

Rapperswill Neighbourhood Structure Plan

Office Consolidation June 2014

Prepared by:

***Planning and Policy Services Branch
Planning and Development Department
City of Edmonton***

Bylaw 15289 was adopted by Council in January 2010. In June 2014, this document was consolidated by virtue of the incorporation of the following bylaws:

Bylaw 15289	Approved January 20, 2010 (To adopt the Rapperswill NSP)
Bylaw 15757	Approved May 30, 2011 (To reconfigure the Medium Density Residential uses at 167 Avenue and 123 Street.)
Bylaw 15780	Approved June 20, 2011 (To reconfigure the Stormwater Management Facility uses and Low Density Residential uses east of the neighbourhood collector road.)
Bylaw 16462	Approved June 17, 2013 (To redesignate 1.88 ha west of the neighbourhood collector and north of 167 Avenue from Medium Density Residential uses to Commercial uses.)
Bylaw 16801	Approved May 28, 2014 (To redesignate a site west of Rapperswill Drive from Low Density Residential uses to Medium Density Residential uses.)

Editor's Note:

This is an office consolidation edition for the Rapperswill Neighbourhood Structure Plan, as approved by City Council on January 20, 2010. For the sake of clarity a standardized format was utilized in this Plan. Private owner's names have been removed in accordance with the Freedom of Information and Protection of Privacy Act. All text changes are noted in the right margin and are italicized where applicable. Furthermore, all reasonable attempts were made to accurately reflect the original Bylaw.

This office consolidation is intended for convenience only. In case of uncertainty, the reader is advised to consult the original Bylaws, available at the Office of the City Clerk.

**City of Edmonton
Planning and Development Department**

**Rapperswill
Neighbourhood Structure Plan
City of Edmonton**

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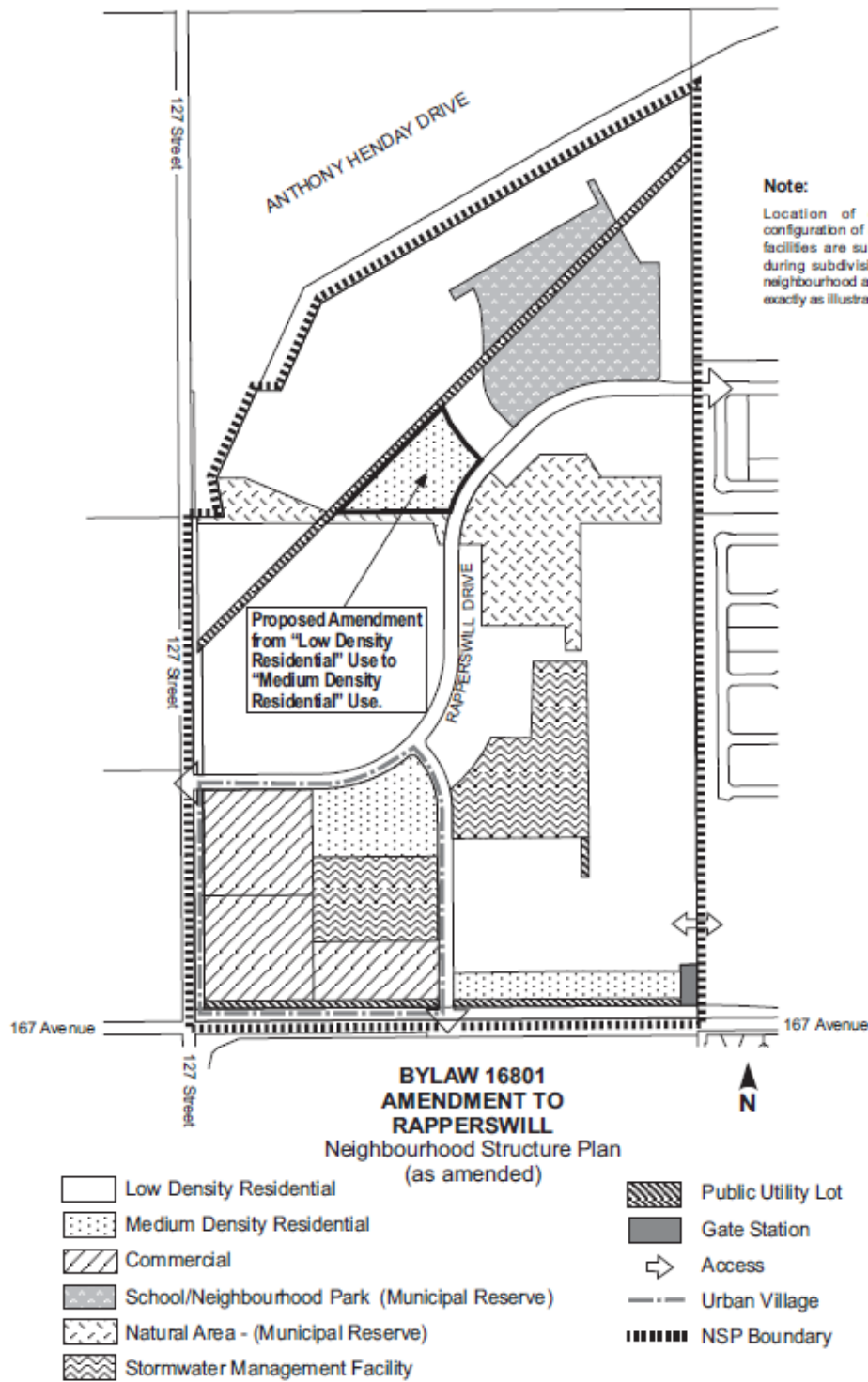
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Bylaw 16462
June 2013

Bylaw 15780
June 2011

Bylaw 16801
May 2014



SUSTAINABLE DEVELOPMENT

1.0 Introduction

1.1 Purpose

The purpose of the Rapperswill Neighbourhood Structure Plan (NSP) is to provide a framework for the use of land, sequence of development, density of population and the general location of major transportation routes and public utilities. The NSP also provides for the retention of unique natural areas within the Plan area. The Rapperswill NSP will form the basis for future subdivision and zoning within the Plan area.

This NSP has been prepared in conformity with Section 633 of the *Municipal Government Act*, “Plan Edmonton” Bylaw No. 11777 and the Castle Downs Extension Area Structure Plan (ASP) Bylaw No.7361.

1.2 Location

Rapperswill comprises approximately 99 hectares of land in north Edmonton (**Figure 1**). The Plan area includes all of the southwest and northwest quarter sections of Section 6, Township 64, Range 24 west of the 4th meridian lying to the south of the Transportation and Utility Corridor (TUC).

The boundaries of the Plan area are:

- The future TUC Right-of-Way, Plan 022 0614 to the north;
- The Canossa neighbourhood to the east;
- The 167 Avenue arterial to the south, and Dunluce neighbourhood beyond; and
- The 127 Street arterial to the west, with future Albany neighbourhood beyond.

1.3 Land Ownership

The current ownership of the NSP lands is listed in Table 1: Land Ownership, and shown mapped in Figure 2: Land Ownership.

Two utility right-of-ways (URW) are registered against the land titles, as follows:

1. URW Plan 1798KS runs diagonally across the northern portion of the Plan from 127 Street to the northeast corner of the Plan area, containing a natural gas pipeline. The pipeline does not contain a high vapour pressure (HVP) pipeline and it has a maximum operating pressure less than 3,475 kPa both of which fall below the criteria required in the *“Policy Guidelines for the Integration of Resource Operations and Urban Development, 1985* for major setbacks.
2. URW 4747TR that runs east/west immediately north of 167 Avenue, within which there are two gas pipelines.

In addition, there are three utility easements registered in the lands:

1. URW 118SG located along the western boundary of Block B, Plan 1494NY.
2. URW 5105SD located along the western boundary of Block C, Plan 1494NY.
3. URW 1994SF located along the western boundary of Parcel D, Plan 5624NY.

A registered road right of way, Main Avenue, that exists along the south boundary is incorporated into the NSP plan area and will essentially become part of the 167 Avenue.

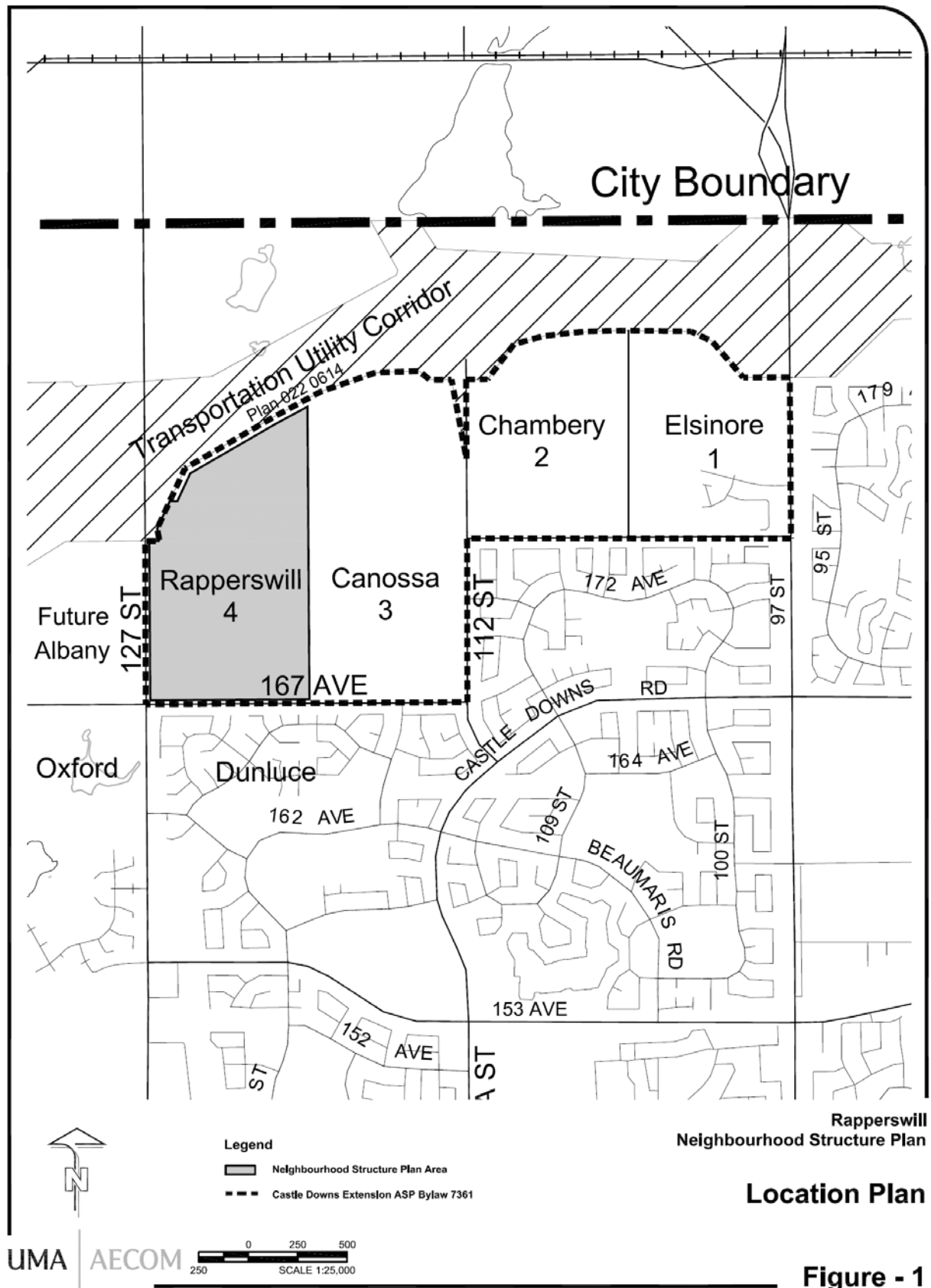


Figure - 1

Table 1: Land Ownership

	Legal Description	COT #	Owner	Area (ha)	% of Total
1	Remainder of NW 6-54-24-W4M	032 244 499	Private – Corporate	26.92	27.3
2	Remainder of SW 6-54-24-W4M	032 355 380	Private – Corporate	25.00	25.4
3	Parcel D, Plan 5624NY	042 433 353	Private – Corporate	8.90	9.0
4	Block B, Plan 1494NY	082 524 794 +3	Private – Corporate	7.28	7.4
SUBTOTAL				68.10	69.10
5	Lot A, Plan 491MC	082 524 794	Private – Corporate	14.40	14.8
6	Block C, Plan 1494NY	082 524 794 +2	Private – Corporate	7.28	7.4
7	Part Lot A, Plan 772 0643	932 350 407	Private – Corporate	6.79	6.9
8	Main Avenue	Registered Road Plan	Government	1.61	1.6
9	Pt Lot A, Plan 491MC (R/W Plan 4757TR)	012 009 175 +2	Private – Corporate	0.18	0.2
SUBTOTAL				30.26	30.90
GRAND TOTAL				98.36	100.00
<i>Source: Alberta Land Titles, Search Date 2003-03-14</i>					

2.0 Statutory Compliance

2.1 Municipal Government Act (MGA)

The Rapperswill NSP has been prepared within the statutory context of Part 17 of the Municipal Government Act (S.A. 1994, M-26-1), Section 633(2) (a).

The MGA provides that an Area Structure Plan must describe:

- the sequence of development proposed for an area;
- the land uses proposed for the area, either generally or with respect to specific parts of the area;
- the density of population proposed for the area, either generally or with respect to specific parts of the area; and
- the general location of major transportation routes and public utilities.

The Rapperswill NSP has been prepared to conform to these requirements.

2.2 Municipal Development Plan

The Edmonton Municipal Development Plan (MDP) “Plan Edmonton”, Bylaw No. 11777, as amended was approved by bylaw on August 31, 1998. The MDP designates the general area of north Edmonton in which Rapperswill is located as a suburban area.

Plan Edmonton also states a number of development policies relevant to the Rapperswill Neighbourhood Structure Plan. These policies, and how the NSP has responded to them, are outlined in Table 2.

Table 2: Policies Relevant to Land Development

Rapperswill NSP: Response to Edmonton Municipal Development Plan (MDP)		
	Policy	Policy Response
1.1.2	“Address compatibility of land use in the development and review of land use plans and development proposals.”	Land use compatibility is ensured by locating the commercial and higher density residential in a “Mixed use area” that is in proximity but separated from the majority of the low density residential use.
1.1.3	“Use and promote urban design principles and guidelines that ensure the quality of the urban environment.”	Architectural guidelines will be developed at the time of zoning to shape the look and function of the “Mixed use area” and ensure quality of design.
1.1.13	“Plan for urban development which is environmentally and fiscally sustainable in the long term, based on the City’s financing, infrastructure and environmental strategies.”	A Phase 1 Environmental Site Assessment, Transportation Impact Assessment and Neighbourhood Drainage Review have been completed for informing choices toward achieving environmental and fiscal sustainability.
1.3.3	“Support contiguous development that is adjacent to existing development in order to accommodate growth in an orderly and economical fashion.”	This NSP area abuts developing neighbourhoods to the south and east, which provides nearby infrastructure for servicing this area in a logical and orderly manner.

Rapperswill NSP: Response to Edmonton Municipal Development Plan (MDP)		
	Policy	Policy Response
1.7.1	"Accommodate growth in an orderly, serviced and cost-effective manner."	The NSP area is adjacent to existing and substantially built-out neighbourhoods, and it represents a logical extension of planned suburban growth.
1.7.2	"Provide for a range of housing types and densities in each residential neighbourhood."	Land use for the NSP comprises available residential lands for low and medium density and apartment uses, which offers a variety in housing types under the Zoning Bylaw.
1.7.3	"Encourage flexibility in creating attractive and functional residential neighbourhoods and business areas."	The NSP provides a mixture of low and medium density residential uses, apartments, and commercial services for attaining a functional and livable suburban area.
1.7.4	"Ensure availability and access to recreational opportunities and open spaces."	The NSP retains major natural features and also provides complementary active and passive parks, walkway linkages and stormwater amenities.
1.9.2	"Land or money dedicated as municipal reserve will be dedicated to the City of Edmonton to be used for schools, parks and other public recreation purposes."	Ten percent municipal reserve is not enough to allow the natural area to be retained and fulfill the school requirements. Agreement has been reached in principle between the City of Edmonton and the landowner for approximately 4.0 hectares to be swapped to fulfill the shortfall. Negotiations will be required to determine the final details of the swap.

2.3 Castle Downs Extension Area Structure Plan

Castle Downs Extension Area Structure Plan Bylaw 7361 was adopted by City Council on September 15, 1983. It provides a planning framework for approximately 358 hectares of land in north Edmonton. The ASP proposes four residential neighbourhoods (Figure 1). Each neighbourhood is to be established by adoption of a NSP as an amendment to the ASP.

To date three NSPs have been adopted and are almost entirely built out.

- Canossa Neighbourhood Structure Plan Bylaw 7613, October 9, 1984, as amended;
- Elsinore Neighbourhood Structure Plan Bylaw 7961, September 10, 1985, as amended; and
- Chambery Neighbourhood Structure Plan Bylaw 7962, September 10, 1985, as amended.

This proposed Rapperswill NSP represents the fourth and final NSP within the overall ASP area. Due to the advanced state of development of Canossa, Elsinore and Chambery the Planning and Development determined that an Area Structure Plan Amendment would not be required to facilitate the approval of the Rapperswill NSP.

2.4 Edmonton Zoning Bylaw

The NSP area is currently designated as Agricultural (AG) zone under the Edmonton Zoning Bylaw. Future rezoning to appropriate land use zones will be made in compliance with this NSP for implementing the ASP.

2.5 Edmonton Garrison Heliport Zoning Regulations

Under the *Edmonton Garrison Heliport Zoning Regulations* approved on April 22, 2004 by the City of Edmonton Rapperswill is designated as "Namao Approach Surface". Rapperswill is not restricted by Noise Exposure Forecast contours (NEF) established for the area and future development will not be required to incorporate the Airport Protection Overlay for the Edmonton Garrison. However, engineering design criteria related to the development of the Stormwater management facilities in Rapperswill will have to gain the approval of municipal, provincial and federal authorities.

2.6 Smart Choices

On March 23, 2004, Council approved *The Smart Choices for Developing Our Community – Recommendations*. These included initiatives aimed at establishing a new framework to enhance Edmonton's urban landscape and sustain and improve our quality of life. The initiatives included transit oriented development, neighbourhood reinvestment, residential infill, urban design, walkability, commercial redevelopment, consultation and education. Smart Choice initiatives tend to focus on infill and redevelopment but with the retention of natural areas and associated parks and open space suburban communities like Rapperswill should rate highly for walkability.

2.7 Urban Intensification Strategy

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% LDR units and 15% to 35% MDR units. These guidelines encourage a mix of housing types, a range of choice of housing, and a measure of intensification. Since these guidelines were approved, the need for multi-family housing has increased significantly. Smart Choices and Suburban Neighbourhood Design Principles also encourage affordable housing choices as well as efficient use of infrastructure.

*Bylaw 15757
May 2011*

The Rapperswill NSP includes two MDR sites of 1.5ha or larger which may be suitable for higher density uses such as town-housing, rowhousing, street-oriented row-housing or low-rise apartment buildings. The result is an overall housing mix of 74% LDR to 26% MDR. The housing mix ratio conforms to Council's guidelines of establishing more compact transit-supportive developments and higher density neighbourhoods.

*Bylaw 16462
June 2013*

3.0 Site Analysis

3.1 Natural Site Features

3.1.1 Topography and Drainage

The Plan area has a gentle, overall slope from north to south (**Figure 3**). The highest elevation of 686.5 metres above sea level is located in the northwest area south of the TUC. The lowest areas are in the southeast and southwest portions of the plan area, with elevations below the 680.5 metre contour. The difference in elevation represents about six metres of relief, resulting in an overall gradient of about one per cent, which is suitable for urban development.

The natural site drainage follows the slope of the land from north to south. There are no visible water courses within the Plan area.

3.1.2 Alberta Sustainable Resource Development (ASRD)

A Wetland Value and Function Assessment were submitted to ASRD for review and they have since confirmed that they will not claim any wetlands in the Plan area.

3.1.3 Natural Areas

Information on the natural areas within the Plan area is found in two reports:

- *The Inventory of Environmentally Sensitive and Significant Natural Areas, GEOWEST Environmental Consultants, 1993; and*
- *Natural Site Assessment for Rapperswill Neighbourhood, Including a Preliminary Site Assessment for Natural Area NW 7016, Spencer Environmental Management Services, 2005*

The following summarizes the two reports and their relevance to this NSP.

(a) Natural Areas Inventory

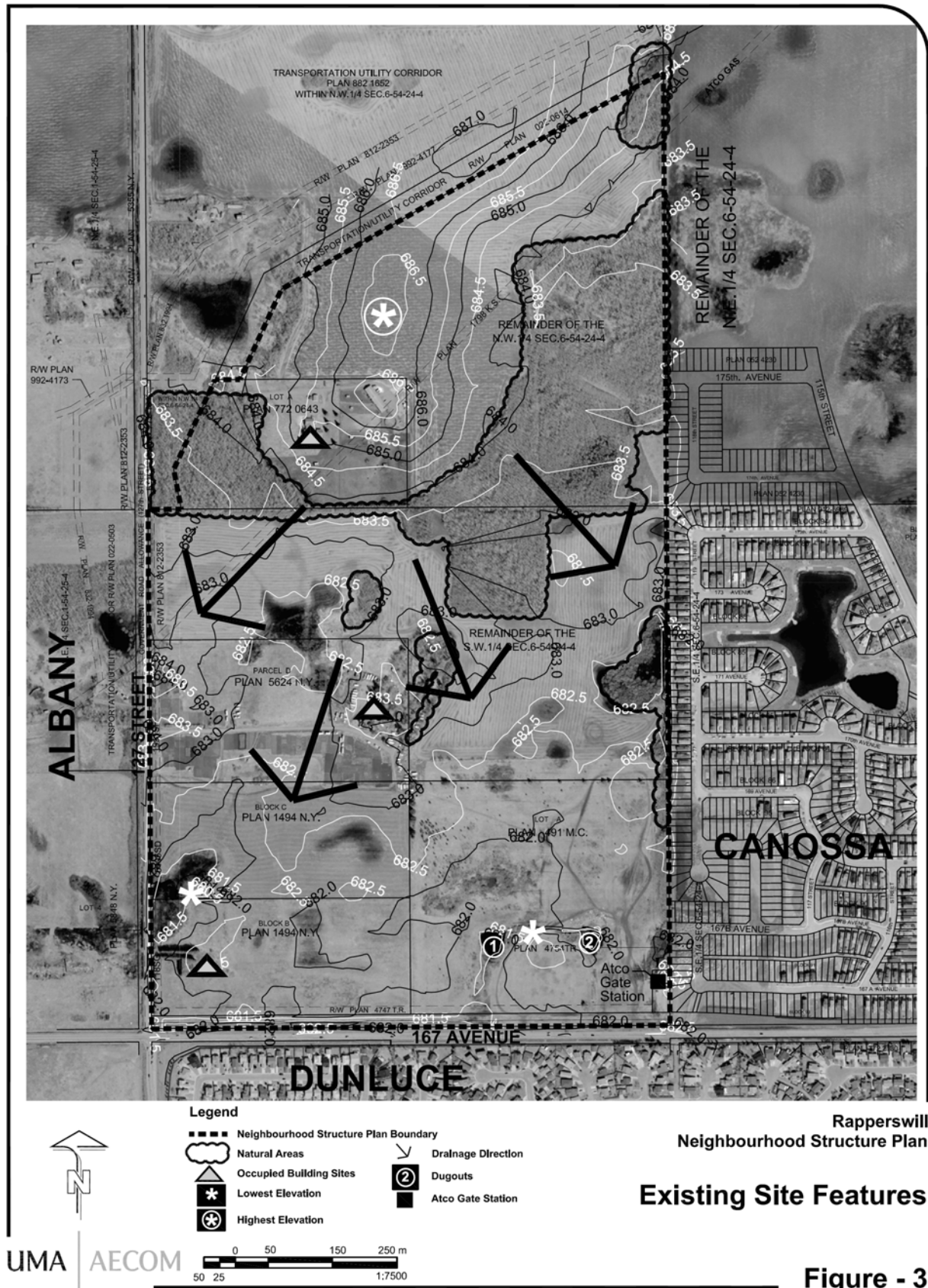
In 1993, GEOWEST Environmental Consultants Limited prepared *The Inventory of Environmentally Sensitive and Significant Natural Areas* for the City of Edmonton. Its purpose was to provide an updated inventory of natural areas and to identify and to evaluate Environmentally Sensitive Areas (ESAs) within the City of Edmonton.

The report identifies two ESA's: NW7016 and NW7017, within the Rapperswill Plan area (**Figure 4**).

NW 7016, the Northwest Mature Woodland is located in the north portion of the Plan area and extends into the adjacent Transportation and Utility Corridor. A portion extended into the Canossa neighbourhood; this has since been cleared.

NW 7016 occupies an area of approximately 27 hectares. It consists of two rectangular-shaped stands of aspen-balsam poplar with a linear linkage between the two stands. The natural area is characterized as good example of a mature aspen stand providing habitat for local wildlife.

NW 7017, the 167 Avenue - 112 Street Wetland Complex, is situated primarily in the Canossa Neighbourhood, with a small remnant area in Rapperswill. The portion within Canossa has been removed to facilitate urban development.



(b) Natural Site Assessment (NSA)

A Natural Site Assessment for Rapperswill Neighbourhood, Including a Preliminary Site Assessment for Natural Area NW 7016, was prepared by Spencer Environmental Management Services in April, 2004 on behalf of the majority land owner. The preparation of the NSA recognized the need to consider natural areas during land use planning. The NSA was prepared pursuant to City of Edmonton Policy C467 (Conservation of Natural Sites in Edmonton's Table Lands) and according to draft guidelines for preparing NSAs issued by the City of Edmonton Planning and Development department in 1995. These guidelines consisted of three stages. In Stage 1, a Preliminary Site Assessment is conducted, in Stage 2, a Detailed Site Assessment that involves substantial field investigations must be completed and Stage 3 consisted of an Economic Assessment. A Stage 3 assessment was not completed at this time. Policy C467 has now been superseded by Policy C531, Natural Area Systems which was adopted by City Council on July 17, 2007.

The NSA assessed the two previously identified natural areas, NW 7016 and the remnant of NW 7017. Additional information was also collected on several smaller, previously unrecognized natural areas. The process of preparing the NSA included a literature review, description of the biophysical characteristics of the entire area, reconnaissance and detailed field investigations, and assessment of site sustainability. The NSA has been submitted as a separate report.

The NSA concluded that NW 7016 "is a sustainable, biodiverse, aspen/balsam poplar woodland/wetland." The report notes that considerable disturbance has taken place and that the site has been influenced by surrounding land uses.

Approximately 17 hectares of the remnant portion of NW 7016 still exists in the Rapperswill NSP. Approximately 6.0 hectares or 35% of that will be permanently designated as park. Opportunities may also exist to retain additional trees as part of the design of the school site. However, the ten percent Municipal Reserve requirement is not enough to allow the entire natural area to be retained and fulfill the school park needs too. Agreement has been reached in principle between the City of Edmonton and the private land owner for an area of approximately 4.0 hectares to be swapped or purchased to fulfill the shortfall. Final negotiations between the two parties will determine the location and terms of the swap or purchase.

Moreover, the collector roadway, 175 Avenue, extending west from Canossa neighbourhood, would truncate and fragment NW 7016. No other logical alignment for the collector is available

A Stage 2 Natural Site Assessment, Rapperswill Neighbourhood submitted to the City of Edmonton by Stantec Consulting Ltd. in July 2009 recognized Policy C531. The NSA generally concluded that retaining a portion of the tree stand in the new development would provide opportunities for surface water quality enhancement and retention of wildlife and plant diversity. Retaining the tree stand as municipal reserve will also provide a natural feature in the community and an aesthetic feature for public enjoyment and education. Overall much of the historical form and function of the forest stand can be maintained within the urban environment. A rare plants survey will be required and an appropriate transplant program may need to be developed as a result in the future.

The NSA recommended the following six mitigation measures to minimize negative impacts on the environmental elements.

1. Retain as much of the natural vegetation within the tree stand and minimize construction disturbance.
2. Promote a vegetated buffer on each side of the tree stand to aid water quality, increase habitat diversity and maintain wildlife use and also provide a transition zone and emergency access.
3. Limit human disturbance to the tree stand through the use of continuous fence and controlled access points.
4. Plant native trees and shrubs and grasses within the buffer zone to provide additional wildlife habitat and increase diversity, if required
5. Ensure all pedestrian pathways are naturalized to reduce disturbance and blend them with the surrounding landscape
6. Maintain surface water runoff into the tree in order to retain historic hydrology patterns

Implementation details related to these drainage, access, security and landscaping recommendations for the Natural Area will be addressed and defined through agreement with the City of Edmonton departments as part of the Natural Area Management Plan required by the City of Edmonton for Rapperswill. The *Guidebook for Preparing Natural Area Management Plans for Edmonton's Environmentally Sensitive and Significant Natural Areas: A Working Draft Document* outlines the requirements of an NAMP. These requirements may include:

- Baseline information
- Management objectives and strategies,
- Construction and Post Development Operations and Maintenance
- Monitoring
- Public Involvement

(c) Environmental Site Assessment

Phase 1 Environmental Site Assessments were completed and submitted to the City of Edmonton for all the private parcels in the Plan area, except Lot A, Plan 772 0643. This outstanding parcel will need to submit Phase 1 and Phase 2 assessments (as required) prior to zoning in the future. (See Appendix B)

3.2 Present Land Use and Development

The Rapperswill area has been and is currently primarily used for agricultural purposes (Figure 3). In addition, there are two rural residences, one which has an associated camper storage site and a U-pick garden. A privately-owned farm located in the northwest central area contains several buildings, a riding stable and a hall. It is anticipated that these structures will be removed or relocated in the future as the lands become available for urban development.

As discussed in Section 1.3, there are three Gas and Pipelines easements: 118SG, 5105SD, and 1994SF, consisting of a number of intermediate and high pressure gas pipelines lines. The size and pressure of each pipeline have been carefully noted and considered in the preparation of the Land Use Concept. The majority of the pipeline running diagonally across the northern portion of the Plan area will be dedicated as a public utility lot and may be developed as multi-purpose trail. The extent of landscape development on the pipeline RW's will require further discussion with the City of Edmonton and the pipeline operators at the time of subdivision. A portion of the pipeline is incorporated into the north portion of the proposed school site. No buildings will be allowed on the pipeline RW.

It is anticipated that the gate station utility substation in the south-eastern corner of the Plan area will remain.

3.3 Historical Resources

Alberta Western Heritage Inc. provided Cultural Facilities and Historical Resources Division ("CFHRD") of Alberta Community Development with a "Historical Resource Overview" package for Rapperswill. Staff of CFHRD reviewed the package and concluded that a Historical Resources Impact Assessment is not required.

3.4 Surrounding Land Use

The Transportation Utility Corridor (TUC) right-of-way registered north of the NSP boundary defines part of the future outer Ring Road. The land requirements and functional plan for the future outer Ring Road and the interchange at 127 Street identified within the *Edmonton North Ring Road Functional Planning Study, ISL Engineering Ltd., December 2007*, are the basis for the Rapperswill boundary. The TUC is currently under construction and has also been approved by Alberta Transportation. Construction of the ring road is expected to be complete by 2011.

The Canossa NSP is approved east of Rapperswill. The southern portion of Canossa is currently under residential development and a subdivision has recently been approved in the north central Canossa area. The remaining lands will continue to be used for agricultural purposes awaiting development.

Lands south of 167 Avenue are fully developed under the Dunluce NSP.

Lands west of 127 Street are included in The Palisades Area Structure Plan Bylaw 7464, as amended by Bylaw 13224. An NSP application has been made for the Albany Neighbourhood Structure Plan.

4.0 Public Participation

Through the development of the Plan, meetings were convened with the other landowners in the Plan area and also with the City Planning and Development, Transportation and Community Services departments.

Following City review and circulation a public meeting was held at Caernarvon School on February 22, 2007. No significant changes were made to the design of the Plan as a result of the public meeting.

5.0 Development Concept

5.1 Development Objectives

The overall goal of the Rapperswill Neighbourhood Structure Plan is to establish a framework for an attractive, liveable and diverse residential neighbourhood, which complements and enhances the greater community.

Specific objectives of the NSP are:

- To sustainably integrate and retain portions of the natural area and contribute to a diverse open space system;
- To provide a school site with external linkages to the greater community open space and trail system;
- To provide a range and variety of housing opportunities to meet current and future market conditions;
- To create a range of active and passive recreational opportunities distributed throughout the neighbourhood;
- To create a safe, convenient system that encourages pedestrian movement and links a variety of destinations including the commercial area, natural areas and the school site;
- To provide a safe and convenient range of transportation options that directs traffic to 127 Street and 167 Avenue; and
- To provide economical servicing which responds to existing site conditions and logical development staging.

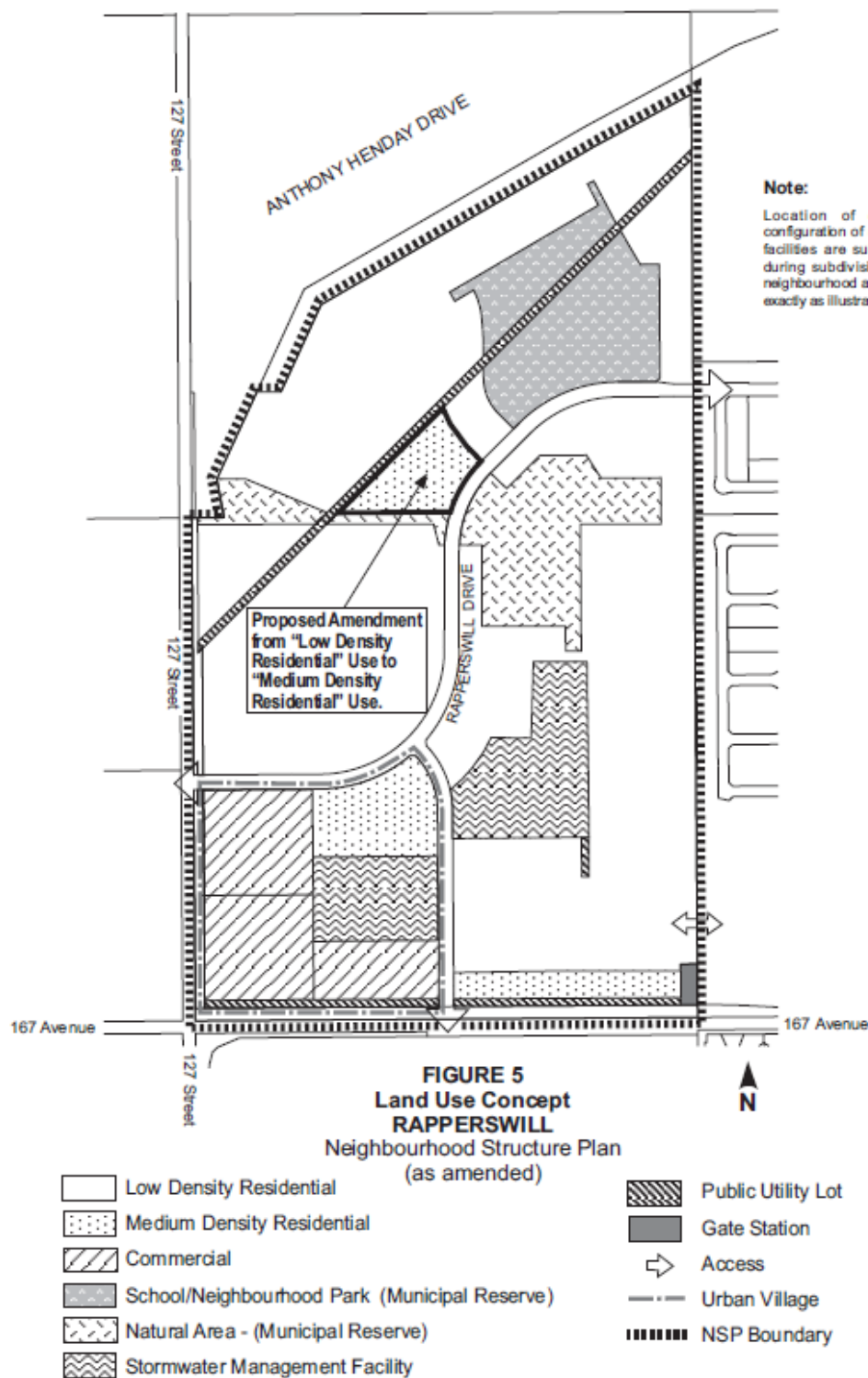
5.2 The Development Concept

The retention of the Natural Area in the east central Rapperswill area and its associated link with west Rapperswill creates natural parkland in the central area of the neighbourhood. Opportunities to link this focal point with the school site to the north will create a contiguous, integrated system of internal links within the neighbourhood available by utilizing a combination of pipeline rights of way and the collector sidewalks. Pedestrian connections between the stormwater management facility and the Natural Area will contribute to the unique variety of pedestrian experiences available for the residents of Rapperswill.

External links to the neighbourhoods of Canossa and Albany will also be provided by the diagonal natural gas pipeline right of way from the north Plan area. It provides an opportunity for pleasant and safe pedestrian linkages in the neighbourhood. Although Rapperswill is primarily a low density residential development it does provide for a range of medium density residential type developments in the southwest Plan area (**Figure 5**). A compact mixed use type commercial and medium density residential node is conveniently located at the intersection of 127 Street and 167 Avenue.

A 6.63 hectare school site located in the northeast Plan area is designated for a Separate Elementary and Junior High Schools. It also provides a site for the local community league and a neighbourhood park. The existing natural tree stand within this school site will be retained to the extent possible until development on the school site occurs.

The internal collector road system will provide safe and convenient movement within the neighbourhood as well as access to the major perimeter arterial roads of 127 Street and 167 Avenue. There will also be two links to the Canossa neighbourhood.



SUSTAINABLE DEVELOPMENT

A banquet hall and associated facilities are currently located within this property. These uses shall continue to operate and be accessible to the neighbourhood through the planned collector roadway network. The owners of the land may wish to expand the current banquet facility and / or redevelop the site (e.g., multi-family housing, senior residences). Future applications and supplementary studies associated with any redevelopment scheme shall be prepared as necessary.

Using the assumptions presented in Appendix A, the neighbourhood is projected to accommodate 1,091 low density units and 388 medium density residential/low rise apartment units. This ratio is within the range recommended by the Suburban Neighbourhood Design Principles.

Bylaw 16462
June 2013

Bylaw 15780
June 2011

5.3 Residential Land Use

5.3.1 General Patterns

The Land Use Concept identifies residential nodes or modules defined by the collector and open space systems. This format will facilitate a logical staging sequence, allow for market segmentation, and provide opportunities to achieve the goal of residential diversity stated in Plan Edmonton. The range of housing forms will meet the needs of various target market groups including “move-up” or “move-down” buyers, first time home buyers, active adults and the elderly.

The Land Use Concept identifies two residential land use and housing categories:

- low density residential; and
- medium density residential

Efforts will be made to create a distinctive theme, identity and character for each residential module within the overall neighbourhood. Architectural guidelines will be established to articulate themes and will be implemented by the developer as per accepted practice.

5.3.2 Low Density Residential

The lands designated for low density residential use comprise the majority of the neighbourhood, and include both single detached and semi-detached housing. A maximum overall residential density of 25 units per net hectare is assumed for purposes of population projection.

Bylaw 15780
June 2011

Low density residential will be developed according to the requirements of the residential land use zones of the City of Edmonton Zoning Bylaw. Changing buyer profiles and consumer demographics will require the developer to supply the market with housing forms which are both affordable and innovative. This may include secondary suites and accessory units. Direct Control (DC) zones may be utilized to facilitate innovative designs.

The Transportation Department, based on the information in the Transportation Impact Assessment prepared for the NSP, will determine whether lots may front onto the collector, back onto the collector, require rear lanes, or must flank the roadway.

5.3.3 Medium Density Residential

One medium density site is located in the southwest Plan area as part of an overall mixed use area and a second site is located immediately east of the mixed use area north of 167 Avenue and east of the collector.

Bylaw 16462
June 2013

The site in the mixed use area is well situated in close proximity to the stormwater management amenity and has safe and convenient access to collector roadways. The site may take the form of apartment housing, stacked townhousing or row housing with densities up to 125 units per hectare. Building heights are restricted to 14.0 m or 4 storeys.

Bylaw 16462
June 2013

The second site is also located in the south central portion of this neighbourhood and is also designated for medium density residential. It will have access from the central collector roadway. Care will be taken to ensure transitions between medium and lower densities are respected in terms of character and form.

Bylaw 16462
June 2013

The medium density residential sites will accommodate housing for a variety of market segments that could include units for singles, families or adults. Units could be rented or owned. The sites will be developed under the regulations within the UCRH, RF5, RF6, and RA7 zones of the Edmonton Zoning Bylaw designations. Where innovative site designs are desired, a Direct Control Zone may be used in place of the standard City zones.

Bylaw 16462
June 2013

Each medium density site has been configured to allow for conversion to lower density residential development if warranted by market conditions. If such a change is deemed appropriate, a Rapperswill NSP amendment will need to be approval by Council.

Approximately 74 percent of the units will be designated for low density and 26 percent will be medium density units.

Bylaw 16462
June 2013

Bylaw 15757
May 2011

5.4 Mixed Use

The compatible combination of commercial and medium density residential land uses clustered around the stormwater management facility in the southwest Plan area will be a focal point for the community. This compact mixed-use area is appropriately delineated from the low density areas by major collectors and minor collector roadways internally but still has high visibility and superior access to adjacent arterial roads. The concentration and mix of land uses and amenity will provide for a more urban setting within the suburban Rapperswill neighbourhood. It will become a local destination that residents can conveniently access by transit, vehicle or as a pedestrian. Walkway links will be provided within the mixed use area and the neighbourhood to encourage pedestrian activity from within and outside the community.

A distinct identity and character for the mixed use area will depend on the articulation of a suitable mix of design elements that can be applied to residential, commercial and recreational uses at the zoning stage. These major design features will establish a consistent and cohesive neighbourhood theme that will complement the architectural guidelines for the low density areas.

The experience provided by the natural area and related open spaces is balanced by the urban experience of the mixed use area. This variety of destinations and pedestrian experiences will encourage walkability. In a suburban area walkability can be supported by providing options to the automobile for local trips, and by having an array of pedestrian routes. The NSP provides a variety of pedestrian systems that link open spaces, public utility lots and municipal reserve. These all give residents pedestrian options for accessing recreation, transit, commercial, and other area destinations

5.5 Commercial

Bylaw 16462
June 2013

A commercial land use designation is proposed for an approximately 7.79 hectares portion of land in the South West corner of the neighbourhood.

By virtue of its proximity to Anthony Henday Drive the commercial area will serve a regional population. All directional access will be fundamental to the economic viability of this larger shopping centre which will also serve the local community and adjacent communities. The site is of sufficient size to support a larger retail use (i.e. home improvement centre, grocery store) or several smaller format retail and service uses.

The commercial site is planned to have all-directional access to both 127 Street and 167 Avenue. The exact location and type of access will be determined at the subdivision stage and will be to the satisfaction of the Transportation Department. This commercial location along the arterials ensures high visibility for businesses and convenient access. All access considerations will be subject to the approval of the City of Edmonton Transportation Department.

The exact technical requirements and locations of these accesses will be determined at the subdivision stage and will be required to meet City of Edmonton standards. Care must also be taken to ensure that the Albany accesses on the west side of 127 Street and the Rapperswill accesses on the east side of 127 Street align.

Multiple owners in the commercial area will require a combination of cross and joint accesses in the future. A cost sharing agreement will be required to establish obligations pertaining to circulation and stormwater management costs between owners.

The commercial area will be developed to minimize impacts of built form, signage, lighting and operations on adjacent developments, and ensure compatibility between commercial and residential land uses. Building styles and form will generally complement the overall Rapperswill architectural theme. And Site planning of commercial areas shall pay specific attention to land use transitioning, interface and setbacks with adjacent residential uses shall be further examined at the rezoning and subdivision stages, with developments within this site complying with the provisions set out in the CSC (Shopping Centre) Zone or comparable direct control Provision of the Edmonton Zoning Bylaw.

To ensure that the commercial development site design is sustainable, efficient and attractive, site planning for the commercial site shall incorporate the following development guidelines:

- provide a vibrant and desirable community destination that promotes walkability;
- provide focal points/areas of interest at locations of high visibility and/or that are easily accessed;
- given the size and shape of the site, if private roads are to be constructed through the commercial area, provide opportunities for orientation to the street level;
- provide pedestrian routes through the site allowing for linkages to the adjacent neighbourhoods and amenities;
- provide for interesting streetscapes avoiding exposed “dead” frontages along major circulation corridors through Site layout and building façade treatment. In instances where buildings abut a major corridor appropriate architectural articulation will be incorporated;
- share a consistent architectural theme having regard for building design, façade treatments, setbacks, signage, lighting, and landscaping;

- pay attention, both from the perspective of site layout and building design, to the perimeter of the site ensuring appropriate setbacks, landscaping and façade treatment as it relates to perimeter roadways and other abutting and adjacent uses;
- provide sidewalks and generous landscaping throughout the site; and
- provide opportunities for mixed use (commercial, office, retail).

Implementation of these development guidelines will be provided at the subdivision and development permit stages.

5.6 Parks and Open Space

Approximately 22 per cent of the Rapperswill neighbourhood is designated for parks and open space. The parks and open space system is intended to support a variety of passive and active recreational activities (Figure 6). The system also provides the setting for pedestrian circulation within the neighbourhood with links to adjacent neighbourhoods. The parks and open space system is designated through municipal reserve, public utility lots and on street rights-of-way.

Bylaw 15780
June 2011

The system is comprised of four major elements:

- The natural area and associated connecting link;
- the school site;
- the stormwater management facilities; and
- the east-west diagonal gas line right-of-way corridor.

Two parks in the east and west central area are located to retain a substantial portion of the existing natural area. These park areas are connected by a linear linkage that creates an opportunity for a trail system. These natural areas and associated linkages will be a major focal point for the community and will contribute to the achievement of the City of Edmonton's conservation objectives. The two retained natural areas contain a combined area of approximately 6.71 hectares which represents more than three quarters of the Rapperswill Municipal Reserve requirements.

A 6.63 hectare Catholic Elementary/ Junior High School (K-9) site is located in the northeast quadrant of the plan north of the natural area. The school site completes an almost continuous north-south open space linkage to/from the mixed use area and stormwater management facility located in the southeast quadrant of the plan. The existing natural tree stand within this site will be retained to the extent possible until development on the school site occurs.

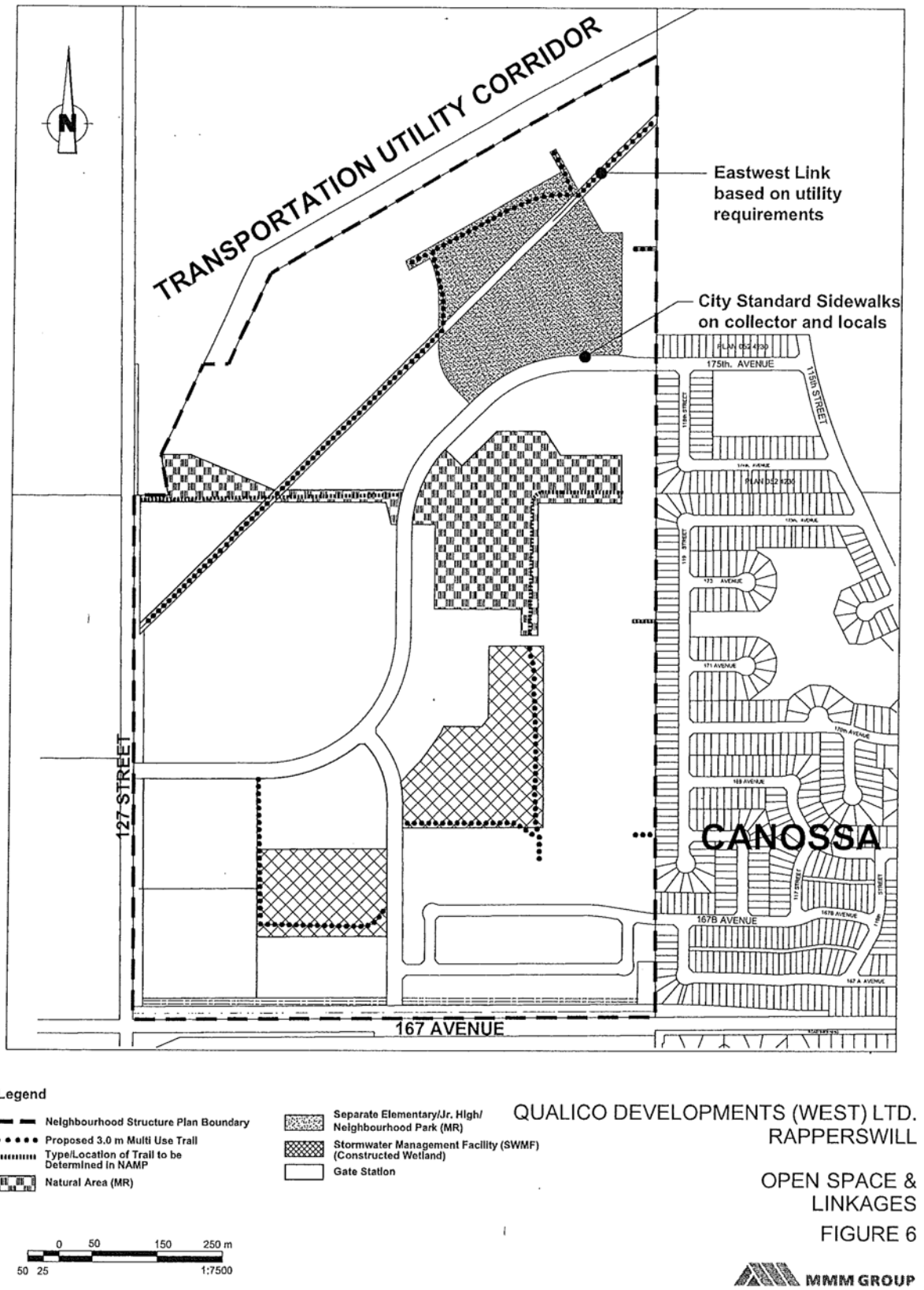
The gas line right-of-way extending through the north-western portion of the neighbourhood provides further opportunities for links to neighbourhoods to the west and northeast. The level of landscape development of this corridor will be determined by the access and maintenance requirements of the utility companies and the City of Edmonton.

Although they are designated as public utilities, the two stormwater management facilities will be a major visual and functional amenity for the neighbourhood. These open space components provide for a variety of passive and active recreational experiences. These will be enhanced by the combination of opportunities created by both the natural and pipeline corridor provides for a diverse pedestrian circulation system.

The total area of all the elements of the open space system will be 20.16 hectares, constituting 21.6 per cent of the gross developable area of the neighbourhood. The stormwater management facility has been included in the open space because even though it is designated public utility it will be a major amenity

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in Rapperswill. The open space elements include the stormwater management facility, the school site, the neighbourhood parks and the natural area. In addition, the east-west utility right-of-way will be utilized as a multi-use trail adding approximately 1.38 hectares in area, bringing the total area of open space system to 21.54 hectares.

Ten percent or 9.34 hectares of Municipal Reserve is not enough to allow the natural area to be retained and fulfill the school/ park needs too. Agreement has been reached in principle between the City of Edmonton and the private land owner for an area of approximately 4.0 hectares to be swapped to fulfill the shortfall. Negotiations between the two parties will determine the final terms of the swap.

5.7 Schools

A 6.63 hectares school is designated for a Separate Elementary and Junior High School in the northeast Plan area. In addition, space will be allocated within the site to locate a community league building and a neighbourhood park.

5.8 Multi Use Trail/Walkway System

The hierarchical multi use trail/walkway system envisioned for the plan area will include the following elements: See Figure 6.

- Multi-use trails linking the stormwater management facilities to municipal reserve areas and the roadway system;
- The type and location of trails allowed in the natural area will be determined by the Natural Area Management Plan
- Additional linkages within the neighbourhood to surrounding areas to be facilitated by a combination of on-roadway sidewalks, public utility lots, municipal reserve and open spaces; and
- Standard City of Edmonton monolithic and separate sidewalks on local and collector roads;

This varied combination of rights-of-way, on-sidewalk system, multi use trail, and walkways will provide opportunities for interesting and diverse recreation experiences within the Rapperswill community. Safety issues will be addressed during detailed design. All trails will be developed in accordance with The City of Edmonton standards. Exact details will be determined at the time of subdivision.

Access points to the TUC will also be determined at the zoning and subdivision stages of development. If a multi use trail is allowed in the TUC, the trail will be built by the developer at their cost with adjacent subdivisions. As requested by Alberta Infrastructure and Transportation *"All proposed lots along the TUC boundary must be fenced, but without gates, to prevent unauthorized access from the subdivision into the TUC."*

Authorized access to the TUC may be required by Alberta Infrastructure and Transportation in the future. A general location for this access is shown on Figure 7. The exact type and location of access will be determined at the subdivision stage.

5.9 Natural Area Management Plan (NAMP)

In compliance with Policy C531, a Natural Area Management Plan will be developed to address issues related to ongoing management, maintenance and sustainability of the Rapperswill Natural Area. The *Guidebook for Preparing Natural Area Management Plans for Edmonton's Environmentally Sensitive and Significant Natural Areas: A Working Draft Document* will guide the preparation of the NAMP.

The Natural Area is defined on Figure 6 and the area that will have to be completed and approved prior to zoning and subdivision adjacent to the Natural Area is defined on Figure 11.

6.0 Transportation

6.1 Regional Network Accessibility

The Transportation and Utility Corridor (TUC) is an integral part of Edmonton's future Ring Road. (See **Figure 7**) The south boundary of Edmonton's Transportation and Utility Corridor forms the north boundary of Rapperswill. No roadway access will be provided from Rapperswill to the Transportation Utility Corridor. Pedestrian access to the TUC may also be restricted. Walkways will be determined at the time of subdivision with the consensus of Alberta Transportation and the City of Edmonton. If a multi use trail is allowed within the TUC in the future, the trail will be built by the developer at their expense with adjacent subdivisions. Two specific conditions required by Alberta Infrastructure and Transportation are:

- 1. All proposed lots along the TUC boundary must be fenced, but without gates, to prevent unauthorized access from the subdivision into the TUC.*
- 2. Any encroachments from the subdivision into the TUC including but not limited to earthworks, pathways, increased rates of storm drainage or other activities are not normally permitted. However, Alberta Infrastructure and Transportation will consider such applications in accordance with our policy that may be viewed at www.tuc.gov.ab.ca. A letter of ministerial consent must be obtained from our department before any entry into the TUC.*

6.2 Perimeter Access

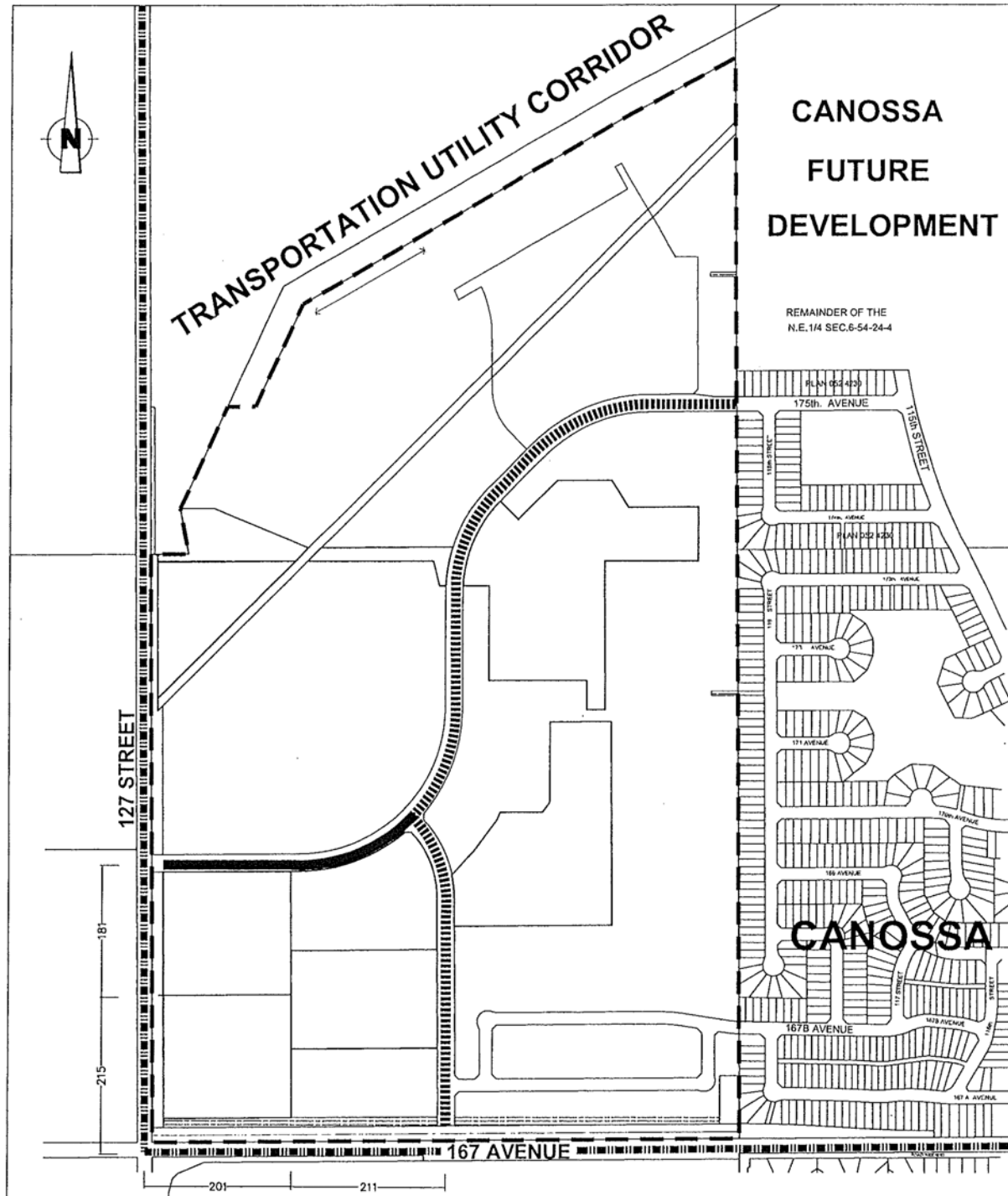
Primary access to the neighbourhood is provided from 167 Avenue on the south and 127 Street on the west (Figure 7).

There is one collector access proposed from 127 Street. The collector winds east and north through the neighbourhood and creates the primary access link through Rapperswill. The collector roadway will facilitate traffic, transit and pedestrian movement to and from the commercial area through the neighbourhood to the surrounding residential areas. Additional all-directional accesses from the arterials are planned to serve the commercial area. The exact location of the accesses will be reviewed at the subdivision stage and require the approval of the Transportation Department. Future access points on 127 Street between Albany on the west and Rapperswill to the east will be required to align. Exact locations and cross sections will be determined at the subdivision stage.

One collector accesses is provided by 'T' intersections from 167 Avenue. This collector roadway extends north from a central location in the south Plan area and intersects with the primary collector in the central portion of the neighbourhood. This initial portion of this collector east from 127 Street will be a major collector that provides safe and convenient access to the medium and low density residential uses on both sides of the roadway. It will transition to a minor collector as it turns north through the neighbourhood.

Rapperswill also has two roadway links to the Canossa neighbourhood on the east. 175 Avenue, the northern access continues the minor collector road into Canossa, while the southern access, 167B Avenue, links Canossa with a local road.

The more westerly T intersection north off of 167 Avenue provides direct access into the commercial and medium density area. It may also be restricted to right in right out.



Legend

- Neighbourhood Structure Plan Boundary
- Major Collector
- Minor Collector
- Arterial Road
- Potential Location of 6.0 m Access to TUC



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RAPPERSWILL

TRANSPORTATION
FIGURE 7



6.3 Internal Transportation System

The internal transportation system consists of two collector roads (major/minor) and a system of local roads. Local roads are conceptual only and may be revised with detailed design.

Boulevard and/or median landscape treatment at the main neighbourhood entry points will create and reinforce a sense of entry into a distinct, identifiable neighbourhood.

6.4 Transportation Impact Assessment

A Transportation Impact Assessment (TIA) provided to the City of Edmonton in support of this NSP defines appropriate roadway and intersection requirements for the NSP area in conformance with City of Edmonton standards. This assessment also recommends where the low density residential units can front onto collector roads.

6.5 Noise Attenuation

Noise attenuation will be provided along the east side of 127 Street and the north side of 167 Avenue as required by the City of Edmonton's standards at subdivision stage.

In areas where a residential subdivision is constructed adjacent to a designated highway that has not been constructed, Alberta Transportation requires that the development address future noise concerns. The province of Alberta requires noise attenuation along Anthony Henday Drive on the northern portion of Rapperswill in accordance with the City of Edmonton's Urban Traffic Noise Policy. The City's Urban Noise Policy states: "Where a freeway or arterial is proposed to be built or upgraded through or adjacent to a residential area, the roadway is to be built to meet a noise level as low as possible below 65dBA with an objective of achieving 60dBA." The Province is committed to providing noise attenuation adjacent to existing developed areas along Anthony Henday Drive to satisfy the 60 dBA objective. Where noise levels are not expected to reach 60 dBA, or where the adjacent area is yet undeveloped, no noise attenuation is required. Should noise attenuation be required at the time of development adjacent to an existing Anthony Henday Drive, noise attenuation will be provided at the Developer's expense.

A noise attenuation needs assessment will also be required for residential development adjacent to 127 St./167 Ave. in accordance with the City 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 60dBA, or construct any noise attenuation measure necessary to achieve this threshold.

6.6 Transit/Pedestrian Networks

The collector system will define a route for transit service so that all residences will be within 400 metres of transit. The surrounding neighbourhoods are substantially built out and 167 Avenue is currently being upgraded. Due to the advanced state of development in the surrounding area transit service is already in the area so the developer will not fund transit. The medium density residential land uses and the commercial site are located at the intersections of 127 Street and 167 Avenue where the best transit options are available.

7.0 Engineering Services

7.1 Stormwater Management

Storm drainage for the NSP area has been addressed in the Neighbourhood Drainage Report prepared and submitted under a separate cover. Overall, the stormwater will generally drain southward and discharge into one of two constructed wetland stormwater management facilities (SWMF) located in the southern plan area. Stormwater drainage patterns are shown schematically by Figure 8.

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The SWMF located in the southeast manages the majority of the land area, while the south-western SWMF services the adjacent commercial lands. Both major and minor storm flows within the area will drain into these facilities, with the ultimate discharge being integrated into the Kennedale trunk system.

The SWMF will meet Alberta Environment and the City of Edmonton's standards required for their design and operation.

7.2 Sanitary Servicing

The NSP area will generally drain from the north to south. The sanitary services for the Rapperswill neighbourhood will connect to the North Edmonton Sanitary Trunk (NEST) drop structure located at 127 Street and 153 Avenue. The on-site sanitary network will follow the internal roadway network and associated public utility lots to the sanitary trunk (Figure 9).

7.3 Water Servicing

Water servicing will be provided to the Rapperswill neighbourhood by the extension of existing mains along the south and west portions of the NSP area as shown on Figure 10.

The existing 300 mm main located at 127 Street will be extended to the north and looping will be accomplished by connecting to existing and proposed mains to the east in the Canossa neighbourhood. Internal looping will also be necessary as staged development occurs. A detailed water network analysis has been completed and submitted to the City of Edmonton.

7.4 Shallow Utilities

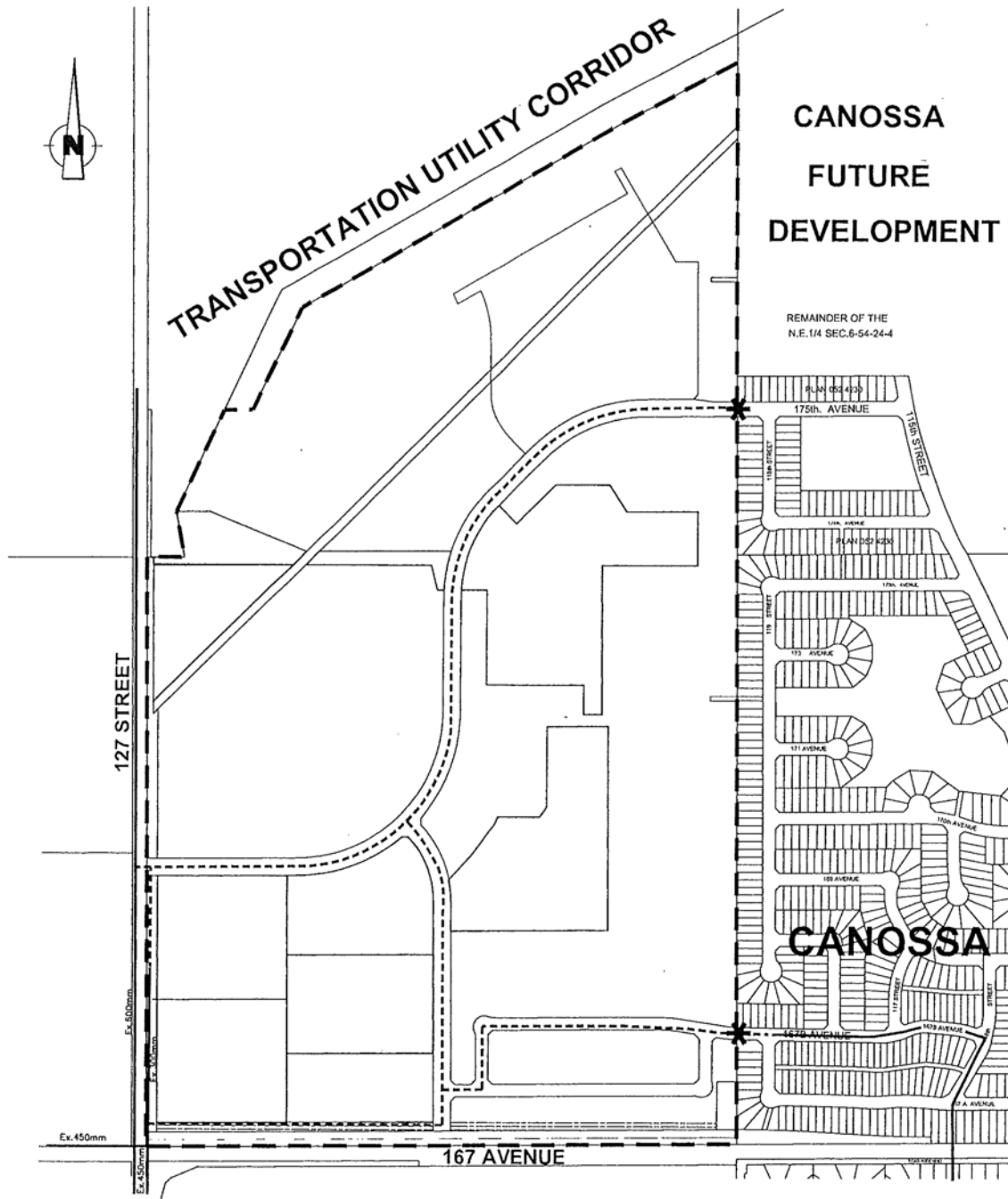
Shallow utilities, such as natural gas, power, telephone and cable TV, are available for extension into the NSP Area from adjacent lands. Gas, power, telephone and cable TV lines will be located within the road right-of-way or through easements on private land.

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N.E. 1/4 SEC. 6-54-24-4

CANOSSA

SANITARY SERVICING
FIGURE 9





Legend

- Neighbourhood Structure Plan Boundary
- Existing Water Mains
- - - Proposed Water Mains
- * Potential Looping Connection



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WATER SERVICING
FIGURE 10



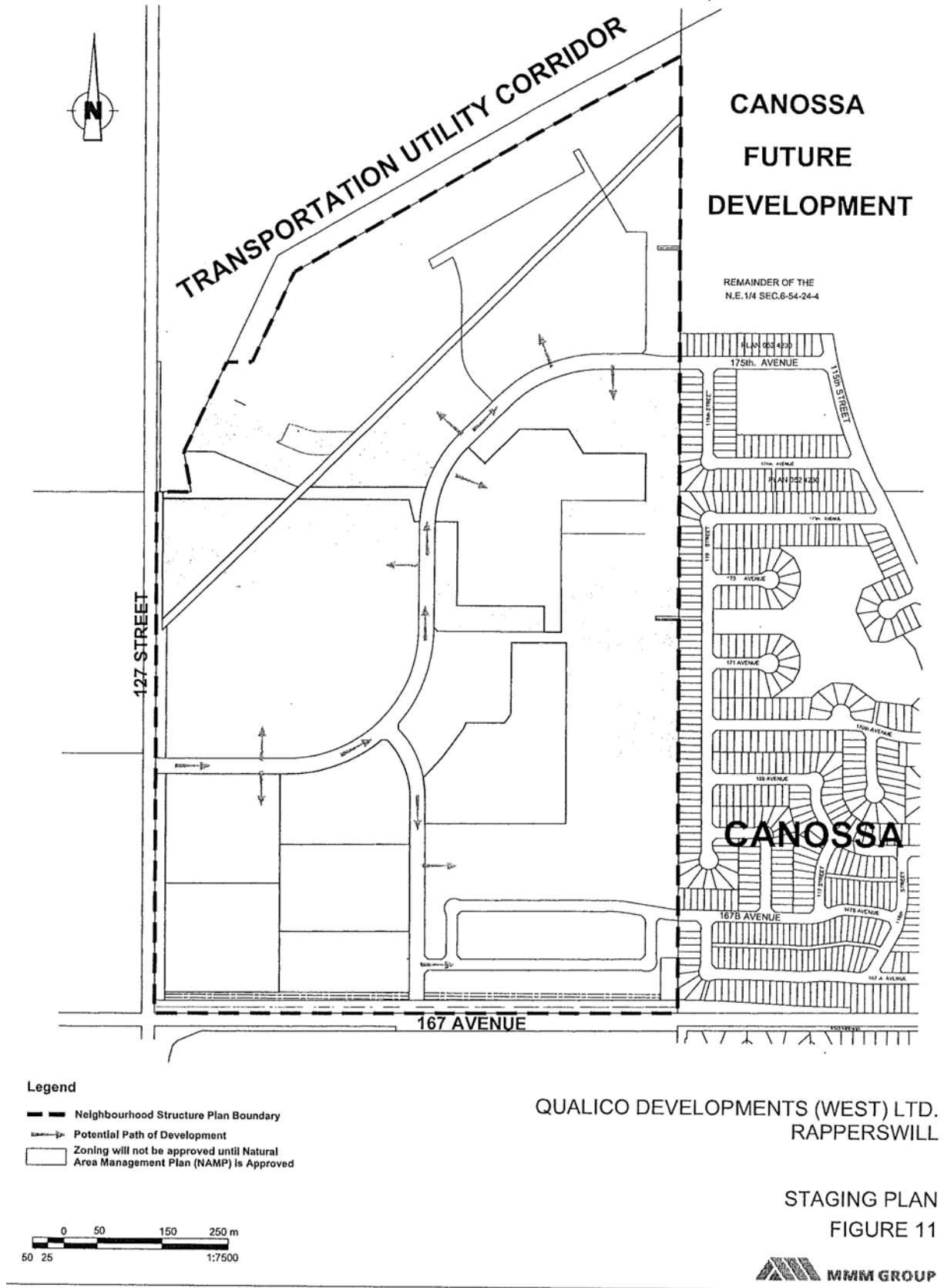
8.0 Implementation

8.1 Development Staging

Development will generally proceed from the southwest to the more northerly portion of the neighbourhood. Individual stages will be based on current market conditions. (See Figure 11)

8.2 Rezoning and Subdivision

Zoning and subdivision will be required for successive stages of development. The Natural Area Management Plan (NAMP) will have to be completed and approved prior to zoning and subdivision adjacent to the Natural Area as generally defined on Figure 11. Notwithstanding the purchase by the City and subsequent subdivision of the parcel that is to be retained as a natural area for the purposes of conservation and provision of public amenity space, no rezoning and/or subdivision of lands adjacent to the proposed natural area as delineated in the NSP will be permitted until such time as an approved Natural Area Management Plan is in place.



9.0 Summary

This Rapperswill Neighbourhood Structure Plan defines the major land uses, transportation and servicing systems for a new residential area in north Edmonton. Rapperswill retention of the existing natural area provides a strong focal point for the neighbourhood and supports the City of Edmonton's initiatives to maintain substantial environmental areas. The natural area complements the more compact mixed use area and creates diversity in the community. The compact mixed use area provides an opportunity to implement City initiatives to intensify land uses in north Edmonton.

The Rapperswill NSP has been designed to allow for changing market conditions, and community preferences. The neighbourhood will be developed to provide a variety of low density and medium density family housing opportunities responsive to changing community needs.

The NSP will lead to the completion of the fourth and final neighbourhood within the Castle Downs Extension Area Structure Plan.

Appendix A
Rapperswill NSP Land Use and Demographic Profile

RAPPERSWILL NEIGHBOURHOOD STRUCTURE PLAN
LAND USE AND POPULATION STATISTICS*
BYLAW 16801

Area (ha) % of GA

GROSS AREA	98.61	100.0%
Arterial Road Rights-of-Way	2.32	2.4%
Utility Rights-of-Way (including Gate Station)	2.84	2.9%
GROSS DEVELOPABLE AREA	93.45	100.0%
Commercial		
Major Commercial	7.79	8.3%
Parkland, Recreation, School (Municipal Reserve)		
CKC / School / Park	6.63	7.1%
Natural Area (Municipal Reserve)	6.71	7.2%
Transportation		
Circulation	17.79	19.0%
Infrastructure / Servicing		
Stormwater Management Facilities	6.82	7.3%
TOTAL Non-Residential Area	45.74	48.9%
Net Residential Area (NRA)	47.71	51.1%

RESIDENTIAL LAND USE AREA, UNIT & POPULATION COUNT

Land Use	Area (ha)	Units/ha	Units	People/Unit	Population	% of NRA
Low Density Residential (LDR)						
Single/Semi-Detached	41.93	25	1048	2.8	2935	87.9%
Medium Density Residential (MDR)						
Row Housing	1.53	45	69	2.8	194	3.2%
Low-rise/Medium Density Housing	4.25	90	383	1.8	689	8.9%
Total Residential	47.71		1,500		3,818	100.0%

SUSTAINABILITY MEASURES

Population Per Net Hectare (ppnha)	80.0
Units Per Net Residential Hectare (upnrha)	31.4
[Single/Semi-Detached] / [Low-rise/Multi-/Medium Units] Unit Ratio	70% / 30%
Population (%) within 500m of Parkland	100.0%
Population (%) within 400m of Transit service	100.0%
Population (%) within 600m of Commercial service	81.3%

STUDENT GENERATION COUNT

Public School Board	360
Elementary School	180
Junior / Senior High School	180
Separate School Board	146
Elementary School	72
Junior High School	37
Senior High School	37
Total Student Population	506

* Amended by Editor

Appendix B
Environmental Site Assessment – Key Plan

