

BYLAW 73-2003

A BYLAW OF STRATHCONA COUNTY IN THE PROVINCE OF ALBERTA, FOR THE PURPOSE OF ADOPTING THE SHERWOOD HILLS ESTATES AREA STRUCTURE PLAN.

WHEREAS it is deemed advisable to adopt the Sherwood Hills Estates Area Structure Plan;

NOW THEREFORE, the Council of Strathcona County, duly assembled, pursuant to the authority conferred upon it by the *Municipal Government Act, R.S.A. 2000, c. M-26*, and amendments thereto, enacts as follows:

1. That this Bylaw is to be cited as the "Sherwood Hills Estates Area Structure Plan".
2. That Schedule "A" attached hereto is hereby adopted as part of this Bylaw.

Read a first time this 24 day of June, 2003.

Read a second time this 24 day of June, 2003.

Read a third time and finally passed this 2 day of July, 2003.



Mayor



Manager,
Legislative and Legal Services

Date Signed: July 18, 2003

Sherwood Hills Estates Area Structure Plan

Prepared for:
Sherwood Hills Estates Ltd.

Prepared by:
Stantec Consulting Ltd.

File: 161 21840

February 2004

© Copyright 2004
Stantec Consulting Ltd.



Stantec

**SHERWOOD HILLS ESTATES
AREA STRUCTURE PLAN**

Table of Contents

	Page
1.0 INTRODUCTION	2
1.1 BACKGROUND	2
1.2 PLAN AREA	2
1.3 ASP SUMMARY	3
2.0 SITE CONTEXT AND DEVELOPMENT CONSIDERATIONS	3
2.1 TOPOGRAPHY AND VEGETATION	4
2.2 SOILS AND GEOLOGY	4
2.3 NATURAL AREAS	5
2.4 EXISTING AND SURROUNDING LAND USES	6
2.5 POLICY CONTEXT	7
3.0 DEVELOPMENT CONCEPT	7
3.1 LAND USE	8
3.1.1 Cluster Country Residential	8
3.1.2 Traditional Country Residential	8
3.1.3 Residential Interface	9
3.1.4 Religious Assembly Option	9
3.1.5 Parks and Open Space	9
3.1.6 Storm Water Management	10
3.1.7 Highway 21 and Wye Road Interchange Area	10
3.1.8 Boundary and Transition Areas	10
3.2 TRANSPORTATION	10
3.2.1 Roads	11
3.2.2 Noise Attenuation	12
3.3 ENGINEERING	12
3.3.1 Sanitary	12
3.3.2 Storm	13
3.3.3 Water	13
3.3.4 Utilities	14
3.4 POPULATION AND STUDENT GENERATIONS	14
4.0 PHASING AND IMPLEMENTATION	14

SHERWOOD HILLS ESTATES – AREA STRUCTURE PLAN

List of Figures

Following Page

1.0	Location Plan	2
2.0	Site Features	3
3.1	Development Concept – Option A	7
3.2	Development Concept – Option B	7
4.0	Servicing Plan	12
5.0	Phasing Plan	14
	Appendix I	15

SHERWOOD HILLS ESTATES AREA STRUCTURE PLAN

1.0 INTRODUCTION

1.1 BACKGROUND

Sherwood Hills Estates Ltd. commitment to Strathcona County through the Sherwood Hills Estates Area Structure Plan (ASP) is to develop a balanced community of residential and recreational opportunities that respects surrounding areas and preserves the natural environment. In order to achieve this, Sherwood Hills Estates Ltd. intends to develop a high-quality country residential subdivision, which is sensitive to its natural environment and respects the lifestyle of existing area residents. The ASP has been prepared on behalf of Sherwood Hills Estates Ltd., owner of a majority of the subject lands pertaining to the ASP.

The purpose of this document is to provide a sound land use planning framework for future subdivision and development of the 64.7 hectare (ha) property. The ASP will implement the land use framework and development objectives by identifying the type, size and location of various land uses, density of development, location of the internal roadway network, conceptual servicing designs and sequence of development.

This country residential proposal has been developed in consultation with area residents, Strathcona County Administration and the area Councilor.

1.2 PLAN AREA

The Sherwood Hills Estates ASP includes all of the NE 24-52-23-W4 immediately south of Wye Road and west of Highway 21. The ASP is surrounded by residential development. As shown on **Figure 1 – Location Plan**, the Sherwood Hills Estates ASP is defined by the following general boundaries and land uses:

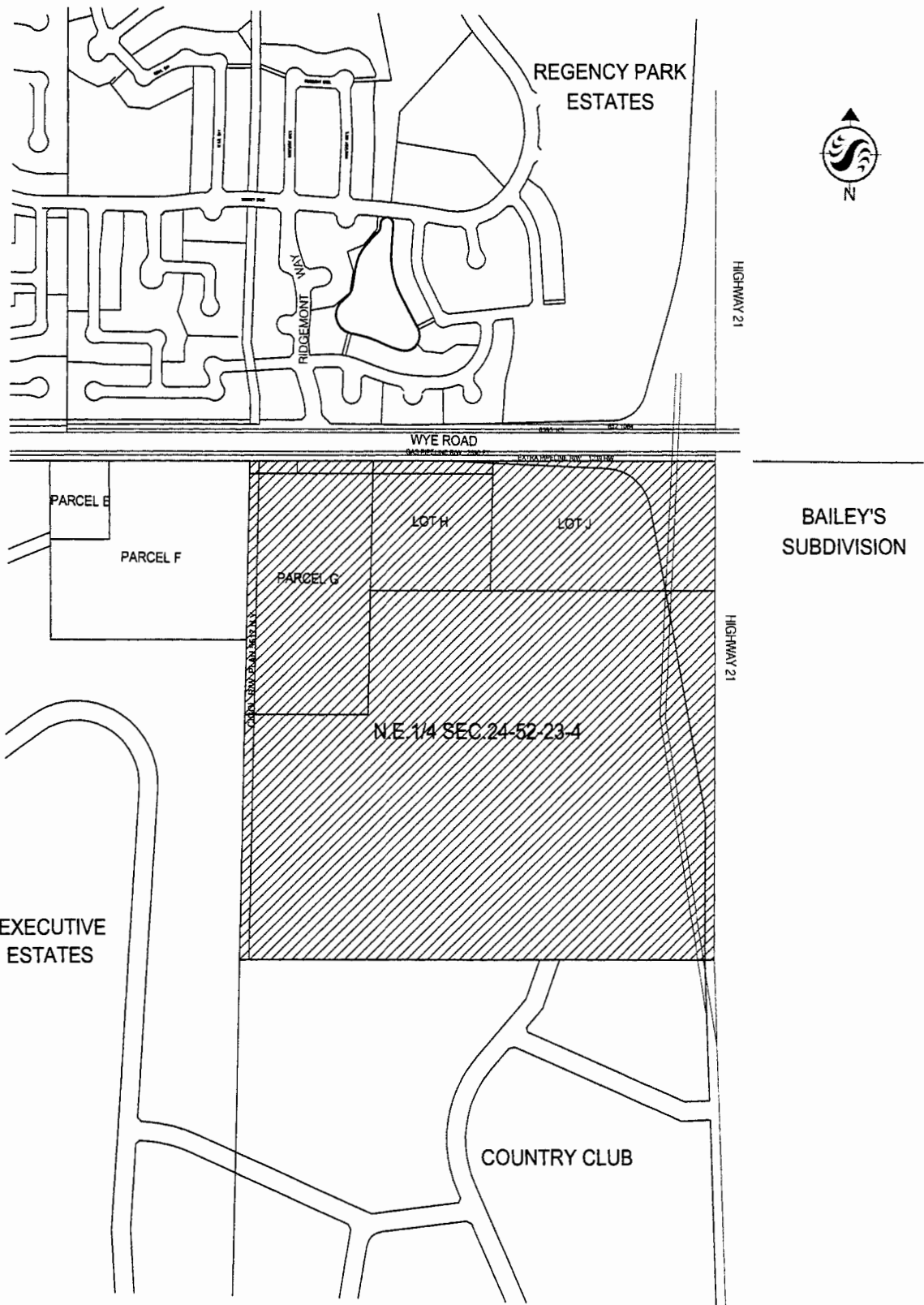
North – The Ridge, a residential community located immediately north of Wye Road within the Urban Service Area.

East – Bailey's Subdivision, a forty-two (42) lot country residential subdivision located immediately east of Highway 21.

South – Country Club Estates, a thirty-three (33) lot country residential subdivision located south of the subject lands.

Stantec

West – Executive Estates, a sixty (60) lot country residential subdivision located west of the subject lands.



Client/Project
 SHERWOOD HILLS ESTATES LTD.
 SHERWOOD HILLS ESTATES
 AREA STRUCTURE PLAN

Figure No.
1.0

Title
Location Plan

SHERWOOD HILLS ESTATES AREA STRUCTURE PLAN

The Sherwood Hills Estates ASP constitutes a logical planning unit with respect to identifiable planning boundaries (i.e. it is bounded by Wye Road on the north and Highway 21 to the east), ownership and servicing considerations. Furthermore, it provides for rational infill of the area between Country Club Estates, Executive Estates and Bailey's Subdivision.

1.3 ASP SUMMARY

The Sherwood Hills Estates Area Structure Plan provides general guidelines to facilitate the orderly development of the plan area in terms of land uses, density of development, location of major roads and the sequence of development. Sherwood Hills Estates is an integrated plan that includes open spaces, walkways and storm water management areas.

The development concept consists entirely of country residential parcels with walkways throughout, which further integrates and compliments the ASP area with the surrounding residential areas. The ASP focuses on providing high-quality living opportunities.

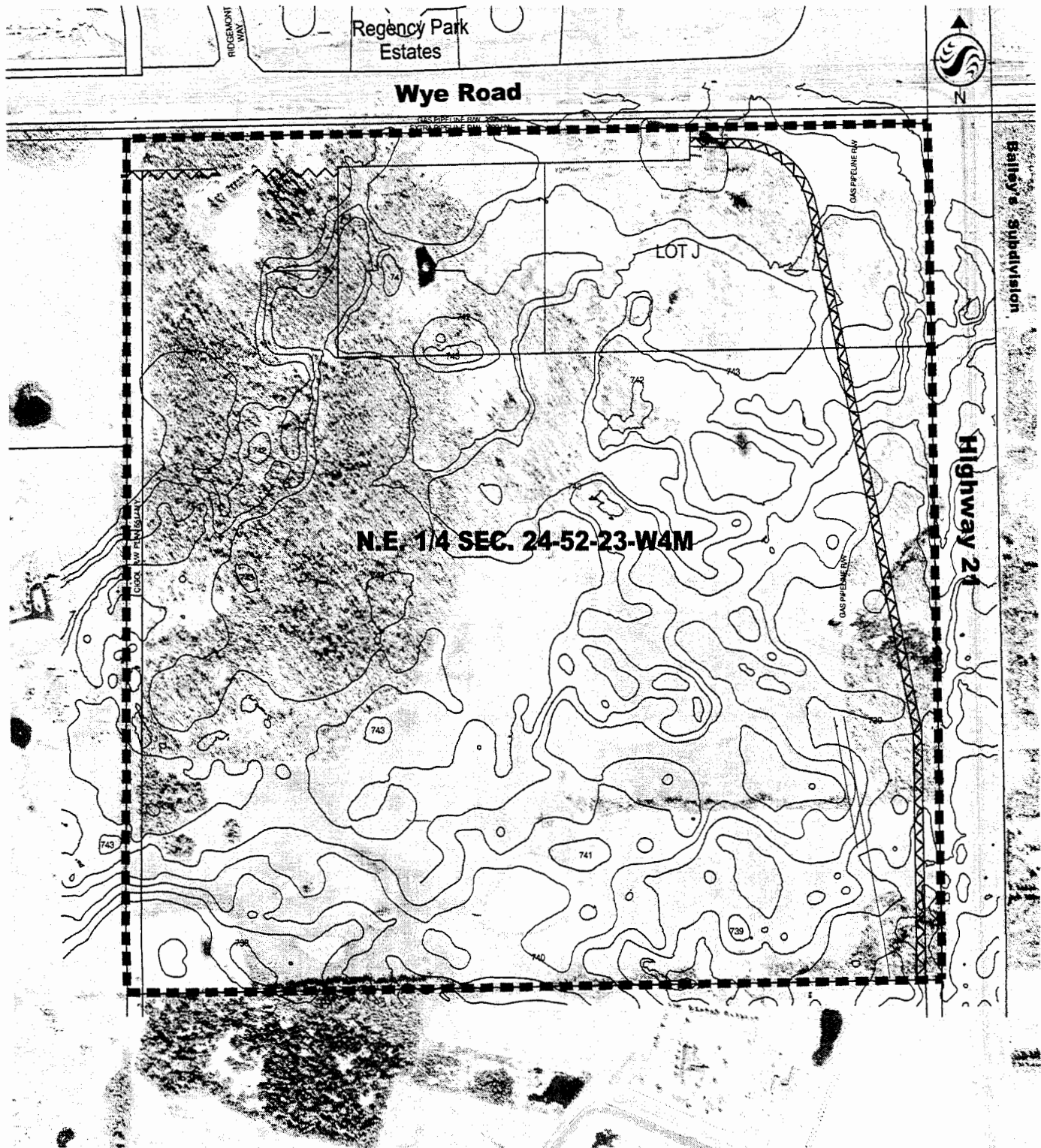
Access into the community is from Wye Road with further emergency service access from a southeast local roadway, which connects to Country Club Estates.

2.0 SITE CONTEXT AND DEVELOPMENT CONSIDERATIONS



Figure 2.0 – Site Features shows an aerial photograph of the Sherwood Hills Estates plan area and surrounding lands.

Stantec completed an environmental assessment in 2001 in conjunction with the Sherwood Hills Estates ASP with the objective of determining the importance and conservation values of the various natural areas within the subject land with respect to future country residential development. From the biophysical survey and determination of potential environmental impacts a ranking had been applied to different areas within the ASP land in order to determine the feasibility of maintaining a particular natural area on the landscape through use of environmental easements. The forest stands, grassland and intermittent wetlands in the northwest, west and central portions of the ASP area received the highest priority ranking. The assessment found that within the aforementioned non-agrarian areas there were no rare plants, but that overall plant, wildlife and landscape diversity was high.

Stantec



Legend

-  Noise Attenuation
-  ASP Boundary

Client/Project

SHERWOOD HILLS ESTATES LTD.
 SHERWOOD HILLS ESTATES
 AREA STRUCTURE PLAN

Figure No.

2.0

Title

Site Features



Stantec

SHERWOOD HILLS ESTATES AREA STRUCTURE PLAN

2.1 TOPOGRAPHY AND VEGETATION

The plan area may be characterized as a typical aspen parkland landscape, which features a moderately rolling terrain consisting of moderately drained land that has largely been cleared and used for agricultural purposes. More specifically, the topography is varied across the ASP area, with a variation of 736 meters in the southwest corner to 746 meters in the northeast. The lowest topographical points within the ASP area are located along the east boundary and the southwest and northwest corners. In conjunction with the rolling terrain there are several low-lying intermittent wetland areas. Surface water drainage throughout the ASP area is variable, due to the rolling terrain and numerous low-lying areas. However, there are no permanent wetlands located on this site, albeit some surface run-off does settle in the low-lying areas. Four low-lying areas have been designated within this ASP as stormwater management facilities (dry ponds).

The majority of lands within the ASP area, except for the northwest, west and central portions, have been cleared of natural vegetation for agrarian purposes. Common vegetation within an undisturbed aspen parkland natural area can be found in the plan area, and consist of trembling aspen and balsam poplar with shrub species consisting of snowberry, saskatoon, beaked hazelnut, choke cherry, red osier dogwood, willow, rose and alder. The understory includes brunchberry, aster, fireweed, bedstraw, sarsaparilla, vetch and mint. Grasses include wheatgrass, rough fescue, june grass, brome and bluegrass.

2.2 SOILS AND GEOLOGY

There is a gradient in soil types from the higher elevations to the lower elevations, conforming to the presence of wetlands. The surficial soils consists of Cooking Lake Loam and Uncas Loam which are organic grey wooded topsoil and dark grey wooded topsoil that developed on glacial till material. Soils associated with the wetland areas are organic, consisting of sedge peats.

The underlying geology of the ASP area consists of glacial sand and gravel underlain by glacial till and bedrock. The glacial sand and gravel is mainly sand and gravel deposited by glacial melt-water. The glacial till is unsorted, unstratified sediment deposited by a glacier and is composed of clay, silt and sand with pebbles and boulders. The bedrock is known as the Edmonton Formation that is composed of interbedded bentonitic shales and sandstones with coal seams.

SHERWOOD HILLS ESTATES AREA STRUCTURE PLAN

A hydrological and geotechnical investigation of the ASP area has been carried out and is included in the associated Engineering Design Brief document. The report indicates that development should be similar to other projects in this part of Strathcona County. Excavations up to 4.0 meters deep would be within the relatively competent glaciolacustrine silty clays and/or glacial sandy clay fill.

2.3 NATURAL AREAS

It can be observed from aerial photographs that the northwest, west and central portions of the ASP area consist of mixedwood and aspen forest with areas of grassland and intermittent wetlands. The remaining land is cleared and used for agricultural purposes.

Northwest Portion

A mixedwood aspen/spruce forest community is located in the northwest portion of the ASP area. White spruce, paper birch, aspen and balsam poplar dominate the canopy. The mature white spruce trees range from 50 to greater than 75 years in age. The understory and shrub layers are diverse, depending on the predominant canopy species. Natural succession is occurring throughout the forest stand, evidenced by the uneven aged canopy layer, white spruce seedlings and poplar suckers. Overall plant diversity is high in the northwest portion, due largely to the variety in canopy tree species, variable topography and high structural diversity.

West Portion

The tree stand along the west boundary of the ASP area is very similar to the mixedwood forest community observed in the northwest portion. There is diversity in vegetation due to the topography and dominant canopy species. The shrub layer typical of a mixedwood forest community is present, including red osier dogwood, rose, willow, choke cherry and pin cherry. The understory is diverse and is typical of a mixedwood forest community, including grasses, forbs and tree seedlings.

Structural diversity exists through the presence of downed and standing dead trees as well as woody debris. During the environmental assessment site visit woodpecker and porcupine activity was observed throughout the forest stand. Deer trails, browse and bedding marks were also observed throughout the area.

Central Portion

The central portion of the ASP, consists of a mixedwood forest stand dominated by aspen and balsam poplar. White spruce seedlings are present in the understory. The topography in this area is undulating, resulting in a variety of landforms and vegetation communities.

Stantec

SHERWOOD HILLS ESTATES AREA STRUCTURE PLAN

Within the central portion of the ASP area there is natural grassland. The historic air photograph review indicated that intensive agricultural activities did not occur in this immediate area, although this area may have been used for pasture. The lack of a significant shrub layer within the adjacent aspen/balsam poplar forest is further evidence of grazing activity. The undulating topography throughout the central portion of the plan area is a unique feature, resulting in a variety of plant grassland communities.

East and Southeast Portion

An aspen and balsam poplar forest stand extends along the eastern boundary of the ASP area. The understory is dominated by forbs and a typical shrub layer is not present. There are low areas interspersed within the forest stand, dominated by willows and typical wetland species (cattails, sedges and grasses). Structural diversity consists of downed and standing dead trees.

In the southeast corner an intermittent wetland area is present. There was no standing water during the environmental assessment site visit, but wetland vegetation was dominant in the lower areas, notably cattails, rushes, sedges, reed grasses and willows. The area was also extensively used for white-tailed deer browse and bedding. Evidence of porcupine browse was also observed during the environmental assessment site visit.

2.4 EXISTING AND SURROUNDING LAND USES

The southern and eastern portions of the ASP area consists of agricultural and pasture land. The northwest corner of the ASP area (Parcel G) consists of a residence and a water pump station located within a dense treed section. The residence consists of a house and detached garage. The water pump house is a single-story building owned by Trans Canadian Pipeline and is fenced-in on all sides.

The remainder of the ASP area consists of a dense treed section and agricultural and pasture land. The agricultural land is limited to the southerly third of the quarter section. The pasture land and the dense treed section are located within the centre third of the quarter section. The pasture land is located on the east side and the treed section on the west side. A grassed roadway separates the pasture and the treed section and travels from the former farmstead to the north to the agricultural land to the south.

Stantec

SHERWOOD HILLS ESTATES AREA STRUCTURE PLAN

2.5 POLICY CONTEXT

The Sherwood Hills Estates ASP has been prepared in accordance with the Municipal Government Act (*R.S.A. 2000, c. M-26*). The Act enables municipalities to adopt Area Structure Plans to provide a framework for future subdivision and development of an area. Sections 633, 636 - 638, and 692 of the Act relate specifically to area structure plans. The MGA stipulates that an ASP must describe the sequence of development, land uses, population density, and location of transportation routes and utilities for the area. The Act provides interested members of the separate and public school boards with the opportunity to provide input in the process. The Act also stipulates that an ASP must be adopted by bylaw, which requires a public hearing to be held on the plan. Finally, the Act requires an ASP to conform to the municipality's Municipal Development Plan (MDP).

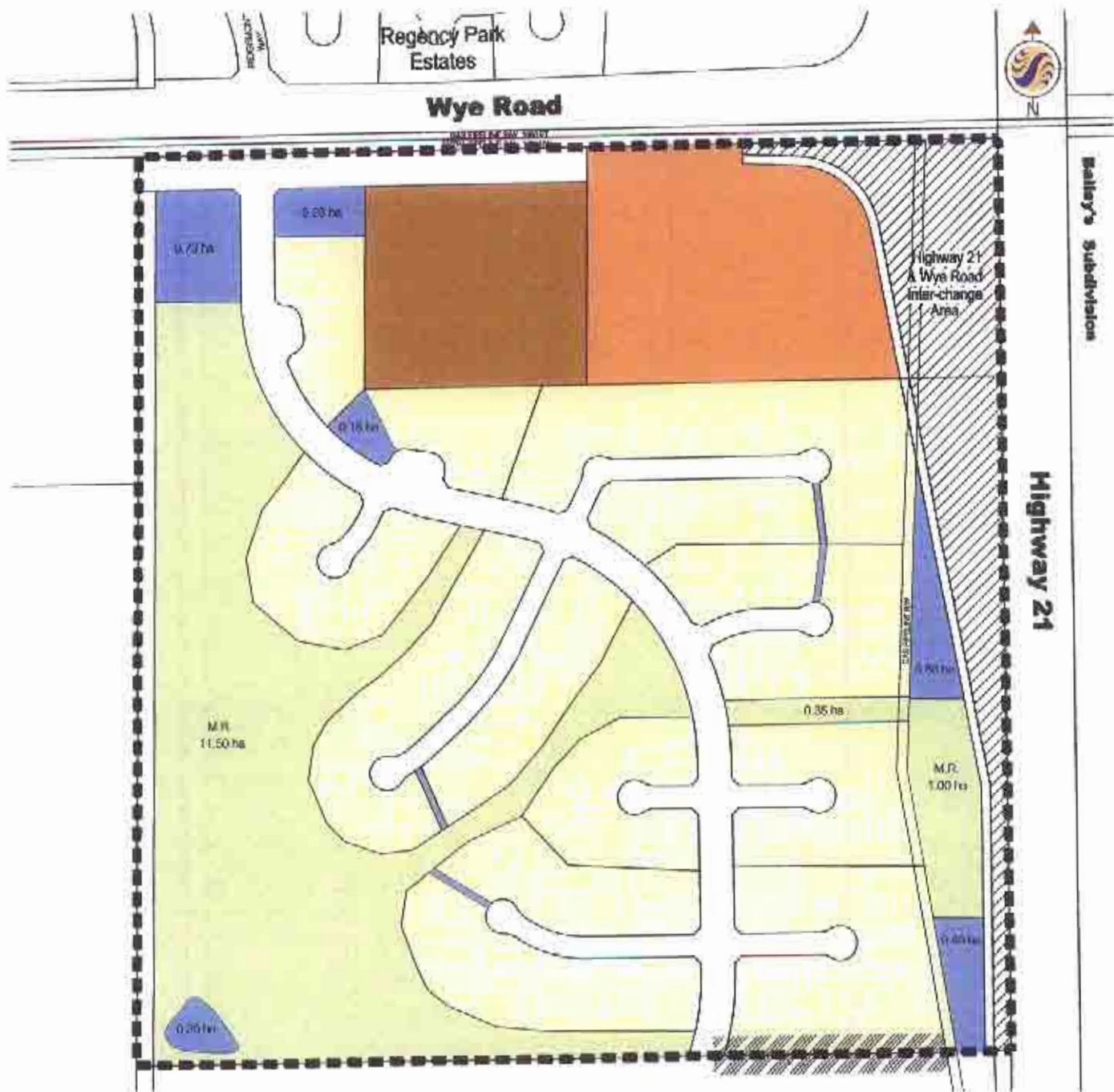
The requirements of the Municipal Government Act have been followed in the preparation of the Sherwood Hills Estates ASP. As well, the Sherwood Hills Estates ASP has been prepared in accordance with Strathcona County's policy regarding Area Structure Plan preparation.

3.0 DEVELOPMENT CONCEPT

The integration of new clustered country residential development, existing natural areas and wetlands requires that special attention be paid to the method of interface and the application of transitional land use planning principles. The following are the planning and design principles for cluster country residential development. These principles were established and agreed to by Strathcona County Administration, Stantec Consulting Ltd. and Sherwood Hills Estates Ltd.

- Efficient and economic use of the land through clustered design;
- Incorporate topographical features into the design;
- Strive to reduce the lineal footage of roadways compared to that found within a conventional country residential development;
- Provide for open space areas and linkages that incorporate features such as topography, vegetation, views and vistas, and lot layout;
- Where possible, minimize the number of lots backing on to each other;
- Strive for open space (i.e. Municipal Reserve) over and above the maximum allowed under the Municipal Government Act;
- Promote the conservation of natural features such a vegetation, habitat, and wetland and low-lying areas; and

Stantec



Stantec

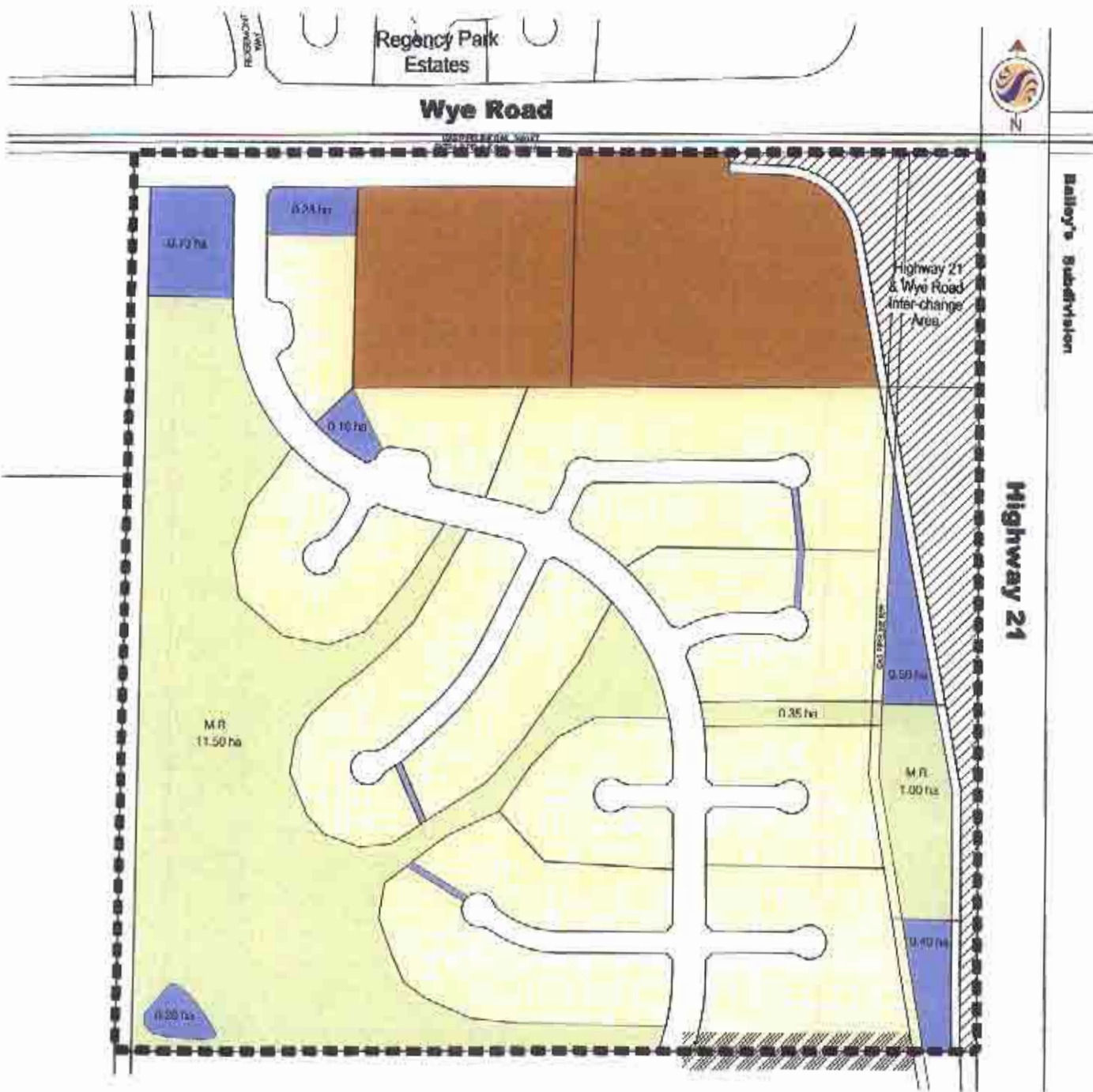
V:\1181\york\4_100207\669965\Stage 4 / Plan 124154.dwg

- Legend**
- Cluster Country Residential
 - Traditional Country Residential
 - Institutional
 - Municipal Reserve / Open Space
 - Public Utility Lot
 - Hwy. 21 & Wye Rd. inter-change area
 - Residential Interface
 - Noise Attenuation
 - ASP Boundary

Client/Project
 SHERWOOD HILLS ESTATES LTD.
 SHERWOOD HILLS ESTATES
 AREA STRUCTURE PLAN

Figure No.
3.1

Title
**Development Concept
 Option A**
 March 2004
 161 21840



- Legend
- Cluster Country Residential
 - Traditional Country Residential
 - Institutional
 - Municipal Reserve / Open Space
 - Public Utility Lot
 - Hwy. 21 & Wye Rd. inter-change area
 - Residential Interface
 - Noise Attenuation
 - ASP Boundary

Client/Project
 SHERWOOD HILLS ESTATES LTD.
 SHERWOOD HILLS ESTATES
 AREA STRUCTURE PLAN

Figure No.
3.2

Title
**Development Concept
 Option B**
 March 2004
 161 21840



SHERWOOD HILLS ESTATES AREA STRUCTURE PLAN

- Provide for a transition between new and existing development (e.g. either provide a minimum separation distance of 50.0 meters or ensure that lots immediately backing on to existing Country Residential lots are a minimum parcel size of 0.80 hectares (2 acres).

The development concept for the ASP takes into account adjacent natural and developed areas and incorporates these aforementioned planning and design principles.

3.1 LAND USE

The land use pattern for the Sherwood Hills Estates ASP is shown in **Figure 3.1 – Development Concept – Option A** and **Figure 3.2 – Development Concept – Option B** with the associated land use statistics shown as **Appendix 1 – Land Use Statistics**.

3.1.1 Cluster Country Residential

Approximately 24.45 ha (60.41 ac) of land within the ASP is designated as clustered country residential and will be developed under the criteria of Section 10.31 of the Municipal Development Plan. Lot sizes within the clustered country residential portion of the ASP will vary with a minimum parcel size of 1,250m² (0.3 ac). The permitted density for cluster country residential development is 2.0 parcels per gross developable hectare, which equates to approximately ninety-five (95) clustered country residential lots for the land owned by the applicant. The majority of lots will be situated to take advantage of the open space amenities (protected through MR), existing tree stands, stormwater management areas and walkways. The particular types and styles of homes will be based largely on market conditions and consumer preferences at the time of development.

3.1.2 Traditional Country Residential

Approximately 8.09 ha (20 ac) of land within the ASP is intended for a traditional country residential land use and will be developed under the criteria of Section 10.30 of the Municipal Development Plan. The districting for this portion of the ASP area will be consistent with the surrounding developments in the area, which are currently districted RC Country Residential.

SHERWOOD HILLS ESTATES AREA STRUCTURE PLAN

The country residential lots will vary with a minimum parcel size of 0.80 hectares (2 acres). No more than twelve (12) country residential lots will be developed within the Sherwood Hills Estates ASP. The particular types and styles of homes will be based largely on market conditions and consumer preferences at the time of development.

3.1.3 Residential Interface

The residential interface as shown at the southeast corner of the concept plan will require future development that is similar in parcel size to that of the traditional country residential parcels to the south (Country Club Estates). A conservation easement shall be registered against these lots to ensure conservation of existing trees and vegetation along the southeast corner of the Plan Area.

3.1.4 Religious Assembly Option

At the time of this document, an application had been submitted to Strathcona County to change the land use of Lot J (**see Figure 1.0 – Location Plan**) in order to accommodate a religious assembly use (i.e. a Church). To facilitate this possible land use the subject parcel will have a dual designation applied to it (**see Figure 3.1 – Development Concept – Option A**). The purpose of the dual designation is to allow a religious assembly use should the County approve such a redistricting application. If a religious assembly use is not approved for the subject lands, Lot J would be developed for country residential purposes as shown in Figure 3.2.

3.1.5 Parks and Open Space

The ASP sets aside approximately 15.68 ha (38.74 ac) of Municipal Reserve (MR) throughout the plan area. This MR parcel will assist in protecting the natural state of the adjacent wetland area, protect an existing tree stand and function as a transition between existing land uses. It is important to note that at the time Lots H and J were subdivided in July of 1991 (Plan 912 2272), Strathcona County received the full 10% MR entitlement via a cash-in-lieu payment. Municipal Reserve on Parcel G was relaxed by the Alberta Planning Advisory Board at the time of subdivision in June of 1963 (subdivision plan 5946 MC). The applicant is providing an additional 17.9% of municipal reserve in excess of that required by the Municipal Government Act. The total MR dedication within the entire Sherwood Hills Estates ASP area is equal to 27.9% of the gross developable area.

None of the trails that are either existing or proposed within the Strathcona County 1998 Trails Master Plan are located within the Sherwood Hills Estates ASP.

SHERWOOD HILLS ESTATES AREA STRUCTURE PLAN

3.1.6 Storm Water Management

The storm water drainage concept for the ASP is identified in the Engineering Design Brief submitted concurrently under a separate cover. The land is divided by rolling hills, which defines the drainage patterns for this area. Lands generally drain from the centre of the ¼ Section towards the periphery of the ASP area. The plan area would be serviced by four storm water detention ponds, which are located in the southwest, northwest, southeast and east central portions of the ASP (see **Figure 4.0 – Servicing Plan**).

The southwest wetland will continue to function as a natural storm water control area fluctuating with periodic and large event rainfalls. Areas of the wetland will require occasional care and upkeep to maintain the integrity of the watershed, and as such subdivision plans incorporating the wetland will include both Municipal Reserve (MR) and Public Utility Lot (PUL) designations.

3.1.7 Highway 21 and Wye Road Interchange Area

As shown on Figures 3.1 and 3.2, a 5.52 ha (13.64 ac) portion of land within the ASP area has been set aside as part of the Highway 21 and Wye Road Interchange area. More specifically, Alberta Infrastructure in their Highway 21 transportation report designated this land for future roadway and interchange widening.

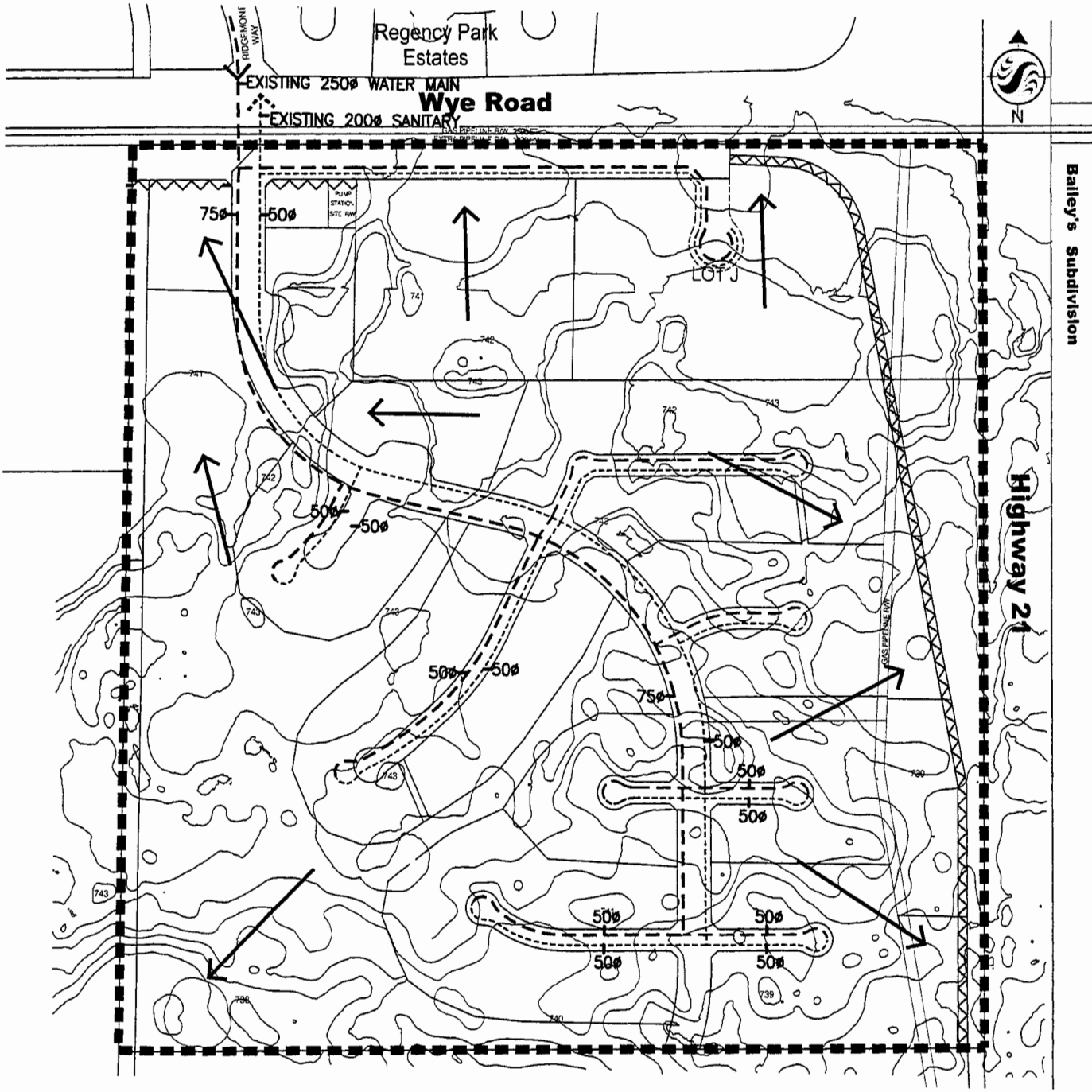
3.1.8 Boundary and Transition Areas

The detailed plans of subdivision for the perimeter areas of Sherwood Hills Estates will comply with the ASP and the Country Residential Policy Area of the Strathcona County Municipal Development Plan regarding transitional areas.

The municipal reserve along the western boundary will provide separation from the existing country residential properties in Executive Estates. Likewise, the southwest Municipal Reserve and storm water management pond will act as a separation from existing country residential properties in Country Club Estates. In addition, a residential interface zone has been identified on the concept plan. As discussed in Section 3.1.3 this interface will require future parcels to be similar in size to those existing in the southeast corner of the plan area.

3.2 TRANSPORTATION

The ASP is bounded on the east by Highway 21, a provincial highway. The highway is currently two lanes wide with plans to add two additional lanes bringing it to a 4 lane divided highway. Highway 21 was the subject of an access management study conducted in 1996 that was accepted by Alberta Infrastructure and Strathcona County (with some modifying conditions and Council directives in the case of the County). It allowed for an at-grade access onto Highway 21 from Country Club



- Legend
- Water Network
 - Direction of Existing Surface Flow
 - Low Pressure Sanitary
 - ~ Noise Attenuation
 - ASP Boundary

Client/Project
 SHERWOOD HILLS ESTATES LTD.
 SHERWOOD HILLS ESTATES
 AREA STRUCTURE PLAN

Figure No.
4.0

Title
Servicing Plan

SHERWOOD HILLS ESTATES AREA STRUCTURE PLAN

Estates. The access / intersection is located in accordance with the Highway 21 access management study. The Highway 21 Access Management Study does not contemplate access into Sherwood Hills Estates. However, emergency vehicles within Sherwood Hills Estates will have access to the Country Club Estates Highway 21 access via a 30 metre emergency access-only road right-of-way located in the southeast portion of the ASP area.

3.2.1 Roads

Primary access will be from Wye Road, opposite the existing Ridgmont Way intersection. As well, there will be a second access to the south connecting to Country Club Estates, which will be available to emergency vehicles only. This second access would be constructed to the property line of the development. It would be the responsibility of Strathcona County to complete the vehicular connection within Country Club Estates. One driveway, complete with culvert, would be constructed to each lot.

All internal roads will be constructed to County standards, consisting of 18 metre right-of-ways and 8.5 metre paved surface. The neighbourhood collector roadway will consist of a 30.0 metre right-of-way, with roadside ditches and a 9.0 metre paved surface. The size of the paved roadway surface along this collector roadway has been increased by 0.5 metre above County standards. This is to provide additional room along the roadways for pedestrian movement through the ASP area.

Strathcona County requires that all Country Residential Subdivisions provide two, separate means of access and egress. Two options for access were proposed and discussed during public meetings with area residents. One access option through the northwest portion of the ASP onto Wye Road and the second access located at the southeast of the ASP connecting to Country Club Estates. However, to address concerns of adjacent residents it was decided that Sherwood Hills Estates ASP will have no vehicular access to Highway 21 or Country Club Estates. Although, emergency vehicles will be able to use a 10 metre southeast roadway via the use of moveable bollards. The downgrading of this southeast roadway to emergency access only, was decided upon during the two aforementioned public meetings and agreed to by Strathcona County Administration. Council reserves the right to at any time, have the emergency access replaced and constructed to a full right-of-way. The emergency access link to Country Club Estates is in accordance with the Highway 21 Access Study requirements.

SHERWOOD HILLS ESTATES AREA STRUCTURE PLAN

As mentioned, the primary access point in and out of Sherwood Hills Estates will be from Wye Road at the intersection with Ridgemont Way. Control lights have been planned at this intersection, however volumes will need to be monitored over time to determine if, in the future, controls are required.

As required by Strathcona County and Alberta Transportation, and at the time of detailed design, a Noise Attenuation Study will be carried out to assess the impact of the adjacent Highway 21. Additionally, and as required by Alberta Infrastructure, a Traffic Impact Assessment will be submitted if the Wye Road and Ridgemont Way intersection is upgraded to a controlled all directional intersection.

All road alignments, right-of-way cross-sections and any required roadway tapers will conform to Strathcona County standards.

3.2.2 Noise Attenuation

Noise attenuation will be provided for all lots adjacent to Highway 21 and Wye Road. Typically, the noise attenuation will consist of a 2.0 metre high berm with 3 to 1 sideslopes. Noise assessments will be carried out during the course of detailed engineering design to specifically determine the berm requirements. It is important to note that the berm will also provide a hard boundary to wildlife movement, thus potentially decreasing wildlife fatalities on Highway 21.

The accompanying Engineering Design Report contains the berm cross-section.

3.3 ENGINEERING

An Engineering Design Report has been submitted concurrently as a supporting document to the ASP. The report outlines the servicing and engineering concepts for the ASP and will serve as a guiding technical document for the continued servicing of the area. Design criteria presented in the report conforms to the latest edition of the Strathcona County Engineering Servicing Standards.

Figure 4.0 – Servicing Plan, shows the overall servicing design for the ASP.

3.3.1 Sanitary

A low pressure piped sanitary sewer system shall be required to service all lots within the Plan Area of the Sherwood Hills Estates ASP, including Traditional Country Residential lots and Cluster Country Residential development, or any lot use for the development of a Religious Assembly. Solids will be collected in holding tanks on individual lots and then pumped out at non-peak hours in to the existing Sherwood Park sanitary network. The size of each holding facility should be a function of the estimated discharge from individual residences. All facilities should be constructed in

SHERWOOD HILLS ESTATES AREA STRUCTURE PLAN

strict conformance with the requirements of Provincial legislation current at the time of development of individual lots.

3.3.2 Storm

Stormwater run-off will be managed at the ground surface. A rural road cross-section will be utilized, consisting of drainage ditches on both sides of the road. The invert profile of the ditches will generally follow the road profiles, with a minimum longitudinal slope on the roads of 0.6%. There may be some instances where it will be necessary to set the ditches at slopes less than the road slope. This would occur where, due to the topography, the ditch flows are being drained in the opposite direction to the slope of the road. A flatter slope will minimize the ditch depth. The other advantage of less ditch slope, is that the flow velocity is reduced, which in turn reduces the potential for silt and sediment build-up in the receiving water course. The minimum ditch slope in these circumstances will be 0.10%.

Storm water management facilities are generally located towards the periphery of the plan area. Surface drainage leaves the area on all four sides, and this will still be the case after development, in order to maintain the original drainage boundaries.

Ground elevations within the property vary from 737 to 745 meters. The areas in the centre are highest, up to elevation 745 meters, with the south boundary generally being the area of lowest elevation, around elevation 737 meters.

The intent of the storm water management systems is to temporarily store storm run-off on-site, in designated areas, and release at a rate that equates to that existing prior to development, into the same drainage courses as prior to development.

3.3.3 Water

A low pressure (trickle flow) water system shall be required to service each of the lots within the Plan Area, including all lots for Traditional and Cluster Country Residential development, or any lot use for the development of a Religious Assembly. The water distribution will consist of a small diameter "trickle pipe" system. Pipes will be 50mm and 75mm, capable of delivering 2.25 litres per minute into cisterns to be located on the individual privately owned parcels, but with no capability for delivering fire flows. Each lot would be provided with an individual 25mm connection, installed to the property line, with a service box containing a water meter.

A connection would be made to the existing 250mm watermain on Ridgemont Way, on the north side of Wye Road.

Stantec

Figure 4.0 shows the watermain sizing and routing for the distribution mains through the study area.

SHERWOOD HILLS ESTATES AREA STRUCTURE PLAN

The subject area is included in the "Sherwood Park Waterworks Master Plan", prepared for Strathcona County in December 1998 by Associated Engineering. This report shows 300mm mains looping through the property. Strathcona County has confirmed that the 300mm loop will not be required and that there is no need for any oversizing within this development.

This water network will be in accordance with Strathcona County policy and standards.

3.3.4 Utilities

The power, communications and natural gas servicing will be provided to the development by extension of the existing franchised utility systems. The relevant utility companies have been notified of this project. Street lighting will not be provided as part of this development.

3.4 POPULATION AND STUDENT GENERATIONS

The total number of homes and demographic figures are shown in **Appendix 1 – Land Use Statistics and Population and Student Generations**.

4.0 PHASING AND IMPLEMENTATION

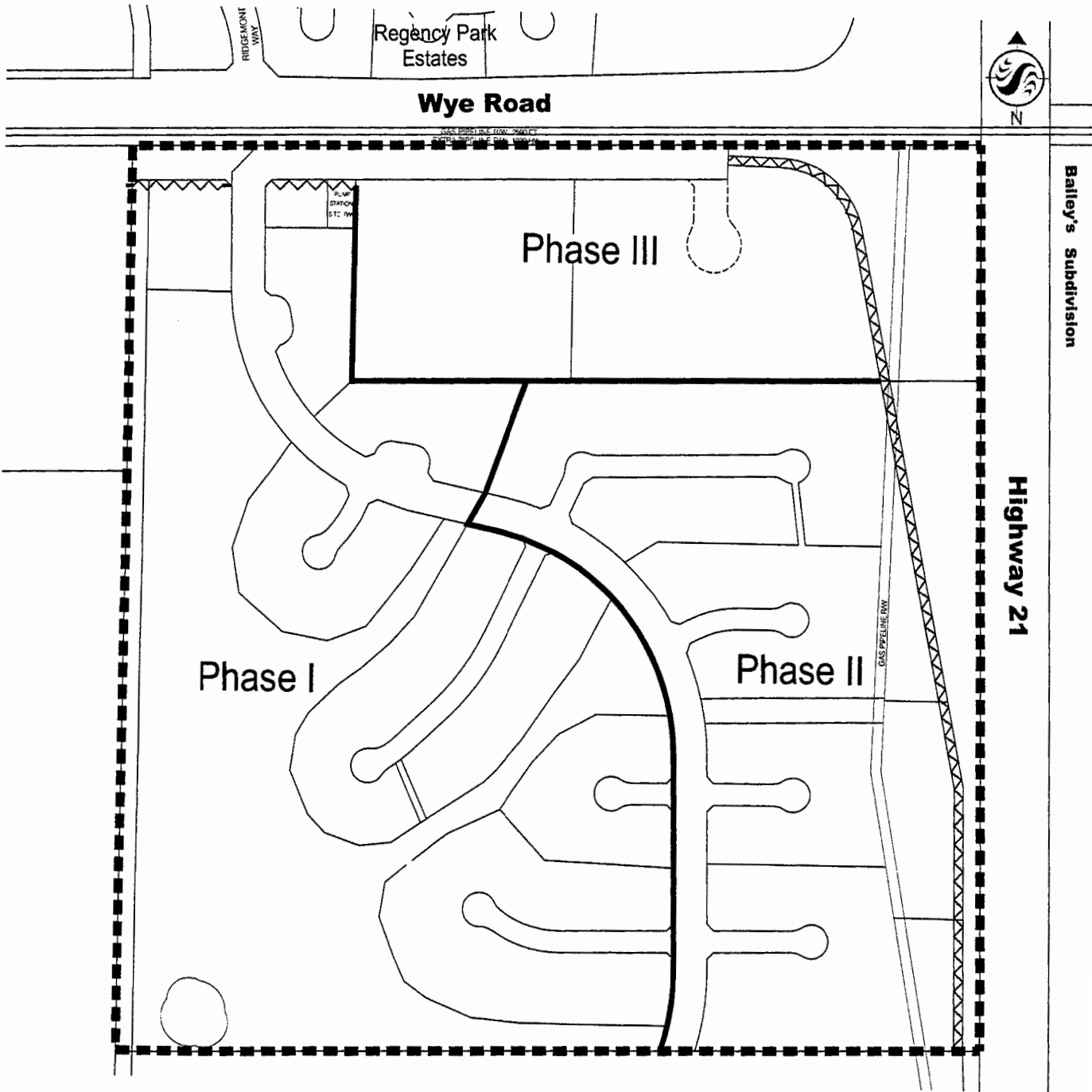
Sherwood Hills Estates will be developed in three (3) stages beginning in the northwest and west and moving to the eastern half of the ¼ Section (see **Figure 5.0 Phasing Plan**). Lots H and J are shown as the final third stage. The size and location of each phase will ultimately be determined at the time of subdivision and will be driven by market demands. The staging may deviate from the proposed Phasing Plan shown by the ASP. Development of these three phases may also progress concurrently rather than sequentially depending on market conditions and the logical servicing designs.

As depicted on the plan the primary access will be constructed within the first phase of development. The second emergency access in the southeast will be constructed during the second phase of development.



Land within the ASP is currently districted as AD Agriculture: Future Development District in the Strathcona Land Use Bylaw and will be appropriately districted as required to DC Direct Control District.

Subdivision of the plan area will conform to the land uses designated by the ASP and will generally conform with the block shell layout depicted in this document.

Stantec



Legend

-  Noise Attenuation
-  ASP Boundary

Client/Project

SHERWOOD HILLS ESTATES LTD.
 SHERWOOD HILLS ESTATES
 AREA STRUCTURE PLAN

Figure No.

5.0

Title

Phasing Plan



Stantec

**SHERWOOD HILLS ESTATES
AREA STRUCTURE PLAN**

**Appendix 1
SHERWOOD HILLS ESTATES AREA STRUCTURE PLAN
Land Use and Population and Student Generation Statistics**

LAND USE	Area (ha)	% of GDA
Gross Area	64.70	
Highway 21 and Wye Road Interchange Area	5.52	
PUL (Four Stormwater Management Facilities)	2.93	
Existing Pump Station	0.11	
Gross Developable Area	56.14	100.0
Circulation (Roadways)	7.92	14.1
Municipal Reserve Previously Dedicated (lots G, H and J)	2.08	3.7
Municipal Reserve on Remaining 1/4 Section (32.09 ha)	13.60	24.2
Total Municipal Reserve	15.68	27.9
Net Residential Area	32.54	58.0

RESIDENTIAL LAND USE, DWELLING UNIT COUNT AND POPULATION

Land Use	Area (ha)	Units/ha	Units	People/Unit	Population
Traditional Country Residential	8.09	1.20	10	3.46	33
Cluster Country Residential	24.45	2.00	95	3.46	329
Total	32.54		105		370

STUDENT GENERATION*

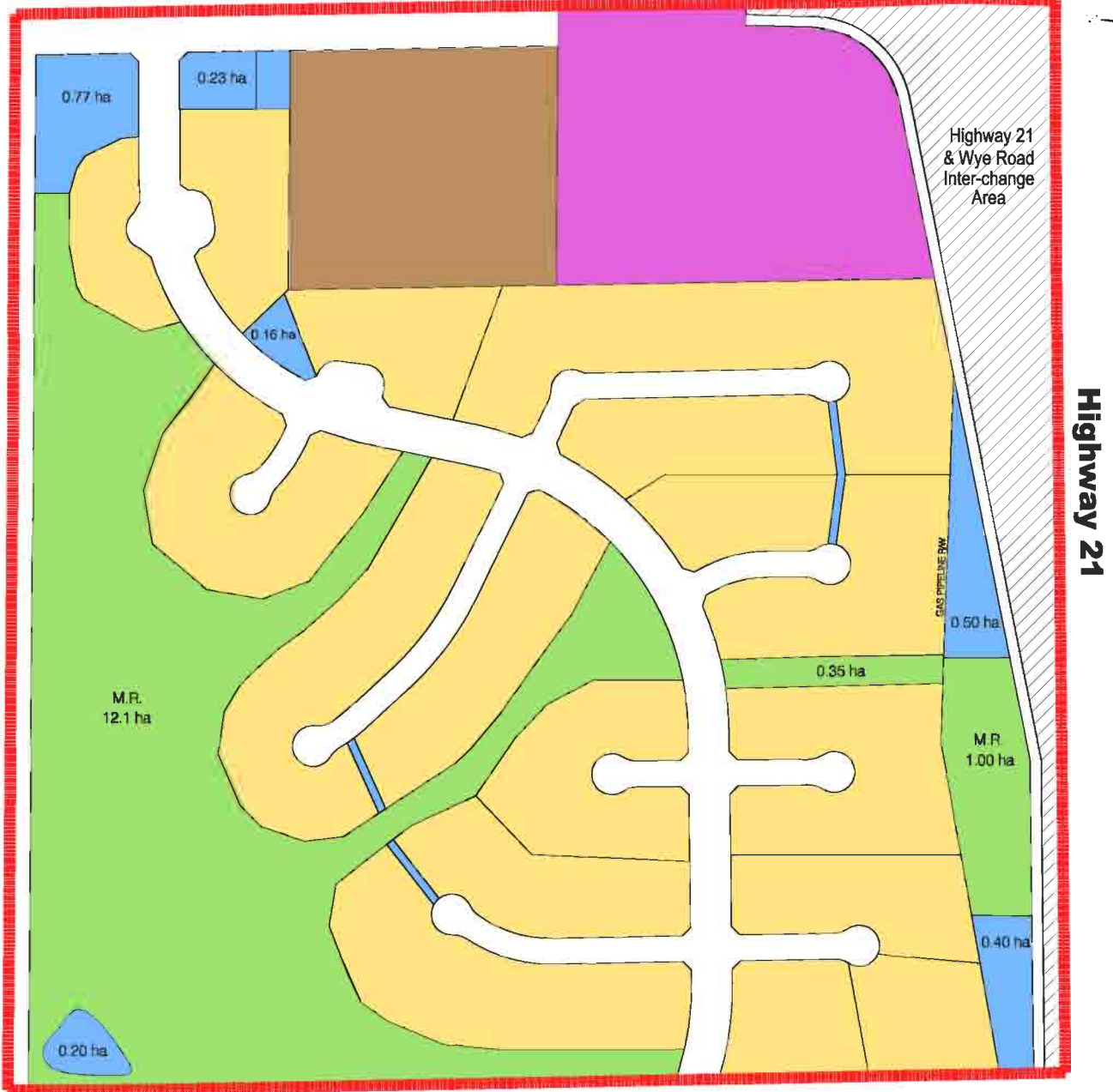
	Elementary (K-6)	Junior High (7-9)	Senior High (10-12)	Total
Total	50.61	18.98	17.65	87.24
Public	35.99	13.44	12.51	61.94
Separate	14.62	5.54	5.15	25.31

*Calculation of Student Population

K-6 57.9% 7-9 21.8% 10-12 20.3%
70% students in public system 30% students in separate system

Stantec

Wye Road



Sherwood Hills Area Structure Plan Bylaw 73-2003

Date of Adoption 2 July 2003

-  Country Residential
-  Utilities
-  Municipal Reserve
-  Institution
-  HWY 21 & Wye Rd. Inter-change area
-  Traditional Country Residential
-  ASP Boundary

Disclaimer of Liability

Strathcona County is not responsible for errors or omissions and assumes no responsibility for the accuracy, completeness, or usefulness of this information, and disclaims all liability of any kind whatsoever arising out of use of, this map.

Any reliance on the information contained herein is at the user's risk. Changes are periodically made to the ASP's/ARP's and may be made without notice. It is therefore recommended that you contact Planning & Development Services for original Plans.

Telephone: (780) 464-8174
www.strathcona.ab.ca