

Bylaw 14724

A Bylaw to amend Bylaw 11870, as amended, being the
Ellerslie Area Structure Plan, by adopting
The Orchards at Ellerslie Neighbourhood Structure Plan

WHEREAS pursuant to the authority granted to it by the Municipal Government Act, the Municipal Council of the City of Edmonton may, by bylaw, adopt a neighbourhood structure plan for an area; and

WHEREAS Council considers it desirable to adopt The Orchards at Ellerslie Neighbourhood Structure Plan bylaw; and

NOW THEREFORE after due compliance with the relevant provisions of the Municipal Government Act RSA 2000, ch. M-26, as amended, the Municipal Council of the City of Edmonton duly assembled enacts as follows:

1. Bylaw 11870, as amended, being the Ellerslie Area Structure Plan, is hereby further amended by adding as Appendix "C" "The Orchards at Ellerslie Neighbourhood Structure Plan" being:
 - a. The Map entitled "Bylaw 14724 – The Orchards at Ellerslie Neighbourhood Structure Plan", attached hereto as Schedule "A", The Orchards at Ellerslie Neighbourhood Structure Plan - Land Use and Population Statistics – Bylaw 14724, attached hereto as Schedule "B", and the Consultant's report entitled "The Orchards at Ellerslie Neighbourhood Structure Plan" attached hereto as Schedule "C".

READ a first time this	15 th	day of	November	, A. D. 2007;
READ a second time this	15 th	day of	November	, A. D. 2007;
READ a third time this	15 th	day of	November	, A. D. 2007
SIGNED and PASSED this	15 th	day of	November	, A. D. 2007.

THE CITY OF EDMONTON

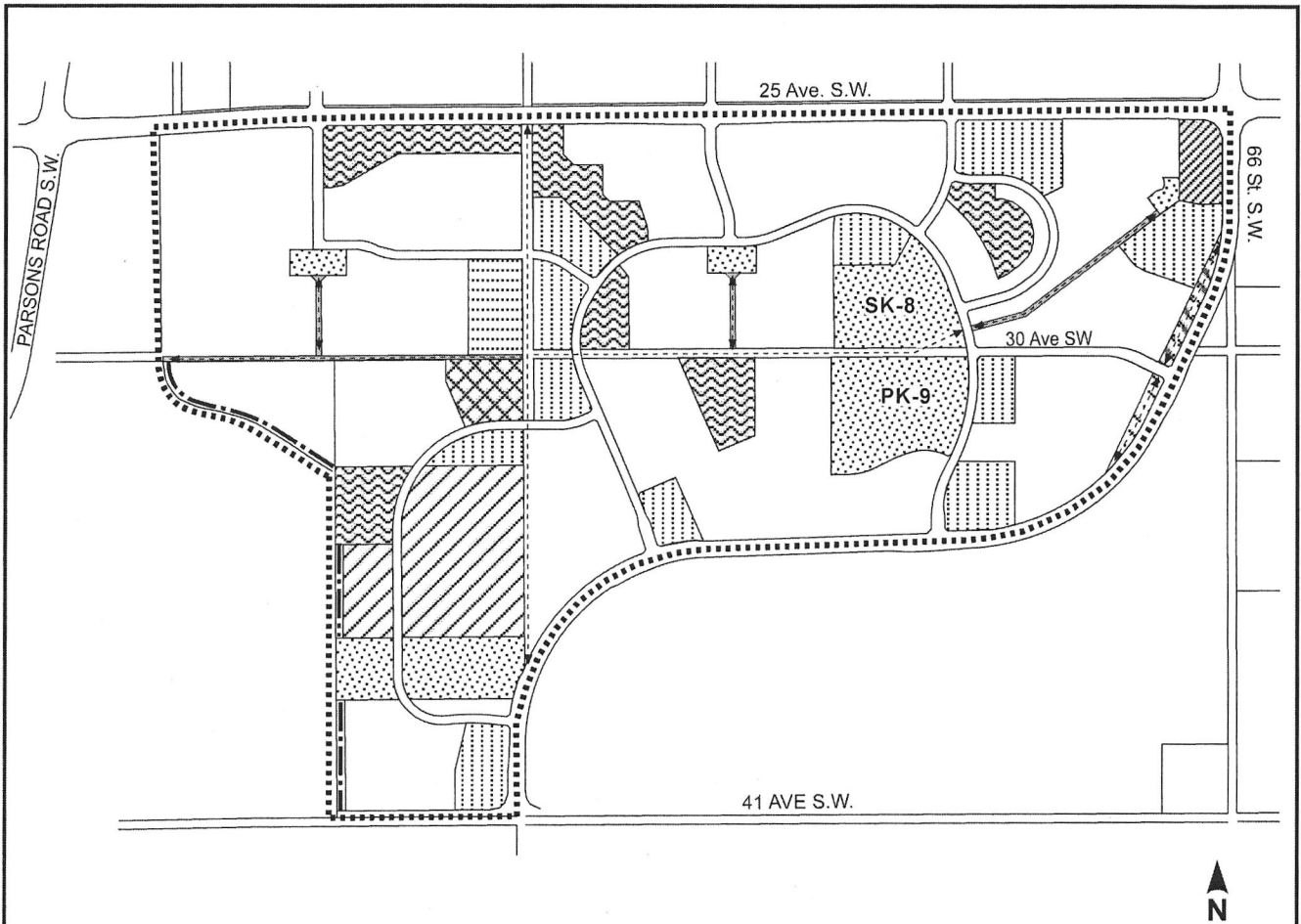
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












MAYOR

Jul Wingat

A/ CITY CLERK



BYLAW 14724
THE ORCHARDS AT ELLERSLIE
 Neighbourhood Structure Plan

- | | | | |
|---|----------------------------|--|-------------------------------|
|  | Low Density Residential |  | School/Park/MR |
|  | Medium Density Residential |  | Greenways |
|  | Commercial |  | Multi-Use /Pedestrian Linkage |
|  | Stormwater Facility |  | Transition Area |
|  | Urban Services |  | Pipeline Right-of-Way |
|  | Natural Area |  | NSP Boundary |
|  | Resident's Association | | |

Note:
 Location of collector roads and configuration of stormwater management facilities are subject to minor revisions during subdivision and rezoning of the neighbourhood and may not be developed exactly as illustrated.

**THE ORCHARDS AT ELLERSLIE NEIGHBOURHOOD STRUCTURE PLAN
LAND USE AND POPULATION STATISTICS
BYLAW 14724**

	Area (ha)	% of GDA
Gross Area	249.83	
Arterial Roadways / Road Right-of-Way	10.42	
Utility/Pipeline Corridors	4.09	
Environmental Reserve *	2.40	
30 Avenue SW Road Right-of-Way	1.96	
Gross Developable Area	230.96	100
Municipal Reserve Parks / School	22.45	9.7
School/Park		12.97
Parkettes		1.85
Greenways		1.88
Lot R1, Plan 3186TR**		5.75
Resident's Association	2.75	1.2
Commercial	1.85	0.8
Urban Services/Institutional	13.17	5.7
Transition Area ***	1.92	0.8
Stormwater Management Facilities	16.61	8.0
Circulation (local roads, walkways and lanes)	34.64	15.0
Total	93.24	40.37
Net Residential Area	137.72	59.63

	Area (ha)	Units per Hectare	Units	% of Total Units	Population
Low Density Residential	113.85	22	2,505	61	8,641
Medium Density Residential	23.87	68.5	1,635	39	4,693
Total Residential	137.57	30.06	4,140	100	13,334
Gross Developable Population Density:		57.7 per gross hectare			

Student Generation Statistics

Level	Public	Separate	Total
Elementary	462	185	647
Junior High	231	92	323
Senior High	231	92	323
Total	924	370	1294

* Areas dedication to Municipal Reserve and Environmental Reserve to be confirmed at time of subdivision and legal survey.

** Excludes area to be provided as collector roadway.

*** To be provided as either non-credit Municipal Reserve or Road Right-of-way, to be determined at time of subdivision



The Orchards
@ Ellerslie

The Orchards
Neighbourhood Structure Plan
November 2007

Table of Contents

1.0	ADMINISTRATION	8
1.1	Purpose	8
1.2	Authority	8
1.3	Timeframe	8
1.4	Interpretation	8
1.5	Monitoring	9
1.6	Amendments	9
1.7	Orientation	9
2.0	NEIGHBOURHOOD CONTEXT.....	10
2.1	Location.....	10
2.2	Background.....	10
3.0	LAND USE, TRANSPORTATION & SERVICING CONCEPT	13
3.1	Vision	13
3.2	Goals & Objectives	13
3.3	Land Use Concept.....	14
3.3.1	Urban Design.....	17
3.3.2	Ecology	22
3.3.3	Environment	24
3.3.4	Historical Resources.....	25
3.3.5	Residential.....	26
3.3.6	Commercial	30
3.3.7	Urban Services/Institutional USES.....	31
3.3.8	Parks & Open Space	32
3.4	Transportation	37
3.4.1	Highways and Regional Roadways.....	37
3.4.2	Arterial Roadways	39
3.4.3	Arterial Road Assessment Program	39
3.4.4	Collector Roadways.....	39
3.4.5	Local Roadways	40

3.4.6	Noise Attenuation	40
3.4.7	Multi-Use Trail Corridor Network	40
3.4.8	powerline Utility corridor	41
3.4.9	Transit Service.....	41
3.4.10	Parking	41
3.4.11	Truck Routes	41
3.5	Infrastructure Servicing & Staging	45
3.5.1	Sanitary Drainage.....	45
3.5.2	Stormwater Drainage.....	45
3.5.3	Water Distribution	47
3.5.4	Shallow Utilities	47
3.5.5	Development Staging	47
4.0	APPENDICES	50
4.1	Appendix I – Site Context	50
4.1.1	Land Ownership	50
4.1.2	Topography	52
4.1.3	Existing Land Uses.....	52
4.1.4	Environmental Assessment.....	55
4.1.5	Historical Resources.....	57
4.1.6	Pipelines & Oil Well Sites	57
4.1.7	Utility Rights-of-Way & Facilities	58
4.2	Appendix II – Planning Policy Context.....	59
4.2.1	Plan Edmonton	59
4.2.2	Ellerslie Area Structure Plan (ASP).....	60
4.2.3	Suburban Neighbourhood Design Principles (SNDP).....	61
4.2.4	Smart Choices for Developing Our Community	62
4.2.5	Future School Sites Study.....	63
4.2.6	Urban Parks Management Plan	64
4.2.7	Stormwater Management Guidelines	64
4.2.8	Alberta Energy and Utilities Board Policy & Guidelines	64
4.2.9	Crime Prevention Through Environmental Design (CPTED)	65

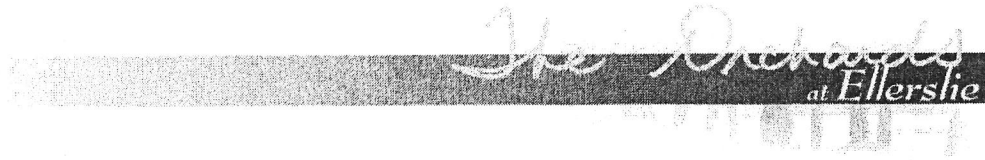
4.2.10	Affordable Housing	65
4.2.11	City of Edmonton Housing Mix Guidelines	65
4.2.12	Edmonton International Airport Protection Overlay	66
4.3	Appendix III – Technical Studies	66

List of Figures

1	Location	11
2	Context	12
3	Land Use Concept	15
4	Neighbourhood Concept	18
5	Collector Roads Concept	20
6	Linkage Concept	21
7	Pedestrian Network	33
8	Transportation Network	38
9	Servicing Concept	46
10	Staging Concept	48
11	Land Ownership	51
12	Site Contours	53
13	Site Features	54
14	Environmental Site Assessment Overview	56

List of Tables

1	Land Use & Population Statistics	16
2	Land Ownership	50
3	Phase I Environmental Site Assessments	55
4	Historical Resources Overview	57
5	Existing Pipeline Transmission Facilities	58



1.0 ADMINISTRATION

1.1 PURPOSE

The purpose of The Orchards at Ellerslie Neighbourhood Structure Plan ("Orchards NSP") is to establish a development and servicing framework for the neighbourhood. The NSP specifies the following:

- The location, configuration and area of residential, commercial, parks and open spaces, and public utility land uses.
- The density of residential development
- The manner in which unique and environmentally significant areas and natural features will be incorporated into the development concept.
- The pattern and alignment of the collector roadway and pedestrian pathway systems.
- A conceptual servicing scheme showing utility services and infrastructure; and
- The implementation and phasing of development.

1.2 AUTHORITY

The Orchards at Ellerslie NSP was adopted by Edmonton City Council in November 2007 as Bylaw 14724 in accordance with section 633 of the Municipal Government Act.

1.3 TIMEFRAME

Development within the Orchards NSP is expected to begin in 2008 and is estimated to be fully complete within 5 years based on current absorption rates.

1.4 INTERPRETATION

All symbols, locations, and boundaries shown in the NSP figures shall be interpreted as conceptual unless otherwise specified in the document, or where they coincide with clearly recognizable physical or fixed features within the plan area.

For each subsection under Land Use Concept, a description of applicable land use strategies (e.g. Urban Design) and types (e.g. Residential) is provided for the plan followed by applicable objectives, policies, implementation, rationale, and technical summary.

A policy statement(s) containing "shall" or "will" is mandatory and must be implemented. Where a policy proves impractical or impossible, an applicant may apply to amend the plan. A policy statement(s) containing "should" is an advisory statement and indicates the preferred objective, policy and/or implementation strategy. If the "should" statement is not followed because it is impractical or impossible, the intent of the policy may be met through other agreed-upon means.



1.5 MONITORING

Policies, text, and mapping information contained within this document may be amended from time to time, by Council approval, in order to respond to, and remain current with, planning and development issues and trends affecting suburban development.

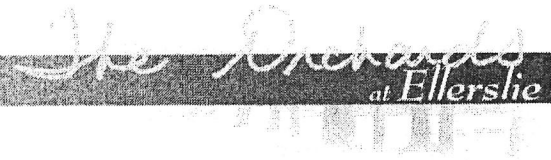
1.6 AMENDMENTS

Amendments to the Orchards NSP document involving policies, text or mapping shall be completed in accordance with the Municipal Government Act, the Ellerslie Area Structure Plan (ASP), and all other applicable bylaws, policies and procedures.

1.7 ORIENTATION

This document contains three sections and three appendices.

- Section 1 provides administrative information and an orientation to the plan.
- Section 2 describes the location of the Orchards NSP.
- Section 3 describes the land use, transportation, and servicing concepts for the Orchards NSP.
- Appendix 1 contains background information on the site such as land ownership, topography, and existing land uses.
- Appendix 2 contains information on the broader policy context to which the NSP complies.
- Appendix 3 contains a listing of technical studies prepared to support and guide the preparation of the development and servicing concepts.



2.0 NEIGHBOURHOOD CONTEXT

2.1 LOCATION

The Orchards NSP is comprised of a number of parcels located within portions of the NE1/4 16-51-24-4, NW1/4 16-51-24-W4, NE1/4 15-51-24-W4, SE1/4 15-51-24-W4 and SW1/4 15-51-24-W4 in southeast Edmonton (see **Figure 1 - Location**). The NSP boundaries are defined by the following:

- **Northern Boundary** – 25 Avenue SW
- **Eastern Boundary** – Future realigned 66 Street
- **Western Boundary** – Future Ellerslie Industrial area
- **Southern Boundary** – 41 Avenue SW

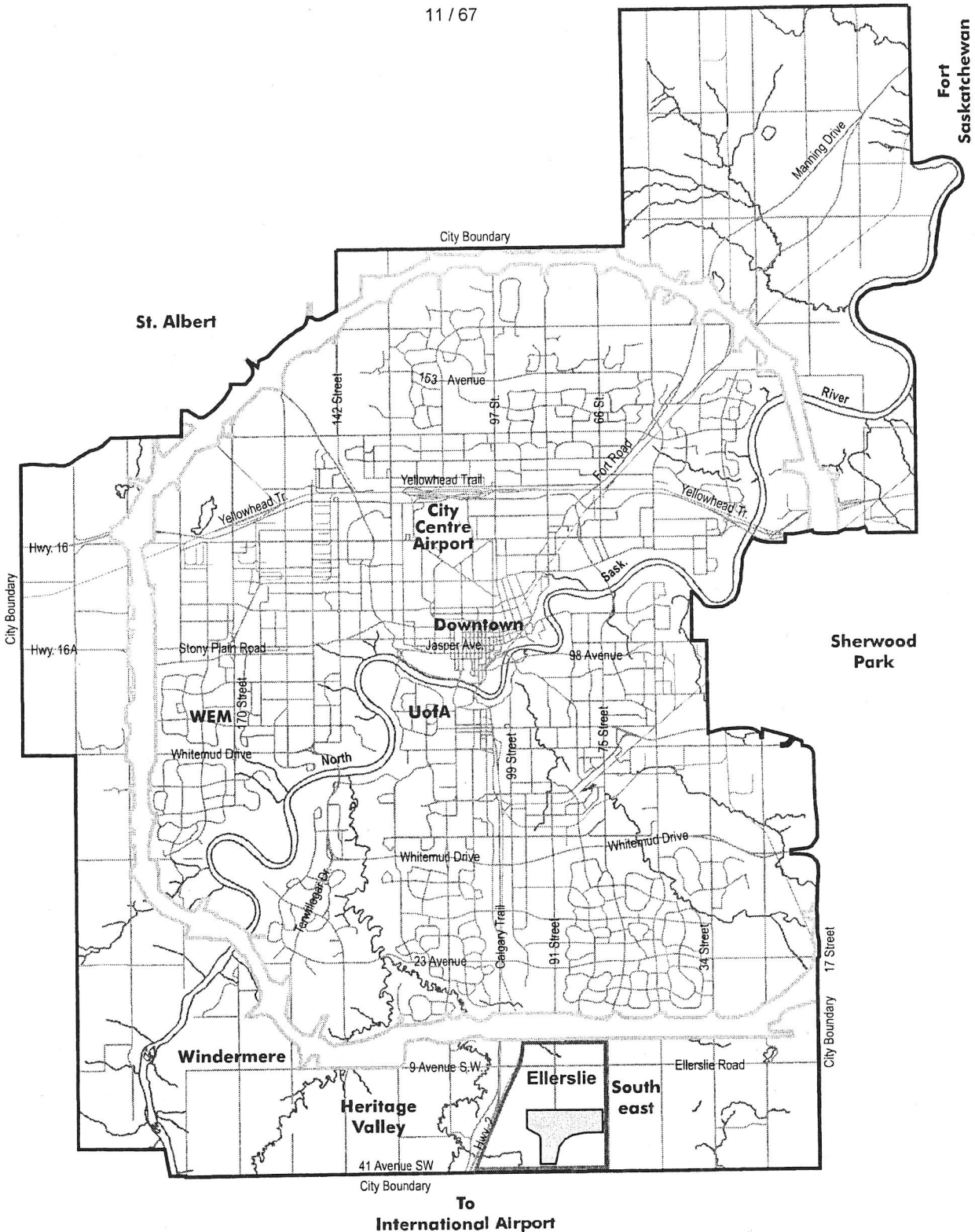
As shown in **Figure 2 – Context**, The Summerside Neighbourhood, the first approved neighbourhood in the Ellerslie ASP, lies directly to the north across 25 Avenue SW and is currently developing. To the east of 66 Street is the approved Southeast Neighbourhood ASP plan area. Southeast Neighbourhood Two has been recently approved by the Planning Department as the Walker NSP. The final neighbourhood (Neighbourhood Four) within the Ellerslie ASP is directly south and east of Neighbourhood Three. Directly to the west is the Industrial area approved in the Ellerslie ASP for future light, high-quality industrial development. 41 Avenue SW is the southern boundary of the Orchards and also represents the southern limit of the City.



2.2 BACKGROUND

The Orchards NSP was prepared in response to current and anticipated market demands in the Capital region as well as the aspirations of Carma Developers LP, majority landowner in the plan area. Further information regarding land ownership and site context is provided in **Appendix 1** (see **Table 2 - Land Ownership, Figure 11 – Land Ownership, Figure 12 - Site Contours, Figure 13 - Site Features and Figure 14 - Environmental Site Assessment Overview**).

This area is designated "Suburban Area" under the City of Edmonton Municipal Development Plan (MDP) (1998) providing a statutory framework for future development in order to accommodate population, housing, and economic growth in southeast Edmonton. The plan area encompasses approximately 250 hectares and is one of four neighbourhoods as identified under the Ellerslie Area Structure Plan (see **Figure 1 – Location Plan**).

The Orchards NSP has been guided by City of Edmonton statutory plans and policies including the Municipal Development Plan (MDP), Ellerslie Area Structure Plan (ASP), the Suburban Neighbourhood Design Principles (SNDP) and the Urban Parks Management Plan (UPMP). Conformance to these plans is detailed in **Appendix 2**.

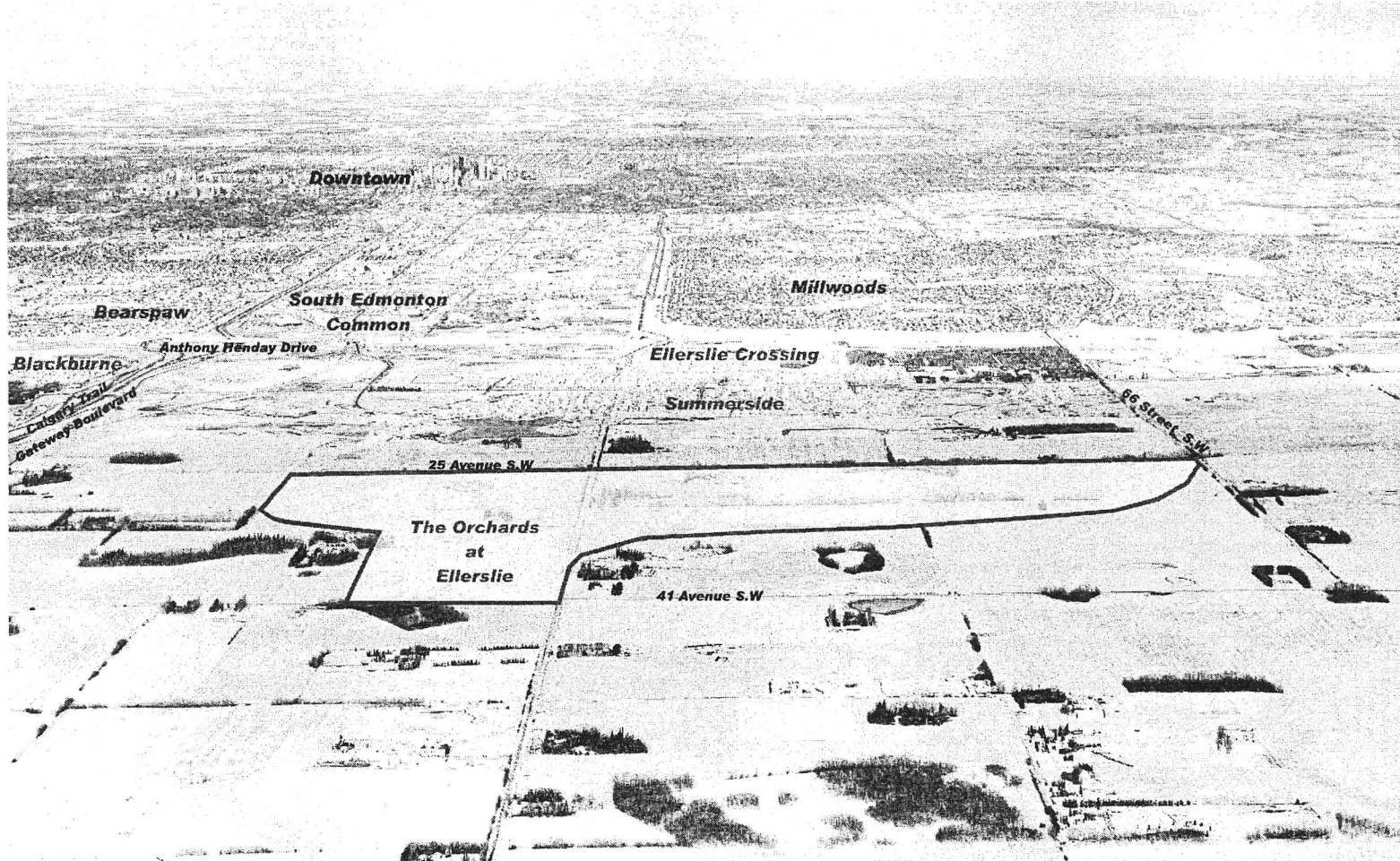


-  The Orchards at Ellerslie
-  Ellerslie ASP Boundary



at Ellerslie

Figure 1
Location Plan
Neighbourhood Structure Plan
November 2007



12 / 67



— The Orchards at Elferslie

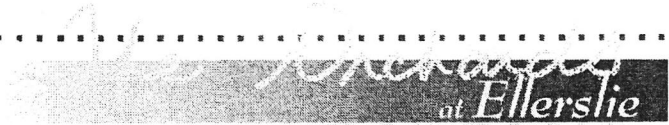


Figure 2 Context Plan

Neighbourhood Structure Plan
November 2007



3.0 LAND USE, TRANSPORTATION & SERVICING CONCEPT

3.1 VISION

The Orchards at Ellerslie Neighbourhood is a vibrant, healthy, residential Neighbourhood in southeast Edmonton. The Orchard offers a diverse mix of housing types, places to learn, places to play and relax, and a variety of transportation options. The Orchards Neighbourhood features distinct sub-areas, marked by their visual coherence and unique landscape design that are linked by visually themed pedestrian trails.

3.2 GOALS & OBJECTIVES

The land use concept, its goals, and objectives were established on the basis of the opportunities and constraints present in the Plan area and in conformance with applicable statutory requirements, City-level strategic policies, guidelines, and procedures (see **Appendix 2**). Where necessary, additional objectives, policies and (corresponding) implementation strategies are identified in the following land use sections to address specific issues and or development matters where appropriate.

Landscaping & Design

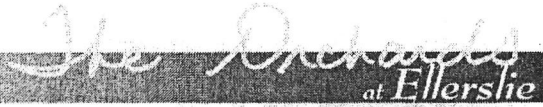
- To create unique identities for neighbourhood sub-areas while integrating each into the whole neighbourhood;
- To establish arboreal-themed neighbourhood clusters through landscape design, implemented and enforced by the developer through extensive design controls;
- To create landscaped, themed pedestrian walkways and multi-use trails connecting residential cells and neighbourhood amenities.

Urban Form

- To guide development of a compact, walkable neighbourhood;
- To ensure that implementation proceeds in an orderly, efficient, staged manner;
- To establish increased residential densities in support of neighbourhood intensification;
- To provide a range of low and medium density residential opportunities, attainable for a variety of income groups and household configurations;
- To ensure that land use is supportive of public transit, especially the location of higher density residential;
- To ensure that land uses are complimentary, and that transitional uses are used where necessary.

Circulation

- To ensure that pedestrian movement is a priority within a balanced transportation system;



- To promote alternative forms of transportation – pedestrian, bicycle, rollerblade, wheelchair, etc.;
- To provide public transit service within the plan area in accordance with City guidelines and demand;
- To establish internal roadway connectivity and discourage the development of 'exclusive' residential enclaves;
- To minimize traffic congestion on internal collector loops, and mitigate the impact of vehicle traffic associated with MDR and commercial areas.

Infrastructure

- To ensure that the Orchards NSP is serviced to a full urban standard and that servicing is provided in an efficient and logical manner.

Environmental Preservation and Enhancement

- To ensure that the environmental status of the lands within the Orchards NSP boundary is suitable for residential development;
- To ensure that Environmental Site Assessments are complete and up-to-date.
- To preserve and integrate natural areas into the plan area where sustainable and economically viable.

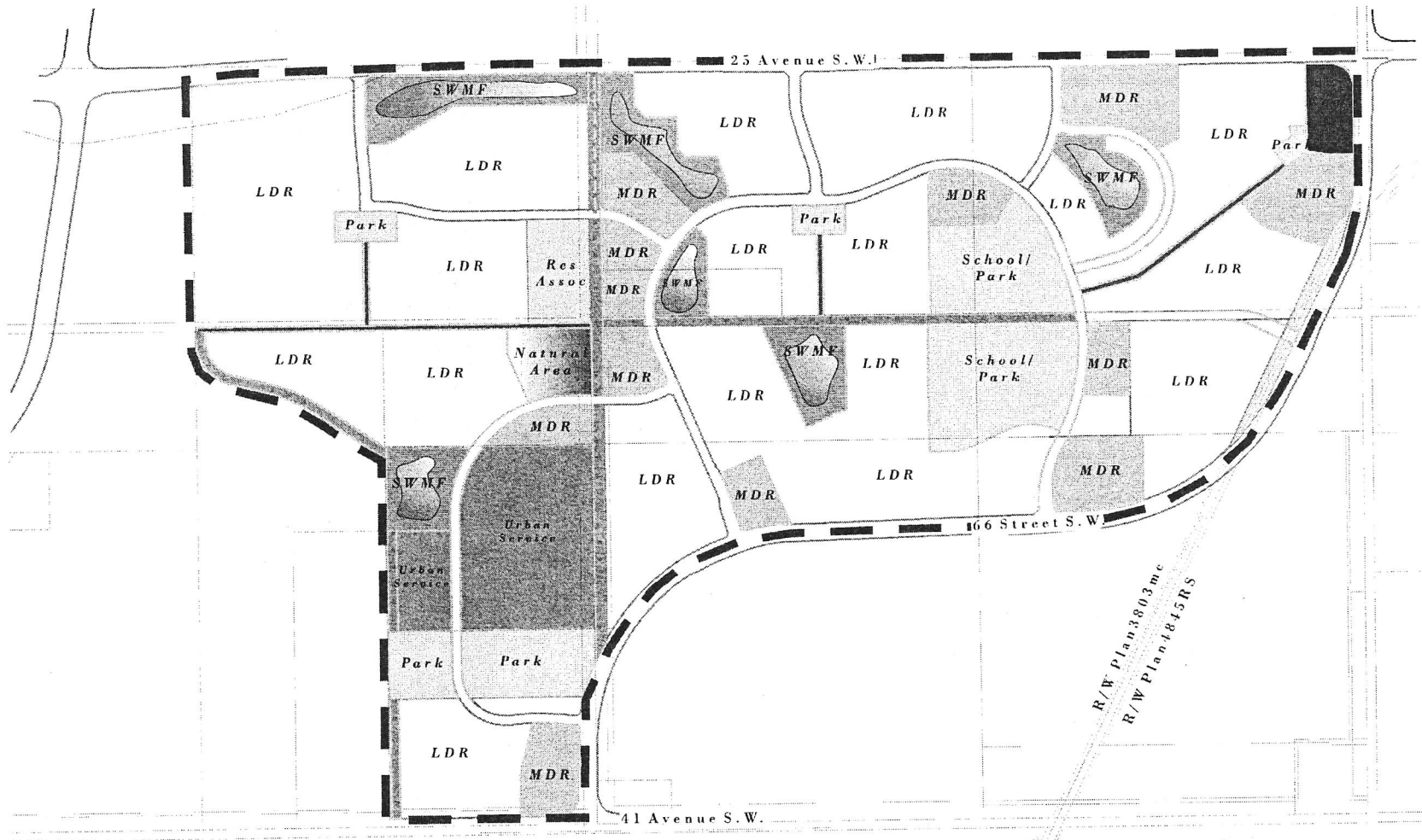
Parkland

- To provide a variety of neighbourhood parks and open spaces to support passive and active recreation and to promote wellness;
- To establish dispersed park spaces within the neighbourhood to provide access for all residents.













3.3 LAND USE CONCEPT

The lands within the Orchards Neighbourhood are intended for residential, commercial, and neighbourhood parks and open space development, as illustrated in **Figure 3 - Land Use Concept** and as described in **Table 1 - Land Use & Population Statistics**. The following section outlines the development concept for the NSP.

The NSP has been guided by principles of walkable communities and urban planning best practices outlined within the City of Edmonton's Smart Choices report. These principles encourage community connectivity, health, and vibrancy through the location and integration of compatible land uses. Analysis of these principles and an assessment of their implications helped shape the NSP with respect to the type, size, and location of various land uses. In addition, particular attention has been given to the landscape design of the neighbourhood.



15 / 67

- | | | | |
|---|--------------------------------|---|--|
|  | Low Density Residential |  | MR - Park/School |
|  | Medium Density Residential |  | Natural Area |
|  | Commercial |  | Multi-use Trail Corridor
(No M.R. Credit) |
|  | Stormwater Management Facility |  | Pedestrian Linkage
(Greenway M.R Credit) |
|  | Urban Service |  | NSP Boundary |
|  | Residents Association |  | Pipeline Corridor |



at *Ellerslie*

Figure 3
Land Use Concept
 Neighbourhood Structure Plan
 November 2007

The Orchards
at Ellerslie

Table 1 – Land Use & Population Statistics

LAND USE	Area (ha)	% of GDA	
Gross Area	249.83		
Major Arterials / Road ROW	10.42		
Utility/Pipeline Corridors	4.09		
Natural Area*	2.40		
30 Avenue S.W. Road ROW	1.96		
Gross Developable Area	230.96	100.0%	
Municipal Reserves**	22.45	9.7%	
School / Park		12.97	5.6%
Parkettes		1.85	0.8%
Greenways		1.88	0.8%
Lot R1, Plan 3186TR***		5.75	2.5%
Resident's Association	2.75	1.2%	
Community Commercial	1.85	0.8%	
Urban Services/Institutional	13.17	5.7%	
Transition Area****	1.92	0.8%	
SWMF/P.U.L	16.46	7.1%	
Circulation @ 15%	34.64	15.0%	
Total	93.24	40.4%	
Net Residential Area	137.72	59.6%	

RESIDENTIAL LAND USE, DWELLING UNIT COUNT AND POPULATION

Land Use	Area (ha)	Units/ha	Units	% of Total	People/Unit	Population
Low Density Residential	113.85	22	2,505	61%	3.45	8,641
Medium Density Residential	23.87	68.5	1,635	39%	2.87	4,693
Total	137.72		4,140	100%		13,334

Gross Developable Population Density:	57.7	persons per gross hectare
Net Population Density:	96.8	persons per net residential hectare
Net Residential Unit Density:	29.9	net residential units per hectare
LDR / MDR Ratio	61%	/ 39%

STUDENT GENERATION STATISTICS

Level	Public
Public Elementary	462
Public Junior High School	231
Public Senior High School	231
Total	924

Level	Separate
Separate Elementary	185
Separate Junior High School	92
Separate Senior High School	92
Total	370

* Natural Area to be dedicated as Environmental Reserve at time of subdivision.

** Areas provided as Municipal Reserve to be confirmed at time of subdivision and legal survey.

*** Excludes area to be provided as collector roadway.

**** To be provided as either non-credit Municipal Reserve or Road Right-of-Way, to be determined at time of subdivision.

3.3.1 URBAN DESIGN

The proposed development concept for the Orchards Neighbourhood has been planned with a greater emphasis on its landscape design, to provide for visual coherence and a sense of place. Relevant design principles are used to create a visually appealing, liveable neighbourhood. The Orchards at Ellerslie Neighbourhood is divided into a number of smaller clusters or sub-areas with a different flowering or colourful tree assigned to each cluster on the basis of landscape design controls (see **Figure 4 - Neighbourhood Concept**). Each area is also designed to include an open space component (park, stormwater management facility, greenway, multi-use trail, etc). The named tree species, areas, streets and walkways identified on **Figure 4 - Neighbourhood Concept** are for illustrative purposes only and may be adjusted for availability and suitability of species at the time of detailed subdivision and engineering design.

3.3.1.1 Use landscape design to create distinct areas within the neighbourhood and to provide visual coherence.	3.3.1.1a Each residential cell will include a park, SWMF, walkway or open space. Each multi-use trail will have a distinct landscape theme and will link parkland components.	3.3.1.1a Figure 3 - Land Use Concept will guide the location of parks, SWMFs, walkways, and open spaces at the zoning and subdivision stage.
3.3.1.2 To provide a transition between residential uses and future business industrial uses west of the neighbourhood.	3.3.1.2 A 20m wide strip of land will provide a transition between residential and future business industrial in appropriate locations along the western edge of the plan area.	3.3.1.2 <i>Figure 3 - Land Use Concept</i> illustrates conceptually the location of the transition areas separating residential and business industrial uses. The transition area shall be taken as either non-credit MR or as road right-of-way at the subdivision stage.
3.3.1.3 To develop SWMFs that are visually appealing and physically accessible to residents.	3.3.1.3 The SWMFs shall be designed using CPTED principles, accessible through public lands, and not land-locked by private development.	3.3.1.3 Figure 3 - Land Use Concept will guide the location, configuration and relative size SWMFs at the zoning and subdivision stage.

Rationale

Linkage Concept

The NSP proposes to create pedestrian walkways connecting residential cells and the different open spaces, thereby enhancing the pedestrian connectivity of the neighbourhood (See **Figure 5 - Collector Roads**). Each of the multi-use trails is planned to incorporate a distinct landscape theme, further creating and strengthening the sense of identity within this neighbourhood.



all-season interest

beauty

colour

seasonal

bird habitat

OHIO BUCKEYE



OHIO BUCKEYE



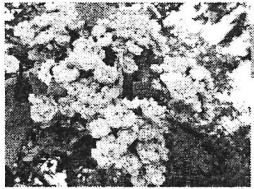
IVORY SILK JAPANESE TREE LILAC

SNOWBIRD HAWTHORN



HAWTHORN

TOBA HAWTHORN



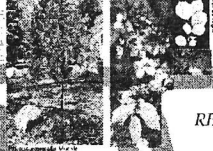
SNOWBIRD HAWTHORN



OHIO BUCKEYE

JAPANESE TREE LILAC

PLUM

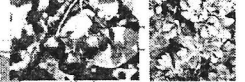


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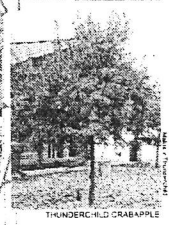
REDLEAF ROSYBLOOM CRABAPPLE

GREENLEAF ROSYBLOOM CRABAPPLE

ROSYBLOOM CRABAPPLE



THUNDERBOLD CRABAPPLE



THUNDERBOLD CRABAPPLE

SHUBERT CHOKECHERRY

AMUR CHERRY

SHOWY MOUNTAIN ASH

SHOWY MOUNTAIN ASH

TOBA HAWTHORN

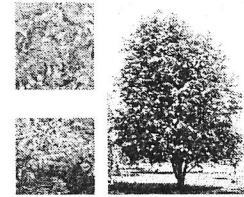
CHERRY



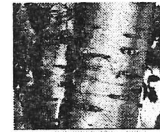
PIN CHERRY

18 / 67

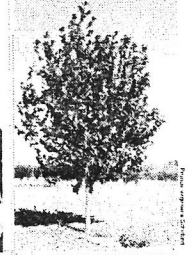
SNOWY MOUNTAIN ASH



SNOWY MOUNTAIN ASH



AMUR CHERRY



SCHUBERT CHOKECHERRY



Please note: named trees species, areas, streets and walkways are for illustrative purposes only and will be adjusted for availability and suitability of species at the time of detailed subdivision design.

at *Ellerslie*
Figure 4
Neighbourhood Concept
Neighbourhood Structure Plan
November 2007



Transitional Land Use Planning Principles

The Ellerslie ASP designates the lands directly to the west of this neighbourhood as part of the Ellerslie Industrial (Special Area). This designation is intended to accommodate a range of light industrial/industrial business and medium industrial uses, which may develop as a business-park environment or develop as larger, stand-alone entities as dictated by market demands. Special Area Ellerslie Industrial zones have been created to achieve the objectives of the Ellerslie ASP, prevent large-scale retail development and to retain the focus on industrial development.

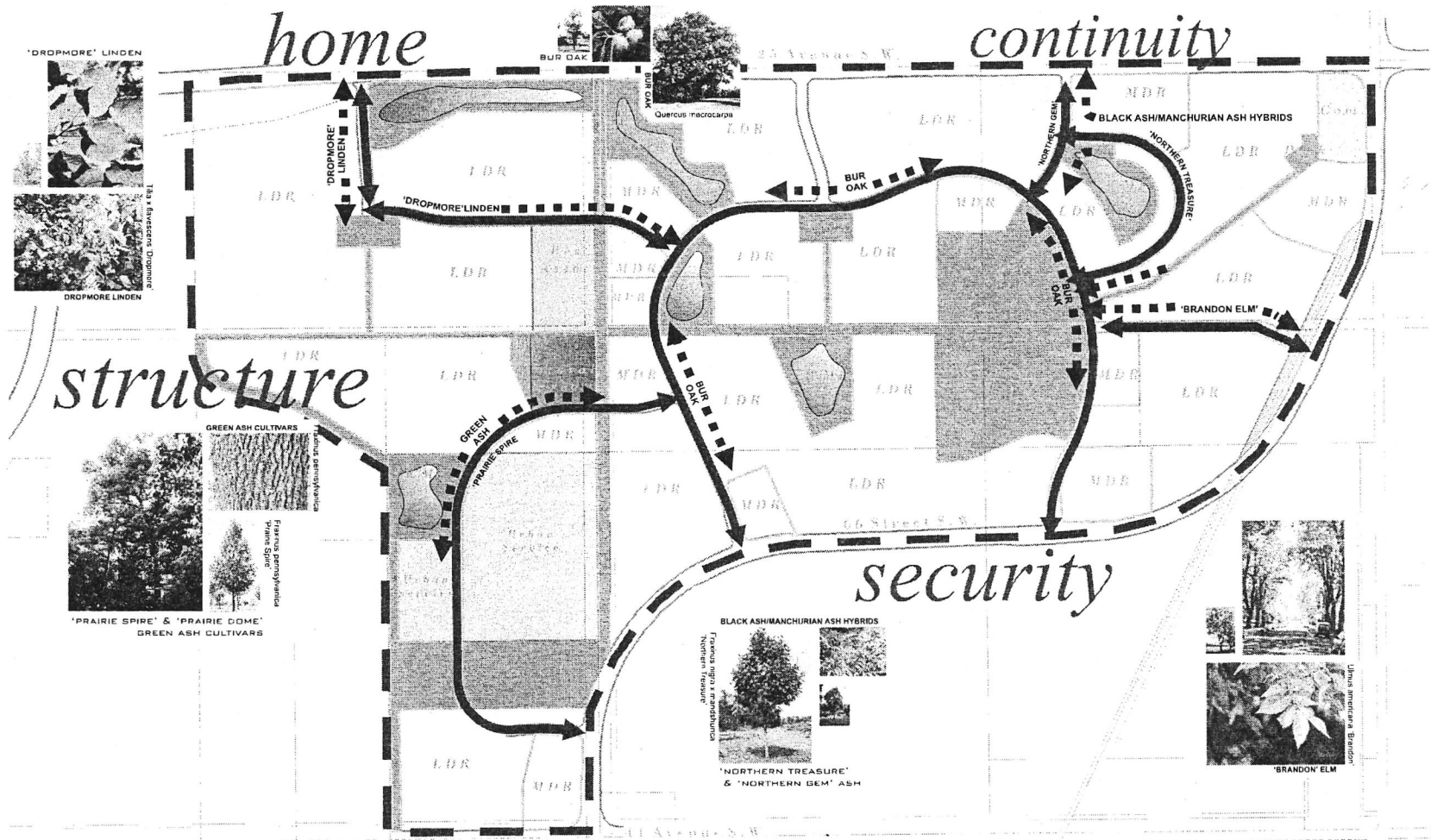
The presence of industrial uses along portions of the western boundary of the NSP requires special attention be paid to the method of interface and the application of transitional land use planning principles.

The north-western portion of the Orchards NSP does not require a land use interface between residential and the future commercial node and Senior High School site (uses currently identified in the ASP). These future land uses are compatible with residential development and as such do not require the provision of a transitional land use. In the future, should a High School not be developed in this location and light industrial/industrial business uses proposed instead, suitable land use transitioning, such as a linear corridor (i.e. with a minimum width of 20m) shall be provided for at time of development by the proponents of these business/industrial land uses.

In the south-western portion of the plan area, south of the 30 Avenue S.W. government road allowance and west of the 91 Street S.W. government road allowance a transition zone is required, as future business industrial are likely to develop in proximity to these lands and suitable transitioning and interface is required. Although the actual separation distance (or corridor width) provided within the transition zone may vary, it should have a minimum width of 20m. Landscaping, walkways, fencing and site design will be taken into consideration to aid the integration of the land uses. The transition area will be taken as either non-credit municipal reserve or as road right-of-way and will be maintained by the City of Edmonton.






Stormwater Management Facility Design

The location and design of the SWMFs provides vistas into the site from the abutting roadways, and thereby heightens resident awareness of these facilities. This will promote them as walking destinations, and enhance their surveillance to prevent crime. Stormwater management facilities will be designed to serve as a destination for pedestrians and cyclists and to provide passive recreation opportunities. These facilities will be constructed as naturalized wetlands, where possible, to provide potential wildlife habitat and improve water quality via their natural filtration systems. The design of the SWMFs will consider safety needs of the community, opportunities for passive recreation and development of pedestrian pathways, implemented based on the requirements of Asset Management and Public Works Parks and Drainage Branches.



20 / 67

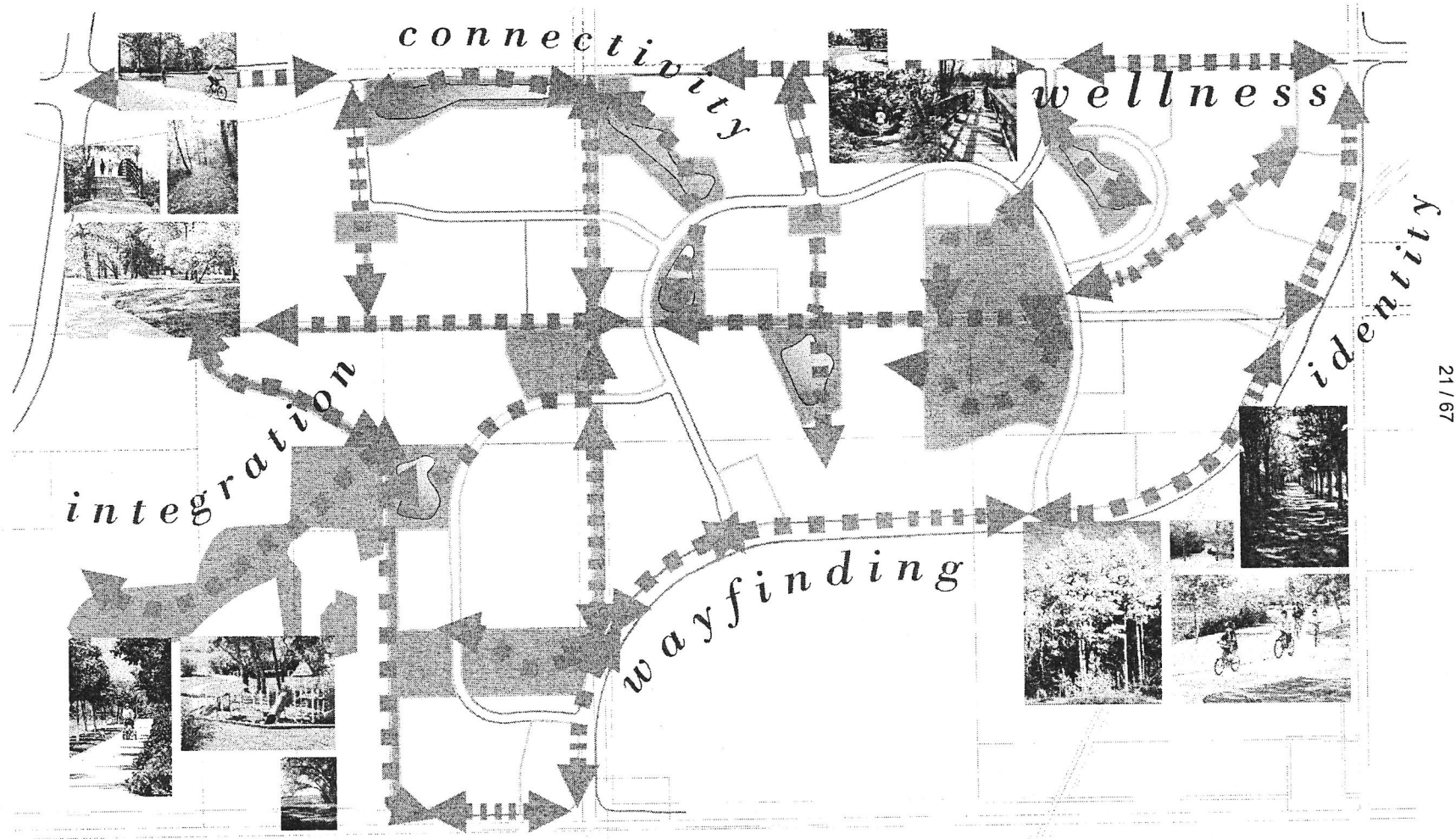


-  MR - Park/School, Greenway, Major Pedestrian Linkage Natural Area
-  Collector Roads
-  NSP Boundary
-  Residents Association
-  Pipeline Corridor

Please note: named trees species, areas, streets and walkways are for illustrative purposes only and will be adjusted for availability and suitability of species at the time of detailed subdivision design.

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Figure 5
Collector Roads
Neighbourhood Structure Plan
November 2007



21 / 67



Please note: named trees species, areas, streets and walkways are for illustrative purposes only and will be adjusted for availability and suitability of species at the time of detailed subdivision design.

Linkage Concept
at *Ellerslie*

Figure 6
Linkage Concept
Neighbourhood Structure Plan
November 2007



3.3.2 ECOLOGY

The Orchards NSP preserves and incorporates a remnant portion of the major Natural Area (wetland). The Natural Area is located in the western portion of the plan area and is approximately 2.4 ha (including buffer area).

<p>3.3.2.1 Protect and enhance the natural features of the community.</p>	<p>3.3.2.1 The wetland portion of the natural area will be protected from development and incorporated into the plan as Environmental Reserve (ER).</p>	<p>3.3.2.1 The natural area (wetland) will be dedicated to the City of Edmonton as ER as per the Municipal Government Act at the time of subdivision. The specific location and configuration of this area will be determined at the rezoning stage. A Natural Area Management Plan (NAMP) shall be completed prior to the rezoning of the titled area.</p>
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Rationale

The Natural Area located within the NSP has been significantly altered since it was inventoried in 1993. Most of the trees that comprised this portion of the Natural Area were cleared for agricultural purposes leaving behind a wetland area. This area has been deemed valuable and will be taken as Environmental Reserve (ER) at the subdivision stage.

Through the retention of the Natural Area the Orchards NSP addresses the City's Natural Area Systems policy that seeks to safeguard the City's natural capital and the associated ecological services.

Technical Summary

A portion of Southeast Woodland Natural Area (SE 5016), as identified by the City's Inventory of Environmentally Sensitive and Significant Natural Areas (Geowest, 1993), lies within the plan area. This portion of the natural area has been significantly altered from the original natural state by the current landowner who is not the proponent of this NSP. A Stage 1 Preliminary Natural Site Assessment, completed in 1998 by Bruce Thompson & Associates Inc., identified a significant portion of the 10.61 ha of land within the NSP as treed, with a large wetland area also present.

An updated Stage I Preliminary Natural Site Assessment for the subject site was conducted for Carma Developers LP by Stantec Consulting Ltd. in November 2006. The entire wooded area within the Orchards NSP boundary (~10.61 ha) was found to have been cleared - and only a small, sparse coniferous stand remained near the farmyard, along with a small wetland area in the southern portion of the property, with a shallow

The Richards
at *Ellerslie*

drainage course running northwards. The report concludes that if present conditions persisted and development pressures were limited, the wetland would likely remain similar to its present state for some time. However, continuance in the reduction of the wetland is very likely if restorative efforts are not implemented. As the wetland has been deemed valuable it will be integrated into the drainage plans for the NSP to ensure its sustainability in the future. The City of Edmonton's Office of Natural Areas requires that a Natural Area Management Plan (NAMP) be prepared that will show the integration of the wetland into the drainage plans (particularly for the design of the wetland outlet in order to mitigate the effects of development in the wetland hydroperiod).

The NAMP, among other criteria, should outline the typical or normal water level for the wetland, and allowable and desirable limits and frequencies for the fluctuation of the water level. Design of the wetland outlet, to be completed in conjunction with the Neighbourhood Design Report (NDR), will be based on the wetland hydroperiod criteria that should also be provided by or confirmed in the NAMP. The NAMP will be required prior to rezoning and subdivision of this parcel of land.

Approvals from Alberta Environment are required for any wetland drainage or filling regardless of wetland size or current water level conditions. At that time Alberta Environment will also determine whether or not wetland compensation will be required.



3.3.3 ENVIRONMENT

The City requires that Phase I Environmental Site Assessments (ESA) are submitted, reviewed, and endorsed prior to the rezoning stage of development.

<p>3.3.3.1</p> <p>Ensure that the environmental status of the lands within the neighbourhood boundary is suitable for residential development.</p>	<p>3.3.3.1a</p> <p>Determine the likelihood, types, and location of environmental concerns that may be present on the lands prior to rezoning.</p>	<p>3.3.3.1a</p> <p>ESAs and any follow-up will receive sign-off by the City administration prior to the rezoning stage of development.</p>
	<p>3.3.3.1b</p> <p>Where necessary, contaminated material shall be removed and disposed off in an environmentally sensitive manner, in accordance with Federal, Provincial, and Municipal regulations.</p>	<p>3.3.3.1b</p> <p>Site remediation, where necessary, shall be conducted prior to rezoning. An environmental site assessment report verifying the remediation shall be submitted for approval by the City administration prior to the rezoning of the subject lands.</p>
<p>3.3.3.2</p> <p>To ensure that Environmental Site Assessments are complete and up-to-date.</p>	<p>3.3.3.2</p> <p>ESA Phase I reports older than 1 year from the date of rezoning application shall be updated, and any Phase I report older than 5 years from the date of rezoning application shall be redone.</p>	<p>3.3.3.2</p> <p>Environmental Site Assessments will be submitted prior to rezoning.</p>

Rationale

Lands within the neighbourhood boundary will be suitable for development and their environmental status confirmed prior to rezoning. Those lands identified as contaminated must undergo remediation according to Federal, Provincial, and Municipal standards.

Technical Summary

Several Phase I Environmental Site Assessments (ESA) were submitted identified no environmental concerns for lands owned by a private corporate owner in support of the Orchards NSP.

Completed Phase I ESAs within various parcels are listed in **Appendix 2, Table 3 – Phase I Environmental Site Assessments.) Figure 14 – Environmental Site Assessments Overview** indicate the locations within the NSP area that have had a Phase 1 ESA completed. Any outstanding items identified by the ESAs shall be addressed prior to the rezoning of the subject areas, as per Implementation Strategy 3.3.3.2.



3.3.4 HISTORICAL RESOURCES

The City requires that Historical Resource Overview (HRO) are submitted, reviewed, and endorsed prior to the rezoning stage of development.

<p>3.3.4.1 To identify and protect items with historical significance, such as buildings and areas of cultural significance, in the Orchards NSP.</p>	<p>3.3.4.1 Review past and current activities within the NSP boundary to identify items of historical significance.</p>	<p>3.3.4.1 A Historical Resources Overview (HRO) for the Orchards was conducted prior to Plan adoption.</p>

Technical Summary

Preservation, conservation and integration of cultural, historical, and or archaeological resources is important to retaining local history and character that may also be of regional or provincial significance.

An HRO prepared and submitted by Stantec Consulting Ltd. was reviewed by Alberta Heritage Resource Management, and it has been determined that a Historical Resources Impact Assessment (HRIA) is not required for the Carma-held properties in the plan area. However, Pursuant to Section 31 of the *Historical Resources Act*, development proponents and their representatives are required to report the discovery of any archaeological, historic period or paleontological resources, which may be encountered during construction.



3.3.5 RESIDENTIAL

A range of low and medium density residential land uses are proposed for The Orchards at Ellerslie Neighbourhood. These land uses will be determined on the basis of market conditions and consumer preferences at the time of zoning approval and are identified on **Figure 3 – Land Use Concept**.

Approximately 114 hectares of the plan area is designated as Low Density Residential (LDR). LDR will allow for the development of single detached, semi-detached or duplex housing at an approximate density of 22 units per hectare.

Approximately 24 hectares of the plan area are designated as Medium Density Residential (MDR). MDR will allow for the development of either row housing, stacked row housing, or low-rise apartment housing at a blended density of approximately 68.5 units/ha. The maximum allowable height of buildings is dependant on the type of housing developed, with the overall maximum of 4 storeys for low rise apartment housing.

The Orchards at Ellerslie NSP proposes an overall residential density of approximately 96.8 persons per net residential hectare and 30.06 net residential units per hectare. The concentration of higher residential densities is essential in creating a compact, vibrant, and walkable community.

<p>3.3.5.1</p> <p>To locate medium density residential development with good access to, and in support of, public transit facilities.</p>	<p>3.3.5.1</p> <p>MDR parcels shall be located abutting collector roadways and transit routes.</p> <p>MDR development shall be located within walking distance of public transit facilities</p>	<p>3.3.5.1</p> <p><i>Figure 3 – Land Use Concept</i> will guide the MDR development to be located at the edge of the neighbourhood (abutting arterial roadways), at neighbourhood entrances, and along collector and arterial roadways (along possible transit routes).</p>
<p>3.3.5.2</p> <p>To establish affordable housing in the Orchards Neighbourhood.</p>	<p>3.3.5.2</p> <p>When the City has an approved policy for affordable housing, it shall apply to this bylaw.</p>	<p>3.3.5.2</p> <p>When adopted and if applicable, the City's affordable housing policy will be implemented.</p>

The Orchards
at Ellerslie

<p>3.3.5.3 Provide a variety of housing types in different forms to meet the needs of different age and income groups.</p>	<p>3.3.5.3 A variety of housing types will be supported to ensure a more inclusive neighbourhood.</p>	<p>3.3.5.3 <i>Figure 3 – Land Use Concept</i> will conceptually guide the application of land use zoning and development of different types of residential land uses.</p>
<p>3.3.5.4 Establish a 'Walkable Community'</p>	<p>3.3.5.4 Employ Walkable Community principles, including higher residential densities, mix of land uses, quality public space, and transit supportive design.</p>	<p>3.3.5.4 <i>Figure 3 – Land Use Concept</i> conceptually guides the development of residential and commercial land uses and the location of public spaces.</p>
<p>3.3.5.5 Establish increased residential densities in support of Neighbourhood intensification.</p>	<p>3.3.5.5 The Orchards NSP will exceed the approved Suburban Housing Mix ratio for new neighbourhood.</p>	<p>3.3.5.5 Figure 3.0 – Land Use Concept will guide the application of future land use zoning and residential densities.</p>
<p>3.3.5.6 Establish a separation distance between Low Density Residential lots and the power line corridor</p>	<p>3.3.5.6 Low Density Residential lots shall back onto rather than flank onto the power line corridor.</p>	<p>3.3.5.6 The Subdivision Officer will ensure that lots back onto not flank onto the power line corridor.</p>
<p>3.3.5.7 Establish a separation distance between Medium Density Residential lots and the power line corridor.</p>	<p>3.3.5.7 Medium Density Residential lots will be designed and developed to maximize the separation distance between the power line corridor and habitable buildings.</p>	<p>3.3.5.7 The Subdivision Officer and the Development Officer will have regard for lot and site design, ensuring that the separation distance between the power line corridor and buildings is maximized.</p>

Rationale

Low Density Residential (LDR)



LDR development has been located within the NSP to provide a good balance of housing choices within the community. Within the neighbourhood and its sub-areas, opportunities are provided for low density development that is well-served by pedestrian linkages with access to internal greenways, multi-use trail corridors, neighbourhood parks, open spaces, natural areas, and commercial amenities and services. Opportunities to

The Orchards at Ellerslie

incorporate different types of low density housing are provided within the plan area — they may include single detached, semi-detached or duplex housing - and are likely to be developed under the RSL, RPL and/or RF4 zones of the Edmonton Zoning Bylaw.

Local neighbourhood image and identity is promoted through carefully planned clusters or cells that establish residential sub-areas, with a distinct character, within the NSP. Emphasis on the development of safe, comfortable, and efficient pedestrian connections and focal points within the neighbourhood will enhance place making opportunities and establish a unique sense of place. Landscape design guidelines will be employed by the developer within residential areas to ensure that prominent focal points, entrances, streetscapes, and pedestrian nodes are visually pleasing.

Medium Density Residential (MDR)



demands.

The Orchards at Ellerslie NSP provides opportunities for the development of a variety of medium density housing forms. This designation will allow for the development of row housing, stacked row housing, or low-rise apartment housing at a blended density of approximately 68.5 units per hectare and a maximum allowable height of 4 storeys. The type of development and associated density pursued in each particular circumstance will depend on future market

As shown in **Figure 3 – Land Use Concept**, MDR sites have been located within the plan area in consideration of principles of a “Walkable Community”. These principles support higher residential densities, a balanced mix of land uses, quality public spaces, and a built form that supports public transit. Accordingly, the MDR sites have been strategically located adjacent to, or within easy walking distance of, future transit routes (arterial and collector roadways), and neighbourhood parks/open spaces, Natural Area, and commercial retail amenities and are linked together by Greenways/multi-use trail corridors and walkways connections.

Parcels of MDR have been designed and configured in relation to key focal points, transportation, greenways and multi-use trail corridors. The MDR sites have been located adjacent to major arterials (i.e. 25 Avenue SW, 41 Avenue SW, 66 Street) and collector roadways.

The MDR parcels have been located in a balanced manner across the geographic area of the NSP. The NSP proposes five MDR sites in the eastern portion of plan area. The sites are located at the periphery of the neighbourhood, along 25 Avenue SW or 66 Street and along the internal collector roadway system. Their location at the periphery of the plan area will create an identifiable entrance for the community. These multifamily sites are within short walking distance to the commercial site, School/Park site, and SWMF. In the central portion of the plan area, three MDR parcels are proposed at the intersection of the east-west and north-south multi-use trail corridors. They are located within easy walking distance to the environmental reserve land and the adjacent SWMF's. In addition, these parcels benefit from direct access to the collector roadways. One MDR site is located at the intersection of collector roadway and 66 Street S.W. in the south-



central portion of the plan area. Lastly, an MDR site is proposed along the southern boundary of the neighbourhood, along 41 Avenue SW.

A majority of the MDR parcels are likely to be developed on a self-contained basis. These MDR sites will permit higher densities, provide for a variety of housing choices, and help establish an identifiable built form that will create identifiable entrance points and provide a sense of place to the community. Because of the different types of housing forms allowed under this designation, the MDR parcels will allow for the development of transitional land uses between less compatible MDR uses and low density residential areas. For example, street-oriented townhouses serve as an excellent transitional land use and help create pedestrian oriented streetscape through sensitive landscape design. In this way, it also creates an environment where an appropriate hierarchy of residential densities and building typologies can be created. All of these MDR sites will benefit from excellent access from 25 Avenue SW, 66 Street SW and collector roadways.

Medium density residential areas are likely to be developed under the RF5, RF6 and/or RA7 zones of the Edmonton Zoning Bylaw. A blended density of approximately 68.5 units per hectare has been used for the purposes of calculating the overall number of MDR units within the plan area. The area, number of dwelling units and population attributed to MDR development is shown in **Table 1 – Land Use & Population Statistics**. The LDR / MDR housing mix ratio proposed by the NSP is approximately 61% LDR / 39% MDR.

Suburban Housing Mix Ratio

The approved suburban housing mix ratio for new neighbourhoods in the City of Edmonton recommends the provision of 65% to 85% low density residential development and 15% to 35% medium density residential development. The Orchards NSP exceeds this ratio by proposing 61% low density residential development and 39% medium density residential development in support of suburban intensification strategies. The proposed densities follow recent Council direction to establish higher residential densities, which optimizes the use of land and results in a better use of municipal infrastructure and facilities. It also supports the use of transit, innovative design, and helps manage the constant demand for housing in the City's growing suburban neighbourhoods.



3.3.6 COMMERCIAL

The Orchards at Ellerslie NSP designates one commercial use site, with an approximate area of 1.85 ha, in the northeast corner of the plan area, at the intersection of 66 Street S.W. and 25 Avenue SW. It is set within an attractive and pedestrian-oriented residential environment as shown in **Figure 3 – Land Use Concept**. Commercial uses will be developed as follows:

<p>3.3.6.1</p> <p>Provide high visibility and convenient access – for pedestrians as well as vehicles.</p>	<p>3.3.6.1</p> <p>Locate commercial site adjacent to arterial and/or collector roadways to maximize visibility and access.</p> <p>Provide pedestrian linkages to commercial site.</p>	<p>3.3.6.1</p> <p>Figure 3 – Land Use Concept identifies the commercial site located at the corner of 66 Street and 25 Avenue SW, and accessed via a greenway to park site and central multi-use trail corridor.</p>
<p>3.3.6.2</p> <p>To minimize the impact of commercial development on adjacent land uses.</p>	<p>3.3.6.2 a</p> <p>Activity areas associated with commercial development shall be oriented towards the abutting roadway(s) and away from the residential land uses.</p>	<p>3.3.6.2 a</p> <p>The Development Officer will have regard for building placement and activity areas in assessing and conditioning development applications for commercial development under the CNC zone.</p>
	<p>3.3.6.2 b</p> <p>The separation distance between residential development and abutting commercial development shall be maximized through site orientation.</p>	<p>3.3.6.2 b</p> <p>The Subdivision Officer will have regard for orienting the lots such that they back onto commercial development.</p>

Rationale

The Orchards NSP proposes one commercial site, approximately 1.85 ha in size, in the northeast portion of the plan area, at the intersection of 66 Street and 25 Avenue SW. Such a location will provide excellent visibility and access to commercial services at the periphery of the neighbourhood, and minimize traffic cutting through residential areas. This site is connected directly to a dispersed park site, the east-west greenway, providing connectivity to the central east-west multi-use trail corridor (30 Avenue S.W. road right-of-way) and provides an enhanced pedestrian link to the remainder of the community. Access to the commercial site will be accommodated by a joint all-directional access with the MDR site (located approximately 200m south of 25 Avenue S.W.).

This commercial site is intended to serve consumers from the neighbourhood, as well as the surrounding Ellerslie area. This site will be developed under provisions of the Neighbourhood Convenience Commercial Zone (CNC) of the Edmonton Zoning Bylaw.



3.3.7 URBAN SERVICES/INSTITUTIONAL USES

The Orchards NSP designates a 13.17 ha site for Urban Services. The parcel is located along the western boundary of the plan area, adjacent to an existing municipal reserve parcel (Lot R1, Plan 3186TR). The US designation will guide development of Institutional (i.e. church facility) uses along with MDR uses associated with this type of facility. The Urban Services designation will help promote a vibrant, healthy, and life-long residence within the neighbourhood. It will also allow for the development of other ancillary facilities and services that support the primary Institutional land use. The potential uses include:

- Assisted Living Facility
- Hospice Facility
- Child / Adult Day Care Facility
- Education

<p>3.3.7.1 Accommodate existing ownership and allow for future development of urban services/institutional uses.</p>	<p>3.3.7.1 Urban Services will allow for institutional uses and ancillary facility and services.</p>	<p>3.3.7.1 <i>Figure 3 – Land Use Concept</i> show the conceptual placement of US land uses in the southwestern portion of the plan area</p>

Rationale

The land designated for Urban Services is meant to accommodate the existing ownership and future land use desires/aspirations of a local community religious organization. The lands location adjacent to a collector roadway ensures that appropriate traffic dispersion and transitions are provided. During the stage of subdivision or development permit, the Urban Services lands is to be developed with full urban services and all applicable Permanent Area Contributions (PAC) and Arterial Roadway Assessments (ARA) will have to be paid.

3.3.8 PARKS & OPEN SPACE

An integrated open space system is proposed for the Orchards neighbourhood as shown in **Figure 7 – Pedestrian Network**. This system includes: two School/Community Parks, a Resident’s Association site, a Natural Area, three Pocket (dispersed) Parks, one Urban Village park (existing Lot R1, Plan 3186TR), Greenways/multi-use trail corridors, six stormwater management facilities (SWMF), and several walkways serving as minor pedestrian connections. Overall the NSP proposes approximately 22.45 ha of park space as Municipal Reserve (MR), which constitutes approximately 9.7 percent of the Gross Developable Area (GDA).













<p>3.3.8.1</p> <p>Provide a variety of parkland and open spaces to support passive and active recreation, and promote wellness.</p>	<p>3.3.8.1a</p> <p>Municipal Reserves (MR) owing for The Orchards neighbourhood shall be dedicated in full as land, money-in-lieu, or an acceptable combination thereof.</p>	<p>3.3.8.1a</p> <p>The parks and open spaces conceptually identified in <i>Figure 3 – Land Use Concept</i> will be dedicated to the City of Edmonton as Municipal Reserve (MR) at the time of subdivision.</p>
<p>3.3.8.2</p> <p>Establish dispersed park spaces within the neighbourhood, to provide opportunities for passive and active recreation for residents.</p>	<p>3.3.8.2</p> <p>Neighbourhood parks and open spaces will be evenly distributed throughout the neighbourhood. Every housing unit within the NSP boundary will be within a 500 m walking distance of a park.</p>	<p>3.3.8.2</p> <p><i>Figure 3 – Land Use Concept</i> and <i>Figure 7 – Pedestrian Network</i> will conceptually guide future application of neighbourhood parks and open spaces. Parks will be identified and dedicated to the City at the time of subdivision.</p>
<p>3.3.8.3</p> <p>Provide sites for schools and community facilities within the neighbourhood.</p>	<p>3.3.8.3a</p> <p>Provide Municipal Reserve sites for schools and community league facilities.</p>	<p>3.3.8.3a</p> <p><i>Figure 3 – Land Use Concept</i> conceptually shows the location of the two School and Community park sites</p>
	<p>3.3.8.3b</p> <p>Provide a site suitable for an Orchards Neighbourhood Resident’s Association facility.</p>	<p>3.3.8.3b</p> <p><i>Figure 3 – Land Use Concept</i> conceptually shows the location of the Orchards Neighbourhood Resident’s Association site.</p>

Rationale

According to the 2004 Alberta Recreation Survey, ‘walking’ was ranked as the favourite recreation activity by Albertans. Bicycling and running/jogging were also among the 10 most frequently reported activities. The neighbourhood parks and open space system within The Orchards Neighbourhood provides ample opportunities for these activities through the provision of different types of neighbourhood parks.



33 / 67

- | | | | |
|---|--------------------------------|---|---|
|  | Low Density Residential |  | MR - Park/School |
|  | Medium Density Residential |  | Natural Area |
|  | Commercial |  | Major Pedestrian Linkage (No M.R. Credit)
(Includes 3m wide Multi-use Trail) |
|  | Stormwater Management Facility |  | Neighbourhood Pedestrian Linkage/Greenway (M.R. Credit)
(Includes 3m wide Multi-use Trail) |
|  | Urban Service |  | NSP Boundary |
|  | Residents Association |  | Pipeline Corridor |



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Figure 7
Pedestrian Network
Neighbourhood Structure Plan
November 2007

School and Community Parks

The NSP identifies two School and Community Park sites in The Orchards Neighbourhood, situated on a joint site (separated by the un-developed 30 Avenue S.W. right-of-way) and located in the east-central portion of the neighbourhood. The northern site is planned to accommodate a Separate K-9 school and associated sports fields, and is approximately 5.68 ha in size. The southern site will accommodate a Public Elementary/Junior High (K-8) and is approximately 7.30 ha in size. As a joint site, the combined area could also accommodate a community league building, with associated uses such as sports fields, parking lot, ice rink, and/or a tennis court, which are still to be determined. Both the school sites, because of their significant size and location – bordering collector roadways – will serve as major gathering places for the community and provide opportunities for passive and active recreation. This will contribute towards creating community identity and a sense of place. The joint sites' central location, adjacent to collector roadways, also ensures adequate automobile and transit accessibility to the sites.

Natural Area

An area of approximately 2.40 ha of the southeast Woodland Natural Area (SE 5016) located in the western portion of the plan area (Lot A, Plan 2056NY). The natural area is addressed in Section 3.3.2 of this document.

Pocket Parks

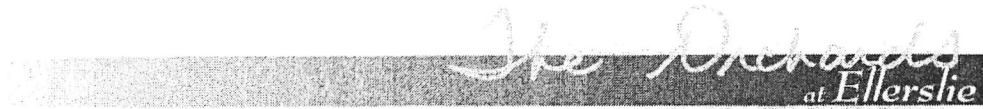
The NSP proposes three Pocket Parks distributed in a balanced manner across the geographic area of the neighbourhood. One park, approximately 0.82 ha in size, is located in the western portion of the plan area. Another, approximately 0.68 ha in size, is located in the central portion of the plan area. The third is located in the eastern portion of the plan area and is approximately 0.35 ha in size. The Pocket Parks are intended to provide the residents with a park within easy walking distance from their home. These parks also tend to enhance land values of nearby properties and generate higher property taxes.

Pocket Parks, generally smaller, are intended to provide passive and unprogrammed active recreation opportunities to the community. Pocket Parks in the Orchards will be accessible from collector or local roadways, and Greenways/multi-use trail corridors.

Greenways



The NSP proposes a series of north/south and east-west Greenways (i.e. linear, public open spaces) that will be developed as part of the pedestrian linkage system. Three of the greenways will intersect with the former 30th Avenue SW road right-of-way, which will be developed as a part of the multi-use trail pedestrian network. The Greenways will be 10-15 m wide, and accommodate a 3 m wide paved multi-use trail. In addition to the paved



trail, greenways will include grassed or naturalized planting, park furniture (e.g. benches, garbage receptacles), trees and shrub beds, and directional and interpretive signage. The greenways will account for 0.5 % of the total GDA of the Ellerslie ASP as stated in the UPMP.

In addition, the NSP provides additional multi-use trail corridors that enhance the overall walkability of the neighbourhood (see **Figure 7 - Pedestrian Network**). The north/south utility corridor (from 25 Avenue S.W. to the re-aligned 66 Street S.W.) and that portion of the east/west 30 Avenue S.W. road right-of-way east of 91 Street S.W. will be developed as multi-use trail corridors. Additionally, the transition area adjacent to the western boundary will accommodate a multi-use trail, providing an alternative route around the neighbourhood.

Collectively, these corridors help establish an integrated open space system for the Orchards by establishing intra-neighbourhood pedestrian links between various focal points such as the School and Community Park sites, Resident's Association, environmental reserve, Urban Village park, Pocket Parks, SWMFs, MDR sites, and the Commercial site. The Greenways also establish inter-neighbourhood pedestrian connectivity by establishing linkages with Summerside Neighbourhood to the north and the southeast Natural Area in the adjacent industrial area.

Urban Village Park

The majority of the existing municipal reserve parcel (Lot R1, Plan 3186TR) consisting of approximately 5.75 ha in the south-west portion of the plan area will be retained as the location of a future Urban Village Park. A small portion of the reserve land will be required for the collector roadway and should be disposed of by City Council as required. Overall, this site may feature sports fields, serve as a gathering place for neighbourhood residents, and provide opportunities for passive and active recreation.

Given the alignment of the proposed collector roadway in the southwest corner of the plan area, the reserve parcel has been separated into two parts. As development continues within the neighbourhood, the City of Edmonton may consider the disposition of the reserve land west of the collector, and acquire other suitable land (i.e. via land-swap or other viable alternatives) for reserve either within the Orchards plan area or Ellerslie Neighbourhood Four to the south, which will provide additional open space opportunities.

The Orchards Neighbourhood Resident's Association

A site for a Resident's Association is proposed within the north-west portion of the plan area as an amenity for the residential area. This facility may include a building and site development catering to the recreational needs (i.e. ice skating, tennis, spray park, playground) and administrative needs (i.e. meeting rooms, offices) of the residents of the community. Details and locations of uses within the parcel are to be determined at the time of rezoning, subdivision or development permit.

The Archways
at Ellerslie

Walkways

A number of walkways are proposed in the plan area, which serve as minor pedestrian connections. These walkways will primarily consist of 1.5 m concrete sidewalks and will enhance pedestrian connectivity in the LDR areas by establishing pedestrian connections to open spaces. The exact location of these connections will be determined at the subdivision stage.

3.4 TRANSPORTATION

To meet the objectives of a balanced transportation system, the Orchards NSP is designed to support a liveable environment that is more conducive to walking, cycling and transit use. Pedestrian movement throughout the neighbourhood is accommodated within the greenways, multi-use trail corridors, walkways and sidewalks along local and collector roadways. Transit use is promoted by locating all residential uses within 400m of a transit route as well as establishing higher density uses along collector roadways and/or adjacent to arterial roadways. As shown in **Figure 8 – Transportation Network**, the network consists of a system of arterial, collector and local roadways and walkways to accommodate the movement of automobiles, trucks, transit, bicycles and pedestrians.

A hierarchy of roads will provide the necessary interconnections appropriate to efficiently and effectively accommodate traffic flows at the arterial, collector and local roadway levels. The basic transportation network has been designed to meet both the internal and external traffic flow requirements generated by the neighbourhood, in accordance with City of Edmonton guidelines and standards.

The 91 Street Government Road Allowance (between 25 Avenue S.W. and 41 Avenue S.W.) and the undeveloped 30 Avenue S.W. Government Road Allowance (east of 91 Street) are designated to be closed and incorporated into the plan area, where applicable, as either part of the developable land or as part of the multi-use trail system. Where possible, the collector roadway network will be accommodated within the existing Government Road Allowance. The former 30 Avenue S.W. Government Road Allowance west of 91 Street is currently titled to Carma Developers LP.

One-half of the privately titled parcel (formerly a portion of the 30 Avenue S.W. right-of-way), west of the 91 Street Government Road Allowance will be developed as a 10.0 m wide Greenway accommodating a 3 m wide paved multi-use trail. The balance will be incorporated as part of the residential uses to the north.

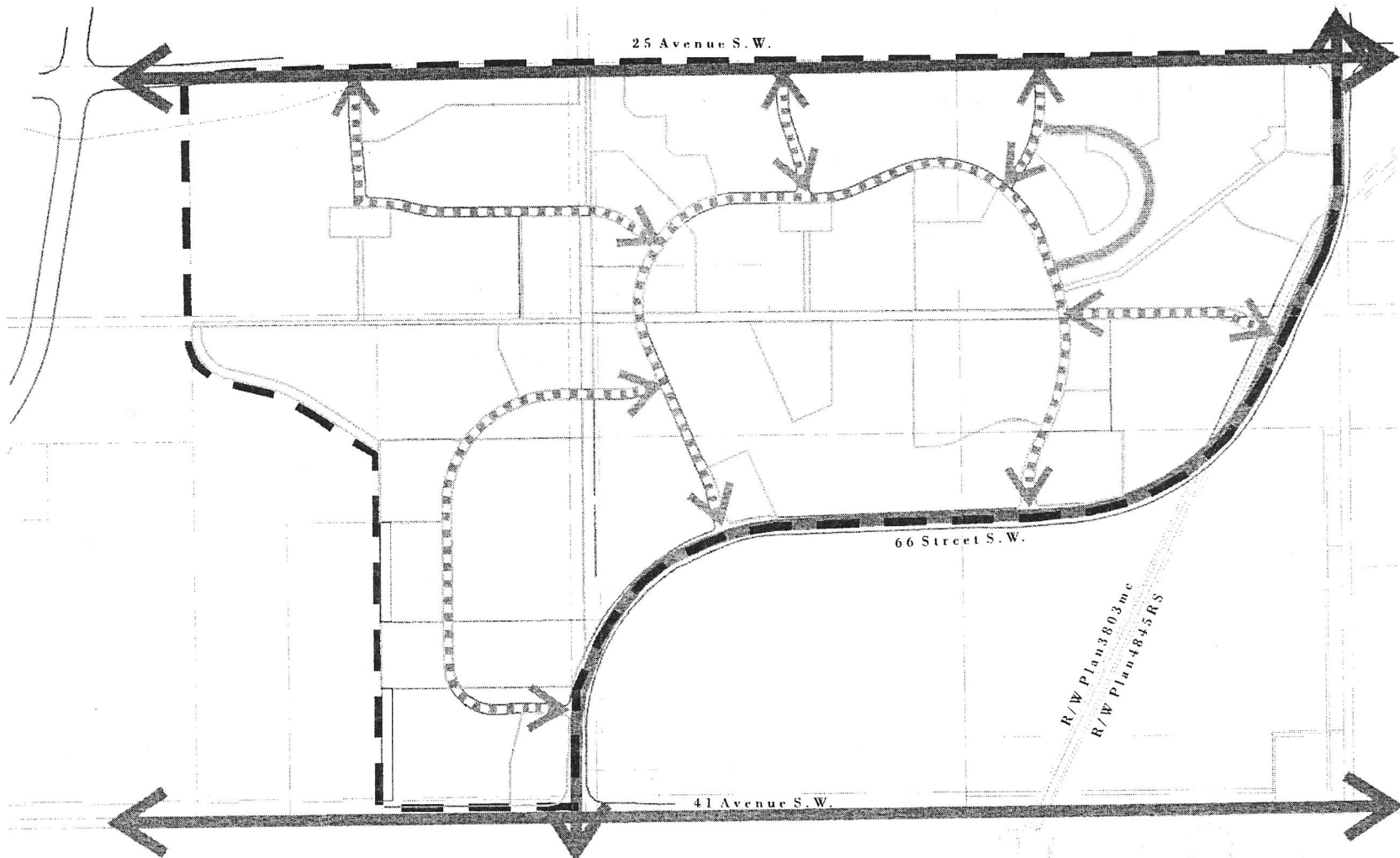
The east/west 30 Avenue SW right-of-way, as well as the privately titled parcel mentioned above, are heavily treed and where feasible and practical, the trees will be retained. The future alignment of the pedestrian walkway through the right-of-way will be designed to minimize any impacts on the trees.

Convenient and direct linkages between open space, residential, and commercial areas are provided. These linkages provide easy access for pedestrians and cyclists in addition to local connectivity options. Local streets will be interconnected, where possible, by walkway connections.

3.4.1 HIGHWAYS AND REGIONAL ROADWAYS






The Orchards Neighbourhood will enjoy a high level of accessibility to the Greater Edmonton Region by virtue of its proximity to the following existing/planned major regional roadways:

- Queen Elizabeth II Highway borders the Ellerslie ASP plan area to the west; and



38 / 67



-  Collector Roadway
-  Enhanced Local Roadway
-  Major Arterial
-  Arterial Roadway
-  NSP Boundary

at *Ellerslie*

Figure 8
 Transportation Network
 Neighbourhood Structure Plan
 November 2007



- The Southeast portion of Anthony Henday Drive situated to the north of the Ellerslie ASP plan area to the north.

The southeast portion of Anthony Henday Drive is scheduled for completion by 2007. The development of this facility, in addition to the Queen Elizabeth II Highway (Highway 2), provides this area with a high level of accessibility to the Greater Edmonton Region.

3.4.2 ARTERIAL ROADWAYS

Arterial roadways facilitate the movement of intra-municipal traffic and generally maintain limited direct access to adjacent land uses. Within the plan area, 66 Street S.W., Parsons Road, 25 Avenue S.W. and 41 Avenue S.W. are designated as arterial roadways, which will provide the Orchards Neighbourhood with major east-west and north-south access to the surrounding areas. These roadways provide the neighbourhood with access to the City and the greater metropolitan area. Appropriate spacing of intersections and access/egress requirements are respected along these arterial roadways. It is expected that 41 Avenue S.W. will be developed as a high standard arterial roadway with limited access.

3.4.3 ARTERIAL ROAD ASSESSMENT PROGRAM

Lands within the NSP will be subject to an Arterial Road Assessment (ARA) to cost-share the construction of arterial roadway facilities needed to service the area. In general terms, the ARA outlines the developer's responsibility for roadway construction within a catchment area and is based on the estimated costs of constructing arterial roads required for access to a catchment area. The configuration (number of lanes) and other specific criteria (e.g. channelization) required for access to the NSP are defined in detail by the associated Transportation Impact Assessment.

A roadway staging plan will be prepared as part of the review and approval process to service lands in this area of southeast Edmonton.

3.4.4 COLLECTOR ROADWAYS

Collector roadways serve to "collect" traffic from local roadways and facilitate it to arterial roadways, and also provide access to adjacent properties. Collector roadways are designed to accommodate two-lane traffic and on-street parking and will be designed to an appropriate width to accommodate projected traffic volumes as identified in the Traffic Impact Assessment completed in conjunction with the NSP.

A total of six collector roadway access facilities are planned for the Orchards. These include a major central collector connecting the residential sub-areas and the future Neighbourhood Four to the south. The overall alignment and design of the collector roadways will enable residential areas convenient access/egress within the neighbourhood as well as to 25 Avenue S.W., 41 Avenue S.W. and 66 Street S.W.

The collector roadways provide efficient and convenient access to residential areas, while preventing cut-through traffic in the neighbourhood, and enhance overall safety. This serves to further reinforce a local sense of place among residential sub-areas, reduce traffic volume and speeds, and establish a pedestrian-oriented streetscape (i.e. walkable

environment). Detailed designs for these roadways and surrounding neighbourhood intersections will be required upon submission of a subdivision plan covering this area.

3.4.5 LOCAL ROADWAYS

Local roadways provide access to adjacent land uses and maintain a limited role in the overall movement of traffic within the Orchards NSP. An enhanced local roadway, in the north-east corner of the NSP area, will direct traffic to the nearest collector connection. Although the enhanced local roadway will not accommodate transit service, it will be constructed within a 20m road right-of-way, providing adequate capacity to serve this area. Exact details will be confirmed at the detailed subdivision design stage.

3.4.6 NOISE ATTENUATION

Noise attenuation needs assessment for residential development adjacent to 25 Avenue S.W., 41 Avenue S.W. and 66 Street S.W. is required in accordance with the City's of Edmonton's Urban Traffic Noise Policy. This policy requires that the developer either proves that projected noise levels in the outdoor amenity area will not exceed 60 dBA, or construct any noise attenuation measures necessary to achieve this threshold.

Noise level evaluations will be carried out prior to subdivision application at the design phase of the project to verify that future noise levels meet the 60 dBA objective. If the evaluation confirms that the 60 dBA objective will be exceeded, noise attenuation will be provided at these locations by the developer.

3.4.7 MULTI-USE TRAIL CORRIDOR NETWORK

Greenways, multi-use trail corridors, walkways and pedestrian corridors will connect residents to the nearby neighbourhood focal points and amenities such as educational facilities and park/open spaces and commercial, as conceptually shown in **Figure 7 – Pedestrian Network**. These corridors and linkages will connect the residential cells located throughout the plan area and will be clearly marked and separated from vehicular traffic to ensure safety of pedestrians and cyclists. Additional pedestrian linkages will be made available along local and connector roadways to promote walkability and further enhance connectivity for active modes within the NSP area among residential, school/park and open space land uses.

Greenways and multi-use trail corridors will be a minimum of 10.0m in width, and will accommodate a 3m wide paved trail. The multi-use trail system will also be incorporated into the existing north-south power-line corridor, portions of the undeveloped 30 Avenue S.W. road right-of-way and the transition areas adjacent to the future industrial lands. The Greenways and multi-use trail corridors will be clearly marked with directional and interpretive signage and be separated from vehicular traffic to ensure pedestrian and cyclist safety.

Multi-use trails will also be provided within the Stormwater Management Facilities, as required, to promote walkability and further enhance pedestrian connectivity within the NSP area. Sidewalks shall be provided along all collector and arterial roadways in accordance with City policies and practices.



Bicycle circulation within The Orchards NSP is designed to follow collector and local roadways within the neighbourhood area. Where appropriate, bicycle routes will be integrated with pedestrian linkages / paths as multi-use trail corridors connecting internal and adjacent residential areas and amenities. Bicycle routes will be clearly marked by appropriate signage and markings in order to minimize conflicts between cyclists and pedestrians in the neighbourhood.

3.4.8 POWERLINE UTILITY CORRIDOR

The central powerline Utility Corridor provides a means of connecting the neighbourhood with direct north-south connections to the Summerside neighbourhood to the north (across 25 Avenue S.W.) and to 41 Avenue S.W, to the south. This corridor will be developed as a paved, 3.0m wide multi-use trail and will form an integral part in connecting the residents to the various amenities within and adjacent to the community. The future pedestrian crossing at 25 Avenue S.W. may require traffic signalization to ensure pedestrian safety.

3.4.9 TRANSIT SERVICE

The Orchards NSP has been designed to accommodate future public transit service along the collector and arterial roadway network. Transit service shall provide convenient service between neighbourhoods, commercial areas, and employment precincts. Transit service shall be routed to ensure that walking distances are within 400m for the majority of residents.

The transit system shall be extended into the development area in accordance with the City of Edmonton Transit System Guidelines as demand warrants. The Orchards neighbourhood will integrate transit service at key transportation nodes and focal points within the community in support of walkability. For example, the school/park lands and medium density uses are located along a transit route. The park spaces are also connected to the internal walkway system and greenway pedestrian trail, thus bringing transit, the higher intensity land uses and walkability options together.

A private corporate owner has committed to providing developer funded, peak-hour transit service within the neighbourhood for the first two years of service delivery, provided the cost is in keeping with the historic cost expectations for providing this service.

3.4.10 PARKING

Parking for vehicles will generally be provided off-street, in conjunction with residential and commercial development. Edmonton Zoning Bylaw parking requirements should be used as the basis for the development of appropriate off-street parking facilities.

3.4.11 TRUCK ROUTES

The arterial roadway that forms the southern boundary of the plan area, 41 Avenue SW, is designated as a 24 hour Truck Route. Consideration of land-uses adjacent to this Truck Route will be reviewed in greater detail by the Transportation Department. At a minimum, the City's Transportation Department will require a 1.0m berm and a 1.8m

The Richards
at *Ellerslie*

double board no gap solid uniform fence be incorporated in the development of the lots backing onto 41 Avenue. S.W, in accordance with the City's Urban Traffic Noise Policy.

3.4.1	3.4.1	3.4.1
Mitigate the impact of vehicle traffic associated with MDR development on LDR areas.	MDR parcels will be located to facilitate access from collector roadways and shall avoid taking access via local roadways fronted by LDR development, to the greatest extent possible.	The Subdivision Officer will ensure MDR developments are accessed via abutting collector roadways and avoid access via local roadway fronted by LDR development, to the greatest extent possible.
3.4.2	3.4.2	3.4.2
Minimize the traffic congestion and enhance safety on the internal collector roadway loop.	The number of residential lots fronting onto and having direct access to a collector road will be minimized according to the compact lot strategy.	The number of lots having direct access onto the collector loop will be determined at the rezoning and subdivision stage.
3.4.3	3.4.3	3.4.3
Establish internal roadway connectivity and discourage the development of "exclusive" residential enclaves.	Internal roadways will have ample vehicular and pedestrian connections and form accessible residential developments.	Subdivision design in residential settings will be determined prior to subdivision approval.
3.4.4	3.4.4	3.4.4
Avoid the development of long cul-de-sacs.	The maximum length of cul-de-sacs in residential settings will not compromise City emergency response plans, operations or maintenance.	The length of cul-de-sacs in residential settings will be determined prior to subdivision approval.
3.4.5	3.4.5	3.4.5
Provide public transit services within the plan area in accordance with City of Edmonton Transit System Guidelines and demands.	The design of the arterial and collector roadway system will provide sufficient infrastructure to support effective transit service within the neighbourhood and to external destinations.	Future transit routes will be established based on the proportion of trips to be generated from within the neighbourhood and adjacent areas.

3.4.6	3.4.6	3.4.6
<p>Promote alternate modes of transportation—pedestrian, bicycle, rollerblade, wheelchair—within the transportation network.</p> <p>Minimize walking distances by creating a pedestrian oriented interconnected street network and providing walkways where roadway connection is not feasible.</p>	<p>Pedestrian linkages will be provided through the MUT network comprising of the power-line corridor, portions of the 30 Avenue S.W. right-of-way, Multi-Use trails and Greenways.</p> <p>The SWM facilities and minor pedestrian connections will accommodate paved pedestrian trails.</p>	<p><i>Figure 7 – Pedestrian Network</i> will conceptually guide the future application of the Multi-Use trail network.</p>
3.4.7	3.4.7	3.4.7
<p>Promote pedestrian accessibility to parks, open spaces, and transit facilities.</p>	<p>Minor walkways should be provided to promote walkability and access to transit facilities.</p>	<p>The Subdivision Officer will have regard for the dedication of walkways to promote walkability and appropriate access to transit facilities.</p>
3.4.8	3.4.8	3.4.8
<p>Develop a comprehensive walkway and open space system.</p>	<p>Sidewalks, public utility lots and trails will connect destinations within the Neighbourhood.</p>	<p>The Subdivision Officer will ensure the provision of sidewalks, public utility lots and trails to connect Neighbourhood destinations.</p>
3.4.9	3.4.9	3.4.9
<p>Establish the spine of the central Multi-Use Trail system through the use of existing utility and road rights-of-way.</p>	<p>The existing utility and roadway rights-of-way will be incorporated as the spine of the central Multi-Use Trail (MUT) corridor.</p>	<p><i>Figure 7 – Pedestrian Network</i> will conceptually guide the future application of the Multi-Use trail network</p>
3.4.10	3.4.10	3.4.10
<p>Minimize walking distances within the Neighbourhood.</p>	<p>Walkways, greenways, trails and linkages will form a pedestrian network and walkways shall be provided where roadway connections are not feasible.</p>	<p><i>Figure 7 – Pedestrian Network</i> will conceptually guide the development of the pedestrian network and the Subdivision Officer will ensure that walkways are provided at roadway connections.</p>

Rationale

Vehicle Circulation

The Orchards NSP provides a balanced transportation system within the plan area that mitigates associated land use traffic, minimizes potential use conflicts and internal roadway congestion.

Connectivity

Neighbourhood connectivity contributes to the development of a compact, integrated community with a balanced transportation network. Neighbourhoods that have a high degree of connectivity encourage residents to walk to places, reduce the number of trips made by vehicles and promote health and neighbour interaction. Connectivity is characterized by a logical network for movement that links destinations, provides accesses and is integrated with its environment.

Pedestrian Circulation

The NSP should support a walkable community. This includes the provision of alternative transportation modes that support a range of users and user abilities accessing focal points, amenities and services within the neighbourhood.

Dedication of Minor Walkways

While all local and collector roadways will include a sidewalk, there may be situations where the pattern of roadways will not facilitate a direct route to an amenity space or a transit facility. In this circumstance, the NSP dedicates minor walkways (i.e. 1.5 m concrete walks) to ensure walkability and appropriate access to transit facilities.

Greenways / Multi-Use Trail Corridors

Greenways and Multi-Use Trail Corridors establish part of the larger pedestrian network in a neighbourhood, provide for a range of modes / users, and will be included in the Orchards NSP in support of a more walkable community.

Technical Summary

The transportation network for the NSP will be provided in accordance with the requirements of the City of Edmonton's Transportation Department. A Transportation Impact Assessment (TIA) was prepared by Bunt and Associates and provides details and recommendations regarding the traffic of the NSP area.

3.5 INFRASTRUCTURE SERVICING & STAGING

The Orchards at Ellerslie NSP will be a fully serviced neighbourhood designed and constructed in accordance with City servicing standards.

3.5.1 SANITARY DRAINAGE

As illustrated on **Figure 9 – Servicing**, the on-site sanitary network will follow the internal roadway alignments and associated public utility lots. An interim pump will move sewage from within the plan area to the northwest, eventually connecting to the South Edmonton Sanitary Sewer (SESS) lift station location at Ellerslie Road and Parsons Road. Additional details regarding the sanitary drainage schemes are provided in the associated Neighbourhood Design Report, to be submitted under separate cover.

3.5.2 STORMWATER DRAINAGE

Six stormwater management facilities are located within the NSP (see **Figure 9 – Servicing**). Stormwater facilities serve two purposes; the primary purpose is to accommodate stormwater drainage within the neighbourhood and the secondary purpose is to provide a visual amenity feature for the neighbourhood. The SWMFs have been situated on a "best fit" basis relative to the natural drainage patterns and on the basis of being a desirable amenity feature relative to the surrounding uses.

The two SWMFs located in the northwestern part of the NSP area have been located in relation to 25 Avenue SW, a multi-use trail corridor, and adjacent low density residential land uses. The configuration of these stormwater facilities will provide an adequate separation between the low density residential land uses and 25 Avenue SW.

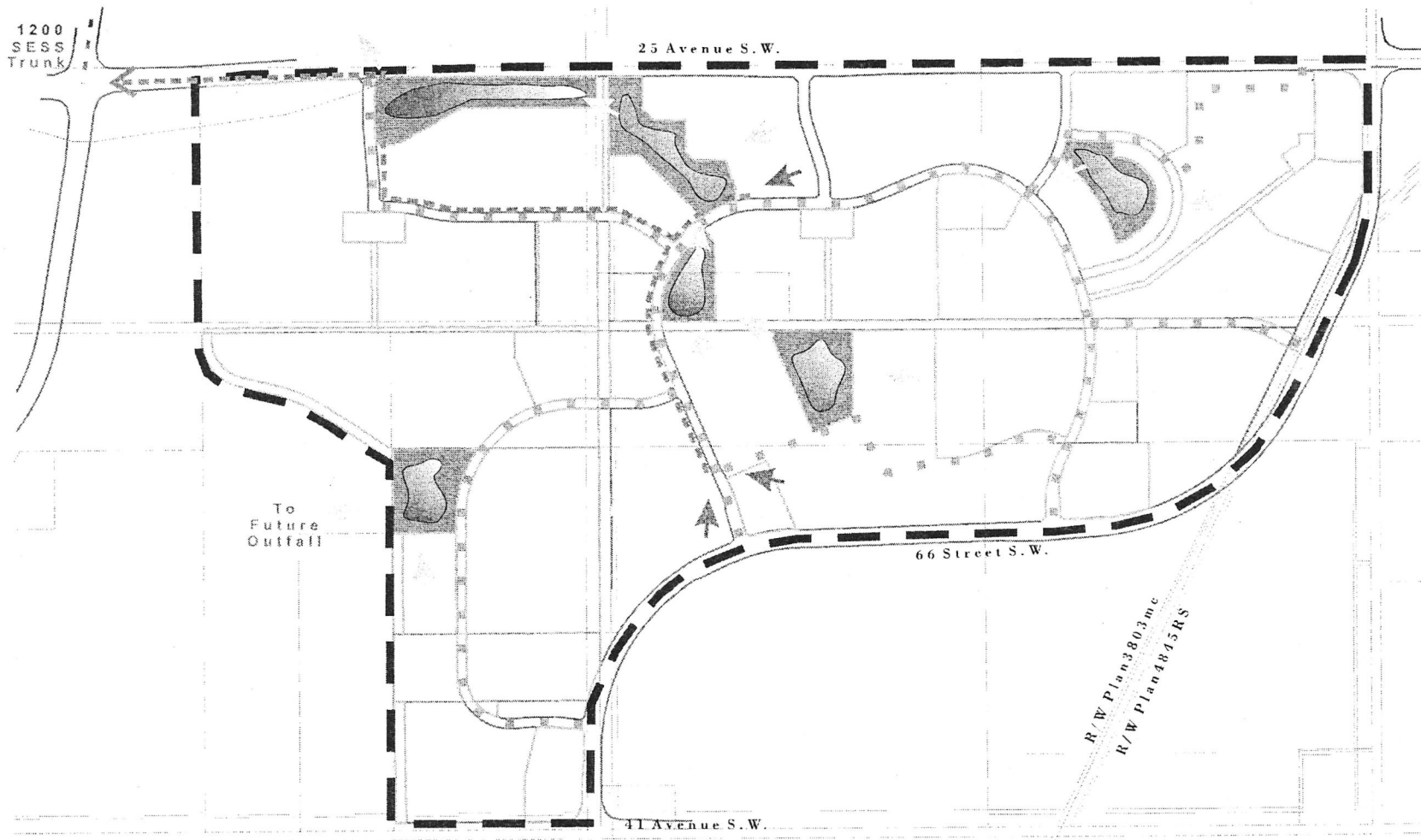
A third stormwater management facility is situated in the northeastern portion of the NSP, south of 25 Avenue SW. The location of the SWMF adjacent to the Medium density site and the collector provides a transition to the LDR and an amenity for the MDR site.

The fourth and fifth SWMFs are situated in the central part of the NSP. These ponds are located immediately north and south of the 30 Avenue S.W. multi-use trail, which is part of the integrated pedestrian network within the neighbourhood. In addition, both SWMFs are situated close to the intersection of a number of pedestrian linkages.

The sixth SWMF is located in the southwestern part of the NSP. This facility is flanked by Urban Services uses and will serve as an additional amenity feature for the neighbourhood.

Pedestrian connectivity between, through and around the SWMF will be dictated by the detailed design and configuration of the individual facilities at the rezoning and/or subdivision stage.

Stormwater will be conveyed using a system of interconnecting pipes directed towards the storm outfall and ultimately discharged to Blackmud Creek. Further details regarding the stormwater drainage schemes for the NSP are provided in the aforementioned Neighbourhood Design Report.



46/67



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|--|----------------------------|--|--------------------------------|
| | Sanitary Trunk | | Stormwater Management Facility |
| | Watermain | | NSP Boundary |
| | Sanitary Points of Service | | |
| | Stormwater Flow Direction | | |

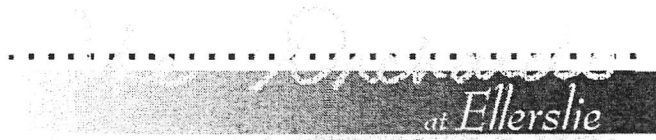


Figure 9
 Servicing
 Neighbourhood Structure Plan
 November 2007

3.5.3 WATER DISTRIBUTION

Water service will be provided via a future water main from the western portion of the adjacent Summerside neighbourhood on the north side of 25 Avenue SW, as shown on **Figure 9 – Servicing**. Water servicing will be designed to provide peak hour flows and fire flows for residential and commercial uses. Water looping will be provided in accordance with the requirements of EPCOR.

A Water Network Analysis has been submitted to EPCOR under separate cover for review and approval.

3.5.4 SHALLOW UTILITIES

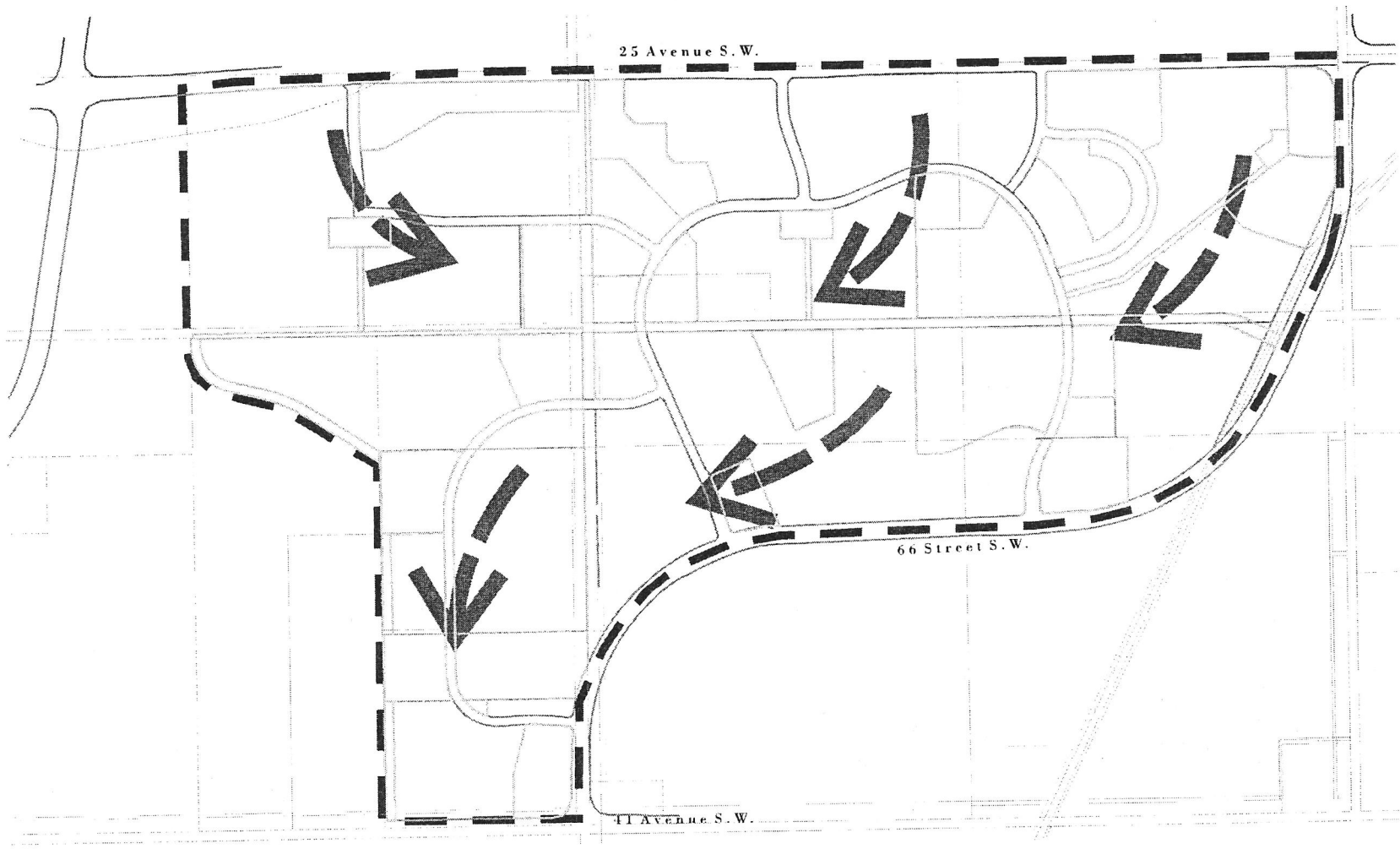
Power, gas and telecommunication services are located within proximity to the NSP area, and will be provided by the respective utility operators concurrently with development.

3.5.5 DEVELOPMENT STAGING



Development of the Orchards Neighbourhood represents a logical and contiguous extension of the residential land use patterns currently established in the Summerside Neighbourhood NSP. The development is expected to initiate in accordance with market demands in southeast section of Edmonton.

Transportation infrastructure to service the initial stages of the NSP will be extended into the neighbourhood from 91 Street, along 25 Avenue S.W. and 66 Street S.W. Stormwater servicing will have an outfall to Blackmud Creek ravine. Water infrastructure and servicing will use existing infrastructure and be extended from Summerside. Existing sanitary infrastructure will be utilized and expanded as part of the Ellerslie Area Master Plan. As shown on **Figure 10 - Staging**, the initial stages of development are intended to begin in the northwest portion of the NSP.

Depending on contemporary market demands and aspirations of the respective landowners, development of individual phases may vary from other phased areas (including their application(s) to rezone and/or subdivide lands). As well, portions of separate phases may be developed concurrently if there is sufficient demand and/or if the engineering design is made more efficiently as a result. As required, an appropriate staging plan will be prepared as part of the review and approval process to service lands in this area of southeast Edmonton.



48 / 67

-  General Direction of Development
-  NSP Boundary



at *Ellerslie*

Figure 10
Staging
Neighbourhood Structure Plan
November 2007

<p>3.5.5.1</p> <p>To ensure that the Orchards Neighbourhood is serviced to a full urban standard and servicing is provided in an efficient and logical manner.</p>	<p>3.5.5.1</p> <p>Sanitary and stormwater servicing will be provided in accordance with the approved Neighbourhood Design Report (NDR) for the NSP.</p> <p>Water servicing to the NSP area will be provided in accordance with the approved Water Network Analysis (WNA).</p> <p>Shallow utilities will be extended into the plan area as required.</p>	<p>3.5.5.1</p> <p>Approval of engineering drawings and servicing agreements will be required for installation of sanitary and stormwater servicing.</p> <p>Approval of engineering drawings and servicing agreements will be required for installation of water servicing.</p> <p>Installation of shallow utilities will be executed through servicing agreements.</p>
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Rationale

The Orchards NSP will be designed in accordance with City of Edmonton servicing standards. Development staging and extension of infrastructure will be contiguous, efficient, and economical while having regard for potential environmental and ecological impacts.

Technical Summary

Details regarding stormwater drainage and sanitary service schemes for the NSP are provided in the associated Neighbourhood Designs Report (NDR) submitted under separate cover.

Water looping will be provided in accordance with the requirements of EPCOR Water Services Inc. A Water Network Analysis has been submitted under separate cover for review and approval from EPCOR.



4.0 APPENDICES

4.1 APPENDIX I – SITE CONTEXT

4.1.1 LAND OWNERSHIP

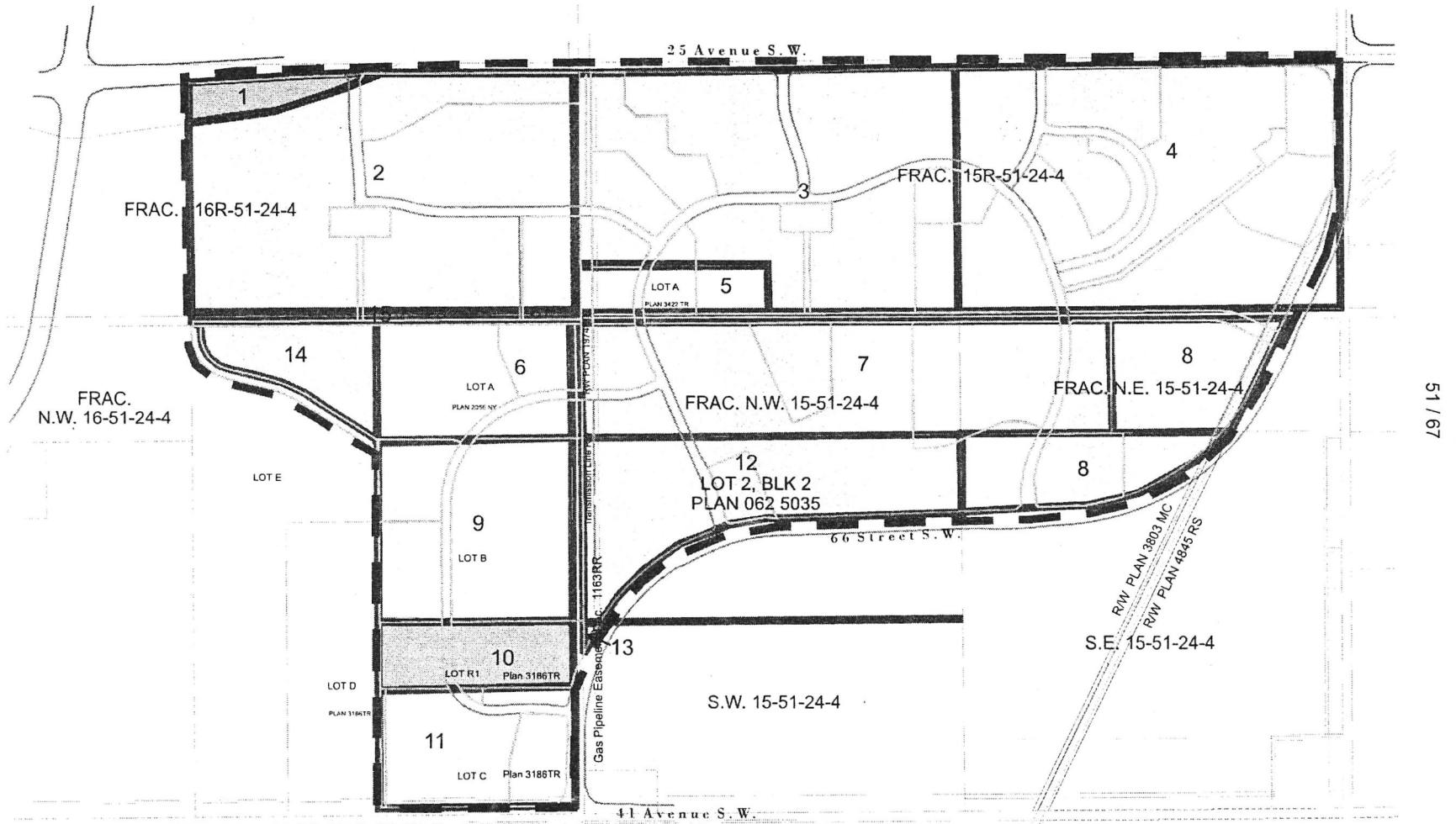
The Orchards NSP was prepared on behalf of a private corporation, owner of approximately 173 hectares (71%) of the land within the plan area. The remaining lands are held by a number of other owners. Current (2007) land ownership is described in **Table 2** below and shown in **Figure 10 – Land Ownership**.





Table 2 – Land Ownership

1	Her Majesty the Queen in Right of Alberta	Block E Plan 872 1140
2	Private Corporate Owners	Part of the NE ¼ Sec. 16-51-24-4
3	Private Corporate Owners	Part of the NW ¼ Sec. 15R-51-24-4
4	Private Corporate Owners	N. Part of the NE ¼ Sec. 15R-51-24-4
5	Private Non-Corporate Owners	Lot A Plan 3422TR
6	Private Non-Corporate Owners	Lot A Plan 2056NY
7	Private Corporate Owners	Part of the NW, NE ¼ Sec. 15-51-24-4
8	Private Corporate Owners	Part of the NE, SE ¼ Sec. 15-51-24-4
9	Private Non-Corporate Owners	Lot B Plan 2310TR
10	City of Edmonton	Lot R-1 Plan 3186TR
11	Private Non-Corporate Owners	Lot C Plan 3186TR
12	Private Corporate Owners	Lot 2, Block 2, Plan 062 5035
13	Private Corporate Owners	Part of SW ¼ Sec. 15-51-24-4
14	Private Corporate Owners	Lot E, Plan 3186TR
15	Private Corporate Owners	OT; N1/2 Sec. 16-51-24-4

Non-participating Landowners

As part of the approval process described under Section 636 of the *Municipal Government Act*, adjacent landowners will receive mailed notification letters for future public consultations held by City of Edmonton's Planning and Development Department. During these consultations landowners will have an opportunity to review and comment



-  Private Corporate Ownership
-  Private NonCorporate Ownership
-  Public/ Government Ownership
-  NSP Boundary



at **Ellerslie**

Figure 11
Land Ownership
Neighbourhood Structure Plan
November 2007

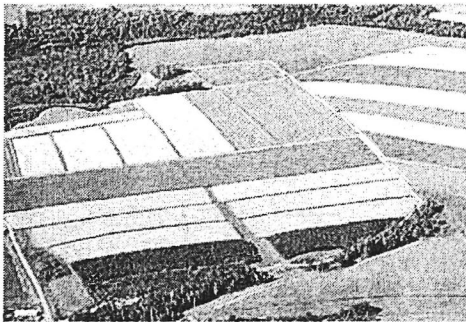
The Richards
at Ellerslie

on the NSP. Additionally, the proponent of the plan (a private corporation) has directly contacted each of the landowners within the plan area to discuss the proposed NSP. Landowners will also be notified of the Public Hearing and be able to provide either written or verbal comments to Council.

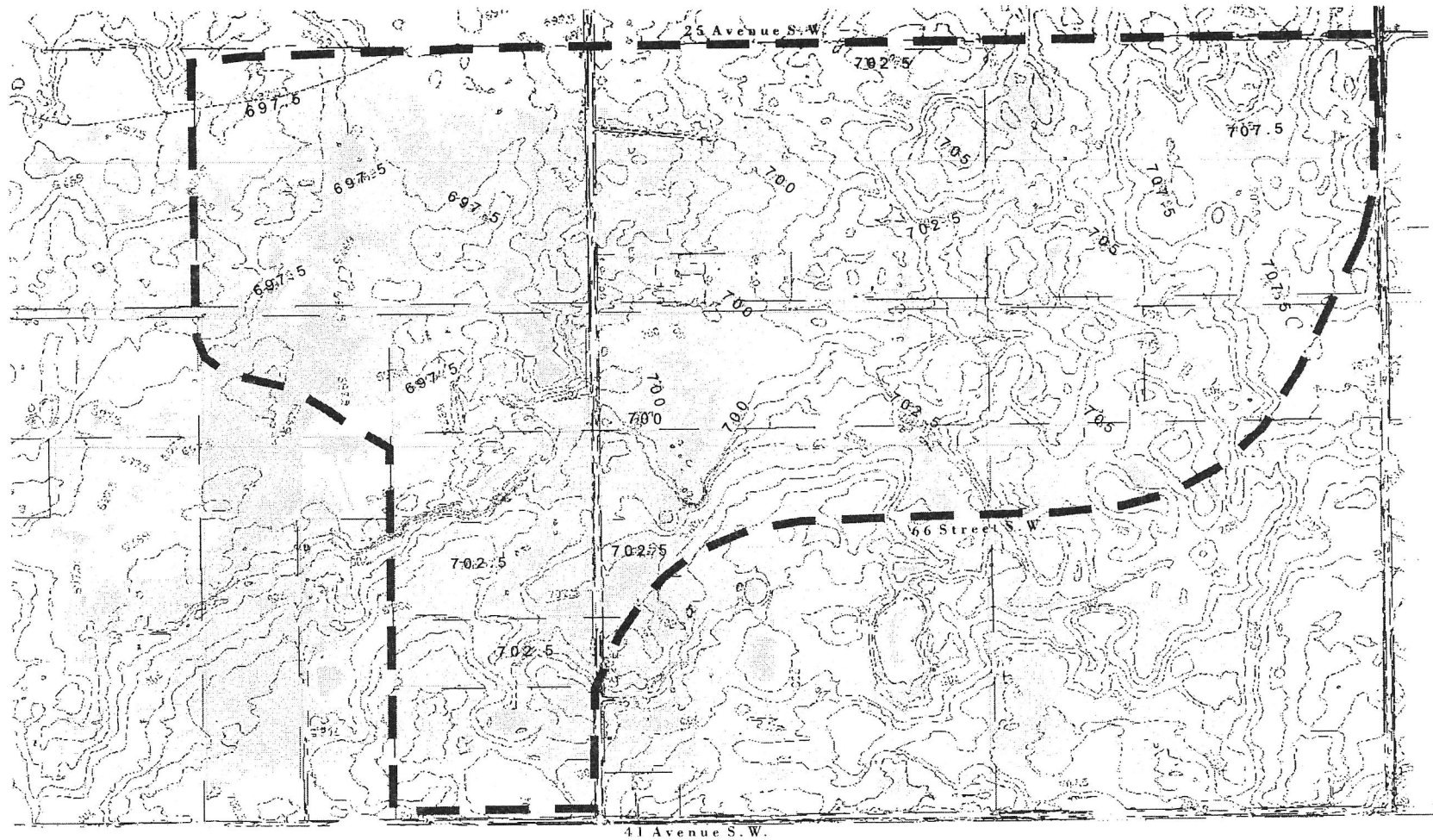
4.1.2 TOPOGRAPHY

The topography of the lands within the NSP is generally flat with slight undulations (see **Figure 12 - Site Contours**). Elevations through the plan area vary from approximately 705 m in the southeast to approximately 697m in the northwest. Surface drainage generally flows toward the northwest, with several low areas located within the plan area.

4.1.3 EXISTING LAND USES



As shown in **Figure 13 - Site Features**, a majority of the lands within the NSP are currently used for agricultural purposes, and contains few residential properties. There are a series of gas pipeline easements that cross the residential properties within this area that were required to provide gas service to the existing residences. These uses do not pose any particular constraint to future urban development; however, future development of any and all properties is at the discretion of the respective landowners.



53 / 67

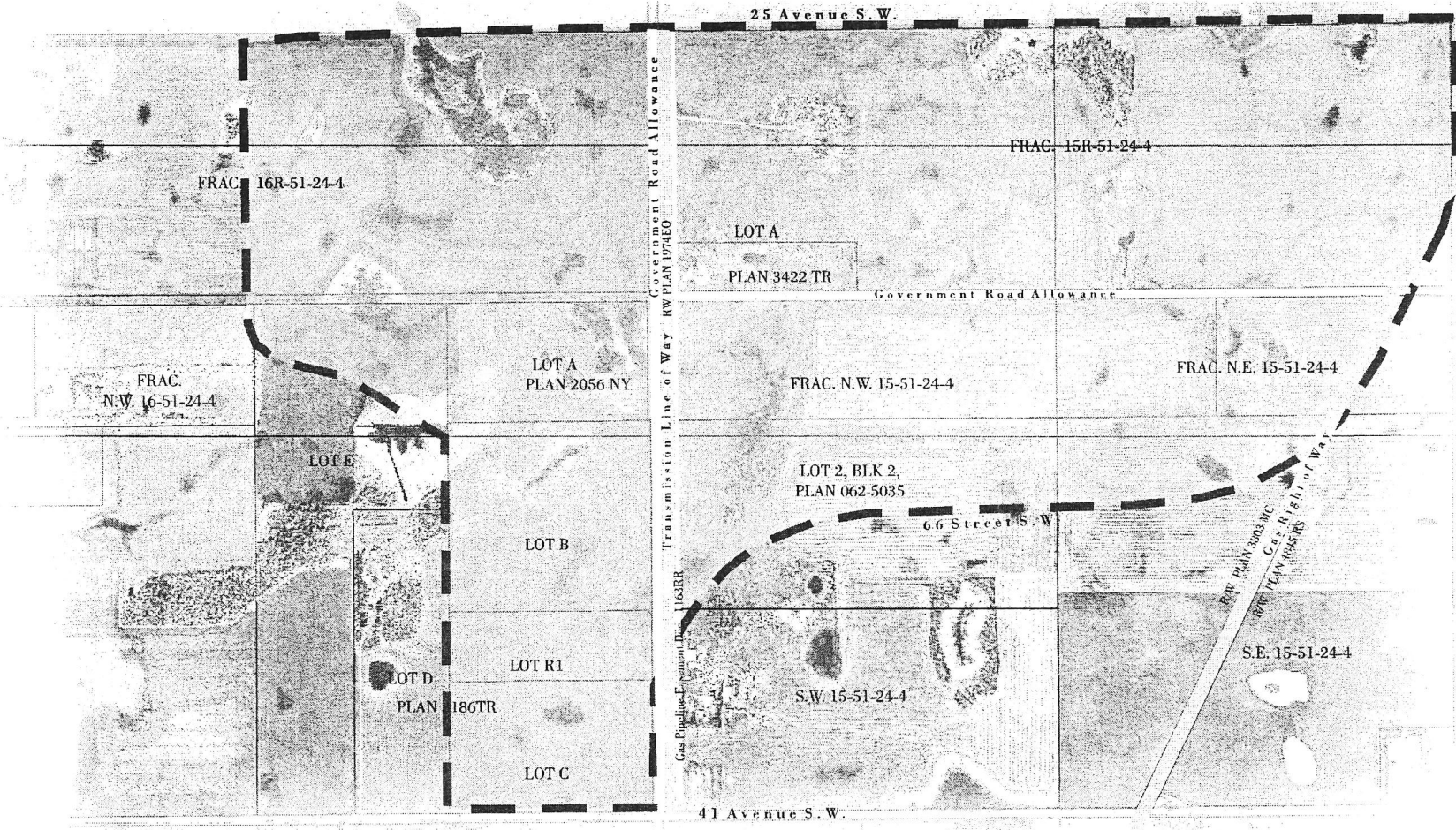


 NSP Boundary

at *Ellerslie*

Figure 12 Site Contours

Neighbourhood Structure Plan
November 2007



54 / 67



 NSP Boundary

Figure 13
Site Features
 Neighbourhood Structure Plan
 November 2007

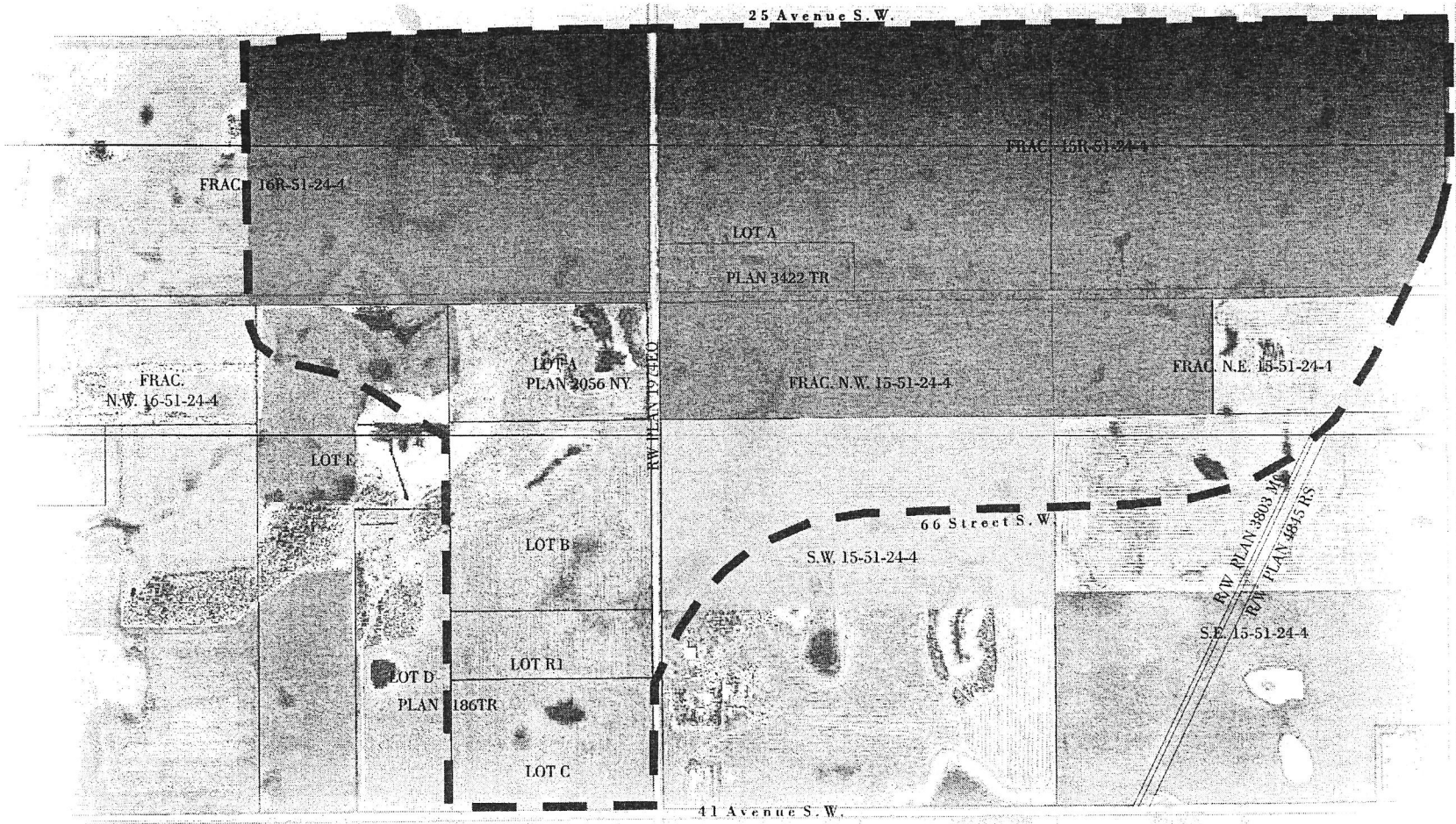
4.1.4 ENVIRONMENTAL ASSESSMENT




Phase I Environmental Site Assessments (ESA) have been undertaken for lands owned by a private corporate owner in preparation of the Orchards NSP.

The following is a composite list of the completed ESAs within various parcels (see **Table 3** below). **Figure 14 – Environmental Site Assessment Overview** indicates the locations within the NSP area that have had a Phase 1 ESA completed. These ESAs have been submitted for review under separate cover. Any outstanding items identified by the ESAs shall be addressed prior to the rezoning of the subject areas.

Table 3 - Phase I Environmental Site Assessments

Private Corporate Owner	Part of the NW, NE ¼ Sec 15-51-24-4 Part of the NE ¼ Sec. 16-51-24-4 Part of the NW ¼ Sec.15R-51-24-4 N.Part of the NE ¼ Sec. 15R-51-24-4	No further investigation required at this time. Reports identified some areas of concern with respect to existing residential/agricultural uses on NW ¼ 15-51-24-W4: <ul style="list-style-type: none"> • Lead and asbestos paint assessment should be conducted prior to demolition of buildings; proper precautions should be taken; • Septic tanks and tank/well should be decommissioned if/when development occurs; soils should be visually inspected; • Debris (old vehicles, wood, refrigerators) should be sorted and disposed of in an appropriate manner; surface staining should be investigated if found; • Storage tanks should be disposed of properly, soils assessed for potential impacts; • Water wells should be decommissioned prior to development; • Pole-mounted transformer may contain PCBs and should be disposed of in environmentally acceptable manner.
Private Corporate Owner	N ½ of SW ¼ Sec. 15-51-24-4	No further investigation required.



-  June 2006
Phase 1 North Half of SW 15-51-24-W4
-  November 2006
Phase 1
-  NSP Boundary



at Ellerslie

Figure 14
Environmental Site Overview
Neighbourhood Structure Plan
November 2007



Non-participating Owners

Based on existing information, no other Phase I or II Environmental Site Assessments have been undertaken for the remaining lands within the Orchards NSP. It should be noted that the City of Edmonton Planning and Development Department recommends that individual landowners provide ESAs or disclosure statements at the rezoning stage.

4.1.5 HISTORICAL RESOURCES

A Historical Resources Overview (HRO) was completed in support of the Orchards NSP. **Table 4** presents a summary of the lands that were included in the study.

Table 4 - Historical Resources Overview

Private Corporate Owner	Part of NE ¼ 16-51-24-4	Yes	No
Private Corporate Owner	Part of NW ¼ 15R-51-24-4	Yes	No
Private Corporate Owner	N. Part of NE ¼ 15R-51-24-4	Yes	No
Private Corporate Owner	Part of NE & NW ¼ 15-51-24-4	Yes	No

Approximately 90% of the property subject to the HRO has been cultivated. The HRO study determined that the majority of the subject property possesses low potential for significant historical resources. However, the sloughs and ephemeral drainages found on the property offer moderate potential for archaeological sites with intact components. The farmyard located in LSD 13-Sec 15-51-24-W4M appears to include at least some structures that are more than 40 years of age, and will require photographic documentation and assessment.

Alberta Heritage Resource Management reviewed the HRO and has determined that an Historical Resources Impact Assessment (HRIA) is not required for the subject property within the NSP area. However, pursuant to Section 31 of the *Historical Resources Act*, development proponents and their representatives are required to report the discovery of any archaeological, historic period or paleontological resources, which may be encountered during construction.

4.1.6 PIPELINES & OIL WELL SITES

A review of information provided by the Alberta Energy & Utilities Board (AEUB) has indicated that there are no active or suspended oil or gas wells within the boundaries of the Orchards NSP.

AEUB information also identifies two pipeline licenses situated within a major pipeline corridor in the eastern central portion of the plan area. The major pipeline corridor provides an opportunity to incorporate a multi-use trail traversing the eastern portion of the Orchards NSP. Future development shall not be restricted by the location of this

right-of-way as it will be further integrated with the neighbourhood and servicing designs (where required).

Table 5 – Existing Pipeline Transmission Facilities

Private Corporate Owner	LVP Hydrocarbon	0.00	9,930	273.1
Private Corporate Owner	HVP Hydrocarbon	0.00	7,240	219.1
¹ sour natural gas occurs when the H ₂ S content is greater than 10.0 mol/kmol ² a high pressure line has a maximum operating pressure greater than or equal to 3,475 kPa ³ a high pressure line has an outside diameter greater than or equal to 323.9 mm				

4.1.7 UTILITY RIGHTS-OF-WAY & FACILITIES

The Orchards NSP area is bisected by a major power transmission line which runs north-south adjacent to the 91 Street Government Road Allowance. This corridor presents opportunities for the development of an open space pedestrian linkage connecting the Summerside neighbourhood to the north with this neighbourhood.



4.2 APPENDIX II – PLANNING POLICY CONTEXT

Appendix 2 outlines the various statutory plans, policies, and design principles that are applicable to the Orchards at Ellerslie NSP, including Plan Edmonton, the City of Edmonton's Suburban Neighbourhood Design Principles (SNDP), the Ellerslie Area Structure Plan (ASP), and other relevant policies. Applicants seeking amendments to the NSP or applying for rezoning, subdivisions or development permits are required to consult the actual documents for specific guidance on detailed requirements as they apply to particular properties.

4.2.1 PLAN EDMONTON

Plan Edmonton, the City's Municipal Development Plan (MDP) designates the Orchards NSP area as "Suburban Area" and therefore suitable for suburban residential development. The MDP is a document that provides the policies and strategies to help guide growth and development in Edmonton over a 10-year horizon.

<p>Strategy 1.1.1 – Provide for choices regarding the types of development in which people want to live and do business</p>	<p>The NSP provides a range of low and medium density residential development along with commercial, park and open space development opportunities and is located in proximity to a major developing employment centre. Located in a highly visible and rapidly developing sector of Edmonton, the Orchards encourages a compact, contiguous and sustainable housing mix</p>
<p>Strategy 1.1.2 - Address compatibility of land use in the development and review of land use plans and development proposals</p>	<p>The development concept for the Orchards NSP achieves compatibility between different uses by means of separation (of uses and traffic), transitioning, and clustering/integration of complementary uses.</p>
<p>Strategy 1.1.12 – Place a high priority on the effective and efficient use of land</p>	<p>The development phasing of the Plan is based on an organized, efficient land use pattern that is adjacent to existing services.</p>
<p>Strategy 1.1.13 – Plan for urban development that is environmentally friendly and fiscally sustainable in the long term, based on the City's financing, infrastructure and environmental strategies.</p>	<p>The Orchards NSP Plan:</p> <ul style="list-style-type: none"> ▪ Promotes the integration of a portion of the adjacent Southeast Woodland (SE 5016) Natural Area; ▪ Promotes walkability
<p>Strategy 1.3.3 – Support contiguous development that is adjacent to existing development in order to accommodate growth in an orderly and economical fashion.</p>	<p>The Orchards abuts the Summerside neighbourhood to the north and is directly south and west of the Walker NSP. The infrastructure necessary to service the Orchards will be extended from Summerside to the north.</p>
<p>Strategy 1.3.4 - Promote intensification of development around transportation corridors and employment areas</p>	<p>Higher density land uses have been planned and located adjacent to collector/arterial roadways, which are future transit routes, so as to promote usage.</p>

The Orchards at Ellerslie

<p>Strategy 1.6.1 - Develop a comprehensive, integrated plan for the river valley, natural areas and open space lands that encourages the conservation and integration of natural areas that are sustainable and feasible.</p>	<p>The Orchards NSP provides for an interconnected system of open spaces designed to promote pedestrian mobility and access to recreational opportunities and pursuits.</p>
<p>Strategy 1.7.1 - Accommodate growth in an orderly, serviced and cost-effective manner</p>	<p>Services can be extended into this area in a logical, cost-effective manner from the developing portions of Summerside neighbourhood to the north.</p> <p>The Orchards NSP provides opportunities to share neighbourhood facilities and infrastructure given its proximity to existing and developing neighbourhoods to the north and northeast</p>
<p>Strategy 1.7.2 - Provide for a range of housing types and densities in each residential neighbourhood.</p>	<p>The Orchards NSP provides for low and medium density residential choices.</p>
<p>Strategy 1.7.4 - Ensure availability and access to recreational opportunities and open spaces.</p>	<p>Direct access to the integrated open space system will be implemented through subsequent stages of the development process in accordance with the recreational and open space concept and principles of this Plan and Civic regulation</p>

4.2.2 ELLERSLIE AREA STRUCTURE PLAN (ASP)

The Ellerslie ASP (Bylaw 14583) provides the general policies and guidelines to facilitate an orderly development of the plan area in terms of proposed land uses, density of development, transportation facilities, infrastructure, servicing and staging of development.

<p>4.2.3 Residential - Provide for residential development within Ellerslie ASP to allow for a variety of housing forms and options consistent with municipal standards and policies.</p>	<p>The Orchards provides opportunities for a variety of LDR and MDR housing, as well as those which may be provided for under the Urban Services designation.</p>
<p>4.2.4 Transportation - Provide a logical, safe and efficient transportation system within the plan area to address the pedestrian, bicycle, public transit and vehicular transportation needs of residents moving to, from and within Ellerslie area.</p> <ul style="list-style-type: none"> - Integrate existing and future transportation, utility and pipeline corridors into the ASP making use of potential greenways and pedestrian linkages while having regard for the safe, ongoing operation of these transmission facilities. - Create an efficient and convenient interconnected circulation and pedestrian network. 	<p>A variety of arterial, collector, and local roadways are planned to efficiently move traffic within and throughout the Orchards NSP area.</p> <p>The Orchards provides excellent opportunities for linkages throughout/beyond the plan area to connect residents with amenities, transit, commercial services, and business employment. An integrated open space system provides linkages between the SWMF and neighbourhood parks, as well as access to visual amenities, passive and active recreation opportunities and alternative modes of transportation.</p>

The Ellerslie ASP supports Plan Edmonton's strategies for managing suburban growth by accommodating development in an orderly, serviced and cost-effective manner; by providing for a range of housing types and densities, and by providing adequate recreational facilities, public open spaces, transportation infrastructure and natural areas to create livable communities in the suburbs.

Accordingly, the ASP provides general guidelines to facilitate development of neighbourhoods within the plan area. The following summary highlights those guidelines that have been applied in context of the Orchards Neighbourhood as recommended under the ASP.

- A variety of housing options to accommodate a range of income levels;
- Efficient, contiguous and staged urban infrastructure;
- A range of transportation options including walkways, greenways and multi-use trail corridor connections;
- Pedestrian friendly communities;
- Preservation and enhancement of a Natural Area and open spaces;
- Park space that is sized and located so as to create opportunities for passive and programmable recreational use for all of the Orchards residents;

4.2.3 SUBURBAN NEIGHBOURHOOD DESIGN PRINCIPLES (SNDP)

The City of Edmonton's Suburban Neighbourhood Design Principles include a variety of design principles that aim to encourage flexibility and innovation in the design and servicing of new neighbourhoods.

<p>SNDP 5 - Provide convenient pedestrian and bicycle access throughout the neighbourhood and especially between destination points within and outside the neighbourhood.</p>	<p>Greenways, multi-use trail and pedestrian corridors are provided throughout the NSP area to provide safe and convenient pedestrian access to various community focal points and transit routes.</p>
<p>SNDP 6 - Provide Transit Services to the edges of new neighbourhoods using the arterial and collector roadways in conjunction with appropriately designed, strategically located and conveniently accessed transit waiting zones.</p>	<p>Future transit service is proposed along the identified collector roadways. Given the shape of the Orchards neighbourhood and the pedestrian opportunities throughout, access to transit is generally within 400m walking distance to most parts of the neighbourhood.</p>
<p>SNDP 7 - At the area and neighbourhood planning stage, plan the location of the school/park facilities relative to neighbourhood staging such that they can be consolidated, serviced and available early in the development of a neighbourhood or catchment area</p>	<p>The school / park sites, proposed to be developed at an early stage of this neighbourhood, will provide adequate space for passive and active recreational opportunities.</p>
<p>SNDP 12 - Locate multi-family uses toward the edge of new neighbourhoods and close to the community and neighbourhood focal points.</p>	<p>Medium density residential sites have been planned along the neighbourhood's collector roadways. This will ensure that higher density</p>



	<p>sites have good transit service.</p> <p>The Orchards supports Plan Edmonton's broader intensification strategy by providing higher density residential land uses adjacent to transit routes and neighbourhood focal points.</p>
<p>SNDP 15 – Provide opportunity through the residential districts of the Land Use Bylaw for the intensification of housing forms and for alternative site design and building siting.</p>	<p>Opportunities for innovative building siting and site design shall be considered at the zoning and subdivision stages.</p>

4.2.4 SMART CHOICES FOR DEVELOPING OUR COMMUNITY

The *Smart Choices for Developing Our Community - Recommendations* was approved by City Council on March 23, 2004. These recommendations incorporate a number of "smart growth" ideas from the *Smart Choice Catalogue of Ideas* recently prepared by the City of Edmonton. *Smart Growth* encourages comprehensive planning, design and development of communities to encourage a sense of place, preservation and enhancement of natural resources, equitable distribution of development costs, and an expanded range of employment, housing and transportation choices that are fiscally responsible.

City Council approved six Recommendations based on the *Smart Choices for Developing our Community* report produced by the City of Edmonton Planning and Development Department on March 23, 2004. These Recommendations encourage new developments to incorporate "Smart Growth" principles including: comprehensive planning, design and development of communities that promote a range of housing, transportation and employment options, preservation and conservation of natural and cultural resources, and community sense of place. Of the six Recommendations, two apply to the Orchards NSP. These include:

Recommendation 2: Walkability – *Establish a coordinated approach to making walkability a prime consideration in infrastructure decision-making and review of development. This includes: capital planning; planning for pedestrian routes; streetscaping and architectural design requirements; pedway development at major transit stations, LRT and downtown; Multi-Use Trail pedestrian linkages and development; and, walkability public education and programming. The intent is to encourage local access (i.e. walkability) for everyday destinations through the integration of abandoned rail corridors and utility right-of-ways by pedestrians and cyclists, appropriate mix of land uses and their inter-connection, high quality transit service and design urban environments that are safe, convenient and attractive.*

The Orchards NSP promotes pedestrian connectivity that encourages choice among places to work, live, and play, with an emphasis on promoting pathway / multi-trail usage. Residential, natural and open space, commercial and institutional land uses have



been designed to function harmoniously and efficiently. The following principles are applied in support of walkability in the Orchards at Ellerslie.

- Incorporate a range of infrastructure (i.e. greenways, multi use trails, connecting walkways, and sidewalks) to promote walking between major destinations within and outside the Plan area.
- Establish a comprehensive greenway and multi-use trail corridor and open space network that encourages pedestrian connectivity and social interaction.
- Locate higher density development adjacent to, or within a short distance to transit routes.
- Ensure that access to transit services is within 400 m of residential and park areas.
- Provide an attractive urban environment that is safe and convenient.

Residents will enjoy enhanced access to neighbourhood services and amenities, pedestrian routes, and transit service contributing to higher quality of life, greater public transit use; cleaner environment, improved personal health and economic cost savings.

Recommendation 8: Urban Design – *Develop urban design principles, guidelines and regulations through community consultation to apply to all public and private spaces and built form affected by land use planning, redevelopment, and new development. The intent is to create, maintain and enhance meaningful public and private places through effective place-making (i.e. consultation, communication, and implementation).*

The Orchards NSP establishes a series of design principles in support of a safe, convenient and attractive neighbourhood. Attention to urban design at the time of development will ensure appropriate consideration of existing / surrounding land uses, community resources / facilities, future development, pedestrian connectivity, a range of users (e.g. children, seniors), attractive streetscaping, architecture and open spaces, sufficient lighting, sidewalks, and pedestrian amenities.

4.2.5 FUTURE SCHOOL SITES STUDY

The Orchards NSP acknowledges the vision and adheres to the principles set out under the Future School Sites Study (FSSS) approved by Council in 2003. The NSP provides centrally located, shared use school school/park sites, which may serve areas beyond the boundaries of the Orchards. A hierarchy of community facilities and services located within the plan area have been designed to integrate proposed school facilities, SWMFs, the adjacent SE 5016 Natural Area, and open space areas in fulfillment of life long learning opportunities. As the neighbourhood evolves, opportunity exists to adapt to changes in neighbourhood lifecycle in support of local and surrounding area education and social needs.



4.2.6 URBAN PARKS MANAGEMENT PLAN

The Urban Parks Management Plan (UPMP) provides strategic direction for the acquisition, design, development, and management of Edmonton's parkland over the next 10 years (i.e. until year 2016). This plan was adopted by City Council in August 2006. The Orchards NSP incorporates the following relevant principles from the UPMP:

- Provide Greenways that increase pedestrian connectivity between different parks and open spaces i.e. pocket parks, school and community parks, Resident's Association, SWMFs and so on.
- Promote urban wellness in the community through the provision and development of parks.
- Ensure visual and physical access to parks, and public safety through application of Crime Prevention Through Environmental Design (CPTED) principles.
- Demonstrate a strong commitment to the conservation of the Natural Area.
- Naturalize boulevards in new plan areas where appropriate.
- Utilize opportunities to enhance the community's quality of life through place making, creative urban design, and provision of diverse landscape opportunities.
- Ensure that land uses adjacent to public parks are complementary. Some examples of desirable adjacent land uses include multifamily residential, stormwater lakes, trail corridors, and so on.
- Provide opportunities for active and passive recreation experiences by the community.

As a requirement of the UPMP, a Parks Impact Assessment (PIA) for the Orchards, which outlines various parkland parameters, will be submitted under separate cover. The more specific aspects related to parkland design and development will be addressed during the subdivision and rezoning stages.

4.2.7 STORMWATER MANAGEMENT GUIDELINES

The location, design and construction of the stormwater management facilities shall conform to the City of Edmonton's Stormwater Management Facilities Guidelines.

4.2.8 ALBERTA ENERGY AND UTILITIES BOARD POLICY & GUIDELINES

The Orchards NSP will implement the City of Edmonton's Policy Guidelines for the Integration of Transmission Pipelines and Urban Development (1985), Planning for the Interface of Pipeline Right-of-ways and the Subdivision of Land (2003), Alberta Energy and Utilities Board policies, and any other relevant policies to be employed in consideration of urban development over and/or adjacent to well sites, pipeline or facility right-of-ways.

4.2.9 CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN (CPTED)

Appropriate design, organization of the physical environment and involvement of the community can help to reduce crime and improve the quality of the environment. In the development of the Orchards NSP, decisions relating to transportation design, street pattern, access, public open spaces, parks, multi-use trails and walkways, and the built environment shall use CPTED principles to create a safe and secure neighbourhood. The Orchards will use natural surveillance strategies to increase visibility and awareness of public and private space; natural access control techniques to guide / direct persons within natural and built environments; and, promote territorial reinforcement by increasing definition of space and local stewardship within the neighbourhood.

4.2.10 AFFORDABLE HOUSING

The Orchards Neighbourhood addresses housing affordability through the designation of medium density sites within the plan area. In accordance with the Ellerslie ASP, areas of higher density are provided in the plan near transportation / transit routes and open spaces. These sites provide opportunities for the construction of multiple family, aging-in-place and hospice developments.

As the City of Edmonton develops policies for affordable housing, ongoing discussions will be required between City Administration and the developers / builders as to the costs, form and processes of providing affordable housing. As such, at the development stage, approving agencies shall review applications and consider all City of Edmonton policies and programs pertaining to affordable housing.

4.2.11 CITY OF EDMONTON HOUSING MIX GUIDELINES

In 1991, Council approved guidelines recommending that the ratio of dwelling types in new suburban neighbourhoods be based on a mix of 65% to 85% low density residential (LDR) units and 15% to 35% medium density residential (MDR) units. These guidelines encourage a mix of housing types, a range of choice in housing, and a measure of intensification. Since the Council guidelines were approved in 1991, the need for multi family housing has significantly increased. Within the MDP, Council has stated "We will optimize the use of public infrastructure by... accommodating higher density land uses along transportation corridors." and, "We will encourage the efficient and cost effective use of land, infrastructure and services by promoting compact and contiguous development." Smart Choices and Suburban Neighbourhood Design Principles also encourage affordable housing choices as well as efficient use of infrastructure.

The Orchards at Ellerslie NSP includes thirteen medium density residential sites. The resulting overall housing mix for the neighbourhood is 61% LDR to 39% MDR. Although the housing mix ratio does not conform to these specific Council's guidelines, it reflects the ideas supported by Council and Administration of establishing more compact, transit-supportive and higher density neighbourhoods.



4.2.12 EDMONTON INTERNATIONAL AIRPORT PROTECTION OVERLAY

The majority of land within the Orchards Neighbourhood is within the Edmonton International Airport Vicinity Protection Area and partially covered by the 25 Noise Exposure Forecast (NEF) contour.

The City of Edmonton's Land Use Bylaw provides an Airport Protection Overlay to ensure the safe and efficient operation of airports near the municipal boundary of the City of Edmonton through the regulation of building heights and land uses in addition to the requirements of the underlying land use districts in their vicinity. However, land within the 25 NEF contour is not impacted by the Overlay.

4.3 APPENDIX III – TECHNICAL STUDIES

The following technical studies have been completed in support of the Orchards at Ellerslie Neighbourhood Structure Plan:

- Neighbourhood Designs Report (NDR)
- Water Network Analysis (WNA)
- Transportation Impact Assessment (TIA)
- Environmental Site Assessment (ESA) Phase I (1998)
- Environmental Site Assessment (ESA) Phase I (2007)
- Historical Resources Overview (HRO)

