Battery Creek Area Structure Plan

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1.0 INTRODUCTION

1.1 Site Location
The Battery Creek Area Structure Plan (ASP) area applies to the 271.9 hectares (ha) shown on Figure 1. The site was annexed by the Town of Devon from Leduc County in March 2015 (effective January 1, 2015) to accommodate future residential and commercial development.

The site is located approximately 12 kilometers (km) west of the Queen Elizabeth II Highway, and is within close proximity to the cities of Spruce Grove, Edmonton, and Leduc, and the Town of Calmar. The employment areas of the Acheson Industrial Park, Nisku Industrial Park and the Edmonton International Airport are located to the northwest, east, and southeast, respectively. The site is located in southeast Devon and is bounded by:

1. The North Saskatchewan River to the north;
2. Highway 19 to the south;
3. Battery Creek Ravine to the west; and
4. Rabbit Hill Ravine and Town limits to the east.

1.2 Name of Development Area
The plan area is identified as the Battery Creek ASP, and takes its name from the creek and ravine system and biological and habitat corridor located to the west of the plan area.
Battery Creek Area Structure Plan

1.3 Purpose
The purpose of the Battery Creek ASP is to provide a detailed framework for the future development of the Battery Creek area, and implement the policies of the relevant plans.

The ASP has been prepared in association with the Town of Devon Integrated Community Sustainability Plan and the Town of Devon Municipal Development Plan, and in conformance with Section 633 of the Municipal Government Act (MGA). The ASP has been designed to:

1. Conform to the Development Framework, Figure 8, of the Intermunicipal Development Plan Bylaw 815/2008;

2. Conform to the Land Use Concept (Map 6), and policies of the Municipal Development Plan; and

3. Establish the conceptual land use, population density, municipal reserve, transportation and servicing networks, and development phasing for Battery Creek to implement the MDP, which designates this portion of the Town for commercial and residential uses.

The ASP also conforms to the Vision, Goals and Policies of the Town of Devon’s Integrated Community Sustainability Plan.

Photo 2: The Devon Historical Timeline, as presented in the Town’s Integrated Community Sustainability Plan.
Battery Creek Area Structure Plan

1.4 ASP Goals
The primary goals of this ASP is to:

1. Create social, economic and environmental connections between the Battery Creek area and surrounding neighborhoods and the balance of the Town;

2. Define and sustain a neighbourhood identity that is beautiful and unique, promotes a sense of place and comfort, and serves as an important gateway to Devon;

3. Protect natural landscapes, such as those along the river valley and at the top of the bank, and recognize them as important and beautiful;

4. Provide vistas and connections to the North Saskatchewan River and valley, the Battery Creek Ravine and the Rabbit Hill Ravine;

5. Provide a trail system that links residential areas to parks and natural areas, commercial areas, and to existing and future neighbourhoods;

6. Accommodate a range of housing options to cater to a range of income, age and social groups, as well as tenure, which include apartments, townhouses, and semi-detached and single family houses;

7. Encourage interesting commercial destinations that serve the Battery Creek neighbourhood, the Town, and the travelling public, and help define neighbourhood identity;

8. Design and develop public buildings, parks and public spaces that encourage and invite opportunities for meaningful contact between residents, and provide public art that is unique to Devon;

9. Create a transportation network that is connected to the Town’s existing and planned network, and provides pedestrian and cycling trails that connect neighbourhoods; and

10. Design a servicing network that includes renewable energy opportunities and green infrastructure.

1.5 Timeframe of the Plan
Based on historical population growth rates it is anticipated that the plan area will develop as a neighbourhood and build out over the next 25 years.
Battery Creek Area Structure Plan

1.6 Property Ownership
The plan area consists of six landowners, as shown in Table 1 and on Figure 2.

Table 1: Property Ownership

<table>
<thead>
<tr>
<th>Legal Description</th>
<th>Owner</th>
<th>Area (ha)</th>
<th>% of Total</th>
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<tr>
<td>NW 26-50-26-4 and SW 35-50-26-4</td>
<td>1098872 Alberta Ltd.</td>
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<td>38.6</td>
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<td>SW 26-50-26-4 and</td>
<td>Devon Business Park Ltd.</td>
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<td>Lawrence Davidson</td>
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<td>NEP Canada ULC</td>
<td>24.3</td>
<td>8.1</td>
</tr>
<tr>
<td>NE 27-50-26-4 and SE34-50-26-4</td>
<td>Imperial Oil Resources Ltd.</td>
<td>23.6</td>
<td>7.8</td>
</tr>
<tr>
<td>Plan 1408 HW, Block A and B</td>
<td>Esso Resources Canada Ltd.</td>
<td>6.4</td>
<td>2.1</td>
</tr>
<tr>
<td>Plan 852 0713, Lot 1</td>
<td>Town of Devon</td>
<td>3.4</td>
<td>1.1</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>298.1</td>
<td>100</td>
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</table>

1.7 List of Reports
ISL Engineering and Land Services has prepared the ASP on behalf of the Town, and prepared or reviewed the following technical studies or reports to complete the ASP.

<table>
<thead>
<tr>
<th>Report</th>
<th>Prepared By</th>
</tr>
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<tr>
<td>Traffic Impact Assessment</td>
<td>ISL Engineering and Land Services</td>
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<tr>
<td>Biophysical Desktop Review</td>
<td></td>
</tr>
<tr>
<td>Public Consultation Plan</td>
<td>MODUS</td>
</tr>
<tr>
<td>Environmental Site Assessment for SW35, NW26, NE26 and SE26</td>
<td>Blanchard Environmental Consultants</td>
</tr>
<tr>
<td>Geotechnical Investigation Report for NW26 Geotechnical and Slope Stability Analysis for NE26 and SE26</td>
<td>Genivar</td>
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</table>
2.0 REGIONAL PLANS

2.1 Land-use Framework
The Alberta Land Stewardship Act (ALSA) guides the Alberta Land-use Framework (LUF), which establishes a regional planning approach to managing the province’s land and natural resources to achieve Alberta’s long-term economic, environmental and social goals. The LUF identifies seven land-use regions and calls for the development of a regional plan for each. The Town of Devon is within the boundaries of two regional plan areas established by the LUF: the North Saskatchewan Region; and, the Capital Region.

2.2 North Saskatchewan Regional Plan
The North Saskatchewan Regional Plan (NSRP) is based on the location of the North Saskatchewan River watershed. The Region includes the Town of Devon, is located in central Alberta, and is bordered to the east by Saskatchewan and to the west by British Columbia, as shown in the graphic below. The planning process for the NSRP began in May 2014. In Phase 1, the first round of public consultation gathered feedback on issues and strategies to develop the Plan. During Phase 2, a draft regional plan will be developed and presented to the public and stakeholders before the final plan is presented to Cabinet for approval by the Legislative Assembly.

The Government of Alberta has identified the following priority areas of focus to guide the Plan:
- Continuing growth for key economic land-use sectors and seeking new markets;
- Managing air quality through collaboration, and advancing watershed management;
- Conserving and maintaining the benefits of biodiversity;
- Advancing conservation and integrated management of Crown land;
- Supporting and enabling stewardship and conservation on private lands;
- Supporting growing communities through enhanced planning and collaboration;
- Promoting efficient use of land by minimizing lands taken up in the built environment;
- Considering the rights of aboriginal peoples and including them in land-use planning; and
- Providing recreation and tourism and preserving and promoting the region’s cultural and natural heritage.

The ASP has been aligned to address the priority areas North Saskatchewan Regional Plan.
2.3 Capital Region Growth Plan and Edmonton Metropolitan Region Growth Plan
The Capital Region Board includes 24 member municipalities, including the Town of Devon. The key land use policy document of the Board is the Capital Region Growth Plan (CRGP) and the Edmonton Metropolitan Region Growth Plan (EMRGP).

In October 2016, the Capital Region Board approved the EMRGP as the new policy document to guide decisions in the region. The EMRGP provides a 50 year vision of the region and represents a substantial update of the 2010 CRGP, which will remain in effect until provincial approval of the EMRGP is granted. There is no specific timeline for that approval. This ASP has been prepared to align with the CRGP and EMRGP. The CRGP and EMRGP identify the following conditions within the Battery Creek ASP area.

2.3.1 Residential Density
The existing CRGP does not designate the Town of Devon for a target residential density range. The EMRGP requires a minimum residential density of 30 dwelling units per net residential hectare (du/nrha) within Devon’s greenfield areas. Accordingly, the Battery Creek ASP must meet the EMRGP requirement, and is currently planned for a density of 32 du/nrha.

2.3.2 Projected Population Growth
The Town’s current population is 6,650 (Town of Devon Municipal Census, 2014). Based on Capital Region Board population growth projections, of 1.8% and 2.3%, the Town is expected to have a population between 11,588 and 13,800 by 2046\(^1\). The ERMGP projects a population low 2044 of 11,200 and a high of 13,200.

The total population for the Battery Creek area is 6,733. Based on Devon’s 2016 population of 6,650 the full build-out of the plan area will represent over a 100% increase to the existing population. The anticipated population total for the Battery Creek area and the existing Town population put Devon at a future population of 13,383, which falls above the high end of the ERMGP population projections.

2.3.3 Employment Growth
The plan area includes 15.1 ha of commercial lands and employment areas. This represents the opportunities identified in the Town of Devon Municipal Development Plan.

2.3.4 Affordable Housing
The plan area accommodates a range of housing types and densities to meet a range of household incomes.

\(^1\) The Capital Region Board (CRB) prepared a set of population projections for the Capital Region by municipality in 2013 and accepted these projections as information. The projections had a baseline of 2014 and a horizon of 2044 and included two scenarios – a Low Case and a High Case. In early 2015, the CRB accepted an adjusted version of the 2014 population projections based on the outcomes of municipal censuses that were conducted in 2014 for the purposes of the Capital Region Growth Plan Update. The adjusted version replaced the estimated 2014 baseline populations with actual 2014 municipal census counts for those municipalities that conducted municipal censuses, including Devon, but retained the originally estimated average annual growth rates through to 2044.
2.3.5 Transportation Corridors
An existing regional road/highway (Highway 19), and regional expressway and high load corridor (Highway 19), as shown on Figure 1 of the CRGP, and Schedule 10A and 10C of the EMRGP, respectively, is located to the south of the plan area.

A traffic impact assessment (TIA) has been prepared for the plan area. The TIA identifies that the proposed land use concept requires access to Highway 19 at the southern boundary of the Plan area, provides a logical local transportation network, no requirement for a vehicle crossing at Battery Creek. The Town and Alberta Transportation agreed that the Battery Creek area will access Highway 19, in the short term, via an existing intersection at Range Road 262, and in the long term via an interchange located approximately 800 m east of Range Road 262. The Battery Creek transportation network is not expected to impact regional transportation infrastructure. The TIA for the Battery Creek Lands is provided on the Town’s website.

The Edmonton Airport Vicinity Protection Area is located immediately east of the plan area, and therefore does not impact development within the Battery Creek area.

2.3.6 Regional Water and Wastewater Corridors
There are no existing or future regional waterlines or regional wastewater lines within the plan area, as shown on Figure 2 of the December 2009 Addendum to the Capital Region Growth Plan, and Schedule 8A of the EMRGP.

2.3.7 Regional Power Infrastructure
An existing 138 kV and 500 kV power line, as shown on Figure 3 of the CRGP and Schedule 8 of the EMRGP, is located within the plan area. The land use concept is not expected to impact regional power infrastructure as development will be setback from the power lines.

2.3.8 Regional Corridors
The North Saskatchewan River Valley, and existing and conceptual Trans Canada Trail (TCT) alignments as shown on Figure 4 of the December 2009 Addendum to the CRGP and Schedule 4 and Schedule 10B of the EMRGP, are adjacent to and within the plan area, respectively.

The development concept for the plan area provides environmental and municipal reserve adjacent to the North Saskatchewan River Valley, and includes an alignment for the TCT.

2.3.9 Regional Evaluation Framework
The Battery Creek Area Structure Plan boundaries are within 0.8 kilometres of a road identified on the Regional Transportation Infrastructure map of the CRGP and therefore meet the condition for 3.2(a)(iv) of the Regional Evaluation Framework. However, the Battery Creek Area Structure Plan does not meet either conditions of 3.2(b) of the Regional Evaluation Framework, and therefore the Town is not required to submit the Plan for review to the Capital Region Board.

The ASP has been prepared in accordance with the MGA and is consistent with the policies of the existing IDP (which anticipated commercial and residential expansion in the plan area) and
Battery Creek Area Structure Plan
the new Municipal Development Plan (MDP).

3.0 STATUTORY COMPLIANCE

3.1 Intermunicipal Development Plan

The Town of Devon and Leduc County Intermunicipal Development Plan (IDP), as amended was adopted by Bylaw 815/2008 in 2008, and was amended in 2014 in anticipation of the annexation of the Battery Creek ASP lands.

The IDP’s purpose is to provide a coordinated and collaborative framework for managing the use and development of land adjacent to the boundaries of the Town of Devon and Leduc County. The IDP provides policy statements with respect to economic development, residential, commercial, industrial, and community and institutional development, environment and open space, transportation, and municipal servicing. The IDP includes, but is not limited to, the following policies:

a. The creation of a residential density of 48 persons/gross residential hectare;
b. A minimum 65% single detached residential units, a maximum 35% of other units;
c. High quality commercial development should be located along Highway 19;
d. Delineation of the top of bank adjacent to rivers and creeks;
e. A minimum 6.0 m municipal reserve width along the top-of-the-bank;
f. A 30.0 m development setback from the top-of-the-bank;
g. Trail networks will be located adjacent to the North Saskatchewan River;
h. Any water crossings require consultation with federal and provincial agencies;
i. Development setbacks from Highway 19 are required;
j. Piped water services to the IDP area may be pursued;
k. Storm water runoff will be controlled at predevelopment rates; and
l. School facilities shall be centrally and adjacent to arterial or collector roadways.

The IDP, on Figure 8 as shown below, designates portions of the plan area as a Residential Future Growth Node, Non-Residential Future Growth Node, Protected Nature Area, Potential Trail Network and an Alta Link Corridor.
Battery Creek Area Structure Plan

The land use concept and policies of the Battery Creek ASP complies with the relevant policy provisions of the IDP and conform to the land use designations of the IDP, however IDP policies related item e and f should be amended to reflect current municipal policy.

3.1.1 Annexation Report

The Town of Devon and Leduc County Annexation Report, 2014, was prepared for the Battery Creek ASP lands. The Report provides the rationale for annexation and also describes the potential development characteristics of the Battery Creek lands, which includes:

a. A population of 4,160 residents within a total of 1,698 residential dwellings;

b. 18.7 dwellings unit/net hectare;

c. Oil Patch Drive, Derrick Drive, Michigan Street and Miquelon Avenue should be extended to accommodate the annexation and increase connections to Battery Creek;

d. Waste collection for general waste, organics and recycling will be provided;

e. Battery Creek will provide a diversity of housing options; and

f. There are no species at risk or critical habitat, and local vegetation did not include any rare or endangered species areas in Battery Creek.

The Battery Creek ASP complies with the directions provided by the report, however the proposed population total for plan area exceeds the anticipated population total by AA% (proposed - anticipated) in order to meet the residential density requirements of the EMRGP.

3.2 Municipal Development Plan

Connecting Devon is the Town of Devon’s Municipal Development Plan (MDP). The Municipal Development Plan provides a Vision, Principles, Objectives, Goals and Policies to provide statutory direction to development and growth to 2045.

The MDP also reflects the regional framework for growth as established in the Edmonton Metropolitan Region Growth Plan. As a member municipality, Devon has the responsibility of implementing the policies of its Growth Plan primarily through statutory planning documents including the MDP and subsequent Area Structure Plans.

Connecting Devon recognizes its growth and evolution through its principles that focus on providing physical and social connections to places, spaces and each other, while rooted in the desire to demonstrate sustainability leadership in alternative and renewal energy. The policy areas of the MDP align with focus areas established by the Integrated Community Sustainability Plan. They are: Economy and Finance; Land Use, Neighbourhoods and Homes; Transportation Infrastructure and Energy; Natural Environment; Parks, Recreation and Culture; Health and Well-being; Learning and Education; and Partnerships and Capacity.

Key MDP policy directions that will guide the growth and development of the Battery Creek Area Structure Plan are those that address:

a. Contiguous and compact development;

b. Compliance with the objectives, policies and residential density targets of the EMRGP;

c. Multi-modal connections to and between neighbourhoods, employment areas, schools, park, community facilities and destinations throughout Devon;
Battery Creek Area Structure Plan

d. Demonstrate leadership in renewable and alternative energy systems

e. Acquire Environmental and Municipal Reserves;

f. Provide recreational and cultural facilities such as libraries and recreation centres; and

g. The Future Land Use Concept of the MDP designates the Battery Creek area for commercial and residential land uses.

The land uses within the plan area and proposed policies of the Battery Creek ASP complies with the Future Land Use Concept and with key policy provisions of the MDP.

3.3 Existing Area Structure Plan

There have been no previous ASPs approved for the plan area.

3.4 Adjacent Area Structure Plan

There are two ASPs located to the west and south of the Battery Creek ASP plan area.

1. The Ravines of Devon ASP applies to lands located to the west of the plan area, across Battery Creek. The ASP describes a neighbourhood consisting of the following:
   - 135 single detached residential lots and 56 multi-family dwellings;
   - a population of 1,545 residents, including 294 students;
   - a neighbourhood commercial site; and
   - Environmental Reserve areas adjacent to Battery Creek and Washout Creek.

   Photo 3: Ravines of Devon ASP plan map.

2. The South of Devon Industrial ASP, located within Leduc County to the south of the plan area and across Highway 19, describes a neighbourhood containing industrial uses.

   Photo 4: Ravines of Devon ASP plan map.

The Battery Creek ASP will have uses compatible with the Ravines of Devon ASP, and provide a commercial shopping area and neighbourhood amenities such as parks, trails and schools for residents. The Battery Creek ASP will share an interchange on Highway 19 with the South of Devon Industrial ASP area.
4.0 MUNICIPAL DOCUMENTS

4.1 Integrated Community Sustainability Plan
The Town’s Integrated Community Sustainability Plan (ICSP) is Devon’s vision for an inspiring and successful future. The Plan’s vision is that “Devon is a healthy, active, sustainable and inclusive community.” This vision will guide community decision-making and action for the next 25+ years as we move toward 2045.

The ICSP is based on the principles of environmental sustainability, social sustainability, economic sustainability and smart growth. From these principles the ICSP has nine goal areas, which are: Economy and Finance; Land Use, Neighbourhoods and Homes; Transportation; Infrastructure and Energy; Natural Environment; Parks, Recreation and Culture; Health and Well-being; Learning and Education; and, Community Partnerships and Capacity. The Plan also includes the priorities that Town staff, community members, business leaders, and organizations can contribute in order to begin the journey to achieve the goals. Performance indicators are also provided in the plan to measure progress toward (or away from) the goals.

The Battery Creek ASP has been prepared in conjunction with the ICSP and complies with its vision and goals.

4.2 Land Use Bylaw
The Town’s Land Use Bylaw, Bylaw 464, as amended, controls development of the lands within Battery Creek. These lands are currently designated Direct Control (DC) District, Public Service (PS2) Land Use District, Urban Reserve (UR) Land Use District, and Leduc County zoning for the balance of the lands. Changes to the Land Use Districts in the Battery Creek area will be required in advance of development.

4.3 Multi-Modal Transportation Plan
The 2013 Multi-Modal Transportation Plan (MMTP) emphasized active transportation as well as motor vehicle movements. Linkages for pedestrians and cyclists were identified as important and necessary, and the Town acted on several in short order, to complete the trail network. These links included paved trails as well as pedestrian crossing upgrades.

The MMTP demonstrated that most of Devon’s internal intersections perform well. However the MMTP observed that Alberta Transportation intends to eliminate Town access to Highway 60, upon its future realignment, at Derrick Drive, St. Lawrence Avenue, and Athabasca Avenue. This change will alter the Town’s internal traffic patterns and affect transportation network performance; some roads such as Eire and Michigan north of Miquelon may face significant traffic increases. Devon’s external connections to Highway 60 tend to perform less well, especially westbound to southbound left turns in the morning rush hour. In order to address these issues the MMTP recommended adding a third connection to Highway 60 at Athabasca Avenue. This connection would provide direct access to commercial businesses in the downtown, where the existing Highway 60 alignment does not provide one.
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Although the MMTP represented a comprehensive review of the Town’s transportation network, it did not contemplate the lands within the Battery Creek annexation area. The key principles from the MMTP that will transfer over to the Battery Creek ASP are the concept of linkages. There should be strong active transportation connections to Battery Creek, as well as within Battery Creek. It would also be reasonable to provide connections from Battery Creek, across Highway 19, to Leduc County’s South of Devon Industrial ASP area. To minimize internal traffic concerns and continue to provide regional connections Battery Creek will need an access point to Highway 19 as well as a connection to the existing Town.

4.4 Utility Plans

The Town of Devon has undertaken a number of engineering investigations to understand the current state of water, wastewater and stormwater servicing within the municipality, and identify potential upgrading needed to service future growth. However, Master Plans for the water, wastewater or stormwater systems have not been developed. In addition, condition assessments of underground systems have not been undertaken.

The following provides a summary of the existing municipal servicing in the Town of Devon, and to the Battery Creek ASP lands area.

4.4.1 Water Servicing

The Town’s Water Treatment Plant can service approximately 11,000 people, and with upgrades has a capacity to service up to 13,500 people. A looped watermain system extending from the existing Water Treatment Plant and a new water reservoir will be required to service Battery Creek.

4.4.2 Sanitary Servicing

The Town’s Waste Water Treatment Plant (WWTP) can service approximately 11,000 people. However, the existing WWTP is deteriorating, and plans are in place to replace the plant in stages. The first stage will have a capacity to service up to about 12,000 people, and the second stage up to 19,000 people.

Battery Creek will require an on-site gravity sewer system. The system will convey flows to a new on-site wastewater lift station, which will pump wastewater flows through a new forcemain to the existing WWTP. The WWTP will need to be upgraded to support the Battery Creek development.

4.4.3 Storm Water Servicing

The Town’s existing stormwater servicing is provided through storm sewers, ditches and culverts, and some stormwater management facilities (SWMFs), all draining to local creeks and ravines that discharge into the North Saskatchewan River.

Battery Creek will be serviced via an underground piped storm water system which discharges into storm water management facilities. The facilities will retain storm water and convey flows to adjacent waterbodies at predevelopment flows.
Battery Creek Area Structure Plan

At the Neighbourhood Structure Plan stage land developers will be required to provide a Hydraulic Network Analysis, Sanitary Servicing Analysis, and a Stormwater Management Plan.

4.5 Joint Servicing Initiative

A Joint Servicing Initiative (JSI) is being prepared between the Town of Devon and Leduc County to service the lands located south of Highway 19, and identified as South of Devon Industrial ASP. The JSI will create a detailed servicing plan and provide equitable cost sharing between the two municipalities and participant landowners.

The JSI will promote the equitable use of the existing Town infrastructure and eventual provision of utilities to all property owners in Battery Creek and the South of Devon Industrial ASP. Accordingly the servicing network in the Battery Creek ASP will be in alignment with the JSI.

4.6 Levies

The Municipal Government Act allows municipality’s to impose conditions that must be satisfied before subdivision or development approval may be granted. These conditions include the collection of levies through development agreements and related to funding new on-site and off-site infrastructure, and/or off-site levies that are pre-established rates used for specific off-site infrastructure, such as arterial roads or sewer trunk mains. The costs of these major services are levied against a larger, "benefiting" area and a number of developers pay for them. Off-site levy rates are set by Town Council. For the Battery Creek ASP off-site levies will be identified at the Neighbourhood Structure Plan stage.

4.7 Parks, Culture and Recreation Master Plan

The Parks, Culture and Recreation Master Plan focuses on connecting people and nature, active living, inclusion and access, and building recreation and community capacity. The Plan also outlines eleven strategic priorities, and describes more specific action items that are designed to build capacity and leadership, identify short term projects, and long term planning. The following action items are directly applicable to the Battery Creek Plan area:

1. Protect Battery Creek and Washout Creek as a passive sanctuary;
2. Preserve the heritage of Devon’s archeological and paleontological sites;
3. Climate neutrality/energy efficiency, protection of biodiversity and living systems;
4. Consider developing energy sources, such as wind, solar, geothermal; and
5. Promote walkable communities.

These action items have been integrated into the Battery Creek ASP land use concept and policies.

4.8 River Valley Master Plan

The River Valley Master Plan was prepared by the Town of Devon, MMM Group and the River Valley Alliance in February 2011. The Plan establishes a vision that Devon’s river valley is a connected and memorable waterfront and park system, and regional attraction for residents and tourists. The Plan also establishes a 10 year development plan for the river valley, which includes Voyageur Park consisting of a west, east and central green, and the Golf Course/Lions
Battery Creek Area Structure Plan

Campground. The Plan recommends the creation of trailheads, and identifies many trail linkages throughout Devon, including a trail through the Battery Creek ravine and trail connections to the lands west of Battery Creek.

The River Valley Master Plan does not include a trail alignment through the Battery Creek ASP lands. We recommend updating the Plan to include the Battery Creek lands.

4.8.1 River Valley Trails Master Plan

The River Valley Trails Master Plan (August 2014) builds on the foundation of the River Valley Master Plan by guiding the maintenance and future development of the multi-use trail system. The Plan identifies the location of existing and proposed trails along the North Saskatchewan River, along the top-of-the-bank, through existing neighbourhoods and within ravines. The Plan does not include a trail alignment through the Battery Creek ASP lands. The Plan may be amended to include the Battery Creek lands.

4.8.2 River Valley Alliance

In October 2014 the River Valley Alliance proposed a trail alignment from the Battery Creek Ravine to the Rabbit Hill Ravine. The alignment passes through the Battery Creek ASP and trends along the top-of-the-bank in the northern portion of plan area. The Battery Creek ASP land use concept includes the proposed River Valley Alliance trail alignment.

Photo 5: River Valley Alliance proposed trail alignment through Battery Creek ASP area.

4.9 Devon 2050: Economic Development Strategy

The purpose of this Strategy is to set out a long term path to strengthen the economy of Devon and the initiatives needed to ensure success. The Strategy identifies strengths, weaknesses, opportunities and threats, and provides a 35 year vision, backcasting to identify gaps between Devon’s current economy and Devon’s envisioned economy, and strategies to close the gap.

The ASP meets the intent of the Strategy by conforming to its strategic directions, namely by providing land and infrastructure in support of growth, creating employment in Devon, and helping to make Devon a net zero community by 2050.
Battery Creek Area Structure Plan

4.10 Economic and Statistical Housing Market Analysis
A housing market analysis was prepared by Intelligence House in May 2014 to identify current demographics, new home and rental markets, housing market activity, and future opportunities for Devon. The report concludes that Devon should provide a supply of single-detached residential dwellings that does not compete with Edmonton’s housing prices and lot sizes, and limited opportunity for multi-family dwellings given housing preferences in Devon and housing options in Edmonton.

Based on the Market Analysis, the requirements of the EMRGP, the Town’s MDP and stakeholder input, the Battery Creek lands will accommodate a mix of housing types. A Land Use Bylaw amendment may be considered to address lot size recommendations of the Market Analysis.

4.11 Housing Development Survey
A housing market analysis was prepared by Banister Research and Consulting Inc. in May 2014 to provide an overview of the new home market, including the decision-making factors relevant to housing choices in Devon through the use of a survey. Of relevance to the ASP, the survey identified that Devon provided a high quality of life because of the friendly small town atmosphere, its green spaces and trails, and the North Saskatchewan River. Factors that contributed to a low quality of life in Devon were the lack of shopping or businesses and a lack of recreational facilities and programs. The survey also identified that respondents considered shopping and recreational amenities within close proximity to their home as the most important community features for their household.

All residential development within the Battery Creek is located within ~200 m and ~400 m of lands designated for trails and/or parks and for retail or office uses, respectively.

4.12 Retail Market Study
A Retail Market Study was prepared by the Leduc-Nisku Development Association in February 2015 to identify the inflow and outflow of retail spending; existing retail inventory; latent demand; market voids and consumer behavior within the proximity of the Edmonton International Airport, including the Town of Devon for the purposes of addressing the future of retail within the area. The Study did not anticipate or include the Battery Creek area.

The Study identifies that the Town currently has 161,000 ft² (1.49 ha) of retail floor area serving a 2014 population of 6,650. Based on a five year projection to 2019, the Study concludes that an additional 45,628 ft² (0.42 ha) retail space is required. The study further identifies that by 2019 Devon will have a population of approximately 7,000 residents with 206,628 ft² (1.91 ha) of retail. Based on the findings of the study and the projected population of the Battery Creek area the Town could have a total retail floor area of approximately 413,256 ft² (3.82 ha)

4.13 Relationship of Absorbed Commercial to Residential Lands
The Town is currently projected to have a ratio of 0.15 ha of net commercial lands for every 1 ha of net residential lands, as per the land use designations of the Municipal Development Plan. The ratio for the Battery Creek ASP is 0.16 ha of net commercial lands for every 1 ha of net
residential lands. This ratio is similar to the balance of the Town, which has a ratio of 0.13 ha of net commercial lands for every 1 ha of net residential lands, respectively. This information is provided in the Table 2.

Table 2: Projected Relationship of Absorbed Commercial to Residential Lands in the Town of Devon and Full Build-Out of the MDP

<table>
<thead>
<tr>
<th>Town of Devon Sub-Area</th>
<th>CRB mid-2009 Land Supply</th>
<th>2009 Commercial to Residential Relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Absorbed Commercial (net ha)</td>
<td>Absorbed Residential (net ha)</td>
</tr>
<tr>
<td>Absorbed Lands as of end of 2015</td>
<td>18.3</td>
<td>140.3</td>
</tr>
<tr>
<td>Remaining Birchwood*</td>
<td>0.0</td>
<td>1.6</td>
</tr>
<tr>
<td>Remaining Ravines of Devon</td>
<td>5.6</td>
<td>13.0</td>
</tr>
<tr>
<td>Planned Juniper Ridge</td>
<td>10.5</td>
<td>26.6</td>
</tr>
<tr>
<td>Unplanned West of Highway 60 Realignment</td>
<td>2.9</td>
<td>65.8</td>
</tr>
<tr>
<td>Proposed Battery Creek</td>
<td>15.1</td>
<td>91.6</td>
</tr>
<tr>
<td>Estimated Total at Full Build-Out</td>
<td>52.4</td>
<td>338.9</td>
</tr>
</tbody>
</table>

Based on the “Estimated Total at Full Build-Out” identified in Table 1 the Town of Devon compares favorably with the municipalities identified in Table 3, notably Sherwood Park, Spruce Grove and Stony Plain.

Table 3: Relationship of Absorbed Commercial to Residential Lands in the Capital Region, 2009 and Latest Available

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Absorbed Commercial (net ha)</td>
<td>Absorbed Residential (net ha)</td>
<td>Baseline of Analysis</td>
<td>Absorbed Commercial (net ha)</td>
</tr>
<tr>
<td>Beaumont</td>
<td>24.2</td>
<td>290.9</td>
<td>Mid-2012*</td>
<td>34.7</td>
</tr>
<tr>
<td>Devon</td>
<td>15.5</td>
<td>131.4</td>
<td>End 2015*</td>
<td>18.3</td>
</tr>
<tr>
<td>Fort Sask.</td>
<td>61.6</td>
<td>485.0</td>
<td>Mid-2014*</td>
<td>87.7</td>
</tr>
<tr>
<td>Morinville</td>
<td>20.1</td>
<td>188.2</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Sherwood Pk.</td>
<td>317.1</td>
<td>1,400.6</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Spruce Grove</td>
<td>85.5</td>
<td>495.5</td>
<td>End 2014*</td>
<td>101.6</td>
</tr>
<tr>
<td>St. Albert</td>
<td>129.1</td>
<td>1,266.3</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Stony Plain</td>
<td>94.5</td>
<td>377.9</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>

2 “Net” means the amount of land that is developable for residential or commercial purposes after deducting all other land uses, i.e. Environmental Reserve, pipelines and power lines, arterial roads, parks and open space, public utilities, circulation, etc.).
5.0 SITE ANALYSIS

5.1 Topography
The Battery Creek ASP lands are located immediately adjacent to the North Saskatchewan River and the Battery Creek Ravine and Rabbit Hill Ravine. The lands are generally flat with very mild topographical relief, as shown in Figure 3.

The land above the top of the bank of the North Saskatchewan River has a general aspect to the northwest and a slope of 1.16%, with elevations ranging from 713 m near the south boundary to 692 m in the northwest. In general, overland flows trend from the south to the north and west, and eventually to the North Saskatchewan River.

A portion of the lands within the plan area are located within the Battery Creek Ravine, Rabbit Hill Ravine, and along the North Saskatchewan River. These lands, excepting the existing Devon Lions Campground, are currently undeveloped. These undeveloped lands will be designated Environmental Reserve, while the campground will be identified as Recreation on the Battery Creek ASP land use concept.

The majority of the plan area is outside the North Saskatchewan River’s floodway, flood fringe, and overland flow areas, as identified by Alberta Environment and Parks (AEP) Flood Hazard Map. The lands within the Lions Campground, in the northwest portion of the plan area are within the North Saskatchewan River floodway. Lands within this area should be developed in accordance with the Canada Mortgage and Housing Corporation guidelines for building in flood-susceptible areas.

5.2 Soils
A review of Alberta’s Spatial Information System indicates that the quarter section has a Canada Land Inventory (CLI) soil rating of Class 6/3 (perennial forage and moderately severe limitations) and Class 1 (no significant limitations). The Class 1 soils are considered Better Agricultural Land and located in the western portion of the plan area.

5.3 Geotechnical Conditions
Battery Creek is located within the Central Parkland Subregion of Alberta. The subject site has been cultivated for over a century, and modified for oil and gas operations.

In October 2012 Genivar conducted a Geotechnical Investigation for NW26-50-26-4, and a Geotechnical Investigation and Slope Stability Analysis for NE26-50-26-4 and SE26-50-26-4. Thirty-six test holes were drilled to assess soil and groundwater conditions and conditions for site development, site grading, residential construction, the construction of roadways, the installation of sewer and water systems and the construction of stormwater management facilities, and slope stability. No test holes were drilled for properties within on the balance of the lands. The results of the investigations are provided below:
1. The Geotechnical Investigation for NW26-50-26-4 identifies that the soil profile consists of topsoil, silty clay soils and clayey silt soils. The Investigation concludes that these soil conditions are suitable for industrial development, is suitable for residential development, and contains guidelines for construction and urban development, including the following:
   a. Consideration should be given to lining stormwater ponds with a geomembrane to prevent seepage; and
   b. All storm sewer outlets should be connected with existing natural water courses.

2. The Geotechnical Investigation and Slope Stability Analysis for NE26-50-26-4 and SE26-50-26-4 identifies that the soil profile consists of topsoil, silty clay soils, sandy silty soils, sandstone/claystone bedrock and glacial till native soils. The Investigation and Analysis concludes that these soil conditions are suitable for light industrial/business park development, and contains guidelines for construction and urban development, is suitable for residential development. The Investigation and Analysis identifies a setback ranging from 16 m to 50 m from the top-of-the-bank, and recommends a minimum development setback of 25 m from the top-of-the bank for NE26-50-26-4 and SE26-50-26-4.

A Geotechnical Investigation update/addendum will be required in advance of subdivision and development for NW26-50-26-4, NE26-50-26-4 and SE26-50-26-4.

For the balance of the Battery Creek ASP lands that have not been subject to analysis a geotechnical investigation will be required at the time of NSP preparation.

5.4 Biophysical Desktop Review
ISL Engineering and Land Services has conducted a Biophysical Desktop Review of lands within the Town’s boundary, including the Battery Creek lands. The review outlines the regulatory framework, summarizes areas of special concern and provides recommendations for areas of future study and conservation, as well as a review of the existing MDP and Urban Tree Management Plan.

The key recommendations from the report that impact Battery Creek ASP lands are:
- The riparian area adjacent to the North Saskatchewan River should be protected both as a buffer to the North Saskatchewan River thereby performing water quality and quantity protection functions, as well as a naturally occurring wildlife corridor.
- The ravines adjacent to the Battery Creek ASP lands be protected and conserved as park, recreational area, or environmental reserve.
- A bridge crossing is possible provided it is designed to protect wildlife corridor movements and follow best practice approaches, such as the City of Edmonton’s Wildlife Passage Engineering Design Guidelines, 2010.
- All wetlands should be considered for protection and conservation, and development that may impact wetland function should consider avoidance where feasible.
- Clarify the scope of the Evaluation of Environmental Impacts provided in advance of subdivision and development to include an assessment for terrain and soils, land use, surface water and aquatic resources, vegetation as well as wildlife and wildlife habitat.
Battery Creek Area Structure Plan

The recommendations of the Biophysical Desktop Review were integrated into the ASP.

5.5 Environmental Site Assessment

In May 2012 four Phase I Environmental Site Assessments (ESA), based on the Canadian Standards Association document Z768-01, were prepared by Blanchard Environmental Consultants for a portion of the Battery Creek ASP lands. Each ESA identified that there are no significant concerns on the subject lands given that they were historically used for agricultural purposes, however they did recommend further testing and the preparation of a Phase II ESA. The results and recommendations are summarized below.

1. The Phase I ESA for SW35-50-26-4 recommended the preparation of a Phase II ESA to determine whether there is any residual contamination due to the pipeline releases near current and former oil and gas lease areas and near the base of a generator.

2. The Phase I ESA for NW26-50-26-4 recommended the preparation of a Phase II ESA for the area around an existing farmstead, the boundaries of current and former oil and gas lease areas, and along the eastern border of the quarter section across from a former tank area.

3. The Phase I ESA for NE26-50-26-4 recommended the preparation of a Phase II ESA for an area of staining near the base of a generator, and near the borders of current and former oil and gas lease areas.

4. The Phase I ESA for SE26-50-26-4 recommended the preparation of a Phase II ESA to determine whether there is any residual contamination due to the pipeline releases near current and former oil and gas lease areas and a former tank area.

An ESA Phase I update/addendum and Phase II will be required in advance of subdivision and development for the lands identified above. An ESA Phase III may also be required.

For the balance of the Battery Creek ASP lands that have not been subject to environmental review (Plan 1408HW, Block A and Block B, SE34-50-26-4, NE27-50-26-4 and SW26-50-26-4) an ESA Phase I will be required. An ESA Phase II and III may also be required.

5.6 Historical and Archaeological Review

The Historic Resources Management Branch of Alberta Culture and Tourism conducted a review of the plan area and on August 15, 2016 concluded that a Historic Resources Impact Assessment will be required in advance of development.

5.7 Current Land Uses

The Battery Creek ASP lands, as shown on Figure 4, is cleared and currently in agricultural production and contains numerous oil and gas facilities (wells and pipelines), a cemetery, two AltaLink transmission rights-of-way, the Lions Campground (including an office and caretakers residence), and a residential dwelling. Vegetation is limited to isolated tree stands near the top-of-bank adjacent to the North Saskatchewan River, the Battery Creek Ravine and Rabbit Hill.
5.7.1 Wells and Pipelines
The Battery Creek ASP lands, according to the Alberta Energy Regulator (AER) well map viewer and AbaData information, indicates there are six (6) active oil and gas wells, nine (9) abandoned wells, eight (8) active pipelines, eight (8) discontinued pipelines and ten (10) abandoned pipelines, as shown on Figure 4. The active wells require a setback of 100 m, while the abandoned wells require a minimum 5.0 m radius around each well, as per AER Directive 079. The setback for each pipeline is located at the edge of each right-of-way.

5.7.2 Utility Rights-of-Way
There are two utility rights-of-way within the Battery Creek ASP lands, as shown on Figure 4, which include:

1. A 50 m wide AltaLink transmission right-of-way, containing a 500 kV power line, that trends east/west across the central portion of the plan area; and
2. A 10 m wide AltaLink transmission right-of-way, containing a 138 kV power line, that trends east/west along the northern portion of plan area.

Each right-of-way provides the required Alberta Electric Utility Code (2013) setbacks for powerlines and their swings. There are no additional development setbacks from the right-of-way. However, the State of California requires a setback of 107.0 m from the edge of a transmission right-of-way to usable joint use areas of a school or its park space. Accordingly, the Battery Creek Land Use Concept exceeds this requirement by placing the anticipated school buildings and usable areas (sports fields and playground) 107 m or greater from the edge of a right-of-way.

5.7.3 Adjacent Land Uses
The lands to the north, west and east of the Battery Creek ASP area contain the North Saskatchewan River and valley, the Battery Creek Ravine and Rabbit Hill Ravine, respectively. The lands to the west, across the ravine, include existing residential and former industrial development (Esso plant). The lands to the east, across the ravine, are in agricultural production. The lands to the south, across Highway 19, are designated and developing as industrial land uses.
6.0 COMMUNICATION AND ENGAGEMENT STRATEGY
The preparation of the ASP included a comprehensive communication and engagement strategy that was implemented to involve the general public, identified stakeholder groups, landowners, Leduc County, and intergovernmental organizations in an effective and meaningful process. This strategy was designed to:

1. Raise awareness of the planning process and what an ASP is;
2. Encourage participation in community engagement activities;
3. Build relationships and trust between residents, Council and staff;
4. Gather ideas for the future of Battery Creek that can be incorporated into the ASP; and
5. Create an ASP that has community support, and approved by Council at a public hearing.

6.1 Communication and Engagement Activities
To inform and engage the interested parties the following tasks were undertaken:

1. The project was publicly launched on December 18, 2015 with a notice in the Devon Dispatch, and a project page on the Town’s website. An email list sign up form was placed on the website. The launch was followed by radio advertisements on 93.1 The One FM and a radio interview on January 29, 2016.

2. Awareness Raising Materials (a project webpage, email notifications, social media updates, posters and postcards and radio and newspaper advertisements) were sent to Devon residences, businesses, and identified stakeholders throughout the project.

3. An Advisory Committee was formed to provide guidance to the project team. The Committee met on December 8, 2015, May 25, 2016 and March 21, 2017.

4. Landowners within the ASP area met on December 21, 2015, May 25, 2016 and March 20, 2017 to describe their future plans and provide input on the direction of the ASP.

5. On January 26 and 27, 2016 and February 17, 2016 workshops were held as part of the action planning process: one with the Advisory Committee (AC) members and community partner organization representatives; the other with Town of Devon Council and senior Town administrators. The ideas identified during the workshops were compiled and used to inform the preparation of the ICSP, MDP and ASP.

6. Three public open houses were hosted by the Town. The events occurred on January 27, 2016, June 28, 2016 and March 28, 2017.

7. In June 2016 project Ambassadors visited 600 households and attended the ‘Devon Days’ event to promote the June 28, 2016 public open house and project questionnaire. They also collected feedback from people through a short survey.

8. On July 18 and 19, 2016 ten (10) small group meetings were held with key stakeholders to introduce the planning process and gather input on their goals for the future of Devon and the opportunities and challenges that exist. The ideas identified during the workshops
Battery Creek Area Structure Plan

were compiled and used to inform the preparation of the goals and policy statements for the ICSP, MDP and ASP.

6.2 Engagement Feedback

Based on submissions from attendees at the engagement activities described in Section 6.1 the following general themes were identified:

1. Recognize Devon’s desire for growth into Battery Creek, and ensure growth is guided by sustainable principles;

2. Provide connections between Battery Creek and Devon;

3. Identify the existing wells and pipelines within Battery Creek, provide required setbacks, and integrate wells and pipelines within the plan area;

4. Protect environmental areas and wetlands, and provide development setbacks from the top of bank;

5. Accommodate single family residential dwellings, and provide opportunities for multiple family dwellings and senior's residences;

6. Provide commercial development opportunities that attract regional patrons and serve local needs, and do not detract from downtown commercial;

7. Provide an automobile bridge across the Battery Creek Ravine. Provide a cycling bridge. Provide no bridge. Provide a pedestrian trail;

8. Provide a recreational trail network within Battery Creek. Utilize the lands adjacent to the AltaLink transmission right-of-way for recreational and/or trail purposes; and

9. Development phasing should be based on servicing rather than ownership patterns.

A summary of the public engagement feedback is provided on the Town’s website.

Photo 6: Public input at three Open Houses, held on January 27, 2016, June 28, 2016 and March 28, 2017, helped to create the ICSP, MDP and ASP.
Battery Creek Area Structure Plan

7.0 LAND USE CONCEPT

The land use concept, as shown on Figure 5, has been prepared to achieve the following:

1. Develop a sustainable neighbourhood, a neighbourhood that is a gateway into Devon, has its own identity, and is also a logical extension of and connected to the Town of Devon;

2. Protect natural areas and provide public access to the North Saskatchewan River valley, Battery Creek Ravine, Rabbit Hill Ravine, and vistas to these natural features;

3. Accommodate urban services, and provide schools located on centrally located sites, a range of parks, and a trail network connected to amenities;

4. Include a choice of housing options to create a strong, healthy and diverse community;

5. Provide commercial development adjacent to Highway 19 to attract a regional market, and provide neighbourhood commercial uses within the plan area;

6. Develop a safe and efficient transportation network that meets the needs of vehicles, pedestrians, cyclists, and future public transit; and

7. Provide an efficient municipal servicing concept and a logical phased servicing approach.

7.1 Development Statistics

The land use areas for the plan area is identified in the following table.

<table>
<thead>
<tr>
<th>Area Description</th>
<th>Area (ha)</th>
<th>% of GDA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titled Area</td>
<td>271.9</td>
<td></td>
</tr>
<tr>
<td>Environmental Reserve</td>
<td>62.0</td>
<td></td>
</tr>
<tr>
<td>Gross Developable Area (GDA)</td>
<td>209.9</td>
<td></td>
</tr>
<tr>
<td>Municipal Reserve</td>
<td>20.9</td>
<td>10</td>
</tr>
<tr>
<td>Stormwater Management Facilities</td>
<td>13.9</td>
<td>7</td>
</tr>
<tr>
<td>Internal Circulation</td>
<td>31.0</td>
<td>15</td>
</tr>
<tr>
<td>Public Utility Lots</td>
<td>26.9</td>
<td>13</td>
</tr>
<tr>
<td>Total</td>
<td>92.7</td>
<td>44</td>
</tr>
<tr>
<td>Net Developable Area</td>
<td>108</td>
<td></td>
</tr>
<tr>
<td>Urban Service</td>
<td>9.0</td>
<td>4</td>
</tr>
<tr>
<td>Recreation</td>
<td>1.5</td>
<td>1</td>
</tr>
<tr>
<td>Highway Commercial</td>
<td>10.7</td>
<td>5</td>
</tr>
<tr>
<td>Community Commercial</td>
<td>3.7</td>
<td>2</td>
</tr>
<tr>
<td>Neighbourhood Commercial</td>
<td>0.7</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>25.6</td>
<td>12</td>
</tr>
<tr>
<td>Residential</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Low Density</td>
<td>69.9</td>
<td>33</td>
</tr>
<tr>
<td>- Medium Density</td>
<td>12.3</td>
<td>6</td>
</tr>
<tr>
<td>- High Density</td>
<td>9.4</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>91.6</td>
<td>44</td>
</tr>
</tbody>
</table>
8.0 LAND USE POLICIES

8.1 General Land Use Policies

1. Town buildings and infrastructure should have a net zero carbon footprint and:

   a. Use renewable energy sources such as geothermal energy, geo-heat exchange, district heating and heat recovery systems, solar heat, and wind energy sources.

      i. The Town will explore the feasibility of alternative energy sources such as co-generation and trigeneration, and harnessing waste heat from buildings and pipelines to produce electricity.

   b. Use green building (i.e. LEED, BUILT Green) and low-impact development servicing technologies (i.e., street trees, green roofs, constructed wetlands, bioswales, landscaped ditches, rainfall harvesting, bioretention cells, grey water recycling, xeriscaping and permeable surfacing materials).

   c. Be located in prominent locations, may include a mix of uses to make more efficient use of space, be connected to the trail network to promote transportation mode shifts and decrease traffic volumes, consider carbon footprint impacts in all lifecycle cost analyses, include community gathering places, contain local public art, and provide green space and vegetation beyond the requirements of the Land Use Bylaw to improve air quality.

Photo 7: Located in the City of Edmonton’s Eastgate Yard this demonstration rain garden project tests three different soil mixtures and provides an amenity for employees.
2. The Town shall encourage private sector development to meet the standards identified in Policy 8.1.1, or to design buildings to achieve at least 25% efficiency over the Model National Energy Code for Buildings.

   a. Development proposals should include an energy assessment to demonstrate how the targets for carbon dioxide emissions reduction are to be met.

3. The Town shall establish a unified, identifiable theme for Battery Creek that reflects the history of the area and the Town. The theme will be implemented through the creation of an inviting public realm of streets, parks and trails that encourage pedestrian traffic and social gathering. The theme and public realm will be enhanced with entrance features, landscaping, streetscape design elements, lighting, and signage.

   a. The Town shall set high standards of design for all public development and infrastructure, and may use local, national and international competitions for major public projects.

   b. The Town shall encourage private sector development to meet similar design standards.

4. All buildings and open spaces should provide an architectural design that:

   a. Makes a positive contribution to the streetscape, neighbourhood and wider Town. In addition the design should be human in scale, ensuring buildings create a positive relationship with street level activity and people feel comfortable with their surroundings.

   b. Has regard to the pattern and grain of the existing spaces and streets in orientation, scale, proportion and mass;

   c. Comprise details and materials that complement, not necessarily replicate, the local architectural character;

   d. Provides high quality outdoor spaces and integrate well with the surrounding streets;

   e. Contributes to a positive relationship with natural landscape features;

   f. Be adaptable to different activities and land uses; and

   g. Not cause unacceptable harm to surrounding land and buildings, particularly residential buildings, in relation to privacy, shadowing, and microclimate.

5. A Neighbourhood Structure Plan (NSP) shall be prepared prior to rezoning, subdivision or development for the lands shown on Figure 6. The terms of reference for the plans
Battery Creek Area Structure Plan

shall be based on the regulations identified in the Municipal Government Act for Area Structure Plans. During the preparation of the NSP the proponent shall host a public meeting to solicit comment from interested parties.

a. NSPs shall demonstrate alignment with the CRGP/EMRGP, Leduc County and Devon IDP, Devon MDP, and relevant municipal plans.

b. Each NSP shall establish a unified, identifiable architectural theme that reflects the Town’s history and character; encourages architecture, design, and public art that is unique to Devon. The theme shall contribute to a positive municipal image;

c. In the review of NSPs and subdivision proposals the Town shall require:

   i. Energy efficient subdivision design;

   ii. Variations of residential dwellings and front yard setbacks to create more interesting streetscapes; and

   iii. The provisions of focal points in residential areas such as a community center, parks or schools, in order to encourage community interaction.

d. The Town may require that a developer register a restrictive covenant against a site or development in order to ensure conformance with architectural controls;

e. The NSP will also include a Neighbourhood Design Report, Water Network Analysis, Sanitary Servicing Analysis, Stormwater Management Plan, and an Historic Resources Impact Assessment;

f. The NSP may also require a Biophysical Impact Assessment (including Wetland Assessment, Compensation Plan and Tree Inventory), Environmental Site Assessment, Crime Prevention through Environmental Design Report, Geotechnical Investigation, Servicing Design Report, Transportation Impact Assessment and/or a Wildlife Survey; and

g. In accordance with the Alberta Electric Utility Code, any development adjacent to the 500 kV AltaLink transmission right-of-way shall prepare a study to determine suitable clearances between conductors and buildings, taking into account electrostatic induction, and ensuring the development complies with Alberta Safety Codes.

6. Neighbourhoods shall be designed to encourage active modes of transportation by appropriately mixing land uses, and locating residential development within ~200 m and ~400 m of lands designated for trails and/or parks and for retail or office uses, respectively.
Battery Creek Area Structure Plan

8.2 Environmental Reserve Policies

Lands within the plan area that are in a floodplain, above or below the top-of-the-bank (TOB), or identified as a wetland are considered environmentally sensitive and will be designated as Environmental Reserve, as shown on Figure 5.

1. Development within the floodway of the North Saskatchewan, as shown on Alberta Environment and Parks (AEP) Flood Hazard Map, shall be prohibited with the exception of parks and recreation facilities and utilities deemed essential by Town Council.

2. Development permit applications within the flood fringe of the North Saskatchewan River as shown on AEP Flood Hazard Map, shall provide the geodetic elevation of the site and the geodetic elevation of the lowest point of all openings to the proposed building(s), and a certificate from a qualified, registered Professional Engineer or Architect indicating that Canada Mortgage and Housing Corporation guidelines for flood-susceptible areas has been considered.

3. Development, within the flood fringe of the North Saskatchewan River, where existing prior to adoption of the Battery Creek ASP will not be subject the regulations of 8.2. However, development that increases the amount of floor space will be required to meet Policy 8.2.

4. An existing campground is located in the north portion of the plan area. These lands are designated for Recreation purposes and connected to the Town via existing rights-of-way and trails.

5. The TOB of the North Saskatchewan River or its ravines shall be delineated through the preparation of a Geotechnical Investigation prepared by a qualified engineer.

6. Where lands and natural features, above and below the TOB, meet the definition of Environmental Reserve, but are not claimed by the Province, the Town shall require dedication of these lands and natural features as Environmental Reserve in accordance with the Municipal Government Act.

   a. A 3.0 m wide TOB/River Valley Alliance trail will be located within the ER and/or adjacent Municipal Reserve area in the northern portion of the plan area, and will be constructed by the River Valley Alliance.

7. It is the landowner/developer’s responsibility to obtain all necessary environmental approvals required for development. This may include but is not limited to a Water Act approval pursuant to Alberta Environment and Protection’s Wetland Policy.

8. All developments shall provide access to waterbodies and wetlands via connections to the trail network to ensure the amenity values of natural areas are enhanced.
Battery Creek Area Structure Plan

8.3 Municipal Reserve Policies
The Municipal Government Act (MGA) requires the provision of Municipal Reserve in the minimum amount of 10% of the gross developable land area, less Environmental Reserve. Developable area in the Battery Creek ASP is 208.8 ha and accordingly the land use concept identifies 20.9 ha of land for Municipal Reserve, as shown on Figure 6. Municipal Reserve requirements will be refined at the Neighbourhood Structure Plan and subdivision stage, and these lands will be developed as the Green Grid, which will consist of school sites, municipal parks, and trails. The Town will program municipal sites for active and/or passive recreation uses.

1. Development proposals are encouraged to incorporate connections to the Green Grid, and improve Devon’s urban forest by providing landscaping beyond the minimums identified in the Land Use Bylaw, and may include green roofs and walls.

8.3.1 School Site Policies
A total of approximately 12.0 ha of Municipal Reserve lands will be provided in the plan area for two school sites. It is anticipated that each school site shall occupy ~6.0 ha, which includes a building, playground, baseball diamond and soccer pitch. The schools should accommodate a student population of 1,212. The student population analysis for the Battery Creek ASP is provided in the following table.

Table 5: Student Population Analysis

<table>
<thead>
<tr>
<th>Total Students</th>
<th>18% of Population</th>
<th>1,212</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Public Students</td>
<td>65% of Total Students</td>
<td>788</td>
</tr>
<tr>
<td>Total Catholic Students</td>
<td>35% of Total Students</td>
<td>424</td>
</tr>
<tr>
<td>Public School Students</td>
<td></td>
<td>788</td>
</tr>
<tr>
<td>Total Grades K-6</td>
<td>55% of Students</td>
<td>433</td>
</tr>
<tr>
<td>Total Grade 7-9</td>
<td>23% of Students</td>
<td>181</td>
</tr>
<tr>
<td>Total Grades 10-12</td>
<td>22% of Students</td>
<td>173</td>
</tr>
<tr>
<td>Catholic School Students</td>
<td></td>
<td>424</td>
</tr>
<tr>
<td>Total Grades K-6</td>
<td>55% of Students</td>
<td>233</td>
</tr>
<tr>
<td>Total Grade 7-9</td>
<td>23% of Students</td>
<td>98</td>
</tr>
<tr>
<td>Total Grades 10-12</td>
<td>22% of Students</td>
<td>93</td>
</tr>
</tbody>
</table>

1. Two school sites shall be located within the central portion of the plan area and shall be contiguous to form a usable park space. These sites are adjacent to parks, trails and arterial and collector roads.

   a. The school sites may have two adjacent road frontages to enable adequate access for parking and drop-off, although walking is encouraged.

   b. School buildings and usable areas (sports fields and playgrounds) shall be setback a minimum of 107 m from the edge of the AltaLink transmission right-of-way.
Battery Creek Area Structure Plan

8.3.2 Park Policies
Four park sites will be provided within the Battery Creek ASP. Each park entrance shall be located on a prominent site within the plan area, will be well connected to the trail network, provided with road frontage, in proximity to residential areas or commercial services, or a school and may include off-street parking areas.

1. Park sites shall be located in prominent locations, provide opportunities for community gathering, and will be programmed in accordance with the Parks, Culture and Recreation Master Plan.

2. The Outlook Park is located in the north portion of the plan area. This site will provide a vista into the North Saskatchewan River Valley and serve as an amenity to the Town. The park will be an origin/destination to the trails in Battery Creek, and function as a passive park, and include, benches, interpretative plaques and landscaping, and may include on-site parking.

3. A second park site is located in the west portion of the plan area and will function as a community square, piazza or plaza. This park is integrated with the commercial and residential lands surrounding it, and will be well connected to the trail network. This park will serve as a gathering place, include artwork and/or a fountain.

4. A third park site is located in the east portion of the plan area and will be programmed to function as a play space.

5. A fourth park site is located in the south portion of Battery Creek and will be programmed to function as a cultural square and feature an amphitheater.

6. Smaller pocket parks shall be located throughout the Battery Creek neighbourhood to the satisfaction of the Town, and programmed according to their size.

7. Each park site shall be designed to maintain and expand the urban forest.

Photo 8: A destination park adjacent to the North Saskatchewan River and within the City of Edmonton.
8.3.3 Trails Policies
Pedestrian and cycling trails have been identified as amenities that are important to the residents of Devon. The balance of Municipal Reserves will be provided as a connected trail network designed to tie into existing and future amenities, land uses, transportation routes, adjacent neighbourhoods, and the River Valley Alliance Trail and TransCanada Trail. The network will form a north/south and east/west axis to connect Outlook Park, adjacent to the North Saskatchewan River, to Highway 19 and the ravines on the east and west flank of the plan area.

1. Battery Creek includes a trail network, as shown on Figure 5, which is attractive, creates a walkable/bikable community, and presents a viable alternative to the car. The network:
   a. Implements the River Valley Trails Master Plan. The plan should be updated to include connections from the existing trail network to the Battery Creek ASP lands;
   b. Improves accessibility between activities by providing convenient, direct routes to commercial areas, the North Saskatchewan River valley and Battery Creek and Rabbit Hill ravines, parks, schools, and storm water management facilities, and provides wayfinding signage.
   c. Will be continuous, include top-of-bank trails and may be linked by sidewalks, and have minimal road crossings.
   d. Will include trailhead parks that provide lookouts, and consist of seating areas, naturalized landscaping and include information plaques about Devon’s history.

2. The trail network, including the River Valley Alliance Trail and TransCanada Trail, will be acquired through the subdivision process and dedicated as road rights-of-way, Environmental Reserve and/or Municipal Reserve.
   a. Trails shall be developed in accordance with the Town of Devon Design Standards.
   b. The River Valley Alliance Trail and TransCanada Trail shall be developed in partnership with the Town, and to the requirements of the sponsoring organizations.
   c. The River Valley Alliance Trail and the TransCanada Trail alignments are conceptual and subject to change based on final design.

3. The Land Use Concept and Transportation maps of the ASP identify a potential transportation and utility corridor from the plan area, across the Battery Creek Ravine, to Miquelon Avenue. The purpose of this designation is to protect a right-of-way and establish associated policies to provide direction in the event that a corridor is proposed.
Battery Creek Area Structure Plan

a. The corridor at Battery Creek does not assume a vehicle crossing and may be a trail or bridge for cyclists and/or pedestrians.

b. Any proposed transportation and utility crossing requires an amendment to this Plan and the Battery Creek Area Structure Plan in accordance with the Municipal Government Act. The amendment application shall include:

   i. Demonstrated compliance with all applicable Federal and Provincial legislation, regulations and approvals;

   ii. An evaluation of Environmental Impact must be conducted by a qualified professional on behalf of the Town. The scope of the Environmental Impact Assessment shall be activity specific, and at a minimum include an impact assessment for: terrain and soils; land use (including pipelines and utility rights-of-way); surface water (i.e. quality and quantity) and aquatic resources (i.e. water courses, wetlands, fisheries); vegetation (i.e. rare plants and weeds); and wildlife and wildlife habitat.

   iii. Mitigation for each impact should be site specific in lieu of standard Best Management Practices typically used in order to consider each ecosystem component as an important feature on the landscape.

c. The development and implementation of an engagement plan that includes citizens and stakeholders must be developed and implemented in accordance with the Town’s Community Engagement Framework.

d. The City of Edmonton Wildlife Passage Engineering Design Guidelines (June 2010) may be considered through the design of any proposed transportation crossing.

4. A maximum of 50% of a stormwater management facility must accommodate public access in the form of developed trail above the high water mark. Lands above the high water mark that are publically accessible may be dedicated as Municipal Reserve. Any lands below the high water mark, or that are not publically accessible shall not be dedicated as Municipal Reserve lands.

5. The trail system will extend beyond the plan area.
Battery Creek Area Structure Plan

8.4 Urban Services Policies

The provision of community facilities and services in the plan area will contribute to a sustainable neighbourhood. These services include an existing cemetery, and a future community garden, tree farm, and water reservoir to be located in the western portion of the plan area. The plan area may, in time, also include other community facilities and services.

1. Town buildings and infrastructure shall demonstrate leadership in energy use and architecture in accordance with Policy 8.1.1.

2. The Town will attract permanent institutions to Battery Creek, such as galleries, theatres, concert halls, and provide space for and promote public events and festivals.

3. A community garden, municipal tree farm and pump station may be located north of Plan 852 0713, Lot 1. The development of this site, located on the west side of a future arterial roadway (Range Road 262), will have connections to the trail network, and be designed as a park. The site includes an existing municipal cemetery, which may be expanded. The site is well suited for community facilities and services given its relative isolation from the rest of the plan area and ease of access/egress to Range Road 262.
   
   a. The Town will promote local food production through land use regulations that allow opportunities for growing, processing and distributing food, such as community and backyard gardens, greenhouses, and farmers markets.

4. The Town may develop the following within Battery Creek: a library; museum; and/or a police, fire rescue, and emergency medical services detachment.
   
   a. A library and museum should be located adjacent to or within schools.
   
   b. Emergency and protective service facilities should be located along an arterial roadway.

5. The Town shall assess the need for health and social care facilities, and secure sites and buildings as necessary, and promote the continued role and enhancement of Devon as a regional centre of medical excellence and specialized facilities.

6. The Town shall ensure that in all new NSP areas and subdivisions allowance is made for the safe and efficient movement of emergency vehicles and access to emergency facilities is provided. The Town shall monitor the need for an additional fire station in the community, and if required, ensure that a suitable site is made available. The Town shall:
   
   a. Evaluate the costs of providing emergency and protective services to new development prior to the approval of a NSP; and
   
   b. Either provide services directly or in cooperation with service providers.
Battery Creek Area Structure Plan

8.5 Residential Policies

The plan area accommodates a range of housing types that include low, medium and high density residential development. This mix promotes the creation of a well-balanced neighbourhood, one which can accommodate a range of incomes, various family sizes, and may allow families to remain within the same community throughout their lifecycle. This balance of residential uses also supports development strategies that will make more efficient use of developable land, use infrastructure more effectively, and encourage a greater demographic mix.

The neighbourhoods in Battery Creek shall focus on placemaking. This approach is supported by the information received during Battery Creek engagements events. Devon residents advised that it is important for Battery Creek to be connected to the balance of the Town, the neighbourhood should “look like Devon rather than just another suburb”, and more specifically residential lots should have wider side yards than the minimums described in the Land Use Bylaw.

The following policies direct residential growth in the Battery Creek ASP:

1. The residential density in Battery Creek shall meet or exceed the minimum greenfield density target of 30 du/nrha, as identified in Schedule 6 of the EMRGP.

2. Each residential neighbourhood shall have a unified, identifiable architectural theme that reflects the Town’s history and character. It is anticipated that the developer will implement design controls through restrictive covenants.

3. Desire line based permeability planning for pedestrians and cyclists and minimising car dependence shall be a priority. All residential development within the Battery Creek is located within ~200 m and ~400 m of lands designated for trails and/or parks and for retail or office uses, respectively.

4. Dwellings shall not flank onto either of the AltaLink transmission rights-of-way, and a minimum 7.5 m separation distance shall be maintained between adjacent residential property lines and the edge of either right-of-way.

5. Prior to the subdivision of land for any sites adjacent to Highway 19 for residential purposes the applicant shall submit a noise attenuation study prepared by a qualified professional. Berms and/or fencing will be required to mitigate noise that exceeds 65 dBA, as per Alberta Transportation policy.

6. The plan area shall provide a range of housing types, which may include secondary suites and garage suites, to create a more inclusive and affordable neighbourhood.

7. An appropriate land use transition between varying residential densities shall be provided. A transitional land use will moderate the use, height and density differences between single detached housing and higher density developments.
Battery Creek Area Structure Plan

8. Medium and High Density Residential shall be located throughout the plan area, and located in proximity to commercial sites, collector roads, near parks, and shall be designed with attention to the provision of open space, landscaping and setbacks.

9. Townhouse developments shall vary block lengths, orientation and exterior finishes to ensure variation and avoid monotony of design.

10. A mixed use area may be located in the southeast portion of the plan area. These lands are characterized by their proximity to Highway 19, adjacent commercial lands, and low density residential area. This area is intended to accommodate residential uses, and include compatible commercial and institutional uses. The area may be developed with medium and high density residential uses, and include a multi-disciplinary clinic, assisted living facility, and/or adult day care facility. These commercial and institutional land uses may be vertically or horizontally integrated with medium and high density residential uses. These lands may be developed under the R3 Residential - Medium Density Land Use District, R4 Residential - High Density Land Use District, and/or the Direct Control Land Use District.

11. A new low density residential Land Use District may be created to require a minimum side yard of 1.5 m. The R1B, R1C, and R2 Land Use Districts of the Land Use Bylaw currently allow a minimum side yards of 1.2 m.

12. The Town may enter into partnerships to deliver non-market housing to ensure housing needs are met, and provide housing which will enhance the environment, and improve housing choice and affordability.

13. Housing shall be encouraged to meet Building Code requirements for ‘accessible and adaptable dwellings’ and ‘wheelchair user dwellings’, and shall meet the Alberta Building Code to address fire risk.

The population statistics for the plan area is identified in the following table.

Table 6: Population Statistics

<table>
<thead>
<tr>
<th>Residential Land Use</th>
<th>Area (ha)</th>
<th>Units/ha*</th>
<th>Units</th>
<th>Pop/Unit</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Density</td>
<td>69.9</td>
<td>20</td>
<td>1,398</td>
<td>2.93</td>
<td>4,096</td>
</tr>
<tr>
<td>Medium Density</td>
<td>12.3</td>
<td>30</td>
<td>369</td>
<td>2.02</td>
<td>745</td>
</tr>
<tr>
<td>High Density</td>
<td>9.4</td>
<td>125</td>
<td>1,175</td>
<td>1.61</td>
<td>1,892</td>
</tr>
<tr>
<td>Total</td>
<td>91.6</td>
<td>32</td>
<td>2,942</td>
<td>1.61</td>
<td>6,733</td>
</tr>
</tbody>
</table>

*The density multipliers for the Medium and High Density Residential land uses are based on the R3 Residential - Medium Density Land Use District and the R4 Residential - High Density Land Use District of the Town of Devon Land Use Bylaw, respectively. In the Edmonton Metropolitan Region Medium and High Density Residential developments typically build out at a density of 42 Units/ha and 90 Units/ha, respectively. If this were the case in Devon the total density for the Battery Creek ASP would be 30 Units/ha, with 2,761 units and a population of 6,502 The Town of Devon should consider reviewing the density
Battery Creek Area Structure Plan
requirements of its Land Use Bylaw.
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8.6 Commercial Policies

Commercial development will primarily occupy sites in the southern portion of the plan area, however additional sites will be located in the central and north portions of the plan. These sites allow for the effective capture of local, community and regional retail markets. The following policies will guide commercial development in Battery Creek.

1. Business and office uses, major commercial development and neighbourhood convenience uses shall serve the needs of residents located within Battery Creek, Devon and the region. This development is classified by the following policy areas:
   a. Highway Commercial
   b. Community Commercial
   c. Neighbourhood Commercial

2. Each commercial area shall have a unified, identifiable architectural theme that reflects and prioritizes the Town’s history and character, rather than corporate signage and colors. It is anticipated that the developer will implement design controls through restrictive covenants.

3. The impact of business and commercial development on adjacent residential lands shall be minimized through building height, orientation of development, and the application of setbacks and landscaping.

4. Applications for commercial development should provide:
   a. Elevations that demonstrate buildings are street facing and include four architecturally finished facades; and
   b. Site plans demonstrating that primary building entrances are connected to the municipal trail network.

8.6.1 Highway Commercial Policies

Gateways into Devon, such as Highway 19 and Highway 60, are special areas that convey the Town’s character. They form first impressions, and it is important for their value to be protected and enhanced. Through urban design these sites can provide a strong sense of identity and arrival, and enhance not only the visual appeal but the economic assets of these areas.

Highway 19 provides a unique opportunity to showcase life in Devon because this corridor is frequently used by residents and visitors. As an important route of travel it will have an impact on the overall image of the Town. Accordingly, policies are required to inform the design, function and character of this area.

The purpose of the Highway Commercial Policy Area is to ensure that development along Highway 19 is developed in a manner that creates a sense of arrival and place and that maintains...
Battery Creek Area Structure Plan

a high standard of aesthetic appeal.

Highway commercial development will occupy a two large sites and create two nodes for employment and commercial services, and provide a standard of development appropriate to its prominent location.

8.6.1.1 Highway Commercial: Western Node

The western node, located immediately west of the Highway 19 interchange shown on Figure 5, will provide an economic and employment centre. These lands will be developed in a campus-like setting, complete with a park and a pedestrian network developed to link employees to destinations, such as restaurants. This node will blend into the adjacent residential neighbourhood and may contain residential development itself.

8.6.1.2 Highway Commercial: Eastern Node

The eastern node, located immediately east of the Highway 19 interchange, will offer a wide range of services and offer major commercial and retail opportunities and shall be developed to reduce auto-dependence, and create opportunities for social interaction, offer outdoor amenities, and a high degree of walkability and connectivity.

The Western and Eastern Highway Commercial Nodes will be developed under the C1 Commercial – General Land Use District and C3 Commercial – Corridor Land Use District and the DC Direct Control, if necessary, and shall be developed in accordance with the following policies:

1. Applications for business and commercial development on lands adjacent to Highway 19 should provide site plans demonstrating:
   a. A continuous landscaped buffer and rolling berms adjacent to Highway 19. The landscape buffer will contain coniferous trees for strategic screening purposes, and deciduous trees with high canopies to frame buildings and soften parking areas. The berms will create a visually strong backdrop for plantings and to screen loading and service areas from Highway 19.
   b. Building signage facing Highway 19 shall be limited to: two illuminated business name signs per building; illuminated cut out letters; and 15% of the area of the façade to a maximum of 40.0 m².
   c. Billboards shall not be permitted.

2. A new Land Use Bylaw Overlay or Commercial Land Use District should be created to implement the aforementioned Policy 3 and Policy 4.
Battery Creek Area Structure Plan

3. The Town of Devon shall develop a Gateway Entrance Feature Program to introduce unique urban design elements to the area east of the future Highway 19 interchange. The Program will:

   a. Identify the theme and type of entrance feature. The feature provides the opportunity to tell unique stories, such as sports, community history, and citizens that are integral to the life and history of Devon. Elements such as sign blades, wayfinding, and traffic signal structures should be complementary to the aesthetic; and

   b. The Town shall collect levies at $1,000.00/ha against all Battery Creek lands to assist in the completion of this program. The same levy should be developed in other areas of Devon to support the development Gateway Entrance Feature Program.

   c. Prior to the approval of the first NSP the levies for the Gateway Entrance Feature Program must also be approved by Town Council.

8.6.2 Community Commercial

Two community commercial sites are located within the plan area and shall serve the daily needs of residents. These sites are located on prominent sites and provide excellent visibility for business owners, convenience for nearby residents and an entrance into the neighbourhood. Development on these sites will enhance the overall attractiveness of the neighbourhood. These lands may be developed under the C1 General Commercial Land Use District and/or the Direct Control Land Use District.

8.6.3 Local Commercial

A local commercial site, which provides excellent visibility and convenience for adjacent residents, is identified in northwest portion of the plan area. Development on the site may include residential dwellings above the main floor commercial uses, locate buildings close to the street, provide parking at the rear and/or on-street, and provide wide sidewalks and streets that are designed for bicyclists. These lands may be developed under the C2 Commercial – Neighbourhood Land Use District and/or the Direct Control Land Use District. An adjacent municipal park will serve as a focal point for this portion of Battery Creek.

   1. The site shall be comprehensively planned and should provide:

      a. Neighbourhood commercial and residential development opportunities, mixed vertically and/or horizontally;

      b. An integrated and pedestrian-oriented development that links residents and patrons to the adjacent park and off-site destinations; and
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c. Opportunities for social interaction, outdoor amenities, and public art.
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9.0 TRANSPORTATION

Access to the Battery Creek plan area is challenging. To the north is the North Saskatchewan River, and to the east and west are deep ravines. Crossing these ravines with a bridge would have impacts on several fronts, including design, structure, environmental approvals, pipelines, and slope stability. In addition, the costs of such crossings will be high. For example a high level cost estimate for a bridge over the Battery Creek ravine may be $60M. Based on a Transportation Impact Assessment prepared by ISL there is no transportation requirement for a vehicular bridge or road connections from the existing Town site across the Battery Creek Ravine to the plan area. However an alignment at Miquelon Avenue or Saskatchewan Avenue may be needed at some point in the future.

Alberta Transportation (AT) will begin twinning Highway 19 in 2017. The twinning will realign Highway 19 south of its current alignment. AT will also cede the existing Highway 19 to the Town and this right-of-way will become an arterial road.

Planning for Battery Creek’s transportation network considered the following policies:

1. The transportation network, as shown on Figure 7, is integrated with land use, and is intended to shift the choice of transportation from the car to other modes of transportation.

2. Regional infrastructure and high load corridors, namely Highway 19, shall be protected and maintained.

3. The transportation system connects neighbourhoods, destinations and serves both recreation and transportation needs.

4. The Land Use Concept and Transportation maps of this ASP identify a potential transportation and utility corridor from the plan area, across the Battery Creek Ravine, to Miquelon Avenue. The purpose of this designation is to protect a right-of-way and establish associated policies to provide direction in the event that a corridor is proposed. If a corridor is proposed any process and development shall follow Policy 8.3.3.3.

5. Neighbourhood Structure Plans shall plan for future bus service. Transit to the Battery Creek area may be provided along Range Road 262 or via the road entering Battery Creek from Highway 19.

6. The Town will prioritize active transportation, walkability, pedestrian movement and transit to reduce dependence on vehicles. Streets will be complete with consideration for the comfort, safety, convenience and visual interest of all users, including cyclists, transit riders and the pedestrian.
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7. Battery Creek will use traffic calming measures, clearly designated crosswalks and school zones, and well-lit streets to keep streets safe. Particular design attention will be given to the two school sites and the northern commercial area.

8. Sidewalks in the plan area shall be located on both sides of a roadway right-of-way. The sidewalk and bike path network will parallel all roads. These networks need to connect all land uses. Crossings at major roads should be reasonably frequent to maintain permeability and connectivity throughout the town.

9. Street naming protocol should reflect Town Policy 1605.

10. The Town may consider parking relaxations for developments that implement a car sharing program.

11. For connectivity it is important to link Battery Creek to Leduc County’s planned industrial uses south of Highway 19. This allows residents to use environmentally friendly and active modes should they work in the industrial area. The Trans Canada Trail forms part of the connection, and also uses the former Highway 19 right of way to connect back to the western portion of Devon.

9.1 Street Classification
Consistent with the policies of this section the transportation network within Battery Creek were classified using a new system rather than the traditional Arterial-Collector-Local system. This new system, described below and within Table 7, sets expectations for all user groups, not just motor vehicles, and also references relationships with adjacent land uses.

**Mobility Streets** are existing or future multi-lane roads that move large volumes of motor vehicles at relatively high speeds (60 to 100 km/h) and connect Devon to the region. Mobility Streets allow access via left and right turning lanes to adjacent commercial, institutional, and industrial lands. Mobility Streets should be designated truck routes. Parking is usually not permitted. Pedestrians and cyclists use Mobility Street corridors on separate paths on both sides of the road and set well back from the road. Pedestrian crossings should be controlled by overhead signal systems (amber flashing or red-amber-green) with moderate traffic calming to slow vehicles as they approach the conflict point. Buses and bus stops may be on a mobility street.

**Business Streets** have roads with access to adjacent commercial, industrial, and institutional lands that access the street. Access can be frequent and parking is often permitted. They carry small to large volumes and may be multi-lane, but speeds should be lower than a Mobility street (40 to 50 km/h). Pedestrian and cyclist connections align with each access point for good permeability and connectivity. Pedestrian and cyclists use Business Streets on separate paths on
Battery Creek Area Structure Plan

both sides of the road. Buses and bus stops may be on a Business street. Trucks will need to use the street to access adjacent commercial properties, but it should not be designated as a truck route if it may encourage unrelated through truck traffic and there is no noise attenuation adjacent to residential lands.

*Neighbourhood Streets* are not used in the Battery Creek ASP. The description herein is for completeness and in the event of an amendment requiring this street type. Neighbourhood Streets have backing-on residential land use. There is no access to private lots, but there are connections with other public roads. There may be left and right turning lanes at busy connections. They carry moderate to large volumes and may be multi-lane, but speeds should be lower than a Mobility Street (40 to 50 km/h). Parking is often not permitted due to backing-on land use. Pedestrian and cyclist connections align with each public road connection. For additional permeability and connectivity there may be crossings independent of public intersections. Pedestrian and cyclists use Business Streets on separate paths on both sides of the road. Buses and bus stops may be on a Business street. Trucks will need to use the street to access adjacent properties, but it should not be designated as a truck route if it may encourage unrelated through truck traffic.

*Minor Residential Connectors* have residential uses with direct access to the road. They carry low volumes and have one travel lane per direction. Speeds are lower than streets at 30 to 40 km/h. Parking is often permitted. At conflict points with vulnerable users Residential Connectors have target speeds at 30 km/h. Pedestrian and cyclists use separate paths on both sides of the road and may cross the road at any point with right of way. Buses and bus stops may be on a Residential Connector. Trucks may use the street for local deliveries but it is not designated as a truck route.

*Major Residential Connectors* differ from Minor Residential Connectors mainly due to a higher volume regime. Therefore backing access is not allowed (where vehicles must back in or out of the property). This provides a relatively access-free environment for pedestrians and cyclists.

*Play Ways* serve residential uses with direct access to the road. They carry light volumes on a single shared lane. Speeds are 30 km/h or lower. Parking is often permitted. Pedestrians use sidewalks on both sides of the road, and cyclists use the road. Buses do not use play ways. Trucks use Play Ways for local deliveries. Traffic calming devices are frequent, spaced no more than 150 m apart. Play Ways allow pedestrians to cross at any point within the right-of-way. Play Ways allow residents to play street hockey, hop-scotch, basketball, and other games on the road.
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Table 7: Street Classification System

<table>
<thead>
<tr>
<th>Street Classification</th>
<th>Adjacent Land Use</th>
<th>Traffic Volumes per day</th>
<th>Number of Lanes</th>
<th>Access</th>
<th>Speed (km/h)</th>
<th>Truck Route</th>
<th>Parking</th>
<th>Pedestrian and Cyclist in Corridor</th>
<th>Pedestrian and Cyclist Crossings</th>
<th>Public Transit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Play Way</td>
<td>Residential</td>
<td>Light, &lt;1000 vpd</td>
<td>1</td>
<td>Yes</td>
<td>&lt;30</td>
<td>No</td>
<td>At least one side Peds on sidewalks, Bikes on road</td>
<td>Calmed</td>
<td>No buses or stops</td>
<td></td>
</tr>
<tr>
<td>Minor Residential Connector</td>
<td>Residential</td>
<td>Moderate &lt;2500</td>
<td>2</td>
<td>Yes</td>
<td>30-40</td>
<td>No</td>
<td>At least one side Separate paths from road</td>
<td>Calmed</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Major Residential Connector</td>
<td>Residential</td>
<td>Moderate &lt;2500</td>
<td>2</td>
<td>No backing</td>
<td>30-40</td>
<td>No</td>
<td>At least one side Separate paths from road</td>
<td>Calmed</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Business Connector</td>
<td>Commercial, Industrial, Institutional</td>
<td>Moderate &lt;7000</td>
<td>2</td>
<td>Yes</td>
<td>30-40</td>
<td>Maybe</td>
<td>At least one side Separate paths from road</td>
<td>Calmed</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Business Streets</td>
<td>Commercial, Industrial, Institutional</td>
<td>Large ~10,000 to 30,000</td>
<td>At least 2</td>
<td>Yes</td>
<td>40–50</td>
<td>Maybe</td>
<td>Maybe Separate paths from road</td>
<td>Target 30 km/h at crossings</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Neighbourhood Street</td>
<td>Residential backing on</td>
<td>Large ~5,000 to 30,000</td>
<td>At least 2</td>
<td>No</td>
<td>40–50</td>
<td>No</td>
<td>Usually no Separate paths from road</td>
<td>Target 30 km/h at crossing</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Mobility Street</td>
<td>All</td>
<td>~ 10,000 to 50,000</td>
<td>AT least 2</td>
<td>Yes</td>
<td>40–50</td>
<td>Yes</td>
<td>No Separate paths from road</td>
<td>Target 30 km/h at crossings</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

9.2 Transit Service
Regional experience indicates that the most transit ridership will be for a commuter system focused on destinations where there is pay parking, such as Edmonton’s downtown and the University of Alberta. In addition, park and ride parking lots with a transit centre have proven successful. Strategically Devon has two choices to locate such a centre:

1. Near the Hwy 19 interchange for Battery Creek – for service to a south Edmonton LRT station.

2. Near Hwy 60 at the Town’s north end – for service to a west Edmonton LRT station

Both locations allow drivers to converge at a logical departure point toward Edmonton with minimal backtracking. Buses would then drop passengers off at an end of line LRT station.

A park and ride transit centre in Devon should be co-located with a compatible land use whose peak parking demand is evenings and weekends. This includes sports fields, churches, and recreation centres. In the absence of a specific study it would be prudent to protect for a park and ride transit centre facility in Battery Creek. Possible locations are on the commercial sites east of the interchange access road. These sites are ideal as they allow easy in/out access for both buses and park and ride users, due to the roundabout north of the interchange.
10.0 SERVICING
The Battery Creek neighbourhood will be a serviced and constructed in accordance with Town servicing standards.

1. Regional infrastructure and energy corridors shall be protected and maintained.

2. The Town of Devon shall collaborate with CRB member municipalities to identify lands for multi-use corridors, advocate for future infrastructure lines to be co-located in existing and planned multi-use corridors, and coordinate and align regional infrastructure, where feasible.
   a. The Town and Leduc County will prepare a Joint Servicing Initiative to service the lands located south of Highway 19, and identified as South of Devon Industrial ASP.

3. Levies for on-site and off-site infrastructure shall be identified at the NSP stage.

4. Battery Creek will accommodate a pump station and water reservoir. The pump station may be located north of Plan 852 0713, Lot 1A in the western portion of the plan area. The water reservoir may be located outside the plan area between the existing Highway 19 and future Highway.

5. All developments shall retain stormwater on site, and discharge at a post-development rate that does not exceed pre-development release rates. Stormwater will discharge into adjacent water bodies.

6. All subdivision and major development applications are required to submit a stormwater management report.

7. The Town will use green infrastructure, such as: constructed wetlands, bioswales, landscaped ditches, rainfall harvesting, bio-retention cells, xeriscaping and permeable surfacing materials.

8. To provide efficient urban services the use of public utility lots should be minimized and easements for underground services should be maximized. The use of easements for drainage facilities is intended to be minimized where it is best to make use of road rights-of-way for sewers, whenever possible. This approach bundles services together optimizing land resources and reduces local impacts.

9. The Town shall not permit premature installation of municipal services that would adversely affect the desired sequence of development. Utility systems shall be upgraded and expanded in accordance with Devon’s long term utility servicing plans.
10.1 Water Servicing
A looped watermain system, as shown on Figure 8, extending from existing Town infrastructure and a new water reservoir will be required to service Battery Creek.

1. To protect and conserve water supplies and resources in order to secure Battery Creek’s needs in a sustainable manner by: reaching cost-effective minimum leakage levels; minimising the amount of energy consumed in water supply; and using rainwater harvesting and dual potable and grey water recycling systems, where they are energy and cost-effective.

10.2 Stormwater Management
Battery Creek will be serviced via an underground piped storm water system which discharges into storm water management facilities, as shown on Figure 9. The facilities will retain storm water and convey flows to adjacent waterbodies at predevelopment flows. Three stormwater management facilities (SWMF) will be contoured to function as neighbourhood and community amenities to add to the parks within the plan area. The SWMFs have been located and configured to provide aesthetic appeal, and passive amenity spaces that are easily accessible by surrounding residents.

1. Utilize innovative solutions and low impact development technologies to manage storm water on-site.

2. Consider installing fencing or providing landscaping around any SWMF located adjacent to a school sites. Such features may increase safety and prevent entry into the SWMF.

10.3 Sanitary System
Battery Creek will require an on-site gravity sewer system, as shown on Figure 10. The system will convey flows to a new on-site wastewater lift station, which will pump wastewater flows through a new forcemain to the existing wastewater treatment plant. The wastewater treatment plant will need to be upgraded to support the Battery Creek development.

10.4 Shallow Utilities
Gas, power, telephone and television shall be provided to the plan area by the extension of existing adjacent infrastructure.

1. The integrity of utility corridors will be maintained.

2. Investigate the opportunity to share utility corridors, and where appropriate make use of these corridors for open space and trails.

10.5 Natural Resource Extraction and Rights-of-Way
Existing and future wells, pipelines and rights-of-way corridors shall be integrated into the plan area to make use of potential multi-use corridors and pedestrian linkages while having regard for the safe, ongoing operation of these facilities.
Battery Creek Area Structure Plan

1. Existing and future wells, pipelines and rights-of-way shall operate and be removed and remediated in accordance with Federal, Provincial and Municipal legislation or regulation.

2. Subdivision and development applications shall identify by survey all active and abandoned wells, active, suspended and abandoned pipelines, and all rights-of-way to confirm the location shown on Figure 4.

3. Development adjacent to oil and gas wells, pipelines and rights-of-way shall comply with Federal, Provincial and Municipal legislation, regulation and setbacks.
   a. Active wells require a minimum 100.0 m radius around each well, as per S.11(1) of the Subdivision and Development Regulation.
   b. Abandoned oil and gas wells require a minimum 5.0 m radius around each well and emergency access, as per Alberta Energy Regulator (AER) Directive 079.
   c. A 15 m setback should be provided from the centerline of an ATCO Pipeline.
   d. Ground disturbances, surface works, and road crossings within 30 m of a pipeline requires prior written approval from pipeline companies before any work is commenced.
   e. Wells, pipelines and utility rights-of-way may be relocated, consolidated or removed at the time of development at the developer’s expense. Once wells, pipelines or utility rights-of-way are relocated, consolidated or removed those lands make take on the land use designation of adjacent lands, as identified in Figure 5.

4. The 50 m wide AltaLink transmission right-of-way, containing a 500 kV power line, that trends east/west across the central portion of the plan area may be developed as a trail, and form a component of the Battery Creek ASP trail network.

5. The 10 m wide AltaLink transmission right-of-way, containing a 138 kV power line, that trends east/west along the northern portion of plan area shall be undeveloped.

6. At the time of Development Permit application the Development Authority may require the submission of an Environmental Impact Assessment or Risk Assessment to identify possible risk and any strategies to mitigate and/or minimize the risk.
Battery Creek Area Structure Plan

11.0 IMPLEMENTATION
This ASP will be implemented through a variety of mechanisms available to municipalities, including: the MDP, ASP amendments, the Land Use Bylaw, subdivision review, the development permitting process and development agreements.

11.1 Plans and Policy Documents
Section 638 of the MGA states that all statutory plans should be consistent with one another. Accordingly, the MDP, from time to time, may require a map amendment so it is consistent with the land uses, transportation network, and policies identified in this ASP.

11.2 Amendments to the Future Land Use Concept, Policies and Statistics
The land use designations and line work shown on Figure 5 are not intended to be precise, may change and are included to identify the general location of land uses. Provided the purpose of the ASP, its policies, statistics and land use concept is generally maintained an amendment is not required. However a shift in policy direction or a significant shift in the location of a designation, or increase/reduction of a particular land use area shall require an ASP amendment.

1. Any proposed ASP amendment adjacent to any of the existing or proposed features identified in Map 10: EMRGP Regionally Significant Features of the Municipal Development Plan (MDP) shall be circulated to the affected parties responsible for, or with a vested interest in these features for their comments.

2. Any proposed ASP amendment adjacent to any of the existing or proposed features identified in Map 10: EMRGP Regionally Significant Features of the MDP shall include policies to protect the ongoing integrity and function of these features resulting from consultation with the affected parties mentioned in Policy 1.

11.3 Rezoning and Subdivision
In order to comply with the Land Use Bylaw, a series of redistricting applications shall be required concurrent with applications to subdivide or develop lands in Battery Creek. Land use districts anticipated for the residential portion of the plan area include, but are not limited to, the R1, R2, R3 and R4 District. Land designated for highway commercial development will require redistricting to C1 Commercial – General Land Use District and C3 Commercial – Corridor Land Use District and/or the DC Direct Control, if necessary. The balance of the plan area will be designated C2 Commercial – Neighbourhood Land Use District, P Public Park Land Use District, PS Public and Private Service Land Use District.

It is understood that a review of the current Land Use Bylaw may be forthcoming. At that time, revisions and/or additions to the existing Residential Land Use Districts, or a revision to existing development regulations and/or land use categories, should be reviewed in order to accommodate the development identified in the ASP.
Battery Creek Area Structure Plan

11.4 Development Staging
The tentative development staging for the plan area is based upon contiguous access to utility services and road systems. As market conditions warrant development will commence in the northern portion of plan area in the fall of 2017. It is then anticipated that subdivision and development will proceed from the south, and then proceed to the central portion of the plan area. This sequence of development will be subject to change, depending on market demand, and should be flexible. Likewise, staging of the road network will also be flexible to allow roadway improvements to suit the size, type, density and staging of development. Where a later stage precedes an earlier one, an ASP amendment would not be required.
TOWN OF DEVON
BATTERY CREEK AREA STRUCTURE PLAN
WELLS, PIPELINES AND RIGHTS OF WAYS
FIGURE 4
LEGEND

- ASP BOUNDARY - CROSS AREA (271.9 ha) / (671.9 ac)
- GROSS DEVELOPABLE AREA (208.3 ha) / (514.7 ac)
- ENVIRONMENTAL RESERVE (62.0 ha) / (153.3 ac)
- OPEN SPACES (47.8 ha) / (118.7 ac)
- STORM WATER MANAGEMENT FACILITY (13.9 ha) / (34.4 ac)
- INTERNAL CIRCULATION (31.0 ha) / (76.7 ac)
- NEIGHBOURHOOD COMMERCIAL (3.7 ha) / (9.1 ac)
- COMMUNITY COMMERCIAL (3.7 ha) / (9.1 ac)
- HIGHWAY COMMERCIAL (10.7 ha) / (26.4 ac)
- URBAN SERVICE (9.9 ha) / (22.1 ac)
- RECREATION (1.5 ha) / (3.8 ac)
- LOW DENSITY RESIDENTIAL (69.9 ha) / (172.8 ac)
- MEDIUM DENSITY RESIDENTIAL (12.3 ha) / (30.3 ac)
- HIGH DENSITY RESIDENTIAL (9.4 ha) / (23.3 ac)

- RVA TRAIL
- TRAIL HEAD / LOOK OUT PARK
- DEVON URBAN TRAIL
- PROPOSED TRANSCANADA TRAIL
- REGIONAL TRANSMISSION POWERLINE
- POTENTIAL TRANSPORTATION AND UTILITY CORRIDOR
- PUMP STATION
- ACTIVE WELL
- WELLS TO BE ABANDONED IN THE FUTURE (REQUIRE 5M RADIUS)
- SCHOOL

TOWN OF DEVON
BATTERY CREEK AREA STRUCTURE PLAN
FUTURE LAND USE CONCEPT
FIGURE 5

CONCEPT ONLY. SUBJECT TO DETAILED DESIGN.
Town of Devon

Leduc County

Parkland County

LEGEND

ASP BOUNDARY - GROSS AREA = 299.2 ha (739.4 ac)

Note: All hectares and acres derived from areas provided directly from title unless otherwise noted.

Area of titles marked thus include only portions of title within ASP. Areas derived from base measurement.

TOWN OF DEVON

BATTERY CREEK AREA STRUCTURE PLAN

NEIGHBOURHOOD STRUCTURE PLAN AREAS

FIGURE 6

14569
TOWN OF DEVON
BATTERY CREEK AREA STRUCTURE PLAN
TRANSPORTATION
FIGURE 7