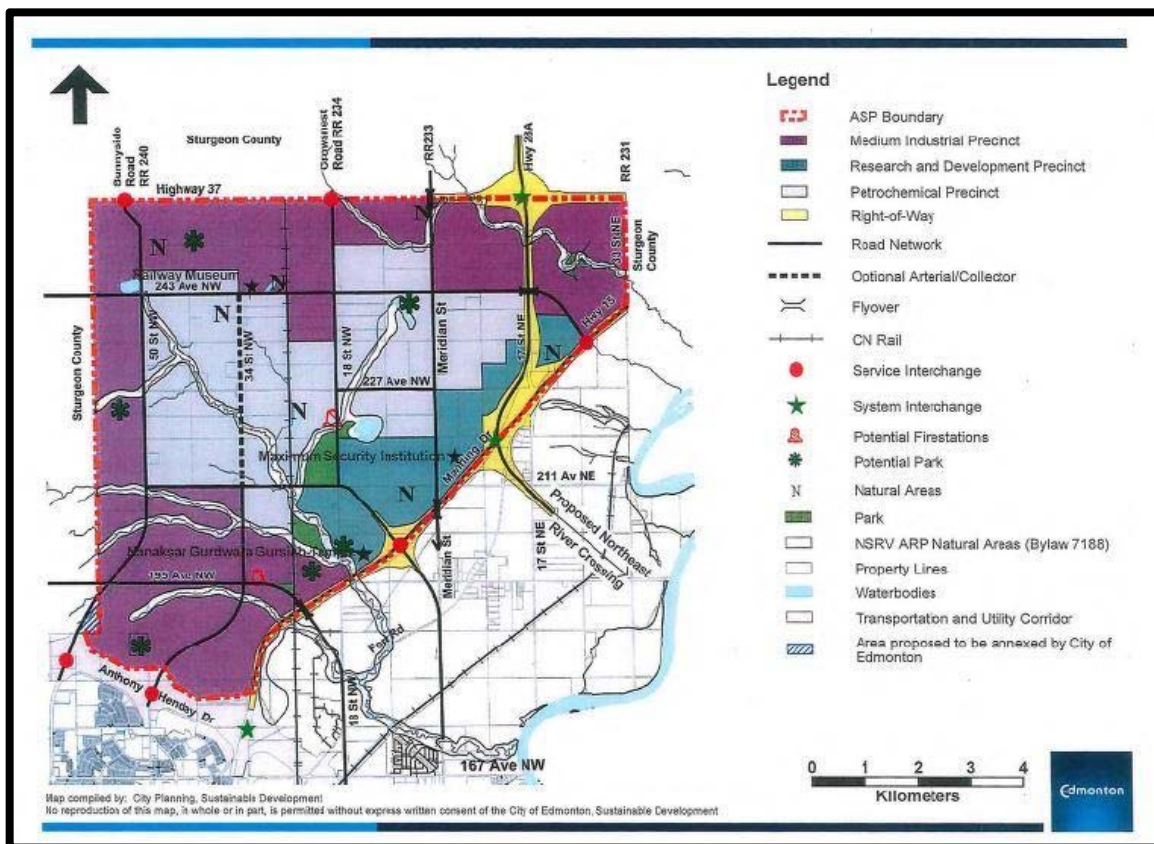


# **PLAN AND TEXT AMENDMENT APPLICATION** **EDMONTON ENERGY AND TECHNOLOGY PARK** **LOCATED IN NORTHEAST EDMONTON**

To amend the Edmonton Energy and Technology Park Area Structure Plan and the Zoning Bylaw to merge the existing Logistics and Manufacturing precincts into one Medium Industrial precinct and create a new special area zone. The amendment will re-align the arterial roadway network to create more efficient land configuration and better describe the Eco-industrial Vision.



DEVELOPMENT CONCEPT

## RECOMMENDATION AND JUSTIFICATION

Sustainable Development is in SUPPORT of this application because it:

- Establishes a more efficient grid-like arterial road network, which will improve land configuration and effectively move people and goods more efficiently;
- Creates a new Medium Industrial Land Use Precinct and special area zone, that will increase flexibility for development, enabling a wider range of uses within a larger geographic area; and
- Introduces service commercial nodes embedded in the new special area zone, to increase market readiness and development efficiencies.

## THE APPLICATION

1. Bylaw 18096 to amend the Edmonton Energy and Technology Park returns the proposed arterial road alignment back to the existing grid alignment, combines the Logistics and Manufacturing Precincts into one “Medium Industrial” Precinct, and describes the Eco-industrial Vision. This is accomplished by:
  - Realigning the Arterial Roadway Network;
  - Adjusting the land use precinct boundaries to coincide with the realigned Arterial Roadway Network;
  - Realigning the infrastructure and servicing concepts for water, stormwater, and wastewater servicing to coincide with the realigned Arterial Roadway Network;
  - Updating existing utilities mapping, including adding in the recent EPCOR/Altalink Heartland transmission line that runs through the EETP;
  - Merging both the Manufacturing and Logistics Land Use precincts into a new Medium Industrial Land Use precinct;
  - Updating all relevant policies and figures;
  - Adding in a new Figure 15 Collector Road Concept;
  - Revising the Land Use and Employment Population Statistics; and
  - Administering housekeeping (updating text to reflect updated plans, policies, studies, new documents, clerical errors etc.).
2. Bylaw 18097 to amend the Zoning Bylaw will create the new special area zone that will implement the Medium Industrial Precinct. The “Edmonton Energy and Technology Park Medium Industrial Zone (EETIM)” will provide the opportunity for industrial development, including manufacturing and logistic uses envisioned within the Edmonton Energy and Technology Park Area Structure Plan. Commercial uses are proposed at specific service commercial nodes in order to preserve the industrial character of the Zone. Specific development regulations are crafted within the zone to ensure the urban form is designed and constructed with a high standard of appearance, urban design and with regard to the environment through the use of green building technology and green design elements.

## BACKGROUND

*Edmonton's Industrial Investment Action Plan* was approved by Executive Committee on June, 2016 which identified seven action items of which two support development in the Edmonton Energy and Technology Park (EETP). The following two action items form the foundation of the proposed amendments:

1. Realign portions of the arterial road network and adjust precinct boundaries and infrastructure to match with the proposed arterial network. The amendment includes related changes to the policies and land use statistics to reflect the new road alignment and precinct boundaries.
2. Merge the "Logistics" and "Manufacturing" precincts into one "Medium Industrial" precinct within the ASP and develop a new (EETIM) Edmonton Energy and Technology Park Medium Industrial Zone in order to implement the new Medium Industrial Precinct.

## SITE AND SURROUNDING AREA

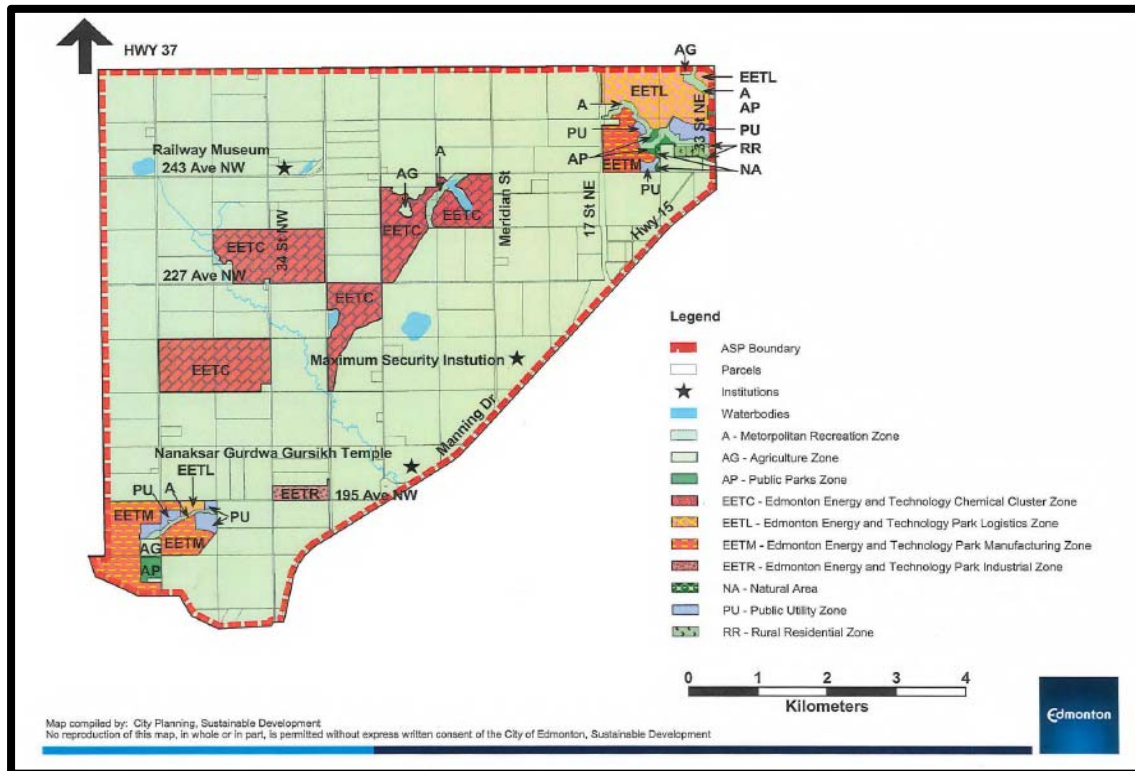
The EETP is located in northeast Edmonton. To the north and east, the area is bounded to the by Sturgeon County, Manning Drive is to the southeast, Anthony Henday Drive is to the south and Sturgeon County and the Canadian Forces Base Edmonton (Edmonton Garrison) are to the west.

SITE CONTEXT	
North	<ul style="list-style-type: none"> <li>• Sturgeon County</li> <li>• Highway 37</li> </ul>
East	<ul style="list-style-type: none"> <li>• Sturgeon County</li> <li>• Manning Drive</li> </ul>
South	<ul style="list-style-type: none"> <li>• Anthony Henday Drive</li> </ul>
West	<ul style="list-style-type: none"> <li>• Edmonton Garrison</li> <li>• Sturgeon County</li> </ul>

## EXISTING ZONING

SUBJECT SITE	<ul style="list-style-type: none"> <li>• (A) Metropolitan Recreation Zone</li> <li>• (AG) Agricultural Zone</li> <li>• (AP) Public Parks Zone</li> <li>• (EETC) Edmonton Energy and Technology Chemical Cluster Zone</li> <li>• (EETL) Edmonton Energy and Technology Park Logistics Zone</li> <li>• (EETM) Edmonton Energy and Technology Park Manufacturing Zone</li> <li>• (EETR) Edmonton Energy and Technology Park Industrial Reserve Zone</li> </ul>
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- (NA) Natural Areas Protection Zone
- (PU) Public Utility Zone
- (RR) Rural Residential Zone



EXISTING ZONING

## PLANNING ANALYSIS

The Edmonton Energy and Technology Park Area Structure Plan (EETP ASP), was adopted City Council on June 9, 2010. It is a long-term planning document that provides the framework for development within the plan area as a world class eco-industrial park that combines economic opportunity, ecological integrity, and efficient use of land and resources using a progressive and sustainable model of development based on eco-industrial principles.

To uphold the vision of the ASP, the proposed plan amendment has three major objectives:

1. To realign the Arterial Roadway Network;
2. To merge the Manufacturing and Logistics Land Use precincts into one Medium Industrial Land Use precinct; and
3. To better describe the Eco-industrial Vision.

The proposed Zoning Bylaw amendment to create a new Special Area Zone, termed (EETIM) Edmonton Energy Technology Park Medium Industrial Zone with site specific service commercial nodes will implement the *Industrial Investment Action Plan* and the vision of the ASP.

## **PROPOSED AMENDMENT OBJECTIVES**

### Arterial Roadway Re-alignment

The current EETP Plan shows the Arterial Roadway Network alignment being curvilinear. The result is that existing parcels of land would be split when the roads are developed. This constrains opportunities for future development and creates parcels with split zoning. The proposed amendment realigns the proposed arterial road network back to the existing grid, quarter section boundaries and existing road rights-of-ways. Further to this, the amendment includes systems interchanges, determined by Alberta Transportation, at the following approximate locations:

- Highway 37 and Highway 28A,
- Highway 15 (Manning Drive) and Highway 28A, and
- Highway 15 (Manning Drive)

### Rational

The realignment in the arterial roadway was undertaken to increase the investment readiness of the EETP. The change from a curvilinear road network to a conventional grid pattern decreases the total length of arterial roads in the plan area, reduces the Arterial Road Assessment (ARA) for developers and lowers operational maintenance costs. Realigning to a grid pattern will allow development to occur within existing lots and allows the precincts and associated zoning to follow existing property lines, thereby removing a potential problem of 'split zoning' individual lots.

### Medium Industrial Precinct

The current EETP ASP identifies four distinct development precincts: Petrochemical, Manufacturing, Logistics, and Research & Development. The amendment proposes to merge both the Manufacturing and Logistics precincts into one precinct. The new precinct will be termed Medium Industrial precinct.

The intent of the Medium Industrial precinct combines the Manufacturing and Logistics precincts in order to allow flexibility in the utilization of refined chemicals to manufacture goods and products and take advantage of nearby packaging and transportation services to move goods to market. The Medium Industrial precinct serves three main functions:

- Manufacture value-added goods using the base chemicals created within the

- Petrochemical Cluster and providing the means to move them to market,
- Allow for general industrial opportunities, and
- Provide for service commercial nodes that will support the businesses and employees in the EETP.

### Rational

In 2014 the 'General Industrial Use' was added in both the (EETM) Edmonton Energy and Technology Park Manufacturing Zone and (EETL) Edmonton Energy and Technology Park Logistics Zone (Bylaw 16767). While not the intent of the addition, the addition resulted in land use opportunities in both zones that become very similar which causes ambiguity between the two zones.

The creation of the new Medium Industrial precinct and associated (EETIM) Edmonton Energy and Technology Park Medium Industrial Zone recognizes the similarities and seeks to remove any ambiguity between the precincts and associated Zones. In addition, the Medium Industrial precinct and associated zoning is also more familiar to developers.

### Eco-industrial Vision

The Edmonton Energy and Technology Park ASP provides a vision for a new kind of industrial area for the City of Edmonton. Environmental considerations are becoming increasingly important in public opinion, business functions, and corporate social responsibility. The Edmonton Energy and Technology Park provides an opportunity to blend both economic and environmental objectives into the planning process, through what's termed as 'Eco Industrial Development'. The proposed amendment defines Eco Industrial Development as:

*"Eco-Industrial development promotes the environmentally and economically efficient use of all resources and physical assets in new and existing industrial areas. Collaboration and cooperation between stakeholders, innovation, integration, systems thinking, and ecological respect underpin eco-industrial development. This influences the planning and evolution of industrial areas, design and usage of infrastructure and buildings, and operation of businesses. Eco-industrial development results in an industrial area with efficient land use that can protect and enhance local biodiversity; is integrated with adjacent uses; contains sustainable infrastructure; locally generates energy; and has high performance, green buildings. Eco-industrial development enables by-product synergies; reducing waste and increasing efficiency while integrating and reinforcing natural systems."*

### Rational

An eco-industrial project balances economic, environmental, and social interests in a way that maximizes the benefit for each factor. Eco-industrial developments can create networks of

businesses that share common services, even share waste outputs that can be reused as process inputs for another business. The plan area does not have extensive existing infrastructure that allows maximum opportunity to pursue eco-industrial development in the development of sites and major infrastructure. Through the proposed amendment and by having a clear vision for what an Eco-industrial development is, it can benefit the EETP plan area by improving energy efficiency, reducing waste and pollution, improving technological innovation, optimizing resource use and improve business attraction, expansion and retention.

## **PROPOSED SPECIAL AREA ZONE**

The Special Area Zone, termed (EETIM) Edmonton Energy Technology Park Medium Industrial Zone implements the EETP ASPs Medium Industrial Precinct.

### Rational

The new Special Area zone will allow for core manufacturing and logistics uses, commercial nodes intended to provide basic services to the businesses and employees in the EETP as well as increased flexibility for other general industrial uses that are commonly found in standard medium industrial zones, such as (IM) Medium Industrial Zone.

The EETIM Medium Industrial Zone includes limited commercial uses. Adding these uses to the zone allows for additional flexibility in the zone and provides easily accessible limited services. It is also hoped that by providing these options within the Plan and zone, the development of industry and supporting services will proceed in the area.

The commercial nodes, will provide commercial uses for both the employees and businesses within the EETP. Regulating the size (no greater than 2 hectares) and location (at major intersections) ensures minimal impact on potentially larger industrial sites, directs traffic flow onto major roads and ensures that the EETP does not become a 'destination' commercial area.

Overall, the proposed amendments to the EETP ASP set the stage to promote investment in the Edmonton Energy and Technology Park (EETP) neighbourhood and advance its development as a world-class eco-industrial region.

## **REGIONAL CONSIDERATIONS**

### **Region Growth Plans**

The main purpose of the Capital Region Board 2010 Growth Plan is to manage the sustainable growth in order to protect the region's environment and resources, minimize the regional development footprint, strengthen communities within the region, increase choice of transportation, and encourage economic growth. The EETP ASP intends to achieve these objectives through an integrated and strategic approach to planning by coordinating planning

and development decisions in the plan area and supporting the regional development pattern to complement existing infrastructure, services and land uses.

The EETP ASP is located in the “Major Employment Area” as identified in the proposed Edmonton Metropolitan Region Growth Plan which supports employment growth in the major employment areas including Alberta’s Industrial Heartland and regional airports, local employment areas, within rural/sub-regional centres, and within agriculture, forestry, resource extraction and processing areas.

The current 2010 Growth Plan remains in effect until the 2016 Edmonton Metropolitan Region Growth Plan is provincially approved.

### **Adjacent Municipalities**

City of Fort Saskatchewan, Strathcona County and Sturgeon County, as well as Edmonton Garrison (DND) were advised of this proposal and invited to comment.

No concerns were expressed by the City of Fort Saskatchewan or Strathcona County, however at the time writing this report, Sturgeon County has not provided comments.

Edmonton Garrison (DND) has expressed interest in being consulted for any development within a 1.6 km radius of their Riverbend National Defense Site. Furthermore, Edmonton Garrison has requested to be informed of all discussions and activities related to the proposed transportation corridor for the future Manning Drive/Highway 28A systems interchange.

## **TECHNICAL REVIEW**

### **DRAINAGE PLANNING AND ENGINEERING**

The Drainage Planning and Engineering Unit has expressed no concerns and has noted that permanent sanitary and storm sewer servicing shall be in accordance with the sewer servicing schemes presented in the accepted Horsehills Area Master Plan prepared by ISL Engineering (July 2009). The Drainage Planning and Engineering Unit has commented that the proposed infrastructure for storm and sanitary servicing aligns with the proposed arterial road network and servicing concepts will be further refined in detail as part of subsequent studies being conducted for future amendments to the ASP.

### **TRANSPORTATION PLANNING AND ENGINEERING**

Transportation Planning and Engineering has reviewed the application and advises:

A traffic impact assessment was provided in support of the proposed revisions to the arterial



road network within the Edmonton Energy and Technology Park (EETP). The proposed road network moves away from the existing curvilinear alignments and instead generally adheres to existing section boundaries and road rights-of-way. An amendment to Arterial Roadway Assessment (ARA) Bylaw will be required following adoption of this amendment.

The EETP plan area is bounded on three sides by existing or planned major transportation corridors - Anthony Henday Drive, Manning Drive (Highway 15), and Highway 37 - and will be bisected by the future Northeast River Crossing. Access to/from the plan area is therefore constrained, which intensifies the traffic volume and level of congestion along segments of certain arterials within the plan area.

As the plan area (and neighbouring Horse Hill ASP) develops, significant additional investment will be required to construct planned interchanges and flyovers along these boundary corridors. City Planning will work with area developers, the Province, and adjacent jurisdictions, where appropriate, to outline an interchange and arterial road staging strategy for the EETP as it develops. The City may also need to advance a funding strategy for interchange and flyover construction, and/or the extension of LRT or other premium transit service into the plan area, in order to ensure its full development.

## **PARKS & BIODIVERSITY**

A Phase II *Ecological Network Report* was submitted for this project, which was accepted by Parks and Biodiversity. Parks and Biodiversity have commented that the Horsehills Creek and its tributaries are regulated by the North Saskatchewan River Valley Area Redevelopment Plan, the Provincial Water Act, and the Provincial Public Lands Act. All proposed transportation crossings, alterations to the creeks/tributaries, and new stormwater outfall structures will be subject to city and provincial regulatory approvals under the aforementioned Bylaws and Legislation. Appropriate Environmental Reserve and Municipal Reserve will need to be identified and dedicated at appropriate planning stages to ensure the long term preservation and recreation goals of the Area Redevelopment Plan are met.

## **TECHNICAL SUMMARY**

A project of this scale requires a considerable amount of technical review and associated engineering studies. Preliminary studies have been provided to support this plan and the associated zoning bylaw amendment. However, further detailed studies have been deferred to future amendments to the ASP as well as the rezoning and development permit stage.

## PUBLIC ENGAGEMENT

<b>ADVANCE NOTICE</b> March 23, 2017	<ul style="list-style-type: none"> <li>• Number of recipients: 1500</li> <li>• Number of responses: 11</li> <li>• Common comments included: All respondents wanted clarification on the application. All feedback was generally positive.</li> <li>• Based on the limited response, a Public Information Meeting was not hosted by Planning Coordination.</li> </ul>
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The Applicant (The Economic Investment and Development Section of Sustainable Development) held a pre-application meeting on November 9, 2016. Approximately 150 people attended the meeting as well as City staff from the Planning Coordination Section who were present to answer general planning and file related questions. The applicant advised that five feedback forms were submitted in support of the application, no written comments were submitted with concerns.

Comment themes received from the pre-application public meeting as summarized by the applicant were:

- **Support for merged EETP Manufacturing and Logistics precincts:** Overall, there were a number of positive comments on the proposal to merge the Logistics and Manufacturing precincts into a single EETP Medium Industrial precinct that offers increased flexibility in the range of uses.
- **Support for revised Arterial Road Network:** Overall support for the revised arterial roadway network. Many indicated that it is more logical than the existing proposed network that is much more curvilinear. Some mentioned they hope the Arterial Road Assessment (ARA) would be lowered with the revised Arterial Road Network.
- **Timing/Process for Road Right-of-ways and Development:** Some asked about when land will be required for the Road Network and the process for obtaining the land and building the roads.
- **Commercial Nodes:** Some people had general questions regarding how the service commercial nodes would work.
- **Infrastructure and Utilities:** Many questions regarding when utility services will be extended into EETP. Some asked whether or not the City would encourage development by front-ending infrastructure. One commented that there is a need to understand utility corridors/pipeline corridors that would affect adjacent municipalities. One questioned what are the existing and potential connections between the Alberta Industrial Heartland and other industry bodies, (e.g. Strathcona Industrial Association).
- **Stormwater Management Alternatives:** Alternative stormwater management concepts would be good to share across Alberta's Industrial Heartland.

- **Development Timing:** There were some general concerns about the EETP being developed in a timely manner.
- **Notifications and Planning Process:** Many questions regarding the planning process and how notifications are received. Some people complained that they weren't notified but that their neighbours were representatives). One comment to use more roadside signs and electronic means to advertise.

The applicant also held independent meetings with many of the stakeholders in the EETP plan area. These meetings were held between September and November of 2016, and the list of groups included: adjacent municipalities (Sturgeon County, Strathcona County and City of Fort Saskatchewan), Edmonton Garrison (DND), Alberta's Industrial Heartland Association, landowners, developers, and external agencies, including Alberta Transportation.

## CONCLUSION

Sustainable Development recommends that City Council APPROVE this application.

## APPENDICES

- 1 Approved Edmonton Energy and Technology Area Structure Plan - Land Use Statistics Bylaw 16175
- 2 Proposed Edmonton Energy and Technology Area Structure Plan - Land Use Statistics Bylaw 18096
- 3 Approved Edmonton Energy and Technology Area Structure Plan - Bylaw 16767
- 4 Proposed Edmonton Energy and Technology Area Structure Plan – Bylaw 18096
- 5 Application Summary

**EDMONTON ENERGY AND TECHNOLOGY PARK  
AREA STRUCTURE PLAN  
APPROVED LAND USE AND POPULATION STATISTICS  
BYLAW 16175**

	Area (ha)	% of GDA
<b>Gross Area</b>	5244	
Environmental Reserve/Ravine	366	
Arterial/Freeway	304	
<b>Gross Developable Area</b>	4574	100%
Regional Park	217	4.8%
Local Park	24	0.5%
Natural Area	93	2.0%
Stormwater Management Facilities	214	4.7%
Circulation	697	15.3%
<b>Net Developable Area</b>	<b>1245</b>	<b>27.2%</b>
<b>Net Land Use</b>	<b>Area (ha)</b>	<b>% GDA</b>
R&D, Education & Services	439	9.6%
Petro-Chemical Cluster	1239	27.1%
Logistics	783	17.1%
Manufacturing	868	19.0%
<b>Total</b>	<b>3329</b>	<b>72.8%</b>

<b>Industrial Land Use</b>	<b>Total Area (ha)</b>	<b>% Developable</b>	<b>Developable Area</b>	<b>Employees/h a</b>	<b>Total Employees</b>
<b>Logistic</b>	1338	71	783	15	12313
<b>Manufacturing</b>	1501	73	868	27	23,436
<b>Petro-Chemical Cluster</b>	1714	74	1268	7	9,400
<b>Business Park/R&amp;D</b>	657	67	439	91	40,140

**EDMONTON ENERGY AND TECHNOLOGY PARK  
AREA STRUCTURE PLAN  
PROPOSED LAND USE AND POPULATION STATISTICS  
BYLAW 18096**

	<b>Area (ha)</b>	<b>%</b>
<b>Gross Area</b>	<b>5218</b>	
North Saskatchewan River Valley/Ravine	376	7.2
Arterial/Freeway	383	7.3
<b>Gross Developable Area</b>	<b>4459</b>	<b>100.00</b>
SWM	388	8.7
Parks	104	2.3
Natural Areas	258	5.8
Circulation	669	15.0
<b>Non-Developable Area</b>	<b>1419</b>	<b>31.8</b>
<b>Precinct</b>	<b>Area (ha)</b>	<b>% GDA</b>
Medium Industrial	1591	35.7
Petrochemical	1134	25.4
Research and Development	315	7.1
<b>Total</b>	<b>3040</b>	<b>68.2</b>



















<b>Precinct</b>	<b>Total Area</b>	<b>% Developable</b>	<b>Developable Area</b>	<b>Employees/ha</b>	<b>Total Employees</b>
<b>Medium Industrial</b>	2668	69	1591	21	33,420
<b>Petrochemical</b>	1841	71	1134	7	7,937
<b>Research and Development</b>	709	57	315	91	28,693
				<b>Total</b>	<b>70,050</b>

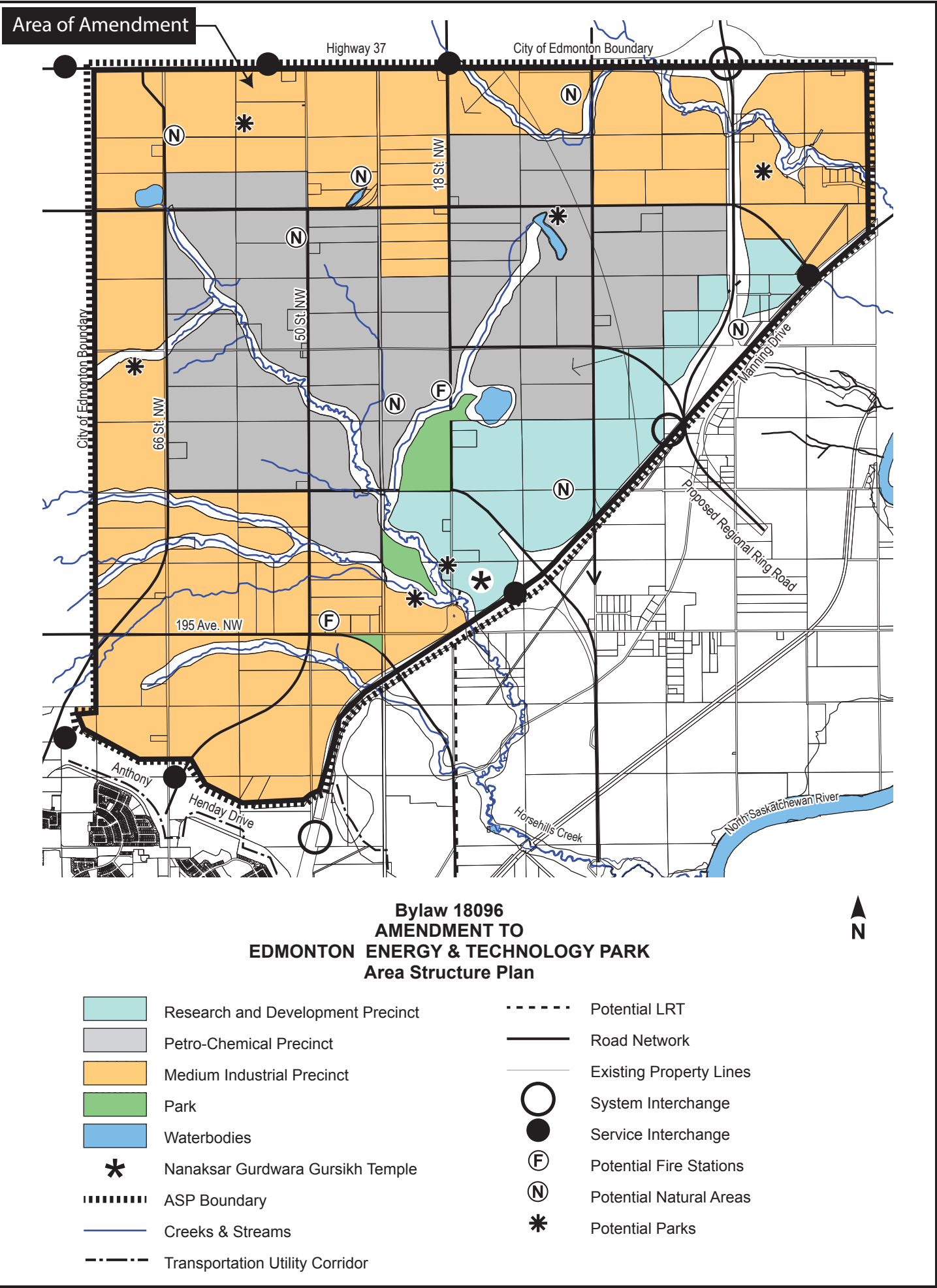
	<b>Medium Industrial Precinct</b>		<b>Petrochemical Precinct</b>		<b>Research and Development Precinct</b>	
<b>Gross Area</b>	<b>Area</b> 2668	<b>%</b>	<b>Area</b> 1840.64	<b>%</b>	<b>Area</b> 709.28	<b>%</b>
<b>North Saskatchewan River Valley</b>	192	7.2	165	8.9	19	2.7
<b>Arterial/Freeway</b>	179	6.7	69	3.7	136	19.1
<b>Gross Developable Area</b>	2297	100.0	1607	100.0	555	100.0
<b>SWMF</b>	202	8.8	138	8.6	48.00	8.7
<b>Parks</b>	31	1.4	23	1.4	50	8.9
<b>Natural Areas</b>	128	5.6	72	4.5	59	10.6
<b>Circulation</b>	345	15.0	241	15.0	83	15.0
<b>Net Developable Area</b>	1591	69.3	1134	70.5	315	56.9



**BYLAW 16767  
APPROVED  
EDMONTON ENERGY & TECHNOLOGY PARK  
Area Structure Plan**



- |   |                                  |   |                                 |
|---|----------------------------------|---|---------------------------------|
|  | R & D, Education & Services      |  | Transportation Utility Corridor |
|  | Petro-Chemical Cluster           |  | Potential LRT                   |
|  | Logistics                        |  | Road Network                    |
|  | Manufacturing                    |  | Existing Property Lines         |
|  | Park                             |  | System Interchange              |
|  | Waterbodies                      |  | Service Interchange             |
|  | Nanaksar Gurdwara Gursikh Temple |  | Potential Fire Stations         |
|  | ASP Boundary                     |  | Potential Natural Areas         |
|  | Creeks & Streams                 |  | Potential Parks                 |





## APPLICATION SUMMARY

### INFORMATION

Application Type:	Plan Amendment & Zoning Bylaw Text Amendment
Bylaw(s):	18096 & 18097
Location:	Northeast Edmonton: north of Anthony Henday Drive NW and west of Manning Drive NW
Address:	N/A
Legal Description(s):	N/A
Site Area:	N/A
Neighbourhood:	Edmonton Energy and Technology Park
Ward - Councillor:	4 - Ed Gibbons
Notified Community Organizations:	Horse Hill Community League Association; Area Council No. 17 Area Council; and Clareview and District Area Council Area Council
Applicant:	The City of Edmonton (Economic Investment & Development)

### PLANNING FRAMEWORK

Current Zone(s) and Overlay(s):	N/A
Proposed Zone(s) and Overlay(s):	N/A
Plan(s) in Effect:	Edmonton Energy and Technology Park Area Structure Plan
Historic Status:	None

Written By:	Luke Cormier & Vivian Gamache
Approved By:	Tim Ford
Department:	Sustainable Development
Section:	Planning Coordination