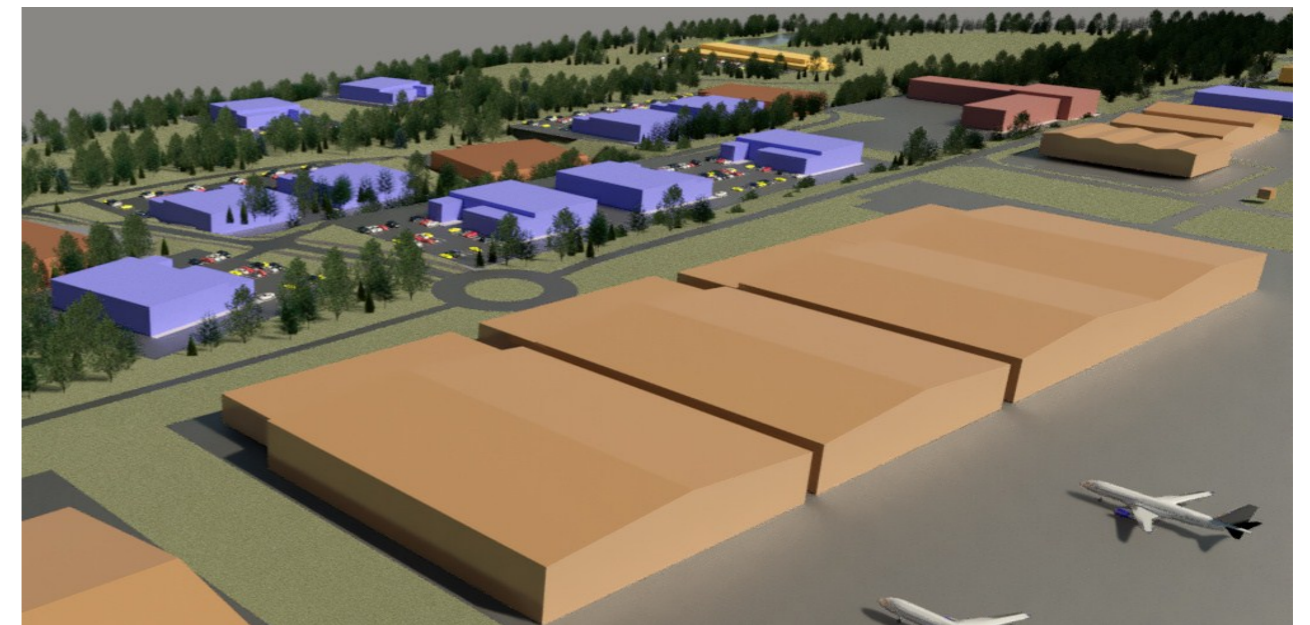
View of Business & Enterprise facing East (Business & Enterprise campus on left, hangars and runway on the right)



View from existing roundabout at R376 facing west  
(on left, proposed Airport Accommodation, Knock Business Park and Hangars in distance, right Business & Enterprise Campus)



View of USSPV installation (Solar Farm Phase 1 in foreground, Phase 2 in distance)



View from the runway facing north (Hangerage in foreground, Business & Enterprise Campus to the north))

## 2.5.6 Energy Efficiency and Acoustics

### Buildings - Renewable Energy and Green Technologies

All development proposals should include measures to reduce the carbon footprint of the development scheme through innovate design and site layout solutions as well as implementing efficiency and renewable energy technologies. The Building Regulations set building energy performance standards, in accordance with the nearly zero energy building requirements of the Energy Performance of Buildings Directive. Buildings shall be designed and constructed to energy standards prescribed by the Building Regulations - *Part L - Conservation of Fuel and Energy- Buildings other than Dwellings* as a minimum.

The Planning Scheme encourages the use of green building products and sustainable energy technologies into all proposed new buildings. Development proposals should combine energy efficiency measures with renewable energy technologies and resource consumption plans and examine features such as: building fabric, heating, hot water controls, combined heat and power, ventilation and air conditioning, powering pumps and fans, lighting controls, office/catering equipment, transport measures. Development proposals should take into account measures in relation to noise efficiency.

## 2.5.7 Public Space, Landscaping & Planting

### Public Space

The campus style layout and design of Planning Scheme fosters a strategy that embraces its rural setting. This approach seeks to provide accessible open spaces that respond to key landscape and topographical features of the area. The Planning Scheme provides a green network which includes a series of public open space linked by a series of routes which facilitates both pedestrians and cyclists. The public areas within the Planning Scheme area embrace users of more sustainable forms of transport. In this regard, segregated cycle and walking routes are provided to aid circulation with footpaths and cycle-ways linking all development areas. Landscaping should be used to emphasis entrances and pedestrian circulation routes.

### Landscaping & Planting

Landscaping stitches new into the Planning Scheme's green network which in turn will create a unique identity for IWAK while adhering to its local character. Landscaping therefore is an essential requirement for all proposed new development providing essential 'green links' between development areas and public open spaces.

Landscaping within the Planning Scheme area is considered a key element by which to aid the assimilation of large-scale development into the receiving landscape while providing soft edges to the respective development areas. The Planning Scheme requires minimum set-back distances along the Access Distributor road to ensure that buildings are sited accordingly to incorporate appropriate landscaping. Set-back requirements for development areas are detailed in Section 3 of this document.

Storage and service areas are a landscape consideration for the Scheme. To ensure that such areas are screened from public view proper siting and screening measure are required including the use of fencing, courtyard walls or landscaping.

A consideration in all landscaping proposals for the Planning Scheme area is the diversity and vitality of native flora and fauna and how they can be enhanced by implementing a range of landscape works and management practices, including:

- Where possible existing vegetation should be retained.
- Planting of predominantly native, pollinator friendly planting, tree and hedge mixes. No alien invasive species shall be permitted.

- Sowing of native grass and wildflower meadows in open spaces and on fallow ground.
- Minimising the need for and use of herbicide in landscape management.
- Adopting a preference for SUDS features with biodiversity and amenity benefits over inert / hard SUDS features, e.g., grass/planted swales, detention basins, infiltration basins.

In this regard, a landscape plan shall be submitted with all new development proposals showing details of levels, materials, plant species, spacing and size, lighting and irrigation.

## 2.5.8 Boundary Treatment

Consideration must be given to boundary treatments to aid the creation of campus style development in a predominantly rural setting. Boundary treatment as much as possible should reflect local traditions and character of the area including the use of local materials, native hedgerows, etc. Existing natural and planted boundaries should generally be retained and augmented where possible. Particular attention should be given to the retention of existing hedgerows or dry stone walls and to boundaries that adjoin or are visible from the public domain.

Development standards relating to boundary treatments and landscaping for non-residential development are set out in Section 35 of the Planning Guidance and Standards for Development in County Mayo 2014-2020 (Volume 2). Planning proposals will be subject to these standards.

Planning applications should include detailed drawings and specifications for all boundary treatments, including details of boundaries to be replaced or removed.

- Boundary treatments should act as noise buffers where necessary, the use of green walls and green roofs shall be encouraged to further screen development.
- Boundary treatment along the main airport access road R376 to be of a high quality standard.
- Sensitive boundary treatment is required in relation to all development that abuts the rural laneway/local tertiary road that runs along the northern boundary of the SDZ lands.
- Ensure boundaries respond to slopes in the contours
- Palisade fencing to the front of any building line will not be permitted. Agreement with Mayo County Council will be required in relation to location and nature of any proposed secure fencing.
- Boundaries should be predominantly soft edged (e.g. railings with planting, low wall with hedge etc.) and have regard to biodiversity and visual amenity particularly where it may abut green infrastructure;
- All planning applications should include detailed drawings and specifications for all boundary treatments, including details of boundaries to be replaced or removed.



### 2.5.9 Sustainability

The Planning Scheme supports environmental sustainability by promoting and encouraging the use of sustainable technologies and practices. Environmental sustainability is promoted in IWAK through a number of approaches including the built and natural environment that seeks to encourage the use of energy efficiency in all new development with the ultimate aim of a carbon neutral status for the IWAK area.

The policies set out in the parent document - IWAK Local Area Plan 2012-2018 (below) has provided the policy and objectives for Sustainability within the Planning Scheme.

Sustainability Options Policies & Objectives— IWAK LAP 2012-2018	
<b>Policies</b>	(SP1) to promote the use of sustainable options for all development proposals to support the 'Green Economy' concept within the IWAK LAP area
<b>Objectives</b>	<p>(SO1) to encourage the use of energy efficiency in all new development proposals, with the ultimate aim of achieving a carbon neutral status for the IWAK LAP area.</p> <p>(SO2) to support measures to raise public awareness of the value of the water resources by encouraging conservation, reuse and protection of water, in addition to the elimination of wastage of water through wastewater detection and enforcement of repairs and to replace deficient sections of pipe work where necessary.</p> <p>(SO3) to promote the reduction of energy consumption through innovative design and layout with the appropriate use of materials and new technology in developments within the IWAK LAP area and to increase public awareness of best energy efficiency practices.</p> <p>(SO5) Waste Management : to require all new development proposals make adequate provisions for the reduction, reuse and recycling of waste, in both construction and post-construction stages and to implement the recommendations outlined in the Replacement Waste Management Plan for Connacht Region 2006-2011 and any subsequent Waste Management Plan.</p>

#### Overarching Principle

To create a quality built environment that is sensitive to the setting. IWAK SDZ will provide green infrastructure, sustainable urban drainage (SUDs) and energy and climate change mitigation measures to support the 'green economy'.

#### Key Principles

- To promote the use of green and renewable building materials and technologies in all new developments throughout the SDZ area.
- To facilitate and encouraging the use of sustainable modes of transport.
- Promoting and supporting improvements in the public realm which reduces energy consumption, support SuDS, increase carbon sequestering.
- To support and promote the development of a major renewable energy installation (USSPV solar farm) which will provide a significant renewable energy source to the airport.
- To promote measures that encourage conservation of water, reuse and protection.

The Planning Scheme supports environmental sustainability and seeks to ensure that sustainable design is integral to the sustainable development of the area. Environmental sustainability is promoted in IWAK through the following :

#### Buildings - Renewable Energy and Green Technologies

The Planning Scheme encourages the use of green building products and sustainable energy technologies into all proposed new buildings. Building design should take advantage of solar gain and the use of renewable including photovoltaics, solar thermal cladding, wind and rain harvesting.

#### Utility Scale Solar Photovoltaic Installation

According to the International Civil Aviation Organization (ICAO) solar PV is very compatible with airports due to its low profile and ability to integrate with existing development. Its low profile avoids causing a physical obstruction and a safety risk which can be a challenge for siting other renewable technologies near airports, such as wind power. Solar can also be attached to existing or future buildings where the building structure (and not the solar project) is the controlling factor for airspace obstruction review. It can also be placed in many locations in the airfield, including in close proximity to runways without resulting in a physical impingement on airspace\*.

Three different types of solar PV project design in airport locations include ground-mounted, roof-mounted, and canopy supported. Ground-mounted are the least costly to develop and are typically used for large installations. Roof-mounted facilities are often the smallest and most expensive because they are attached to existing buildings, requiring detailed engineering. Canopy-supported facilities can be integrated into existing parking areas and provide covered parking for customers.

The Planning Scheme for IWAK provides an opportunity to develop a Utility Scale Solar Photovoltaic installation/project and is regarded as a main contributor to the overall 'green' identity of IWAK.

Careful consideration and assessment will be required in relation to solar or renewable energy projects in the context of aviation activity at IWAK



\* Source: [www.icao.int/environmental-protection/Documents/ICAO\\_UNDP\\_GEF\\_RenewableEnergyGuidance.pdf](http://www.icao.int/environmental-protection/Documents/ICAO_UNDP_GEF_RenewableEnergyGuidance.pdf)

### Surface Water Drainage and Sustainable Urban Drainage System -SUDS

SUDS is recognised as a green infrastructure approach to drainage to minimise the impact of surface water runoff from any development exerts on the environment by replicating as close as possible a natural drainage system. Surface Water Systems shall be designed in accordance with SUDS in order to restrict flows from development to greenfield run off rates. Waste oils should not be disposed of in public or private sewer systems or discharged to watercourses. All surface water drainage systems should be fitted with petrol/oil interceptor traps. All new development proposals shall include provisions for the treatment of surface water run-off by means of SUDS.

The following SUDS components should be considered as part of proposed development within the SDZ:

#### Green Roofs/Living Walls

Green roofs comprise a multi-layered system that covers the roof of a building or podium structure with vegetation cover/landscaping. They are designed to intercept and retain precipitation and therefore reduce surface water runoff attenuating peak flows, with evapotranspiration also assisting in this regard and thereby reducing the volume of runoff. Green roofs can be used on a variety of roof types and sizes, although larger roofs are typically more cost effective and are particularly suited to flat/ gently sloping roofs on commercial buildings.

A living wall is a wall that is entirely covered with plant material. Living walls have many benefits such as improving the air quality, improved thermal efficiency and sound insulation. They can occupy much greater surface area than green roofs, have high amenity and biodiversity benefits while also contributing to the removal atmospherically deposited pollutants.

#### Permeable Surfacing

Permeable pavements provide a pavement suitable for pedestrian and or vehicular traffic, while at the same time allowing for rainwater to infiltrate through the surface and into the underlying layers to subsequently enter into the ground and is collected and conveyed to the drainage network. Permeable pavements are most suitable for areas with light traffic loads and volume. The pavement generally caters for rainwater that is collected directly on the surface but in particular cases, can accept runoff from other impermeable areas.



Attenuation pond

### Bio Retention/Attenuation Areas

Bio retention areas are storm water controls that collect and treat the stormwater runoff. The stormwater runoff is filtered through the soil planting bed before being conveyed downstream by an under drain system or infiltrated into the existing subsoil below the soil bed. Part of the runoff volume will be removed by evaporation and plant transpiration.

Attenuation ponds can provide both storm water attenuation and treatment. They are designed to support emergent and submerged aquatic vegetation along their shoreline. The pond will be integrated as amenity and ecology features. It will further provide the additional volumetric storage required during extreme rainfall occurrences. The attenuation area shall be used as walkways and an area for high quality planting.

#### Rainwater Harvesting

Rainwater harvesting involves collecting rainwater from hard surfaces and roofs. Once the rainwater is collected it passes through a filter to remove the debris. The collected water is typically used for non-potable purposes such as irrigation and flushing toilets.

#### Swales

Swales are shallow, broad and vegetated channels designed to store and/or convey runoff and remove pollutants. They may be used as conveyance structures to pass the runoff to the next stage of the treatment train and can be designed to promote infiltration where soil and groundwater conditions allow.

Careful consideration and assessment will be required in regard to attenuation ponds, swales and open water bodies which may attract or encourage new bird colonies and which may contribute to the risk of bird strikes in the context of aviation activity at IWAK.



Living Wall



Green Roof

## 2.6 Services, Infrastructure and Energy

### 2.6.1 Introduction

The existing capacity of water and services can accommodate a certain amount of development within the Planning Scheme area into the immediate future. This section sets out the approach towards providing water, infrastructure and energy sources.

The LAP for IWAK provided policy and objectives for services, infrastructure and energy which has informed the Planning Scheme, see below.

Infrastructure Facilities Policies & Objectives— IWAK LAP 2012-2018	
<b>Policies</b>	(IP1) to support the provision of all infrastructure as appropriate, including water, waste, energy and communications, necessary to support the existing and future sustainable development of the LAP area in accordance with all national and EU Legislation
<b>Objectives</b>	<p><b>Water/Waste Water :</b></p> <p>(IO1) to co-operate/co-ordinate as appropriate with the relevant Water Services Authority to ensure that an adequate supply of water is available to meet the current and future needs of the LAP area.</p> <p>(IO2) to co-operate/co-ordinate as appropriate with the relevant Water Services Authority to ensure that high water quality standards are maintained by implementing the relevant European Community Water Quality Directives.</p> <p>(IO3) to co-operate/co-ordinate as appropriate with the relevant Water Services Authority to ensure that all drinking water in the area complies in full with the European Communities (Drinking Water) (no. 2) Regulations, or any subsequent regulations.</p> <p>(IO4) to co-operate/co-ordinate as appropriate with the relevant Water Services Authority in providing sufficient medium to long-term supplies of potable water and wastewater treatment facilities for the LAP area.</p> <p>(IO5) to monitor the situation regarding adequacy of piped water supply, as well as wastewater collection and treatment of the LAP area. Where the Council considers there are existing deficiencies in the provision of water supplies of sewerage facilities to meet the needs of a proposed development, such a development may be considered premature.</p> <p><b>Surface Water:</b></p> <p>(IO6) to ensure surface water systems are managed in a sustainable manner by encouraging the re-use of surface water where possible and to require that all new development proposals provide surface water drainage systems designed in accordance with Sustainable Urban Drainage Systems (SuDS).</p> <p>(IO7) to ensure that surface water is adequately and safely disposed of in a manner compatible with achieving and maintaining 'salmonid water' quality in the receiving waters. (S.I. No. 293/1988: European Communities (Quality of Salmonid Waters) Regulations.</p> <p><b>Energy/Telecommunications:</b></p> <p>(IO8) to support the appropriate expansion and upgrading of the Electricity Network to meet the needs of the LAP area.</p> <p>(IO9) to support the appropriate expansion of the Metropolitan Area Networks (Communication System) to meet the needs of the LAP area.</p> <p>(IO10) to support the introduction of appropriate new information and communication technologies to meet the needs of the LAP area.</p> <p>(IO11) to assess any future provision of telecommunications infrastructure having regard to National policies, as well as interests of social and economic progress; public health; environmental quality and the protection of amenities and local heritage.</p> <p>(IO12) to support the appropriate extension of the gas network to meet the needs of the LAP area.</p>

### 2.6.2 Water Supply

The Water Services Strategic Plan (WSSP) by Irish Water sets out the strategic objectives for the delivery of water services in Ireland up to 2040. Mayo County Council is charged with managing and maintaining aspects of water supply and foul drainage networks at the local level, through a Service Level Agreement with Irish Water.

The water supply to the area is sourced from a local well which is in the control of Irish Water. Tests on the supply indicate that the safe yield from the supply is 350m<sup>3</sup>/day. It is standard practise to design a water supply network to deliver peak flows at 2.5 times the average daily supply. Therefore to safeguard the supply using the peak flow rate, the water available from the supply is 140m<sup>3</sup>/day. The current usage from the supply is 64m<sup>3</sup>/day (airport 50m<sup>3</sup>/d and Cloonlyan GWS 14m<sup>3</sup>/day) Therefore the current water capacity for any future additional development is 80m<sup>3</sup>/day which equates to 80,000 litres per day. Using the above methodology the existing water supply can cater for a further population equivalent of 1330.

Future development of the SDZ area, beyond this capacity will bring forward the need to upgrade the water supply. In this regard, two infrastructure projects are being considered to provide long term capacity to service projected demand into the future through Irish Water's multi annual Investment Programmes.

The first option is to connect to the existing Lough Mask regional Water Supply Scheme and the second is to connect to the proposed Lough Conn/Lough Talt Scheme.

Prior to the commencement of any development within the SDZ, landowners/developers shall prepare detailed water services plans for the SDZ and agree these plans with Irish Water and Mayo County Council. Such plans must also comply with Irish Water standard details and codes of practice. Connection of infrastructure to a public water services network is subject to a connection agreement with Irish Water.

### 2.6.3 Wastewater/Sewerage

The current treatment plant has a population equivalent of 700. The average daily outflow from the WWTP during the dry spell in June/July 2018 was 35m<sup>3</sup>/day. (No inflow meter)

This equates to a population equivalent of 204. Therefore there is spare capacity which can allow for a population equivalent of 496.

The existing waste water treatment plant is designed so that it can easily be expanded to double its capacity. Any further development beyond that capacity would require a new treatment system for the area. Therefore as development progresses, financial contributions and other capital funding for infrastructure would be utilised to the expand the scheme.

Prior to the commencement of any development within the SDZ, landowners/developers shall prepare detailed wastewater services plans for the SDZ and agree these plans with Irish Water and Mayo County Council. Such plans must also comply with Irish Water standard details and codes of practice. Connection of infrastructure to a public wastewater services network is subject to a connection agreement with Irish Water.

Irish Water is currently developing the first National Water Resources Plan (NWRP). The NWRP sets out the strategy of how they will move towards an environmentally sustainable, secure and reliable drinking water supply over the next 25 years. The plan involves assessing the external factors that will impact water supplies, including changing environmental legislation, government policy on growth, spatial planning, water usage patterns and climate change.

The plan also provides the framework for developing new water supply assets that will improve the reliability, sus-

tainability and resilience of the water supply over future investment cycles. As part of the plan they will assess the water availability at all of our existing supplies and compare these to demand profiles over the next 25 years. The demand profiles include for growth, based on the national planning framework, and leakage reduction targets. In this regard, the National Planning Framework clearly supports the proposed SDZ planning scheme in the National Policy Objective 10b which states “Regional and Local Authorities to identify and quantify locations for strategic employment development, where suitable, in urban and rural areas generally”

This National Policy Objective is supported in the Regional Spatial and Economic Strategy for the North West Region which contains the following Regional Planning Objectives:

- i. To promote and support the strategic role of IWA Knock SDZ as a significant regional economic driver and to promote the SDZ location as regional economic business and enterprise hub.
- ii. To support and promote the implementation of the approved Planning Scheme for the designated SDZ at IWA Knock which provides the framework for the expansion of the Airport in terms of its transport and business operations; and as a new business & enterprise destination.
- iii. To support the development of the SDZ in tandem with required infrastructure for both the expansion of the Airport and in the delivery of the regional business and enterprise hub. (RSES for NWRA, Section 3.7.9)

The plan (NWRP) also includes their proposed methodology for developing interventions where supply demand balance deficits are identified.

**New development and water services requirements**

Development within the Strategic Development Zone shall be phased in accordance with the **Table 2.6.3(i)** below.

**Table 2.6.3(i) Water & Waste Water Requirements for Future Development**

Workforce	Water Supply	Sewerage Treatment
496 persons	Existing Capacity	Existing Capacity
1330 persons	Existing Capacity	Upgrade Treatment Plant
2471 persons	New Water Supply	New Treatment Plant
<b>4,297 persons</b>		

There is sufficient capacity in both water supply and waste water treatment to carry out Phase 1. Phase 2 will require an upgrade of the existing waste water treatment plant. The design/construction for upgrading the existing plant should be carried in tandem with the development of Phase 1.

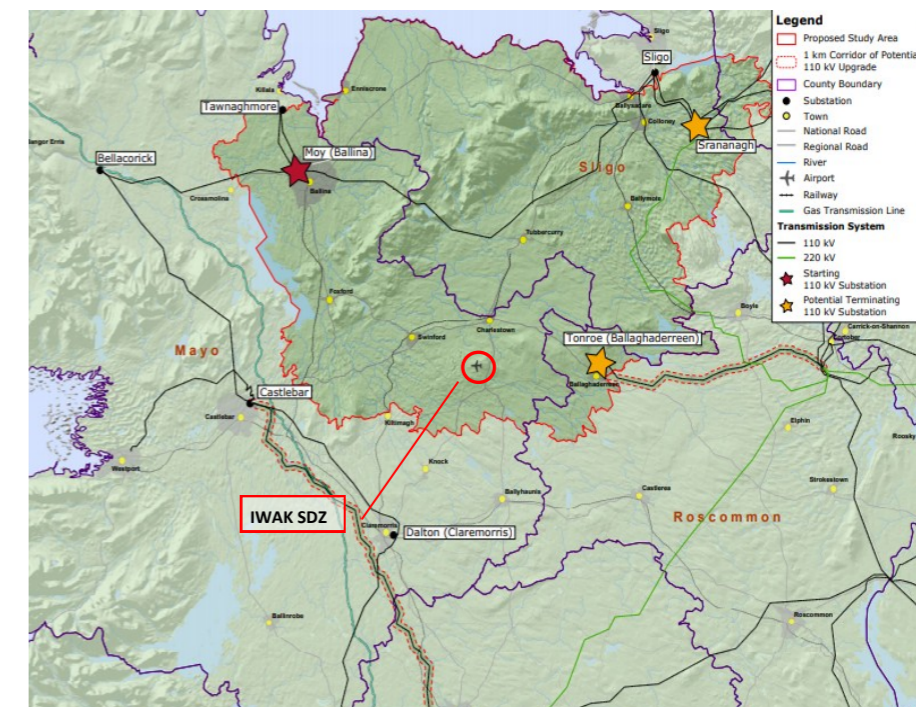
**2.6.4 Digital/Telecoms**

The provision of IT and high speed telecommunications infrastructure in the SDZ area enables a wide range of commercial and business activities. Mayo County Council has provided a Metropolitan Area Networks (MANs) around the airport lands which provides a fast and efficient telecommunications network within the Planning Scheme area. MANs is a high capacity fibre optic system which is future proofed and offers virtually limitless capacity in terms of broadband and other telecommunication systems. IWAK has copper and wireless connectivity to broadband and has a LAN within the airport complex itself. Capabilities include - Westnet providing 3mb (synchronous) wireless link; 3G broadband link available with Hutchison 3G; and 7Mb ADSL provided by Eir. Though the capacity and capability of the digital/telecommunication system is designed to cater for all future development within the Planning Scheme area, the digital and telecoms requirements shall be kept under review along with any future advances in technology.

**2.6.5 Electricity Supply & Renewables**

Eirgrid has plans for the North Connacht 110 kV project, which replaces the Grid West (400 kV) project originally proposed in 2012, with the aim of connecting sources of renewable energy to the grid. Eirgrid is legally obliged to connect those who generate electricity and therefore must develop the grid response to plans for new electricity generation. The new project means that renewable energy technology can be connected through the development of a lower-voltage, 110 kV line while also reinforce the electricity network in the region.

The North Connacht 100kV project has provided four route options made available by Eirgrid. For IWAK, Option 1B – Moy (Ballina) – Tonroe (Ballaghaderreen) 110kV underground cable plus 32km upgrade from Tonroe to Flagford is the optimal route. The connection of IWAK to this route, will require an extension by way of a spur to run from Tonroe to the SDZ. The Planning Scheme has incorporated the use of solar photovoltaic technology as an important component in the supply of energy, with the aim of providing a renewable energy source to serve both the airport and the wider SDZ area with surplus feeding back to the grid.



Source: Eirgrid (2018) Study Area for North Connacht 110 kV Project

Energy Efficiency in new buildings is an important consideration for the Planning Scheme whereby design, construction and function of new buildings has a contribution to make in reducing energy demand and increasing energy efficiency. Part L of the Building Regulations sets out the requirements for the construction of non-residential buildings. In this regard, the Building Regulations set out the requirements with regard to thermal performance, energy use and CO2 emissions. In this regard, a reasonable proportion of the energy consumption of the building shall be met by renewable energy sources.

It is anticipated that all new buildings in IWAK SDZ will be constructed to the Nearly Zero Energy Buildings (NZEB) standard, in accordance with the EU Energy Performance in Buildings Directive (EPBD). This standard will ensure that new buildings are constructed to a high level of thermal efficiency, with a significant contribution to its energy requirements made means of renewable energy sources. Development proposals at IWAK should have regard to the *Towards nearly Zero Energy Buildings in Ireland – Planning for 2020 and Beyond*, (DECLG), which promotes the increase of near Zero Energy Buildings in Ireland.



## 2.7 Overall Proposal for Development

This section provides the cumulative quantifiable parameters outlined in the Planning Scheme.

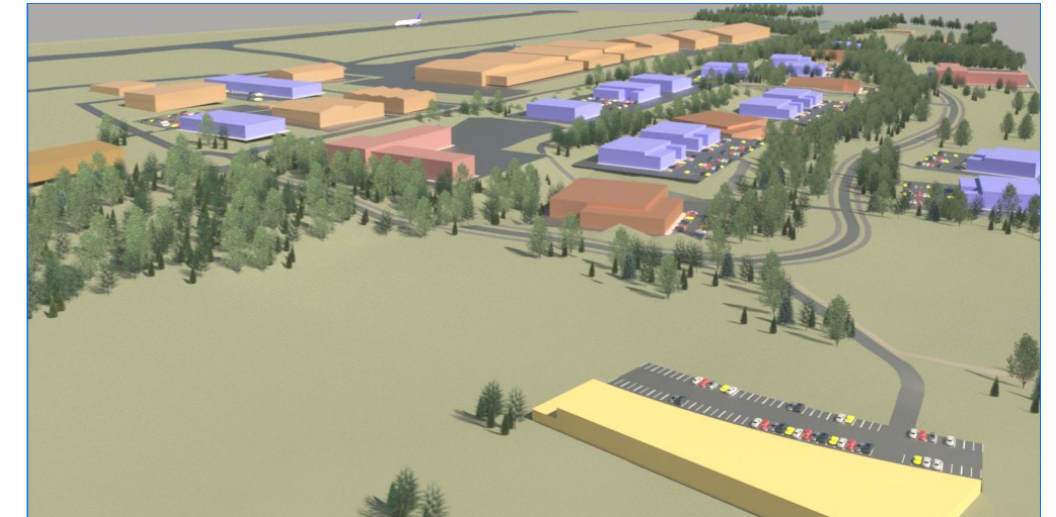
The development of the SDZ lands is required to be consistent with the overall Planning Scheme and the written text and parameters in the individual sections should be read in conjunction with the table and maps below.

**Figure 2.7(a)** and **Figure 2.7(b)** visualise the completed scheme to provide a context to Table 2.7a.

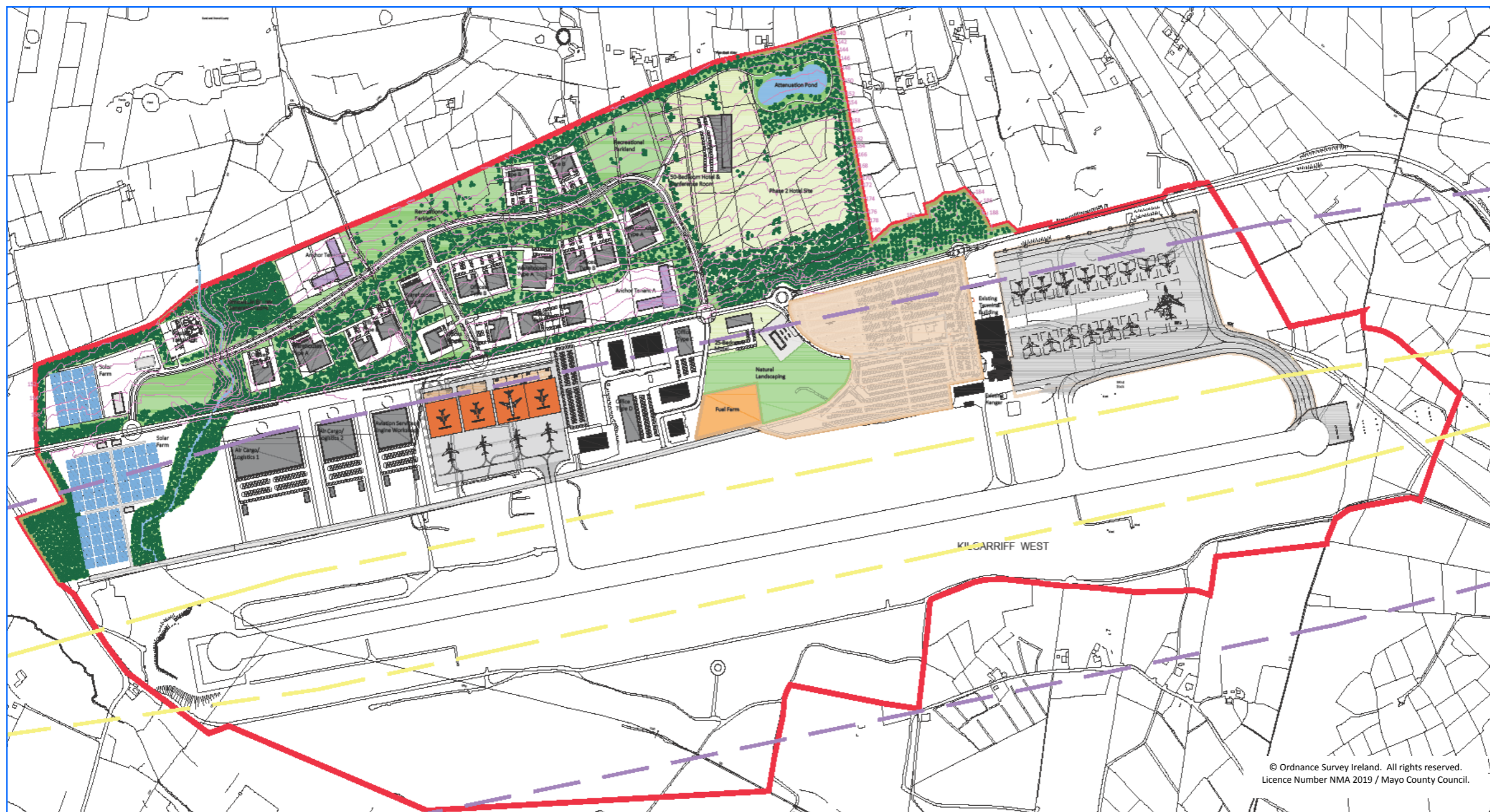
**Figure 2.7(c)** outlines the Development Areas (in colour) Area (eg, label BCW is Business Campus West). **Figure 2.7(c)** should be read in conjunction with **Table 2.7.(1)**

**Table 2.7(i)** outlines a summary of the quantitative parameters contained with the Planning Scheme document.

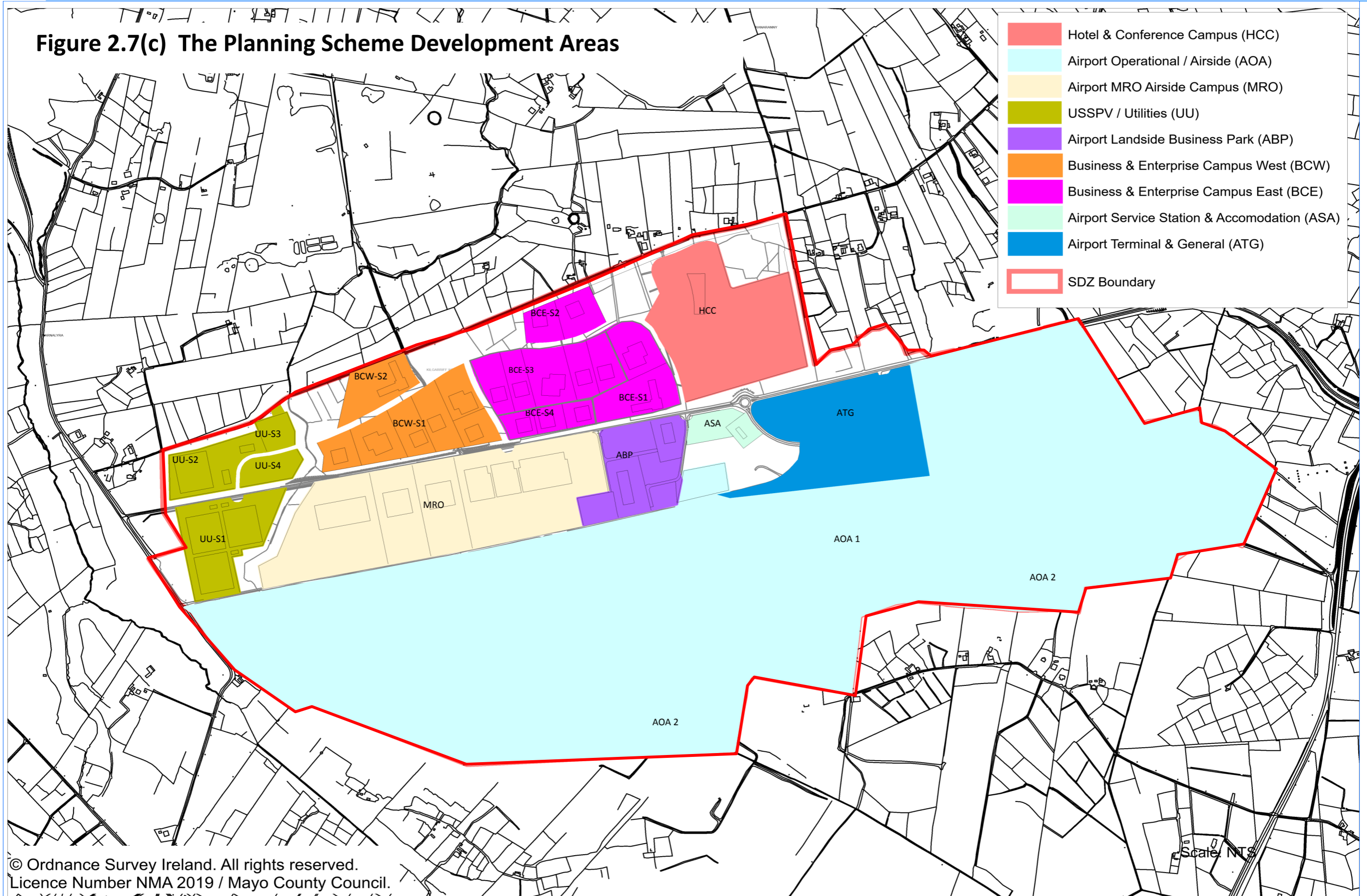
**Figure 2.7(a) 3-Dimensional View of Planning**



**Figure 2.7(b) Overall Planning Scheme**



**Figure 2.7(c) The Planning Scheme Development Areas**



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Table 2.7(i) Summary of Planning Scheme

Development Area	Sub Area Name	Net Dev Area (square meters)	Net Dev Area (hectares)	No of Plots per Area	Employment Floorspace sq.m (min)
Business & Enterprise Campus West	BCW S1	73,830	7.38	6	22,000
Business & Enterprise Campus West	BCW S2	24,150	2.42	1	10,000
Business & Enterprise Campus East	BCE S1	41,070	4.11	2	21,000
Business & Enterprise Campus East	BCE S2	23,450	2.35	3	6,000
Business & Enterprise Campus East	BCE S3	64,500	6.45	5	17,000
Business & Enterprise Campus East	BCE S4	18,710	1.87	3	9,000
Hotel & Conference Campus	HCC	128,760	12.88	1	10,000
Airport MRO Campus	MRO	229,430	22.94	4	44,400
Airport Landside Business Park	ABP	24,240	2.42	2	8,000
Airport Service Station & Accommodation	ASA	15,420	1.54	2	1,425
USSPV/Utility	UU S2	11,400	1.14	1	1,600
		<b>654,960 sq.m</b>	<b>65.50 ha</b>	<b>30</b>	<b>150,425</b>

Development Area	Green Network	Quantum in hectares
Airport Service Station & Accommodation	Natural Landscaping	2.97
Airport MRO Campus	Natural Landscaping Wildlife Corridor/ watercourse	1.03
USSPV/Utility	(USSPV Farm) Native planting to western edge	1.3
USSPV/Utility / Business & Enterprise Campus West	(USSPV Farm) Native planting to western edge plus part of Wildlife corridor along watercourse	3.65
Business & Enterprise Campus West	Native planting along main airport road (along plots 6 - 12) plus part of wildlife corridor along watercourse	1.99
Business & Enterprise Campus East	Native planting along main road (plots 22- 19)	0.83
Business & Enterprise Campus West/ Business & Enterprise Campus East	Recreational parkland 1 (east of plot 5)	2.67
Business & Enterprise Campus West	Recreational parkland 2 (east of plot 3)	2.04
Business & Enterprise Campus East	Native planting linking recreational parkland areas (north of plots 3 & 4)	0.82
Hotel & Conference Campus	Native planting - north, south and east edges (plots 1 & 2)	3.05
Hotel & Conference Campus	Native planting to east of plot 1	2.22
Hotel & Conference Campus	attenuation pond/wetlands & parkland	2.69
		<b>25.26 ha</b>

Fixed Road Infrastructure :	Description
Access Distributor Road	New distributor road to provide access and circulation to the Business & Enterprise and Hotel development areas..
Internal Road from Junction 1	Provide new direct access road to airport, via new Junction 1 roundabout off the R376.
Junction 1 (roundabout)	Junction off the R376 to provide direct access to airport terminal area.
Junction 2 (roundabout)	Junction at intersection with the Access Distributor Road and the Airport Service Station and Accommodation development area.
Junction 3 (roundabout)	New Junction at intersection with the central link of the Access Distributor Road and the primary local road (existing road).
Junction 4 (roundabout)	New Junction at intersection with the Access Distributor Road and primary local road (existing road) at USSPV/UU area.

### 3. Development Districts & Development Areas

#### 3.1 Introduction

The section sets out the type, extent, scale and overall design parameters of the Planning Scheme. Development within the SDZ lands are primarily employment focused. Expansion and development of the airport is facilitated in tandem with the creation of appropriate business, enterprise and hotel/conference development. IWAK is located in a rural landscape, unconnected to any urban centre. Because of the rural setting and the nature of proposed development within the SDZ lands, the Planning Scheme has taken a campus style approach which portrays a softer and more spacious environment to facilitate and promote new development at this location.

#### 3.2 Development Districts

The Planning Scheme will accommodate four principle character areas, defined mainly by a primary functional element relating to the airport and associated commercial, business and enterprise development: - Airport Development & Expansion area, Maintenance Repair Overhaul (MRO) Campus, Hotel & Conference Campus and Business and Enterprise Campus. It is envisaged that these principle character areas can develop at a pace independent of each other. Each of these character area is divided into 9 development areas, see below.

A number of development areas are further divided into subareas, in particular the Business and Enterprise Campus and the USSPV Renewable Energy/Utility. This is to accommodate incremental delivery of development in line with key infrastructure requirements.

Principle Character Area	Development Area
Airport Development & Expansion Area	Airport Operational/Airside Airport Terminal & General /Landside Airport Service Station & Accommodation Airport Landside Business Park
MRO Campus	Airport MRO Campus USSPV Renewable Energy / Utilities
Hotel & Conference Campus	Hotel and Conference Campus
Business and Enterprise Campus	Business Campus East Business Campus West

The Airport Operational /Airside development area is ring-fenced to provide the development and expansion needs of the airport terminal and associated aviation and operational aspects of airport requirements. Development within this area is treated on its own merits in accordance with the proper planning and sustainable development. As such, proposals for development for the operational and development requirements will be dealt with on a case by case basis.

#### 3.3 Development Areas

With the exception of the Airport Operational/Airside development area, each of the development areas are accompanied by a masterplan map, key characteristics, key principles and essential parameters for development.

This section comprises the core of the Planning Scheme and details development for each of the 9 development areas in IWAK. For each Development Area the following is set out:

**Character:** This includes a description of the location of the development area in the overall plan context and of the area’s unique characteristics. This will help define its future character and built form.

**Design Challenges:** The unique characteristics of each development area present a number of challenges for their future development. These challenges are outlined to allow for their consideration at all stages of the development process.

Following on from this, three design guidance elements are outlined for each Development Area:

1. **Specific Objectives:** Each development area has its own specific objectives which will inform the design process.
2. **Development Type and Quantum:** The quantum and type of development proposed for each development area is presented using statistical and physical parameters illustrated by a series of plans and drawings.

The relevant tables and maps should be read and used in conjunction with one another. For the coherent sustainable development of the area it is necessary to achieve the overall development quantum.

Development is not to go below the minimum or above the maximum plot ratio set out in the tables.

The maps identify the location and distribution across the Planning Scheme area of:

- The layout of roads, open space and development plots.
- The location of employment development land uses and their density / plot ratio.
- The location of where employment intensity lies.
- The range of building heights, which are to be applied in conjunction with the tables.
- Indicative principal landmark locations.
- Indicative access points to individual plots.
- Indicative set backs from main roads
- Specific routes for pedestrian and cyclists.

3. **Infrastructure Requirements:** water, waste water, infrastructure and energy are set out in Section 2.6, roads infrastructure and parking requirements are set out in Section 2.2. This section sets out the elements of that physical infrastructure that are required for each development area. The infrastructure for each Development Area will amalgamate to form the necessary infrastructure required to serve the overall Planning Scheme area.

It should be noted that infrastructural requirements may fall outside the boundary of the development area being progressed i.e. Water supply.

### 3.3.1 Airport Operational Airside (AOA)

#### Unique Character

The area consists of the restricted security area within and beyond the terminal building, runway, taxiways and general operational aspects of the airport facility. These lands are Airside and are subject to security and safety restrictions which affect both the movement of passengers and airport/aviation development. Because some of the lands lie outside of the fenced off security zone, the area is divided into two sub areas - AOA1 and AOA2, *see Figure 3.3.1* for Planning Scheme Development Areas.

**Area AOA1:** consists mainly of the fenced off security area commencing at the terminal building and includes all of the restricted security area within the airport. Future development relates to activity associated with the handling of passengers; functions and operations of the airport itself. It is envisaged that this entire area will become part of the airport's secure area as it expands and grows.

**Area AOA2:** This area is within Airside and consists of lands that run along the southern portion of the runway/apron but outside of the security protected area.

#### Challenges

There are a number of considerations in relation to the airport and proposals for development. This area is not intended to promote new development floor space per se, but to facilitate growth of the terminal and associated operational needs of IWAK as a Regional Airport for the West and North West.

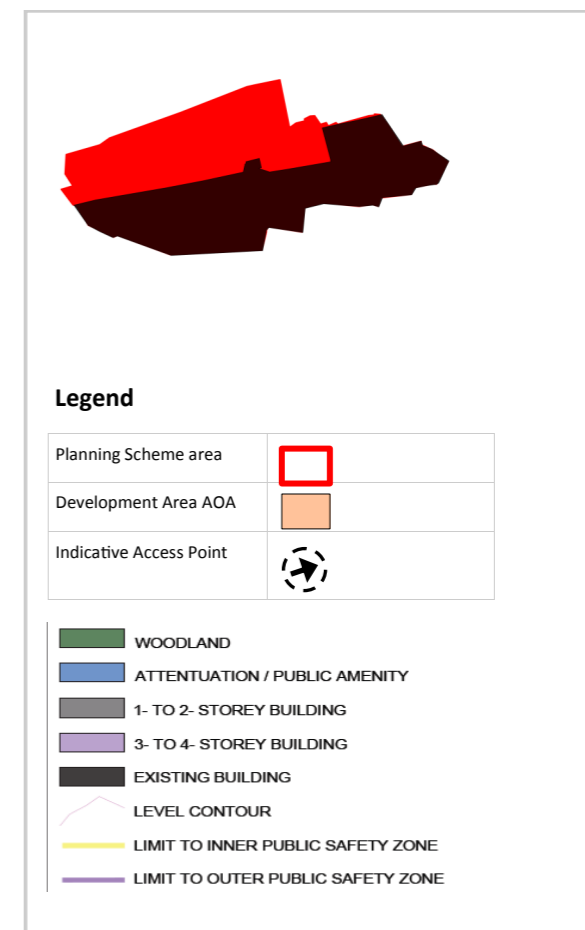
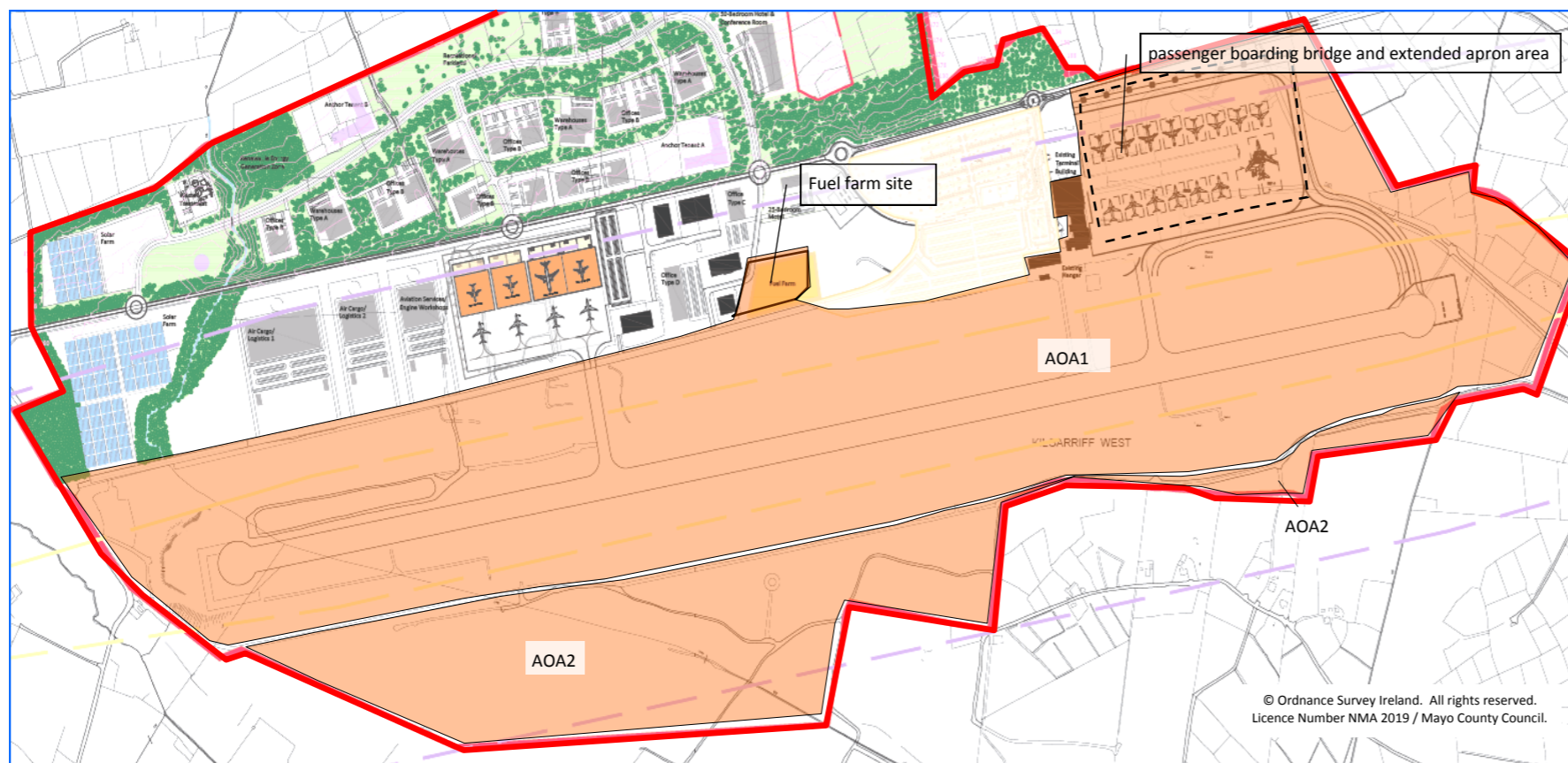
Owing to the specific safety restrictions and operational considerations associated with passenger and aviation related development and unpredictability of the exact future requirements of the airport, development proposals will be treated in accordance with the proper planning and sustainable development.

Development proposals will be considered and assessed based on the *Uses* set out in Section 2.1 **Table 2.1.3(ii)** and within the context of the overall vision for the Planning Scheme. Such proposals will be subject to the safety requirements and considerations set out in Aerodrome Safeguarding relating to Obstacle Limitation Surfaces and Public Safety Zones in the IWAK Local Area Plan 2012-2018 prepared as a precursor planning document to the SDZ, *see Figure 1.8.4(g)*.

#### Specific Aims

1. Proposals for development shall have regard to the specific operational and expansion needs of the existing airport. This will be within the context of Aerodrome Safeguarding relating to Obstacle Limitation Surfaces and Public Safety Zones.
2. A fuel farm site be provided at an airside location close to the runway with access to/from the main road network.
3. Lands immediately east of the terminal will provide for the expansion of the terminal as necessitated, including a passenger boarding bridge and extension of the apron area.
4. Landscaping along the R376 will have consideration to its gateway location and be to a high standard.

Figure 3.3.1 Airport Operational area



### 3.3.2 Airport Terminal & General (ATG)

#### Unique Character

The area comprising of the airport Landside area and car park consists of terminal building, public areas and car park serving the airport. This area is open to the general public and customers of the airport and is not subject to the security restrictions of Airside. The terminal building provides the main focus and character of the area. In addition to the terminal building, this area provides car rental services, taxi/bus drop off areas and parking. The focus of this area is mainly on airport use and the needs of airport passengers and the general public at a landside location. A large public car parking area forms a considerable portion of the lands in this area, with sufficient lands available to accommodate substantial further expansion, possibly a long-term car park.

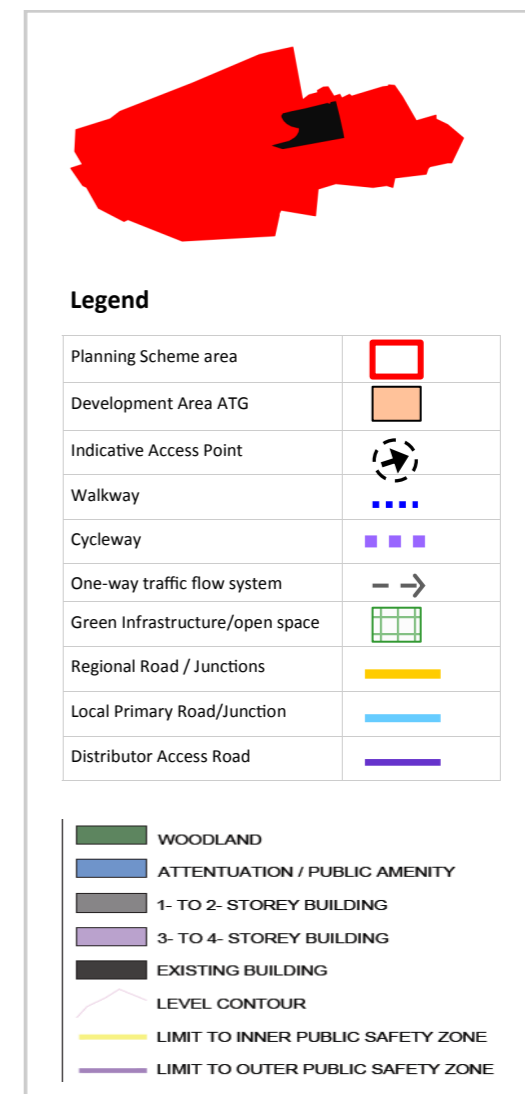
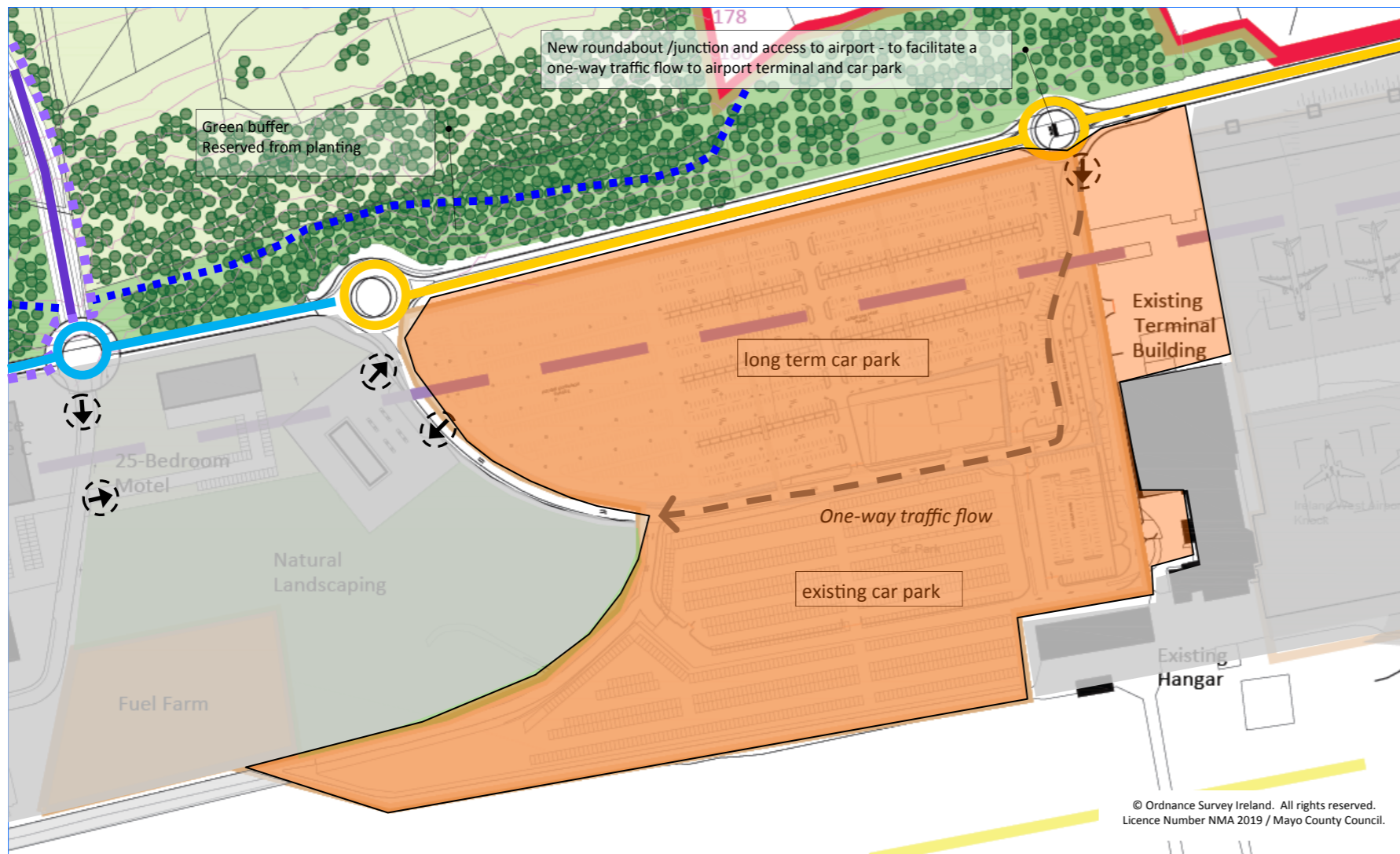
#### Challenges

This area is not focused on the development of land for employment floor space, but rather on accommodating the type of development that supports the landside operations and functions of the airport. The main challenge for this area is in relation to improving the flow of traffic, parking and movement of people within the airport. This is paramount to the smooth running of the terminal and passenger usage. A new one-way traffic flow system, to be facilitated by a new roundabout/junction off the R376 will assist the free flow of airport traffic.

#### Specific Aims

1. Provision of a new junction off the R376 to filter off airport traffic directly towards the terminal/car park area, to provide a better access and traffic flow arrangement.
2. Construct a new section of road from the proposed new junction/roundabout to the terminal area, creating a one-way traffic system for airport users.
3. Ensure sufficient land is reserved for the expansion of existing and provision of long-term car-parking serving users of IWAK.
4. To accommodate development that facilitates the expansion and operational requirements of the airport as necessitated.
5. Landscaping and boundary treatment along the south side of the R376 to be of a high quality standard.

Figure 3.3.2 Airport Terminal & General



### 3.3.3 Airport Service Station & Accommodation (ASA)

#### Unique Character

This area is a transitional area between the passenger related business of the airport and that of the industrial aspects of the aviation industry (MRO Campus to the west). Its landside location and its proximity to airport car parks makes it a strategic location for specific ancillary and complimentary development. This area identifies two sites for specific purposes.

- (a) provision of a service station to serve the needs of airport users.
- (b) provision of airport accommodation that is convenient to the airport terminal.

Airport accommodation at this location is aimed at providing budget accommodation to facilitate early flight passengers and business clientele. To facilitate integration and to distinguish this particular development area from the airport, a zone of natural landscaping is being reserved to ensure a level of amenity and soft landscaping at this location.

#### Challenges

There are a number of consideration for the development at this location. Proximity to the runway and consideration for the public safety zones is a consideration with implications for height and intensity of development at this location.

A small scale service station is selected at this location to provide a necessary facility to airport users.

Airport accommodation comes in many formats. The Planning Scheme provides for a hotel and conference campus, alternatives formats to cater for the varying needs of airport users is included in the Scheme. It is envisaged that a paired back facility or budget accommodation format is appropriate to this Landside location where proximity to the terminal is available. The site location for the budget 'airport accommodation' is intentionally positioned close to the existing public road, to ensure the safety zone considerations are upheld. Development of the site will require the building footprint to locate north of the outer public safety zone line, with the associated car parking and landscaping orientated to the south of the site.

#### Specific Aims

1. Provide a site for a airport service station.
2. Provide a suitable landside site to accommodate budget accommodation to provide a range of accommodation types to passengers and airport users.
3. Reserve the lands within the high water table zone, that adjoins the existing parking area, for natural landscaping.
4. Provide a new roundabout at the junction with the new Distributer Access road.

Figure 3.3.3 Airport Service Station & Accommodation

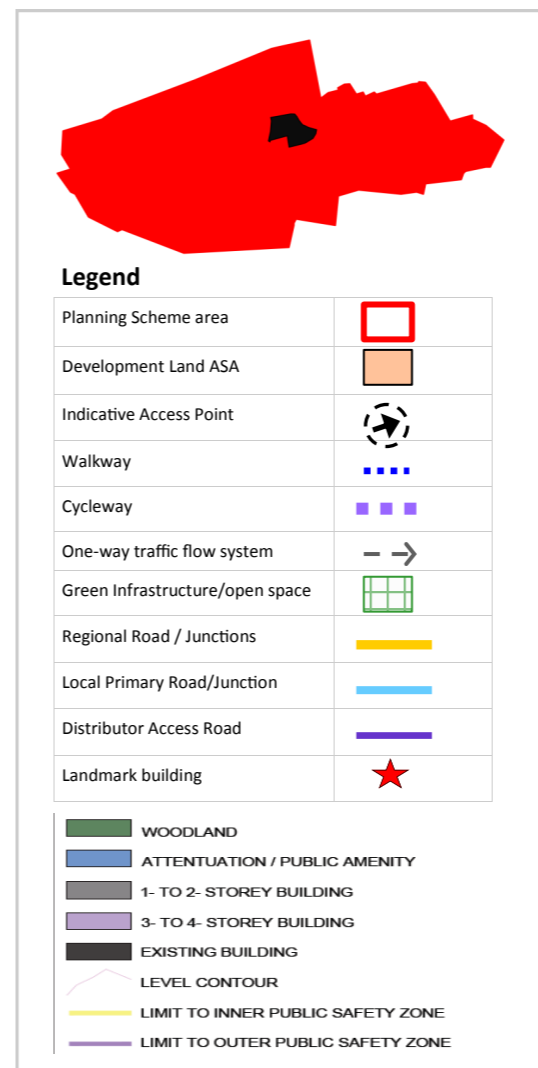
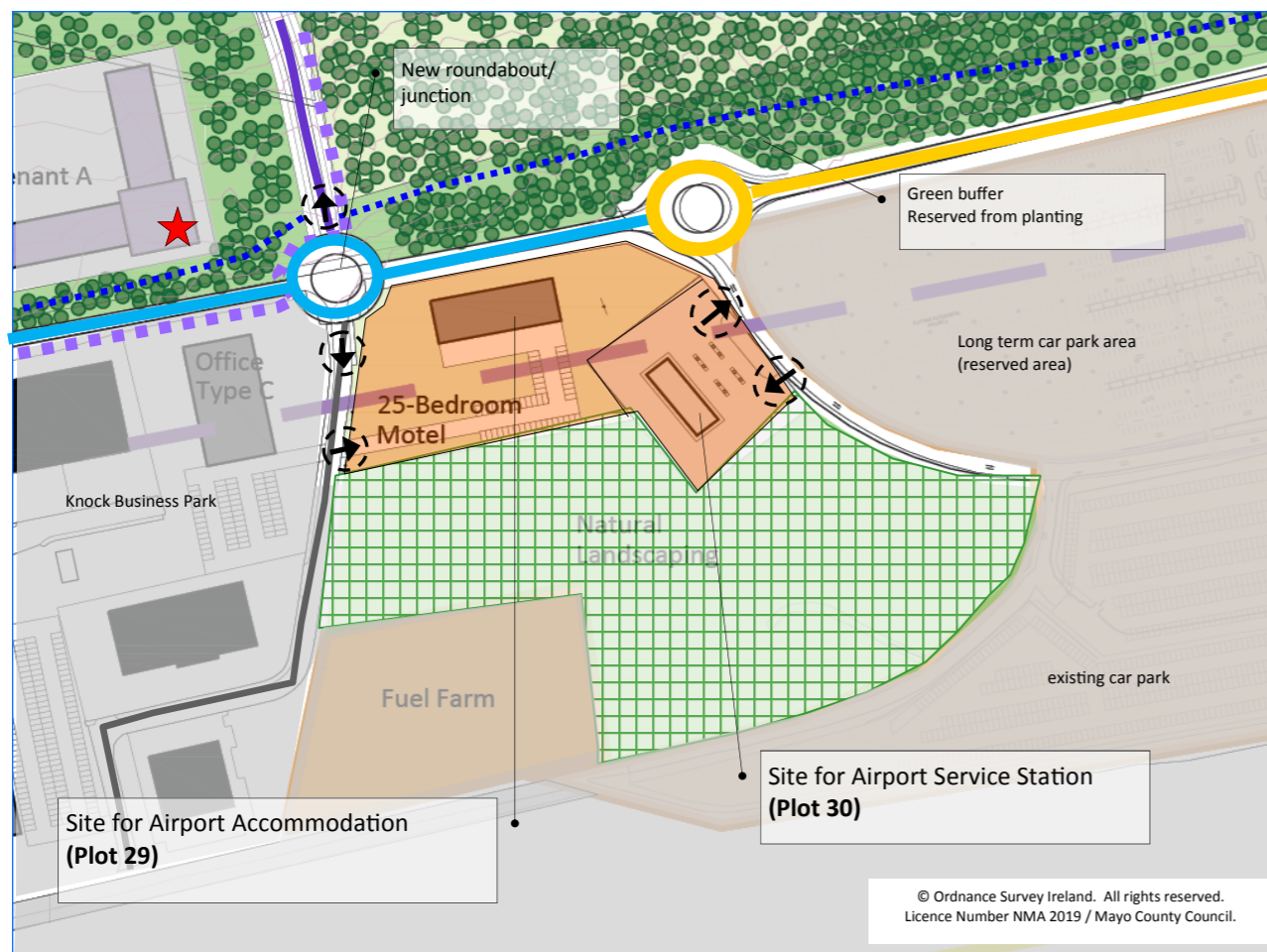


Table 3.3.3 : Airport Service Station & Airport Accommodation

<b>Net Developable Area</b>	1.54 ha
<b>No of Plots</b>	2 no. plots* Plot 29 Plot 30
<b>Quantum of Development (floor space)</b>	Max : 1,425 sq.m
<b>Height / Storey Equivalent</b>	Max 2 storeys Service station will be single storey. Additional height will be considered up to a maximum of 2 storey height equivalent—to accommodate forecourt canopy or other height related considerations.
<b>Open space</b>	2.97 hectares Zone of high water table/ natural landscaping**

\* Two plots are provided to accommodate sites for specific purposes - (a) Airport Service Station and (b) Airport Accommodation i.e. Budget hotel/motel type development.

\*\* The area reserved for natural landscaping/ open space will be considered as an area for the provision of additional car-parking as the demand and pressures of the airport arises.

### 3.3.4 Airport Landside Business Park (ABP)

#### Unique Character

The area consists of lands which includes the existing Knock Business Park. A number of existing warehouse type units are located on these lands, which sets the context for the area and ushers the location of new development into the undeveloped or infill areas. Access and internal roads into these lands are available at this location.

#### Challenges

The underlying zoning set out in the LAP differentiates this area from that of Landside, where development is aligned to that of the ‘airport development zone’ i.e. Business & Enterprise Campus.

In this regard, new development in this area relates to the infilling of plots and will be guided by the permitted uses set out in **Table 2.1.3(ii), Sub area 4.**

Because of the pre-existing nature of development at this location creating a new arrangement is not required. As with the lands proximate to the airport’s runway and the main considerations relate to uses that may implicate the potential densities of people and the types of development permitted within the outer public safety zones.

Height is a consideration at this location, though the existing buildings provide a context for additional new development at this location.

#### Specific Aims

1. Facilitate development within the Knock Airport Business Park in a coherent manner.
2. Ensure that access to the two development plots integrate with the existing road network.
3. A maximum height of no more that two storeys or height equivalent will be allowed at this location, having regard to the height limitations.
4. Permissible development, particularly for Plot 27 shall have regard to use types that command lower employment intensity given its location within the outer public safety zone.
5. To incorporate a cycle way along the southern side of the main local primary route.

Figure 3.3.4 Airport Landside Business Park

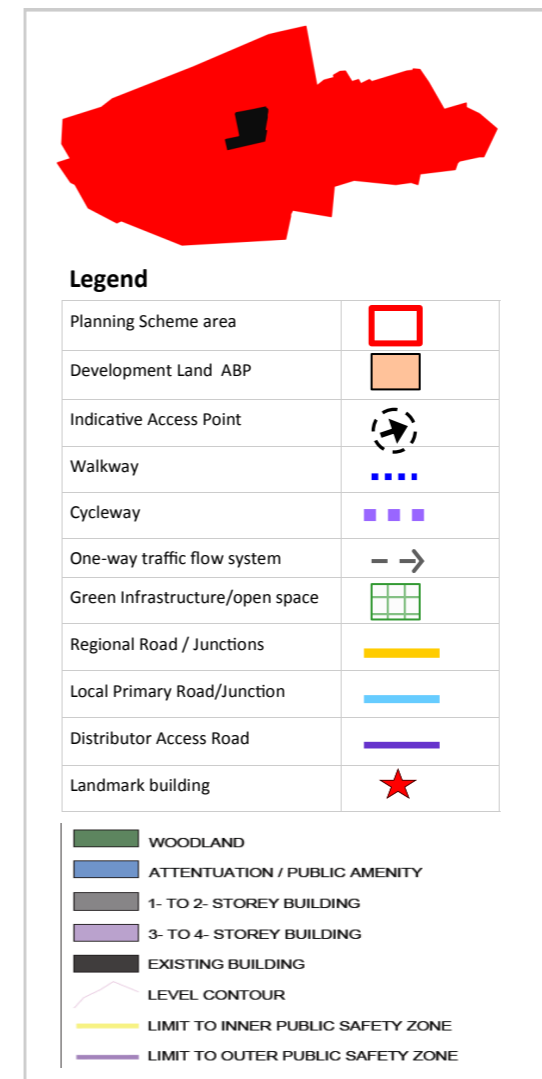
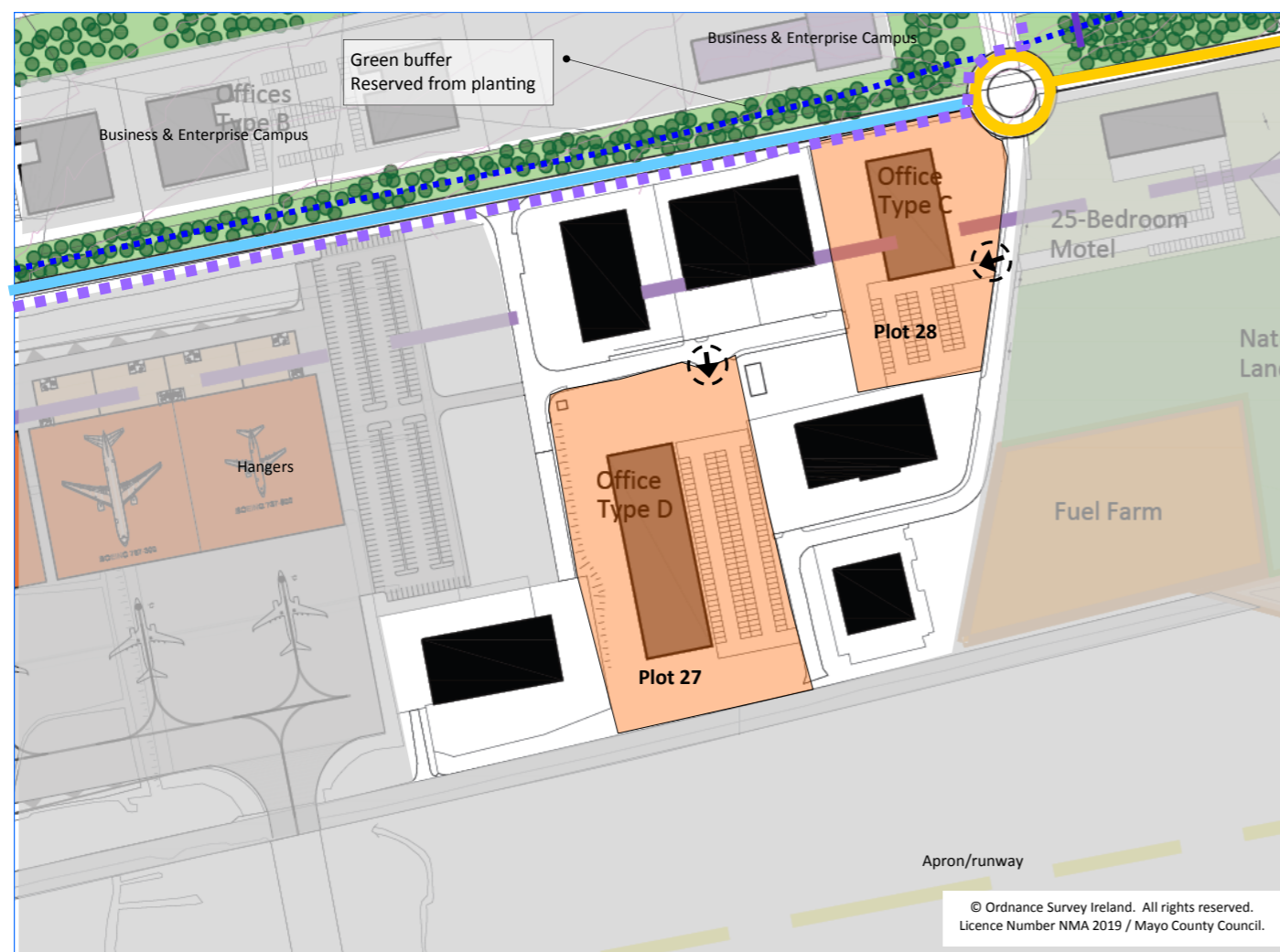


Table 3.3.4 : Airport Landside Business Park

<b>Net Developable Area</b>	2.42 ha
<b>No of Plots</b>	2 no. plots Plot 27 Plot 28
<b>Quantum of Development (floor space)</b>	Plot 27 - Max : 5000 sq.m Plot 28 - Max : 3,000 sq.m
<b>Height / Storey Equivalent</b>	Min : 2 storeys Max: 2 storeys
<b>Open space</b>	N/a



### 3.3.5 MRO Campus

#### Unique Character

This area is characterised by its Airside location, adjoining the runway and apron area while at the same time convenient to the existing road network. There is an pre-existing hanger in situ close to the Knock Business Park development which sets the tone for this area. This area seeks to facilitate development and expand the industrial side of the aviation sector at IWAK. A campus devoted to the expanding Maintenance, Repair & Overhaul sector will build on the established aviation activity present at IWAK. It is envisaged that this area will provide additional hangerage and associated activity, aviation services/workshops as well as warehouse and handling facilities.

#### Challenges

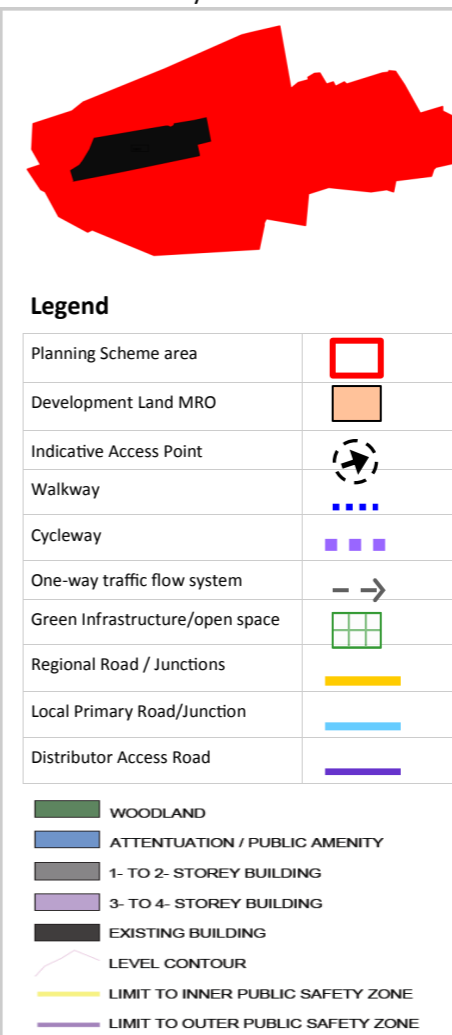
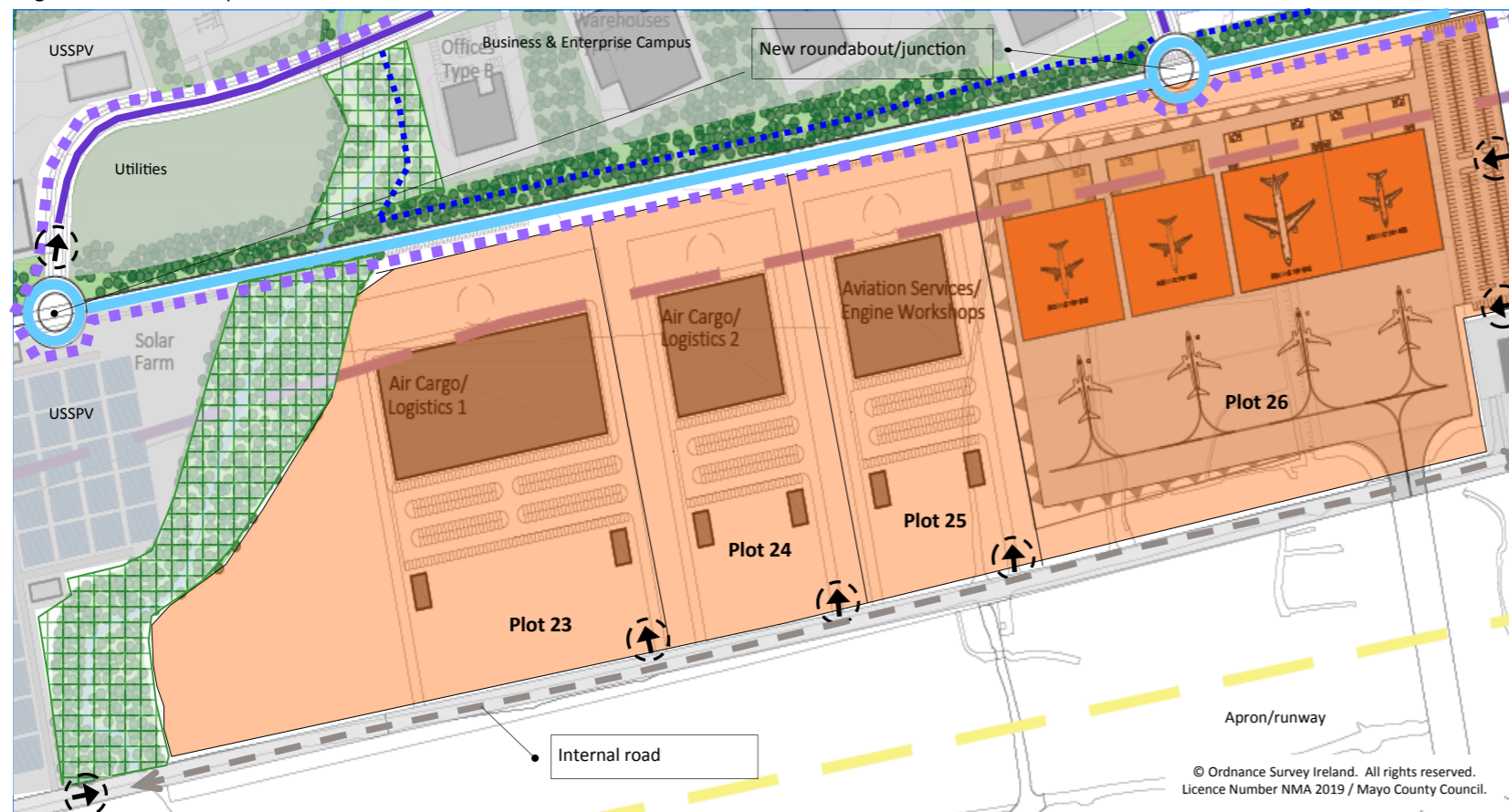
MRO is a growing area in the aviation sector. IWAK’s MRO campus is dedicated to facilitate this growth area and form part of the overall airport complex. The design challenges and considerations within this development area are:

- Development type: development that generates high density employment resulting from safety considerations of the outer public safety zone must be considered. Specific location of office type accommodation or ancillary office type development will require particular design/location considerations.
- Topography : Level changes of the land at this location is important. Infill of land will be required to level the area to be consistent with the adjoining apron/runway surface.
- Height : a maximum height or equivalent is not indicated for the MRO Campus, this is to ensure that undue restrictions are not imposed on aviation related development, particularly hangers, that may require specific height requirements. Any proposals for development within this area will be referred to the Connaught Airport Development Company and the Irish Aviation Authority in this regard.

#### Specific Aims

1. to provide sufficient land dedicated to the growing aviation industrial sector at IWAK.
2. To ensure that density of employment development is considered, in particular with regard to the location of high intensity employment floor space. Office space, including ancillary office space, shall be located outside of the safety zone area
3. To incorporate a cycle way along the southern side of the main local primary route.
4. Provide for the new junction/roundabouts where the Access Distributer Road meets the local primary road.
5. To ensure the green wildlife corridor along the existing waterway is preserved and enhanced.

Figure 3.3.5 MRO Campus



<b>Net Developable Area</b>	22.94 ha
<b>No of Plots</b>	4 no. plots Plot 26 Plot 25 Plot 24 Plot 23
<b>Quantum of Development (floor space)</b>	44,400 sq.m
<b>Height / Storey Equivalent</b>	The Airport MRO Campus development height parameters are not specified. Development within the MRO campus and area will be referred to the Airport Licensing Authority for its consideration relating to building height. Having regard to the type of aviation related development which will occur at this location, building height for new development proposals will be a consideration on an individual bases.
<b>Open space / natural landscaping</b>	1.03 ha Wildlife corridor along existing waterway

### 3.3.6 Hotel & Conference Campus

#### Unique Character

This area will contain a hotel and conference facilities in a campus setting, sensitive to the rural landscape at IWAK. Located on a gateway site, close to the airport, the hotel will form a prominent landmark development. The topography at this location is undulating with a significant gradient falling north/north west from the main public road along the R376. The site is sufficiently large to accommodate a medium to large hotel/conference facility or complex development for such purposes. The hotel/conference facility is located on its own grounds to include a feature attenuation pond and wetland area that will form part of the overall green infrastructure and landscape. In addition, the grounds of the hotel will include a pedestrian/cyclist route that feeds into the wider network. The hotel will provide a focal point for hospitality, business, accommodation, conference and ancillary activity, which will form part of the identity at IWAK.

#### Challenges

- There are a number of design and layout challenges that need addressing in this development area.
- The gradient of the main access road and entrance to the hotel campus.
  - Heights and split level design considerations to aid level differences and integration into the landscape .
  - Landscaping, gradient and interface of hotel with the proposed new main access road serving the campus.
  - Linkage of the hotel/conference facility to the airport by road, pedestrian or cyclist. Careful site considerations are required with regard to the design and layout and use of landscape to create linkages to the business campus and the airport terminal areas.
  - The noise associated with the airport environment should be an informing factor in the design of structures.
  - Sensitivity of design for incremental or phased development.

#### Specific Aims

1. Design and landscaping of the hotel and conference campus shall have regard to the its visual context and surrounding landscape, in particular its visibility on the approach along the R376 and along the proposed new access road serving the hotel and business campus districts.
2. Inclusion of sensitive landscaping and open space as a unique feature as part of the hotel and conference campus.
3. Provision of attenuation pond serving as both as landscape feature and SUDs element. This feature will form part of the initial phase of the campus development .
4. Building design should have regard to how phased or incremental development be accommodated.
5. Access to the Hotel & Conference facility is via the new Access Distributor Road.
6. To incorporate a cycle way along the eastern side of the Access Distributor Road.
7. Provide for the new junction/roundabout where the Distributor Access Road meets the existing local primary road.

Figure 3.3.6 Hotel & Conference Campus

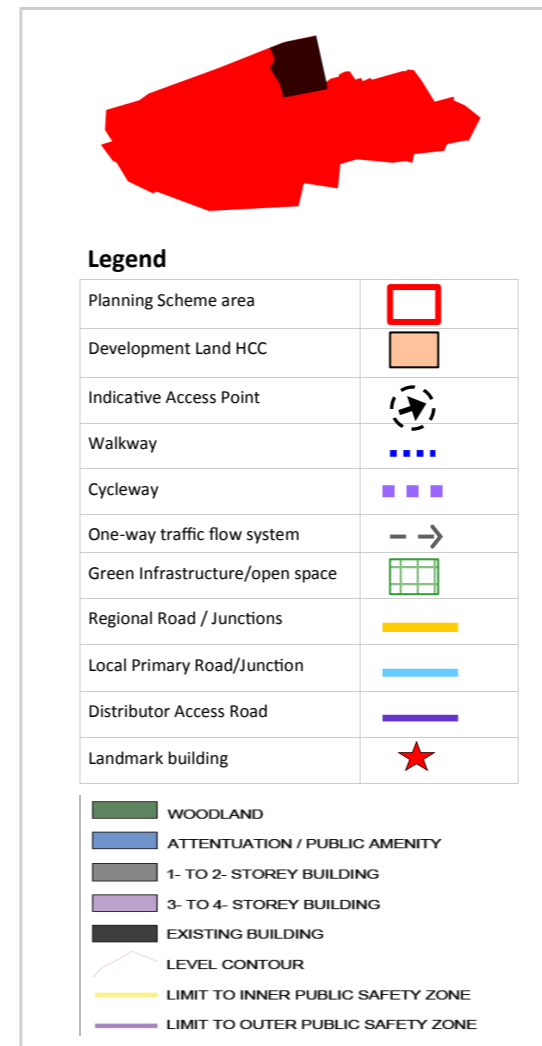
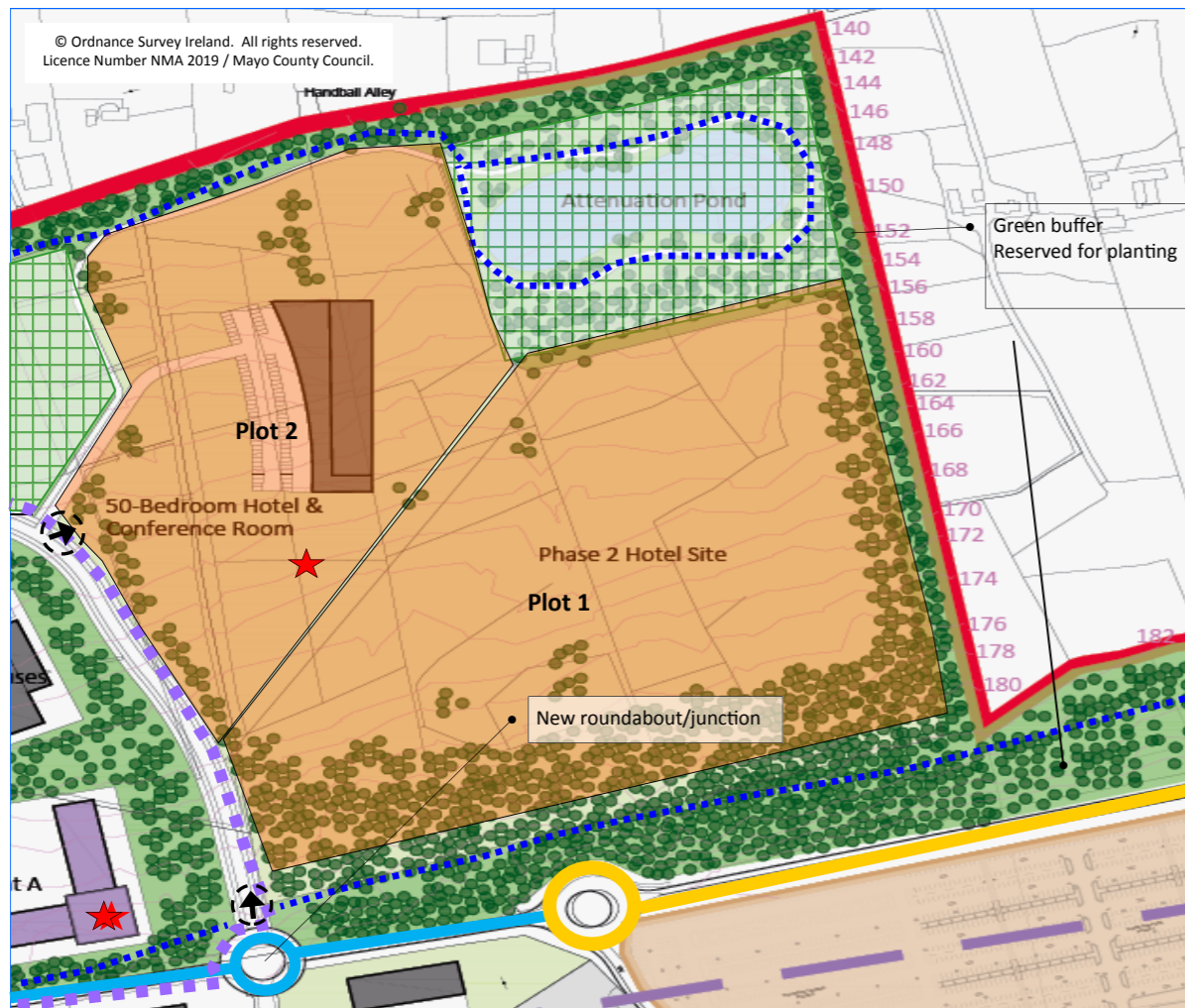


Table 3.3.6 : Hotel & Conference Campus

<b>Net Developable Area</b>	12.88 ha
<b>No of Plots</b>	2 no. plots* Plot 1 Plot 2
<b>Quantum of Development (floor space)</b>	Min: 5,000 sq.m Max : -
<b>Height /Storey Equivalent</b>	Max : 4 storeys + Additional height modifier : 2 storeys**
<b>Green Infrastructure</b>	2.69 hectares Parkland/ public space including attenuation pond
<b>Open space</b>	5.27 hectares Green buffer - reserved for planting

\* Two plots provided to allow for incremental or phased development of the hotel and conference facility over time. Development quantum refers to the maximum floor space for the entire campus (consisting of the 2 plots).

\*\* The hotel is a preferred landmark building location. To facilitate design that may require height as a distinguishing feature or functional necessity, additional height or equivalent of 2 storeys will be considered at this location.

### 3.3.7 Business Campus East (BCE)

#### Unique Character

Business Campus East Development Area occupies a large swath of undeveloped land, zoned *Airport Development* with the purpose of providing for Business & Enterprise development at IWAK. It neighbours the established Knock Business Park located to the south separated by the main public road; to the north is narrow laneway with a number of rural dwellings and farmsteads.

The lands in this development area are unique consisting of rolling bogland with indistinct fields boundaries. Changes in the contours and level differences between the existing main public road at the south and the local road / laneway to the north of the lands are significant and as such provide a unique opportunity to create development of a stratified nature suited to a campus style arrangement. This, along with ample space and panoramic views, provides a unique setting for the location of an airport business and enterprise campus.

#### Challenges

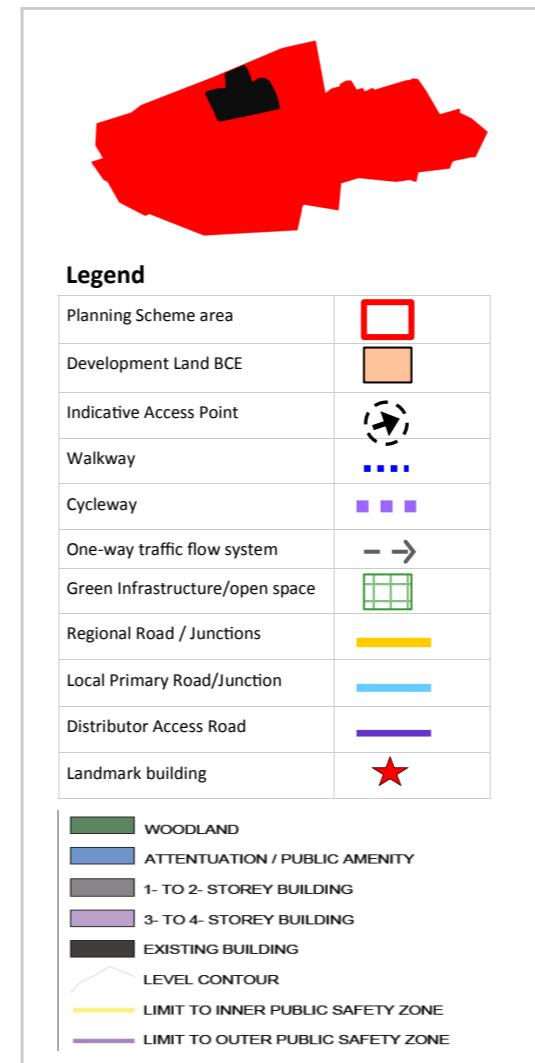
There main design and layout challenges for Business Campus East are:

- Integration of new development in relation to established rural dwellings, farming activity and landscape considerations on lands immediately north.
- Creation of new access road and local road network with regard to the gradient and level differences between lands from the south to the northern portion of the SDZ.
- Access points off new roads with regard to gradient and ease of use.
- Height limitation considerations
- Topography and layout of the business campus
- Extent of lands, type of development on site and the provision of meaningful open spaces in the context of a business campus.

#### Specific Aims

1. Provide a new road network, accessed via a new Distributor Access Road.
2. Provide a new junction/roundabout at the junction with existing Primary Local Road and the Distributor Access Road.
3. Ensure that design of development at Plot 19 is given careful treatment as a landmark building.
4. Inclusion of a cycleway along the Distributor Access road.
5. Provide a min. 10 meter set-back/buffer area consisting of soft landscaping on all development plots which abut the main Access Distributor road (incl. Plots 3, 4, 13,14, 15, 16, 17, 18 and 19).
6. Incorporate a dedicated walkway in the green buffer area along the existing main airport road to the south, and on the perimeter lands immediately north.
7. Provide recreational parkland areas to aid integration of new development into the surrounding rural area while also acting as a transitional zone between neighbouring development areas within the Planning Scheme.

Figure 3.3.7 Business Campus East



<b>Net Developable Area</b>	14.77 ha
<b>No of Plots</b>	12 no. Plots Plot 3, Plot 4 Plot 13, Plot 14 Plot 15, Plot 16 Plot 17, Plot 18 Plot 19, Plot 20 Plot 21, Plot 22
<b>Total Quantum of Development (floor space)</b>	Min: 53,000 sq.m Max : 81,400 sq.m
<b>Green Infrastructure</b>	5.53 hectares Two area of recreational parkland and green buffer along northern boundary

Business Campus East consists of four sub-development areas, see **Figure 2.7(a)** for Planning Scheme Development Areas.

Each of these sub-areas contains a number of development plots, development quantum and height parameters by which to guide development, the details for each are listed in the following **Tables 3.3.7(i), 3.3.7(ii), 3.3.7(iii)** and **3.3.7(iv)**

A minimum of 20% landscaping provision is required on all development plots.

**Table 3.3.7 (i)** Business Campus East Section 1 (**BCE S1**)

<b>Net Developable Area</b>		4.107 ha		
<b>No of Plots</b>		2 no. Plots Plots 18 and 19		
<b>Overall Development (floor space)</b>		Min : 21,000 sq.m Max : 28,200 sq.m		
BCES	Site Area (ha)	Overall Quantum floorspace (sq.m)	Height storeys	Additional Height Modifier
Plot 18	1.687	Min : 5,000 Max : 8,200	2-4	-
Plot 19	2.42	Min : 16,000 Max : 20,000	3-4	+ 1

**Table 3.3.7 (ii)** Business Campus East Section 2 (**BCE S2**)

<b>Net Developable Area</b>		2.345 ha		
<b>No of Plots</b>		2 no. Plots Plot 3 and 4		
<b>Overall Development (floor space)</b>		Min : 6,000 sq.m Max : 12,000 sq.m		
BCES2	Site Area (ha)	Overall Quantum floorspace (sq.m)	Height storeys	Additional Height Modifier
Plot 3	1.345	Min : 3,000 Max : 6,000	2-4	-
Plot 4	1.00	Min : 3,000 Max : 6,000	2-4	-

**Table 3.3.7 (iii)** Business Campus East Section 3 (**BCE S3**)

<b>Net Developable Area</b>		6.45 ha		
<b>No of Plots</b>		5 no. Plots Plot 13, 14, 15, 16 and 17		
<b>Overall Development (floor space)</b>		Min : 17,000 sq.m Max : 32,200 sq.m		
BCES3	Site Area (ha)	Overall Quantum floorspace (sq.m)	Height storeys	Additional Height Modifier
Plot 13	1.30	Min : 3,000 Max : 6,000	2-4	-
Plot 14	2.00	Min : 3,000 Max : 6,000	2-4	-
Plot 15	1.915	Min : 5,000 Max : 8,200	2-4	-
Plot 16	1.055	Min : 3,000 Max : 6,000	2-4	-
Plot 17	1.18	Min : 3,000 Max : 6,000	2-4	-

**Table 3.3.7 (iv)** Business Campus East Section 4 (**BCE S4**)

<b>Net Developable Area</b>		1.87 ha		
<b>No of Plots</b>		3 no. Plots Plot 20, 21 and 22		
<b>Overall Development (floor space)</b>		Max : 9,000 sq.m		
BCES4	Site Area (ha)	Overall Quantum floorspace (sq.m)	Height storeys	Additional Height Modifier
Plot 20	0.605	Max : 3,000	2	-
Plot 21	0.605	Max : 3,000	2	-
Plot 22	0.661	Max : 3,000	2	-



View from Distributor Access Road looking south towards the airport

### 3.3.8 Business Campus West (BCW)

#### Unique Character

Similar to BCE, Business the Campus West Development Area consists of a large portion of land, zoned Airport Development providing for Business & Enterprise development at IWAK.

Levels and contours provide are less undulating than the neighbouring Western Campus. The existing water course provides a wildlife corridor and amenity area which leads to a green /planted area and forming part of the greater green network for IWAK. A campus style arrangement is continued in this area where generous space and the unique setting can be maximised. Green open spaces and recreational parkland along the northern section of the Business and Enterprise Campus forms an important 'green' element of the Scheme, promoting and incorporating biodiversity and green open space .

#### Challenges

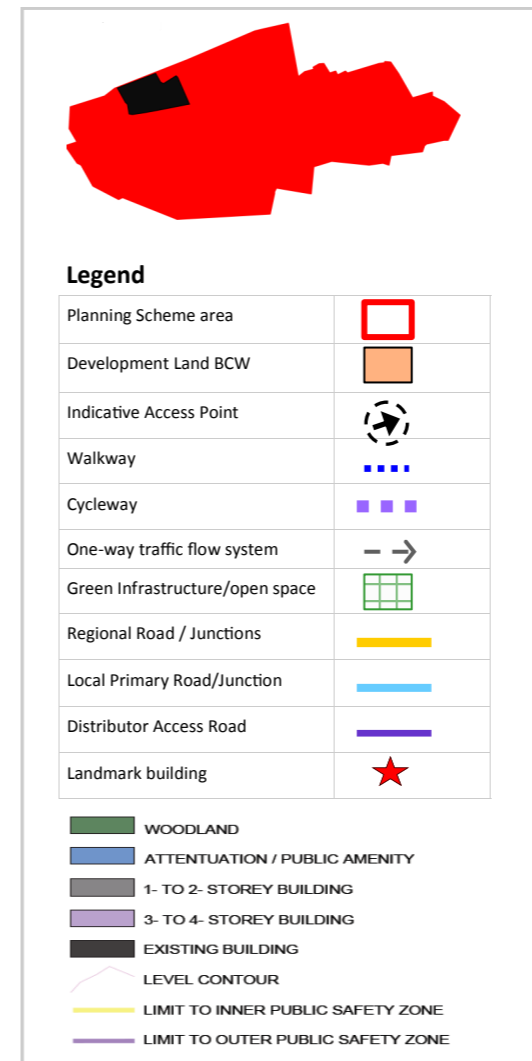
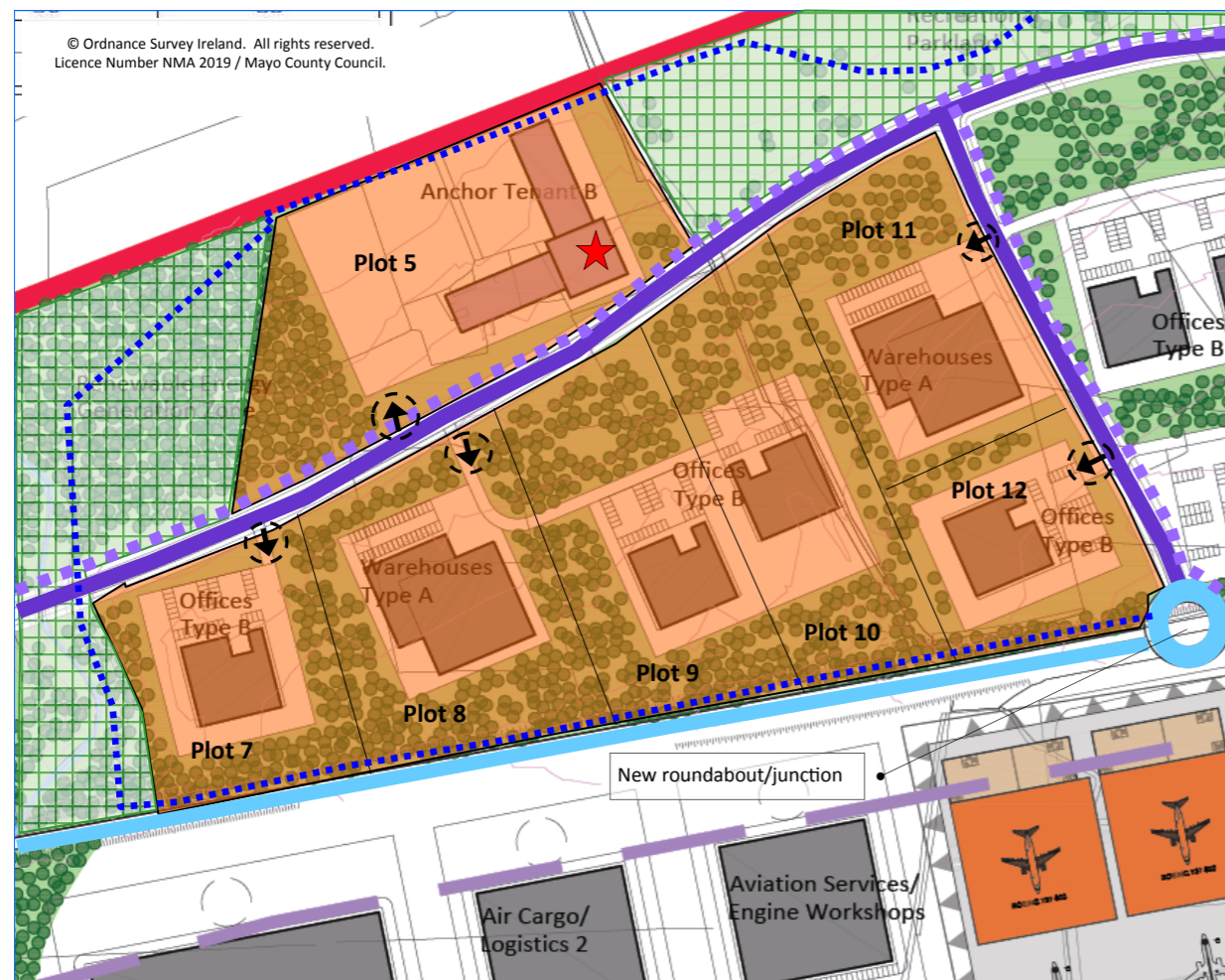
The main design and layout challenges for Business Campus East are:

- The existing watercourse and the nature of the steep ravine-like topography at this location requires design of the Access Distributor Road to take into consideration the presence of a wildlife corridor and green network.
- Creation of new access road and local road network with regard to the gradient and level differences.
- Topography and layout of the business campus on lands with significant gradient differences.
- Landscaping and design that facilitates integration of proposed new development in the rural setting.

#### Specific Aims

1. Provide new road network, accessed via a new Distributor Access Road.
2. Provide a new junction/roundabout at the junction with existing Primary Local Road and the Distributor Access Road.
3. Ensure that building design at Plot 5 is given careful treatment as a landmark building.
4. Provide a 10 meter minimum set-back/buffer area consisting of soft landscaping on development plots 8-11 along the south side main Distributor Access road.
5. Retain and promote native biodiversity by incorporating a wildlife corridor along the existing watercourse including lands dedicated to open space immediately west of Plot 5.
6. Inclusion of a cycleway along the northern side of the Distributor Access road.
7. Incorporate a dedicated walkway in green buffer area along the existing main airport road, through the wildlife corridor area and along the perimeter lands immediately to the north of Plot 5.

Figure 3.3.8 Business Campus West



<b>Net Developable Area</b>	9.80 ha
<b>No of Plots</b>	7 no. Plots Plot 5, Plot 7, Plot 8 Plot 9, Plot 10 Plot 11, Plot 12
<b>Quantum of Development (floor space)</b>	Min : 29,500 sq.m Max : 52,900 sq.m
<b>Green Infrastructure</b>	5.64 hectare

Business Campus West consists of two sub-development areas, see Section 2.7, **Figure 2.7(i)** for Planning Scheme Development Areas.

Each of the sub-areas contains a number of development plots, development quantum and height parameters by which to guide development, the details for each are listed in the **Tables 3.3.8(i)** and **3.3.8(ii)**.

BCW Section 2 consists of 1 large plot (plot 5) located to the north of the new Distributor Access Road. BCW Section 1 is considerably larger consisting of 6 plots.

As with BCE, a minimum of 20% landscaping provision is required on all development plots.

Development in Plots 8-11 must have a minimum 10 meter set back area from the Distributor Access Road, to consist of native planting/soft landscaping.



View from the Access Distributor Road facing south towards runway

**Table 3.3.8(i)** Business Campus West Section 1 (**BCW S1**)

<b>Net Developable Area</b>		7.383 ha		
<b>No of Plots</b>		6 no. Plots Plots 7, 8, 9, 10, 11 and 12		
<b>Overall Development (floor space)</b>		Min : 22,000 sq.m Max : 40,400 sq.m		
BCES	Site Area (ha)	Overall Quantum floorspace (sq.m)	Height storeys	Additional Height Modifier
Plot 7	0.95 ha	Min : 3,000 Max : 6,000	2-4	-
Plot 8	1.53 ha	Min : 5,000 Max : 8,200	2-4	-
Plot 9	1.238 ha	Min : 3,000 Max : 6,000	2-4	-
Plot 10	1.50 ha	Min : 3,000 Max : 6,000	2-4	-
Plot 11	1.24 ha	Min : 5,000 Max : 8,200	2-4	-
Plot 12	0.925 ha	Min : 3,000 Max : 6,000	2-4	-

**Table 3.3.8(ii)** Business Campus West Section 2 (**BCW S2**)

<b>Net Developable Area</b>		2.415 ha		
<b>No of Plots</b>		1 no. Plot Plot 5		
<b>Overall Development (floor space)</b>		Min : 7,500 sq.m Max : 12,500 sq.m		
BCES2	Site Area (ha)	Overall Quantum floorspace (sq.m)	Height storeys	Additional Height Modifier
Plot 5	2.415 ha	Min : 10,000 Max : 12,500	2-4	+1

### 3.3.9 USSPV/Utilities (UU)

#### Unique Character

This area within the Planning Scheme consists of lands for the purposes of utilities i.e. Water and wastewater treatment and a Utility Scale Solar Photo Voltaic (USSPV) installation. USSPV is a renewable energy source that airports nationally and internationally are developing on site with the aim of reducing carbon consumption.

The land zoning objectives of the IWAK LAP supports the provision of an 'appropriate renewable project which does not compromise or interfere with aircraft operations and/or safety'. The solar farm and utilities area takes in lands both sides of the existing primary local road serving the airport. Together with the existing watercourse, proposed wildlife corridor and green spaces, this area will serve as a devoted 'green quarter' for IWAK.

#### Challenges

The main design and layout challenges for the USSPV/Utilities development area are:

- this area is focused on the provision of appropriate renewable energy projects and necessary utility services for IWAK. New development at this location is intended to provide the necessary buildings and structure that are ancillary to renewable energy and utility installations.
- proximity to the airport and risk of impact of the USSPV farm to sensitive receptors including aviation and road users.
- Surface access arrangements during construction phases of USSPV farm.
- Allocation of sufficient quantum of lands to provide a USSPV of sufficient scale and capacity (5 Mega Watt). Approximately 1.6 - 2 ha is required for each Megawatt (MW) of solar panels installed.

#### Specific Aims

1. Retain where possible and promote and enhance the biodiversity of the area by cultivating a green corridor along the existing watercourse (Sonnagh).
2. Establish a Utility Scale Solar Photovoltaic farm at IWAK through the creation of a 'green quarter' that actively contributes to and visibly promotes sustainable energy.
3. Provide sufficient lands to provide a 5 MW facility which can be developed on a phased basis.
4. Provide access off the proposed new Distributor Access Road on lands to the north. Design of the Distributor Access Road must have regard to the ravine-like topography along the provision of the wildlife corridor along the watercourse.
5. Access to Solar Farm Phase 1 is via the proposed new roundabout/junction

Figure 3.3.9 USSPV/Utilities



Table 3.3.9 USSPV/Utilities

<b>Development *</b>	1.14 ha (Plot 6) 8.23 ha (Renewable Installation) 0.82 ha (Waste Water Treatment System)
<b>Solar Farm (USSPV)</b>	Solar Farm Phase 1 (5.36 ha) Solar Farm Phase 2 (2.87 ha)
<b>Green Infrastructure/</b>	4.95 ha 3.65 ha (including perimeter edge and green space east of water course) 1.30 ha (Western Edge of Solar Farm Phase 1)

\* Development in the context of this area is focused on the provision of renewable energy, utilities and ancillary buildings as may be required.

**USSPV :** The Planning Scheme has made provision for 2 no. x 800sq.m Solar Farm Control Buildings located in the Phase 2 development area which is included in the overall Planning Scheme floorspace figures.

**Plot 6 :** This portion of land is intended for the provision and expansion of the necessary utility infrastructure as may be required.

## 4. Phasing, Implementation & Monitoring

### 4.1 Phasing Approach

It is recognised that each of the four core functional development areas at IWAK SDZ (see Section 2.1.2 *Development Functional Areas*) are mutually complimentary but ultimately independent and likely to develop at different time frames. As such, development within these development areas should not be tethered by the pace of unrelated development in order to progress.

It is envisioned that the pace of development will vary over the lifetime of the Planning Scheme and that the various development zones may not finish out in a any linear order. Going forward, the economic context within which investment decisions are made will dictate the order in which the Planning Scheme is implemented. In this regard, a dynamic phasing scheme is required which can accommodate and adapt to a changing economic, employment and tourism context. Furthermore, the specific requirements of the aeronautical industry, which will influence all future development in this SDZ in particular, demand a dynamic phasing scheme.

The planning scheme is very specific in relation to the parameters which each development zone will be required to adhere to. In this context a dynamic phasing scheme which adapts to the available capacity of services such as roads, water and sewerage is considered appropriate. Individual proposals for development will be considered in this context.

Proposed projects will be aligned with the availability of water and sewerage services. As in any planning scheme, these services will be upgraded as the scheme is realised. Similarly, other infrastructure, such as roads, lighting etc., will be upgraded as the scheme develops. In this regard a practical, dynamic phasing of the planning scheme will be employed which will be guided by the availability of existing services and the upgrade of services as required.

### 4.2 Phasing Table

The initial phases, with regard to available water and sewerage services are shown in the table below:

**Table 4.2(i) Phasing of Development**

Phase	Workforce	Water Supply	Sewerage Treatment
Phase 1	496 persons	Existing Capacity	Existing Capacity
Phase 2	1330 persons	Existing Capacity	Upgrade Treatment Plant
Additional Phases	2471 persons	New Water Supply	New Treatment Plant
<b>Total</b>	<b>4297 persons</b>		

There is sufficient capacity in both water supply and waste water treatment to carry out Phase 1. Phase 2 will require an upgrade of the existing waste water treatment plant. The design/construction for upgrading the existing plant should be carried in tandem with the development of Phase 1.

### 4.3 Planning Applications

Mayo County Council as the Development Agency for IWAK SDZ promotes and encourages potential applicants to engage with its Planning Section in advance of making a planning application by way of pre-planning meeting(s) in relation to development proposals within IWAK SDZ.

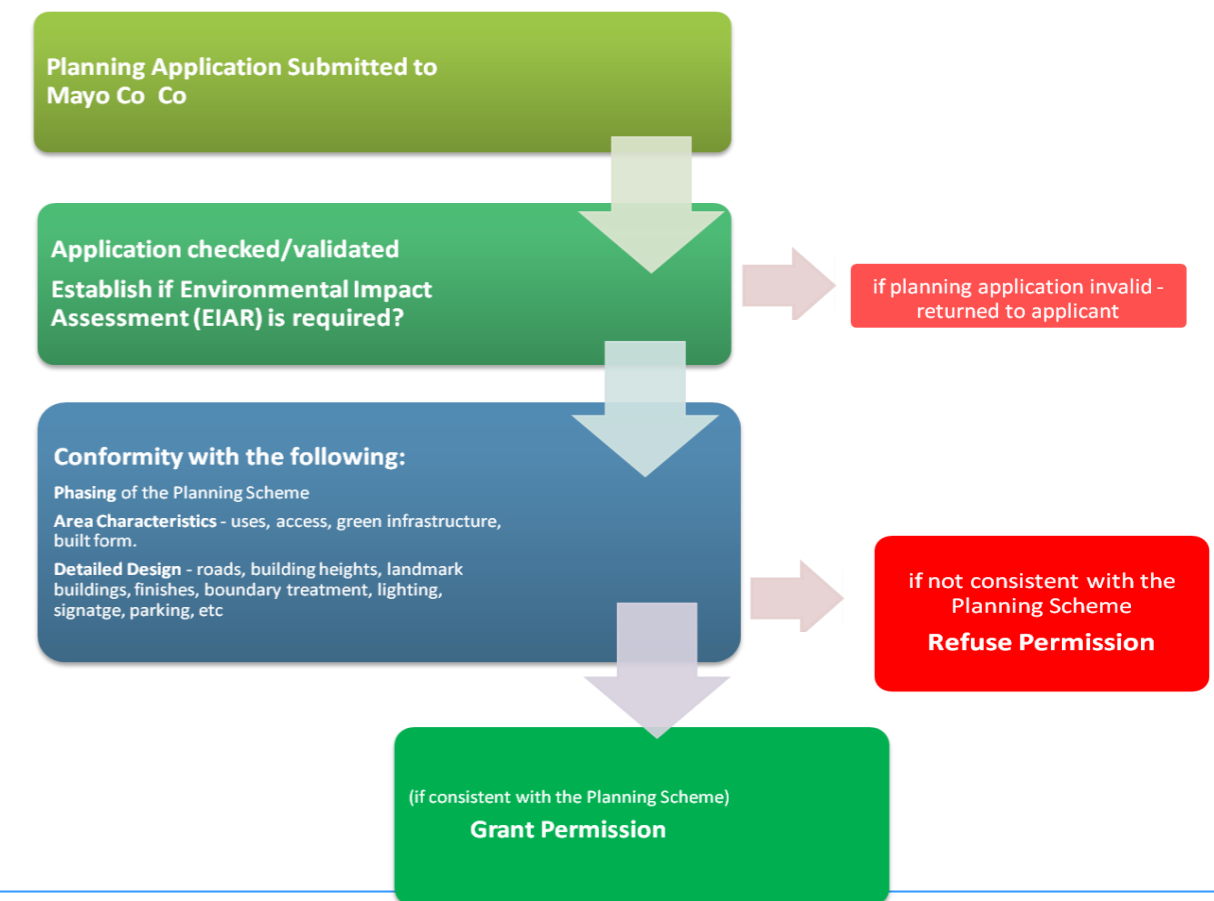
There is no limit on the extent of development that may be included in any single planning application. However, implementation of permissions granted will be subject to the available services and infrastructure of the Planning Scheme. All planning applications submitted for either works and/or development within the Planning Scheme area shall comply with the relevant section of the Planning and Development Regulations. Development Proposals shall provide a schedule and report to include the following:

- a). Details of the required works for the application i.e. infrastructure, services, facilities and amenities (if applicable), extent, type and location of development;
- b). Details of how the proposed development satisfies the quantitative parameters of the Planning Scheme for the relevant Development Area;

All planning applications submitted for development within IWAK SDZ will be assessed against the provisions of the approved Planning Scheme. Third party submissions may be submitted but are only considered in the context of the parameters set out in the Planning Scheme. Where proposals do not conform with the Planning Scheme, planning permissions will be refused. Where proposals for development are consistent with the approved Planning Scheme, permission will be granted. Grant of permission is effective from the date of grant, see **Figure 4.3(a)**.

Proposals for development within IWAK SDZ, will be considered under the following main headings: availability of services & infrastructure, land use, height, development area characteristics and overall design.

**Figure 4.3(a) Planning Application Process**





#### 4.4 Monitoring & Review

Mayo County Council as the Development Agency for IWAK SDZ will monitor the progress of the Planning Scheme on an annual basis.

A review of the Planning Scheme shall be undertaken if and when the Planning Scheme realises development of c.50% gross floorspace or deemed necessary by the Development Agency.

#### 4.5 Funding & Implementation

All developments are subject to development contribution payments in accordance with the Mayo County Council Development Contribution Scheme; Special Development Contributions; and /or Supplementary Development Contribution Scheme. Details available on the Mayo County Council website at [www.mayococo.ie](http://www.mayococo.ie)

In certain cases, the completion of works required to facilitate development within the Planning Scheme are outside the direct control of either Mayo County Council, the landowners or the Development Agency. All measures available to provide funding for the delivery of infrastructure and facilities in IWAK will be pursued in conjunction with landowners/developers.

The economic appraisal carried out in preparation of this Planning Scheme recommended the establishment of a development company or business partnership as a crucial element in enticing and coordinating investment and accessing available funding for the SDZ.

## 5. Minimising Adverse Affects on the Environment

### 5.1 Strategic Environmental Assessment (SEA)

The Planning Scheme has been prepared in accordance with the requirements of the Planning and Development Act, 2000 (as amended), the Planning and Development (Strategic Environmental Assessment) Regulations 2004 and Article 6 of the Habitats Directive 92/43/EEC. The Strategic Environmental Assessment (SEA) and Appropriate Assessment (AA) processes, undertaken in tandem with the preparation of the Planning Scheme, have ensured full integration and consideration of environmental issues throughout each stage of the preparation process.

Strategic Environmental Assessment (SEA) is the formal, systematic evaluation of the likely significant environmental effects of implementing a plan or programme before a decision is made to adopt the plan or programme. SEA is a mandatory requirement during the preparation of a Planning Scheme for Strategic Development Zones.

The primary focus of the SEA process is the prediction, evaluation and mitigation of the impacts from a plan or project and the likely significant environmental effects that may result from the implementation of the Planning Scheme. The significant environmental effects from the implementation of the Planning Scheme were assessed in Section 7 of the Environmental Report. A list of mitigation and monitoring measures were formulated in Section 8 and 9 of the Environmental Report to prevent, reduced off-set any potential significant adverse effects of implementing the Planning Scheme.

The Strategic Environmental Assessment carried out during the preparation of the Planning Scheme for IWAK SDZ has ensured that any potential significant environmental impacts of the Plan have been identified and that they have been given appropriate consideration. Consultation on the proposed plan and environmental report has further contributed to the development and finalisation of the adopted Planning Scheme.

The SEA statement will not be the final stage of the process as the plan will be monitored over its lifetime and reported on at regular intervals to assess its impact on the environment.

### 5.2 Appropriate Assessment (AA)

The Ireland West Airport Knock SDZ Planning Scheme has been evaluated with regard to the designated Natura 2000 sites within the wider study area. Potential impacts affecting the Qualifying Interests of the River Moy SAC have been evaluated, with specific reference to the indirect water quality impacts affecting Annex II listed Sea/Brook lamprey, Atlantic salmon, Otters and Freshwater Crayfish.

With the successful implementation of mitigation and monitoring measures, the proposed development, either alone or in-combination with other plans or projects will not result in significant adverse effects to the integrity of any European Sites, in view of their conservation objectives.

The AA has concluded that the proposed development resulting from the IWAK Planning Scheme will not, beyond reasonable scientific doubt, adversely affect the integrity of any European Site (Natura 2000 site); whether directly, indirectly or cumulatively.

### 5.3 Strategic Flood Risk Assessment (SFRA)

As part of the Strategic Flood Risk Assessment based on guidance from the “The planning System and Flood Risk Management Guidelines” issued by the DoEHLG and the Office of Public Works in November 2009, stages 1 & 2 of the SFRA was prepared. From stage 2 it was considered that stage 3 of the Flood Risk Assessment was not required.

The Development Standards set out in the Mayo County Development Plan (Section 44.3, Volume 2) also requires that Surface Water Systems shall be designed in accordance with SUDs (Sustainable Urban Drainage Systems) and Surface Water Attenuation provided in order to restrict flows from development to greenfield run off rates. The maintenance of the SUDs features e.g. swales, debris removal etc should be carried out by an agreed body at regular intervals until such time as the development is taken in charge by the council.

Provision should be made for swales /filtration drains, detention basins/ponds along the new distributor road, to ensure no adverse impact on current peak flows in the rivers and streams downstream of the Planning Scheme.