South Glens Area Structure Plan

Bylaw 23/2002

Morinville

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TOWN OF MORINVILLE
PROVINCE OF ALBERTA

BYLAW 23/2002

BEING A BYLAW OF THE TOWN OF MORINVILLE TO APPROVE THE AREA STRUCTURE PLAN FOR Pt. S.½ 27-55-25-W4

WHEREAS the Municipal Government Act, S.A. 1994, as amended ("the *Act")* provides *that A* Municipal Council may approve an Area Structure Plan.

WHEREAS the Council of The Town of Morinville wishes to approve the Area Structure Plan for Pt. S.½ 27-55-25-W4.

NOW THEREFORE the Council of the Town of Morinville, duly assembled, enacts as follows:

1. Schedule A attached hereto be adopted and form the Area Structure Plan for Part of the S. ½ Sec. 27-55-25-W4, being Bylaw No. 23/2002 and any amendments thereto.
2. That this Bylaw shall come into full force and effect on the third reading thereof.

READ a first time this 9th day of July, 2002.

READ a second time this 10 day of Septembe1; 2002

READ a third time and finally passed this 24 day of September ,2002

Mayor

Town iJ"anager

SECTION 1 SEVERABILITY

1.1 If any Section or Sections of this Bylaw or parts thereof are found in any court of law to be illegal or beyond the power of Council to enact, such Section or Sections or parts thereof shall be deemed to be severable and all other Sections or parts of this Bylaw shall be deemed to be separate and independent therefrom and to be enacted as such.

Stantec

MORINVILLE SOUTH GLENS AREA STRUCTURE PLAN
Part of the S ½ Sec. 27-55-25-W4
Morinville, Alberta

Prepared for:

Sterling Properties

Prepared by:

Stantec Consulting Ltd.
Edmonton, Alberta

August 2002

161 00009

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1.0 Introduction

1.0 Introduction

1.1 PURPOSE

The purpose of this Area Structure Plan (ASP) is to describe the land use framework and development objectives for lands in south Morinville located immediately north of Cardiff Road and west of Boundary Road. The area of the ASP is contemplated in the Morinville Municipal Development Plan (MOP) as one of a number of neighbourhood units accommodating future growth in Morinville.

The ASP covering lands in SE ¼ and the east half of the SW ¼ of Sec. 27-55-25-W4 has been prepared by Stantec Consulting Ltd. on behalf of Sterling Properties.

The overall concept puts forth a pattern for development as a community of residential, commercial and recreational opportunities integrated with complimentary land uses. In order to achieve this, the ASP is designed with interconnected parks and open space linkages, the development of high-quality and varied residential development opportunities and commercial uses serving both the immediate and surrounding market. Together, these aspects will provide the Town of Morinville with a vibrant and sustainable area for community development.

The ASP describes the land use framework and development objectives by identifying the type, size and location of various land uses, density of development, location of major roadways, conceptual servicing designs and sequence of development. The detailed design of each phase (redistrictings and plans of subdivision) will refine the concept presented by the ASP.

Approval of the ASP will provide the basis for proceeding with the land use concept generally as shown. The internal road layout will be confirmed at the time of detailed engineering and subdivision.

The ASP provides the opportunity to develop components of the overall design in the initial phases of development through commercial and recreational amenities, a variety of housing forms and lifestyles incorporated as an integral part of the overall development concept.

1.2 DEFINITION OF PLAN AREA

The ASP is comprised of land located within the east half of the SW ¼ and the SE ¼ Sec. 27-55-25-W4 and is approximately 96.7 hectares (239 acres) in size. As shown in **Figure 1.0 - Context Plan,** the ASP is defined by the following boundaries:

- **North Boundary-** Morinville Industrial Park & the NE¼ Sec. 27-55-25-W4
- **West Boundary-** West half of the SW ¼ Sec. 27-55-25-W4
- **East Boundary -** East Boundary Road
- **South Boundary -** Cardiff Road

Figure 1 also shows the area of the ASP in relation to the surrounding areas of Morinville.

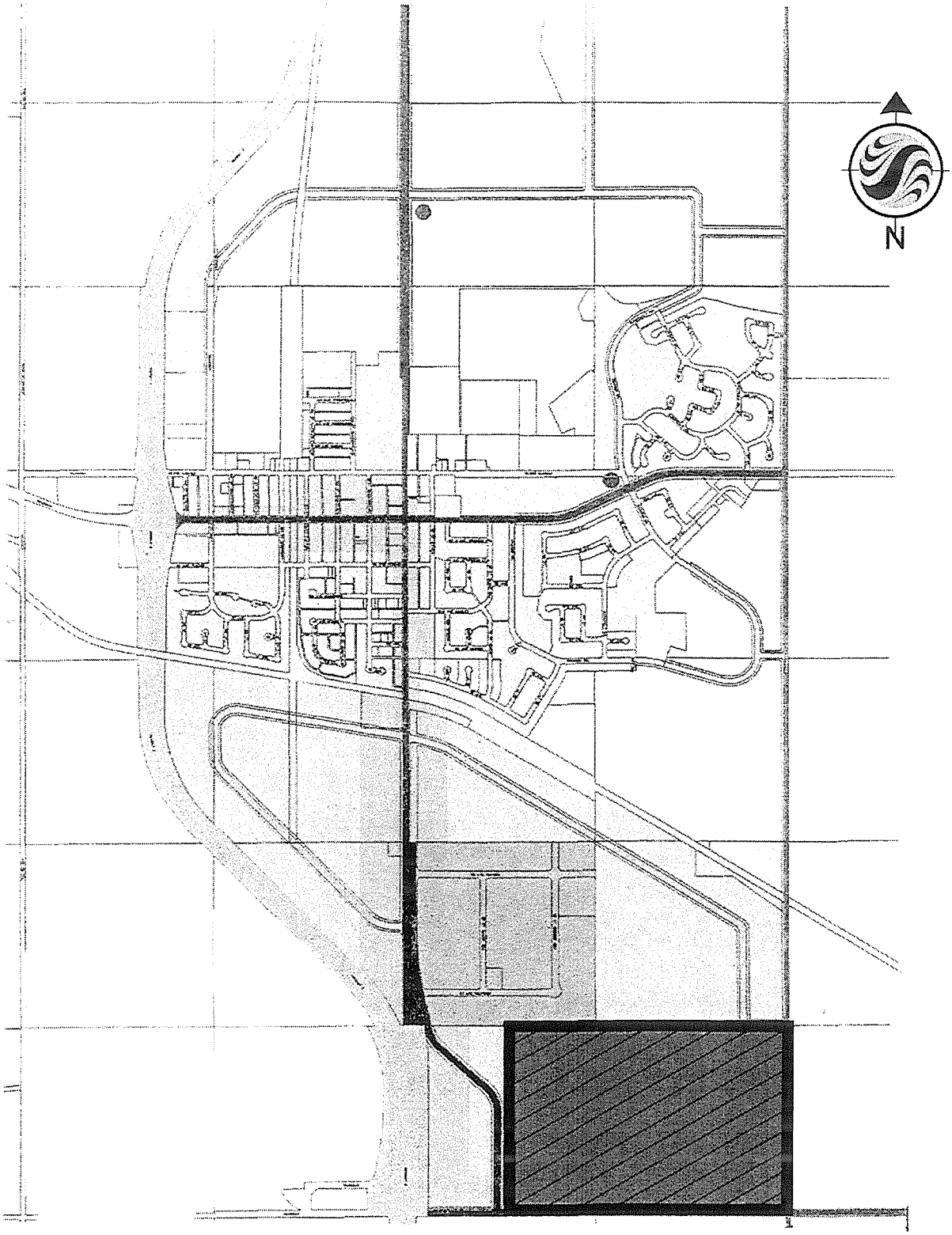
The ASP constitutes a logical planning unit with respect to identifiable plan boundaries and servicing considerations, and is consistent with the Morinville MOP.

1.3 BACKGROUND

The ASP for the east half of the SW¼ and the SE¼ Sec. 27-55-25-W4 has been prepared as a guiding document for development within the subject lands. The Morinville MOP and the Municipal Government Act allow for the creation of this ASP which follows the guidelines and policies set forth by the Town of Morinville for the development of new areas.

The ASP provides general principles and broad land use categories upon which the development pattern is anticipated, though it also provides flexibility for the changing market place.

The area covered by the ASP was part of a larger area annexed by the Town of Morinville in 1982.



MORINVILLE, AB.

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Client/Project
STERLING PROPERTIES
MORINVILLE SOUTH GLENS
AREA STRUCTURE PLAN

Figure No.
1.0

Title
Context Plan

August, 2002
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2.0 Site Context & Development Considerations

2.0 Site Context & Development Considerations

2.1 TOPOGRAPHY, SOILS & VEGETATION

The topography of the ASP is relatively flat although with some variation. There are rises approximately 2m to 3m high in the southeast, central and north-central areas with the lowest areas of the plan lying in the south-central and west portions. Elevations range from approximately 703m to 698m for a total grade change of about 5m.

The soil development and texture of this area is classified as clay loam with the parent mode of deposition being undulating lacustrine. Soil conditions do not present any impediment to the development of this area for urban land uses.

The area subject to the ASP has been used for agricultural purposes for many years. There are occasional tree stands and scrub brush located throughout the site.

2.2 EXISTING LAND USE

The subject area consists primarily of agricultural land with no buildings of any kind on the land. The current districting is UR - Urban Reserve.

Utility Right-of-Way Plan 792 0638 is located along most of the north boundary of the ASP and includes a waterline. Right-of-way Plans 752 1305 and 812 1413 run along the entire east side of the plan adjacent to the west side of East Boundary Road and contain sanitary and water lines. A buried telephone cable extends along the entire south and east boundaries of the ASP.

2.3 SURROUNDING DEVELOPMENT

The land to the north located in the NW¼ Section 27-55-25-W4 is developed as the Morinville Industrial Park with future residential land to the east in the NE ¼ Sec. 27-55-25-W4. Land to the west in the remainder of the SW¼ Sec. 27-55-25-W4 is designated for future industrial land. Lands to the south and east in Sturgeon County are presently agricultural.

3.0 Development Objectives & Principles

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3.1 DEVELOPMENT OBJECTIVES

The ASP for Part of the S ½ of Sec. 27-55-25-W4 has been prepared as a comprehensively planned residential neighbourhood taking advantage of both the potential for commercial opportunities fronting onto Cardiff Road in the southwest corner of the neighbourhood and other locational attributes of the area. The main objectives of the ASP are:

- to develop a plan consistent with the general intent and purpose of the Town of Morinville MOP;
- to provide a framework to deliver high quality, comprehensively planned residential, commercial and open space areas by defining the general pattern and composition of land uses, linkages, servicing designs and development staging;
- to address and accommodate the surrounding, existing uses affecting the plan;
- to ensure the implementation of the plan takes place on an orderly, phased basis.

3.2 DEVELOPMENT PRINCIPLES

Development of the various land uses within the ASP is defined through the following general principles:

3.2.1 Residential

- Encourage a variety of housing types, including single and semi detached housing, modular housing, town housing, low-rise apartments, adult-living & seniors complexes and opportunities for home office uses. All housing forms and options will recognize consumer preferences and be in conformance with municipal standards and policies set forth by the Town of Morinville.
- Encourage pedestrian friendly streetscapes and building siting.

- Establish sufficient overall residential densities within the ASP to help support the efficient provision of municipal services, recreational and educational facilities in a timely fashion.

- Provide direct and safe pedestrian linkages to residential development cells and community nodes such as commercial, open spaces and the school site.

- Locate residential development to take advantage of features such as Stormwater Management Facilities, the parks/open spaces and commercial amenities.

- Orient the medium / high density residential development sites adjacent to the collector and arterial road system and the commercial areas to provide easy access and, where appropriate, to provide a transitional land use between adjacent low density residential and manufactured housing community, commercial areas and the major roads.

- Provide appropriate buffering for the residential areas of the plan along the industrial area to the west and northwest, and the future arterial roads to the south and east (Cardiff Road and East Boundary Road).

3.2.2 Commercial

- Provide for commercial development opportunities within the ASP to serve the immediate and surrounding areas.

- Locate and orient commercial sites along the arterial and collector roadways to ensure high visibility and to provide safe and convenient access opportunities.

- Integrate commercial developments into the fabric of the neighbourhood to the extent possible without causing negative impacts on surrounding land uses.

- Provide convenient pedestrian linkages to the commercial areas.

3.2.3 Municipal Reserves and Educational/ Community Facilities

- Provide school and park sites for educational and community facilities within the neighbourhood through the dedication of municipal reserves.
- Locate and size these sites to address the student and overall populations generated within the ASP and in the context of surrounding areas.
- Allow for the provision of dispersed park space within the neighbourhood to provide open space and recreational opportunities for residents through the dedication of Municipal Reserves.
- Where possible and economically viable and sustainable, utilize the Stormwater Management Facilities to provide pedestrian linkages and open space recreational opportunities.

3.2.4 Transportation

- Provide a logical, safe and efficient transportation system within the plan area to address pedestrian, bicycle and other multi-use modes, and the transit / vehicular transportation needs of residents moving to, from and within the ASP as well as the adjacent areas.
- Provide non-vehicular circulation options throughout the ASP with special attention to linkages to the School/Park site, Stormwater Management Facilities and future adjacent areas.
- Minimize walking distances by creating an interconnected street network and providing walkways where roadway connections are not feasible.
- Protect a corridor for the future improvement of Cardiff Road and East Boundary Road including utilities.
- Address the impact of the ASP on Cardiff Road, Morinville Road (100th Street), East Boundary Road, Highway 2 and overall traffic patterns for the area.

3.2.5 Ecological Stewardship

- Develop land in an efficient manner and encourage intensive development.
- Incorporate open spaces into compatible land uses such as the Stormwater Management Facilities and the utility corridor along the north and east sides of the neighbourhood.
- Encourage naturalized landscaping on public and private lands to the extent acceptable to the Town of Morinville to minimize environmental and economic costs associated with their maintenance.
- Promote the development of open spaces and walkway linkages for pedestrian, bicycle and other multi-use travel, and connect them to the surrounding areas.
- Encourage energy efficient construction and other innovative building and infrastructure techniques.

4.0 Development Concept

4.0 Development Concept

4.1 NEIGHBOURHOOD UNIT

The development concept for the ASP has been prepared in response to current and anticipated residential and commercial market trends within Morinville and the immediately surrounding area. An analysis of these trends and an assessment of their implications assist in shaping the plan with respect to the type, size and location of various land uses.

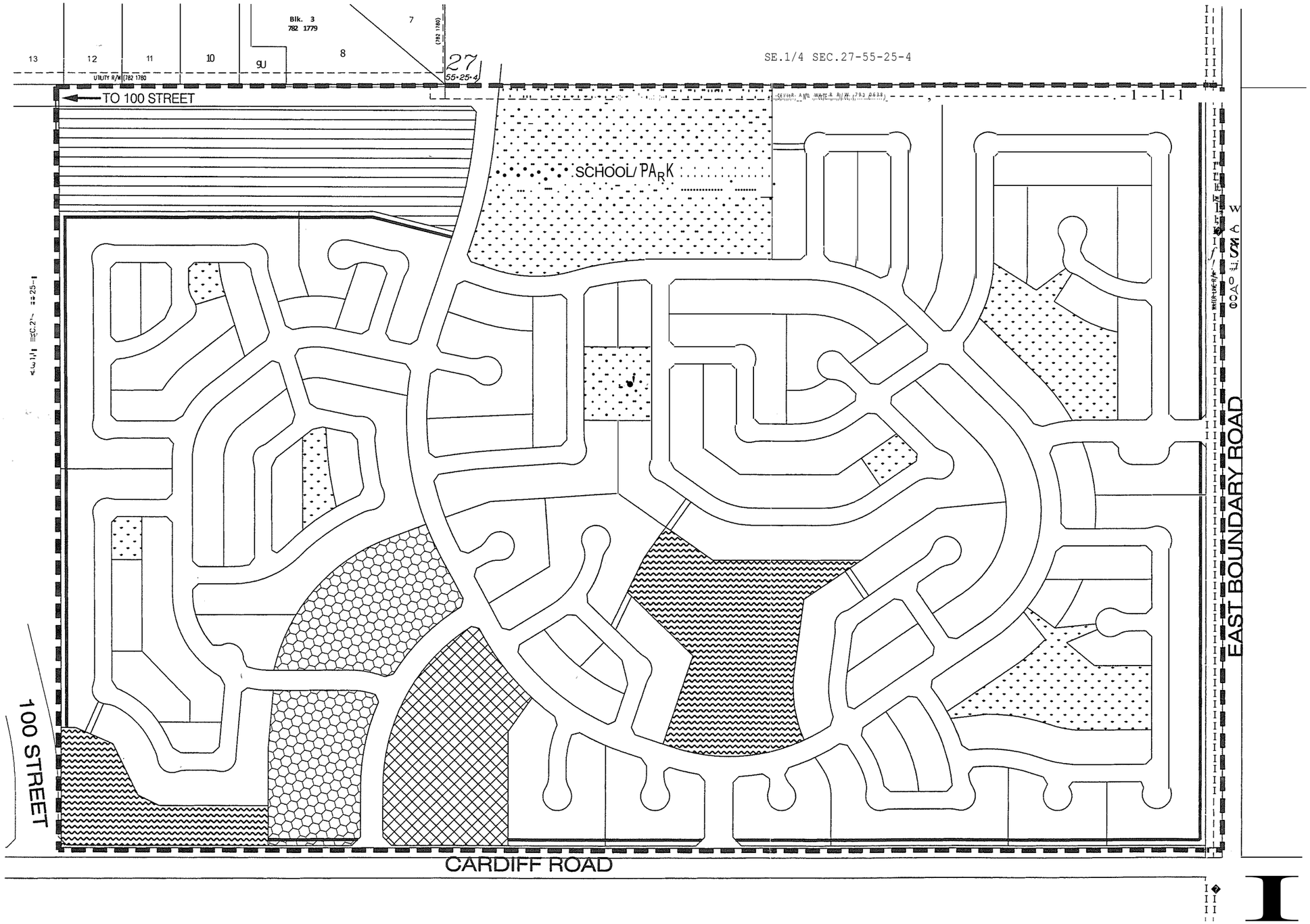
The ASP is comprised of approximately 96.7 hectares of land and is bounded on the west side by future industrial land, to the northwest by the existing Morinville Industrial Park, to the northeast by future residential land, and agricultural land to the south and east located in the Municipal District of Sturgeon. These boundary conditions create a logical planning unit and the basis for design as shown on Figure **2.0 - Development Concept.** The land use statistics, number of residential units and population are represented in **Table 1 - Land Use & Population Statistics** following the Development Concept.

4.2 RESIDENTIAL

The majority of land within the ASP is intended for residential development. A mix of low and medium / high density residential dwelling units is described and will be implemented based on market conditions and consumer preferences at the time of development. Residential densities of 20 units per net hectare for low density residential and 50 units per net hectare for medium / high density residential are used in the calculation of the estimated numbers of residential units for the neighbourhood. The numbers of people per household used for both population and student generation estimates are 3.6 for the low density residential and 2.6 for medium / high density residential.

4.2.1 Low Density Residential

As shown in the Development Concept, consideration has been given to the location of low density residential in proximity to the amenities offered by the commercial areas, Stormwater Management Facilities, walkways, school & park sites, transportation routes / nodes and utility corridors. Within the low density residential areas identified in the ASP, housing forms will consist of single and semi detached housing and modular housing catering to a variety of lot and home sizes permitted in



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Disclaimer

This is not a Legal Plan. Dimensions. Setback widths and locations for Electric-01, Telephone and Cable Television pedestals. street lights and mailboxes are compiled from available information and are subject to change without notice. for verification of infannotion call (403) 231-8900.

Legend

- LOW DENSITY RESIDENTIAL
- MEDUIM/HIGH DENSITY RESIDENTIAL
- COMMERCIAL
- SCHOOL/PARK AREAS
- STORMWATER MANAGMENT FACILITY
- STORAGE FACILITY
- BUFFER

Notes

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Client/Project
STERLING PROPERTIES
MORINVILLE SOUTH GLENS
AREA STRUCTURE PLAN

Figure No.
2.0

Title
Land Use
S.1/2 27-55-25-W4M

August. 2002
161 00009

Stantec

TABLE 1

MORINVILLE SOUTH GLENS
AREA STRUCTURE PLAN
Part of the S 1/2 Sec. 27-55-25-W4
LAND USE & POPULATION STATISTICS

LAND USE		Area (ha}	%ofGDA
Gross Developable Area		**96.70**	**100.0%**
North & East Utility R/Ws		2.82	2.91%
Cardiff Road & East Boundary Road Widenings		1.51	1.56%
Commercial		2.35	2.43%
School / Park Sites		9.67	10.00%
Stormwater Management		4.62	4.77%
Storage Facility		4.77	4.93%
Circulation		17.41	18.00%
Collector Roads	8.16		
Local Roads	9.17		
Walkways	0.08		
Total Non-Residential Area		**43.14**	**40.14%**
Net Residential Area		**53.56**	**59.86%**

RESIDENTIAL LAND USE, DWELLING UNIT COUNT AND POPULATION

Land Use	Area (ha)	Units/ha	Units	% of Total	People/Unit	Population
Low Density Residential	50.16	20	1003	86	3.46	3471
Medium/High Density Residential	3.40	50	170	14	2.6	442
Total	**53.56**		**1173**	**100.00**		**3913**

Gross Density: 40.5 persons per gross developable hectare

STUDENT GENERATION*

	Elementary (K-6)	Junior High (7-9)	Senior High (10-12)	Total
Total	235	235	235	704

Calculation of Student Population:
K-6 33.3% 7-9 33.3% 10-12 33.3%

the R-1, R-1 C, R-1 D and R2 Districts. The minimum lot sizes permitted for the low density residential areas will comply with the R-1 C District for single-detached homes and modular homes, and the R2 District for semi-detached homes.

The areas surrounding the south-central stormwater management facility may well include larger lot sizes in providing for a variety of residential lot values including a number of lots designed for walk-out basements. Similarly, the areas surrounding the school & park sites may include a choice of larger lot sizes backing onto these open space amenities.

Low density residential development will be planned in clusters/cells to provide a greater sense of identity to the various residential sub-areas and to create a safe pedestrian environment. Architectural guidelines may be employed within the low density residential areas to ensure esthetically pleasing residential streetscapes.

For the purpose of this ASP, modular homes are defined as single-detached dwellings which may be constructed in pieces off-site with the pieces being transported to the site for assembly on-site. The structure is supported on a permanent foundation or base extending below grade and includes a roof pitch greater or equal to 1:4 with eaves more than 45 cm and a ration of the above not less than 2.5:1. When placed and/or assembled on-site, modular homes look completely like conventional stick-built housing.

The estimated land area, number of dwelling units (1003 units) and population attributed to the low density residential areas are identified in Table 1.

4.2.2 Medium / High Density Residential

Market trends in medium / high density residential development point to a growing interest in more lifestyle-oriented housing and thus a shift of locating medium / high density sites closer to low density housing and oriented away from arterial roadways. The ASP proposes that the medium / high density residential areas be more integrated into the community with access off the collector roadways. These medium / high density areas are also located adjacent to the stormwater management facilities and commercial areas in helping to ensure exposure of these features to many residents. It should be noted, however, that the location of medium/ high density areas still respects that through-traffic within low density residential areas should be reduced and/or eliminated wherever possible and as such all medium / high density residential areas have been located with direct access to the major roadways to ensure efficient traffic circulation for the neighbourhood.

While the medium / high density areas are likely to be developed on a self contained basis, opportunities exist for a variety of medium / high density housing forms

including townhomes, row housing, stacked townhomes and low rise apartment buildings found in the R2-M and R3 Districts. Opportunities also exist for the development of more adult-living style developments and assisted-living seniors 4 storey apartment complexes. In each instance, the medium / high density areas will be integrated alongside the low density residential housing through sensitive streetscape design, appropriate landscape treatment and attention to transitioning.

There are two medium / high density areas located within the plan situated west of the collector road leading south to Cardiff Road. The north area measures approximately 1.85 hectares while the south approximately 1.55 hectares. These areas are intended to be developed with a maximum allowable density of 125 units per hectare although a blended rate of 50 units per hectare is used in anticipation there will be a mix of housing forms on the two areas. Each of the medium / high density areas has also been designed to accommodate single detached or semi detached layouts if the market prefers.

All of the medium / high density residential areas have been located with direct access to the major roadways to ensure efficient traffic circulation throughout the neighbourhood.

The estimated net area, number of dwelling units (170 units) and population attributed to medium/ high density residential areas are also shown in Table 1.

4.2.3 Buffer

Residential areas will be buffered from surrounding industrial land uses and arterial roads for sound and visual impact. Buffers will consist of berm and/or fence the specific design of which will be determined at the detailed development stage with appropriate consideration given to both siting and grading. The existing trees along the west boundary may form part of the buffer if detailed development plans (including siting and grading) permit.

The depth of the storage area is approximately 109 m which when combined with the east-west collector road and required yard requirements for both residential and industrial uses results in a minimum separation of approximately 152 m (500 ft) between any industrial buildings and residential homes. There is the potential for continuous building massing within the self-storage facility providing an added buffer between the industrial and residential uses and therefore requiring only a visual barrier between the storage area and residential land uses.

4.3 COMMERCIAL

Commercial is shown for the area adjacent to Cardiff Road and east of the Medium / High density areas. At this location, the commercial will act as an important focal point for the neighbourhood as well as serving vehicles traveling along Cardiff Road.

The commercial area is of sufficient size to support a variety of commercial uses accommodating a range of retail, business, medical and professional office uses to serve residents of the ASP and immediately surrounding areas.

Located on the periphery of the neighbourhood with access to both arterial and collector roadways, development of the commercial area will ensure convenient access to residents while maintaining appropriate traffic patterns and volumes in the neighbourhood.

4.4 STORAGE

The storage area serves as a transitional land use between the residential areas of the ASP and the existing Morinville Industrial Park to the northwest.

Anticipated uses within the storage area include self-storage facilities and outdoor storage for recreational vehicles and boats. The area will be appropriately screened from residential properties.

4.5 PARKS AND OPEN SPACES

Parks and open spaces are provided in optimal locations throughout the ASP. Combining the areas, including the open space sites located within the Modular Homes portion, the total amount of school / park/ open space in the ASP equals approximately 9.67 ha or 10.0% of the Gross Developable Area.

4.5.1 School / Park Site

One site in the north-central part of the ASP is identified for a large park space with the possible development of a school. This area enjoys high visibility and accessibility by virtue of its location on the main north-south collector road and its connection with the sewer and water R/W along the north boundary of the ASP. The site is appropriately located to serve the ASP as well as future areas to the north without significantly disrupting local traffic flows.

The ASP focuses on this area and the south-central stormwater management facility in order to provide quality open space and recreational amenities for the neighbourhood.

In order to provide a suitable building site for the school (and possible community league), there may be a requirement for adjustments to the siting to accommodate variations in soil conditions. The ultimate configuration will be designed to the satisfaction of the Town of Morinville and Greater St. Albert Catholic Schools.

The school / park site is approximately 5.13 ha in size although the detailed subdivision layout will determine the ultimate configuration and size.

4.5.2 Local Park Sites

A number of local park sites are located within the various development cells. They range in size from approximately 1,400 sq.m. (Tot Lots) to approximately 1.34ha for the more active open space areas. These local sites provide areas of park space closer to residents in the immediate vicinity and offer a variety of open space recreational opportunities separate from those of the larger school / park site to the north.

4.5.3 Walkways

The ASP has been designed around the concept of community recreational nodes connected to all areas of the neighbourhood by walkways and the internal road network.

The walkway system provided between development cells and along the roadways within each cell / cluster will be designed according to the Town of Morinville standards and will be appropriate for each area.

The walkway system will connect all areas of the plan with appealing, safe and direct access to the community recreational nodes as well as to areas outside the plan. At the same time, the walkways make the most efficient connections for pedestrian and multi-use travelers.

4.6 STORMWATER MANAGEMENT FACILITIES

Two stormwater management facilities have been located in the southwest and south-central areas of the plan to take advantage of the existing topography and low lying areas. The facilities also provide for recreational opportunities and have been configured to provide views from residential enclaves as well as from the walkway linkages and roadway network.

4.7 TRANSPORTATION

The system of roads proposed for the ASP provides its residents and the surrounding, travelling public with safe and efficient access for this area of Morinville.

The ASP incorporates a number of internal roads which provide excellent access to various neighbourhood destinations such as the school / park site, local parks, the south-central stormwater management facility and commercial area.

The collector road entrances from the surrounding arterial roads may include features to enhance the character of the area and provide a distinct identity for the **ASP.**

The proposed developments within the S1/2 of 27-55-25-4 will have an effect on Cardiff Road {Twp. Rd. 554), Morinville Road (100th Street), East Boundary Road (Rge. Rd. 252), and Highway 2. In order to reduce the impact on these roads and their intersections, the following is considered:

- Distribute the traffic generated from the developments to as many arterial roadways as possible and in as many directions as possible. It is recognized that good dispersion of traffic throughout a well-spaced roadway network is more desirable than convergence on a single roadway or intersection, creating an unmanageable high volume area. The residential/commercial development will have major collector accesses directly on Cardiff Road to the south and on East Boundary Road to the east. Access to the west will be provided by an east-west collector roadway that will connect to Milford Avenue. North access will be available in the future, once development occurs in the quarter section to the north.

- Improve key roadways and intersections to provide safe and efficient flow of traffic. Morinville Road and the Morinville Road & Cardiff Road intersection were identified as focal points for improvements. It was determined that the Morinville Road & Cardiff Road intersection would function better in the future if the intersection was relocated approximately 315 metres to the east. Additionally, an intersectional treatment would be applied to provide improved turning movements and minimize waiting periods.

- As the subdivision progressively develops, the construction of internal roadways and key improvements will occur in a systematic order to provide relief to the roadway network in south Morinville. In coordination with the staging of the subdivision development and occupancy, various new internal roadways and connections with existing roadways will be provided. Improvements to Morinville Road and the Morinville Road & Cardiff Road intersection will also occur in a similar fashion.

4.7.1 ARTERIAL ROADWAYS

Future arterial roadways are located on the south (Cardiff Road) and east (East Boundary Road) sides of the neighbourhood to accommodate the neighbourhood's major internal & external traffic flows.

4.7.2 COLLECTOR ROADWAYS

Access to the surrounding one-mile arterial grid system is provided by collector roadway facilities traversing the neighbourhood. Collector roadways providing internal & external access are spaced at a minimum of 200m intervals to facilitate traffic progression and to ensure that sufficient intersection spacing is provided. The northwest collector provides a connection to 100 Street to reduce the amount of interim traffic travelling to and from downtown via Cardiff Road. This connection may well be temporary until such time as future residential areas to the north are developed with a more northerly connection to 100 Street.

4.7.3 LOCAL ROADS

The system of local roads has been planned to provide access to individual development cells while at the same time discouraging outside traffic from short cutting through the neighbourhood. Local roads have been designed to meet the standards of the Town of Morinville.

5.0 Engineering Services

5.0 Engineering Services

This section of the ASP defines the municipal infrastructure servicing concepts that are intended to guide the proposed development area. The general concepts for routing and phasing of the water, sanitary and storm sewer systems and roads are presented herein, with the specifics to be provided at the detailed engineering stage for each subdivision.

5.1 WATER DISTRIBUTION

The main water supply for the area will be the existing 300 mm diameter water main at the south boundary of the Morinville Industrial Park. The 300 mm water main will traverse the site and will provide future connections to the undeveloped land to the north and east. The supply system is shown schematically on Figure 3 - Water Distribution. The sizing conforms to the Town of Morinville Shared Costs Study, Water Mains.

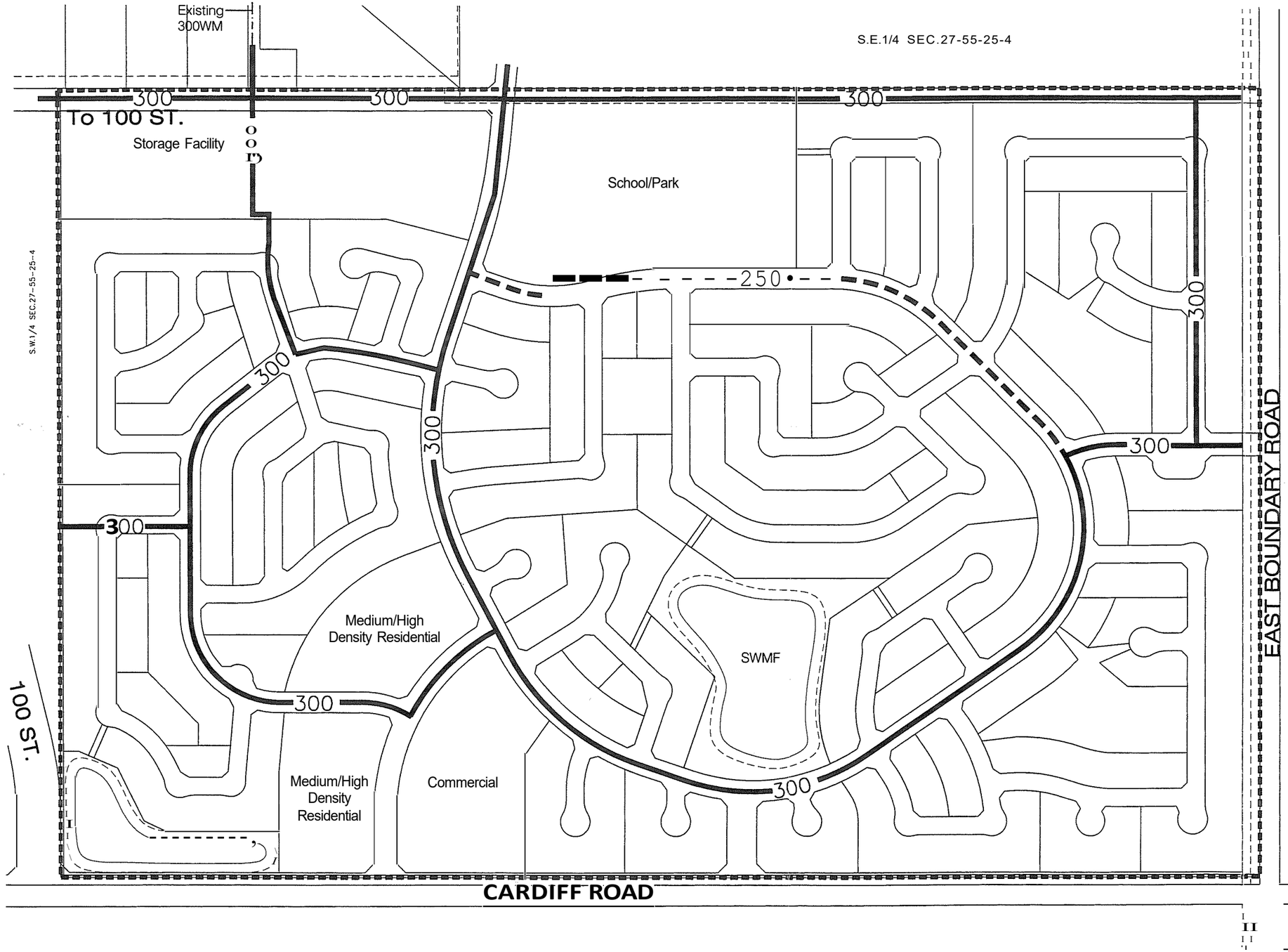
5.2 SANITARY SEWER SYSTEM

The sanitary sewers for the plan area drain northerly by gravity to the existing lift station located at the south boundary of the Morinville Industrial Park. The design catchment area for the lift station did not include this plan area. The lift station is presently operating at approximately 50% capacity, and the available capacity will be lent to the development. The lift station capacity will be assessed as the development proceeds, and as development in the design catchment area proceeds to determine if and when an upgrading to the lift station and force main may be required.

The locations of the sanitary mains and their diameters are shown on **Figure 4 - Sanitary Sewer System.**

5.3 STORMWATER MANAGEMENT

For most of the SE27 quarter section, the storm runoff drains towards a poorly defined low area in the south central portion of the quarter section. During larger runoff events, this low area spills to the road ditch on the south boundary of the quarter section. About 8 ha of land along the southern boundary drains directly to the south road ditch. This road ditch drains about 350 m west of the quarter section to a culvert draining south under the road. South of this culvert, a swale continues south



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Legend

ASP Boundory

Proposed 300 Watermoin

Proposed 250 Watermoin

Existing 300 Watermoin

Notes

Revision	Date
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Client/Project
STERLING PROPERTIES
MORINVILLE SOUTH GLENS
AREA STRUCTURE PLAN

Figure No.
3.0

Title
Water Distribution System
S.1/2 27-55-25-W4M

August, 2002
161 00009

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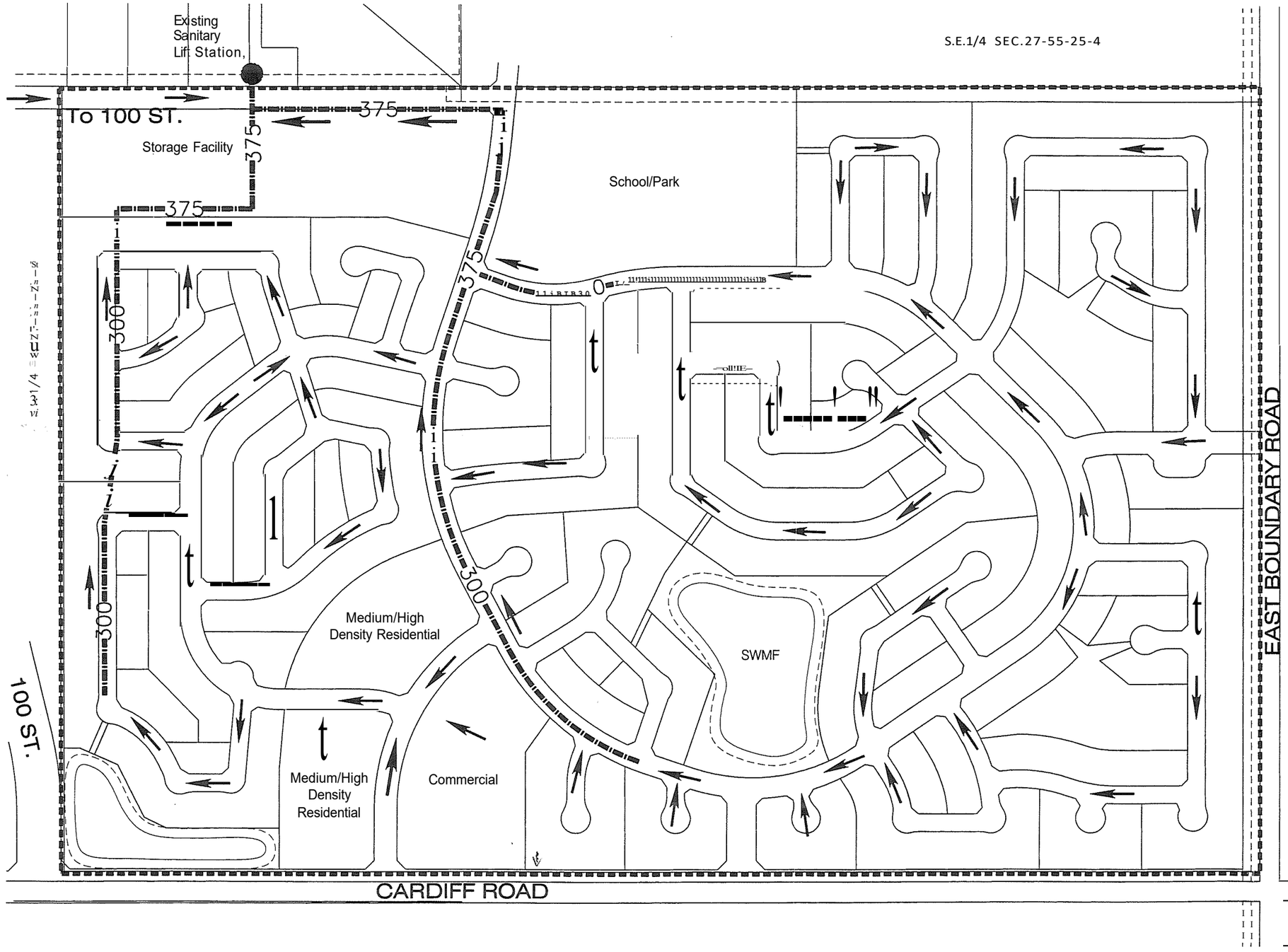

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Legend

ASP Boundary

Proposed Sanitary Trunk

Direction of Sanitary Drainage - - = E -

Notes

No.	Revision	Date
A		

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STERLING PROPERTIES
MORINVILLE SOUTH GLENS
AREA STRUCTURE PLAN

Figure No.

4.0

Title

Sanitary Sewer System
S.1/2 27-55-25-W4M

August, 2002
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for about 3.7 km to where it joins the Highway 2 ditch that continues draining further south.

For the east half of the SW27 quarter section, the storm runoff drains to several poorly defined low areas. During larger runoff events, these low areas will spill south to a dugout located on the southern boundary of the site. This dugout spills to the culvert under the south road mentioned previously.

A significant portion of off-site drainage enters the SE27 quarter section from the north and east. Most of the NE27 quarter section drains overland to the SE27 quarter section. Most of the SW26 quarter section drains onto the site through a culvert under the east road. The road on the south boundary of SE27 prevents drainage from the south.

Some off-site drainage also enters the east half of the SW27 quarter section. The industrial development located to the north redirects away from the site. A portion of the west half of the SW27 quarter section drains overland onto the site. The road to the south prevents drainage from the south.

For the proposed development, two storm ponds will be used to control the site runoff to near predevelopment flow levels. Each of these storm ponds will discharge to the existing culvert under the south road. The first few hundred meters of the swale located south of this culvert will be lowered about 0.3 meters or less to improve the overall drainage. Off-site flow from the north and the east will be directed to the new storm drainage system. Off-site flow from the west will be directed south to the south road ditch by a swale on the west site boundary.

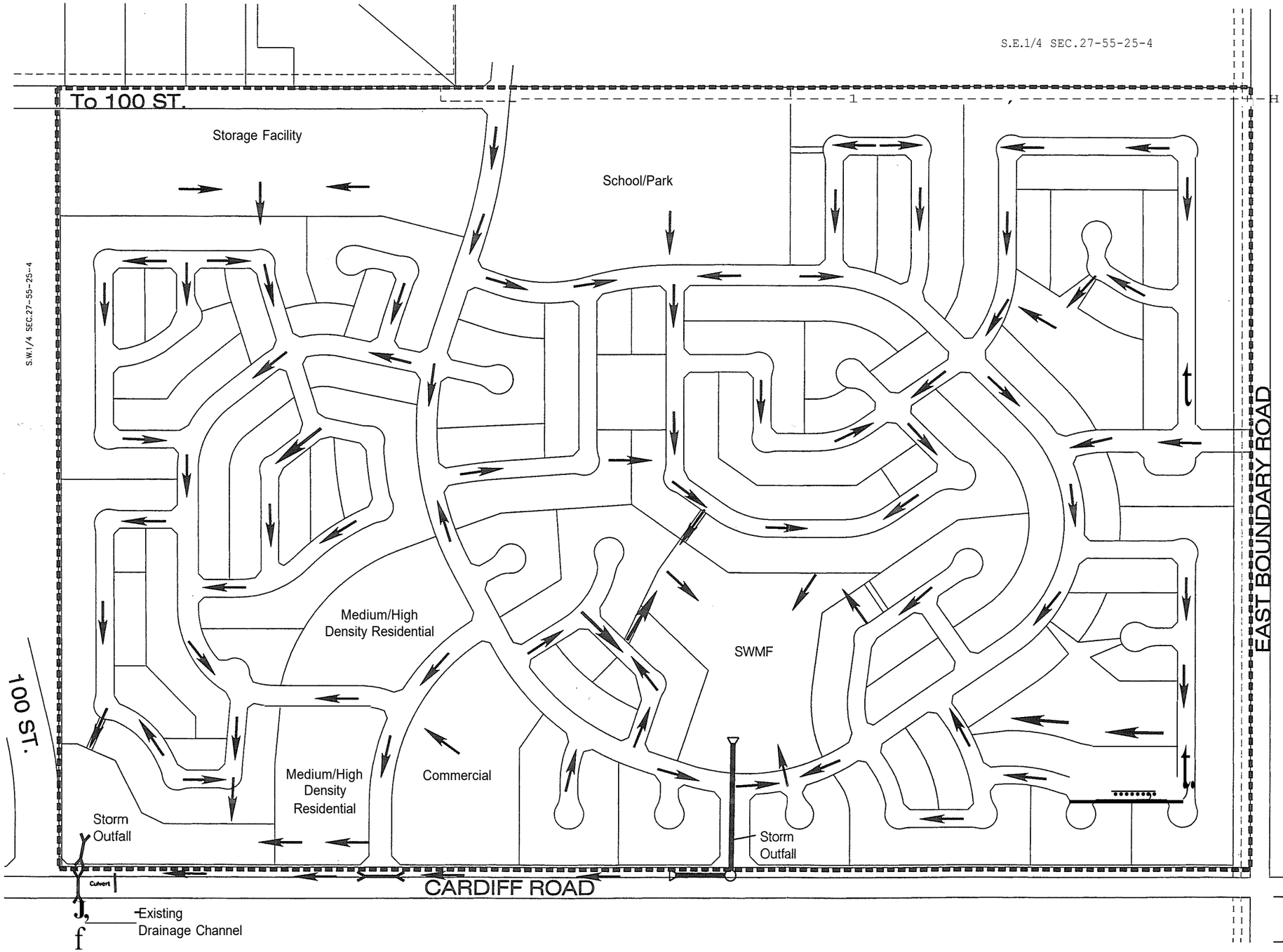
The stormwater management system is shown schematically on Figure' **5 - Stormwater Management.**

5.4 SHALLOW BURY UTILITIES - POWER, TELEPHONE, GAS, CABLE

Alignment, location and routing of the shallow utilities will be subject to the conditions of the various franchise agreements between the Town of Morinville and the utility providers. Essentially, all utilities will be underground and located within the road right-of-way. Where necessary, easements will be provided on private property.

As in other areas of Morinville, a 2.5m easement will be provided inside the front property line for the installation and maintenance of the natural gas line.

Power and cable will be provided in shallow trenches in the boulevard on either side of the road, as per Town of Morinville preferences. The boulevard will also



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ASP Boundary

Proposed Storm Outfoll

Direction of Mo jor Storm

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Revision

Client/Project

STERLING PROPERTIES
MORINVILLE SOUTH GLENS
AREA STRUCTURE PLAN

Figure No.

5.0

Title

Stormwater Management
S.1/2 27-55-25-W4M

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accommodate the necessary transformers, pedestals and switching cabinets. Street lighting will also conform to the Town of Morinville alignment preferences.

5.5 ROADS

The road system in the ASP will be in general conformance with the Morinville Municipal Development Plan. Figure 6 - Road Hierarchy shows the conceptual road layout for the plan as well as overall road designations.

5.5.1 Exterior Roadways

The transportation concept for the proposed development utilizes existing collector and arterial roadways within the Town of Morinville's, Sturgeon County's and Alberta Transportation's authority.

The exterior system consists of the following roadways:

Roadway Name	Present Classification	Future Classification
Cardiff Road	Collector	Minor Arterial
Boundary Road	Collector	Minor Arterial
Morinville Road (100 Street)	Collector	Minor Arterial
Highway 2:36	Major Arterial	Major Arterial or Expressway

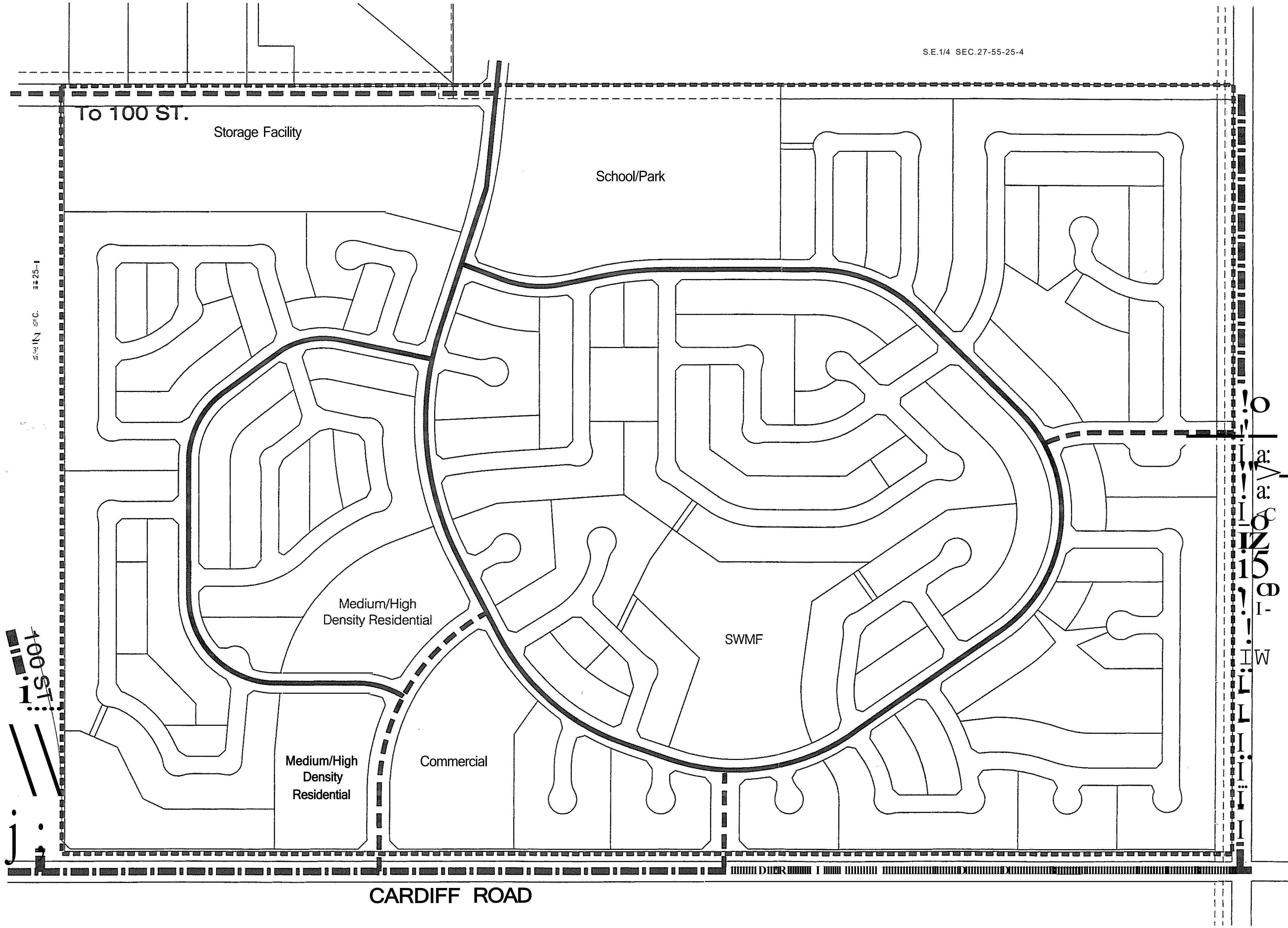
Since this area of Morinville is not completely developed, the classifications of these roadways will eventually reach the future classification.

The Highway 2 and Cardiff Road at- grade intersection may eventually be upgraded to interchange (+15 years). This will require the relocation of the Cardiff Road and Morinville Road intersection further to the east, to provide additional storage and improve operations.

Circulation is encouraged to on to future minor arterials (Cardiff Road, Boundary Road, Morinville Road) from the proposed development. Due to the present high volumes at the junction of Cardiff Road and Morinville Road, a significant portion of the circulation is encouraged on Boundary Road and north of the proposed development via other collector roadways.

5.5.2 Internal Roadway System

The internal roadway system comprises of major collectors, minor collectors and local roads. The major collector roadways are mostly required in short sections, connecting the minor collectors to the minor arterial roadways. The roadway layout



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ASP Boundary	▬ ▬ ▬ ▬ ▬ ▬
Proposed Minor Collector	▬▬▬▬
Proposed Mojar Collector	....
Proposed Minor Arterial	‖‖‖‖‖‖‖‖‖

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STERLING PROPERTIES
MORINVILLE SOUTH GLENS
AREA STRUCTURE PLAN

Figure No.
6.0

Title
Roadway Hierarchy
S.1/2 27-55-25-W4M

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will provide good circulation for motorists to select routes on all future arterial roadways.

The right-of-way widths, roadway widths and design speeds will be according to the Town of Morinville's "Street Classification". All roadways will be designed and constructed to the standards of the Town of Morinville.

6.0 Implementation

6.0 Implementation

6.1 DEVELOPMENT STAGING

Infrastructure to service the area covered by the ASP will initially be extended into the neighbourhood from Cardiff Road to the south and the Sewer and Water R/W to the north. Each successive stage will be developed with the logical and economical extension of these municipal services, with the intent of meeting the needs of the regional and local housing market.

Development in the first part of the ASP is anticipated to begin from the intersection of Cardiff Road and the Commercial and Medium / High Density areas in the southwest corner of theneighbourhood. The development of individual phases may vary slightly from the actual redistricting and subdivision applications and 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.

6.2 REDISTRICTING & SUBDIVISION

Redistricting and subdivision applications to conform to the land use designations described in the ASP will be undertaken as necessary. Guided by the Town of Morinville's MOP and the intent of this ASP, redistrictings and subdivisions will be required to adhere to the Town of Morinville's Land Use Bylaw and the informational requirements necessary for each application.