

**ATTACHMENT 2
BYLAW 17365
BYLAW 17366
BYLAW 17367
FILE: LDA14-0144
THE MEADOWS**

DESCRIPTION: AMENDMENT TO THE MEADOWS AREA STRUCTURE PLAN; THE MEADOWS

ADOPTION OF THE ASTER NEIGHBOURHOOD STRUCTURE PLAN; ASTER

AMENDMENT TO THE NORTH SASKATCHEWAN RIVER VALLEY AREA REDEVELOPMENT PLAN

LOCATION: South of 23 Avenue NW, north and west of Anthony Henday Drive, east of 17 Street NW.

APPLICANT: MMM Group Ltd.
10576 – 113 Street NW
Edmonton, AB T5H 3H5

OWNERS: Qualico Developments West Ltd., Dream Development, 669888 Alberta Ltd., Province of Alberta, and multiple private owners and private corporations.

ACCEPTANCE OF APPLICATION: April 3, 2014

EXISTING DEVELOPMENT: Vacant/undeveloped land, private agricultural land, country residential lots, cellular communications tower, a church, a greenhouse and garden centre, Provincial lands, and utility rights-of-way.

SUSTAINABLE DEVELOPMENT'S RECOMMENDATION: That Bylaw 17365 to amend The Meadows Area Structure Plan be APPROVED.

That Bylaw 17366 to adopt the Aster Neighbourhood Structure Plan be APPROVED.

That Bylaw 17367 to amend the North Saskatchewan River Valley Area Redevelopment Plan be APPROVED.

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DISCUSSION

1. The Application

This application consists of three components: an amendment to The Meadows Area Structure Plan (ASP), which was approved by Council in January 2004; the adoption of the fifth Neighbourhood Structure Plan (NSP) for the lands bounded by 23 Avenue NW to the north, Anthony Henday Drive to the east and south, and 17 Street NW to the west, described as Neighbourhood #5 in the approved ASP; and an amendment to the North Saskatchewan River Valley Area Redevelopment Plan (NSRV ARP).

The first component of the application, Bylaw 17365, proposes to amend The Meadows ASP within the proposed Aster NSP boundary by:

- decreasing the total residential land area due to an increase in size of stormwater management facilities, water bodies claimed by the Province, the exemption of the Transportation Utility Corridor (TUC) lands, and the orientation of the collector roads;
- decreasing the population;
- including one institutional site;
- including one local commercial site;
- relocating the three collector roads;
- changing the configuration and size of the school and park site; and
- re-naming Neighbourhood 5 to Aster.

In doing so, the gross population density of the ASP changes from 46.5 persons per gross developable ha to 47.0 persons per gross developable hectare.

The second component, Bylaw 17366, of the application is the adoption of the proposed Aster NSP. The purpose of the NSP is to establish:

- the location of various land uses;
- the density of residential development;
- the required road and utility infrastructure to support development;
- park and school sites;
- wetlands and Environmental Reserve areas; and
- the development staging within the neighbourhood.

The future neighbourhood is proposed to have a total population of approximately 8,755 people and 3,499 dwelling units at full build-out, for a residential density of 33.3 dupnrha.

The third component, Bylaw 17367, of the application is the proposed amendment to the NSRV ARP to adjust the boundary of the Plan to reflect the land surveyed for the Mill Creek Ravine within the NSP in accordance with City Policy C542.

More details on the proposed NSP are contained in subsequent sections of this report.

2. Site and Surrounding Area

The subject site currently contains a variety of land uses including vacant and undeveloped land, but also includes:

- private residential lots;
- private agricultural lands;
- a church at 23 Avenue NW and 17 Street NW;
- a cellular tower;
- electrical transmission lines;
- a greenhouse;
- Mill Creek; and
- Provincially-owned land in the south portion of the NSP area.

The land within the proposed Aster NSP is predominantly zoned (AG) Agricultural Zone. A portion of Mill Creek is zoned (A) Metropolitan Recreation Zone; Mill Creek is under the guidance of the North Saskatchewan River Valley Area Redevelopment Plan (NSRV ARP). The existing church site is zoned (US) Urban Services Zone.

To the north of the proposed NSP area are the Tamarack and Maple neighbourhoods, which are currently under development. Mill Creek runs roughly from the southeast to the northwest, through the centre of the proposed NSP area.

To the east and south of the proposed NSP area is the provincial Transportation Utility Corridor (TUC). These lands are zoned (AG) Agricultural Zone, and (AGI) Industrial Reserve Zone. The TUC contains Anthony Henday Drive, high-voltage power transmission lines, pipelines, and agricultural land.

West of the proposed NSP area is the Laurel neighbourhood which is currently under development.

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Figure 1: the north area of the proposed Aster NSP, with the present 23 Avenue NW along the bottom, and development in the Tamarack neighbourhood along the left. Anthony Henday Drive is along the right of the image.

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Figure 2: the south area of the proposed Aster NSP, with the present 23 Avenue NW along the top, the existing church in the upper left, and Anthony Henday Drive running along the right and bottom

ANALYSIS

1. Compliance with Approved Plans and Land Use Compatibility

a. Capital Region Growth Plan and Transportation Plan

The Capital Region Growth Plan: *Growing Forward* (2009) establishes a residential density target of 30-45+ upnrha for Priority Growth Area B, the area in which the proposed Aster NSP is located. The proposed Aster NSP sets a density of 33.3 upnrha. The adoption of an NSP under The Meadows ASP ensures contiguous and orderly growth.

The proposed ASP amendment and NSP comply with the Capital Region Transportation Plan by recognizing the existing TUC and Anthony Henday corridor. The boundaries of the proposed NSP allow for future planned upgrades for access from 17 Street NW to Anthony Henday Drive and possible connection of 23 Avenue NW across the TUC to Anthony Henday Drive and Strathcona County.

b. The Way We Grow – Municipal Development Plan (MDP)

The proposed ASP amendment and adoption of the new NSP support the policies of *The Way We Grow*. The application aligns predominantly with the following MDP policies:

- 3.2.1.1: Ensure a combination of single family and multi-family housing development potential is available for the next 30 years;
- 3.2.1.3: Achieve a balance between residential, industrial, commercial, institutional, natural and recreational land uses in the city through land development policies and decisions;
- 3.6.1.6: Support contiguous development and infrastructure in order to accommodate growth in an orderly and economical fashion;
- 4.3.1.5: Time the development of parks as closely as possible with the development they are intended to serve;
- 4.4.1.1: Provide a broad and varied housing choice, incorporating housing for various demographic and income groups in all neighbourhoods;
- 5.5.1.2: Incorporate sustainable neighbourhood design principles, low impact development and ecological design approaches when planning and building new neighbourhoods; and

7.4.1.1: Link parks and open spaces with natural systems through development and design to strengthen the connectivity of Edmonton's ecological network, where feasible.

c. Infrastructure Management Planning

An Infrastructure review was completed for the Aster Neighbourhood. The report provides an overview of the infrastructure requirements and general indication of capital infrastructure costs associated with the development of the neighbourhood.

It is anticipated that the Aster neighbourhood will require a future developer infrastructure investment of approximately \$105 million as well as a future City capital investment of approximately \$15 million. As this is the last neighbourhood to develop within the Meadows ASP and some of the area infrastructure (such as the Recreation Centre, library and Fire Hall) is already in place, the required future City investment associated with the development of the neighbourhood is lower than in many other neighbourhoods.

Additional infrastructure and capital cost information is included with this report as Attachment 2e.

d. The North Saskatchewan River Valley Area Redevelopment Plan

The North Saskatchewan River Valley Area Redevelopment Plan (NSRV ARP) was adopted by Council in February 1985. The intent of the Plan is to preserve and protect the North Saskatchewan River Valley and Ravine System as part of Edmonton's valuable open space heritage and to establish the principles for future implementation plans for Parks.

Land within the NSRV ARP is not within the plan boundary of the proposed Aster NSP. However, where the Top-of-Bank was surveyed during the NSP process, the boundary between these two plans has been made to align through the associated proposed Bylaw 17367, and was verified by geotechnical investigation.

2. Land Use Analysis

a. Residential Land Uses

The proposed Aster NSP designates approximately 105 ha or 59.7% of the Gross Developable Area (GDA) for residential uses, of which 83.1% are proposed as Low Density Residential uses in the form of single and semi-detached housing; 5.9% Row Housing uses; 8.9% as Low and Medium Density Apartment uses (apartment housing under 4-6 stories); and 2.1% Mixed Use (residential component).

100% of the residential population is located within 400 m of future Transit Service.

b. Commercial Land Uses

Approximately 3.53 ha or 2% of the GDA is designated for commercial uses (including the non-residential component of the mixed use sites). The policies in the proposed NSP encourage complete communities that have a high degree of accessibility. This is supported by approximately 58% of the residential population being within 600 m of commercial services.

A community commercial site of approximately 1.31 ha (0.7% of the GDA) is located on the east side of 17 Street NW at the intersection with Collector Road 3.

A mixed-use site of approximately 2.22 ha (1.3% of the GDA) commercial is located along the south side of 23 Avenue NW, east of 17 Street NW between the existing church site and the intersection with Collector Road 1, as indicated on **Figure 11 – Road Network Plan** in the Aster NSP.

Other commercial sites which may serve residents of Aster already exist or are designated west of 17 Street NW along 23 Avenue NW.

c. Parks, Schools, Public Open Space and Natural Areas

A Community Knowledge Campus Needs Assessment (CKCNA) and Parkland Impact Assessment (PIA) were conducted for the NSP area and, following consultation with the Edmonton Public School Board and Edmonton Catholic School Board, determined that sites for two schools are required in the NSP area.

School/Park Sites

Municipal Reserve in the proposed NSP area accounts for approximately 15.68 ha or 8.9% of the GDA, of which 13.0 ha are school/park sites. The single Community Knowledge Campus site of 13.0 ha is proposed in the NSP area, which will accommodate a Public K-9 school, a Catholic K-9 school, a Community League building, and open space for the neighbourhood and playing fields. This site is located roughly in the centre of the proposed NSP area, and provides frontage on three collector roads, south along Collector Road 1; west along Collector Road 2; and north along Collector Road 3.

The remainder of Municipal Reserve dedicated in the neighbourhood is composed of two pocket parks and a greenway. Natural area Municipal Reserve including tree stands and buffers is approximately 1.87 ha, or 1.1% of Gross Developable Area (GDA). Overall, this represents 0.92% of the NSP area.

Open Space and Natural Areas

The NSP proposes 20.09 ha of natural area to be retained as Environmental Reserve. This forms the ecological network for the NSP, with the retention of seven wetlands, buffers for these wetlands, Mill Creek, and connected contiguous areas between three wetlands in the south portion of the proposed NSP.

Stormwater management facilities (SWMF) account for approximately 13.25 ha or 7.5% of the GDA. Each facility will contain a shared use path. SWMFs provide additional space for passive recreation.

River Valley and Ravine System

The proposed ecological network is connected to the North Saskatchewan River Valley and creek system by Mill Creek, which runs from the southeast to the northwest through the centre and north of the NSP area. Parks, natural areas, stormwater management facilities, a greenway, Top-of-Bank paths, and walkway/shared use paths are configured to provide connectivity to Mill Creek, and thereby the ravine system.

3. Transportation and Utilities

Transportation Services has advised that a Traffic Impact Assessment (TIA) was completed in support of the Aster Neighbourhood Structure Plan (NSP). The assessment considered a full development scenario of the NSP area and accounted for some external traffic growth in the surrounding areas, including the Decoteau Area Structure Plan (ASP) located south of the Transportation Utility Corridor (TUC). The TIA indicates that full build-out of the Aster NSP can be accommodated on the planned arterial roadway network within the City Level of Service Guidelines.

The TIA indicates that with full build-out of the plan area, the 17 Street and Anthony Henday Drive (AHD) interchange ramp intersections will operate under congested conditions during peak hours. Upgrades to the 17 Street and AHD interchange (provincial jurisdiction) are required to support the proposed development in Aster and future neighbourhoods in the Decoteau ASP south of AHD.

The timing and funding of upgrades to 17 Street interchange may result in development constraints in the plan area. Transportation Services will work with area developers and the Province to outline improvement strategy for the 17 Street interchange. Traffic will be monitored as development progresses within the area.

The location of Aster allows for convenient vehicular access between the area and the rest of the city. The roadways within the proposed Aster NSP will be designed using the principles of the Complete Streets Guidelines. Also, the neighbourhood will include an extensive

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network of sidewalks, walkways and shared use paths that will provide residents with convenient access to neighbourhood destinations and Transit Service throughout the plan area.

Transit routes will be accommodated on the collector roads within the neighbourhood. It is anticipated that the majority of residential land uses will be located within 400m walking distance to a transit stop with a large proportion of the higher density land uses adjacent to or directly fronting planned Transit routes that maximize the number of potential users and the accessibility to the service in the future. Where opportunities present themselves, walkway corridors will be connected to Transit routes as well.

The Aster neighbourhood is bounded on the east side by the CN railway. Development adjacent to the rail line will meet the setback requirements and will include construction of a berm and noise attenuation fence parallel to the railway right-of-way.

Structures needed to accommodate wildlife passages will need to be considered along all roadways in accordance with the City's Wildlife Passages Guidelines. The exact configuration of each passage will be determined during the conceptual and detailed design phases.

Alberta Transportation advises that they have no concerns with the proposed NSP, but recommend that 17 Street NW be constructed to six lanes per the TIA. Expansion of 17 Street NW to six lanes will require bridge and interchange upgrades, which have cost implications and may in part fall with the City of Edmonton.

EPCOR Water supports this application and requires that submission of interim Hydraulic Network Analyses be completed for each stage of development prior to subdivision. EPCOR Water advises that:

- Initial water supply to the Aster neighbourhood will be provided from connections to existing and proposed water mains along 23 Avenue NW and 17 Street NW;
- Service pressures within the area will be low, especially during peak hours, due to relatively high elevations. Because of this every effort should be made to reduce ground elevations as much as possible. Developers must be made aware of this service pressure situation to design servicing and buildings accordingly.

The Drainage Branch of Infrastructure Services has indicated that a feasible long-term drainage system for the area must still be confirmed, including work to lower and restore Mill Creek. Drainage supports the proposed NSP on the conditions that subdivisions will only be supported once a solution becomes feasible; the Neighbourhood Design Report (NDR) is completed and submitted by August 11, 2015; and the NDR is reviewed and accepted by Drainage Services.

All comments from other affected Civic Departments and utility agencies have been addressed.

4. Parks, Natural Areas and School Boards

The Parks Planning Unit, Edmonton Public School Board, and Catholic School Board have expressed no concern regarding this application. School and park site planning and development will occur in accordance with the Urban Parks Management Plan (UPMP) and guidelines for developing school sites followed by the school boards.

Parks + Biodiversity advises that Natural Area Management Plans will be required at the rezoning and subdivision stages. Policy in the proposed NSP addresses these items. All other comments have been addressed.

For the lands affected by the Top-of-Bank within the NSP area, the Top-of-Bank and Urban Development Line must be implemented at the zoning and subdivision phases.

5. Environmental Review

An Environmental Overview for the participating landowners in the preparation of the NSP was submitted, reviewed, and approved. Phase I Environmental Site Assessments (ESAs) will be required at the rezoning stage in order to deem the land suitable for the intended uses being sought at that time. All properties within the NSP area will require a Phase I ESA to be completed and approved by Sustainable Development prior to rezoning approval.

6. Railways, Pipelines and Oil & Gas Facilities

A Risk Assessment in support of the NSP was submitted for the railway and pipelines in the NSP area. Concerns raised in the Risk Assessment have been addressed through policy and mitigation measures in the NSP. Fire Services advises that the City should accept and follow the emergency planning zones as described in the CSA Plus 663 guideline, and ensure that the City of Edmonton emergency plan is prepared and established for the High Vapour Pressure pipeline.

Canadian National Railways was consulted throughout the NSP process and expressed no objection to the application, provided that:

- A berm and fence for residential land uses directly abutting the railway corridor be provided, as well as the proper access and noise mitigation measures;
- CNR will not accept ownership or responsibility for maintenance of the berm and fence.

Policy in the proposed NSP addresses these items.

7. Adjacent Municipalities and Capital Region Board

The municipality of Strathcona County was consulted throughout the NSP process.

Strathcona County is currently working on a Growth Management Strategy for the Colchester area south of Highway 628 (TWP Rd 522) and north of Highway 14. Strathcona County notes that development in this area would utilize the flyover bridge over the Anthony Henday, which under the Meadows ASP and Aster NSP will connect to the four-lane arterial roadway of 23 Avenue NW.

8. Surrounding Property Owners' Concerns

Sustainable Development sent an advance notification/open house invitation to surrounding property owners, the Fulton Meadows Community League, and The Meadows Community League Association on February 5, 2015. Two comments were received, which were inquiring as to details of the open house. Staff provided this information.

A website was set up which provided details of the NSP process, an overview of the proposed Aster NSP, information on the open house, and maps from the proposed NSP. The address was included on materials provided at the open house, to those who inquired about the NSP from the advance notification, and on posters which were displayed at The Meadows Community Recreation Centre prior to the open house. The website received 704 unique visitors.

The Open House was held on February 19, 2015 at The Meadows Community Recreation Centre to discuss the proposed new neighbourhood plan, and provide residents the opportunity to ask questions to City and applicant representatives. The meeting was attended by approximately 29 people. One questionnaire and nine sign-in sheets were submitted.

Main questions at the public meeting related to:

- Residential housing mix;
- When property and lots would be available for purchase;
- Municipal and Provincial bus/LRT strategic plans and service.

The Administration in attendance and the applicant responded to these concerns/questions. Responses to these questions generally were:

- Residential housing mix: lands are designated for low density residential, medium density residential, and row housing. This allows for a diversity of lot sizes, and building types from single detached through mid-rise building.

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- When property and lots would be available for purchase: if the plan is approved in 2015, assuming another year for approvals and infrastructure work, it is possible lots and homes could be available by 2017.
- Municipal and Provincial bus/LRT strategic plans and service: there are no plans for LRT service to The Meadows area; the nearest station will be at Mill Woods Town Centre. The only planned transit service are local bus routes through Aster, feeding to The Meadows Transit Centre north of the area on 17th Street NW south of Whitemud Drive.

JUSTIFICATION

Sustainable Development recommends that Bylaw 17365 to amend The Meadows Area Structure Plan, Bylaw 17366 to adopt the Aster Neighbourhood Structure Plan, and Bylaw 17367 to amend the North Saskatchewan River Valley Area Redevelopment Plan be APPROVED on the basis that the proposed NSP conforms with City of Edmonton policies and guidelines, meets the technical requirements of the affected Civic Departments and utility agencies, facilitates compatible development, and will result in provision of land and services required for the future growth in the southeast portion of the City.

ATTACHMENTS

- 2a Approved Land Use and Population Statistics The Meadows Area Structure Plan - Bylaw 17143
- 2b Proposed Land Use and Population Statistics The Meadows Area Structure Plan Bylaw - 17365
- 2c Proposed Land Use and Population Statistics Aster Neighbourhood Structure Plan – Bylaw 17366
- 2d Approved The Meadows Area Structure Plan – Bylaw 17143
- 2e Proposed The Meadows Area Structure Plan – Bylaw 17365
- 2f Proposed Aster Neighbourhood Structure Plan – Bylaw 17366
- 2g Infrastructure Management Planning Report

Written by: Sean Lee
Approved by: Tim Ford
Sustainable Development
October 19, 2015

TABLE 1
THE MEADOWS AREA STRUCTURE PLAN
APPROVED LAND USE AND POPULATION STATISTICS
BYLAW 17143

Gross Area	1401	
Arterial Roadways		
Utility/Pipeline Corridors and Railway Facilities		
Environmental Reserve ¹		
Gross Developable Area	1279	100.
Parks and Schools	1	
Mixed Use Area		
Transit Centre/Park and Ride		
Commercial		
Stormwater Management Facilities		
Circulation	22	
Other (e.g. Cemetery)		
Institutional		
Total	51	40
Net Residential Area	75	59
RESIDENTIAL LAND USE AND POPULATION	Ar	Population
Larkspur		6,60
Wild Rose	10	8,05
Silver Berry		5,81
Laurel	17	13,723
Neighbourhood 5	13	9,94
Tamarack	10	9,12
Maple		6,34
Total Residential	75	59,602

Density: 46.5 persons per gross developable hectare

STUDENT GENERATION	Elementary (K-6)	Junior High/High School	Total
Public	2,562	2,562	5,124
Separate	1,025	1,025	2,050
Total	3,587	3,587	7,174

¹ The total amount of Environmental Reserve lands will be more accurately determined at the Neighbourhood Structure Planning stage.

TABLE 2
THE MEADOWS AREA STRUCTURE PLAN
PROPOSED LAND USE AND POPULATION STATISTICS
BYLAW 17365

Gross Area	136	
Arterial Roadways		
Utility/Pipeline Corridors and Railway Facilities		
Environmental Reserve ¹		
Gross Developable Area	126	100.0%
Parks and Schools	1	11.7
Mixed Use Area		2.0
Transit Centre/Park and Ride		0.2
Commercial		3.1
Stormwater Management Facilities		6.1
Circulation	2	18.6
Other (e.g. Cemetery)		0.1
Institutional		0.3
Total	5	42.
Net Residential Area	7	57.
RESIDENTIAL LAND USE AND POPULATION	Ar	Population
Larkspur		6,60
Wild Rose	10	6,77
Silver Berry		5,81
Laurel	1	15,792
Aster	10	8,75
Tamarack	10	9,12
Maple		6,49
Total Residential	7	59,355

Density: 47.0 persons per gross developable hectare

STUDENT GENERATION	Elementary (K-6)	Junior High/High School	Total
Public	2,562	2,562	5,124
Separate	1,025	1,025	2,050
Total	3,587	3,587	7,174

¹ The total amount of Environmental Reserve lands will be more accurately determined at the Neighbourhood Structure Planning stage

TABLE 3
ASTER NEIGHBOURHOOD STRUCTURE PLAN
PROPOSED LAND USE AND POPULATION STATISTICS
BYLAW 17366

	Area (ha.)	% of GDA
GROSS AREA	204	
Natural Area (Environmental Reserve)	20.09	
<i>Environmental Reserve</i>	7.15	
<i>Wetland Environmental Reserve</i>	12.94	
Pipeline & Utility Right-of-Way	2.59	
Arterial Road Right-of-Way	5.72	
GROSS DEVELOPABLE AREA	175.60	100.0 %
Existing Land Uses		
Commercial	1.31	0.7 %
Parkland, Recreation, School (Municipal Reserve)	15.68	8.9 %
<i>Local/Pocket Parks</i>	2.49	
<i>MR Greenway</i>	0.19	
<i>CKC/School/Park</i>	13.00	
Natural Area (Municipal Reserve)	1.87	1.1 %
Institutional		
<i>Church Site</i>	1.23	0.7 %
Mixed-Use (Non Residential Portion)	2.22	1.3 %
Transportation		
<i>Circulation(20% of GDA)</i>	35.12	20.0 %
Transit Centre	NA	
Infrastructure/ Servicing		
Storm Water Management Facilities	13.25	7.5 %
Special Use	NA	
Total Non-Residential Area	70.68	40.3 %
Net Residential Area (NRA)	104.92	59.7 %
	175.60	100.0 %

RESIDENTIAL LAND USE AREA, UNIT & POPULATION

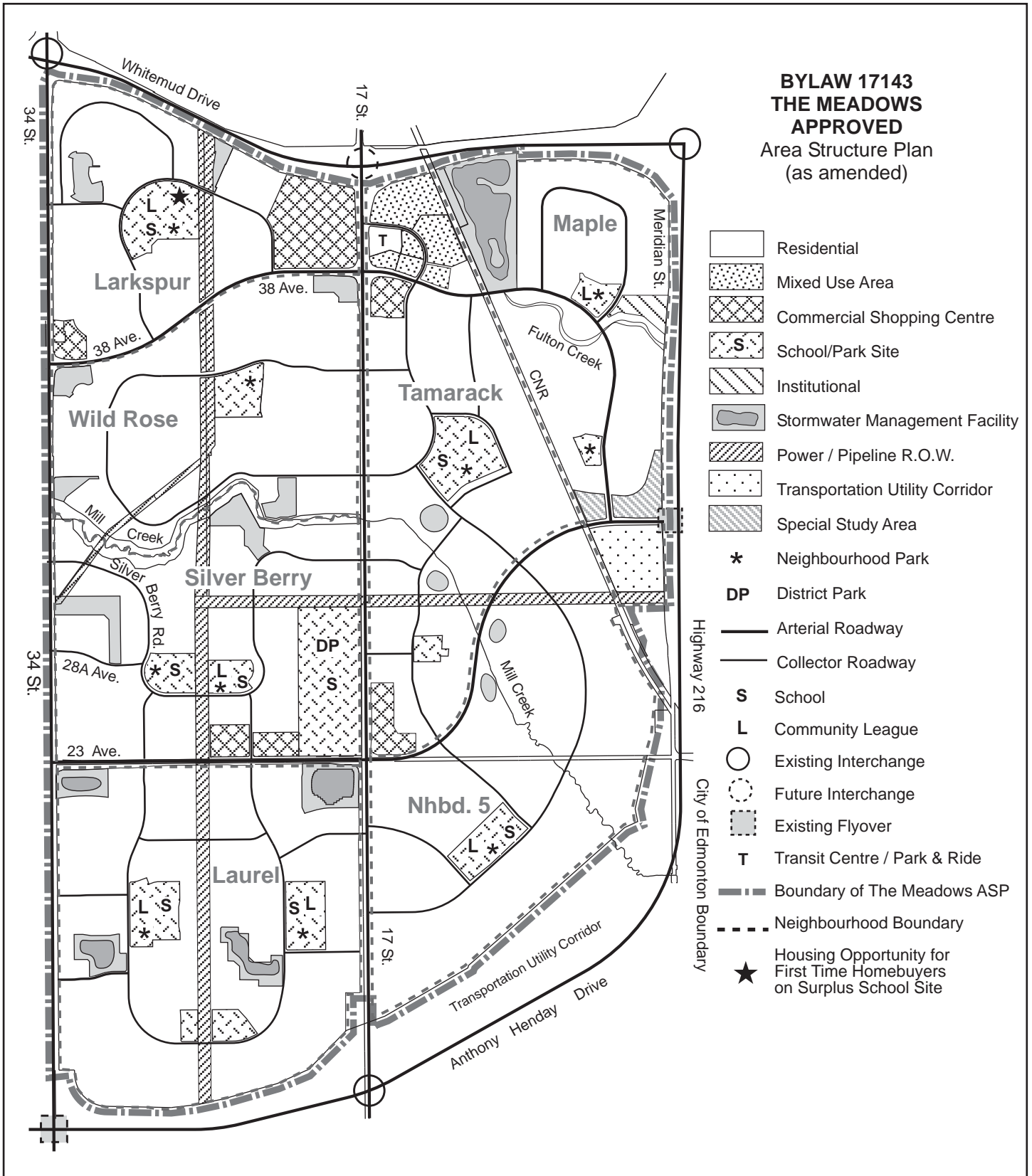
Land Use	Area (ha)	Unit/ha	Units	People/Unit	Population	% of
Single / Semi-Detached	87.17	25	2,179	2.8	6,102	83.1 %
Row Housing	6.17	45	278	2.8	777	5.9 %
Low-Rise/Medium	9.36	90	842	1.8	1,516	8.9 %
Medium to High Rise	0	225	0	1.5	0	0.0 %
Mixed Uses (residential)	2.22	90	200	1.8	360	2.1 %
Total	104.92		3,499		8,755	100.0 %

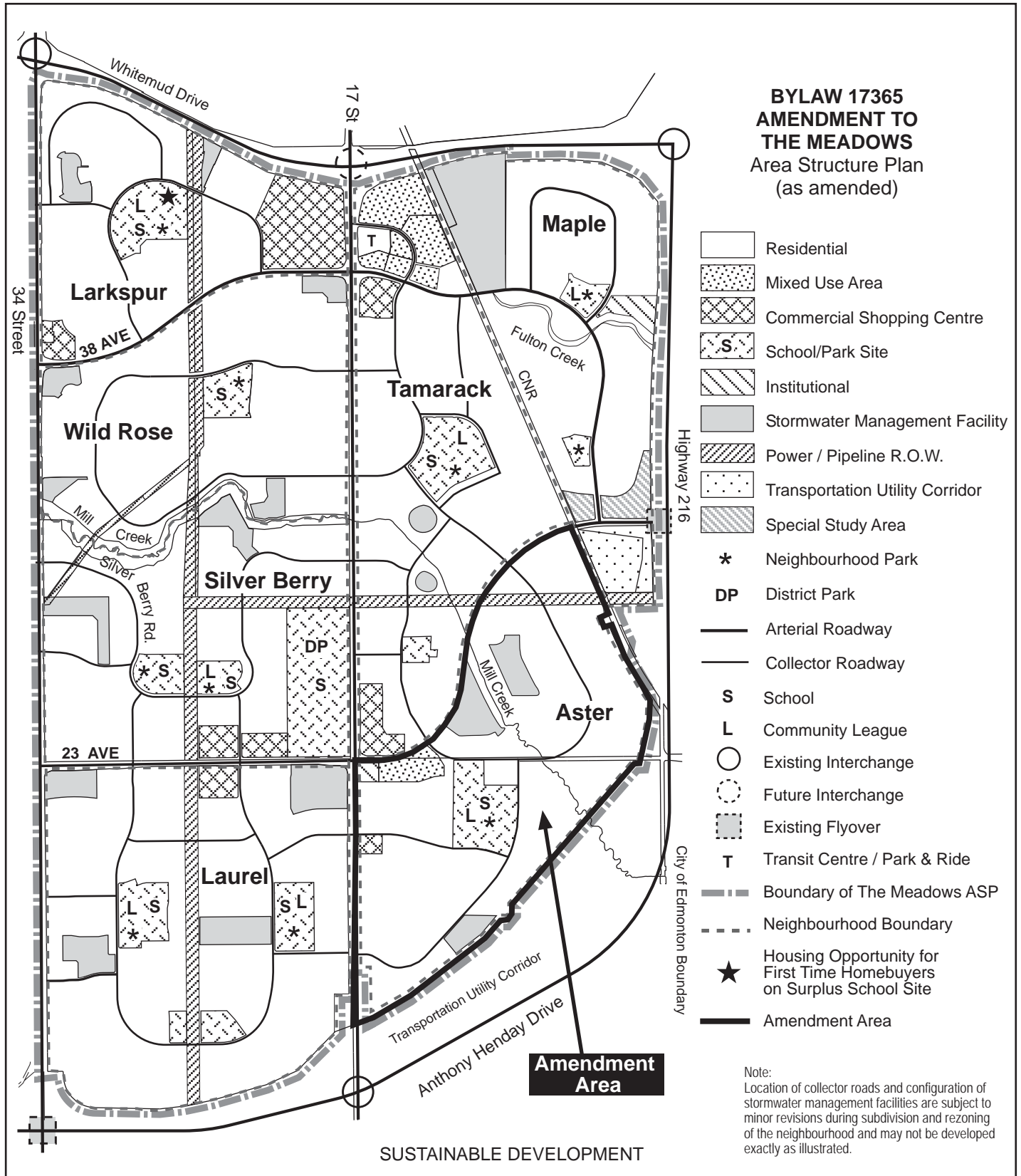
STUDENT GENERATION

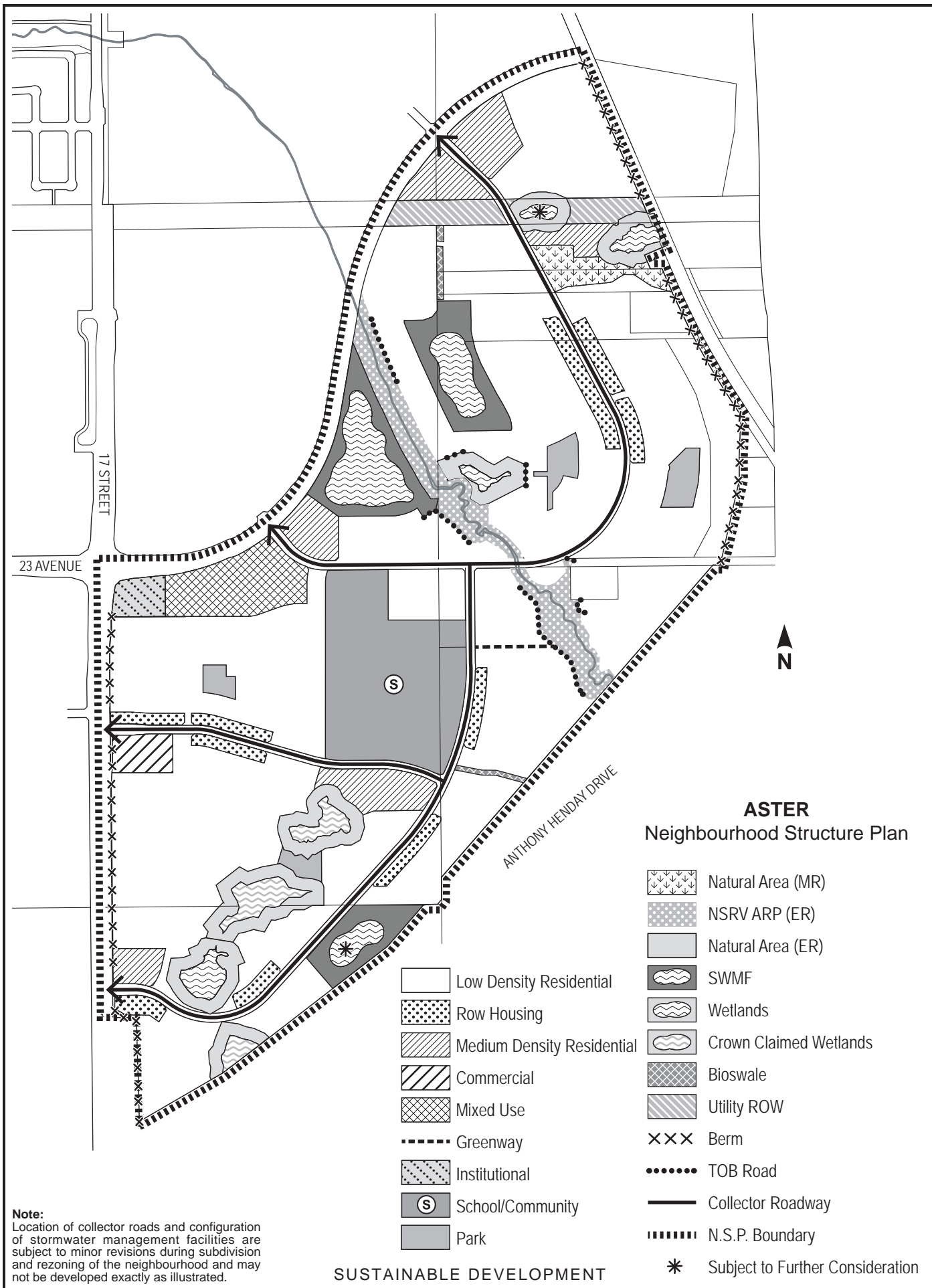
Public School Board	704
Elementary School	352
Junior High School	176
Senior High School	176
Separate School Board	352
Elementary School	176
Junior High School	88
Senior High School	88
Total Student Population	1056

SUSTAINABILITY

Population Per Net Hectare	49.9		
Units Per Net Residential Hectare	33.3		
[Single / Semi-Detached] / [Row Housing; Low –Rise / Medium Density Housing; Medium to High-Rise Units]	83% / 17%	Presence / Loss of Natural Area Feature	Land / Water
Population (%) within 500m of	98%	Protected as Environmental Reserve	20.09
Population (%) within 400m of Transit	100%	Conserved as Naturalized Municipal Reserve (MR)	1.87
Population (%) within 600m of Commercial Service	58%	Loss to Development (ha)	35.68







INFRASTRUCTURE REPORT

ASTER NEIGHBOURHOOD STRUCTURE PLAN

Report Background

The Infrastructure Report is being completed in response to a City Council motion from February 2, 2011 regarding the provision of information for new Neighbourhood Structure Plans (NSP) in approved Area Structure Plans (ASP).

The report includes information on infrastructure requirements and capital costs associated with the development of the Aster neighbourhood. This report is not a full Integrated Infrastructure Management Plan and does not include any financial analysis.

NSP Background

The Aster Neighbourhood Structure Plan (NSP) is part of the Meadows Area Structure Plan (ASP) and is located in south-east Edmonton and is bordered by 23 Avenue to the northwest, 17 Street to the west, and Anthony Henday Drive to the east and south.

In the Meadows ASP, three of the neighbourhoods are 100% complete in terms of low density residential units (Larkspur, Wild Rose, Silverberry), three others (Laurel, Tamarack and Maple) are currently under development and are approximately 45% complete in terms of low density residential units¹. Aster is the 7th and the last neighbourhood to be develop in this area.

With a gross area of 204 ha and a population of 8,761 people, Aster makes up approximately 15% of the ASP's gross area and population. Table 1 below includes general ASP and NSP area and population statistics.

Table 1 – Meadows ASP and Aster NSP Statistics

	Meadows Area Structure Plan	Aster Neighbourhood Structure Plan
Gross Area (ha)	1401	204
% of ASP Gross Area		15%
Net Residential Area (ha)	735	105
% of ASP Net Residential Area		14%
Population	59,361	8,761
% of ASP Population		15%

The Aster neighbourhood currently includes existing private homes, a church, a horse ranch, a greenhouse, agriculture land, and a creek.

The proposed Aster NSP primarily includes residential land uses along with a mix of supporting land uses such as a school, parks, commercial land uses, the existing church, and storm water management

¹ Source: Growth Analysis Unit, Sustainable Development

facilities. Of the total area of 204 ha, approximately 51 % (105 ha) is allocated for the development of residential units, 21% (43 ha) for circulation, right-of-ways and utilities, 15% (31 ha) for parks, environmental reserve and storm water management facilities, 10% (20 ha) for environmental reserve, 2% (4 ha) for commercial and mixed use commercial development, and 1% (1 ha) for the existing church.

A range of housing opportunities are provided in Aster to create demographic diversity and affordability in the neighbourhood. The residential units are anticipated to be comprised of single family homes (83%), row housing (6%), low rise apartment units (9%), and low rise mixed use residential units (2%).

The land use breakdown of the proposed Aster NSP is shown in Figure 1. A further breakdown of the residential land uses is included in Table 2.

Figure 1 – Land Use Breakdown

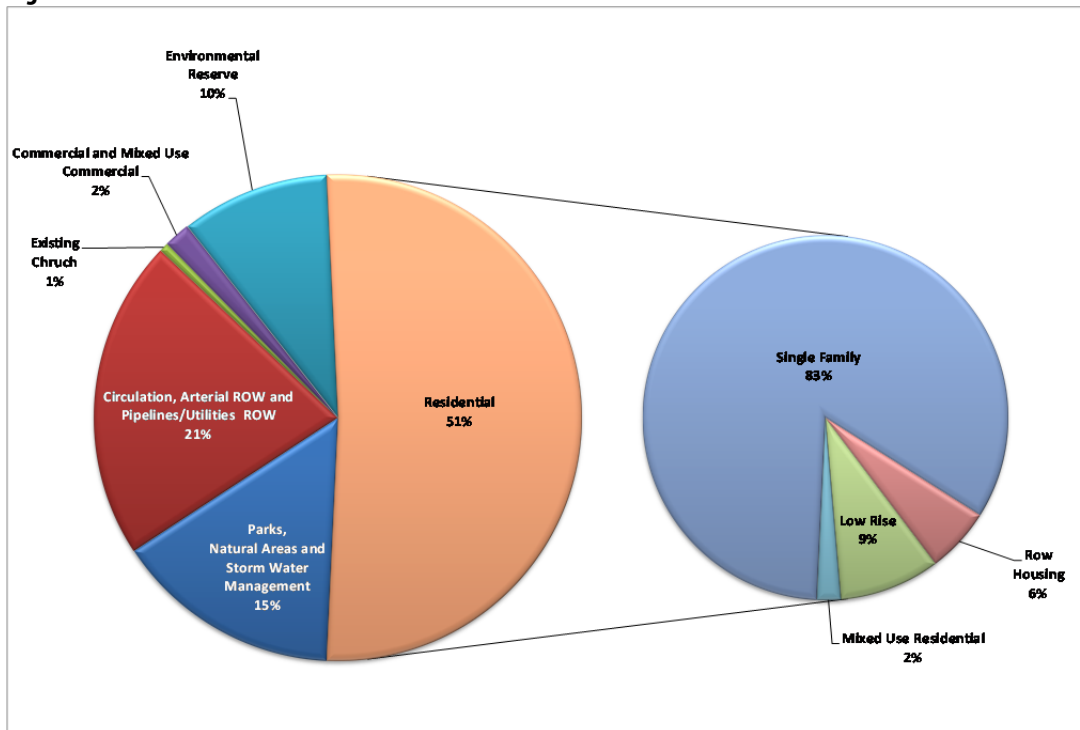


Table 2 – Residential Land Use and Population Breakdown

	Area (in ha)	Units per hectare	Number of units	% of Net residential area	People per unit	Population
Single/Semi-Detached	87.4	25	2,186	83%	2.8	6,121
Row Housing	6.1	45	273	6%	2.8	764
Low-Rise/Medium Density	9.4	90	842	9%	1.8	1,516
Mixed Uses (Residential Area)	2.2	90	200	2%	1.8	360
Total	105.1		3501	100%		8,761

Population Build-Out

The developer anticipates that the Aster Neighbourhood will be built-out over approximately 11 years. Development is planned to begin as early as 2016 and be completed by 2026. The City forecasted population scenario for the development of the area is in line with this time frame.

Major Neighbourhood Infrastructure

As the Aster Neighbourhood is the last neighbourhood in the Meadows area to develop, it benefits from having existing infrastructure which has been constructed and is operational.

The infrastructure information discussed in this section is based on data from city departments and the development proponent.

The major infrastructure required to serve the Aster neighbourhood is as follows:

Community Facilities

The Aster neighbourhood will make use of the existing Recreation Centre integrated with the District Park site within the Meadows ASP, located at 27 Avenue and 17 Street. No additional community facilities will be constructed to serve the neighbourhood.

Library

The existing Meadows Library, located within the Meadows Recreation Centre, will serve the Aster Neighbourhood. No other library facilities are required to serve the neighbourhood.

Parks

The Aster neighbourhood will include the development of 17.51 ha of park space, which will include a school park site, 4 pocket parks, a natural area, and greenways. It is expected that all or the majority of the park development costs will need to be borne by the City.

Fire

There is an existing fire station in the Meadows area that serves the Aster neighbourhood. The existing level of protection in the Aster area reflects the current built form and meets existing requirements. The level of service in Aster will increase as demand requires. No additional fire stations are planned for the Meadows area however, additional stations are planned in the adjacent areas of Decoteau and Southeast and there is an existing station in the neighbouring area of Mill Woods.

Police

The existing Southeast Division Station will continue to provide service to the Meadows ASP area, including the Aster neighbourhood. It is anticipated that within the next 10 years, a new South Central Divisional Station may be constructed west of the Decoteau area to meet the growth requirements in South Edmonton.

The purchase of new police vehicles will be required to service the Aster Neighbourhood.

Drainage

The developers in Aster will construct and pay for the sanitary and storm systems, with trunk sized infrastructure being cost-shared under the Permanent Area Contribution system. The City is not anticipated to be required to fund any storm or sanitary infrastructure to service the neighbourhood.

Transportation – Roads

The area developers will fund and construct all local and collector roadways with development of the Aster neighbourhood.

The developers will also construct the majority of the required arterial roadways in the area. The existing Arterial Roads for Development Bylaw 14380 includes a schedule for the Meadows area which outlines the developers' arterial responsibilities in the area. The City is responsible for any required arterial construction over and above the bylaw requirements. At this point, it is expected that the City may be required to fund portions of 17 Street (widening beyond the first 4 lanes).

With development of the Meadows and the Decoteau areas, improvements are anticipated to be required at the Anthony Henday Drive and 17 Street interchange. The City may be required to contribute to the interchange improvements along with potentially the developers and/or the Province. There is no funding commitment from developers for interchange improvements at this location.

Transportation - Transit

The Aster neighbourhood will be served by the existing Meadows Transit Centre with a park and ride facility, located at 17 Street and 40 Avenue. No other transit centre is planned to be constructed in the Meadows area.

Development of the Aster neighbourhood is expected to require approximately 11 new buses to service the residents of the neighbourhood.

Waste Management

The existing Eco stations in Ambleside and Strathcona will serve the Aster NSP area. No Eco station will be constructed in the Meadows area.

Development of the Aster neighbourhood will require the purchase of additional waste vehicles to service the neighbourhood.

General Infrastructure Capital Cost Breakdown

The amount of infrastructure required to be built by both the developer and the City of Edmonton is a function of many things, including the design of the community, the service standards provided, the amount and density of population served, and the presence of existing infrastructure. Tables 3 and 4 detail the anticipated amount of infrastructure required for the proposed community, the approximate cost in 2015 dollars, and the party responsible for its construction based on current standard practice. It should be noted that developers may choose to pay additional development costs. The costs in Tables 3 and 4 only include the initial capital cost of infrastructure and do not include operations, maintenance, or life cycle costs.

For the Aster neighbourhood, it is anticipated that a future developer infrastructure investment of approximately \$105 million as well as a future City capital investment of approximately \$15 million will be required. As this is the last neighbourhood to develop within the Meadows ASP and some of the area

infrastructure (such as the Recreation Centre, library and Fire Hall) is already in place, the required future City investment associated with the development of the neighbourhood is lower than in many other neighbourhoods.

Table 3 – Developer Funded Aster Neighbourhood Infrastructure

Infrastructure Type	Quantity	Aster Neighbourhood Cost (2015 \$)
Local Road (lane km)	29	\$ 21,525,000
Collector Road (lane km)	8	\$ 10,613,000
Arterial Road (lane km)	7	\$ 15,400,000
Shared Use path (km)	9	\$ 2,791,000
Local Storm Pipes (km)	14	\$ 11,885,000
Collector Storm Pipes (km)	4	\$ 5,498,000
Local Sanitary Pipes (km)	14	\$ 6,386,000
Collector Sanitary Pipes (km)	4	\$ 2,805,000
Service Connections (#)	3,501	\$ 25,277,000
Stormwater Management Facilities (#)	3	\$ 1,950,000
Bio-Swale	2	\$ 28,000
Outfalls (#)	2	\$ 500,000
TOTAL		\$ 104,658,000

Table 4 – City Funded Aster Neighbourhood Infrastructure

Infrastructure Type	Quantity	Aster Neighbourhood Proportional Cost (2015 \$)
Police		\$ 520,000
Arterial Road (lane km)	8	\$ 1,464,000
Interchange Upgrade	1	\$ 2,750,000
Parks (ha)	18	\$ 3,926,000
Transit - buses (#)	26	\$ 5,170,000
Waste Collection		\$ 1,000,000
TOTAL		\$ 14,830,000

Qualifications for Tables 3 and 4

The information in Tables 3 and 4 is derived from consultations with the proponent's consultants and the areas responsible for the asset's provision and maintenance. The following additional information is provided to help qualify the quantities and costs in the tables:

Drainage Services

The costs for storm and sanitary pipes, storm water management facilities, service connections, and other storm and sanitary related costs were provided by the proponent.

Edmonton Police Service (EPS)

Police related costs in Table 4 only include the capital costs associated with the purchase of new police vehicles to service the Aster neighbourhood.

Parks

The NSP identifies 17.51 ha of park development. Parks capital costs include the grade, level, and seeding of parkland, the provision of trees per park design standards, as well as the preservation of natural areas.

Table 4 assumes that all park development costs will be borne by the City. It should be noted that in the past, some developers have contributed to park development costs in some neighbourhoods.

Transportation (Roadways)

Costs for local roads, collector roads, arterial roads, and shared use paths were supplied by the proponent.

For the analysis, it is assumed that the construction cost of the initial 4-lanes of an arterial is the responsibility of the neighbourhood it falls within or that the cost is split between adjacent neighbourhoods if the arterial is located along a neighbourhood boundary. It is further assumed that the cost of an arterial 6-lane widening benefits the area as a whole and the widening cost from 4 to 6 lanes in the ASP area is therefore apportioned to all the neighbourhoods in the ASP based on the gross developable area. Table 4 includes Aster's proportional share of the City's arterial roadway costs.

Table 4 also includes Aster's proportional share of the interchange upgrades required at the Anthony Henday and 17 Street interchange. For the purposes of the table only, the interchange upgrade costs are assumed to be entirely City funded. Actual interchange upgrade costs may be funded by a combination of the City, the Province, and/or areas developers.

Transportation (Transit)

Transit costs included in Table 4 are associated with the purchase of new buses to serve the Aster Neighbourhood.

Waste Management

Table 4 includes the waste management costs associated with the purchase of new vehicles and bins.

Impacts of the Aster Neighbourhood on Future City Budgets

In addition to the initial infrastructure capital costs associated with neighbourhood development, there will also be associated operating and life cycle costs that would require City funding allocations in Operating, Utilities and Capital Budgets.

The neighbourhood will require City funding to provide additional police, transit and waste personnel to provide service to the Aster Neighbourhood. As the area develops and ages, the City will also need to fund police vehicle maintenance and replacement, bus refurbishment and replacement, park development and maintenance, roadway maintenance and snow removal, arterial road widening, etc.

If the neighbourhood develops as planned and construction begins in 2016, City funding for capital expenditures, operations and maintenance may be required as early as 2017. The current 2015-2018 Capital Budget does not include funding for expenditures related to the development of this neighbourhood. If development does occur as anticipated, budget adjustments would be needed to meet the needs of the developing area. A lack of funding for the infrastructure required to service the area would delay the construction of the infrastructure (such as neighbourhood parks) or the provision of service (such as transit).

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