ALBERTA AEROTROPOLIS

Aerotropolis Viability Study – Final Report

Prepared for the Leduc Partnership

by MXD Development Strategists / Stantec

September 2015

ALBERTA

AEROTROPOLIS

Final Report – September 2015

Prepared for the Leduc Partnership

AEROTROPOLIS VIABILITY STUDY

MXD Development Strategists Ltd.

+

Stantec

Table of Contents

Table of Contents

MXD DEVELOPMENT STRATEGISTS

Stantec

Table of Contents

LIST OF FIGURES

LIST OF TABLES

1 Introduction

Introduction

Project Overview

The City of Leduc and Leduc County have collaborated to form the "Leduc Partnership", backing the preparation of the *Aerotropolis Viability Study (AVS)* which is a comprehensive plan and feasibility study for the development of an Aerotropolis.

The AVS assesses the viability of various land-uses and economic industries centered around EIA that would improve the seamless connections between air, ground, and rail, and create new business through economic diversification that rely upon transportation connectivity.

This assignment was performed by the collaborative team of MXD Development Strategists (MXD), and Stantec, and was performed between May 2014 and July 2015.

A concurrent Joint Infrastructure Master Plan & Services Evaluation led by Cima+ provided vital information regarding future infrastructure requirements for the Aerotropolis plan created by MXD and Stantec.

This Final Report provides the findings and recommendations based on all qualitative and quantitative data analysis, stakeholder engagement, and background research. There are two documents that accompany the Final Report. A "Summary Background Document" with background research, and an "Action Plan" that presents step-by-step implementation.

The following tasks were conducted throughout the 15-month process to arrive at final recommendations for the Aerotropolis:

- Stakeholder Consultation
- Background & Demographic Analysis
- Aerotropoli and Airport Cities Benchmarking
- Market Analysis for Industrial, Office, and Retail Real Estate Asset Classes
- Economic Cluster Analysis and Identification
- Highest & Best Use Analysis
- Preferred Land Use & Economic Development Program & Allocation
- Economic Impacts
- Transportation & Servicing Infrastructure Review
- Phasing Strategy
- Zoning & Land Use Policy Directions
- Catalytic Projects (Transportation & Development)
- AVS Action Plan
- Marketing & Branding Directions

MXD DEVELOPMENT STRATEGISTS

Stantec

Introduction

Study Area

The Study Area for the AVS is located 23 kilometers south of the City of Edmonton within two jurisdictions, the City of Leduc and Leduc County. The AVS focuses on land surrounding EIA, primarily areas that are zoned for employment and industrial uses.

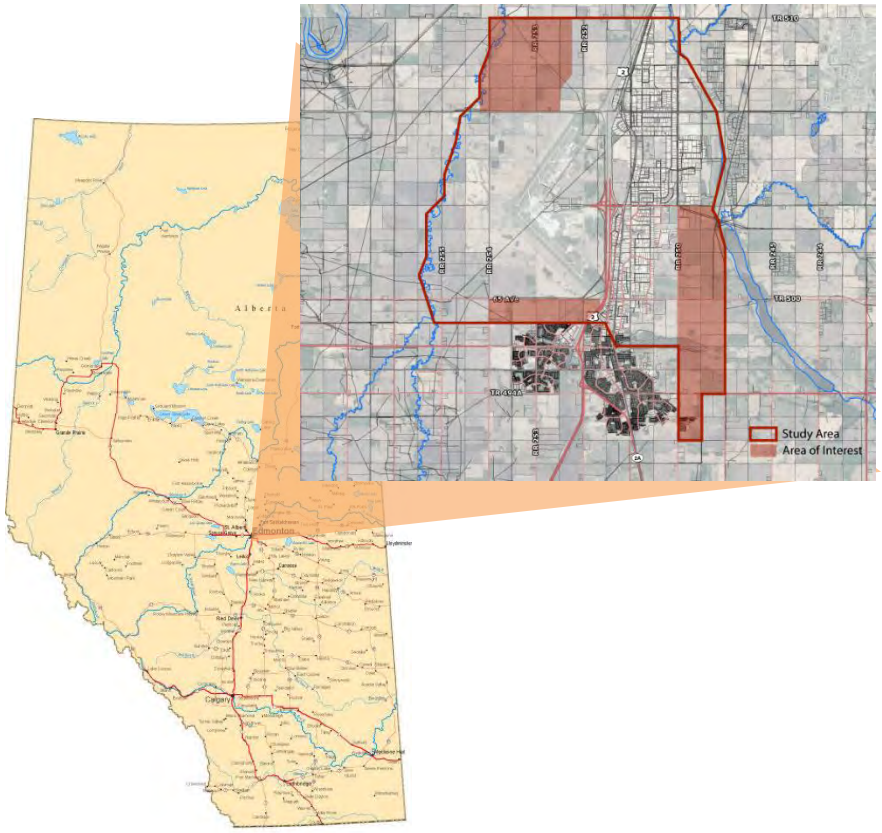
There are three priority areas of interest (which ultimately were split into four later in the planning process) that the AVS targets for future growth, totaling 2,345 hectares.

One of the largest current economic draws to the study area are the vast array of industrial and business parks, including Nisku which is North America's 2nd largest Oil & Gas cluster industrial park.

When combined with Leduc Business Park and surrounding businesses, there are 1,000+ companies in the study area, employing over 25,000 workers (both full-time and seasonal).

Although many of the companies are locally based, approximately 75% of area firms conduct business on an international scale, an important basis for an Aerotropolis.

Figure 1.1 AVS Study Area Location & Priority Areas



MXD DEVELOPMENT STRATEGISTS

Stantec

Introduction

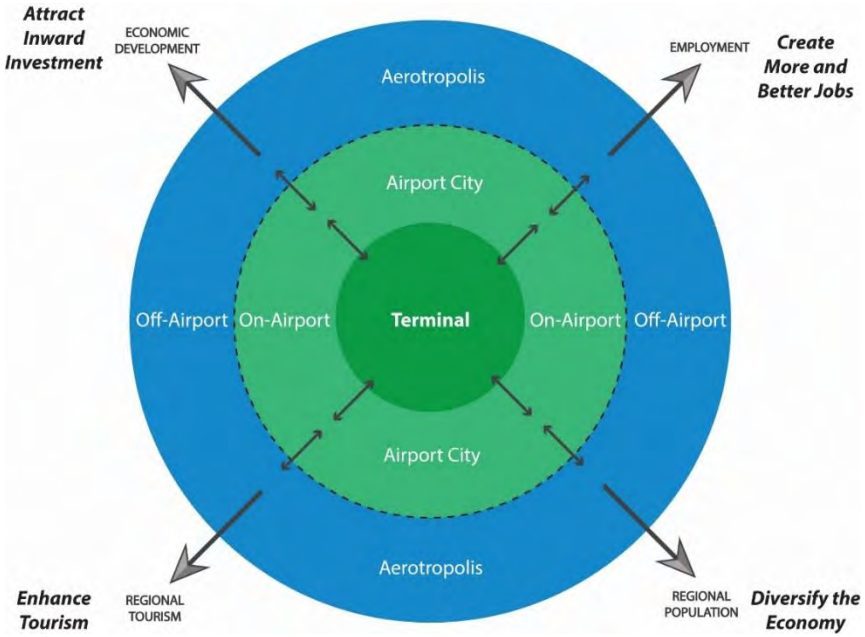
The Aerotropolis Concept

In the Aerotropolis concept, a core "Airport City" area on and adjacent to the airport brings together aviation and air cargo-focused businesses, along with retail, office, accommodation, educational, recreational, and business amenities in a dynamic hub of activity.

The broader off-airport "Aerotropolis" area leverages the strength of existing businesses and encourages further economic diversification and job growth.

The overarching goal of the Alberta Aerotropolis would be to further leverage the tremendous connectivity of EIA to generate economic activity, particularly among sectors that utilize passenger air travel and air cargo, while taking utmost care to protect and support the existing businesses and residents of the Leduc Region.

Figure 1.2 Aerotropolis Model



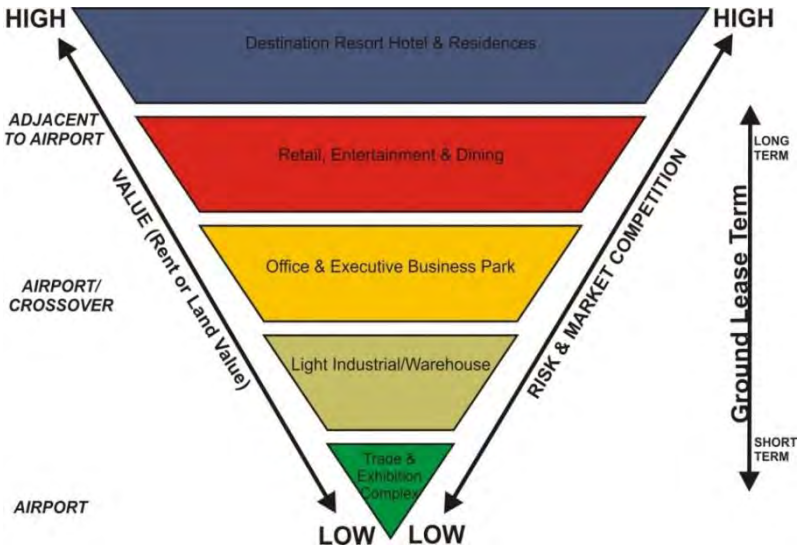
Introduction

The Aerotropolis Concept

The advantages of Aerotropolis-based planning can be best understood by studying the assets associated with a major airport. Beginning at the centre, access to the runways themselves are a substantial asset that many airports have yet to fully capitalize upon. In an increasingly time-sensitive global economy, there is significant latent development potential for "Just In Time" industries that can benefit from airside locations.

Terminal buildings and other within-the-fence development also represent opportunities currently being undertaken by many of today's airports and regional governments. With the rapid growth in air travel, this "close-in" airport support activity represents additional development potential. The key focus of the Aerotropolis, however, is the next level of geographic proximity: lands located just outside the fence and within the adjacent region.

Figure 1.3 Aerotropolis Pyramid

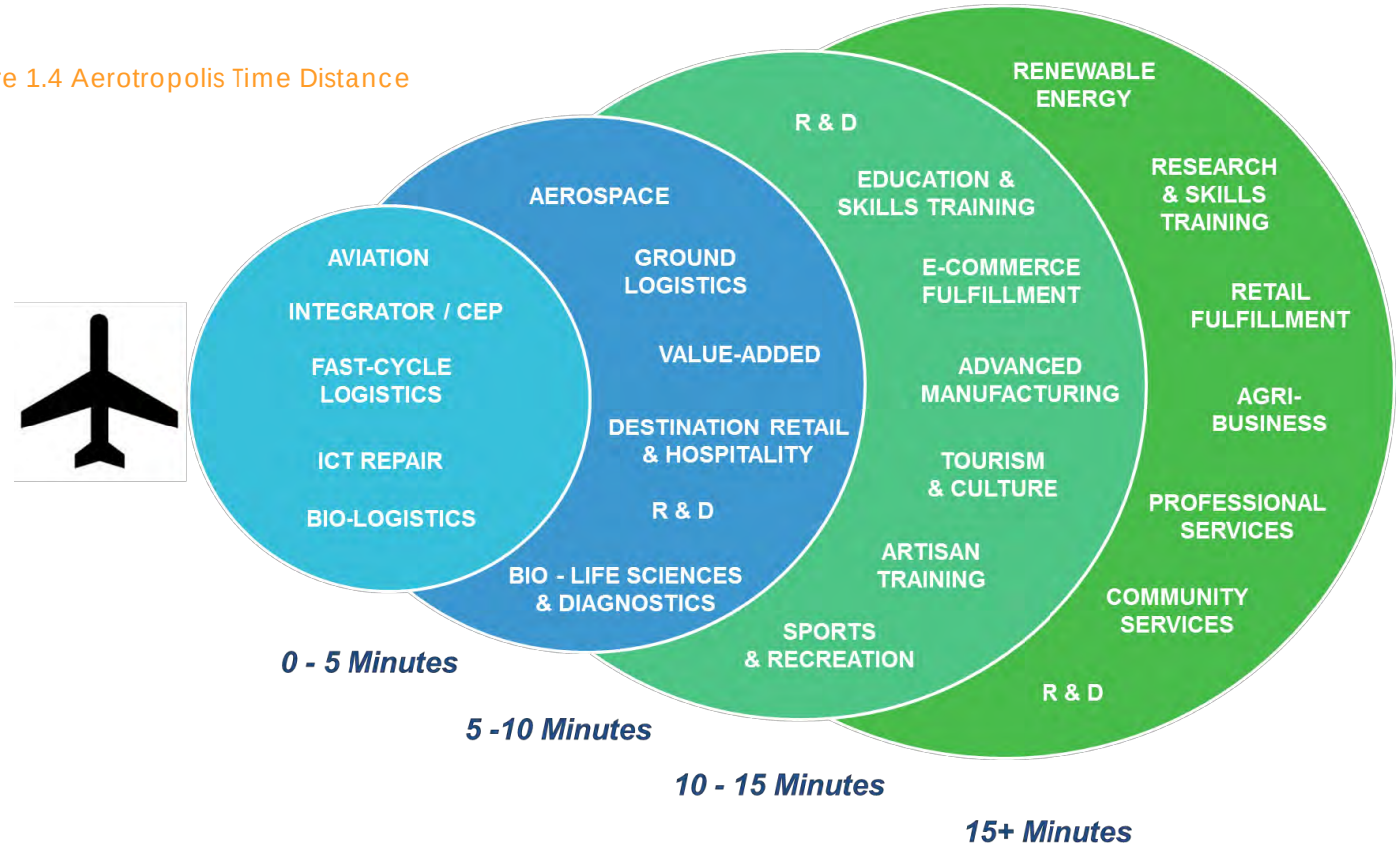


Introduction

The Aerotropolis Concept

The Aerotropolis land use framework is defined by the time-distance connectivity continuum as seen in the below figure.

Figure 1.4 Aerotropolis Time Distance



Introduction

The Aerotropolis Concept

Non-Airside lands tend to follow a continuum of land value which correspond to distance from the airport Land that is directly adjacent to the airport is limited in quantity and so is usually more highly valued than lands located further from the airport.

For example, hotels tend to perform well when adjacent to the airport. When clustered into a high-amenity area with restaurants and other services, they are able to capture a significant share of the regional tourist market, business travelers, flight crews and other key sources of business.

The clustering of airport hotels at a variety of price points attracts a broad range of markets and facilitates important ancillary services such as shuttle buses. Therefore, land zoned for Accommodation that is located adjacent to the airport tends to command a premium over most other hotel sub-markets within a given metropolitan area. Consequently, a hotel cluster located adjacent to the airport is common to most Aerotropolis development plans.

Retail, Entertainment & Dining also tends to benefit from airport proximity, although not to the same extent as Accommodation. These functions are able to capitalize on the visitor markets as well as the high volume of traffic associated with major airports. This is evidenced by the growing number of designer outlets and major big box stores that are choosing to locate near to, but not necessarily adjacent to, airport properties.

While some Office tenants do prefer close proximity to the airport, particularly those with executive and sales forces that travel frequently, the majority of companies base their location decision on being within a 30-minute drive to the airport. Therefore, land suitable for Office development that can compete with near-airport Office development is typically plentiful and the potential rental premium for near-airport space is typically minimal.

Introduction

The Aerotropolis Concept

As such, Office development within the Aerotropolis is often located at some distance to the airport itself, with some niche Office space (typically high-amenity Executive Office properties) located closer in. Similar to Office, most Light Industrial tenants can occupy lower valued land further afield. Notable exceptions are those niche Industrial uses that require airside access or to be located very near to the airport (within a 5-minute drive). Within the Alberta Aerotropolis context there is potential for Light Industrial users that could benefit from close proximity to the airport, in such economic clusters such as Aerospace & Aviation, and Life Sciences.

A final consideration for planning the Aerotropolis and surrounding Aerotropolis relates to development risk. For example, Hotel and Retail development can be risky as they require significant upfront investment and are less conducive to phasing than Office/Business Parks and Industrial Estates. Education and institutional facilities are typically funded by the public sector or joint-ventured with private interests and are less risky propositions for the private sector.

Ground lease terms tend to be longer for high value, capital-intensive projects such as Retail and Hotels, while Industrial developments are significantly cheaper to build and do not require as lengthy ground lease terms.

The land development relationships described provide the framework for successful Aerotropolis planning. By identifying the quantity of demand for various land uses and the optimal location to accommodate this demand based off economic cluster analysis, a prioritized planning schedule can be formulated.

MXD DEVELOPMENT STRATEGISTS

Stantec

Introduction

Iconography

Iconography is used throughout the report to convey various economic clusters and several supplementary uses. These economic clusters and supplementary uses are allocated within development typologies such as industrial, office, intuitional, mixed-use commercial space, etc.

Aerospace & Aviation
Research, development, design, & manufacturing of aeronautical and aviation based goods.

Energy
Research, development, design, & manufacturing of goods for the oil & gas and renewable energy industry.

Agri-Business
Based around agricultural production, food processing, sales, manufacturing of related machinery, and research & development.

Transportation, Logistics & Distribution
Focuses on the multi-modal movement and storage of goods between point of origin and consumers.

Information Communication Technology (ICT)
Integration of communications, high-tech, software, manufacturing of tech based goods, and storage of data.

Advanced Manufacturing
The use of new and advanced technologies that create efficiencies in the manufacturing process and improve the end-product.

Life Sciences
The study of living organisms, connected to agriculture, industrial bio-tech, medicine, pharmaceutical and food sciences.

Education
Post-Secondary institutions and skills training based towards economic clusters present in the Aerotropolis.

General Business
Companies and business that does not fall under the chosen eight economic clusters. Also includes supplementary business services.

Transit-Oriented Development
Higher density development, typically made up of office, retail, and services, based around transit stations.

Retail
Shopping, food & beverage, and services for the local population living in the Aerotropolis, and employees working in the local area.

MXD DEVELOPMENT STRATEGISTS

Stantec

2 Economic Cluster Summary

Economic Cluster Summary

Target Economic Cluster Methodology

MXD and Stantec performed an Economic Cluster Analysis to document the existing economic clusters that have established themselves in the study area, and recommend a palate of emerging economic clusters that have the potential feasibility to grow and be successful within the Alberta Aerotropolis.

Focus is paid attention to which of these economic clusters could benefit the inherent connectivity and being situated within the Alberta Aerotropolis, and thus incorporated into the land uses around EIA to stimulate the economic development gateway.

To develop an economic cluster analysis for the Alberta Aerotropolis, it is integral to focus on clusters that have the highest potential and feasibility for growth over the long term in the study area.

MXD DEVELOPMENT STRATEGISTS

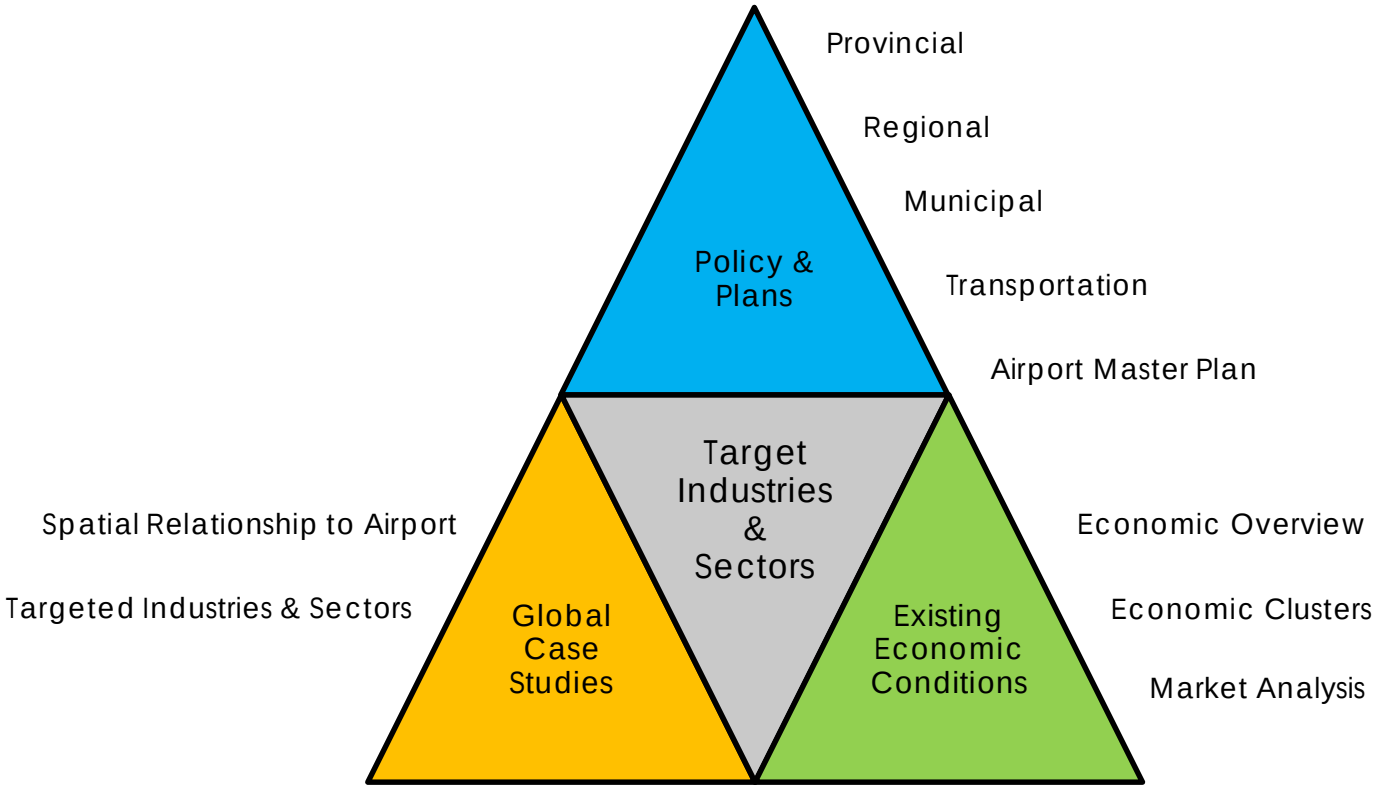
Stantec

Economic Cluster Summary

Target Economic Cluster Methodology

The right mix of target industries and sectors are necessary for an Aerotropolis to be genuinely local.

Figure 2.1 Triangulation Method of Identifying Target Industries & Sectors



Economic Cluster Summary

Target Economic Cluster Methodology

The consultants investigated the current and targeted economic sectors from a variety of sources including the Province of Alberta, Conference Board of Canada, City of Edmonton EDA, Leduc-Nisku EDA, and City of Leduc.

Many of the established, growing and targeted economic clusters are shared by the City of Edmonton, the City of Leduc, Leduc County.

All sources list established economic clusters such as energy, manufacturing, logistics, and ICT as clusters that will continue to dominate the economic landscape.

After analyzing the various sources and comparing them to clusters that have been established in Airport Cities and Aerotropoli across North America and around the world, eight targeted clusters were chosen to go under investigation in greater depth.

Figure 2.2 Targeted Economic Clusters Under Investigation

MXD DEVELOPMENT STRATEGISTS

Stantec

Economic Cluster Summary

Summary

The energy sector within the Alberta Aerotropolis will continue to be the dominant cluster, with various other clusters that have been reviewed feeding off of energy such as transportation, distribution, and advanced manufacturing. Emerging and sunrise clusters that are not currently present in the study area, but have viability in the future can be established to create a diversified economy for the region.

Economic clusters such as ICT and Life Sciences have strong connections and reliance on proximity to educational institutions such as the University of Alberta and NAIT, which depends on established research centres and programs. These clusters also rely on a highly-educated skilled workforce who prefer to live and work in amenity rich environments.

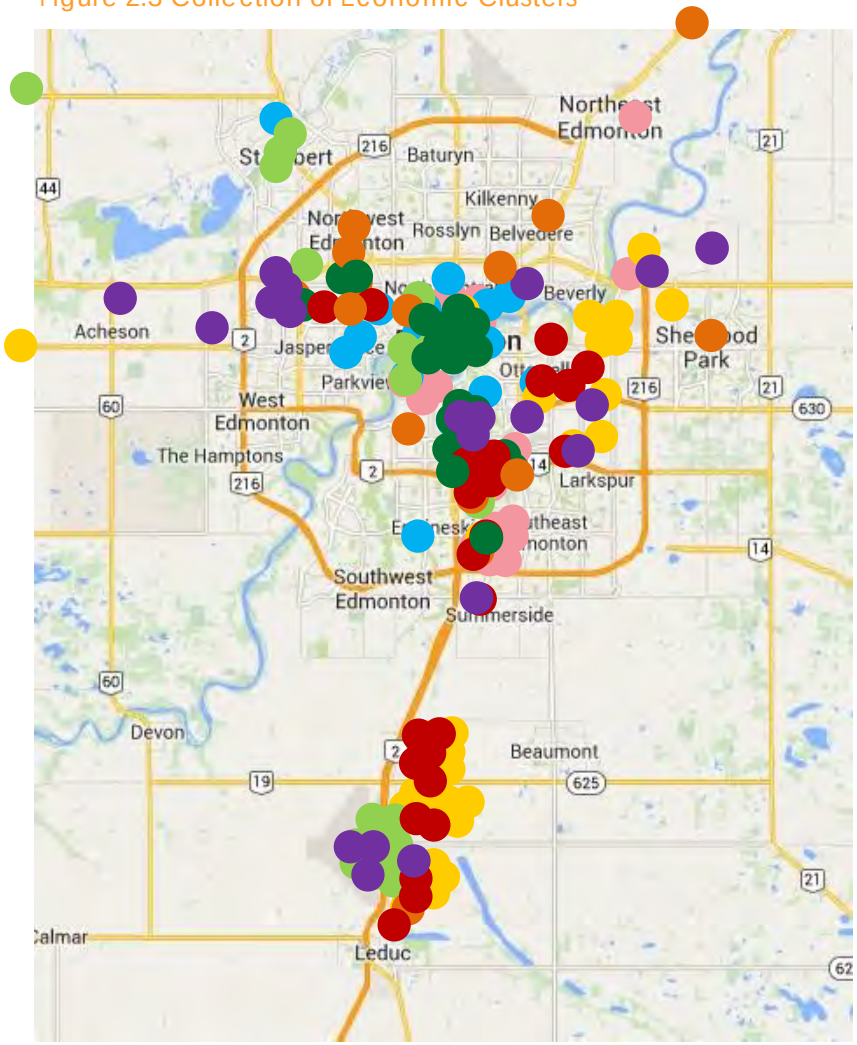
Funding and private angel investment is required for clusters such as Aerospace, Life Sciences, and ICT, with less reliance on government funding moving forward.

Aerospace and Aviation is a niche sector for Northern Alberta, with strong competition in-province from Calgary that has a burgeoning MRO market, while Central and Eastern Canada are well established with advanced manufacturing, and research and development. There are opportunities for the Aerotropolis to expand in this cluster, and it relies on finding specialized sub-markets that are growing but have yet to be fully capitalized upon.

The Agrivalue Processing Business Incubator and Development Centre is a catalyst for the region and can be used to create synergies within the cluster.

Economic Cluster Analysis

Figure 2.3 Collection of Economic Clusters



- Transportation & Distribution
- Advanced Manufacturing
- ICT
- Agri-Business
- Aerospace
- Energy
- Life Sciences
- Education

MXD DEVELOPMENT STRATEGISTS

Stantec

Economic Cluster Summary

Figure 2.4 Current Economic Cluster Presence in Study Area

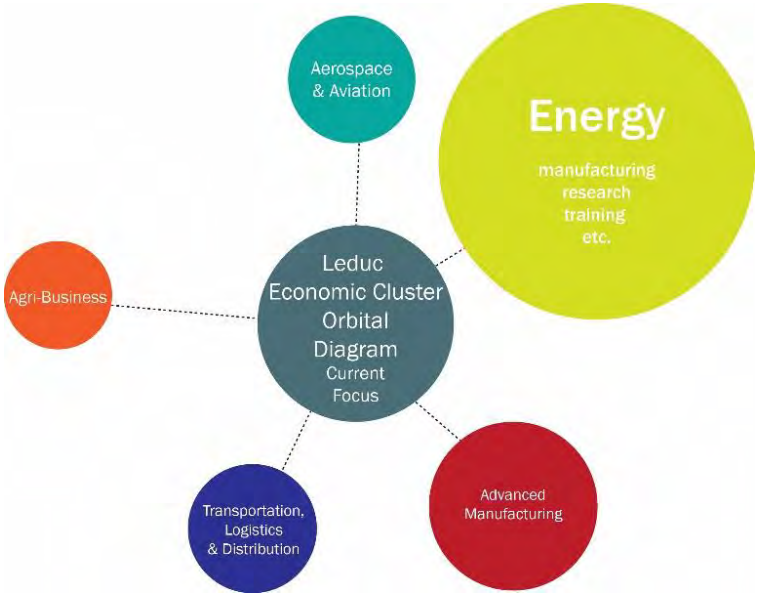
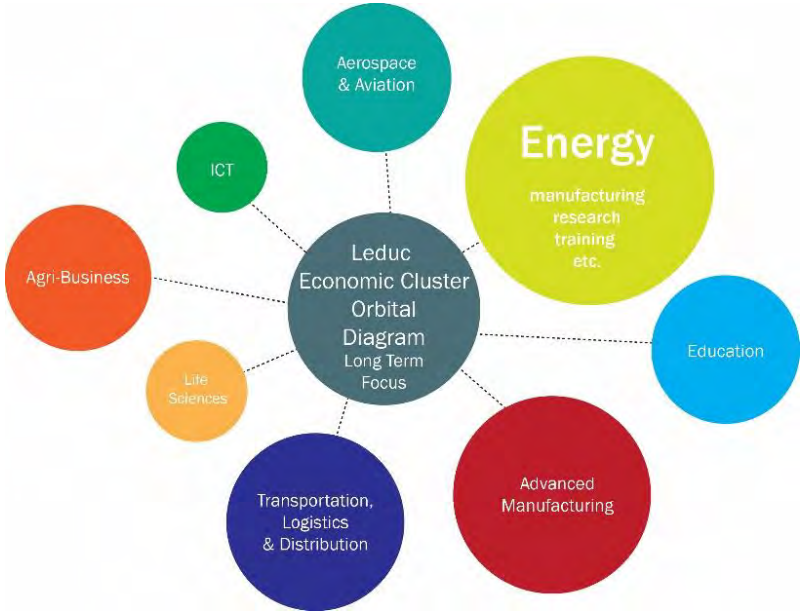


Figure 2.5 Long Term Economic Cluster Focus



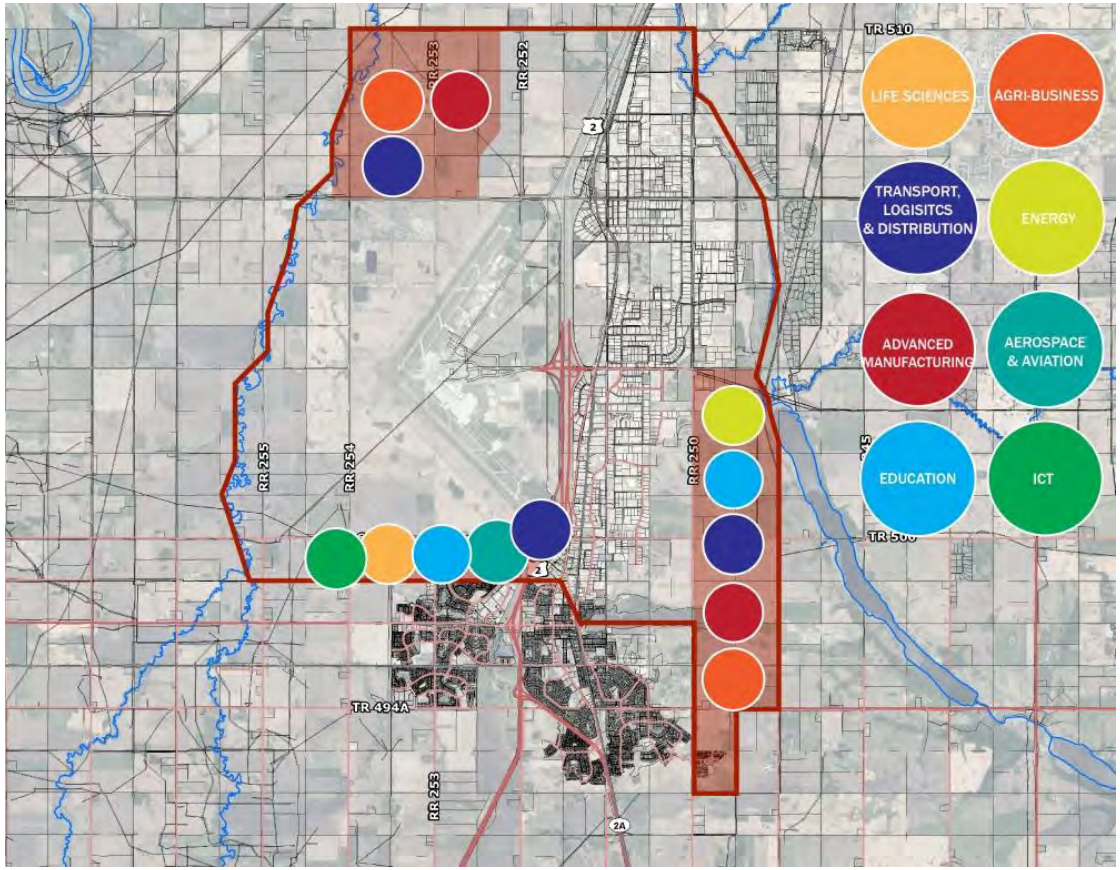
*Note:
For illustrative purposes only

MXD DEVELOPMENT STRATEGISTS

Stantec

Economic Cluster Summary

Figure 2.6 Potential Areas for Cluster Integration within Priority Study Areas



*Note:
For illustrative purposes only

Economic Cluster Focus & Allocation

At the conclusion of the economic cluster analysis, there was an examination of the current cluster focus, and which clusters could be potentially expanded upon and targeted over a short (5-10 year) and long term (10+ years) timeline.

Employing the market, policy, transportation, and economic cluster analysis, along with stakeholder input, an initial high-level allocation was conducted for the targeted clusters.

This high-level allocation assisted in the strategic allocation of land uses and development typologies based on economic clusters, and their requirements to be located adjacent, or further from EIA. The final cluster allocation varies slightly from the initial allocation.

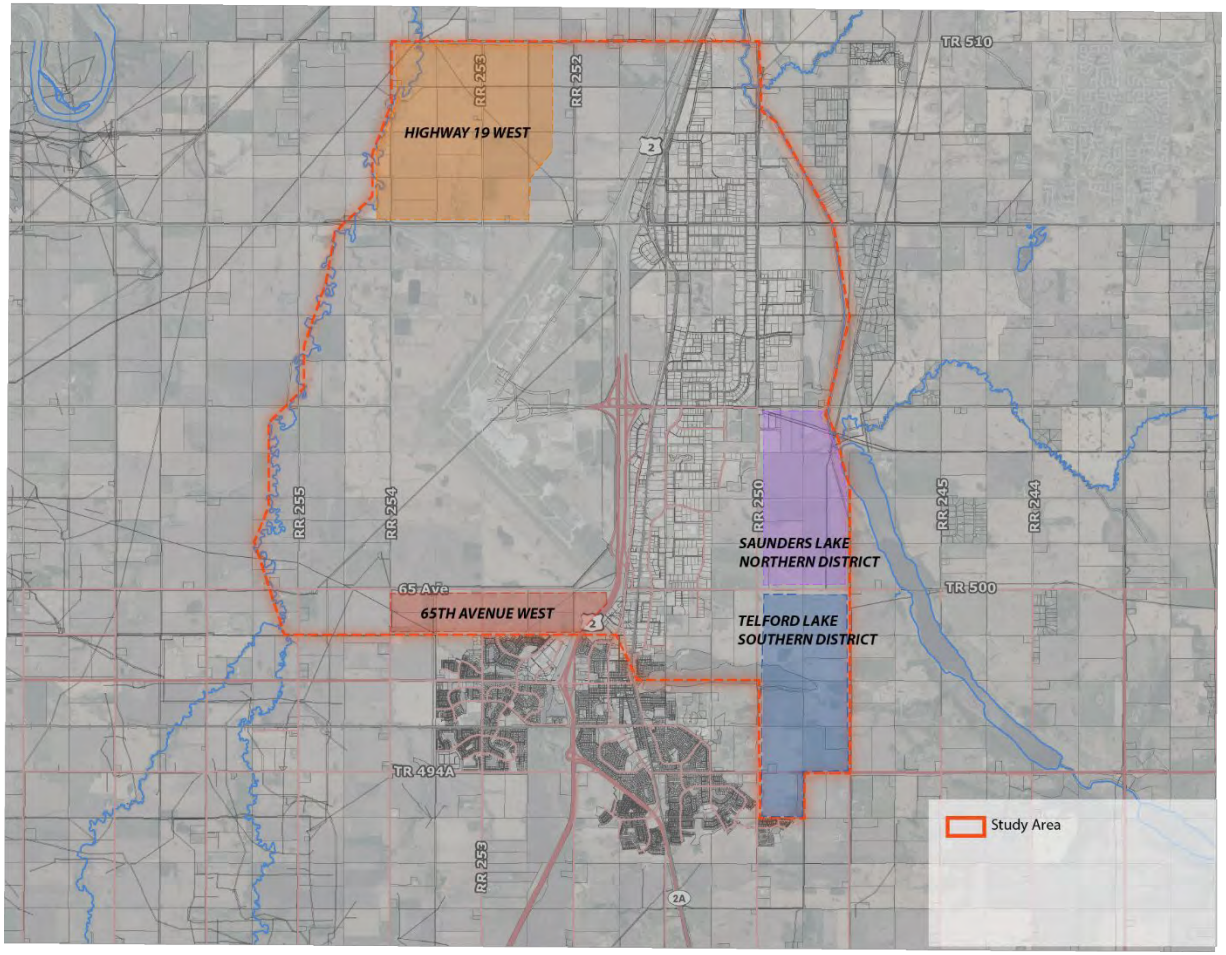
MXD DEVELOPMENT STRATEGISTS

Stantec

3 Aerotropolis Land Use Allocation

Aerotropolis Land Use Allocation

Figure 3.1 Aerotropolis Priority Areas



Priority Areas

Four distinct priority areas were analyzed within the Aerotropolis study area. Priority areas were delineated by the Leduc Partnership. All planned Aerotropolis development was allocated within the four priority areas, along with Edmonton International Airport (EIA).

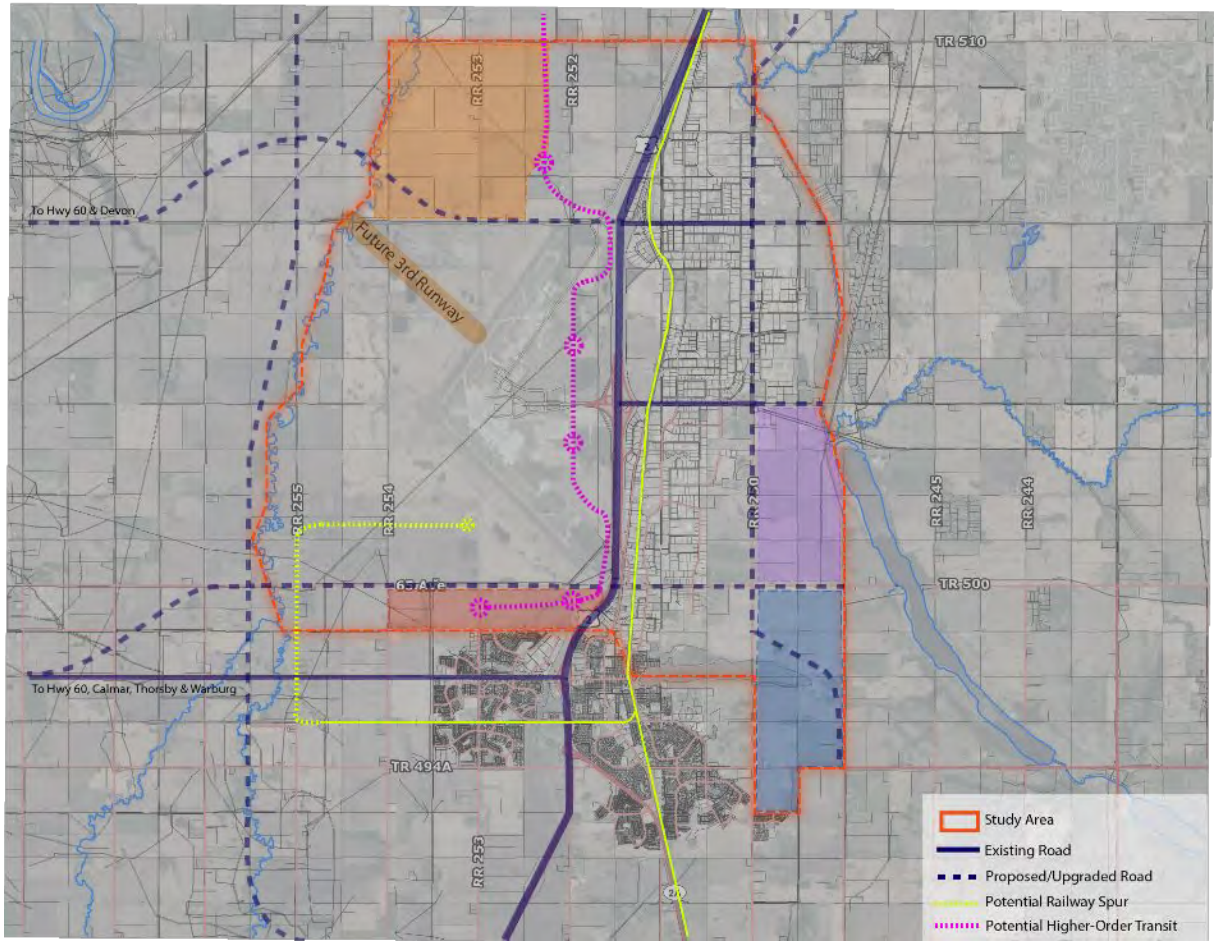
A future expansion area for Aerotropolis development could occur in the lands west of EIA. This potential growth area would utilize the future "170th Goods Corridor"/RR254 and help reinforce the goods-moving nature of this alternative to Highway 2.

MXD DEVELOPMENT STRATEGISTS

Stantec

Aerotropolis Land Use Allocation

Figure 3.2 Current and Future Transportation Network



Transportation

The current and future transportation network was analysed to understand the connectivity between the priority areas, EIA, and the surrounding region.

Recognizing the synergies between EIA and certain economic clusters allowed for strategic placement of the chosen clusters.

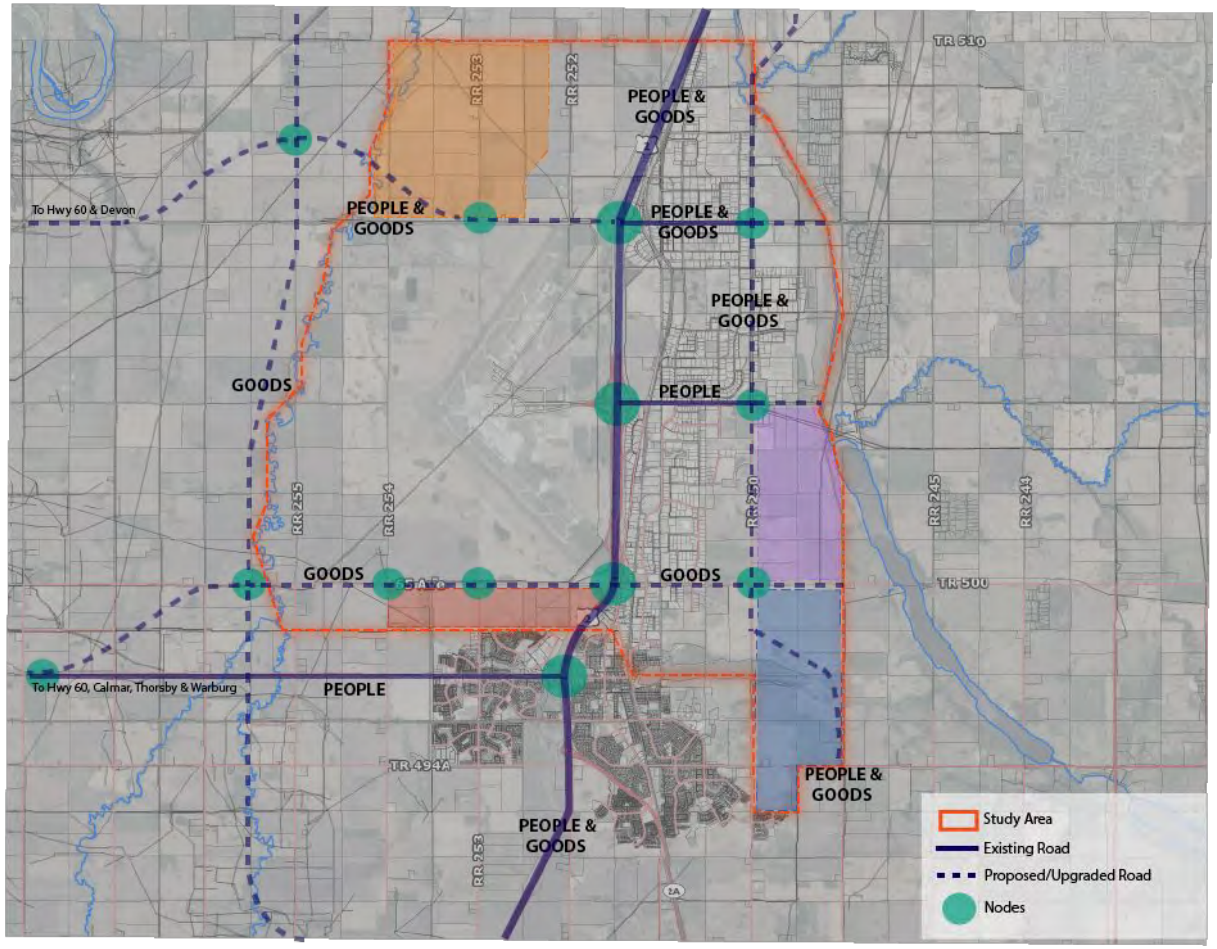
Analysis was also conducted on the requirements for transportation infrastructure to enable development to occur in each priority area, which is examined in further depth in the Phasing section.

MXD DEVELOPMENT STRATEGISTS

Stantec

Aerotropolis Land Use Allocation

Figure 3.3 General Movement Patterns



Movement

The highway and road network in the Aerotropolis could drastically change over the next twenty-five years if all potential projects are realized.

The future transportation network and nodes were analyzed to understand how people and goods would move throughout the Aerotropolis.

There are roads that should be designated for people, and roads that focus on goods movement. Each type of road will be designed in a different manner, as goods movement requires fewer intersections and curb cuts to keep trucks flowing.

MXD DEVELOPMENT STRATEGISTS

Stantec Stantec

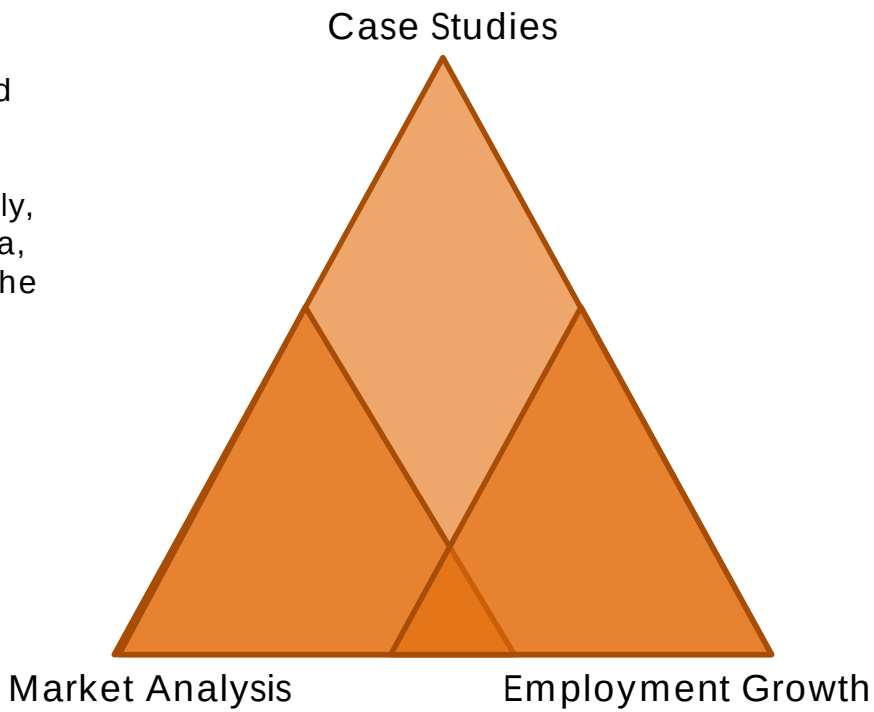
Aerotropolis Land Use Allocation

Priority Area Land Use Allocation

Introduction

A triangulation method was employed for priority area land use allocation. Case studies provided economic clusters and typical sizes of building typologies in Aerotropoli and Airport Cities across North America and around the world. MXD and Stantec analyzed the historical absorption through a market analysis and consultation with local commercial brokers. Additionally, an analysis of employment growth within the study area, including Aerotropolis induced jobs was factored into the allocation. The amount of Aerotropolis induced jobs within the study area is displayed in Figure 3.1. A moderate employment growth rate scenario was used moving forward for the AVS.

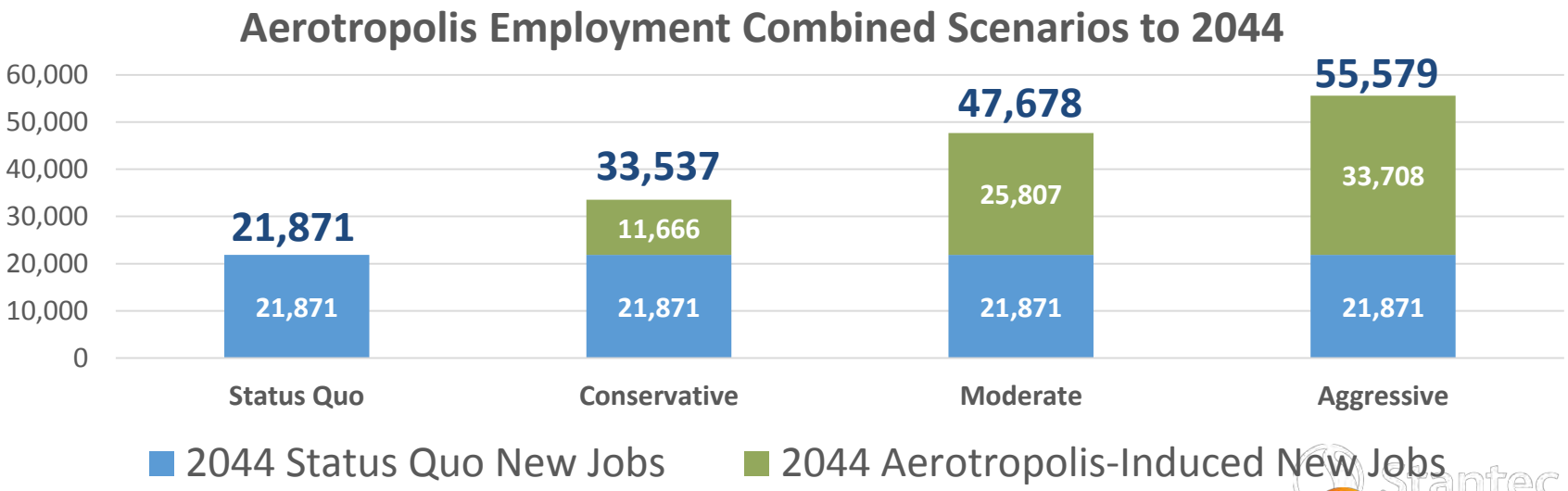
Figure 3.4 Land Use Allocation Triangulation Method



Aerotropolis Land Use Allocation

Table 3.1 Aerotropolis Induced Employment

City & County of Leduc Combined Scenarios	2014 Total Jobs	2044 Direct New Jobs "Status Quo" (per Capital Region Board)	+	2044 Aerotropolis Induced Direct New Jobs	=	2044 Total Direct New Jobs	=	2044 Total Direct Jobs
Status Quo	30,900	21,871		0		**21,871**		52,771
Conservative	30,900	21,871		11,666		**33,537**		64,437
Moderate	30,900	21,871		25,807		**47,678**		78,578
Aggressive	30,900	21,871		33,708		**55,579**		86,479



MXD DEVELOPMENT STRATEGISTS

Stantec

Aerotropolis Land Use Allocation

CITY OF LEDUC & LEDUC COUNTY
COMBINED EMPLOYMENT SCENARIO
(MODERATE - 47,678 NEW JOBS)

EMPLOYMENT ALLOCATION BY
ECONOMIC CLUSTER & MARKET FORECAST

ALLOCATION OF EMPLOYMENT & ECONOMIC
CLUSTERS INTO
PRIORITY AREAS

- **TIME-DISTANCE** TO EDMONTON INTERNATIONAL AIRPORT
- **GREENFIELD** SITE DEVELOPMENT ADVANTAGES VS REDEVELOPMENT
- **LARGE LAND REQUIREMENTS** FOR CURRENT INDUSTRIAL DEVELOPMENT
- **COMPACT DEVELOPMENT** FOSTERS RESOURCE-EFFICIENT GROWTH
- **FOCUS GROWTH** AROUND AMENITIES & SERVICES

75% OF NEW JOBS (35,184) ALLOCATED TO PRIORITY AREAS

MXD DEVELOPMENT STRATEGISTS
Stantec

Aerotropolis Land Use Allocation

Priority Areas Total Gross Acreage Available

5,639

Total Net Developable Acres Available

3,241*

Total Net Developable Acres Planned

2,139

*Employing a 40% efficiency ratio

MXD DEVELOPMENT STRATEGISTS

Stantec

Aerotropolis Land Use Allocation

Figure 3.5 Total Land Requirements in Aerotropolis (All Priority Areas)

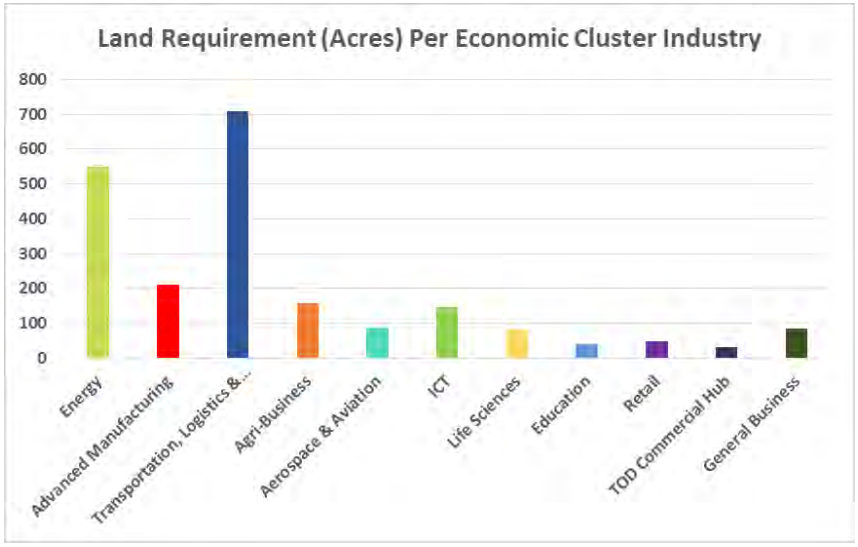
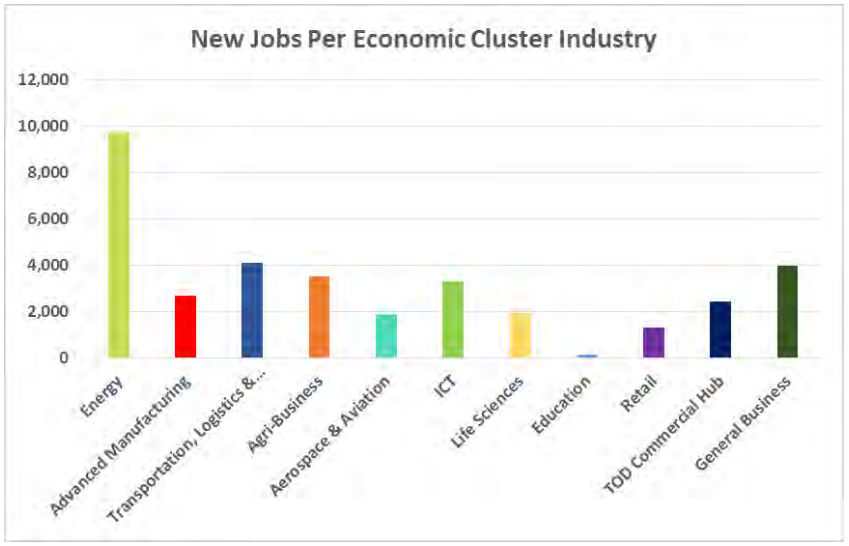


Figure 3.6 Total New Jobs in Aerotropolis (All Priority Areas)



MXD DEVELOPMENT STRATEGISTS

Stantec

Aerotropolis Land Use Allocation

Highway 19 West

Description

Highway 19 West will be a mixture of light industrial and office development focused towards advanced manufacturing and energy, supplemented by a variety of other economic clusters such as transportation & logistics, and agri-business.

With over 1,300 acres of land available for development, there is a large amount of room for future development expansion if required. The area should have architectural guidelines in place, along with landscaping, sidewalks, and boulevards to create a pleasant visual landscape for potential business.

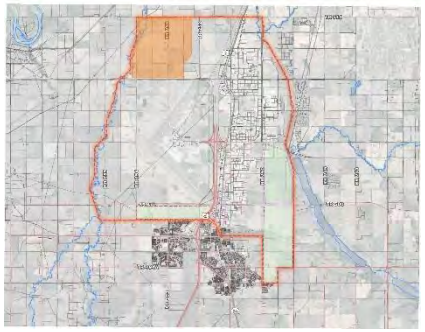
Highway 19 West will have future higher-order transit running in the adjacent Crossroads ASP area, creating an opportunity for development as part of a broader transit-oriented commercial and service centre for surrounding business. It will also act as an amenity to attract companies who prefer to be located near transit linkages.

NET DEVELOPABLE ACRES

678

SQUARE FOOTAGE DEVELOPABLE SPACE (MILLIONS)

7.7



Municipal Location

Leduc County

Economic Clusters

MXD DEVELOPMENT STRATEGISTS

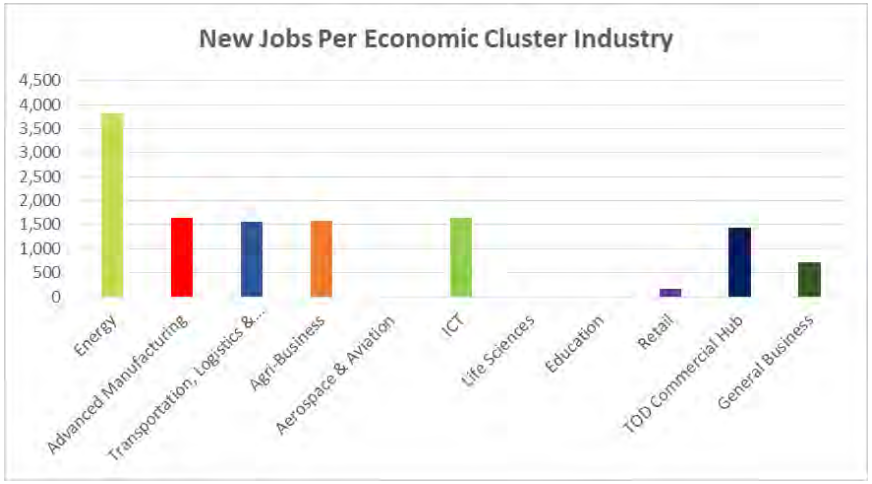
Stantec

Aerotropolis Land Use Allocation

Highway 19 West

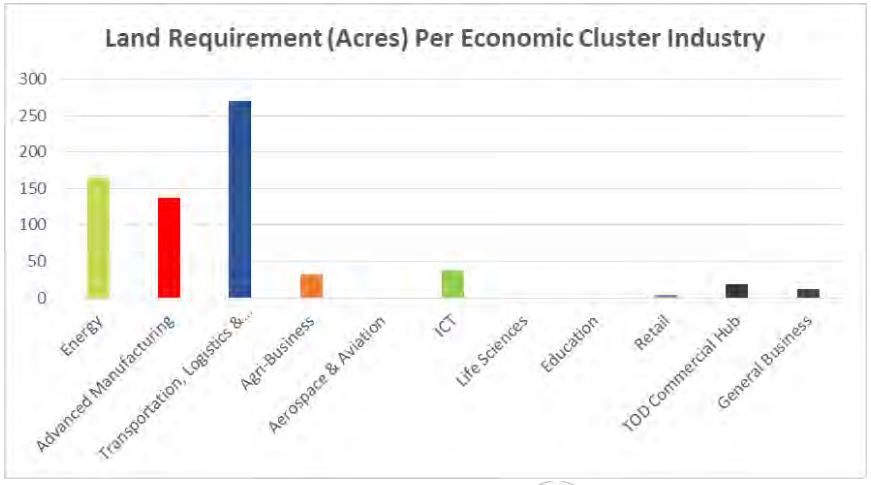
DIRECT
NEW JOBS

12,585



Enabled Catalytic Projects

- High-Tech Advanced Manufacturing Hub
- New Energy Park & Corporate Centre



MXD DEVELOPMENT STRATEGISTS

Stantec

Aerotropolis Land Use Allocation

Highway 19 West

CAMPUS OFFICE

- Oil & Gas R&D and Corporate Office
- Green & Renewable Energy R&D and Corporate Office
- Food Engineering & Development
- Agri-Business Corporate Office
- ICT Services & Development
- General Campus Office

NET ACRES OF DEVELOPMENT: 60

FLEX BUSINESS PARK

- Food Engineering & Development
- ICT Manufacturing, Sales, and R&D
- Green & Renewable Energy R&D
- Green & Renewable Energy Advanced Manufacturing
- General Advanced Manufacturing

NET ACRES OF DEVELOPMENT: 126

MXD DEVELOPMENT STRATEGISTS

Stantec

Aerotropolis Land Use Allocation

Highway 19 West

LIGHT INDUSTRIAL MANUFACTURING

- Green & Renewable Energy
- General Advanced Manufacturing
- Food Processing & Manufacturing Facility

NET ACRES OF DEVELOPMENT: 191

WAREHOUSE & DISTRIBUTION

- Cross Dock Warehouse (Transhipment)
- Distribution Warehouse (Fulfillment)
- Standard Warehousing and Merchandise Storage
- Temperature-Controlled Distribution Facility

NET ACRES OF DEVELOPMENT: 270

CALL CENTRE

- ICT Services

NET ACRES OF DEVELOPMENT: 6

MXD DEVELOPMENT STRATEGISTS

Stantec

Aerotropolis Land Use Allocation

Highway 19 West

TOD AEROTROPOLIS CENTRE

- Retail, Dining, & Personal Services
- Office
- Vertical Mixed-Use
- Entertainment & Dining
- Civic/Institutional
- Plaza and Community Space

NET ACRES OF DEVELOPMENT: 19

NEIGHBOURHOOD RETAIL

- Grocery
- Retail, Dining, & Personal Services

NET ACRES OF DEVELOPMENT: 5

MXD DEVELOPMENT STRATEGISTS

Stantec

Aerotropolis Land Use Allocation

Saunders Lake Northern District

Description

Saunders Lake Northern District is located directly to the east of Leduc Business Park and will focus towards similar sectors such as light industrial energy in the oil & gas industry. Other primary clusters include advanced manufacturing, transportation & logistics, and ICT.

This area will have a look and feel similar to that of Leduc Business Park with wide streets for trucks and large building setbacks, although it is recommended to institute architectural guidelines and sidewalks in areas that will have flex business parks and office buildings. New cross-sections may be needed to create the desired environment.

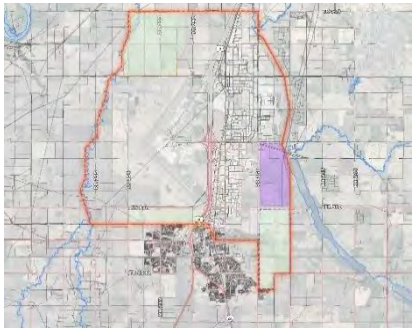
Development is already occurring in the northwest quadrant of the priority area, so it is important to create and pass an Area Structure Plan to ensure the lands are built-out accordingly to the Aerotropolis guidelines.

NET DEVELOPABLE ACRES

613

SQUARE FOOTAGE DEVELOPABLE SPACE (MILLIONS)

5.8



Municipal Location

Leduc County

Economic Clusters

MXD DEVELOPMENT STRATEGISTS

Stantec

Aerotropolis Land Use Allocation

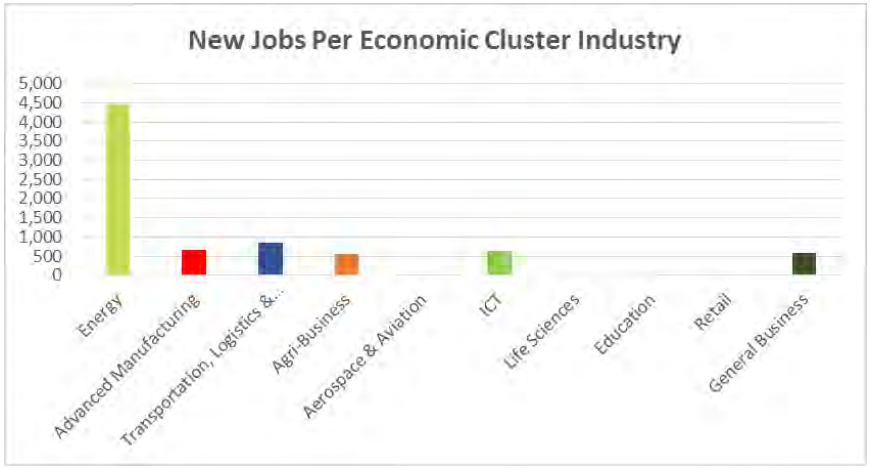
Saunders Lake Northern District

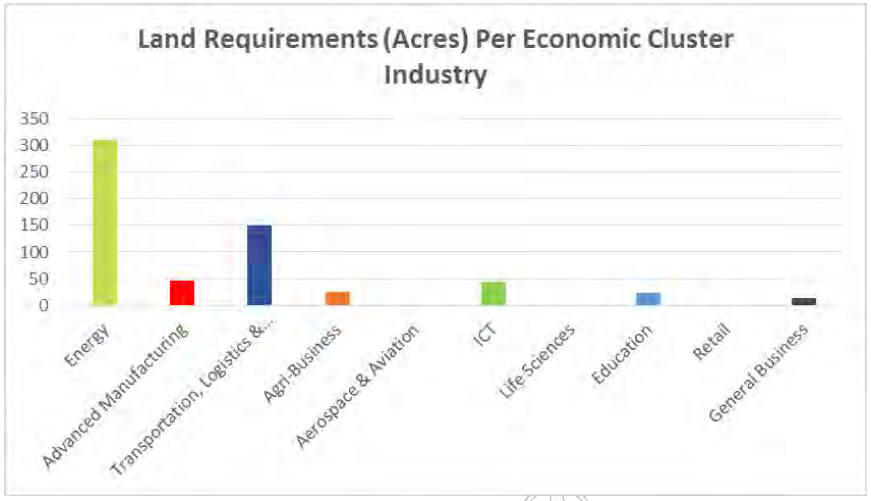
DIRECT
NEW JOBS

7,773

Enabled Catalytic Projects

- Crane & Heavy Hoist Equipment Campus
- Digital City





MXD DEVELOPMENT STRATEGISTS

Stantec

Aerotropolis Land Use Allocation

Saunders Lake Northern District

CAMPUS OFFICE

- Oil & Gas R&D
- Food Engineering & Development
- General Campus Office

NET ACRES OF DEVELOPMENT: 18

FLEX BUSINESS PARK

- Oil & Gas R&D
- Oil & Gas Advanced Manufacturing
- ICT Manufacturing, Sales & R&D
- General Business

NET ACRES OF DEVELOPMENT: 119

LIGHT INDUSTRIAL MANUFACTURING

- Oil & Gas Advanced Manufacturing
- Food Processing & Manufacturing
- General Advanced Manufacturing

NET ACRES OF DEVELOPMENT: 260

MXD DEVELOPMENT STRATEGISTS

Stantec

Aerotropolis Land Use Allocation

Saunders Lake Northern District

WAREHOUSE & DISTRIBUTION

- Cross Dock Warehouse (Transhipment)
- Distribution Warehouse (Fulfillment)
- Standard Warehousing and Merchandise Storage
- Temperature-Controlled Distribution Facility
- Food Distribution Facility

NET ACRES OF DEVELOPMENT: 149

DATA SERVER FACILITY

- ICT Services

NET ACRES OF DEVELOPMENT: 33

EDUCATIONAL FACILITY

- Crane and Hoist Heavy Equipment Program

NET ACRES OF DEVELOPMENT: 23

MXD DEVELOPMENT STRATEGISTS

Stantec

Aerotropolis Land Use Allocation

Telford Lake Southern District

Description

Telford Lake Southern District will be a hub for transportation & logistics, and agri-business, along with several other Aerotropolis related clusters such as ICT and Life Sciences.

The northern section of this priority area will require lower building densities and wide turning radii for trucks to accommodate the allocated uses. As development moves southwards towards Telford Lake, density will increase, architectural standards and landscaping should be implemented along with sidewalks. This is especially key for the Lakefront Corporate Park concept that could wrap around Telford Lake.

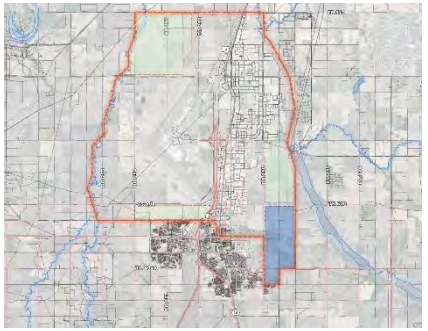
A commercial retail node should be constructed at the intersection of Aerotropolis Boulevard (65th Avenue), and Nisku Spine Road, to provide amenities for those working in the Telford Lake and Saunders Lake priority areas.

NET DEVELOPABLE ACRES

510

SQUARE FOOTAGE DEVELOPABLE SPACE (MILLIONS)

5.7



Municipal Location

City of Leduc

Economic Clusters

MXD DEVELOPMENT STRATEGISTS

Stantec

Aerotropolis Land Use Allocation

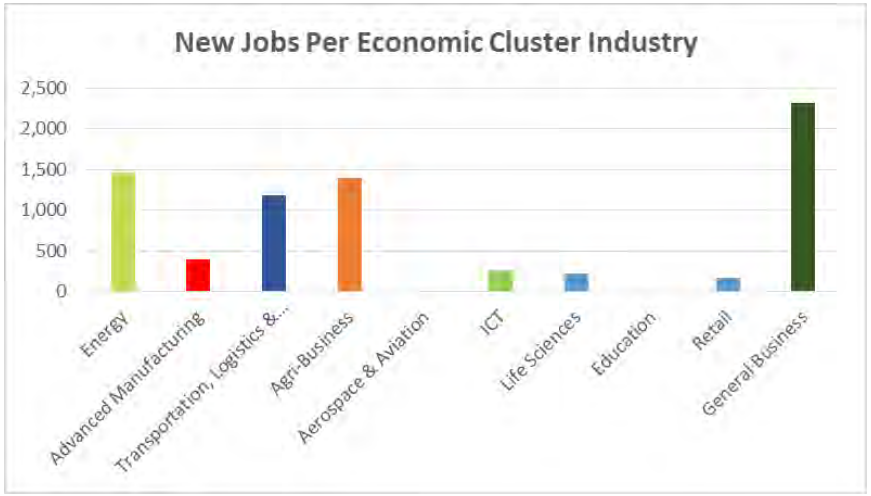
Telford Lake Southern District

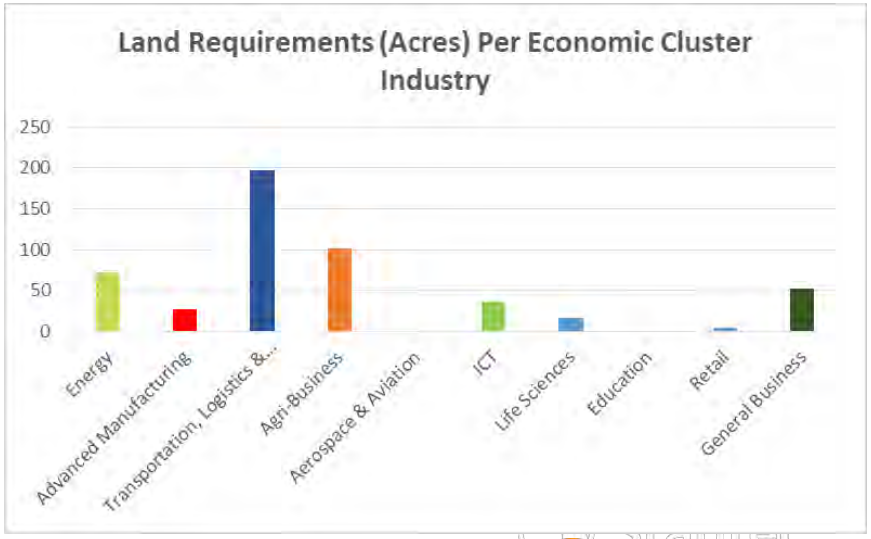
DIRECT
NEW JOBS

7,428

Enabled Catalytic Projects

- Cold Chain Logistics Hub
- Agri Food Processing Complex & Business Park
- Lakefront Corporate Park





MXD DEVELOPMENT STRATEGISTS

Stantec

Aerotropolis Land Use Allocation

Telford Lake Southern District

CAMPUS OFFICE

- Lakefront Corporate Park

NET ACRES OF DEVELOPMENT: 38

FLEX BUSINESS PARK

- Oil & Gas R&D
- Oil & Gas Advanced Manufacturing
- General Business

NET ACRES OF DEVELOPMENT: 87

LIGHT INDUSTRIAL MANUFACTURING

- Food Processing & Manufacturing
- General Advanced Manufacturing
- Industrial Biotech Manufacturing

NET ACRES OF DEVELOPMENT: 105

AGRI-BUSINESS FOOD PRODUCTION

- Clean Factory Farms
- Greenhouses

NET ACRES OF DEVELOPMENT: 40

MXD DEVELOPMENT STRATEGISTS

Stantec

Aerotropolis Land Use Allocation

Telford Lake Southern District

WAREHOUSE & DISTRIBUTION

- Cross Dock Warehouse (Transhipment)
- Distribution Warehouse (Fulfillment)
- Standard Warehousing and Merchandise Storage
- Temperature-Controlled Distribution Facility
- Food Distribution Facility

NET ACRES OF DEVELOPMENT: 197

DATA SERVER FACILITY

- ICT Services

NET ACRES OF DEVELOPMENT: 37

RETAIL

- Retail & Dining
- Person Services

NET ACRES OF DEVELOPMENT: 5

MXD DEVELOPMENT STRATEGISTS

Stantec

Aerotropolis Land Use Allocation

65th Avenue West

Description

65th Avenue West priority area is directly adjacent to Edmonton International Airport, providing the highest viability of Aerotropolis uses that are time-sensitive and require direct transportation connections. Focus will be towards Aerospace & Aviation, Life Sciences, Transportation & Logistics, and ICT.

65th Avenue West will have the highest employment density out of the four priority areas. With residential abutting the southern portion of the site, advance planning is required to ensure that buffers of high-quality commercial development are in place. Once the future Port of Alberta development is planned on EIA lands, the Partnership can integrate complementary uses between the two entities

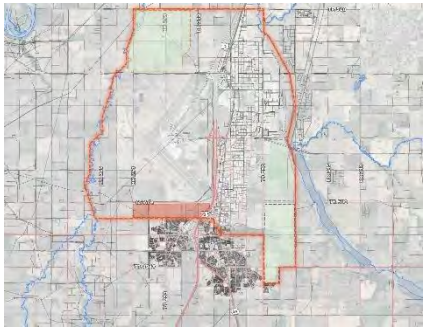
A significant amount of retail, along with a Transit-Oriented Development Node (once higher-order transit is brought to the City of Leduc), will serve both employees and the residents of the City.

NET DEVELOPABLE ACRES

345

SQUARE FOOTAGE DEVELOPABLE SPACE (MILLIONS)

4.5



Municipal Location

City of Leduc

Economic Clusters

MXD DEVELOPMENT STRATEGISTS

Stantec

Aerotropolis Land Use Allocation

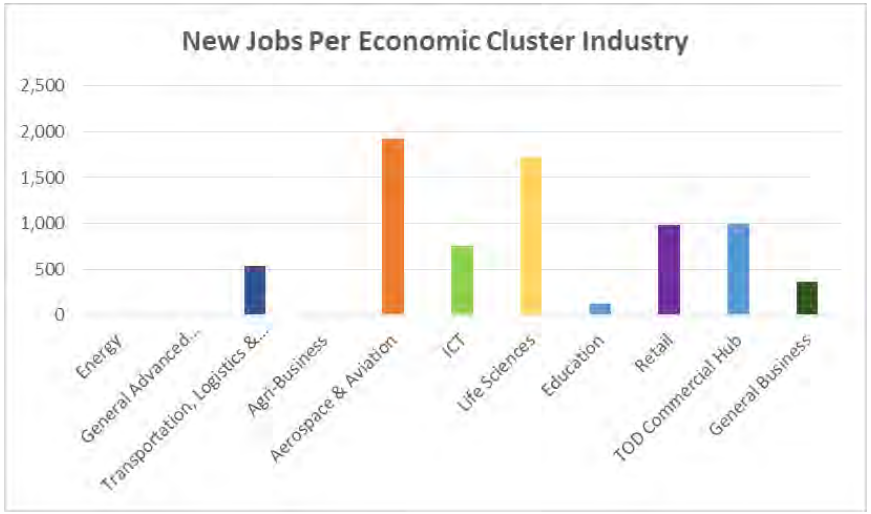
65th Avenue West

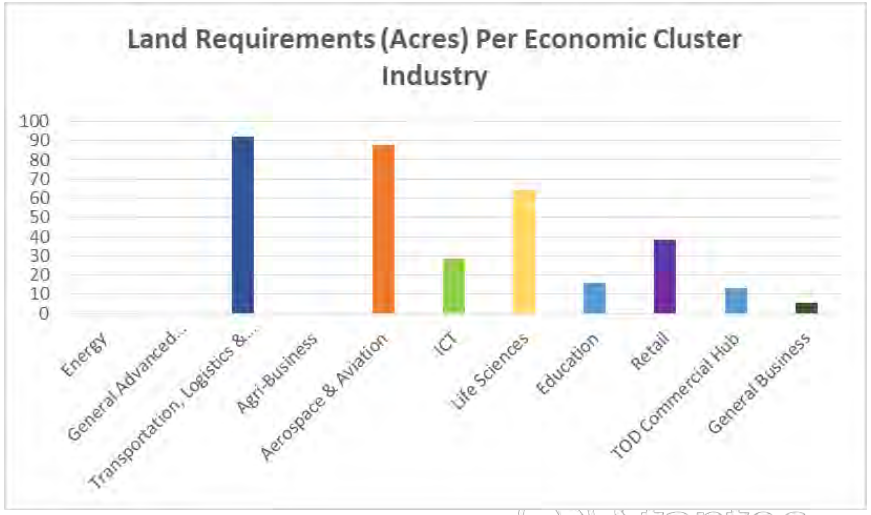
DIRECT
NEW JOBS

7,398

Enabled Catalytic Projects

- Discovery Park Incubator
- Aerotropolis Campus
- Distillery & Dining District
- Aerospace Research Park
- Retail Fulfillment Hub





MXD DEVELOPMENT STRATEGISTS

Stantec

Aerotropolis Land Use Allocation

65th Avenue West

ADVANCED MANUFACTURING FACILITY

- Aerospace & Aviation Manufacturing
- Engineering & Testing Facilities

NET ACRES OF DEVELOPMENT: 65

CAMPUS OFFICE

- Aerospace & Aviation R&D
- Industrial & Environmental Bio-Tech
- Pharmaceutical & Neutraceuticals
- General Campus Office

NET ACRES OF DEVELOPMENT: 24

FLEX BUSINESS PARK

- Aerospace & Aviation Corporate Operations
- Geomatics & Spatial Data
- Aerospace R&D
- Industrial & Environmental Bio-Tech
- ICT Manufacturing, Sales & R&D
- Computer Systems Administration
- ICT Services & Development

NET ACRES OF DEVELOPMENT: 44

MXD DEVELOPMENT STRATEGISTS

Stantec

Aerotropolis Land Use Allocation

65th Avenue West

WAREHOUSE & DISTRIBUTION

- Distribution Warehouse (Fulfillment)
- General Goods Distribution
- Temperature-Controlled Distribution Facility
- Life Sciences Warehousing & Storage

NET ACRES OF DEVELOPMENT: 109

LIGHT INDUSTRIAL MANUFACTURING

- ICT Manufacturing, Sales, R&D
- Medical Devices
- Pharmaceuticals & Nutraceuticals

NET ACRES OF DEVELOPMENT: 35

EDUCATION

- Post-Secondary Satellite Campus

NET ACRES OF DEVELOPMENT: 16

MXD DEVELOPMENT STRATEGISTS

Stantec

Aerotropolis Land Use Allocation

65th Avenue West

RETAIL

- Lifestyle Center, Dining and Entertainment Hub
- Convenience Retail & Services
- Retail Village
- Plaza & Gathering Spaces

NET ACRES OF DEVELOPMENT: 38

TOD AEROTROPOLIS CENTRE

- Retail, Dining, & Personal Services
- Office
- Vertical Mixed-Use
- Entertainment & Dining
- Civic/Institutional
- Plaza and Community Space

NET ACRES OF DEVELOPMENT: 13

MXD DEVELOPMENT STRATEGISTS

Stantec

Aerotropolis Land Use Allocation

Community Hubs

There will be four community hubs in the Aerotropolis, three in the priority areas and one at Edmonton International Airport's Highway Commercial Parcel. A community hub can be a centre that offers retail, services, entertainment, education, public transportation, and public space. These hubs will be central meeting points for both local residents, and those working in the area.

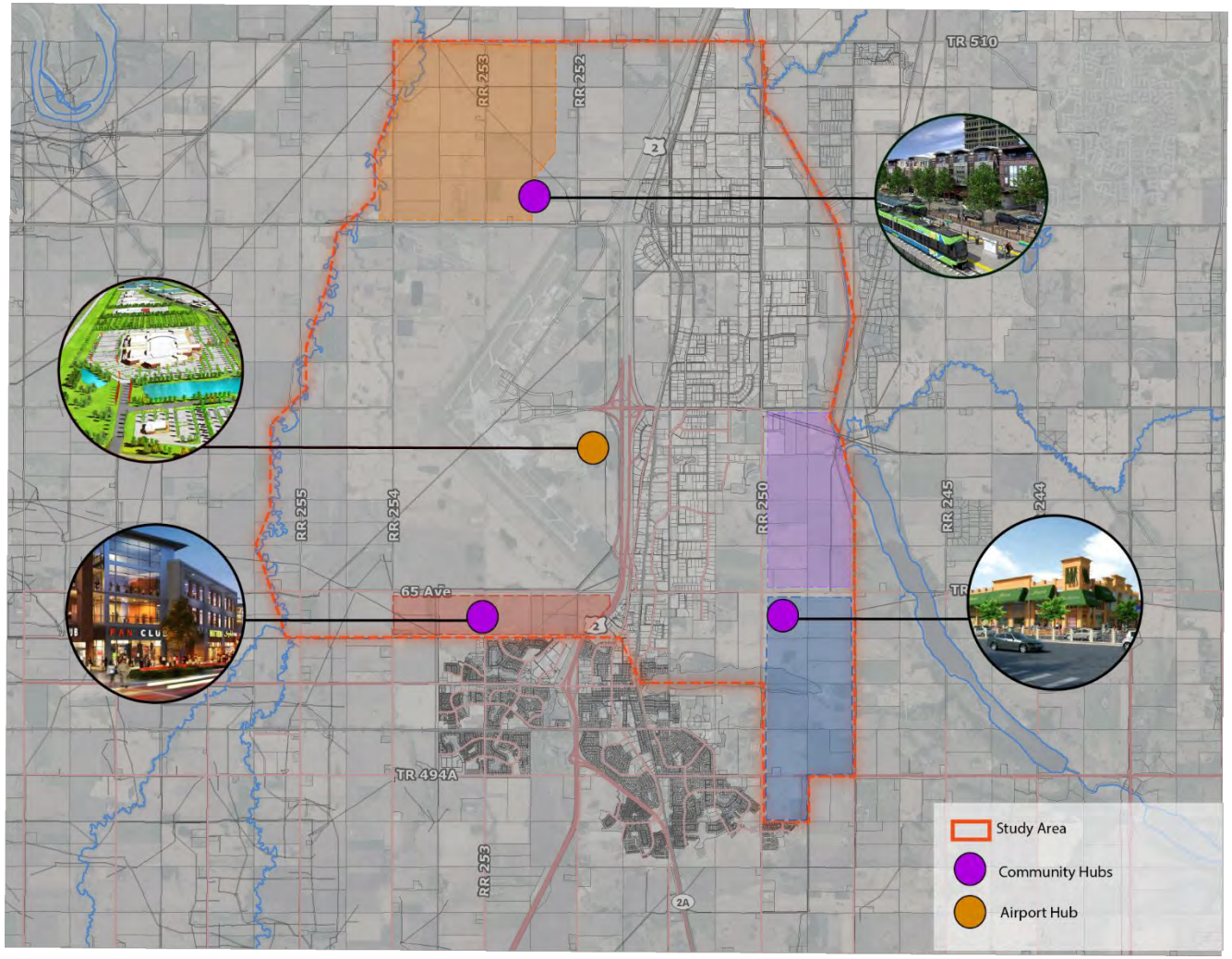
- Highway 19 West – A transit-oriented development based around future higher-order transit running between EIA/City of Leduc and Edmonton. A mixture of retail, services, and public space.
- Telford Lake Southern District – Will be built to serve employees in the priority area, primarily during the day with ample services, and food & beverage offerings.
- 65th Avenue West – A transit-oriented development based around the future terminus station of the higher-order transit line connecting to Edmonton. A focus towards retail, services, entertainment, education, and public space.
- Edmonton International Airport – A transit-oriented development along the Edmonton/City of Leduc line. Will aim to serve the employees of the airport, those working in offices and logistics warehouses in the highway commercial parcel, and shoppers visiting the Outlet Collection at EIA.

MXD DEVELOPMENT STRATEGISTS

Stantec

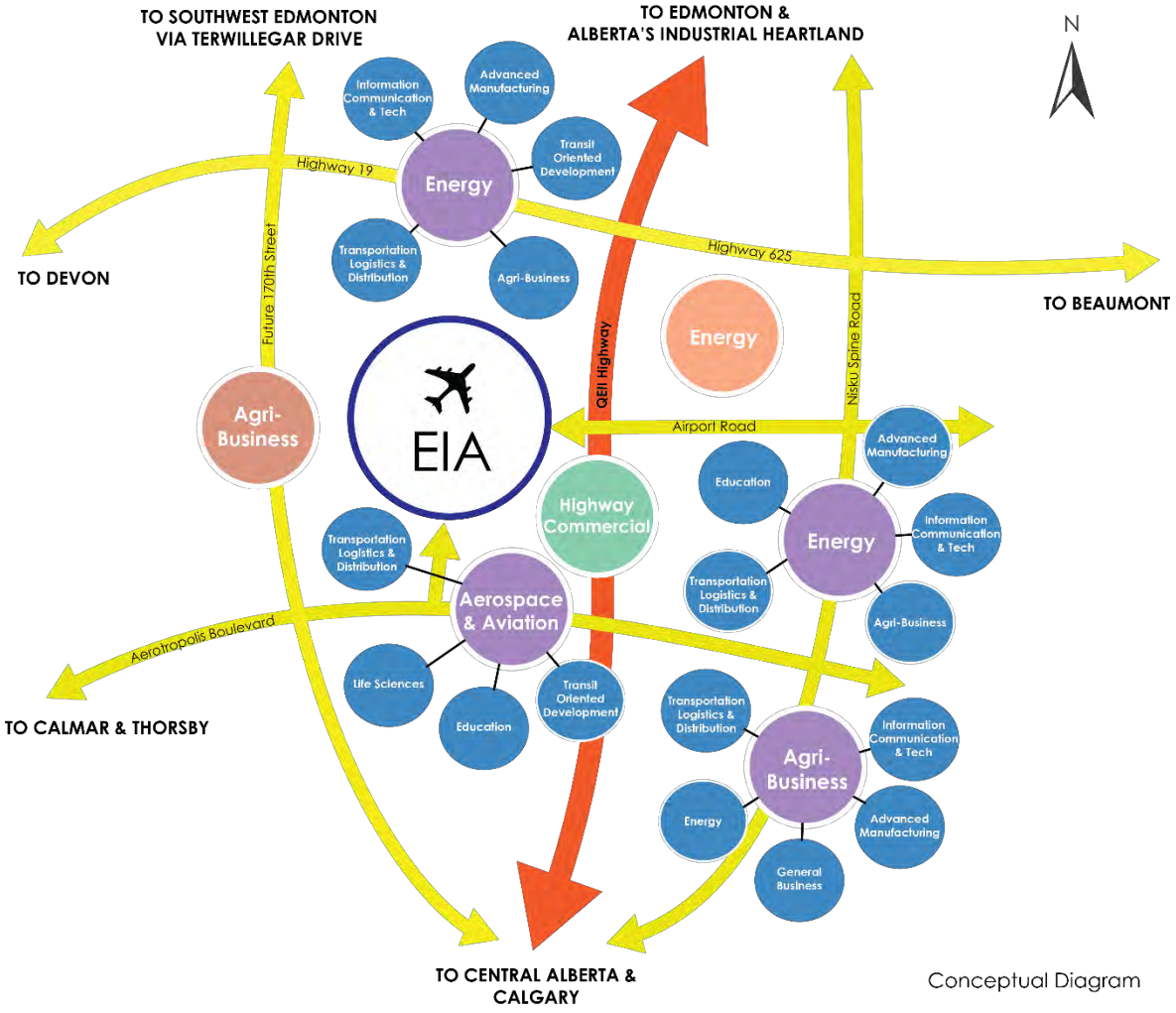
Aerotropolis Land Use Allocation

Figure 3.7 Community Hub Locations



Aerotropolis Land Use Allocation

Figure 3.8 Aerotropolis Molecular Diagram



Conceptual Diagram

MXD DEVELOPMENT STRATEGISTS

Stantec

4 Development Typologies

Development Typologies

CAMPUS OFFICE

Target Economic Sectors: Energy, Agri-Business, ICT, Aerospace & Aviation, Life Sciences
Typical Employment Density: 1:275 SF
Typical FAR: 0.4 to 0.5
Building Size: 30,000 – 80,000+ SF
Parking Ratio: 3 to 4/1000 SF

FLEX BUSINESS PARK

Target Economic Sectors: Energy, Agri-Business, Advanced Manufacturing, ICT, Aerospace & Aviation, Life Sciences
Typical Employment Density: 1:750 SF
Typical FAR: 0.2 to 0.4
Building Size: 20,000 – 75,000+ SF
Parking Ratio: 2.5 to 3/1000 SF

MXD DEVELOPMENT STRATEGISTS

Stantec

Development Typologies

LIGHT INDUSTRIAL MANUFACTURING

Target Economic Sectors: Energy, Agri-Business, Advanced Manufacturing, ICT, Life Sciences
Typical Employment Density: 1:800 SF
Typical FAR: 0.2 to 0.4
Building Size: 10,000 – 100,000+ SF
Parking Ratio: 2 to 2.5/1000 SF

AEROSPACE & AVIATION ADVANCED MANUFACTURING FACILITY

Target Economic Sectors: Aerospace & Aviation
Typical Employment Density: 1:750 SF
Typical FAR: 0.3 to 0.4
Building Size: 20,000 – 200,000+ SF
Parking Ratio: 2 to 2.5/1000 SF

MXD DEVELOPMENT STRATEGISTS

Stantec

Development Typologies

WAREHOUSE & DISTRIBUTION FACILITY

Target Economic Sectors: Logistics & Distribution, Agri-Business,
Typical Employment Density: 1:1,500 SF
Typical FAR: 0.2 to 0.3
Building Size: 50,000 – 200,000+ SF
Parking Ratio: 1.5 to 2/1000 SF

TEMPERATURE CONTROLLED DISTRIBUTION FACILITY

Target Economic Sectors: Logistics & Distribution
Typical Employment Density: 1:1,500 SF
Typical FAR: 0.2 to 0.3
Building Size: 40,000 – 1,000+ SF
Parking Ratio: 1.5 to 2/1000 SF

MXD DEVELOPMENT STRATEGISTS

Stantec

Development Typologies

WAREHOUSE & STORAGE FACILITY

Target Economic Sectors: Logistics & Distribution
Typical Employment Density: 1:2,500 SF
Typical FAR: 0.2 to 0.3
Building Size: 10,000 – 100,000+ SF
Parking Ratio: 1 to 1.5/1000 SF

DATA SERVER FACILITY

Target Economic Sectors: ICT
Typical Employment Density: 1:1,500 SF
Typical FAR: 0.2 to 0.3
Building Size: 20,000 – 180,000+ SF
Parking Ratio: 1.5 to 2/1000 SF

MXD DEVELOPMENT STRATEGISTS

Stantec

Development Typologies

CLEAN FACTORY FARMS & GREENHOUSES

Target Economic Sectors: Agri-Business
Typical Employment Density: 1:2,000 SF
Typical FAR: 0.2
Building Size: 20,000 – 100,000+ SF
Parking Ratio: 1 to 2/1000 SF

EDUCATIONAL SATELLITE CAMPUS

Target Economic Sectors: Education
Typical Employment Density: 1:1,000 SF
Typical FAR: 0.4 to 0.5
Building Size: 50,000 to 350,000+ SF campus
Parking Ratio: 3 to 4/1000 SF

MXD DEVELOPMENT STRATEGISTS

Stantec

Development Typologies

TOD AEROTROPOLIS CENTRE

Target Economic Sectors: Retail, General Business
Typical Employment Density: 1:500 SF
Typical FAR: 0.5 to 0.6
Building Size: 100,000 to 1,000,000+ SF
Parking Ratio: 3 to 4/1000 SF

LIFESTYLE CENTRE

Target Economic Sectors: Retail
Typical Employment Density: 1:500 SF
Typical FAR: 0.25
Building Size: 200,000 to 700,000+ SF
Parking Ratio: 4 to 5/1000 SF

MXD DEVELOPMENT STRATEGISTS

Stantec

Development Typologies

RETAIL VILLAGE

Target Economic Sectors: Retail
Typical Employment Density: 1:350 SF
Typical FAR: 0.3 to 0.4
Building Size: 50,000 to 125,000+ SF
Parking Ratio: 3 to 4/1000 SF

NEIGHBOURHOOD & CONVENIENCE RETAIL

Target Economic Sectors: Retail
Typical Employment Density: 1:350 SF
Typical FAR: 0.25 TO 0.4
Building Size: 20,000 to 75,000+ SF
Parking Ratio: 4 to 5/1000 SF

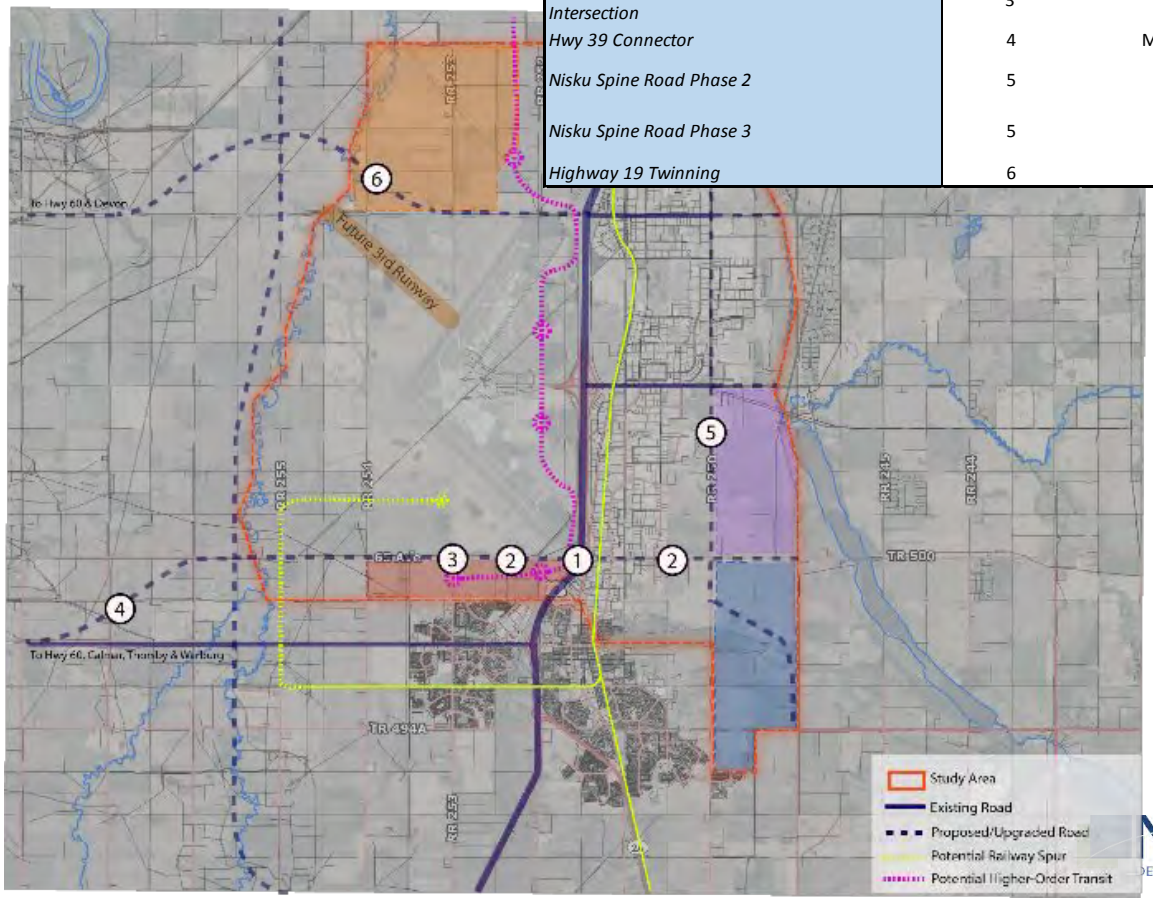
5 Catalytic Projects

Catalytic Projects

Table 5.1 Transportation & Accessibility Catalyst Projects

Catalyst Projects - Transportation & Accessibility				
Catalyst Project Name	**Number on Map**	**Catalytic Ability**	**Location**	**Project Initiation Prioritisation & Timing**
65th Avenue Interchange	1	High	65th Avenue West	5-15 years
Aerotropolis Boulevard (65th Avenue West)	2	High	65th Avenue West	5-15 years
Aerotropolis Boulevard (65th Avenue East)	2	High	Telford Lake Southern District, Saunders Lake Northern District	0-5 years
Aerotropolis Boulevard & Grant Macewan Intersection	3	High	65th Avenue West	5-15 years
Hwy 39 Connector	4	Moderate	65th Avenue West	25+ years
Nisku Spine Road Phase 2	5	High	Telford Lake Southern District, Saunders Lake Northern District	0-5 years
Nisku Spine Road Phase 3	5	High	Telford Lake Southern District, Saunders Lake Northern District	5-15 years
Highway 19 Twinning	6	High	Highway 19 West	0-5 years

Figure 5.1 Transportation & Accessibility Catalyst Projects Map



MXD DEVELOPMENT STRATEGISTS

Stantec

Catalytic Projects

65th Avenue Interchange

Description & Economic Rationale

An interchange at 65th Avenue and QEII Highway that will connect the future "Aerotropolis Boulevard" to a partially realigned QEII corridor.

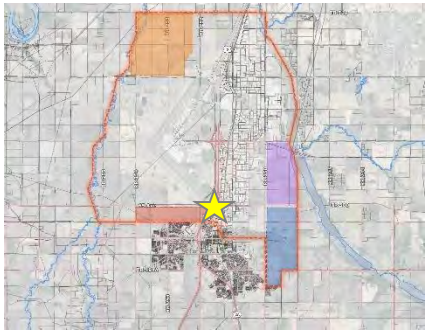
The interchange will provide traffic relief for Airport Road and 50th Avenue interchanges, act as a catalyst for the construction of Aerotropolis Boulevard, and unlock major priority areas within the Aerotropolis to enable land development of trigger projects.

Potential Strategic Partners & Stakeholders

- City of Leduc
- Leduc County
- Alberta Transportation
- Edmonton International Airport
- Government of Canada

Enabler & Accelerator for Land Development Projects

- Cold Chain Logistics Hub
- Agri-Food Processing Complex & Business Park
- Discovery Park Incubator
- Aerotropolis Campus
- Distillery & Dining District
- Aerospace Research Park
- Retail Fulfillment Hub



Catalytic Ability

High

Project Timing

5-15 Years

MXD DEVELOPMENT STRATEGISTS

Stantec

Catalytic Projects

Aerotropolis Boulevard (East & West)

Description & Economic Rationale

Aerotropolis Boulevard will be an east-west arterial that will act as a primary transportation connection between three Aerotropolis priority areas (65th Avenue West, Saunders Lake and Telford Lake). It will also provide access to the future Port Alberta site on EIA lands and extend westerly, eventually connecting with Calmar, Thorsby and Warburg.

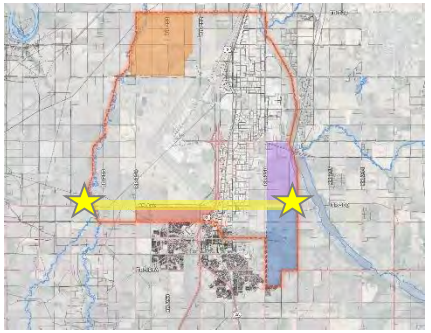
The Boulevard is envisioned as a 4 to 6-lane divided arterial roadway for trucks carrying goods in-and-out of the Aerotroplis.

Potential Strategic Partners & Stakeholders

- City of Leduc
- Leduc County
- Alberta Transportation
- Edmonton International Airport

Enabler & Accelerator for Land Development Projects

- Cold Chain Logistics Hub
- Agri-Food Processing Complex & Business Park
- Lakefront Corporate Park
- Discovery Park Incubator
- Aerotropolis Campus
- Distillery & Dining District
- Aerospace Research Park
- Retail Fulfillment Hub



Catalytic Ability

High

Project Timing

0-5 Years (East)

5-15 Years (West)

MXD DEVELOPMENT STRATEGISTS

Stantec

Catalytic Projects

Aerotropolis Boulevard & Grant Macewan Intersection

Description & Economic Rationale

It is envisioned that either an intersection or interchange will occur at the convergence point of Aerotropolis Boulevard and Grant Macewan Boulevard. It will create a southerly access point into EIA, and direct access for the Port Alberta logistics hub. This will allow trucks to bypass Airport Road and use Aerotropolis Boulevard for goods movement, to and from Port Alberta.

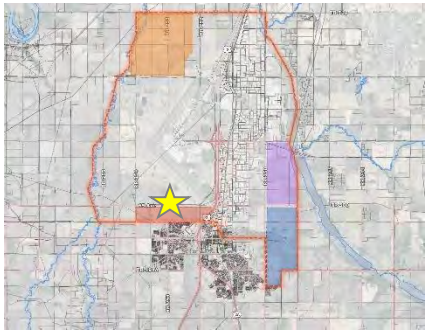
The City of Leduc prefers a signalized intersection, while EIA envisions a full-movement interchange.

Potential Strategic Partners & Stakeholders

- City of Leduc
- Alberta Transportation
- Edmonton International Airport

Enabler & Accelerator for Land Development Projects

- Aerospace Research Park
- Retail Fulfillment Hub
- Intermodal Logistics Hub



Catalytic Ability

High

Project Timing

5-15 Years

MXD DEVELOPMENT STRATEGISTS

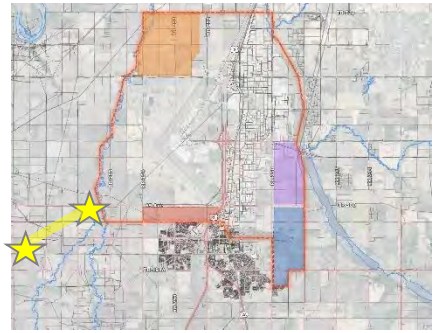
Stantec

Catalytic Projects

Hwy 39 Connector

Description & Economic Rationale

The Hwy 39 Connector will link the Aerotropolis to growing communities west of EIA, such as Calmar, Warburg and Thorsby. It will also funnel regional truck and car traffic onto Aerotropolis Boulevard, rather than using 50th Avenue in Leduc. 50th Avenue can then be transformed into a residential and commercial street with slower speed limits, terminating within the Leduc Central Business District.



Catalytic Ability

Moderate

Project Timing

25+ Years

Potential Strategic Partners & Stakeholders

- City of Leduc
- Leduc County
- Alberta Transportation
- Edmonton International Airport

Enabler & Accelerator for Land Development Projects

- Aerospace Research Park
- Retail Fulfillment Hub
- Intermodal Logistics Hub

MXD DEVELOPMENT STRATEGISTS

Stantec

Catalytic Projects

Nisku Spine Road Phase 2 and 3

Description & Economic Rationale

The Nisku Spine Road is a multi-phase arterial road project that will be an important north-south corridor running parallel to the QEII Highway, connecting South Edmonton to Nisku, the Aerotropolis, Leduc County, and the City of Leduc.

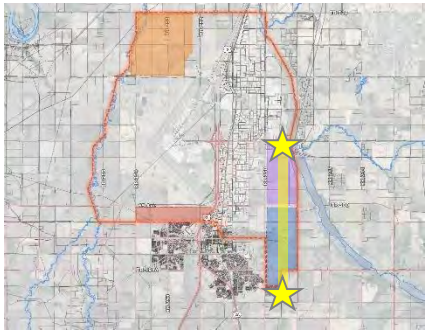
When the Spine Road is fully developed, it will run from 41st Avenue in South Edmonton to Highway 2A in Leduc County totaling 23 kilometers in length. Phases 2 and 3 run between Airport Road and Rollyview Road (623), strategically unlocking large segments of high priority land within the Aerotropolis priority areas that will then be ready for servicing and development.

Potential Strategic Partners & Stakeholders

- City of Leduc
- Leduc County
- Alberta Transportation
- Government of Canada

Enabler & Accelerator for Land Development Projects

- Crane & Heavy Hoist Equipment Campus
- Data Centre Hub
- Cold Chain Logistics Hub
- Agri Food Processing Complex & Business Park
- Lakefront Corporate Park



Catalytic Ability

High

Project Timing

Phase 2 0-5 Years

Phase 3 5-15 Years

MXD DEVELOPMENT STRATEGISTS

Stantec

Catalytic Projects

Highway 19 Realignment

Description & Economic Rationale

A realignment and twinning of Highway 19 north of Edmonton International Airport. Due to the future construction of a third runway at the airport, a realignment of Highway 19 is required that would like have it swing north and curve around the future runway. Along with the realignment, Highway 19 will be twinned, doubling the capacity for truck and vehicle traffic. First phase of twinning is from Highway 60 to Range Road 261, and from Range Road 253 to the QEII. The first phase is funded and has an expected completion of 2019.

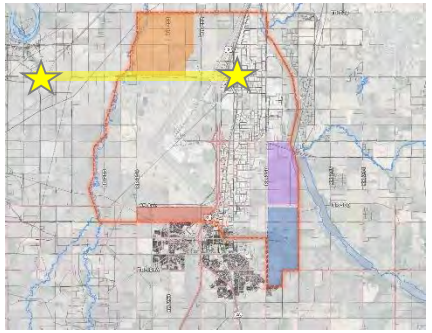
Increasing capacity for goods movement along Highway 19 will allow for the build-out of the Highway 19 Priority Parcel, unlocking the largest section of developable land within the Aerotropolis study area. This will dramatically increase the feasibility of a large-scale advanced manufacturing hub, which will require strong transportation linkages for moving goods throughout the Capital Region, to EIA, and northern Alberta.

Potential Strategic Partners & Stakeholders

- Leduc County
- Alberta Transportation
- Edmonton International Airport

Enabler & Accelerator for Land Development Projects

- High-Tech Advanced Manufacturing Hub
- New Energy Park & Corporate Centre



Catalytic Ability

High

Project Timing

0-5 Years

MXD DEVELOPMENT STRATEGISTS

Stantec

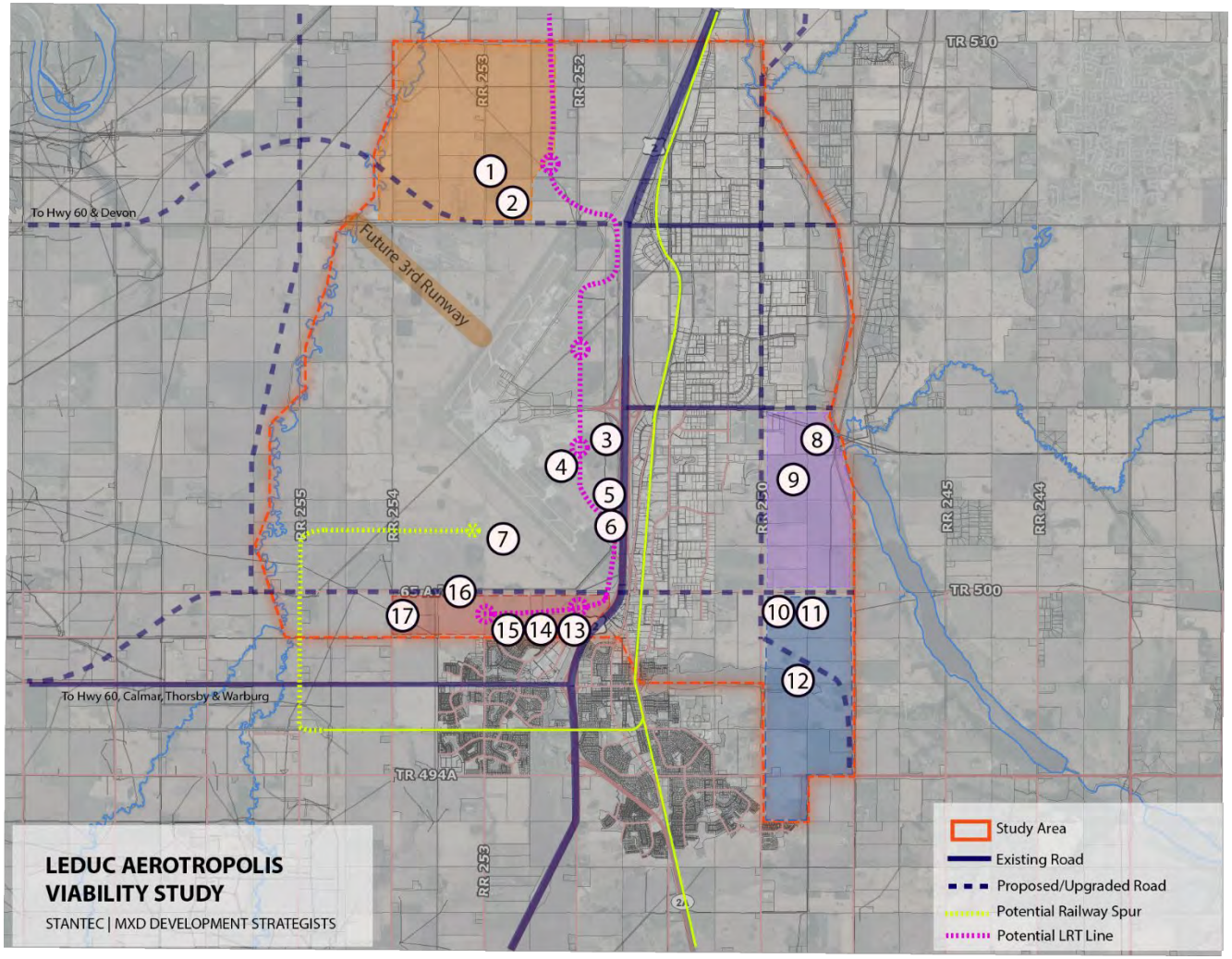
Catalytic Projects

Table 5.2 Economic & Land Development Catalyst Projects

Catalyst Projects - Economic & Land Development					
Catalyst Project Name	**Number on Map**	**Target Economic Cluster**	**Catalytic Ability**	**Location**	**Project Initiation Prioritisation & Timing**
High-Tech Advanced Manufacturing Hub	1	Advanced Manufacturing	Moderate to High	Highway 19 West	5-15 years
New Energy Park & Corporate Centre	2	Energy	High	Highway 19 West	5-15 years
Destination Retail Centre	3	Retail	Moderate	EIA	0-5 years
Rapid Cycle Logistics Centre	4	Transportation, Logistics & Distribution	High	EIA	0-5 years
Medical Services Hub	5	Life Sciences	Moderate	EIA	5-15 years
Technical Institute	6	Education	High	EIA	5-15 years
Intermodal Logistics Hub	7	Transportation, Logistics & Distribution	Moderate to High	EIA	5-15 years
Crane & Heavy Hoist Equipment Campus	8	Education	Low to Moderate	Saunders Lake Northern District	0-5 years
Digital City	9	Information & Communications Technology	Moderate	Saunders Lake Northern District	5-15 years
Cold Chain Logistics Hub	10	Transportation, Logistics & Distribution	High	Telford Lake Southern District	5-15 years
Agri Food Processing Complex & Business Park	11	Agri-Business	High	Telford Lake Southern District	5-15 years
Lakefront Corporate Park	12	General Business	Moderate	Telford Lake Southern District	5-15 years
Discovery Park Incubator	13	General Business	Moderate	65th Avenue West	5-15 years
Aerotropolis Campus	14	Education	Moderate to High	65th Avenue West	5-15 years
Distillery & Dining District	15	Retail	Low to Moderate	65th Avenue West	5-15 years
Aerospace Research Park	16	Aerospace & Aviation	High	65th Avenue West	5-15 years
Retail Fulfillment Hub	17	Transportation, Logistics & Distribution	Moderate	65th Avenue West	5-15 years

Catalytic Projects

Figure 5.2 Economic & Land Development Catalyst Projects Map



*Note: Catalyst Project Locations are Approximate

MXD DEVELOPMENT STRATEGISTS

Stantec

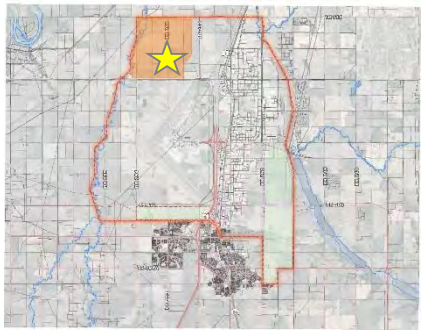
Catalytic Projects

High-Tech Advanced Manufacturing Hub

Description & Economic Rationale

A coalition of companies that are engaged in the manufacturing process that employ innovative techniques through state-of-the-art equipment such as 3-D printing and robotics. Integration of both product design, prototype testing, and manufacturing.

The High-Tech Advanced Manufacturing Hub will be a differentiator to any other manufacturing cluster in the region, focusing towards progressive and efficient processes that will emerge from both established and start-up firms. There remains growing demand for manufacturing sites within the region, with the hub focusing towards higher-value goods that can be transported by air and truck.



Airport Adjacency

Moderate

Project Timing

5-15 Years

Enabler & Accelerator for Key Economic Activities and Land Development

- Support of transportation & logistics infrastructure.
- Advancements in the Oil & Gas and Renewable Energy industries.
- Advancements in Aerospace & Aviation such as robotics, drones, etc.
- ICT (component manufacturing/assembly, cloud computing & data centres)
- Bio Science & Environmental Manufacturing

MXD DEVELOPMENT STRATEGISTS

Stantec

Catalytic Projects

High-Tech Advanced Manufacturing Hub

Potential Strategic Partners & Stakeholders

- Leduc County
- Leduc-Nisku Economic Development Association
- Red Deer College
- NAIT

Transportation Improvements Required

- Highway 19 Re-Alignment
- Intersection along Highway 19 for ingress/egress into Highway 19 Priority Area.

Example End Users

- General Electric
- Panasonic
- 3M
- Brose
- Owens Corning

Target Development Parameters				
Type	Typical Parcel Size (Acres)	Developed Floor Area		Floors
		Min (SF)	Max (SF)	
Flex Business Space	1 to 4	10,000	50,000	2
Manufacturing Centre	2 to 10	20,000	100,000	1

MXD DEVELOPMENT STRATEGISTS

Stantec Stantec

Catalytic Projects

New Energy Park & Corporate Centre

Description & Economic Rationale

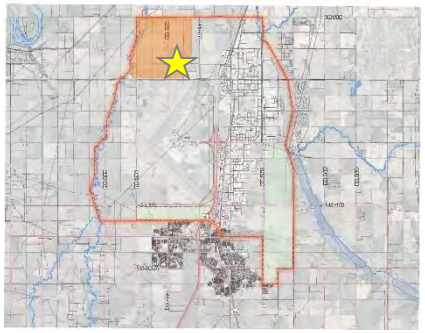
Centre for development of green energy technologies, including research & development, testing, manufacturing and assembly. Focus should be towards incubating local firms, as well as bringing in companies from around the world that are expanding their "green and sustainable" divisions.

The Leduc-Nisku area is internationally known as a hub for oil & gas, and the New Energy Park & Corporate Centre can create synergies between new and old energy, expanding upon the largest energy park in Canada.

Emphasis will be towards solar, geothermal, biofuels, hydroelectric, and wind power. Many global companies are now diversifying into renewable energy and this park will focus on sustainable energy business development, one of the fastest growing sectors in North America.

Enabler & Accelerator for Key Economic Activities and Land Development

- Corporate Offices
- Advanced manufacturing for downstream products.
- ICT (such as battery R&D, testing & assembly).
- Alternative energy research for Aerospace sector.
- Accelerates Biotechnology sector.
- On-Site Power Generation.



Airport Adjacency

Moderate

Project Timing

5-15 Years

MXD DEVELOPMENT STRATEGISTS

Stantec

Catalytic Projects

New Energy Park & Corporate Centre

Potential Strategic Partners & Stakeholders

- Leduc County
- Leduc-Nisku Economic Development Association
- Alberta Energy
- University of Alberta
- NAIT

Transportation Improvements Required

- Highway 19 Re-Alignment
- Intersection along Highway 19 for ingress/egress into Highway 19 Priority Area.

Example End Users

- Panasonic
- Toshiba
- Samsung
- Tesla
- Canadian Solar Inc.
- Ballard Power Systems

Target Development Parameters				
Type	Typical Parcel Size (Acres)	Developed Floor Area		Floors
		Min (SF)	Max (SF)	
Campus Office	1 to 4	10,000	60,000	4
Flex Business Park	1 to 4	10,000	50,000	2
Manufacturing Centre	2 to 10	20,000	100,000	1

MXD DEVELOPMENT STRATEGISTS

Stantec

Catalytic Projects

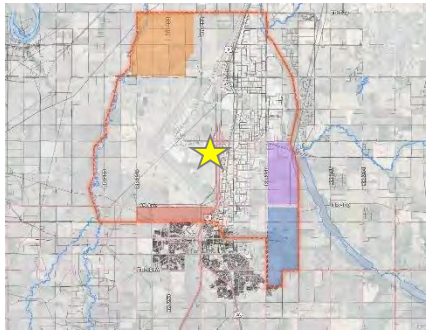
Destination Retail Centre

Description & Economic Rationale

Edmonton's first and only pure outlet shopping experience, the Outlet Collection at EIA will be a major regional shopping draw, not only for the Edmonton Capital Region, but all of Northern Alberta.

At 415,000 square feet, there will be more than 100 outlet brands when the shopping centre, constructed by Ivanhoe Cambridge, will open in 2017. The close proximity to EIA's terminal building will allow for a parcel storage service, accommodating customers to pick up their packages on the return leg of their travel.

The Outlet Collection, located within EIA's Highway Commercial development will act as the first major catalyst for Alberta's Aerotropolis, displaying the viability of a regional development initiative at and near the airport.



Airport Adjacency

High

Project Timing

0-5 Years

Enabler & Accelerator for Key Economic Activities and Land Development

- Hotels
- Restaurant Clusters
- Office Space

MXD DEVELOPMENT STRATEGISTS

Stantec

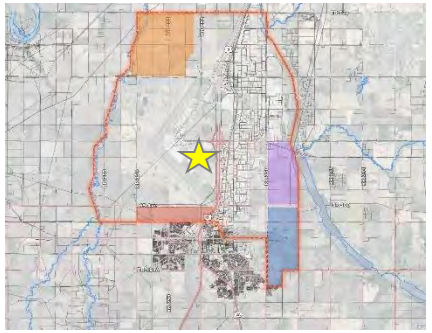
Catalytic Projects

Rapid Cycle Logistics Centre

Description & Economic Rationale

Rosenau Transport Ltd.'s 210,000 square foot building will serve as a distribution centre and warehouse for Northern Alberta. The strategic location will have direct access to air cargo carriers, as well as the Queen Elizabeth II Highway.

It will allow businesses that rely on transportation connectivity to be located in close proximity to both air and ground movements. It could also be used as a staging hub in the future for businesses in the Edmonton Capital Region when performing a value-add process to their products before being flown out.



Airport Adjacency

High

Project Timing

0-5 Years

Enabler & Accelerator for Key Economic Activities and Land Development

- Air Cargo Increases at EIA
- Precedent for Logistics and Distribution hubs within the Aerotropolis
- Advanced Manufacturing
- Agri-Business & Energy

MXD DEVELOPMENT STRATEGISTS

Stantec

Catalytic Projects

Medical Services Hub

Description & Economic Rationale

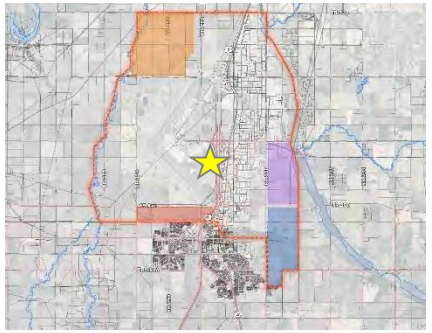
The Medical Services Hub at EIA will provide medical services for local residents in the City and County of Leduc, as well as those travelling from around Northern Alberta. With adjacency to the EIA terminal, it allows for services that require fly-in and fly-out such as medical testing, diagnostics, and specialized procedures.

There will also be the provision of back-of-house medical services that require airport connectivity due to time-sensitive nature such as blood sample testing, orthodontics, CRO's, medical devices, and other low-weight high-value items.

These services will be supplemented by research & development, providing space for companies that do not require to be located within central Edmonton, and have preference towards the airport terminal as a differentiating factor.

Enabler & Accelerator for Key Economic Activities and Land Development

- Accelerates BioLife Sciences sector.
- Advanced manufacturing for downstream medical products.
- Pharmaceutical and Neutraceutical development.
- Campus office development and specific research laboratories.



Airport Adjacency

High

Project Timing

5-15 Years

MXD DEVELOPMENT STRATEGISTS

Stantec

Catalytic Projects

Medical Services Hub

Potential Strategic Partners & Stakeholders

- Edmonton International Airport
- Leduc-Nisku Economic Development Association
- University of Alberta
- NAIT

Transportation Improvements Required

- Edmonton International Airport Internal Perimeter Road.

Example End Users

- Medtronic
- Bayer
- BioPharma Services Inc.
- SureHire
- LifeLabs

Target Development Parameters				
Type	Typical Parcel Size (Acres)	Developed Floor Area		Floors
		Min (SF)	Max (SF)	
Campus Office	1 to 3	10,000	40,000	3
Flex Business Park	1 to 4	10,000	50,000	2

MXD DEVELOPMENT STRATEGISTS

Stantec

Catalytic Projects

Technical Institute

Description & Economic Rationale

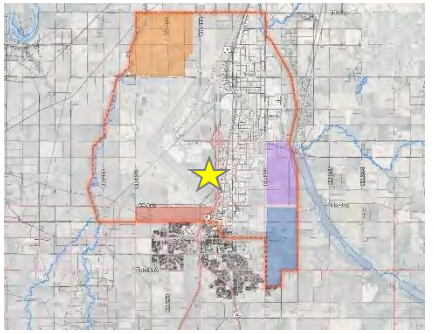
The Technical Institute will be oriented towards Aerospace and Aviation, primarily within emerging sectors that will allow it to differentiate between SAIT's Aero Center. This can include Green Aviation, UAV's, High Speed Flight, Advanced Materials, Geomatics, and Satellite Telemetry.

As the Aerospace and Aviation industry continue to grow and evolve in Alberta, it will be integral to have a local educational facility in close proximity to the airport that will provide students the skillsets needed for the technologies of the future.

While MRO's will always be in demand, having an institute based around niche but high value sectors within Aerospace & Aviation can draw potential students from across Canada and become a Center for Excellence. The institute will strengthen relationships with industry partners through R&D, and support integrated projects that can progress to large-scale demonstrations and commercialization.

Enabler & Accelerator for Key Economic Activities and Land Development

- Commercial & General Aviation
- Aerospace Manufacturing
- Education & Skills Training
- Research & Development



Airport Adjacency

High

Project Timing

5-15 Years

MXD DEVELOPMENT STRATEGISTS

Stantec

Catalytic Projects

Technical Institute

Potential Strategic Partners & Stakeholders

- Edmonton International Airport
- Leduc-Nisku Economic Development Association
- City of Leduc
- Leduc County
- NAIT
- University of Alberta

Transportation Improvements Required

- Edmonton International Airport Internal Perimeter Road.

Example End Users

- NAIT
- University of Alberta
- MacEwan University
- NorQuest College
- Red Deer College

Target Development Parameters				
Type	Typical Parcel Size (Acres)	Developed Floor Area		Floors
		Min (SF)	Max (SF)	
Educational Campus	3 to 14	50,000	300,000	3
Hangar	1 to 3	15,000	30,000	1

MXD DEVELOPMENT STRATEGISTS

Stantec

Catalytic Projects

Intermodal Logistics Hub

Description & Economic Rationale

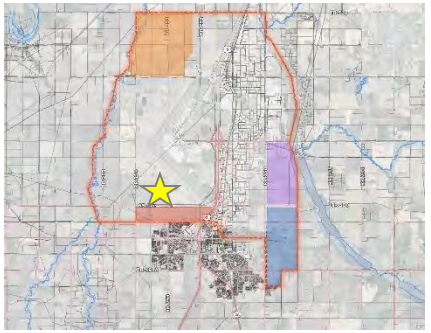
An Intermodal Logistics Hub within the fence of EIA will create a nexus of air, road, and rail, combining various modes of transport to efficiently move goods throughout Alberta, Canada, and around the world. Using various modes of logistics will reduce costs for operators by selecting the most effective form of transport, depending on weight, size, and urgency of their goods. The hub will be a directly integrated with Port of Alberta, an initiative between EIA and the Edmonton Economic Development Corporation.

The Intermodal Logistics Hub can offer specialized services such as heavy container handling and bulk transload, along with direct access off truck and train, to air due to the close proximity EIA apron.

The hub will also create a prime location for companies who rely on an efficient supply chain process and are looking to improve their cost efficiencies.

Enabler & Accelerator for Key Economic Activities and Land Development

- Logistics & Distribution Sector
- Temperature Controlled Warehouse Facilities
- E-Commerce & Retail Fulfillment
- Advanced Manufacturing
- Business Services



Airport Adjacency

High

Project Timing

5-15 Years

MXD DEVELOPMENT STRATEGISTS

Stantec

Catalytic Projects

Intermodal Logistics Hub

Potential Strategic Partners & Stakeholders

- Edmonton International Airport
- Leduc-Nisku Economic Development Association
- Edmonton Economic Development Corporation
- Leduc County
- City of Leduc
- CN Rail

Transportation Improvements Required

- Edmonton International Airport Internal Perimeter Road.
- 65th Avenue Interchange
- Aerotropolis Boulevard Extension
- Grant McEwan Intersection/Interchange
- CN Rail Spur Extension to EIA

Example End Users

- Western Logistics
- FMI Logistics

Target Development Parameters				
Type	Typical Parcel Size (Acres)	Developed Floor Area		Floors
		Min (SF)	Max (SF)	
Warehouse & Distribution	6 to 20	50,000	200,000	1
Temperature Controlled Distribution Facility	5 to 12	40,000	100,000	1
Storage Facility	1 to 8	10,000	100,000	1
Flex Business Park	1 to 4	10,000	50,000	2

MXD DEVELOPMENT STRATEGISTS

Stantec

Catalytic Projects

Crane & Heavy Hoist Equipment Campus

Description & Economic Rationale

A permanent facility for NAIT's Crane & Hoisting Equipment Program that currently operates in a temporary facility in Leduc County. The program has a direct correlation with the current activities at NISKU, primarily with the oil & gas industry, but also administers skills based around the forestry, mining and construction industries.

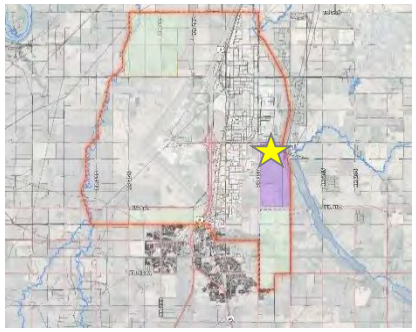
The program trains students to service and operate the hoist and swing equipment used to move machinery, materials and other large and heavy objects. The campus can also be used as a large "sandbox" for large equipment training such as earth movers and bulldozers.

In addition to outdoor requirements, the campus would also require indoor classrooms and workshop rooms for the technical and theoretical side of learning.

There is a future relationship between the program, Port Alberta, and the Intermodal Logistics Hub at EIA.

Enabler & Accelerator for Key Economic Activities and Land Development

- Precedent for future educational facilities within the Aerotropolis study area
- Logistics & Distribution Sector
- Energy Sector
- Construction & Development



Airport Adjacency

Low

Project Timing

0-5 Years

MXD DEVELOPMENT STRATEGISTS

Stantec

Catalytic Projects

Crane & Heavy Hoist Equipment Campus

Potential Strategic Partners & Stakeholders

- NAIT
- Leduc-Nisku Economic Development Association
- Leduc County

Transportation Improvements Required

- Airport Road Traffic Improvements
- NISKU Spine Road Extension

Example End Users

- NAIT

Target Development Parameters				
Type	Typical Parcel Size (Acres)	Developed Floor Area		Floors
		Min (SF)	Max (SF)	
Educational Campus	23	10,000	15,000	1

MXD DEVELOPMENT STRATEGISTS

Stantec

Catalytic Projects

Digital City

Description & Economic Rationale

State-of-the-art technology park for data-driven ICT firms that is anchored by several large data centre facilities. Digital City will begin as an infrastructure development, providing dedicated space for technology firms to operate data centres that support their businesses with servers, data processing, and storage equipment.

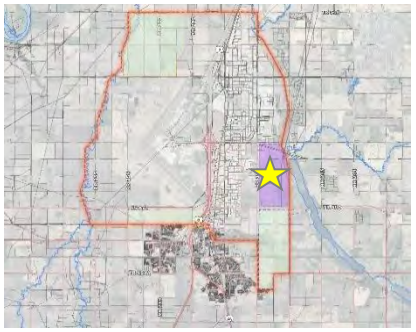
Overall data consumption by 2021 will grow by more than 50 times that of 2011 levels according to the International Data Corporation. Canada is expected to see 1 million new square feet of data centre space by the end of 2015, with demand continually growing due to advances in cloud computing.

Digital City will also attract companies that require high data capacities, but do not have the need for Class A office space in a downtown setting. The location will also be ideal for data security firms.

Digital City requires the installation of a fibre network in the Aerotropolis to initiate such an endeavor. High speed broadband connections are quickly being identified as a core service for attracting and retaining tech-driven companies. Cities are installing their own fibre networks to stay competitive.

Enabler & Accelerator for Key Economic Activities and Land Development

- Information & Communication Technology
- Entrepreneurial internet-based Start-Up Companies
- Discovery Park Incubator Hub



Airport Adjacency

Low

Project Timing

5-15 Years

MXD DEVELOPMENT STRATEGISTS

Stantec

Catalytic Projects

Digital City

Potential Strategic Partners & Stakeholders

- Edmonton International Airport
- Leduc-Nisku Economic Development Association
- Leduc County
- City of Leduc
- Telecommunications Companies

Transportation Improvements Required

- Nisku Spine Road Extension
- Aerotropolis Boulevard East
- Airport Road Traffic Improvements

Example End Users

- Shaw
- Yahoo
- IBM
- Salesforce
- SAP
- International Business Machines Corp.
- Atlantic.net
- Google

Target Development Parameters				
Type	Typical Parcel Size (Acres)	Developed Floor Area		Floors
		Min (SF)	Max (SF)	
Data Centre	2 to 14	20,000	180,000	1
Flex Business Park	1 to 4	10,000	50,000	2

MXD DEVELOPMENT STRATEGISTS

Stantec

Catalytic Projects

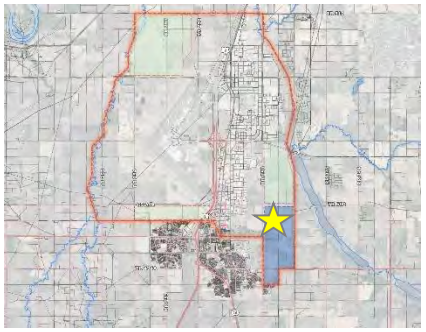
Cold Chain Logistics Hub

Description & Economic Rationale

The Cold Chain Logistics Hub will be a multi-tenant industrial centre for specialized warehousing and distribution of perishables, including goods for export. It will capitalize on two established and growing sectors, transportation/distribution, and agri-business, the latter which requires cold chain facilities in close proximity.

The facilities will have highly accurate temperatures for sensitive goods, from blast-freezing to long-term storage. Many cold chain facilities are now beginning to employ 24-hour service, which reduces customer costs and maximizes efficiency within the transportation network.

Being located at the crossroads of the Nisku Spine Road and Aerotropolis Boulevard is integral for the hub, capitalizing on direct access to EIA and the QEII Highway.



Airport Adjacency

Moderate

Project Timing

5-15 Years

Enabler & Accelerator for Key Economic Activities and Land Development

- Agri-Business & Perishables
- Bio-Logistics Sector
- Advanced Manufacturing

MXD DEVELOPMENT STRATEGISTS

Stantec

Catalytic Projects

Cold Chain Logistics Hub

Potential Strategic Partners & Stakeholders

- Leduc-Nisku Economic Development Association
- Leduc County
- City of Leduc

Transportation Improvements Required

- Nisku Spine Road Extension
- 65th Avenue Interchange
- Aerotropolis Boulevard East

Example End Users

- VersaCold
- TLS
- Trenton Cold Storage
- Robert

Target Development Parameters				
Type	Typical Parcel Size (Acres)	Developed Floor Area		Floors
		Min (SF)	Max (SF)	
Data Centre	2 to 14	20,000	180,000	1
Flex Business Park	1 to 4	10,000	50,000	2

MXD DEVELOPMENT STRATEGISTS

Stantec

Catalytic Projects

Agri-Food Processing Complex & Business Park

Description & Economic Rationale

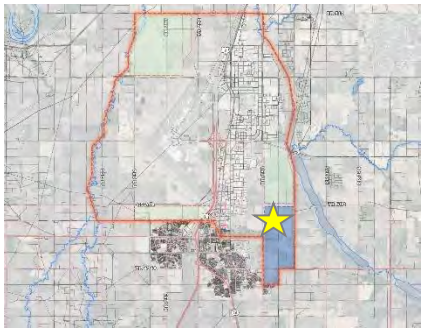
The Agri Food Processing Hub & Business Park will grow into a central component of Northern Alberta's agri-business industry, providing single and multi-tenant buildings for food processing, bottling, brewing, food science, & research and development.

The hub capitalizes on the unique advantage of Leduc's Agrivalue Processing Business Incubator and Food Processing Development Centre, which is already a catalyst that can be expanded upon. The location also benefits from strong transportation linkages with EIA and the QEII Highway, and the adjacency of the Cold Chain Logistics Hub, a requirement for the Agri-Foods industry.

The hub will be supplemented with greenhouses in the short term, until demand rises, and higher and better uses make use of the development area. There are also opportunities for modern high-intensity and state-of-the-art clean factory farms that produce food for consumption and the neutraceutical industry.

Enabler & Accelerator for Key Economic Activities and Land Development

- Agri-Business & Perishables
- Logistics & Distribution / Cold Chain Facilities
- Neutraceuticals
- Skills Training & Business Incubation



Airport Adjacency

Moderate

Project Timing

5-15 Years

MXD DEVELOPMENT STRATEGISTS

Stantec

Catalytic Projects

Agri-Food Processing Complex & Business Park

Potential Strategic Partners & Stakeholders

- Leduc-Nisku Economic Development Association
- Leduc County
- City of Leduc
- Agrivalue Processing Business Incubator
- Alberta Agriculture & Rural Development
- Local Food Producers

Transportation Improvements Required

- Nisku Spine Road Extension
- 65th Avenue Interchange
- Aerotropolis Boulevard East

Example End Users

- Nestle
- Coca Cola Bottling
- Inovata Foods
- Canada Bread
- Cargill
- Toshiba Factory Farms

Target Development Parameters				
Type	Typical Parcel Size (Acres)	Developed Floor Area		Floors
		Min (SF)	Max (SF)	
Food Processing Facility	1 to 6	2,000	50,000	1
Flex Business Park	1 to 4	10,000	50,000	2
Clean Factory Farms	2 to 4	15,000	30,000	1

MXD DEVELOPMENT STRATEGISTS

Stantec

Catalytic Projects

Lakefront Corporate Park

Description & Economic Rationale

The Lakefront Corporate Park will be the premier business center in the Aerotropolis, with large lots that overlook Telford Lake. Companies will be able to provide amenities to their employees that will not be found elsewhere in the Edmonton Capital Region such as green open space, wildlife, walking trails and recreational opportunities.

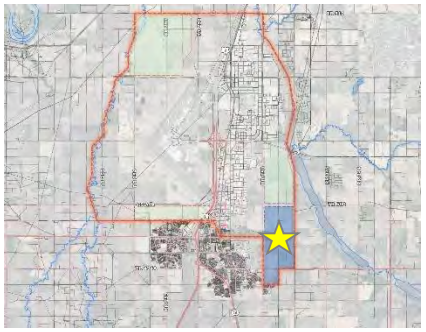
Strategically located near the centre of Leduc, companies will be near many shopping and dining options, and only minutes from EIA.

The corporate park should invite a local development team to act as a developer for companies that prefer leasing multi-tenant space, however the majority of buildings will be Class A & B single tenant build to suit on serviced sites.

The corporate park will be home to companies that are associated with economic clusters identified in the Aerotropolis, as well as firms that desire more space than can be found in Edmonton.

Enabler & Accelerator for Key Economic Activities and Land Development

- Business Services
- Education
- Retail & Restaurants



Airport Adjacency

Moderate

Project Timing

5-15 Years

MXD DEVELOPMENT STRATEGISTS

Stantec

Catalytic Projects

Lakefront Corporate Park

Potential Strategic Partners & Stakeholders

- Leduc-Nisku Economic Development Association
- City of Leduc
- Office Developer

Transportation Improvements Required

- Nisku Spine Road Extension
- 65th Avenue Interchange
- Aerotropolis Boulevard East

Target Development Parameters				
Type	Typical Parcel Size (Acres)	Developed Floor Area		Floors
		Min (SF)	Max (SF)	
Campus Office	2 to 5	30,000	80,000	4

MXD DEVELOPMENT STRATEGISTS

Stantec

Catalytic Projects

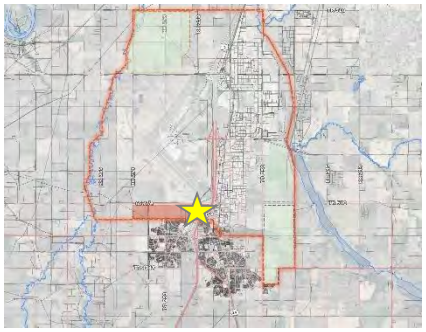
Discovery Park Incubator

Description & Economic Rationale

The Discovery Park Incubator will be a co-location facility for like-minded companies within various Aerotropolis sectors such as Information & Communications Technology, Life Sciences, Energy, and Aerospace & Aviation. It will provide turn-key facilities that have offices, lab space, and large "sandboxes" for early-stage and growing companies.

The incubator will be created especially for small-sized start-ups that require incubation space on a monthly lease, in an entrepreneurial setting. The space will look to accelerate growth of various targeted Aerotropolis clusters.

The Discovery Park Incubator will be strategically located along the future LRT line, adjacent to the Aerotropolis Campus, and near many amenities such as shopping and services.



Airport Adjacency

High

Project Timing

5-15 Years

Enabler & Accelerator for Key Economic Activities and Land Development

- Entrepreneurial start-ups
- Education
- Retail & Restaurants
- ICT
- Life Sciences
- Energy
- Aerospace & Aviation

MXD DEVELOPMENT STRATEGISTS

Stantec

Catalytic Projects

Discovery Park Incubator

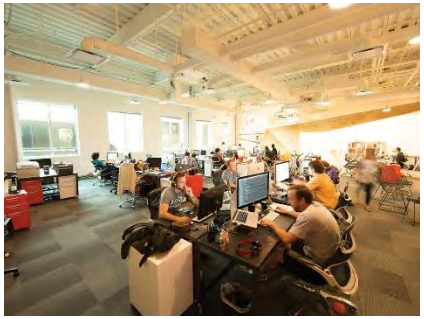
Potential Strategic Partners & Stakeholders

- Leduc-Nisku Economic Development Association
- City of Leduc
- NAIT
- University of Alberta
- Alberta Council of Technologies

Transportation Improvements Required

- 65th Avenue Interchange
- Aerotropolis Boulevard West

Target Development Parameters				
Type	Typical Parcel Size (Acres)	Developed Floor Area		Floors
		Min (SF)	Max (SF)	
Campus Office	1 to 3	15,000	30,000	3



MXD DEVELOPMENT STRATEGISTS

Stantec

Catalytic Projects

Aerotropolis Campus

Description & Economic Rationale

The Aerotropolis Campus will be a full-fledged educational campus that will be dedicated to skills training in various industries such as business, logistics, life sciences, agriculture, and aerospace.

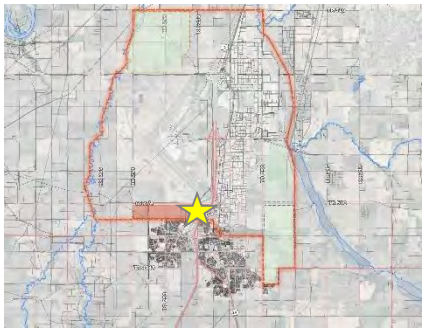
The campus will be a seamless extension of other institutions in Alberta, which will ensure the same high quality programs to students. Institutions will provide the programs and learning environment, with the City, the Province, philanthropists and local developers providing the land and physical campus.

The Aerotropolis Campus will be strategically located next to the Discovery Park Incubator, creating synergies between education and entrepreneurship.

Establishing an education campus will be critical for the Aerotropolis over the long-term, ensuring that the proper skills training is in place on a local level to provide a workforce that is proficient in their field of expertise and can funnel into the various sectors.

Enabler & Accelerator for Key Economic Activities and Land Development

- Entrepreneurial start-ups
- Retail & Restaurants
- Primary Economic Clusters



Airport Adjacency

High

Project Timing

5-15 Years

MXD DEVELOPMENT STRATEGISTS

Stantec

Catalytic Projects

Aerotropolis Campus

Potential Strategic Partners & Stakeholders

- Province of Alberta
- Leduc-Nisku Economic Development Association
- City of Leduc
- NAIT
- University of Alberta
- Red Deer College

Transportation Improvements Required

- 65th Avenue Interchange
- Aerotropolis Boulevard West

Example End Users

- University of Alberta
- NAIT
- Red Deer College

Target Development Parameters				
Type	Typical Parcel Size (Acres)	Developed Floor Area		Floors
		Min (SF)	Max (SF)	
Educational Campus	3 to 20	50,000	350,000	2

MXD DEVELOPMENT STRATEGISTS

Stantec

Catalytic Projects

Distillery & Dining District

Description & Economic Rationale

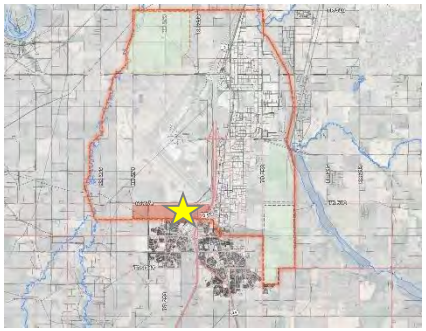
The Distillery & Dining District will be a cluster of food and drink, providing a gathering place for local residents and those working in the Aerotropolis. Offering an array of grab-n-go and full service restaurants from entrepreneurial local chefs and regional chains. At the heart of the district will be destination craft brewery and distillery.

The district will reduce leakage to South Edmonton within the food & beverage sector, and create more nighttime options for residents. As the City of Leduc grows population wise, and the Aerotropolis builds out, supply must consistently keep pace with demand for food and beverage.

The district should have a mixture of casual, mid-range, upscale restaurants, with a phased expansion over time as popularity grows. The focus can also be towards local and regional food (farm-to-table), creating a connection with the local Agri-Foods industry.

Enabler & Accelerator for Key Economic Activities and Land Development

- Retail & Restaurants
- Primary Economic Clusters



Airport Adjacency

Moderate

Project Timing

5-15 Years

MXD DEVELOPMENT STRATEGISTS

Stantec

Catalytic Projects

Distillery & Dining District

Potential Strategic Partners & Stakeholders

- Leduc-Nisku Economic Development Association
- City of Leduc
- P3 Partnership with a developer/landowner

Transportation Improvements Required

- 65th Avenue Interchange
- Aerotropolis Boulevard West

Example End Users

- Big Rock Brewery
- Brewsters
- Browns Social House
- Earls Kitchen + Bar
- Joey's Restaurants
- Local independent breweries and restaurants.

Target Development Parameters				
Type	Typical Parcel Size (Acres)	Developed Floor Area		Floors
		Min (SF)	Max (SF)	
Restaurant Cluster	2 to 4	20,000	40,000	1

MXD DEVELOPMENT STRATEGISTS

Stantec

Catalytic Projects

Aerospace Research Park

Description & Economic Rationale

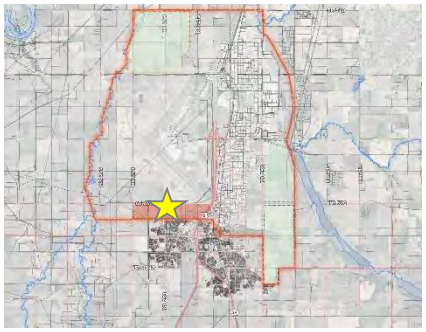
The Aerospace Research Park will be a mix of advanced manufacturing and research & development based around the aerospace and aviation industries. It will have direct synergy with the Technical Institute at EIA, focusing towards similar niche and growing sub-sectors such as Defense Electronics, UAV's, High Speed Flight, Advanced Materials, Geomatics, and Satellite Telemetry.

The Research Park will be strategically located on both the 65th Avenue Priority Area, and EIA lands, connecting the City and Airport. Office oriented and flex-space development that will house research & development and light manufacturing will be better suited on 65th Avenue lands, while larger manufacturing and testing facilities will land on EIA lands north of Aerotropolis Boulevard.

MRO (Maintenance/Repair/Overhaul) facilities will round out the Park, focusing towards charter, cargo and industrial aircraft. Facilities should have on-site engineering support and reach-back capability to provide high-efficiencies.

Enabler & Accelerator for Key Economic Activities and Land Development

- Technical Institute / Education & Skills Training
- Advanced Manufacturing
- Commercial Aviation
- Energy Sector



Airport Adjacency

High

Project Timing

5-15 Years

MXD DEVELOPMENT STRATEGISTS

Stantec

Catalytic Projects

Aerospace Research Park

Potential Strategic Partners & Stakeholders

- Leduc-Nisku Economic Development Association
- City of Leduc
- Edmonton International Airport
- Major Aerospace & Aviation Companies

Transportation Improvements Required

- 65th Avenue Interchange
- Aerotropolis Boulevard West
- Edmonton International Airport Internal Ring Road.

Example End Users

- CMC Electronics Inc.
- Cascade Aerospace
- MacDonald, Dettwiler and Associates
- Mist Mobility Integrated Systems
- General Dynamics
- Pratt & Whitney

Target Development Parameters				
Type	Typical Parcel Size (Acres)	Developed Floor Area		Floors
		Min (SF)	Max (SF)	
Campus Office	1 to 4	20,000	75,000	2
Flex Business Park	1 to 4	10,000	50,000	2
Advanced Manufacturing Facility	2 to 14	20,000	200,000	1
Aerospace Testing Facility	8 to 23	50,000	150,000	1

MXD DEVELOPMENT STRATEGISTS

Stantec

Catalytic Projects

Retail Fulfillment Hub

Description & Economic Rationale

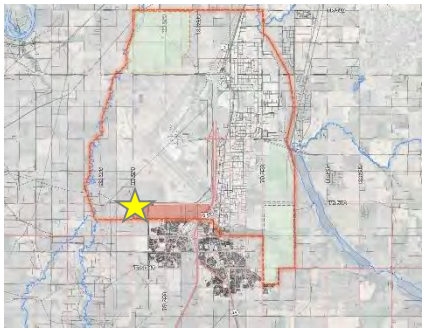
A hub for both bricks-and-mortar and e-commerce order fulfillment, these distribution centres act as the principle link between supplier and customers. They will have state-of-the-art order processing systems, and transportation management that ensure that goods are delivered in an expedited fashion. Services will include warehousing, transportation, cross-docking, and order-fulfillment.

The strategic location will allow businesses operating in the hub to have direct access to EIA, the QEII Highway, and the future 170th Street roadway, providing linkages for ground, rail, and air movement.

Growing demand within retail fulfillment indicates that the Aerotropolis can capitalize on serving the Edmonton Capital Region and Northern Alberta. Distribution centres are typically build-to-suit operations, with the owner and operator constructing the building with their own capital, reducing the risk to potential stakeholders.

Enabler & Accelerator for Key Economic Activities and Land Development

- Transportation & Logistics
- Commercial Aviation / Cargo Flights



Airport Adjacency

High

Project Timing

5-15 Years

MXD DEVELOPMENT STRATEGISTS

Stantec

Catalytic Projects

Retail Fulfillment Hub

Potential Strategic Partners & Stakeholders

- Leduc-Nisku Economic Development Association
- City of Leduc
- Edmonton International Airport
- Large-scale Retail Companies

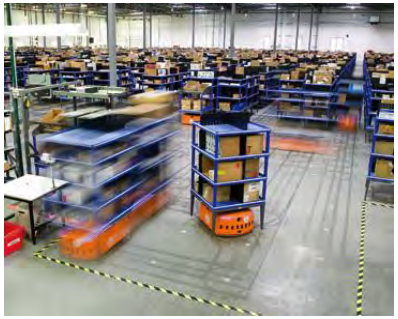
Transportation Improvements Required

- 65th Avenue Interchange
- Aerotropolis Boulevard West
- Edmonton International Airport Internal Ring Road.

Example End Users

- Amazon
- Loblaws
- NRI Distribution Inc.
- InterFulfillment

Target Development Parameters				
Type	Typical Parcel Size (Acres)	Developed Floor Area		Floors
		Min (SF)	Max (SF)	
Distribution Centre	6 to 35	50,000	300,000	1



MXD DEVELOPMENT STRATEGISTS

Stantec

6 Aerotropolis Development Phasing

Phasing Strategy

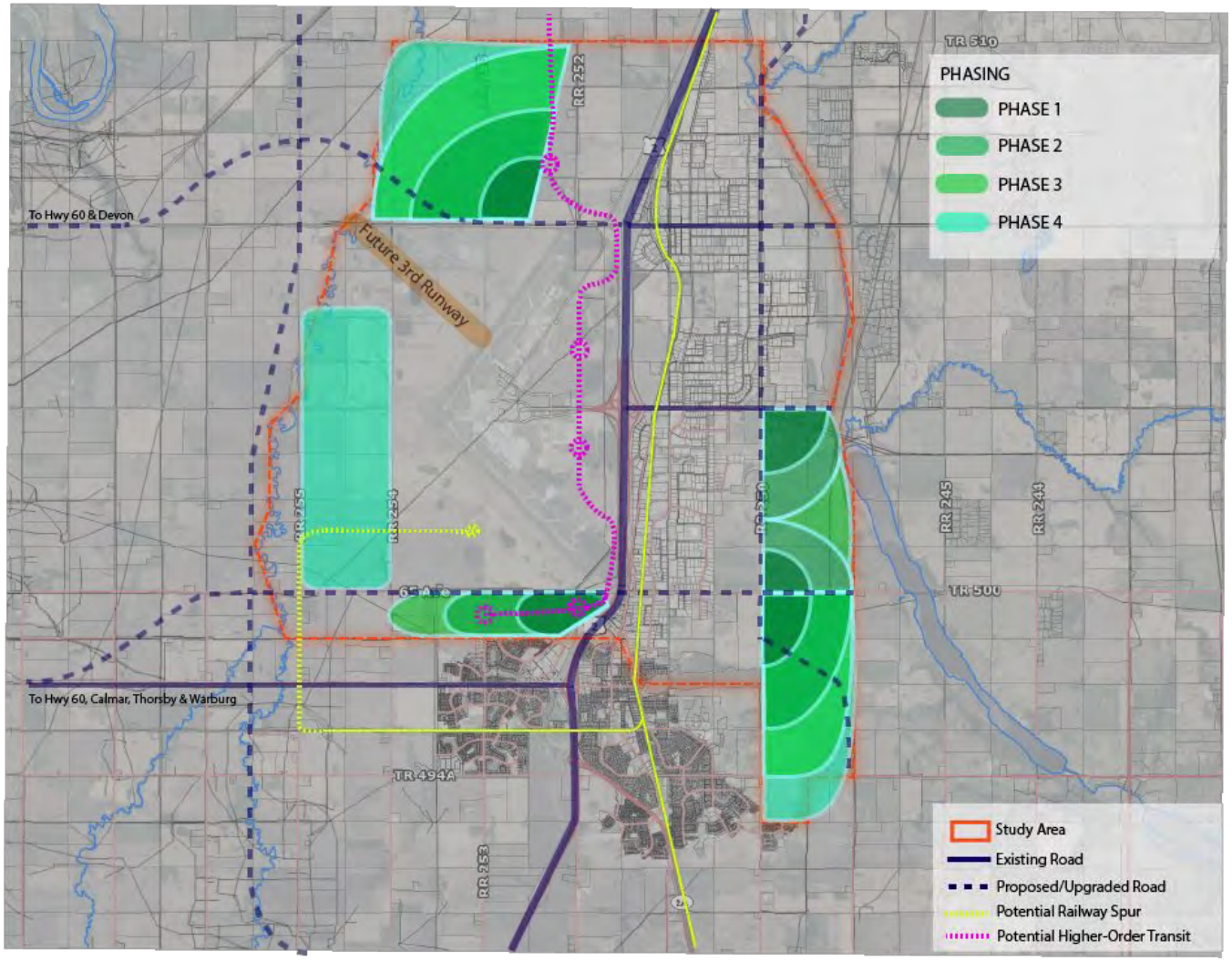
Introduction

A phasing strategy was undertaken for the four priority areas to recognize how each area should be phased over time, and which priority area could begin development first. MXD and Stantec engaged with the Joint Infrastructure Master Plan and Services Evaluation (JIMPSE) team, who have run a parallel study within similar area boundaries that analyses the transportation and servicing infrastructure upgrades required over a thirty year period. The two teams collaborated and evaluated the outputs of the Aerotropolis Development Program, Aerotropolis Economic Impacts, and JIMPSE Infrastructure Costs to determine the ideal location for the initiation of Aerotropolis Development. These outputs are displayed on the Phasing Summary Table, Table 6.5.

Figures 6.1 and 6.2 demonstrate how the phasing of Aerotropolis development will occur in a conceptual spatial method in each priority area.

Phasing Strategy

Figure 6.1 Phasing – Priority Areas



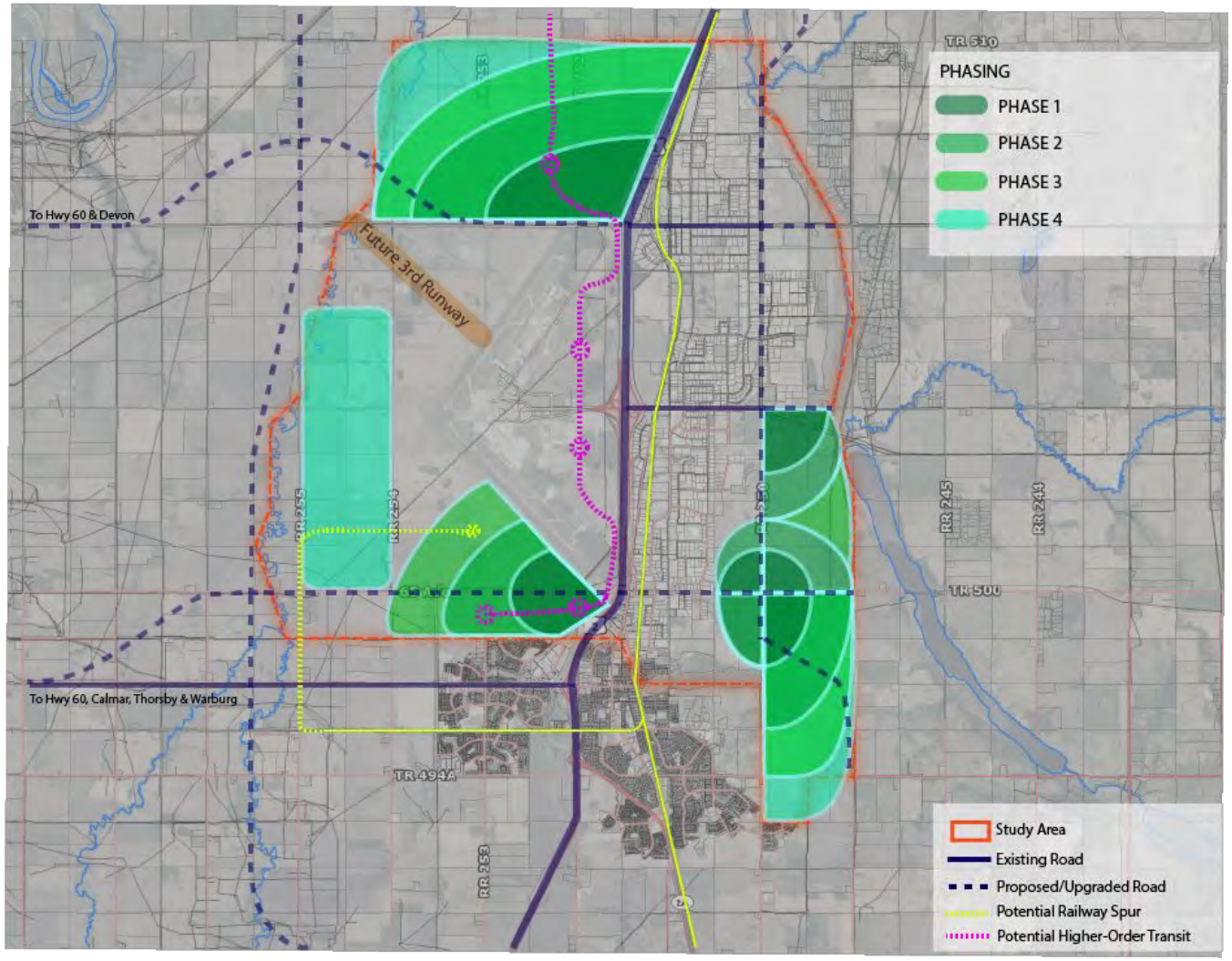
*Note: Phasing Map for Illustrative Purposes Only. Not to Scale

MXD DEVELOPMENT STRATEGISTS

Stantec

Phasing Strategy

Figure 6.2 Phasing – Priority Areas + Adjoining Development Areas



*Note: Phasing Map for Illustrative Purposes Only. Not to Scale

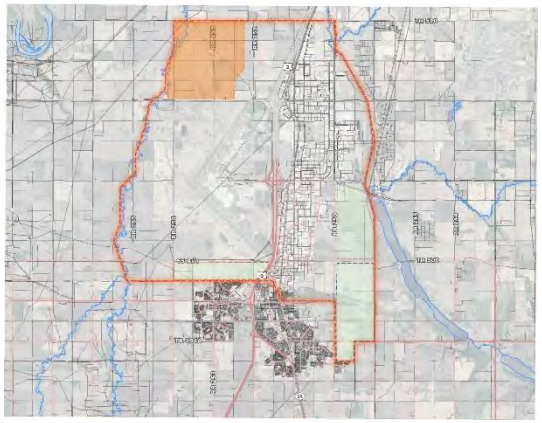
MXD DEVELOPMENT STRATEGISTS

Stantec

Phasing Strategy

Table 6.1 Phasing – Priority A – Highway 19 West

PRIORITY A - HIGHWAY 19			
TOTAL ALLOCATION			
Development Typology	**Square Footage Developable Space**	**Jobs**	**Acres**
Campus Office	1,050,000	3,818	60
Flex Business Park	1,650,000	2,600	126
Light Industrial Manufacturing & Processing	2,000,000	2,500	191
Warehouse & Distribution Facility	2,350,000	1,567	270
TOD Aerotropolis Centre	500,000	1,429	19
Neighbourhood Retail	60,000	171	5
Call Centre	100,000	500	6
Totals	**7,710,000**	**12,585**	**678**
PHASE 1 ALLOCATION			
Development Typology	**Square Footage Developable Space**	**Jobs**	**Acres**
Campus Office	210,000	764	12
Flex Business Park	330,000	520	25
Light Industrial Manufacturing & Processing	400,000	500	38
Warehouse & Distribution Facility	470,000	313	54
TOD Aerotropolis Centre	0	0	0
Neighbourhood Retail	0	0	0
Call Centre	0	0	0
Totals	**1,410,000**	**2,097**	**130**
PHASE 2 ALLOCATION			
Development Typology	**Square Footage Developable Space**	**Jobs**	**Acres**
Campus Office	525,000	1,909	30
Flex Business Park	825,000	1,300	63
Light Industrial Manufacturing & Processing	1,000,000	1,250	96
Warehouse & Distribution Facility	1,175,000	783	135
TOD Aerotropolis Centre	250,000	714	10
Neighbourhood Retail	60,000	171	5
Call Centre	50,000	250	3
Totals	**3,885,000**	**6,378**	**341**
PHASE 3 ALLOCATION			
Development Typology	**Square Footage Developable Space**	**Jobs**	**Acres**
Campus Office	315,000	1,145	18
Flex Business Park	495,000	780	38
Light Industrial Manufacturing & Processing	600,000	750	57
Warehouse & Distribution Facility	705,000	470	81
TOD Aerotropolis Centre	250,000	714	10
Neighbourhood Retail	0	0	0
Call Centre	50,000	250	3
Totals	**2,415,000**	**4,110**	**207**



PHASE 1 — 130 Acres

PHASE 2 — 341 Acres

PHASE 3 — 207 Acres

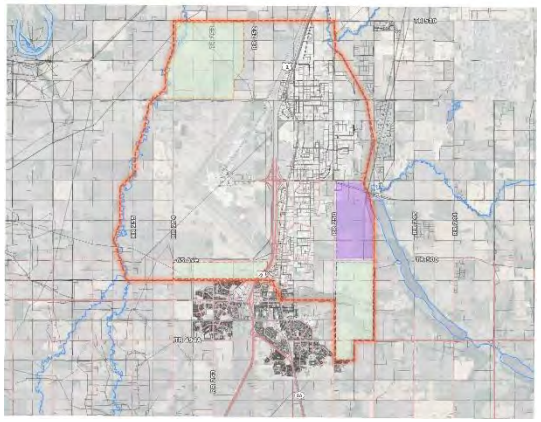
MXD DEVELOPMENT STRATEGISTS

Stantec

Phasing Strategy

Table 6.2 Phasing – Priority B1 – Saunders Lake Northern District

PRIORITY B1 - SAUNDERS LAKE			
TOTAL ALLOCATION			
Development Typology	**Square Footage Developable Space**	**Jobs**	**Acres**
Campus Office	400,000	1,455	18
Flex Business Park	1,500,000	2,467	119
Light Industrial Manufacturing & Processing	2,050,000	2,708	260
Warehouse & Distribution Facility	1,400,000	853	149
Sustainable BioFuel Facility	60,000	40	9
Data Server Facility	360,000	240	33
Educational Campus	10,000	10	23
Totals	**5,780,000**	**7,773**	**613**
PHASE 1 ALLOCATION			
Development Typology	**Square Footage Developable Space**	**Jobs**	**Acres**
Campus Office	0	0	0
Flex Business Park	300,000	493	24
Light Industrial Manufacturing & Processing	820,000	1,083	104
Warehouse & Distribution Facility	280,000	171	30
Sustainable BioFuel Facility	0	0	0
Data Server Facility	108,000	72	10
Educational Campus	10,000	10	23
Totals	**1,518,000**	**1,829**	**191**
PHASE 2 ALLOCATION			
Development Typology	**Square Footage Developable Space**	**Jobs**	**Acres**
Campus Office	200,000	727	9
Flex Business Park	600,000	987	48
Light Industrial Manufacturing & Processing	820,000	1,083	104
Warehouse & Distribution Facility	560,000	341	60
Sustainable BioFuel Facility	60,000	40	9
Data Server Facility	252,000	168	23
Educational Campus	0	0	0
Totals	**2,492,000**	**3,347**	**253**
PHASE 3 ALLOCATION			
Development Typology	**Square Footage Developable Space**	**Jobs**	**Acres**
Campus Office	200,000	727	9
Flex Business Park	600,000	987	48
Light Industrial Manufacturing & Processing	410,000	542	52
Warehouse & Distribution Facility	560,000	341	60
Sustainable BioFuel Facility	0	0	0
Data Server Facility	0	0	0
Educational Campus	0	0	0
Totals	**1,770,000**	**2,597**	**169**



PHASE 1 — 191 Acres

PHASE 2 — 253 Acres

PHASE 3 — 169 Acres

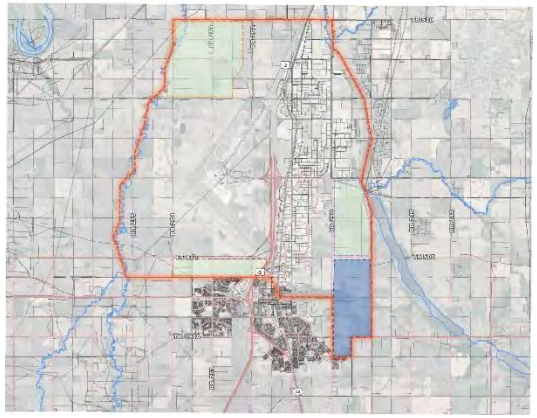
MXD DEVELOPMENT STRATEGISTS

Stantec

Phasing Strategy

Table 6.3 Phasing – Priority B2 – Telford Lake Southern District

PRIORITY B2 - TELFORD LAKE			
TOTAL ALLOCATION			
Development Typology	**Square Footage Developable Space**	**Jobs**	**Acres**
Campus Office	500,000	1,818	38
Flex Business Park	1,250,000	1,967	87
Light Industrial Manufacturing & Processing	1,280,000	1,625	105
Warehouse & Distribution Facility	1,850,000	1,180	197
Data Server Facility	400,000	267	37
Neighbourhood Retail	60,000	171	5
Clean Factory Farms	150,000	300	17
Greenhouses	200,000	100	23
Totals	**5,690,000**	**7,428**	**510**
PHASE 1 ALLOCATION			
Development Typology	**Square Footage Developable Space**	**Jobs**	**Acres**
Campus Office	0	0	0
Flex Business Park	125,000	197	9
Light Industrial Manufacturing & Processing	384,000	488	32
Warehouse & Distribution Facility	555,000	354	59
Data Server Facility	0	0	0
Neighbourhood Retail	30,000	86	2
Clean Factory Farms	0	0	0
Greenhouses	0	0	0
Totals	**1,094,000**	**1,124**	**102**
PHASE 2 ALLOCATION			
Development Typology	**Square Footage Developable Space**	**Jobs**	**Acres**
Campus Office	150,000	545	11
Flex Business Park	500,000	787	35
Light Industrial Manufacturing & Processing	640,000	813	53
Warehouse & Distribution Facility	740,000	472	79
Data Server Facility	160,000	107	15
Neighbourhood Retail	30,000	86	2
Clean Factory Farms	75,000	150	9
Greenhouses	100,000	50	11
Totals	**2,395,000**	**3,009**	**215**
PHASE 3 ALLOCATION			
Development Typology	**Square Footage Developable Space**	**Jobs**	**Acres**
Campus Office	350,000	1,273	27
Flex Business Park	625,000	983	44
Light Industrial Manufacturing & Processing	256,000	325	21
Warehouse & Distribution Facility	555,000	354	59
Data Server Facility	240,000	160	22
Neighbourhood Retail	0	0	0
Clean Factory Farms	75,000	150	9
Greenhouses	100,000	50	11
Totals	**2,201,000**	**3,295**	**193**



PHASE 1 — 102 Acres

PHASE 2 — 215 Acres

PHASE 3 — 193 Acres

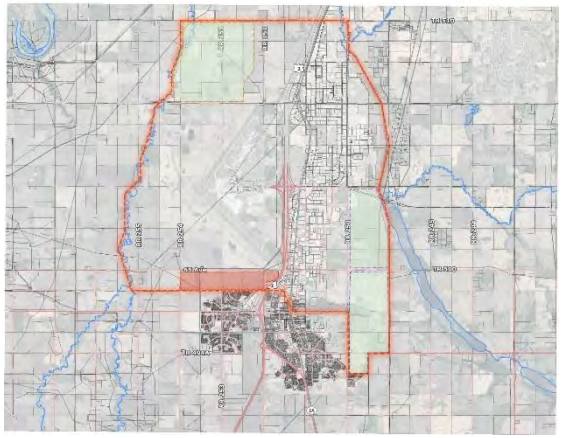
MXD DEVELOPMENT STRATEGISTS

Stantec

Phasing Strategy

Table 6.4 Phasing – Priority C – 65th Avenue West

PRIORITY C - 65th Avenue West			
TOTAL ALLOCATION			
Development Typology	**Square Footage Developable Space**	**Jobs**	**Acres**
Aerospace Advanced Manufacturing Facility	750,000	1,000	65
Campus Office	425,000	1,545	24
Flex Business Park	775,000	1,550	44
Light Industrial Manufacturing & Processing	475,000	594	35
Warehouse & Distribution Facility	950,000	593	109
Educational Campus	350,000	130	16
TOD Aerotropolis Centre	350,000	1,000	13
Retail	450,000	986	38
Totals	**4,525,000**	**7,398**	**345**
PHASE 1 ALLOCATION			
Development Typology	**Square Footage Developable Space**	**Jobs**	**Acres**
Aerospace Advanced Manufacturing Facility	0	0	0
Campus Office	85,000	309	5
Flex Business Park	310,000	620	18
Light Industrial Manufacturing & Processing	47,500	59	3
Warehouse & Distribution Facility	190,000	119	22
Educational Campus	175,000	65	8
TOD Aerotropolis Centre	0	0	0
Retail	180,000	394	15
Totals	**987,500**	**1,566**	**71**
PHASE 2 ALLOCATION			
Development Typology	**Square Footage Developable Space**	**Jobs**	**Acres**
Aerospace Advanced Manufacturing Facility	375,000	500	32
Campus Office	255,000	927	15
Flex Business Park	232,500	465	13
Light Industrial Manufacturing & Processing	95,000	119	7
Warehouse & Distribution Facility	285,000	178	33
Educational Campus	175,000	65	8
TOD Aerotropolis Centre	175,000	500	7
Retail	270,000	591	23
Totals	**1,862,500**	**3,345**	**138**
PHASE 3 ALLOCATION			
Development Typology	**Square Footage Developable Space**	**Jobs**	**Acres**
Aerospace Advanced Manufacturing Facility	375,000	500	32
Campus Office	85,000	309	5
Flex Business Park	232,500	465	13
Light Industrial Manufacturing & Processing	332,500	416	24
Warehouse & Distribution Facility	475,000	297	55
Educational Campus	0	0	0
TOD Aerotropolis Centre	175,000	500	7
Retail	0	0	0
Totals	**1,675,000**	**2,486**	**136**



PHASE 1 — 71 Acres

PHASE 2 — 138 Acres

PHASE 3 — 136 Acres

MXD DEVELOPMENT STRATEGISTS

Stantec

Phasing Strategy

Table 6.5 Phasing Summary Table

		Sq. Ft. Developable Space	Acres of Development	Jobs Created	Employment Density (Jobs Per Acre)	Annual Property Taxes Generated (millions)	Contingent Transportation Upgrades ($M)	Supporting Transportation Upgrades ($M)	Servicing Infrastructure Required ($M)
Highway 19 West	Phase 1	1,410,000	130	2,097	16.2	$3.88	82	-	
	Phase 2	3,885,000	341	6,378	18.7	$10.70	151	-	
	Phase 3	2,415,000	207	4,110	19.9	$6.66	-	364	
	Total	7,710,000	678	12,585	18.3	$21.24	233	364	
Saunders Lake Northern District	Phase 1	1,518,000	191	1,829	9.6	$4.20	13	155	
	Phase 2	2,492,000	253	3,347	13.2	$6.87	-	81	
	Phase 3	1,770,000	169	2,597	15.4	$4.88	-	155	
	Total	5,780,000	613	7,773	12.7	$15.95	13	391	
Telford Lake Southern District	Phase 1	1,094,000	102	1,124	11.1	$3.34	55	16	
	Phase 2	2,395,000	215	3,009	14	$7.29	20	81	
	Phase 3	2,201,000	193	3,295	17.1	$6.67	-	179	
	Total	5,690,000	510	7,428	14.1	$17.30	75	276	
65th Avenue West	Phase 1	987,500	71	1,556	22	$3.01	129	-	
	Phase 2	1,862,500	138	3,345	24.3	$5.68	39	81	
	Phase 3	1,675,000	136	2,486	18.2	$5.10	48	92	
	Total	4,525,000	345	7,387	21.5	$13.79	216	173	

*Note: Several transportation upgrades shared between priority areas; sum of the transportation upgrades would total more than 100% of investment; totals should only be used for comparison purposes

MXD DEVELOPMENT STRATEGISTS

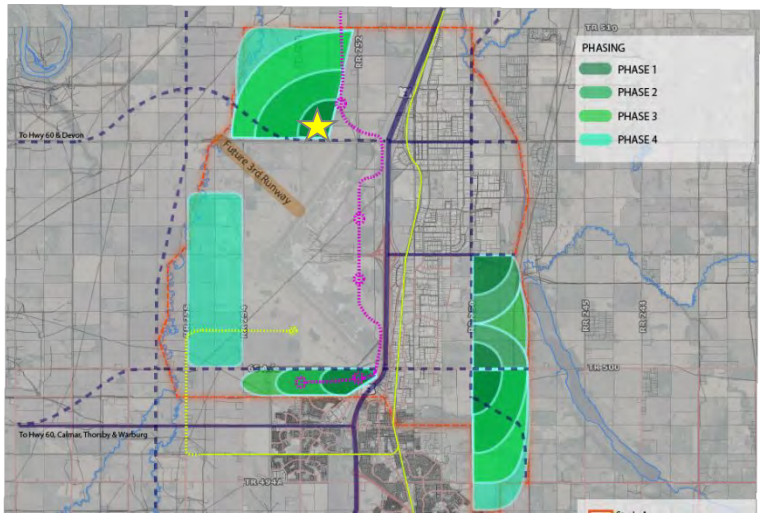
Stantec

Phasing Strategy

Highway 19 West

Opportunities

- Largest priority area by acreage, square footage of developable space, and number of jobs created.
- Can deliver the highest property tax revenue.
- Diversification of economy through advanced manufacturing & renewable energy.
- Short-Term Contingent transportation upgrades have partial funding from Province.
- Future higher-order transit nearby



Constraints

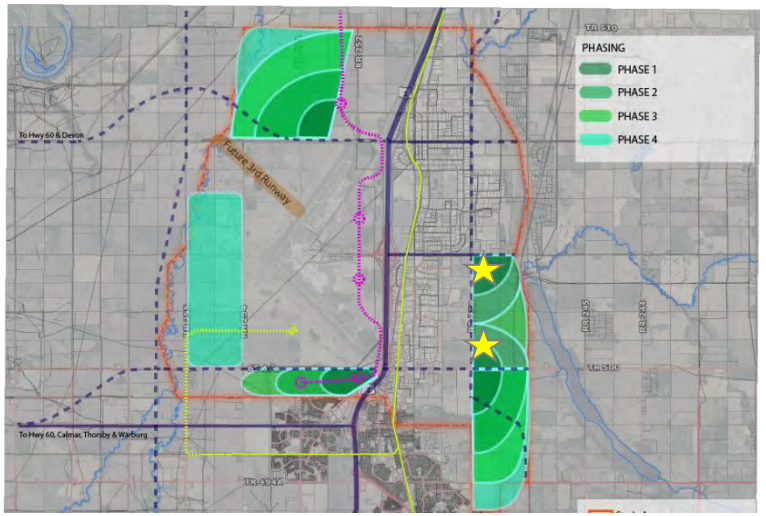
- Area will require the largest front ending of utility infrastructure; no existing infrastructure from which to leverage, however Crossroads ASP development will mitigate some of these issues.
- Partial funding for contingent transportation upgrades; significant future investment required.
- No adjacent development currently in the area.

MXD DEVELOPMENT STRATEGISTS

Stantec

Phasing Strategy

Saunders Lake Northern District



Opportunities

- Adjacency to Leduc Business Park and active development within Priority Area underway.
- Lowest contingent transportation upgrades required.
- Shared transportation upgrades with Telford Lake Southern District.
- Ease of servicing, especially for water supply & stormwater.
- Land uses complementary to adjacent areas, provides gradual introduction to Aerotropolis activities.
- Second highest developable acres and employment generation.

Constraints

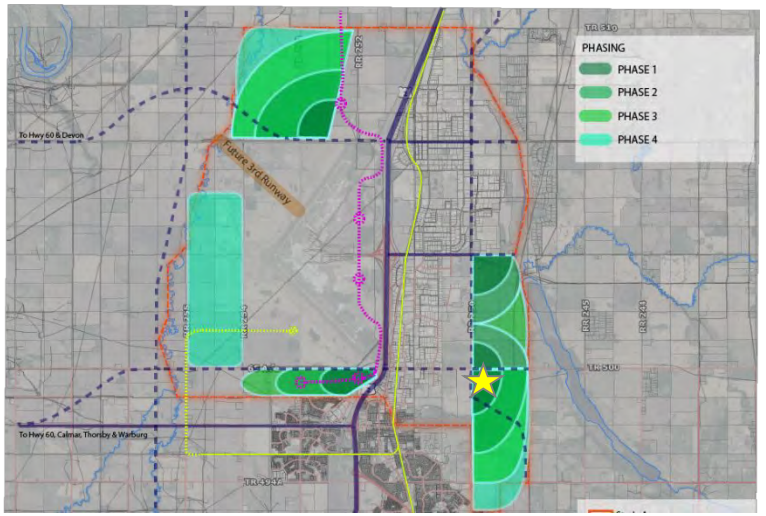
- Inter-jurisdictional servicing requirements (northern portion serviced from Nisku, southern portion serviced through joint infrastructure.
- Aerotropolis-related development is limiting in comparison to other priority areas.
- Catalyst projects located primarily in other Priority Areas.
- Preferred Hwy 2 access route contingent upon future Aerotropolis Blvd (65th Ave) Interchange.
- Lowest employment density.

MXD DEVELOPMENT STRATEGISTS

Stantec

Phasing Strategy

Telford Lake Southern District



Opportunities

- Second lowest Contingent transportation upgrades.
- Shared transportation upgrades with Saunders Lake Northern District.
- Active development adjacent to Priority Area.
- Strong Catalytic Projects will enable Aerotropolis development.
- Waterfront access along Telford Lake.
- Second highest property taxes generated.
- Existing infrastructure from City and County may be leveraged.

Constraints

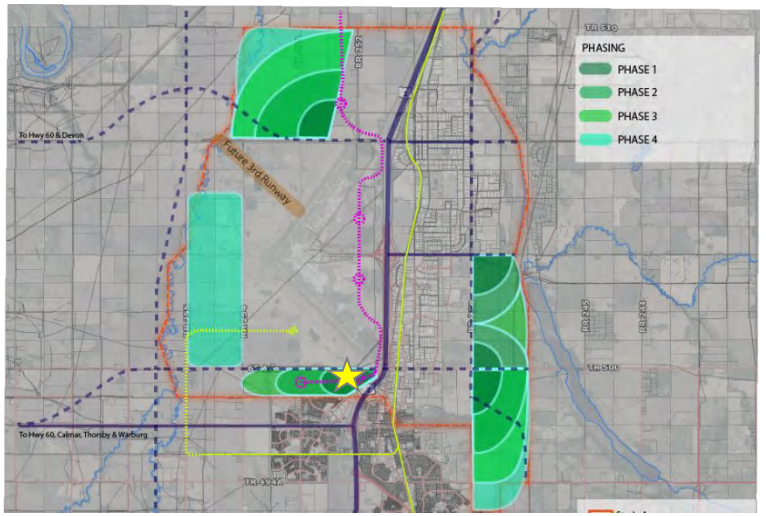
- Contingent transportation infrastructure currently unfunded (extension of Nisku Spine Road south of 65th Avenue/Aerotropolis Boulevard)
- Preferred Hwy 2 access route contingent upon future Aerotropolis Blvd (65th Ave) Interchange.
- Majority of Priority Area would require Phase 3 of Nisku Spine Road.
- Will trigger capital-intensive road and servicing infrastructure upgrades through the City of Leduc.
- Second lowest employment density.

MXD DEVELOPMENT STRATEGISTS

Stantec

Phasing Strategy

65th Avenue West



Opportunities

- Accessible via existing transportation infrastructure.
- Has highest employment density.
- Potential future LRT station(s).
- Strong Catalytic Projects will enable Aerotropolis development.
- Diversifies City of Leduc economy.
- Area may initially be serviced by the City.
- Strongest relationship to Edmonton International Airport (EIA).
- Potential to connect to internal EIA road network through signalized intersections.
- Can fully realize the Aerotropolis concept.

Constraints

- Smallest Priority Area in terms of acreage and developable square footage.
- Maximizing Priority Area potential requires highest contingent transportation upgrades (ie. Aerotropolis Blvd). Funding sources for transportation upgrades not yet identified.
- Adjacency to existing residential development may produce friction.
- Catalytic Projects longer-term in realization.

MXD DEVELOPMENT STRATEGISTS

Stantec

Phasing Strategy

Phasing Recommendations

- The City and County are able to begin development on three of the priority areas (excluding Highway 19) in the near future, and they will reach development capacity quite quickly before they require upgrades to servicing and transportation infrastructure.

- With the Saunders Lake Northern District Priority Area and Telford Lake Southern District requiring minimal investment in contingent transportation upgrades, being able to leverage on existing servicing from the County, and having allocated land uses complementary to adjacent areas such as Leduc Business Park, these become the natural starting point for Phase 1 of the Aerotropolis plan.

- Immediate development could occur in existing serviced areas such as Leduc Business Park so that interest begins to be realized for the Aerotropolis.

- If funding is realized for the 65th Avenue Interchange and Aerotropolis Boulevard transportation upgrades in the near future, the Telford Lake and 65th Avenue West Priority Areas can provide the greatest enablers for Aerotropolis development, although servicing will still be an issue.

- Aside from capital costs for servicing, there can also be lengthy time delays due to inter-municipal agreements.

- With funding already partially allocated for transportation upgrades along Highway 19, the largest issue for the Highway 19 Priority Area is realizing how to cost-effectively service an area that currently has no existing infrastructure to leverage from. What occurs at the Remington parcel east of the priority area over the next several years will create a clearer picture on when development could feasibly begin.

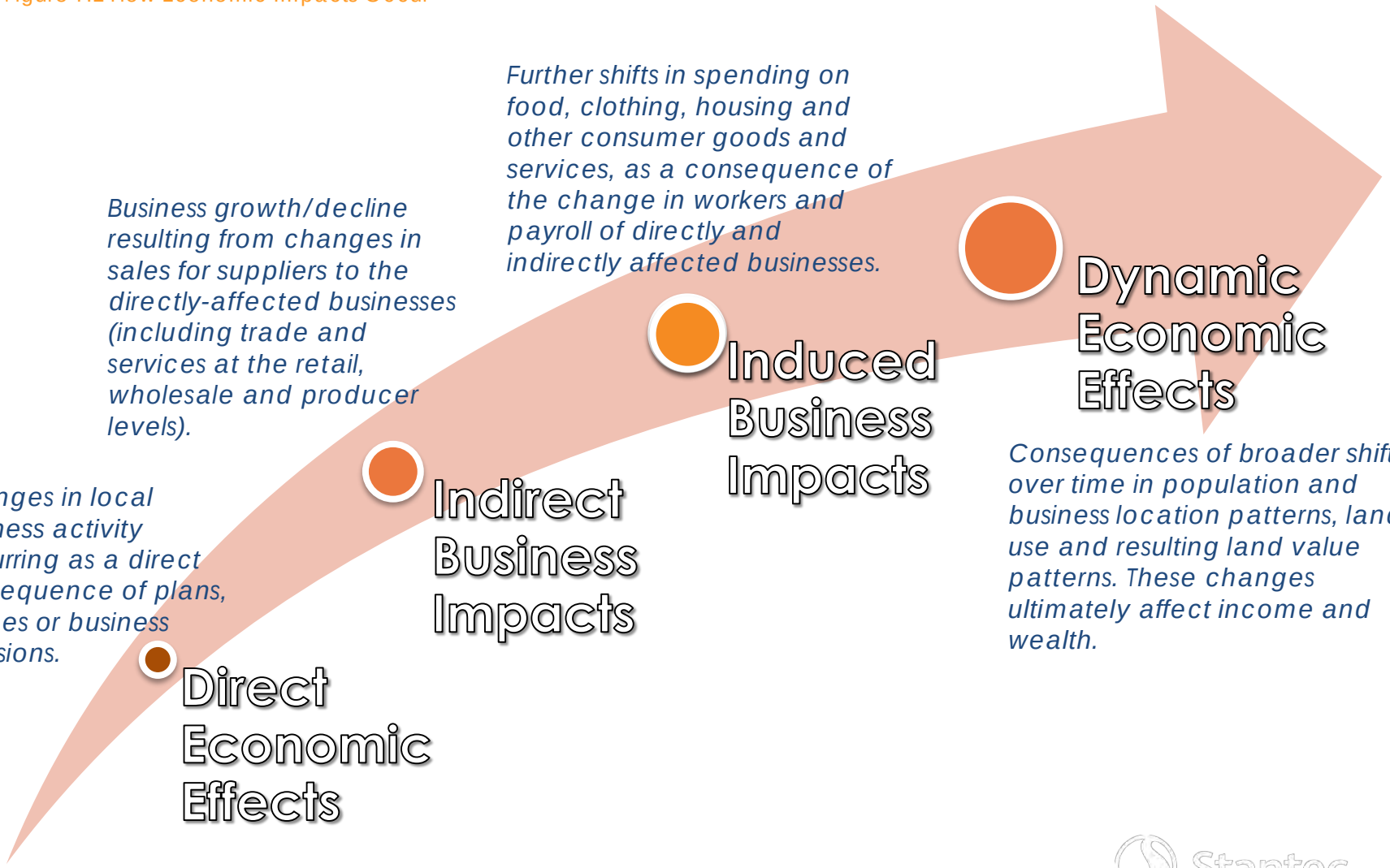
MXD DEVELOPMENT STRATEGISTS

Stantec

7 Economic Impacts

Economic Impacts

Figure 7.1 How Economic Impacts Occur

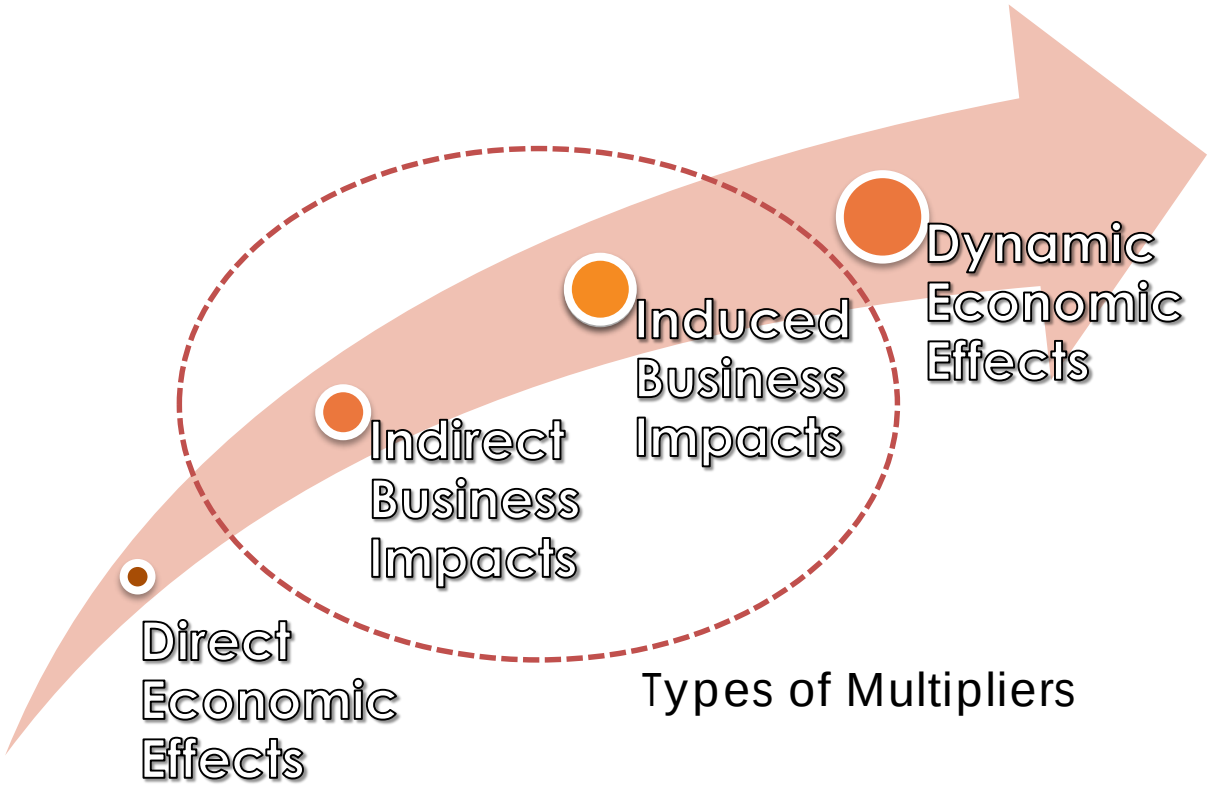


MXD DEVELOPMENT STRATEGISTS

Stantec

Economic Impacts

Figure 7.2 Types of Multipliers



- Indirect and Induced business impacts of a program, project, or facility are often referred to as **"Multiplier Effects"** since they can make the overall economic impact substantially larger than direct effects alone.
- The level of increase is somewhat dependent on the **area's** ability to provide additional workers and capital resources, or to attract them from elsewhere (this is usually true at local/state level).
- For the Aerotropolis model, multipliers were sourced from Finance Alberta.

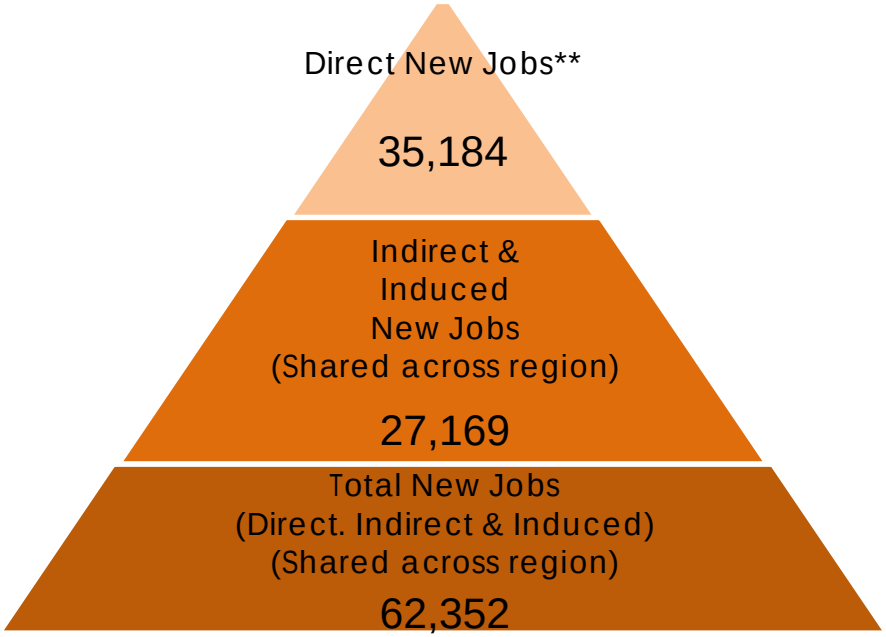
MXD DEVELOPMENT STRATEGISTS

Stantec

Economic Impacts

Table 7.1 Number of Jobs Created – Full Build-Out

Clusters	Direct Jobs	Indirect & Induced Jobs	Total Number of Jobs
Energy	9,754	10,173	19,927
Advanced Manufacturing	2,717	1,296	4,013
Transportation, Logistics & Distribution	4,133	1,418	5,551
Agri-Business	3,530	4,130	7,659
Aerospace & Aviation	1,923	2,480	4,403
ICT	3,302	2,179	5,482
Life Sciences	1,938	2,752	4,690
Education	140	68	208
Retail	1,329	392	1,721
TOD Commercial Hub	2,429	716	3,145
General Business	3,991	1,564	5,555
	35,184	**27,169**	**62,352**



* Based off the Edmonton Capital Region's "Low Case" Employment Projections from the *Capital Region Employment Projections Update 2014*. Calculated based off Direct Jobs created within the 4 priority areas only.

** Direct New Jobs based off of 75% allocation of total Aerotropolis jobs within study area to the four priority areas. This reflects the methodology regarding allocation of jobs on Page 28 of this document.

Alberta Aerotropolis could comprise of 5% of total jobs* in the Edmonton Capital Region once fully built-out in 25 to 30 years.

MXD DEVELOPMENT STRATEGISTS

Stantec

Economic Impacts

Table 7.2 Annual GDP Output – Full Build-Out

Clusters	GDP Impact of Aerotropolis
Energy	$ 1,125,419,580
Advanced Manufacturing	$ 781,580,688
Transportation, Logistics & Distribution	$ 440,888,889
Agri-Business	$ 1,684,555,785
Aerospace & Aviation	$ 416,590,909
ICT	$ 752,883,636
Life Sciences	$ 830,503,247
Education	$ 13,191,097
Retail	$ 75,778,182
TOD Commercial Hub	$ 190,175,410
General Business	$ 397,405,559
	$ 6,708,972,983

Alberta Aerotropolis could generate $11.3 billion* dollars to the provinces economy on an annual basis once fully built-out in 25 to 30 years.

* Based off $6.7 billion at 2015 rates, grown over 25 years at an annual GDP growth rate of 2.10% obtained from the City of Edmonton's *Long Term Economic Outlook* document. Calculated based off Direct Jobs created within the 4 priority areas only.

MXD DEVELOPMENT STRATEGISTS

Stantec

Economic Impacts

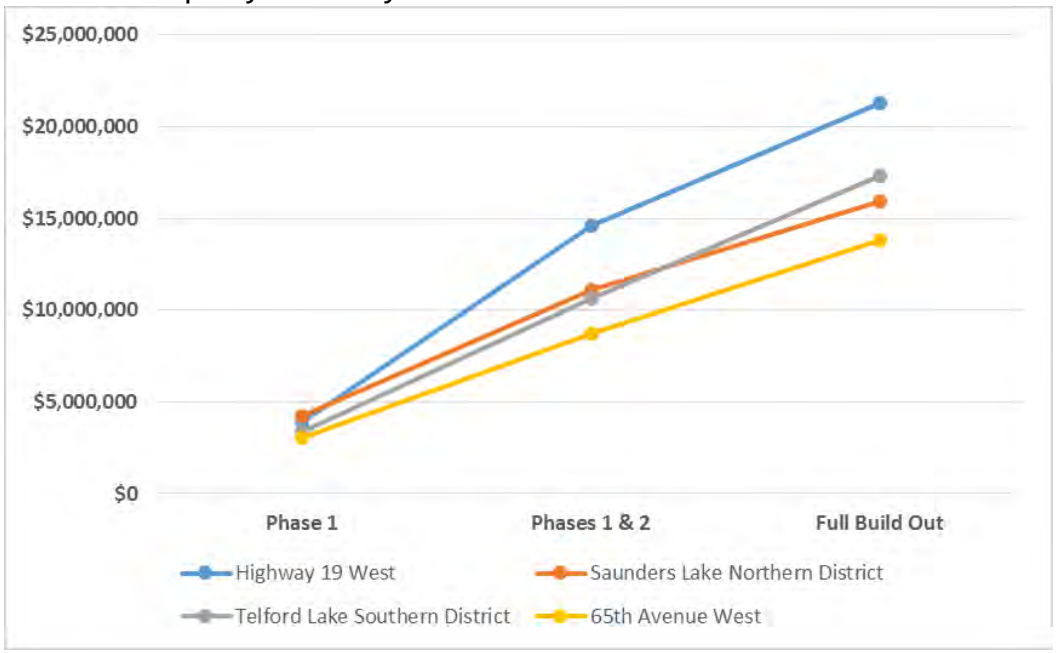
Property Taxes Generated

Table 7.3 Annual Property Taxes at Full Build-Out

Priority Area	Property Tax Generated Per Year
Highway 19 West	$21,250,901
Saunders Lake Northern District	$15,950,409
Telford Lake Southern District	$16,686,753
65th Avenue West	$13,792,574
Total	**$67,680,637**

Alberta Aerotropolis could generate $67.68 million* in 2015 dollars in non-residential Property Taxes on an annual basis once fully built-out in 25 to 30 years.

Annual Property Taxes By Phase



* Calculated based off industrial & commercial development within the 4 priority areas only. City of Leduc and Leduc County mill rates used for the priority areas in their respective jurisdiction. 2015 constant dollars are used to prevent inflation from distorting the potential annual property tax figure associated with Aerotropolis induced development.

MXD DEVELOPMENT STRATEGISTS

Stantec

Economic Impacts

Table 7.4 Economic Impacts Summary Table

		Sq. Ft. Developable Space	Acres of Development	Jobs Created	Employment Density (Jobs Per Acre)	Annual Property Taxes Generated (millions)
Highway 19 West	Phase 1	1,410,000	130	2,097	16.2	$3.88
	Phase 2	3,885,000	341	6,378	18.7	$10.70
	Phase 3	2,415,000	207	4,110	19.9	$6.66
Saunders Lake Northern District	Phase 1	1,518,000	191	1,829	9.6	$4.20
	Phase 2	2,492,000	253	3,347	13.2	$6.87
	Phase 3	1,770,000	169	2,597	15.4	$4.88
Telford Lake Southern District	Phase 1	1,094,000	102	1,124	11.1	$3.34
	Phase 2	2,395,000	215	3,009	14	$7.29
	Phase 3	2,201,000	193	3,295	17.1	$6.67
65th Avenue West	Phase 1	987,500	71	1,556	22	$3.01
	Phase 2	1,862,500	138	3,345	24.3	$5.68
	Phase 3	1,675,000	136	2,486	18.2	$5.10

MXD DEVELOPMENT STRATEGISTS

Stantec Stantec

Economic Impacts

Highway 19 West – PHASE 1

Square Feet Developable Space

1,410,000

Acres of Development

130

Jobs Created

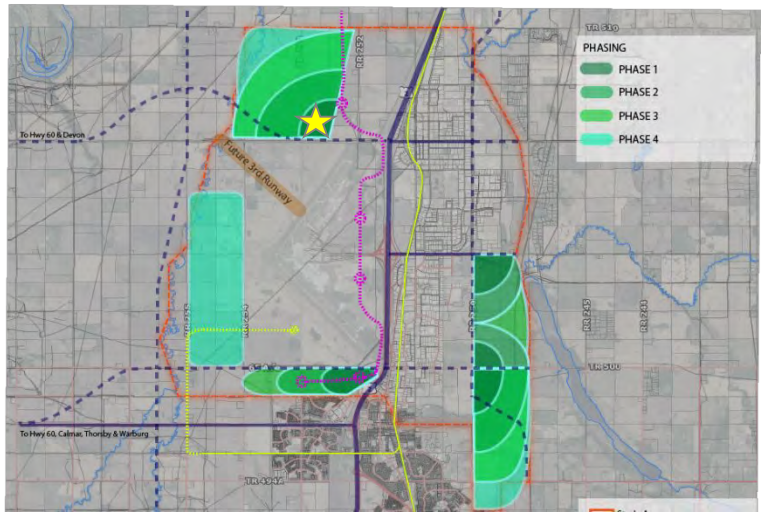
2,097

Employment Density (Jobs Per Acre)

16.2

Property Taxes Generated (annual)

$3.88 million



Triggered Economic Clusters

- Renewable Energy
- Advanced Manufacturing
- Transportation, Logistics & Distribution

Catalyst Projects Enabled

- Advanced Manufacturing Hub
- New Energy Park & Corporate Centre

MXD DEVELOPMENT STRATEGISTS

Stantec

Economic Impacts

Highway 19 West – PHASE 2

Square Feet Developable Space

3,885,000

Acres of Development

341

Jobs Created

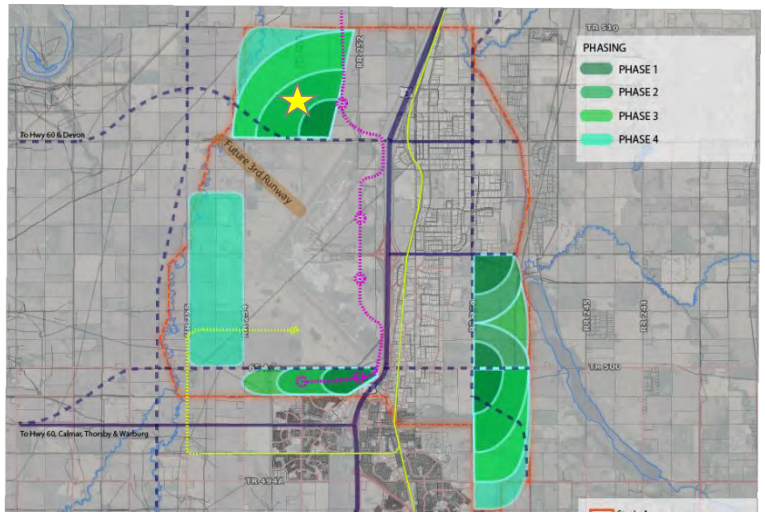
6,378

Employment Density (Jobs Per Acre)

18.7

Property Taxes Generated (annual)

$10.7 million



Triggered Economic Clusters

- Renewable Energy
- Advanced Manufacturing
- Transportation, Logistics & Distribution
- Agri-Business
- Transit-Oriented Development Commercial
- Retail

Catalyst Projects Enabled

- Advanced Manufacturing Hub
- New Energy Park & Corporate Centre

MXD DEVELOPMENT STRATEGISTS

Stantec

Economic Impacts

Highway 19 West – PHASE 3

Square Feet Developable Space

2,415,000

Acres of Development

207

Jobs Created

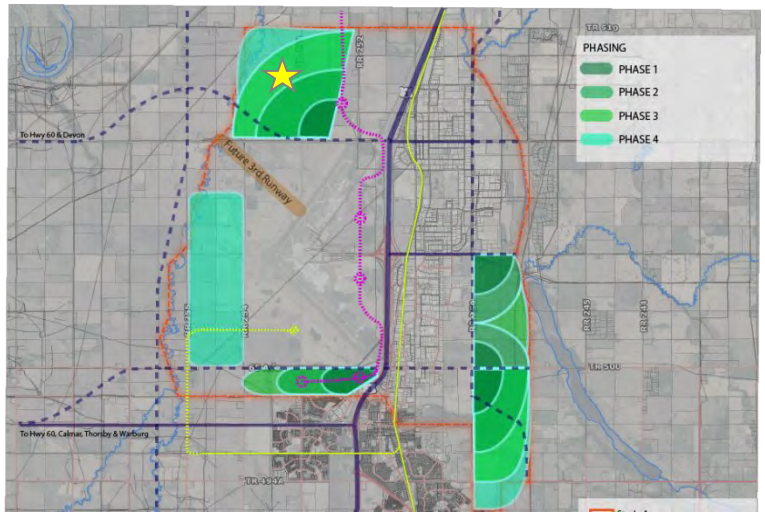
4,110

Employment Density (Jobs Per Acre)

19.9

Property Taxes Generated (annual)

$6.66 million



Triggered Economic Clusters

- Renewable Energy
- Advanced Manufacturing
- Transportation, Logistics & Distribution
- Agri-Business
- ICT
- Transit-Oriented Development Commercial

Catalyst Projects Enabled

- Advanced Manufacturing Hub
- New Energy Park & Corporate Centre

MXD DEVELOPMENT STRATEGISTS

Stantec

Economic Impacts

Saunders Lake Northern District – PHASE 1

Square Feet Developable Space

1,518,000

Acres of Development

191

Jobs Created

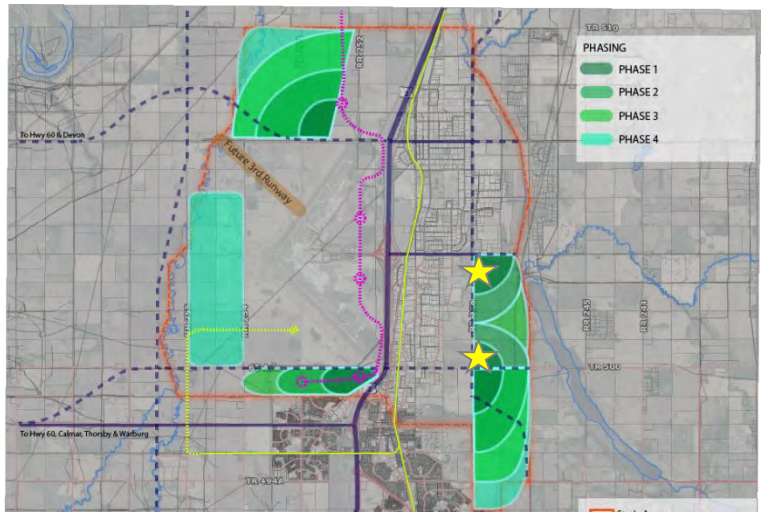
1,829

Employment Density (Jobs Per Acre)

9.6

Property Taxes Generated (annual)

$4.20 million



Triggered Economic Clusters

- Energy
- Transportation, Logistics & Distribution
- Advanced Manufacturing
- Education

Catalyst Projects Enabled

- Crane & Heavy Hoist Equipment Campus

MXD DEVELOPMENT STRATEGISTS

Stantec

Economic Impacts

Saunders Lake Northern District – PHASE 2

Square Feet Developable Space

2,492,000

Acres of Development

253

Jobs Created

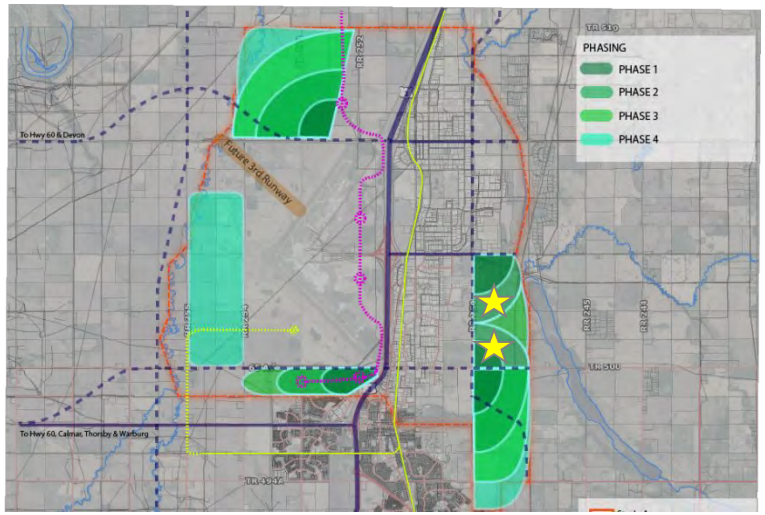
3,347

Employment Density (Jobs Per Acre)

13.2

Property Taxes Generated (annual)

$6.87 million



Triggered Economic Clusters

- Energy
- Transportation, Logistics & Distribution
- Advanced Manufacturing
- Education
- ICT
- Agri-Business

Catalyst Projects Enabled

- Crane & Heavy Hoist Equipment Campus
- Digital City

MXD DEVELOPMENT STRATEGISTS

Stantec

Economic Impacts

Saunders Lake Northern District – PHASE 3

Square Feet Developable Space

1,770,000

Acres of Development

169

Jobs Created

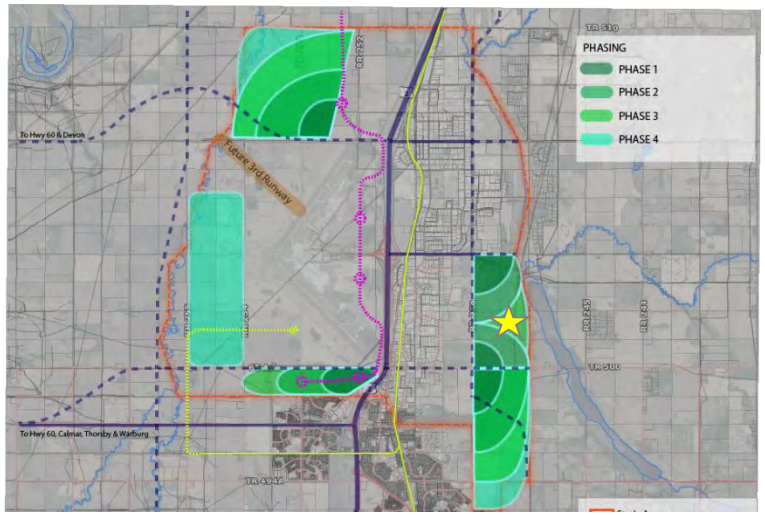
2,597

Employment Density (Jobs Per Acre)

15.4

Property Taxes Generated (annual)

$4.88 million



Triggered Economic Clusters

- Energy
- Transportation, Logistics & Distribution
- Advanced Manufacturing
- Education
- ICT
- Agri-Business

Catalyst Projects Enabled

- Crane & Heavy Hoist Equipment Campus
- Digital City

MXD DEVELOPMENT STRATEGISTS

Stantec

Economic Impacts

Telford Lake Southern District – PHASE 1

Square Feet Developable Space

1,094,000

Acres of Development

102

Jobs Created

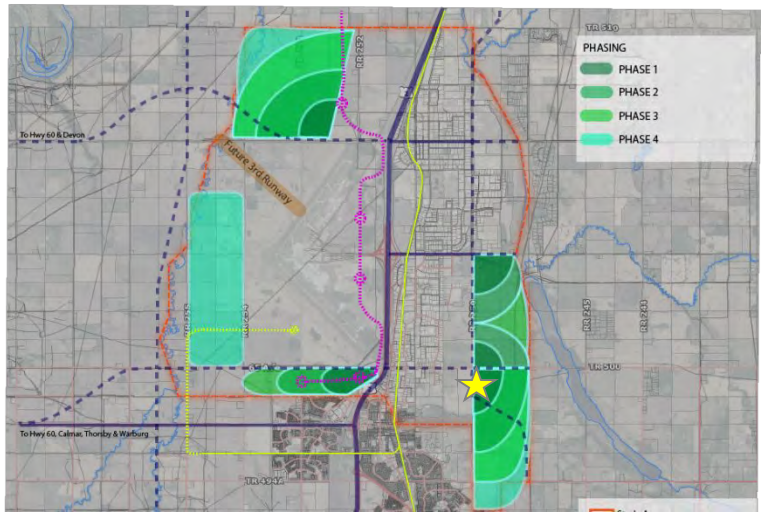
1,124

Employment Density (Jobs Per Acre)

11.1

Property Taxes Generated (annual)

$3.34 million



Triggered Economic Clusters

- Energy
- Transportation, Logistics & Distribution
- Agri-Business
- Advanced Manufacturing

Catalyst Projects Enabled

- Cold Chain Logistics Hub
- Agri Food Processing Complex & Business Park

MXD DEVELOPMENT STRATEGISTS

Stantec

Economic Impacts

Telford Lake Southern District – PHASE 2

Square Feet Developable Space

2,395,000

Acres of Development

215

Jobs Created

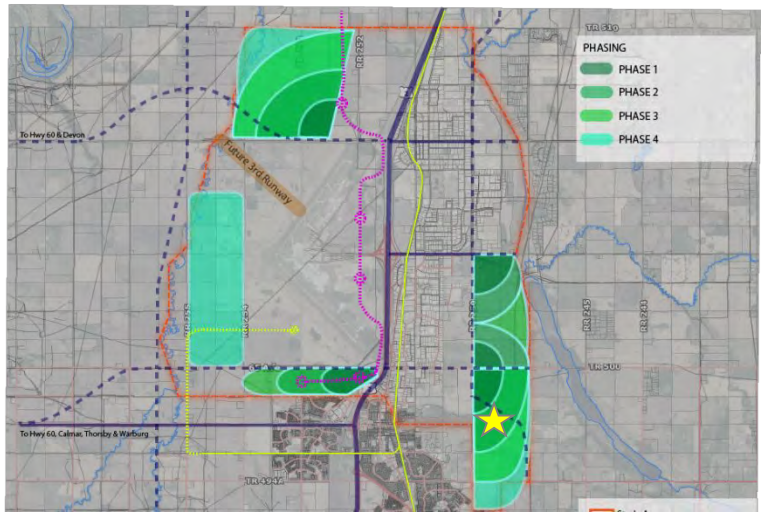
3,009

Employment Density (Jobs Per Acre)

14.0

Property Taxes Generated (annual)

$7.29 million



Triggered Economic Clusters

- Energy
- Transportation, Logistics & Distribution
- Agri-Business
- Advanced Manufacturing
- ICT
- Life Sciences
- Retail
- General Business

Catalyst Projects Enabled

- Cold Chain Logistics Hub
- Agri Food Processing Complex & Business Park
- Lakefront Corporate Park

MXD DEVELOPMENT STRATEGISTS

Stantec

Economic Impacts

Telford Lake Southern District – PHASE 3

Square Feet Developable Space

2,201,000

Acres of Development

193

Jobs Created

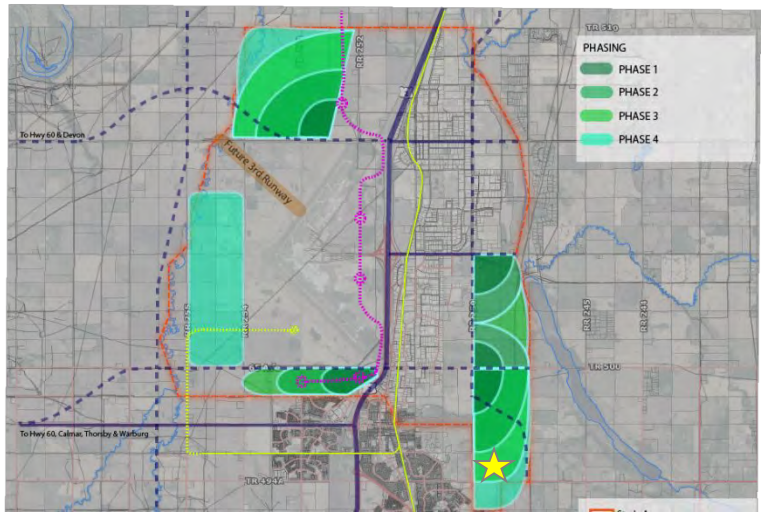
3,295

Employment Density (Jobs Per Acre)

17.1

Property Taxes Generated (annual)

$6.67 million



Triggered Economic Clusters

- Energy
- Transportation, Logistics & Distribution
- Agri-Business
- Advanced Manufacturing
- ICT
- Life Sciences
- Retail
- General Business

Catalyst Projects Enabled

- Cold Chain Logistics Hub
- Agri Food Processing Complex & Business Park
- Lakefront Corporate Park

MXD DEVELOPMENT STRATEGISTS

Stantec

Economic Impacts

65th Avenue West – PHASE 1

Square Feet Developable Space

987,500

Acres of Development

71

Jobs Created

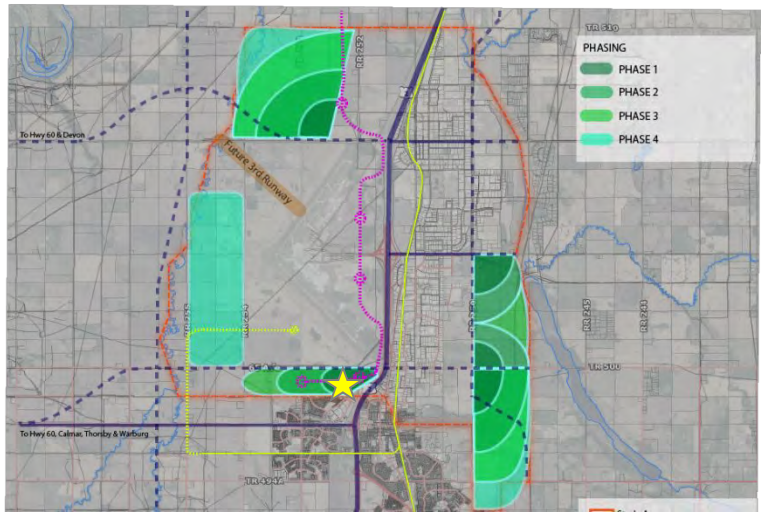
1,556

Employment Density (Jobs Per Acre)

22.0

Property Taxes Generated (annual)

$3.01 million



Triggered Economic Clusters

- General Business
- Life Sciences
- ICT
- Retail

Catalyst Projects Enabled

- Discovery Park Incubator
- Distillery & Dining District

MXD DEVELOPMENT STRATEGISTS

Stantec

Economic Impacts

65th Avenue West – PHASE 2

Square Feet Developable Space

1,862,500

Acres of Development

138

Jobs Created

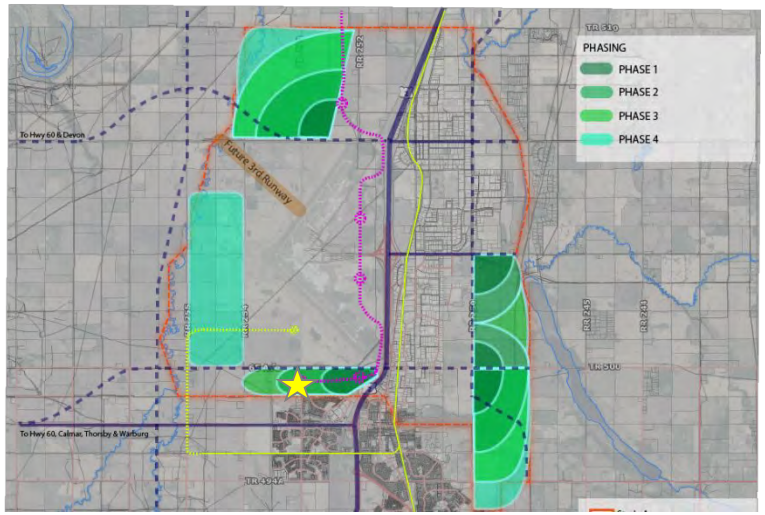
3,345

Employment Density (Jobs Per Acre)

24.3

Property Taxes Generated (annual)

$5.68 million



Triggered Economic Clusters

- Aerospace & Aviation
- Transportation, Logistics & Distribution
- General Business
- Life Sciences
- ICT
- Retail
- Transit-Oriented Development Commercial

Catalyst Projects Enabled

- Cold Chain Logistics Hub
- Agri Food Processing Complex & Business Park
- Aerotropolis Campus
- Aerospace Research Park

MXD DEVELOPMENT STRATEGISTS

Stantec

Economic Impacts

65th Avenue West – PHASE 3

Square Feet Developable Space

1,675,000

Acres of Development

136

Jobs Created

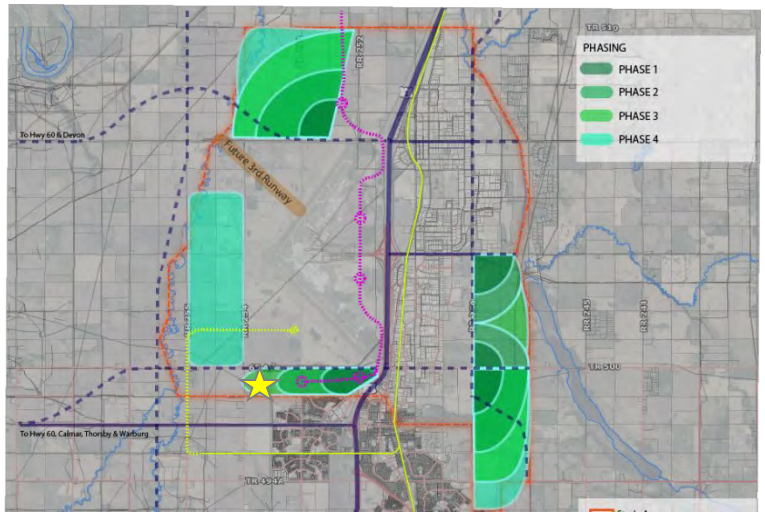
2,486

Employment Density (Jobs Per Acre)

18.2

Property Taxes Generated (annual)

$5.10 million



Triggered Economic Clusters

- Aerospace & Aviation
- Transportation, Logistics & Distribution
- General Business
- Life Sciences
- ICT
- Retail
- Transit-Oriented Development Commercial

Catalyst Projects Enabled

- Cold Chain Logistics Hub
- Agri Food Processing Complex & Business Park
- Aerotropolis Campus
- Aerospace Research Park
- Retail Fulfillment Hub

MXD DEVELOPMENT STRATEGISTS

Stantec

Catalytic Projects

Table 7.5 Economic Impacts of Catalyst Projects

Catalyst Projects - Economic Impacts					
Catalyst Project Name	Number on Map	Target Economic Cluster	Location	Annual Property Tax Generated (at full build-out)	Number of Employees (at full build-out)
High-Tech Advanced Manufacturing Hub	1	Advanced Manufacturing	Highway 19 West	$3,594,410	1,650
New Energy Park & Corporate Centre	2	Energy	Highway 19 West	$6,194,064	3,923
Crane & Heavy Hoist Equipment Campus	8	Education	Telford Lake Northern District	$27,649	10
Digital City	9	Information & Communications Technology	Telford Lake Northern District	$2,101,348	507
Cold Chain Logistics Hub	10	Transportation, Logistics & Distribution	Saunders Lake Southern District	$1,218,249	267
Agri Food Processing Complex & Business Park	11	Agri-Business	Saunders Lake Southern District	$5,025,275	1,733
Lakefront Corporate Park	12	General Business	Saunders Lake Southern District	$1,480,275	1,818
Discovery Park Incubator	13	General Business	65th Avenue West	$296,055	364
Aerotropolis Campus	14	Education	65th Avenue West	$1,036,193	130
Distillery & Dining District	15	Retail	65th Avenue West	$239,456	214
Aerospace Research Park	16	Aerospace & Aviation	65th Avenue West	$3,496,084	1,923
Retail Fulfillment Hub	17	Transportation, Logistics & Distribution	65th Avenue West	$1,827,373	400

Note: Economic Impacts only calculated for catalyst projects located in Priority Areas.

Property Taxes calculated employing 2015 data.

8 Zoning

Zoning

Introduction

As an Aerotropolis Viability Study (AVS), this section provides clarity on the zoning and land use plan amendments required within the study area.

The Municipal Development Plans (MDP's) for the City of Leduc and Leduc County must be updated to recognize the Alberta Aerotropolis, including its land use types and development typologies. The City of Leduc already includes general language in its MDP relating to the "*synergies and opportunities created by proximity to development at Port Alberta and Edmonton International Airport*". Strategies focused towards economic development, commercial development, and industrial and business park development would need to coordinate with the final recommendations of the AVS.

The Inter-municipal Development Plan between City of Leduc and Leduc County that was initially approved in 2011 requires amendments that include recommendations of the AVS. Similar in nature to the MDP`s, but covering multiple jurisdictions; land use plans and policies focused towards economic development, commercial, and industrial development all require updating to reflect the Alberta Aerotropolis vision. Future transportation maps also need to be updated to display Aerotropolis Boulevard connecting the QEII to the Nisku Spine Road.

New zoning classifications are required to ensure that the development typologies recommended in the AVS have coordinated land use zoning by-law permissions prepared and ready to be implemented when re-zoning applications are filed by developers.

MXD DEVELOPMENT STRATEGISTS

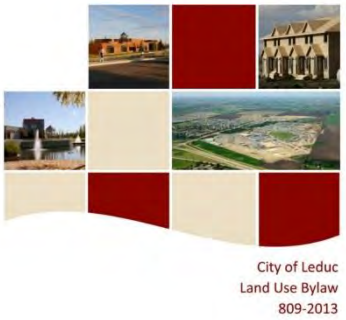
Stantec

Zoning

Zoning Classifications

Aerotropolis Development District (ADD)

The Aerotropolis Development District is a zoning classification that is similar to a Comprehensive Development Zone where a separate unique by-law exists for a delineated area. It provides for development of a variety of land uses as part of a comprehensive plan or area structure plan (ASP).



Creating a specific ADD will allow the City & County to regulate the type of development that occurs within the delineated zone, and negotiate with developers for development plans that fit the long-term directive of the Aerotropolis. This will ensure that uses and developments that do not fit the Aerotropolis plan are located in more appropriate locations in City and County boundaries.

There can be multiple ADD's within the City and County, each one specific to the priority area it is located in. *For example*, Priority Area C (65th Avenue West) could be split into two or three areas depending on the nature of future development. They could then be named:

- ADD-1
- ADD-2
- ADD-3

Each development district would have its own by-laws, desired land uses, appropriate heights and densities, etc.

Irving, Texas, located on the eastern boundary of DFW International Airport has an "Airport Overlay District" that serves to increase the quality of development through design and development standards, and meet the objectives of the corridor. It prohibits certain uses and designs that could be detrimental to the future of the corridor.

MXD DEVELOPMENT STRATEGISTS

Stantec

Zoning

Zoning Classifications

Business Park Zone (BPZ)

This zone would be implemented to regulate the development of business parks that would contain office, services, small warehouse, and light industrial uses. This zone should not allow outdoor storage, and uses that create outdoor noise, fumes, etc.

The BPZ should have a high standard of design with maintained landscaping and sidewalks to ensure that targeted clusters/companies locate within the Aerotropolis. This can include ICT, Life Sciences, Aerospace, and general research & development.

Office Campus Zone (OCZ)

This zone would be implemented to regulate the development of high-quality Class A and B+ campus office and institutional uses with supporting commercial uses and services. The densities should allow for large floorplates over several story's to ensure that campus-style office can be developed at density that will be compatible with surrounding residential or commercial uses.

Similar to the BPZ, the OCZ should have high design standards with maintained landscaping and sidewalks. Streets can be more narrow than the BPZ, since large trucks will not be travelling on interior collector roads. This will create a more pedestrian friendly environment. The OCZ is an ideal candidate for the Lakefront Corporate Park catalyst project based around Telford Lake.

MXD DEVELOPMENT STRATEGISTS

Stantec

9 Marketing & Branding

Marketing & Branding

Branding the Aerotropolis

A brand for the Aerotropolis is key moving forward, both to get local stakeholders and public officials on board, and generate private interest from developers and companies. The brand must project a global image if it wants to attract global companies. The rational for the name "Alberta Aerotropolis" stems from the following:

- The City and County of Leduc are not recognized globally, which could lead to a more difficult marketing strategy to entice companies that could potentially locate in the Aerotropolis.
- The use of "Edmonton" suggests that the Aerotropolis is within Edmonton city boundaries, which is incorrect.
- Employing the word "Alberta" acknowledges the Aerotropolis' location within the Alberta Capital Region, and competitively positions it against a potential Calgary-based Aerotropolis.
- Memphis employs the term "America's Aerotropolis" while Paris labels itself and has trademarked "Aerotropolis Europe" displaying a larger regional/continental play.

ALBERTA

AEROTROPOLIS

Marketing & Branding

Branding the Aerotropolis

Below are logos from other Aerotropoli and Airport Cities to demonstrate the type of branding that could occur for the Alberta Aerotropolis:

Memphis: America's Aerotropolis™
Where Runway, Road, Rail & River Merge™

EKURHULENI AEROTROPOLIS

DETROIT REGION AEROTROPOLIS®

Aerotropolis Milwaukee™

AIRPORT CITY DENVER
Opportunity Connects Here

ABU DHABI AIRPORT BUSINESS CITY
المدينة التجارية لمطار أبوظبي

AirportCity
STOCKHOLM SCANDINAVIA

MXD DEVELOPMENT STRATEGISTS

Stantec

ALBERTA

AEROTROPOLIS

Final Report – September 2015